Before the
State of Wisconsin
DIVISION OF HEARINGS AND APPEALS

In the Matter of Wetland Individual Permit IP-SE-2017-60-00631 and Water Quality Certification for 3.69 Acres of Wetland Fill or Disturbance in the Town of Wilson, Sheboygan County

Case No. DNR-18-0002

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

On March 6, 2017, Jess Barley filed an application with the Department of Natural Resources (Department), pursuant to Wis. Stat. § 281.36, on behalf of The Kohler Company (Kohler). Kohler is seeking a permit for 3.69 acres of wetland fill or disturbance for the purpose of constructing a golf course. On January 17, 2018, the Department issued a preliminary decision granting Kohler's application. The wetlands Kohler is requesting a permit to fill are located between the Black River and Lake Michigan in Sheboygan County. On February 15, 2018, Friends of the Black River Forest and Claudia Bricks (Petitioners), by their attorneys, Christa O. Westerberg and Leslie A. Freehill, submitted a Petition for a Contested Case Hearing to review the Department's decision to issue a permit to Kohler. On March 19, 2018, the Department granted the Petition.

Pursuant to due notice, a hearing was held in Sheboygan, Wisconsin from June 4 through 8, 2018. Mark F. Kaiser, Administrative Law Judge, presided. The parties filed post-hearing briefs. The Petitioners filed an initial brief on August 6, 2018. Kohler and the Department filed response briefs on September 5, 2018, and September 7, 2018, respectively. The Petitioners filed a reply brief on October 9, 2018.

In accordance with Wis. Stat. § 227.44(2m), Wis. Stat. § 227.46(1), Wis. Admin. Code § NR 2.08(5), and Wis. Admin. Code § NR 2.12, the PARTIES to this proceeding are:

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Issues to be Decided

The Department certified four issues for hearing. The first three issues are:

1. Whether the permit satisfies the standards in Wis. Stat. § 281.36(3n)(c);

2. Whether the Department had sufficient information to consider the standards in Wis. Stat. § 281.36(3n)(c);

3. Whether the public had sufficient information to comment on the standards in Wis. Stat. § 281.36(3n)(c);

The Petitioners subsequently narrowed the dispute for these three issues to the standards in Wis. Stat. § 281.36(3n)(c)3 which provides that the Department make a finding that the proposed project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences.

The fourth issue certified by the Department is:

> Whether the mitigation required under Wis. Stat. § 281.36(3n)(d) compensates for adverse impacts to wetlands.

Findings of Fact

1. The Kohler Company (Kohler) is proposing to construct and operate a golf course on land it owns in Sheboygan County. Construction of the golf course as proposed by Kohler will involve some filling of wetlands that exist on the property. On March 6, 2017, Kohler filed a joint federal-state individual permit application pursuant to Wis. Stat. § 281.36 and 33 U.S.C.S. § 1341 authorizing wetland fill with the Department of Natural Resources (Department) and the U.S. Army Corps of Engineers (USACE).

The Property

2. The Kohler property is 247 acres in size and is bordered by Lake Michigan on the east and the Black River on the west. The Kohler property is located immediately north of the Kohler-Andrae State Park. The Kohler property was formerly in the Town of Wilson. The Kohler property along with an affected portion of Kohler-Andrae State Park were annexed by the City of Sheboygan in August of 2017. The property is zoned SR-5, suburban residential, which allows "Active Outdoor Public Recreation" as a special use. (exh. 158, p. 60-61). Kohler has owned the property for over 75 years.

3. The Kohler property is currently undeveloped. For a time, the property was leased to the State of Wisconsin as part of Kohler-Andrae State Park, and was designated as a State Natural Area, meaning it contains unique or rare natural features (Carpenter prefiled testimony, p. 7:10-12). After the state lease ended, Kohler allowed members of the public to continue to access the property through a private permitting system (Hoekstra testimony, tr. 1054:12-15). The property is still designated as a forest preserve under Wis. Admin. Code § NR 15.01(16)(b).

4. The property contains various pockets of wetlands totaling 44.91 acres (exh. 135). The types of wetlands on the site have been cataloged as 44.167 acres of forested floodplain wetlands (exh. 151), 0.4886 acres of interdunal wetlands (exh. 153), 0.104 acres of ephemeral wetland/relic ridge and swale wetlands (exh. 154), and 2.686 acres of Great Lakes ridge and swale wetlands (exh. 155).[1] The forested floodplain wetlands are located along the western boundary of the property. The ridge and swale wetlands are located in the center of the property with a long strip running parallel to Lake Michigan and numerous small pockets located on either side of the long strip. The interdunal wetlands consist of six small pockets located near the Lake Michigan shoreline. The locations of the wetlands are shown on Exhibit 14.

5. The Department uses a process called the Wisconsin Wetland Rapid Assessment Methodology version 2 (WRAM) to assess wetland functional values. The WRAM is a qualitative method developed to provide a standardized process for an individual to evaluate the extent to which a specific wetland performs a given wetland function (Trochlell prefiled testimony, p. 5:8-11).

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[1] As discussed below, the proposed golf course would also be constructed on approximately five acres of Department owned land that is currently part of the Kohler-Andrae State Park. Some of the wetland assessment documents assess the wetlands on the entire project site, not just the Kohler property. Thus the acreage numbers for the wetlands are not consistent throughout the record.

6. The ridge and swale topography was created as Lake Michigan levels receded from its post-glacial high from about 12,000 years ago to approximately 6,000 years ago (Jansen prefiled testimony, p. 5:13-15). This topography is distinctive to the upper Great Lakes area. Much of the area originally covered by ridge and swale topography has been lost to development leaving only a few pristine examples. Ridge and swale topography is particularly rare in southern Wisconsin where development pressure is strong. The ridge and swale topography on the Kohler property are rated S2, meaning it is imperiled. (Jansen prefiled testimony, p. 6:3-14)

7. There are 67 Great Lakes ridge and swale wetlands delineated on the site. Of the 67 Great Lakes ridge and swale wetlands, 47 will be filled totaling 1.465 acres (exh. 158, p. 41). According to the Department's WRAM, the functional values for the site's Great Lakes ridge and swale wetlands are rated as exceptional for floristic integrity, human use values and wildlife habitat, high for fish and aquatic life and groundwater processes and low for flood and stormwater storage and water quality protection (exh. 155).

8. The functional value for the hardwood swamp/floodplain forest wetlands is rated as high to exceptional for floristic integrity. Human use values and wildlife habitat functional values are rated exceptional. Groundwater processes, fish and aquatic life habitat and shoreline protection are rated high and flood and stormwater storage and water quality protection are rated medium (exh. 151). The Department determined that the floodplain forest is high quality and rare in the region because of the loss of ash trees and increases in invasive species. (exh. 157, Finding of Fact (FOF) ¶ 2.)

9. The interdunal wetlands are classified as S1 meaning they are critically imperiled. Interdunal wetlands are globally rare (Trochlell prefiled, pp. 6:22-7:4). The functional values for the interdunal wetlands are rated as exceptional for floristic integrity, human use values, and wildlife habitat, and high for fish and aquatic life habitat and groundwater processes (exh. 153).

10. Kohler also prepared WRAMs through its consultants at Stantec. The Stantec consultants similarly rated the Great Lakes ridge and swale, floodplain forest, and interdunal as having exceptional to high functional values in multiple categories (Gumtow testimony, tr. 927:17-935:17).

11. The soils on the site are mainly sand and muck soils. According to the Environmental Impact Statement (EIS), sand beaches along the lakeshore are bordered by sand dunes. Soils along the Black River and riparian wetlands include Adrian, Palms, and Houghton mucks. The remainder of the Kohler property is mapped as Granby loamy fine sand, Oakville loamy fine sand, and Dunes (exh. 158, p. 17). The Oakville Loamy Fine Sand or Dune sands are very permeable (Jansen prefiled testimony, p. 7:13-14). The average infiltration rate has been measured at 32.7 inches per hour (exh. 144).

12. The wetland and uplands together host rare plant communities that require the specific environment and geographical location the Kohler site provides in order to survive (Trochlell prefiled testimony, p. 9:12-14).

13. The Kohler property is almost entirely forested with mature trees and has not been logged in over 150 years (Buchholz public comment, tr. 125:6-7). A variety of wildlife uses the Kohler property, including some threatened and endangered species and species of special concern. The property hosts a diversity of resident and migratory birds. The Kohler property is an important stopover point for migratory birds, due to the increasing rarity of unfragmented forest blocks along the Lake Michigan shoreline (Mueller prefiled testimony p. 9:8-16).

14. Underlying the site are three separate aquifers, a shallow sand aquifer, a Silurian dolomite aquifer, and a deep Cambian-Ordovician aquifer (exh. 158, p. 24). The elevation of the shallow aquifer on the property is relatively high and tied to the water levels of Lake Michigan. The wetlands at the site are directly connected to the shallow groundwater aquifer, and the Great Lakes ridge and swale and interdunal wetlands are dependent on groundwater to maintain the water quality and water levels which support the current plant communities. (Trochlell testimony, tr. 120:10-121:5)

15. The Department did not require sampling of the groundwater, but the fact that the property is in an undisturbed natural state surrounded by sanitary sewers leads one to expect that the water quality is very good to excellent with low total dissolved solids and very low nutrient levels (Jansen prefiled testimony, p. 12:1-9).

16. Kohler proposes to acquire approximately five acres of Kohler-Andrae State Park for the golf course. The portion of Kohler-Andrae State Park that Kohler plans to acquire contains rare and mature forest and open sand dune formations, including seasonal interdunal wetlands. The state park property hosts several threatened plant species such as dune grass and was preserved by the Department as a non-development wildlife and dune preservation area in 1988. The park area is used by migrating birds and other species. The area is also used by the public for hiking, bird and wildlife watching, photography, and other recreational pursuits. (Buchholz public comment, tr. 130:22-31:18 and 138:13-22)

The Project

17. Kohler proposes to construct and operate an 8,000 yard, 18-hole golf course on the property. The golf course will have paved golf cart paths and bridges. Kohler's project also includes a golf practice range, clubhouse with a 9,000 ft^2 footprint, a 60-foot Lake Michigan observation tower, maintenance buildings, parking lots, roads, a 5.7 acre irrigation pond, infiltration basins, utilities, and other associated infrastructure. The proposed project includes a new roundabout on the state park property. (exh. 102, pp. 6-7) 3.6% of the site will be impervious surfaces, primarily buildings, parking lots, and cart paths (exh. 144). The maintenance buildings will include areas for storing and mixing fertilizers, pesticides, and chemicals. (Hoekstra testimony, tr. 1067:15-23)

18. Kohler developed sixteen alternative layouts for the proposed golf course (Gumtow testimony, tr. 876:17-18). The design chosen was selected because it satisfied Kohler's requirements for a world class golf course and minimized the amount of wetland fill required. (Gumtow testimony, tr. 880:16-23). The design chosen avoided any filling of the interdunal wetlands and the long swath of ridge and swale wetlands located parallel to Lake Michigan. The

chosen design decreased the steepness of slopes and used bridges rather than culverts and fill to cross wetlands. The entrance to the golf course would be through the Kohler-Andrae State Park entrance to avoid wetlands and a crossing of the Black River (Hoekstra prefiled testimony, pp. 4-5). The layout of the proposed golf course showing the impacted wetlands is depicted on exhibit 203.

19. The construction of the golf course will involve wetland filling, tree removal, and grading. The fairways, tee boxes, and greens will be covered by creeping bentgrass as turf.

20. Kohler's stated goal is to host major championship golf events at the course (exh. 158, p. 6). Special events would require extra infrastructure like temporary bleachers. Kohler has not yet assessed whether it could host such a tournament without damaging the environmental features that would remain on the property but concedes it will be challenging. (Hoekstra testimony, tr. 1046:22-104:6)

Permit Application Process

21. In 2014, Kohler began discussing the possibility of developing a golf course on the property it owned (Hoekstra prefiled testimony, p. 2).

22. On April 9, 2015, Kohler submitted an environmental impact report to the Department for the project (exh. 202). The Department prepared a draft EIS and conducted a public hearing on the draft EIS on July 20, 2016 (exh. 158, p. "i").

23. On February 28, 2017, staff from the Department and the USACE met with representatives of Kohler in a preapplication meeting as required by Wis. Stat. § 281.36(3m)(a). In a letter summarizing the meeting, the Department listed the information required in an application for a permit pursuant to Wis. Stat. § 281.36 (exh. 101).

24. On March 6, 2017, Kohler filed a Joint State/Federal Application for Water Regulatory Permits and Approvals (exh. 102).

25. By letter dated April 7, 2017, the Department advised Kohler that additional information would be required. The additional information requested included a forest management plan, a vegetative buffer planting plan, a grading plan, an erosion control and stormwater management plan, a nutrient management plan, a pesticide management plan, and a water table map. (exh. 138)

26. Kohler provided some of the additional information to the Department by letter dated August 18, 2017 (exh. 139), but the application still was not complete (Radermacher testimony, tr. 430:18-24). On August 24, 2017, Geri Radermacher, the Department's Water Management Specialist handling the application, solicited comments on the supplemental materials from other resource experts within the Department on issues such as groundwater hydrology, birds, other fauna, and stormwater (exh. 176). Radermacher's involvement with the application ended on October 16, 2017. Pam Biersach, the Department's Bureau Director for Watershed Management, became the leader of the Department team reviewing Kohler's permit application.

As of October 18, 2017, the permit application was not complete (Biersach testimony, tr. 553:8-11). By email dated October 18, 2017, Biersach informed Department staff that "We've been directed to issue a notice of complete application by October 27" (exh. 36).

27. Kohler submitted additional information to the Department through November 7, 2017 (See exhs. 37-41). By letter dated November 9, 2017, the Department informed Kohler that it considered the application complete (exh. 149). The Department issued a notice of pending application and public hearing on the permit application. The notice informed the public that a public hearing would be conducted on November 30, 2017, in Sheboygan and that the Department had made a tentative determination to issue the permit with conditions (exh. 150). The notice also informed the public that an updated EIS had been drafted and the Department was seeking public comments on the revised EIS.

28. The two public hearings were attended by approximately 300 persons (exh 158, p. 74). The Department received voluminous public comments. The Department summarized and responded to the public comments (exh. 159). According to the Department, it received over 500 pages of public comments on the scope of the EIS and over 900 pages of public comments on the draft EIS (Department's brief, p. 26).

29. The Department issued the permit and water quality certification, with conditions, on January 17, 2018 (exh. 157). The Department issued the final EIS on the same day (exh. 158).

Expected Impacts to Wetland Functional Values

30. Wetland functional values identified for the site by Department staff are:

- Floristic integrity rated high to exceptional with the plant community integrity very high to exceptional with little to no existing stressors, rare plant community, and low level of invasive species present. The ridge and swale type of wetland is imperiled in the state because of its rarity. Native species generally dominate the swales with a low percent cover of invasive species present. It has an un-weighted mean coefficient of conservatism of 4.3 to 4.7, and un-weighted floristic quality index of 23 to 32.
- Human use values rated as exceptional due to the current use of property for trails and potential elsewhere.
- Wildlife habitat rated exceptional because of the unique habitat for rare species and large block of high quality, diverse wetland and contiguous habitat.
- Groundwater processes rated as high due to it being dependent on local groundwater fluctuations; intact recharge and discharge functions which have positive impacts on local groundwater and surface water quality.
- Fish and aquatic life habitat rated as high because it provides high value for amphibian use.
- Water quality protection rated as low due to the isolated nature of the wetlands.
- Shoreline protection is rated high in the forested floodplain wetland complex due to the dense vegetative cover along the banks of the Black River providing significant shoreline protection functions.
- Flood and stormwater support and shoreline protection are rated as low in the ridge

and swale complex due to isolated nature and provides limited flood and stormwater storage functions. Flood and stormwater storage are rated as medium in the floodplain forest because this wetland type provides moderate flood and stormwater storage functions.

(exh. 157, FOF ¶ 10)

31. The proposed project will result in direct and secondary impacts to the functional values of the wetlands on the site. Direct impacts of the project are those that occur within the footprint of the proposed fill. The wetlands to be filled total 3.69 acres, 0.1 acres of relic ridge and swale wetlands, 1.36 acres of ridge and swale wetlands, and 2.23 acres of forested floodplain wetlands. All the functional values for the 3.69 acres that will be filled will be lost. Department staff determined that the loss of wetland functional values at the site due to direct fill is irreversible and has a high significance. (exh. 157, FOF ¶ 11)

32. 3.69 acres understates the quantity of wetlands that will be directly impacted with respect to the Great Lake ridge and swale wetlands. The construction plans for the golf course involves the grading of extensive portions of the ridges of the remaining Great Lakes ridge and swale wetlands. These systems require the ridges to create the unique topography and microclimate, wildlife habitat, aquatic life habitat, and rare species habitat for the overall ridge and swale complex. Preserving the swales while leveling or significantly changing the ridges will negatively alter the system and degrade the floristic integrity, wildlife habitat, and groundwater process functional values of the ridge and swale wetlands. (Trochlell testimony, tr. 1175:17-1176:6)

33. Secondary impacts to the wetland functional values are impacts that are not the result of fill but result from how the land is used. Department staff determined that the construction and operation of the golf course as proposed are expected to cause secondary adverse impacts to functional values of the wetlands that will remain on the property (exh. 157, FOF ¶ 13). These impacts include:

- Permanent alteration to wetland hydrology as the result of grading changes and the removal of trees
- Decreased habitat resulting from increased invasive species
- Nutrient loading
- Sediment deposition, and
- Potential disruption of wildlife use (i.e. breeding, nesting) and movement through operation of the golf course, and the loss of wooded cover which will be converted to managed turf grass.

(exh. 157, FOF ¶ 12 a.)

34. Construction of the project will require deforesting about 50-60% of Kohler's property, and some of the state park property (Hoekstra testimony, tr. 1060:4-10). Tree clearing will occur on the site for each golf course hole, the access road, the clubhouse/parking lot complex, the practice range, the maintenance facility, the restrooms, and the irrigation pond (exh. 158, p. 50).

The deforestation will adversely impact the site's value as wildlife and migratory bird habitat. The loss of tree cover and replacement with managed turf will alter the hydrology of the soil. The alteration of the hydrology along with adding nutrients to maintain the managed turf will adversely impact the floristic diversity of the wetlands (Trochlell prefiled testimony, p. 11:8-13).

35. Construction of the project will require site grading, with fill cuts in some places of eight feet or more. The grading will alter the hydrology of the site which may affect the pattern of recharge and discharge to wetlands, the direction of groundwater flow, and the separation between the surface and the groundwater (Jansen prefiled testimony, pp. 14:12-14:4). The hydrology of the site must be accurately mapped to predict how water, particularly stormwater and irrigating water, carrying sediment, nutrients, and other chemicals will flow on the site. This is critical for determining the significance of the impact of the transportation of sediments and chemicals on the groundwater and wetlands. (See exh. 187).

36. The site's sandy soils present challenges for construction and long-term maintenance of the golf course. The National Resource Conservation Service rate the Oakville soil as "somewhat limited" in suitability for lawns, landscaping and golf fairways because the soils have a low exchange capacity, are droughty and can have significant slopes. The dune soil areas are unrated but have the same deficiencies. The Granby soils are rated "very limited" due to ponding, saturation, low exchange capacity, and flooding. (exh. 158, p. 18). The permeability of the sandy soils means nutrients, pesticides and contaminants applied to the course will likely infiltrate into the shallow groundwater aquifer (exh. 158, p. 71).

37. The operation of the golf course will require the application of fertilizers. Kohler prepared an Integrated Golf Course Management Plan (IGCMP) as part of the application process. The IGCMP includes a nutrient management plan. The permit requires Kohler to follow the provisions of the nutrient management plan. The nutrient management plan limits nitrogen application to a maximum of six pounds of nitrogen per 1000 ft^2 and ten pounds of nitrogen per 1000 ft^2 for rootzones with sand based soil during turf establishment. For ongoing turf maintenance, the plan limits nitrogen application to a maximum of eight pounds of nitrogen per 1000 ft^2 (not exceeding one pound of nitrogen per 1000 ft^2 per application). Application rates are further limited to two pounds of nitrogen per 1000 ft^2 within twenty feet of a waterbody or wetland. (exh. 148)

38. The application of nutrients to the golf course at allowed levels will result in the migration of nitrogen and phosphorus into the groundwater. Nitrogen that enters the groundwater at the project site will reach the wetlands on the site. Nitrates at levels of 2-4 ppm are known to adversely impact surface water bodies and groundwater, and where groundwater is linked to sensitive wetlands that impact is significant (Jansen testimony, tr. 1147:24-1148:19). The introduction of these nutrients into the wetlands will result in eutrophication and promote the replacement of native species with invasive species in the wetlands. (Carpenter prefiled testimony, pp. 9:19-11:4) The vegetative changes will adversely impact the wetland functional values for floral diversity and wildlife habitat and will degrade the quality of the wetlands. (Jansen prefiled testimony, p. 22:4-8; Carpenter prefiled testimony, pp. 9:18-11:4.)

39. Kohler will also apply pesticides to the course. The IGCMP includes an integrated pest management plan. The integrated pest management plan consists of six steps:

1. Identify the pest (Kohler subscribes to the Wisconsin Turfgrass Disease Diagnostic lab at UW-Madison for next-day microscopic pest identification and control recommendations)
2. Develop a control plan/strategy
3. Establish threshold limits for the pest
4. Monitor the pest populations
5. Control the pest
6. Evaluate and/or redesign the plan

40. The permit includes conditions requiring Kohler to use BMPs for nutrient and pesticide management in the operation of the golf course. The intention of the BMPs is to minimize the impact of the nutrients and pesticides on the wetlands; however, the management plans were not complete at the time the tentative permit was issued. Specifically, the IGCMP submitted to the Department (exh. 148) is identified by Stuart Cohen, Kohler's groundwater expert, as a summary of basic concepts. The actual IGCMP will be a much longer plan and was still being drafted. (Cohen testimony, tr. 600:23 – 601:11). Additionally, Cohen's firm prepared a document titled Ground Water Contamination Risk Assessment Screen for pesticides at the Proposed Kohler Golf Course in Sheboygan. The document is dated May 18, 2018. In the introduction, the authors of the document state that "[a]s the [golf course] project has progressed, plans have become more detailed. Thus Kohler requested this pesticide ground water risk assessment so it can begin to plan more detailed management approaches, beyond what is contained in the Kohler IGCMP." (exh. 208)

41. Operation of the course will require irrigation in amounts of at least 15-25 million gallons per year. The irrigation water will be from either a deep irrigation well or City of Sheboygan municipal water. Irrigation will change wetland hydrology and reduce groundwater water quality. (Jansen prefiled testimony pp. 15:19-16:14)

42. Stormwater and irrigation runoff will transport nutrients, pesticides, sediments, and contaminants, such as oil and grease, into the groundwater. The permit requires Kohler to install and maintain infiltration strips in accordance with the stormwater plan dated December 7, 2016.[2] The stormwater plan is designed to limit the transportation of total suspended solids (TSS) in surface water runoff. Due to the high permeability of the soil at the site, stormwater will infiltrate rapidly and TSS removal requirements (Wis. Admin Code Chapter NR 151 and local requirements) will easily be met (exh. 117, p. 4). However, the stormwater management plan did not analyze whether dissolved chemicals in stormwater runoff, such as nutrients or pesticides, would violate groundwater quality standards (Quast testimony, tr. 784:13-19).

43. The Department determined that the proposed project may impact 4.79 acres of wetlands on the site (exh. 157, FOF ¶ 4). According to the WRAMS, this includes all of the interdunal wetlands (exh. 153), all of the relic ridge and swale wetlands (exh. 154), and all of the Great

[2] This date appears to be an error in the permit. The stormwater plan submitted by Kohler (Attachment 9 of the application) is actually dated February 21, 2017 (exh. 117). Dated December 7, 2016, are the field notes for the infiltration tests used in preparation of the stormwater management plan (exh. 119).

Lakes ridge and swale wetlands that are not filled (exh. 155). For the floodplain forest wetlands, the Department determined that 2.974 acres of the 41.938 acres that are not filled will be indirectly impacted. The 2.974 acres of secondary impacts to wetland functional for the floodplain forest wetlands values only refers to the area of tree-clearing. The floodplain forest wetlands will also suffer secondary impacts from other activities, including changes in hydrology due to construction, which will impact floristic quality, floristic diversity, wildlife habitat, and water quality. (Radermacher testimony, tr. 441:3-442:10)

44. The Department identified secondary impacts to wetland functional values from routine traffic along the proposed greens and associated runoff which is likely to provide a conduit for invasive species establishment. The Department noted that these impacts may be offset by the monitoring and treatment condition in the permit (exh. 157, FOF ¶ 12 b.)

45. The Department determined that the secondary impacts to wetland functional values are expected to be permanent and irreversible. The significance of those impacts is high. Secondary impacts to wetland functional values are not expected to be entirely offset under the proposed project. (exh. 157, FOF ¶ 13)

Expected Impacts to Water Quality

46. Rain events and irrigation will carry the nutrients, pesticides, and other contaminants applied to the golf course into the groundwater. Between the sandy, highly permeable soils and high groundwater table, the site is susceptible to groundwater contamination due to the ability of contaminants to rapidly migrate downward with little natural attenuation of those contaminants. (Jansen testimony, tr. 44:2-8, also exh. 158, p. 24)

47. The rates at which Kohler is permitted to apply nitrogen exceed rates that have been shown to cause nitrogen to enter groundwater at rates exceeding the 10 ppm maximum containment level. (Jansen prefiled testimony, pp. 19:10-20:13.) Kohler does not expect to apply nutrient at the allowed rates, but Kohler's expert acknowledged that two to twelve percent of the nitrogen applied to the course will leach below the root zone (Cohen testimony, tr. 659:15-18).

48. Phosphorus applied at the levels and rates allowed under the permit during turfgrass establishment is likely to have an adverse impact to groundwater quality (Carpenter testimony, tr. 315:1-316:11).

49. Pesticides applied to the golf course will adversely impact the shallow groundwater aquifer and wetlands. The names and application rates of the pesticides that will be used were not available to the Department at the time it issued the permit. (exhs. 187 and 208)

50. The permit requires Kohler to follow an IGCMP to reduce the amount of these chemicals that will reach the groundwater. The management plans were not complete at the time the application was deemed complete and the permit was issued. Kohler was still working to develop a pesticide and fertilizer plan at the time of the hearing (Hoekstra prefiled testimony, p. 8). Accordingly, no estimate of the amount of these chemicals that will likely reach the groundwater could have been made by the Department staff. Additionally, Department staff

requested a water table map "to estimate groundwater flow direction, linear velocity across the site and groundwater discharge to wetlands." (exh. 187) This request is dated November 1, 2017. Kohler responded to this request with a groundwater contour map with a notation stating that the map is "based on groundwater elevations observed on November 2, 2017. (exh. 144, attachment exhibit 1)

51. Exhibit 144 is a document titled "Kohler Golf Course – Sheboygan, Wisconsin Wetland Hydrology and Groundwater Mounding Analysis. It was submitted to the Department attached to an email dated November 7, 2017 (exh. 41). This is two days before the Department determined that the application was complete. There is no indication that Department's resource experts were able to review the groundwater contour map prior to the tentative decision to issue the permit.[3] The groundwater contour map attached to Exhibit 144 was prepared by Excel Engineering. Jeff Quast, the president of Excel Engineering, testified that the measurement information from eleven test pits and three monitoring wells used to generate the map was not submitted to the Department (Quast testimony, tr. 807:8-11). Without the underlying measurements, the Department was unable to judge the accuracy of the groundwater contour map.

52. Quast conceded that a cross-section groundwater map of the site submitted a few days before the groundwater contour map was incorrect (Quast testimony, tr. 811:3-15). Quast also admitted that some groundwater elevations in the stormwater management plan submitted with the application (exh. 119) and included in his prefiled testimony were incorrect. Specifically, the groundwater elevations taken from three monitoring well construction reports were higher than the elevations reported in the stormwater management plan and Quast's prefiled testimony (Quast testimony, tr. 800:13-802:7, testimony regarding exhs. 145, 146, and 147). Accordingly, the groundwater flow information the Department sought to predict the levels of the chemicals that will reach the wetlands was still unknown when the Department deemed the application complete.[4]

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[3] A stormwater management permit is required for the project. Pamela Biersach testified that at some point the wetlands permit process and the stormwater management permit process were bifurcated. Biersach did not know whether the information requested regarding stormwater management was ever received by the staff reviewing the wetland permit (Biersach testimony, tr. 563:17-21). At the hearing, the Department presented the testimony of managers, not the resource experts that reviewed the application material.

[4] Kohler and the Department point out that a stormwater plan is a separate process from the instant permit. The purpose of a stormwater permit is the regulation of stormwater runoff to surface waters from impervious surfaces. However, the movement of storm and irrigation water to the groundwater is necessary to accurately predict impacts to water quality and wetland functional values. An accurate water table map is necessary before the determinations necessary for the instant permit can be made. (See exh. 187)

Other Environmental Consequences

53. Forest clearing for the project will eliminate 50% of the forest cover currently present on the site and will result in a substantial reduction of the stopover habitat for migratory birds (exh. 158, p. 51). The remaining habitat will be fragmented. Habitat fragmentation resulting from the project will reduce the availability of shelter and food for birds and will increase their vulnerability to predation. (Mueller testimony, tr. 223:16-226:8)

54. Nesting and migratory habitat for piping plover, a state and federal endangered species, will be eliminated due to the proposed project's disturbances near the shoreline (Mueller testimony, tr. 240:11-19). Human disturbance by foot, golf cart, and vehicular traffic due to the project will further negatively impact the quality of remaining bird habitat on the property (Mueller prefiled testimony, p. 14:6-9).

55. Interior forest bird nesting habitat will be eliminated due to the deforestation associated with the project and construction of golf course facilities. Wildlife species that rely on the closed canopy will be impacted by these changes. (exh. 158, p. 50).

56. Forest edges created by tree-clearing will increase opportunities for invasive species and will reduce habitat value. (exh. 158, p. 50.)

57. Populations of state threatened sand reedgrass, rare prairie dunewort, and common moonwort on the site are likely to suffer a decrease in genetic diversity and, thus, species stability due to the project (Trochlell testimony, tr. 143:1-144:11).

58. The Department determined that the environmental consequences would be significant but for the conditions in the permit (exh. 157, FOF ¶ 25). However, the Department did not identify any conditions that would reduce the environmental consequences resulting from the forest fragmentation and conversion to managed turf.

Mitigation

59. Pursuant to Wis. Stat. § 281.36(3n)(d), a permitee is required to mitigate the direct impacts of wetland fill permit. Kohler initially proposed to mitigate the impacts to wetlands from the project through a combination of compensatory mitigation and commitment to wetland restoration. Kohler conducted a search for permitee-responsible ridge and swale restoration opportunities and determined there were no feasible projects available.

60. To compensate for the direct impacts of filling 3.69 acres of wetlands, Kohler will instead purchase 5.35 credits from the Department's in-lieu fee program and make an additional $200,000 donation. The purchase of credits from the in-lieu fee program and additional donation are included in the permit as compliance with the statutory mitigation requirement. (exh. 157, FOF ¶ 8)

61. Only direct impacts to wetland functional values are subject to the Department's mitigation requirements. Any of a project's other impacts, including secondary impacts, cumulative impacts, water quality impacts, and other significant adverse environmental consequences, are not mitigated. (Trochlell testimony, tr. 1174:15-25)

62. No project has been selected or identified for use of the credits (Gumtow testimony, tr. 971:17-23)

Additional Findings

63. Without considering mitigation, the Department determined that the project will have a net negative environmental impact. (Biersach testimony, tr. 581:12-17)

64. The Department determined that significant cumulative impacts to wetland functional values attributable to the proposed project may occur (exh. 157, FOF ¶ 15).

65. The project is not wetland dependent. (exh. 102 at 4.)

Applicable Statutes and Administrative Code Sections

Wis. Stats. § 281.36(3n) (b), (c), and (d)(1) provide:

> (b) *Factors used in review.* In its review under par. (a), the department shall consider all of the following factors when it assesses the impacts to wetland functional values:
>
> 1. The direct impacts of the proposed project to wetland functional values.
> 2. The cumulative impacts attributable to the proposed project that may occur to wetland functional values based on past impacts or reasonably anticipated impacts caused by similar projects in the area affected by the project.
> 3. Potential secondary impacts of the proposed project to wetland functional values.
> 4. The impact on functional values resulting from the mitigation that is required under sub. (3r).
> 5. The net positive or negative environmental impact of the proposed project.
>
> (c) *Standards for issuing permits.* The department shall make a finding that a proposed project causing a discharge is in compliance with water quality standards and that a wetland individual permit may be issued if the department determines that all of the following apply:
>
> 1. The proposed project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts.

2. All practicable measures to minimize the adverse impacts to wetland functional values will be taken.

3. The proposed project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences.

(d) *Mitigation required.*

1. Except as provided in subd. 2., the department shall require mitigation under the program established under sub. (3r) for wetland individual permits it issues under this subsection and for a discharge that is exempt from permitting requirements under sub. (4n) (b) that affects more than 10,000 square feet of wetland or under sub. (4n) (c) that affects more than 1.5 acres of wetland. This subsection does not entitle an applicant to a wetland individual permit or any other approval in exchange for conducting mitigation.

Wis. Admin. Code § NR 103.03 provides:

Wetland water quality standards. (1) To protect, preserve, restore and enhance the quality of waters in wetlands and other waters of the state influenced by wetlands, the following water quality related functional values or uses of wetlands, within the range of natural variation of the affected wetland, shall be protected:

(a) Storm and flood water storage and retention and the moderation of water level fluctuation extremes;

(b) Hydrologic functions including the maintenance of dry season streamflow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland to another area and the flow of groundwater through a wetland;

(c) Filtration or storage of sediments, nutrients or toxic substances that would otherwise adversely impact the quality of other waters of the state;

(d) Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments;

(e) Habitat for aquatic organisms in the food web including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages;

(f) Habitat for resident and transient wildlife species, including

mammals, birds, reptiles and amphibians for breeding, resting, nesting, escape cover, travel corridors and food; and

(g) Recreational, cultural, educational, scientific and natural scenic beauty values and uses.

Discussion

At issue in this matter is a permit issued by the Department allowing Kohler to discharge fill into wetlands for the purpose of constructing a golf course. On March 19, 2018, the Department granted the Friends of the Black River Forest and Claudia Bricks (Petitioners) a contested case hearing to review its decision to issue the permit. The Department referred the matter to the Division of Hearings and Appeals (Division) to conduct the contested case hearing.

Kohler owns a 247 acre parcel located along Lake Michigan immediately north of Kohler-Andrae State Park. Kohler proposes to construct the golf course on the property it owns and on an additional five acres currently within the Kohler-Andrae State Park. The Kohler property contains various types of wetlands. The proposed design for the golf course requires that 3.69 acres of wetlands be filled. Before a property owner can place any fill material into a wetland the property owner must obtain a permit under Wis. Stat. § 281.36(3m). Kohler has applied for a wetland fill permit. Wis. Stat. § 281.36(3n)(b) lists five factors that the Department is required to consider in reviewing an application for a permit under Wis. Stat. § 281.36(3m). The statute does not specify how the Department should weigh and balance the factors. It only requires the Department to consider the five factors.

After considering the five factors listed at Wis. Stat. § 281.36(3n)(b), the Department must then make determinations on three standards listed at Wis. Stat. § 281.36(3n)(c) before it can issue a permit under Wis. Stat. § 281.36(3m). Prior to the hearing the Petitioners limited their dispute for the contested case hearing to one of these standards, Wis. Stat. § 281.36(3n)(c)3. Wis. Stat. § 281.36(3n)(c)3 requires the Department to determine that the proposed project will not result in significant adverse impacts to wetland functional values, in significant adverse impacts to water quality, or in other significant adverse environmental consequences.

For purposes of Wis. Stat. § 281.36(3n)(c), the "project" is the construction and operation of the proposed golf course. The Department's determinations on the Wis. Stat. § 281.36(3n)(c) standards are set forth in the findings in the permit. The Petitioners have the burden to prove by a preponderance of the evidence that the Department erred in issuing the permit. This does not necessarily require that the Petitioners prove that the project will result in significant adverse impacts to the wetland functional values, significant adverse impact to water quality, or other significant adverse environmental consequences, but may be established by proof that there was insufficient evidence to support the Department's determinations.

According to the WRAMs, the affected wetlands on the Kohler property are of exceptionally high quality. The functional values of the wetlands are listed in the permit. The impacts to the functional values of the wetlands fall into two categories, direct impacts to the

wetlands that will be filled and secondary impacts that will result from the project. The application for a permit seeks authorization to fill 3.69 acres of wetlands. The wetland functional values of the 3.69 acre footprint of wetlands that will be filled under the permit will be eliminated and the impacts are irreversible.[5] The loss of these functional values is required to be mitigated. The issue with respect to the direct impacts is whether these impacts have been offset by the mitigation. In this matter, mitigation will be accomplished by the purchase of credits from the Department's in-lieu fee program. Mitigation is addressed below.

Impacts that are not the result of fill but result from how the land is used are secondary impacts. The Department determined that the project will have adverse secondary impacts on the wetland functional values. Some of the secondary impacts identified by the Department in the permit will result from construction of the proposed course. The primary construction activities that will adversely impact wetland functional values are deforestation, grading, and conversion of soil to managed turf. The Department found in the EIS that the loss of approximately 50% of the tree cover and the replacement of the plant community in much of the deforested areas with managed turf will result in a loss of wildlife habitat, a food source for wildlife, and floral diversity. Deforestation will adversely impact wetland functional values primarily in terms of wildlife habitat and floral diversity. The grading for the construction of the course will expose soil and promote the introduction of invasive species further adversely impacting floral diversity on the site.

In the permit, the Department found that the secondary impacts to the wetlands which includes those resulting from deforestation, grading, and conversion to managed turf are expected to be permanent, irreversible and of high significance. For some of the secondary impacts, the Department found that the adverse impacts will not be significant if the conditions in the permit are followed. However, there are no conditions in the permit addressing the adverse impacts to wildlife and stopover habitat resulting from the construction activities. Accordingly, the Department's determination that the proposed project will not result in significant adverse impacts to wetland functional values cannot apply to the secondary impacts resulting from the tree clearing, grading, and soil conversion activities.

The Department's response to this contradiction in its permit, is that the tree clearing and grading that are part of the project are not typically regulated by the Department outside of a wetland. It is true that if no wetland fill was necessary for the construction of the golf course, the deforestation and grading outside of the footprint of the wetlands could be accomplished without a permit. However, because these activities are part of the project their adverse impact on wetland functional values are relevant. The Department's determination that these adverse impacts will be significant means that the standards of Wis. Stat. § 281.36(3n)(c)3 have not been met.

During the hearing the most attention was focused on the adverse impacts resulting from the operation of the golf course, particularly the application of nutrients and pesticides to

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[5] As discussed in the findings, the footprint of the direct impacts should include the ridges of the ridge and swale wetlands that will be graded because they are an integral component of the ridge and swale wetland complex. However, there is no accurate quantification of the extend of the ridges that will be graded so for purposes of this decision, the Department's figure of 3.69 acres of direct impacts will be used.

maintain the course. Chemicals applied to the course will be transported to the groundwater and wetland by stormwater and water applied to the course for irrigation. In evaluating whether the operation of the golf course will result in significant adverse impacts, the critical question is the levels of the chemicals and contaminants that will reach the groundwater and wetlands.

Stormwater and irrigation water will potentially reach the wetlands via two different routes. One route is surface runoff. Due to the high permeability of the sandy soil on the property it is likely that very little surface runoff water will reach the wetlands. Additionally, Kohler proposes and the permit requires the installation of vegetative buffer strips along the impervious surfaces that will be created as part of the project. Accordingly, it appears likely that little surface runoff will directly flow into any wetlands. The other route stormwater and irrigating water will potentially reach the wetlands is via seepage into the groundwater. The wetlands are recharged by the groundwater. Consequently, chemicals that reach the groundwater will impact the wetlands. The permeable soil is a mixed blessing because it rapidly accepts the surface water meaning very little surface water will reach the wetlands, but the high permeability of the soil on the sites also means stormwater and irrigation water carrying chemicals, contaminants and dissolved solids will rapidly infiltrate the soil and reach the groundwater.[6]

It is undisputed that the introduction of nitrates, phosphorus, pesticides, oil, grease, and other contaminants into the groundwater and wetlands will adversely impact the functional values of the wetlands and the water quality. The dispute in this matter is whether the adverse impacts will be significant. To evaluate the significance of the adverse impacts one must know the levels of the various chemicals that are likely to reach the groundwater and wetlands. Important pieces of information needed to predict these levels is the levels at which nutrients will be applied to the course, the identity of the pesticides that will be used by Kohler, the direction of groundwater flow, and the separation between the surface and the groundwater. (Biersach testimony, tr. 508:20-509:8) To this effect, the Department asked for a water table map of the property and stormwater, nutrient, and pesticide management plans. At the time it issued the permit, the Department had not received final versions of the various management plans or a reliable water table map.

The permit does require Kohler to use various BMPs in the operation of the proposed golf course. The BMPs for the application of nutrients include practices such as "spoon feeding," using slow release fertilizers, calibrating spreaders, being "careful" around slopes that slope toward sensitive areas, choosing the right product, choosing the right turf grass no application of chemicals before expected intense rain events, and sweeping chemicals from impervious surfaces such as cart paths to minimize the amount of chemicals that reach the groundwater. Some of the BMPs are listed in exhibit 148. However, exhibit 148 was described by Cohen as a set of concepts. A detailed IGCMP has yet to be developed (Cohen testimony, tr. 601:2-11). The permit allows Kohler to apply nitrogen at levels of 8 lbs/1000 square feet for ongoing turf maintenance. Cohen testified that he expects Kohler to apply nitrogen at a much lower level and; therefore, he did not do any analysis of whether application of nitrogen at the permitted level would adversely impact the groundwater or wetlands (Cohen testimony, tr. 619:14-24). But the lower level considered by Cohen is speculative and not a permit condition.

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[6] One of Kohler's experts, testified that golf course architects "dream" of sandy sites for golf courses. This is for ease of construction and aesthetics, not to protect groundwater. (Sanford testimony, tr. 720:2-8)

The Department must consider the impacts based on what Kohler is allowed to do, not on a best case scenario (Biersach testimony, tr. 547:6-22).

In addition to the BMPs, Kohler's experts testified that the thatch and turf will capture the nutrients applied to the course. Specifically, Cohen testified that the only way that water carrying nutrients and other chemicals could reach the groundwater is if one used a posthole digger to bypass the turf (Cohen testimony tr. 659:3-4). If this testimony was intended to be taken literally, it is not credible. Cohen himself testified that two to twelve percent of the nitrogen applied to the course will leach below the root zone. The testimony that very little of the nutrients will bypass the turf and thatch is also suspect because at least three of the BPMs in the IGCMP are intended to improve water infiltration by bypassing the turf. These practices are aerification, topdressing, and verticutting. The stated effects of these practices are that they will reduce and dilute thatch and improve water infiltration past thatch. The stated benefits of the practices are the reduction of insect and disease harboring thatch and water needs. (exh 148) However, these practices also appear likely to increase the amount of the chemicals that will reach the groundwater.

Another concern is that even if one accepts that the turf and thatch will effectively filter nitrogen and phosphorus, there will be no filter until the turf and thatch are established. The permit allows the application of higher nitrogen and phosphorus levels during the establishment of the turf when no filter will be present. The EIS notes that the sandy soils on the site are nutrient poor. The permit allows the application of higher levels of nutrients to establish the turf for the proposed golf course. A larger portion of the applied nutrients, particularly phosphorus, will leach through the permeable soil into the groundwater during the period when the turf is becoming established (Carpenter testimony, tr. 315:1-316:9). Kohler's goal is to operate a world class golf course. Undoubtedly it will use the level of nutrients necessary to establish and maintain the turf at such a level.

Another important piece of information that is necessary to predict the levels of chemicals that will reach the wetlands is a water table map showing the directions of groundwater flow and the water table elevations. The Department was asking for a water table map as late as November 1, 2017. Jeff Quast, Kohler's stormwater management expert, supplied a water table map as part of the stormwater management plan on November 6, 2017. As discussed in the findings, not only was this water table map not supplied to the Department until very late in the application process, but also the groundwater elevations used to create the map may not be accurate.[7]

Similarly, with respect to pesticides, the EIS lists a set of BMPs that Kohler proposes to follow (exh. 158, p. 32). Pesticide application, storage, loading, and mixing are regulated by the Department of Agriculture Trade and Consumer Protection (DATCP). The permit is conditioned on following DATCP and federal Environmental Protection Agency requirements. Two

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[7] The Department's response to the lack of a reliable water table map was that an accurte map would only assist in predicting how quickly impacts would occur and which wetlands would be impacted first (Department brief, p. 25). However, not all wetlands on the property have equal value. It is undisputed that the interdunal wetlands deserve a higher level of protection. So it is important to know where the adverse impacts will occur.

additional conditions are to minimize drift during application of pesticides and to use chemicals that have a shorter half-life or will not persist in aquatic environments where practicable (exh. 157, condition 22). These conditions are an insufficient basis for the Department to determine that the use of pesticides will not have significant adverse impacts on wetland functional values or water quality. The EIS provides that "[c]onsidering their toxicity and ability to leach, monitoring groundwater quality for pesticide contamination and minimizing pesticide use through implementation of an [Integrated Pest Management] plan are potential ways to reduce the potential negative effects of pesticide use." (exh. 158, p. 33) However, the permit includes no condition requiring groundwater monitoring.

Also with respect to pesticides, Cohen did additional pesticide evaluation after the permit was issued. At the hearing Kohler offered a pesticide risk assessment (exh. 208) that identified three chemicals of concern and Cohen recommended that two of the chemicals not be used and the third only every other year. The risk assessment is dated May 18, 2018, four months after the permit was issued and only two weeks before the hearing. Kohler committed to abide by these recommendations. There is no reason to doubt Kohler's commitment; however, this is another example of the Department issuing the permit with incomplete information and reliance on a restriction that is not actually a condition of the permit.

The Department did not make any quantitative findings as to at what point the secondary adverse impacts would become significant or explain how the conditions would reduce the adverse impacts below the level of significance either in the permit itself or through Department staff testimony at the hearing.[8] The Department may be confident that Kohler's management plans will ultimately be sufficient to protect the wetlands; however, the Department should be making its determinations based on completed plans, not trusting that management plans that will be prepared will adequately protect the groundwater and wetlands. Once the golf course is constructed the adverse impacts will be permanent and irreversible. The Department is required to make a determination that the project will not result in significant adverse impacts. It is unable to do so based on incomplete information. Kohler contends that the processing of the instant permit was unusually long and thorough. The process has been long, but it was still incomplete at the time the Department closed the application process.

In the permit, the Department concluded that the net environmental consequences would be negative, but that the mitigation requirement would bring the balance to neutral (Biersach testimony, tr. 581:14-17). The mitigation is only calculated to compensate for the loss of wetland functional values resulting from the 3.69 acres that will be filled (See Department's response brief, footnote 6 on page 17). Accordingly, there is no compensation for the secondary impacts. Even if one accepts the Department's conclusion that the in-lieu fee program will mitigate the loss of the 3.69 acres of wetlands that will be filled, there does not appear to be any basis for the Department to conclude that the environmental benefits generated by the in-lieu fee program will both mitigate the loss of the functional values resulting from the filled wetlands and

[8] Department memorandum introduced at the hearing demonstrated that Department resource experts continued to have questions and concerns regarding the permit as late as November 6, 2017 (See exh. 25). The Department staff who testified at the hearing were unable to state whether these questions and concerns were resolved prior to the decision to issue the permit.

compensate for the adverse secondary impacts resulting from the project. The logical conclusion is that the Department implicitly determined that the secondary impacts will have a net negative environmental impact.

A criticism of Petitioners' experts by Kohler is that they did no tests on the actual site.[9] The Petitioners' science-based testimony raised sufficient concerns to cast doubt on the Department's determinations. The Petitioners do not have to prove that significant adverse impacts will occur, only that Department did not have sufficient evidence to support its determination that they would not occur. The Petitioners have carried their burden of proof to show that the Department did not have sufficient evidence to support its determination that the project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences at the time it decided to issue the permit.

Pursuant to Wis. Stat. § 281.36(3n)(b)2, the Department is required to consider cumulative impacts attributable to the proposed project. Wis. Stat § 281.36(3n)(b)2 provides:

> The cumulative impacts attributable to the proposed project that may occur to wetland functional values based on past impacts or reasonably anticipated impacts caused by similar projects in the area affected by the project.

The Department determined that significant cumulative impacts to wetland functional values may result from the project (exh. 157, FOF ¶ 15). The basis for this conclusion is not clear. Biersach testified that granting the permit may generate more applications for filling wetlands and have precedential effect for those applications (Biersach testimony, tr. 522:20-24). Precedent is not identified as a component of cumulative impacts. In the permit application, Kohler stated "Cumulative wetland impacts are not expected to result from the Project because golf course expansion is prevented by adjacent residential, State Park, and Lake Michigan land use. No additional development beyond the current proposed plan is anticipated; therefore, no future wetland impacts in the affected area are expected to be caused by the permitting of this Project." (exh. 102, p. 28) This appears to be a more accurate consideration of cumulative impacts than the Department's finding in the permit. However, Biersach further testified that the finding on cumulative impacts is based on professional judgment (Biersach testimony, tr. 523:4-11). Although the basis of the determination is unclear, the Department's finding on cumulative impacts is adopted in this decision.

The other issue raised by the Petitioners in their petition for a contested case hearing and certified by the Department is whether the mitigation required under Wis. Stat. § 281.36(3n)(d) compensates for adverse impacts to wetlands. Before considering the merits of this issue, a legal question must be addressed. That issue is whether mitigation is available in this case. As wetlands in the proximity of Lake Michigan, the wetlands on the Kohler property are an "area of special natural resource interest" pursuant to Wis. Admin. Code § NR 103.04(2).[10] Wis. Admin.

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[9] The Kohler site is closed to the public. Kohler did not allege that it offered access to Petitioners' experts to conduct any testing on the site.

[10] Wis. Admin. Code § NR 103.04(2) provides:

Code § NR 103.08(4)(b) does not allow the Department to consider potential functional values provided by any mitigation project for a project located in an area of special natural resource interest.

The Department and Kohler contend that Wis. Admin. Code § NR 103.08(4)(b) has been preempted by the repeal of Wis. Stat. 281.37(2)(c), which Wis. Admin. Code § NR 103.08(4)(b) mirrored. The Department and Kohler demonstrated that language supporting the limitation in Wis. Admin. Code § NR 103.08(4)(b) was removed by 2011 Act 118 and that Wis. Admin. Code § NR 103.08(4)(b) was not correspondingly updated. An administrative regulation that conflicts with a state statute is not enforceable. *See Richland School District v. DILHR*, 166 Wis. 2d 262, 278 (Wis. Ct. App. 1991) (*citing Village of Plain v. Harder*, 268 Wis. 507, 511 [Wis. 1955]), affirmed, 174 Wis. 2d 878 (Wis. 1993). Accordingly, mitigation is deemed available for the proposed project.

The permit requires Kohler to purchase credits through the Department's in-lieu fee mitigation program to satisfy the mitigation requirement at Wis. Stat. § 281.36(3n)(d). The in-lieu fee mitigation program requires that the mitigation compensates for adverse impacts to wetlands, not replace or recreate the lost wetlands. In this case the Department determined that the purchase of credits from its in-lieu fee mitigation program will satisfy the mitigation requirement. The issue as certified by the Department is "[w]hether the mitigation required under Wis. Stat. § 281.36(3n)(d) compensates for adverse impacts to wetlands." The Department calculated the number of credits that Kohler will be required to purchase based on the number of acres of wetlands that will be filled as part of the project. The Petitioners established that the wetlands that will be lost as the result of the project cannot be replaced. However, Wis. Stat. § 281.36(3n)(d) only states that mitigation is required to offset the lost wetland functional values, not that lost wetlands be replaced. The Petitioners did not satisfy their burden to prove that the mitigation condition in the permit will not satisfy the requirements of Wis. Stat. § 281.36(3n)(d)1.

> Wetlands in areas of special natural resource interest includes those wetlands both within the boundary of designated areas of special natural resource interest and those wetlands which are in proximity to or have a direct hydrologic connection to such designated areas. For purposes of this chapter, the following are designated as areas of special natural resource interest:
>
> . . .
>
> (2) Lakes Michigan and Superior and the Mississippi river;

Wis. Stat. § 30.01(1am) defines an "area of special natural resource interest." Relevant for the Kohler property is Wis. Stat. § 30.01(1am)(e) which currently provides:

> A body of water in a wetland along Lake Michigan or Lake Superior that the department has identified as an ecologically significant coastal wetland *and shown on a map published on the department's Internet site.* (emphasis added)

A cursory search of the Department's website did not locate a map showing the areas that have been identified as ecologically significant coastal wetlands. The statutory definition of an "area of special natural resource interest" appears narrower than the definition at Wis. Admin. Code § NR 103.04(2). It is not clear that the Kohler property is an area of special natural resource interest as defined at Wis. Stat. §30.01(1am)(e). However even if it is, mitigation is no longer prohibited to compensate for a wetland fill in an area of special natural resource interest.

The in-lieu fee mitigation program is a new program and the Petitioners raised doubts about its likelihood to successfully reproduce ridge and swale wetlands of the nature of those lost as the result of the proposed project. However, at this point those doubts are speculative. Ultimately, the Department is responsible to complete the mitigation. If the wetland fill is ultimately permitted, Kohler will satisfy the requirements of Wis. Stat. § 281.36(3n)(d) by purchasing the in-lieu program credits. The Petitioners have not satisfied their burden to show that the Department's determination that the mitigation required in the permit will compensate for the loss of functional values resulting from the loss of the wetlands that will be filled for the project is not supported by the evidence in the record. However, the fact that Kohler was unable to identify any ridge and swale restoration opportunities underscores the rarity and uniqueness of the wetlands that will be filled.

Finally, after the hearing, the Petitioners submitted a certified copy of a letter dated April 27, 2017, from an employee of the United States Environmental Protection Agency (EPA) to a regulator at USACE. An uncertified copy of the letter was offered as exhibit 27 during the hearing. The exhibit was not admitted during the hearing because of lack of foundation and relevance objections. The Petitioners obtained a certified copy of the letter to overcome the foundation objection and requested that exhibit 27 now be admitted.

The letter records the EPA's objection to the application for a permit before the USACE. The exhibit states reasons to object to a parallel federal process. It is not directly relevant to the instant matter. To the extent the objections in the letter address similar issues as those before the Division, the letter is redundant of the evidence presented in this matter. Additionally, there is no record of the nature of the proposed project at the time the objections were made. Without this information, the letter may be prejudicial to Kohler. Exhibit 27 will not be admitted to the record.

In summary, the permit authorizes the discharge of fill material into 3.69 acres of wetlands. The project for purposes of Wis. Stat. § 281.36 is the construction and operation of an 18-hole golf course. The site has remained in a largely natural condition which has made it a prime wildlife habitat, an important stopover site for migratory birds, an area high in floral diversity, and an area with other exceptional wetland functional values.

Many of the adverse impacts identified by the Department are related to the construction and operation of a golf course on the site, not directly to the discharge of fill into the wetlands. The construction of the golf course will require grading of the site which will affect the hydrology of the site, substantial deforestation which will adversely impact the quality and functionality of the site as wildlife and stopover habitat, and soil disturbance which will promote the introduction of invasive species. The operation of the golf course will necessitate the introduction of chemical fertilizers and pesticides into the area and people walking and driving on the site which will damage the native vegetation and promote the introduction of invasive species.

The Department determined that the proposed project will result in adverse impacts to the functional values of the wetland on the site but that the conditions imposed in the permit would reduce the level of those adverse impacts to a level that would fall below significant.

"Significant" for purposes of Wis. Stat. § 281.36(3n)(c)3 is not defined in the statute or administrative rules. A Department guidance document states that "there is no formula for quantifying whether an impact is significantly adverse" (exh. 23 §V.D). A certain amount of subjectivity in determining whether adverse impacts to wetland functional values is significant is unavoidable. The guidance document calls for a case-specific assessment based on "different ecological, botanical, and hydrological situations which exist across the state" citing as an example that "a wetland impact that might be very significant in Waukesha County due to scarcity of that type of resource, may not be a significant adverse impact in the northwest part of the state where the same resource is abundant."

Accordingly, the rareness and the high quality of the wetlands that will be impacted by the proposed project in this matter factor into the determination of significance for the adverse impacts that will result from proposed construction and operation of the golf course. The wetlands on the site are repeatedly described as globally rare and of exceptional quality.[11] Specifically, all the site's interdunal wetlands are expected to be affected by secondary impacts to wetland functional values (exh. 153). It is undisputed that the interdunal wetlands on this site are especially rare and deserve protection.

Adverse impacts to wetland functional values will result from construction activities including deforestation and grading on the site. It is difficult to quantify the adverse impacts from the construction activities; however, these impacts are included among the secondary impacts found by the Department and the Department determined that the secondary impacts will be significant. The permit includes conditions requiring Kohler to restore the existing soil profiles and monitor for invasive species after construction. However, the Department included no conditions in the permit that would reduce the adverse impacts associated with the loss of habitat and modification of the hydrology resulting from the deforestation and grading. To be fair, the Petitioners' experts did not identify any conditions that could reduce these impacts. The Petitioners' experts' response was that those impacts can only be avoided by not developing the site. These impacts are not golf course specific and would likely occur with any development of the site, but they are part of the proposed project and, therefore, must be considered. Accordingly, the Department's determination that these adverse impacts will be significant mandate the permit application must be denied.

The adverse impacts resulting from the operation of the proposed golf course, particularly the introduction of sediments, chemicals, and pollutants into the groundwater and wetlands are more quantifiable. The permit includes conditions intended to address impacts from the activities that will introduce chemicals into the groundwater and wetlands. The conditions relate to stormwater, pesticide, and nutrient management plans. Based on these conditions, the Department determined that the adverse impacts to water quality will not be significant. The Petitioners established that the Department did not have sufficient, accurate information to determine the level of nutrients and pesticides that will reach the groundwater and wetlands. The Petitioners showed that the information supplied by Kohler's experts to the Department was incomplete and/or in error at the time of the Department's determination so that the amounts of

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[11] As discussed above, the property is designated an "area of special natural resource interest." Wis. Admin. Code § NR 103.08(3)(f) directs the Department to consider a site's designation as an area of special natural resource interest as an additional factor in making its determination.

nutrients and pesticides would likely reach the groundwater and wetland is unknown. Accordingly, the Department did not have a sufficient basis for its determinations that the operation of the proposed golf course will not result in significant adverse impacts to wetland functional values, water quality or environmental consequences.

CONCLUSIONS OF LAW

1. Contested case hearings arising from a permit issued under Wis. Stat. § 281.36(3m) are referred to the Division. Wis. Stat. § 281.36(3q)(f)4.

2. The Petitioners have the burden of proof. Wis. Stat. § 281.36(3q)(g)5. The burden of proof for the hearing decision is to be by the preponderance of the evidence. Wis. Admin. Code § HA 1.17(2).

3. The Petitioners demonstrated that the Department did not have sufficient information to determine the proposed project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences. Accordingly, the Petitioners met their burden, by a preponderance of the evidence, to prove that the Department erred in determining that the permit satisfied the standards in Wis. Stat. § 281.36(3n)(c)3.

4. Kohler is able and willing to comply with the mitigation requirement imposed by the Department as a condition of the permit. The required purchase of 5.35 credits from the Department's in-lieu fee program satisfies the requirement under Wis. Stat. § 281.36(3n)(d).

5. Pursuant to Wis. Stat. § 227.43(1)(b), the Division has the authority to issue the following order.

ORDER

WHEREFORE, IT IS HEREBY ORDERED that the decision of the Department of Natural Resources to grant the permit application and water quality certification in Case No. DNR-18-0002 is REVERSED.

Dated at Madison, Wisconsin, on March 15, 2019.

STATE OF WISCONSIN
DIVISION OF HEARINGS AND APPEALS
4822 Madison Yards Way, Fifth Floor
Madison, WI 53705
Telephone: (608) 266-7709
FAX: (608) 264-9885

By: Mark Kaiser

Mark F. Kaiser
Administrative Law Judge

NOTICE

Set out below is a list of alternative methods available to persons who may desire to obtain review of the attached decision of the Administrative Law Judge. This notice is provided to insure compliance with Wis. Stat. § 227.48 and sets out the rights of any party to this proceeding to petition for rehearing and administrative or judicial review of an adverse decision.

1. Any party aggrieved by a decision of the hearing examiner may commence an action in circuit court to review that decision. Wis. Stat. § 281.36(3q)(h)2.

2. Any party to this proceeding adversely affected by the decision attached hereto has the right within twenty (20) days after entry of the decision, to petition the secretary of the Department of Natural Resources for review of the decision as provided by Wisconsin Administrative Code NR 2.20. A petition for review under this section is not a prerequisite for judicial review under Wis. Stat. §§ 227.52 and 227.53.

3. Any person aggrieved by the attached order may within twenty (20) days after service of such order or decision file with the Division of Hearings and Appeals a written petition for rehearing pursuant to Wis. Stat. § 227.49. Rehearing may only be granted for those reasons set out in Wis. Stat. § 227.49(3). A petition under this section is not a prerequisite for judicial review under Wis. Stat. §§ 227.52 and 227.53.

4. Any person aggrieved by the attached decision which adversely affects the substantial interests of such person by action or inaction, affirmative or negative in form is entitled to judicial review by filing a petition therefore in accordance with the provisions of Wis. Stat. §§ 227.52 and 227.53. Said petition must be served and filed within thirty (30) days after service of the agency decision sought to be reviewed. If a rehearing is requested as noted in paragraph (2) above, any party seeking judicial review shall serve and file a petition for review within thirty (30) days after service of the order disposing of the rehearing application or within thirty (30) days after final disposition by operation of law. Since the decision of the Administrative Law Judge in the attached order is by law a decision of the Department of Natural Resources, any petition for judicial review shall name the Department of Natural Resources as the respondent and shall be served upon the Secretary of the Department either personally or by certified mail at: 101 South Webster Street, P. O. Box 7921, Madison, WI 53707-7921. Persons desiring to file for judicial review are advised to closely examine all provisions of Wis. Stat. §§ 227.52 and 227.53, to insure strict compliance with all its requirements.