

Comments by Dr. Quentin Carpenter concerning Kohler response to DNR Questions of May 22, 2015

General Comments

Little new information is provided in the above set of responses. The most frequent responses are just reassertions of generalities such as applicant will follow BMP's or more information will be provided later. All larger scale questions asked by DNR are avoided and minimized often by going directly to discussions of minutia rather than answering questions on overall and cumulative impacts.

Specific Comments

The response to DNR question NH #2 indicates that no storm water or runoff water will be discharged directly to the Black River or to Lake Michigan. We can therefore assume that all this new, dirty water (parking lot runoff, sewage etc.) will be discharged first to the groundwater (table) and thence to either one or the other of these natural end points. This is one of many examples in these documents of attempting to ignore the Laws of Conservation of Mass and Energy or in simpler terms, "out-of-sight, out-of-mind."

In the response to DNR question NH#4 we see an incredible example of "double-speak." We are told that, "Impacts to the dune community are expected to be minimal as major dune structures will be retained and incorporated into the design of the golf course." My understanding is that the site contains both active and stabilized dunes (active dunes tend to be near the water, have poorly-developed soils, have less vegetative cover and are therefore prone to changes in shape and size; stabilized dunes are generally older dunes behind these with better-developed soils and vegetation that keep them in place.). I am skeptical that the active dunes are going to be allowed to roam at will, and the documents indicate the stabilized dunes are slated to be covered with imported soils and planted to mostly exotic grasses. I would not characterize these as "minimal impacts" to the dune communities.

In the response to DNR question Wetlands #1 we are provided a slightly better map, which even more clearly shows that the most significant impacts of the roads, buildings, parking lots, practice range and lake-edge greens are clustered where the concentration of rare wetland and upland communities are found. This graphic alone, when combined with the redacted information about the rare communities, should make it clear that a golf course and conservation of these rare communities are incompatible at this location.

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In response to DNR question #2 and #8, we are provided the raw data but not the full summary table the DNR requested. Here is the table requested, which I compiled from the raw data spreadsheets.

Summary Table of Direct Wetland Impacts

ID	#	Number Impacted	Number Not Impacted	Amount in acres	Amount Impacted	Amount Not Impacted	Per cent Impacted
BR	1	1	?	115.56	1.99	113.57	1.72
NE	1	1	0	2.94	1.03	1.91	35.03
P200-10	6	2	4	0.40	0.11	0.29	27.50
W15-26	4	0	4	1.92	0	1.92	0.00
RT1,2	2	0	2	0.78	0	0.78	0.00
P77	1	1	0	0.03	0.03	0.00	100.00
Swales	71	48	23	2.59	1.85	0.74	71.43
Totals	86	53	33	124.22	5.01	119.21	4.03

Key:

BR = Black River Wetlands lumped – quality of wetlands in footprint of project?

NE = Northeast Ridge and Swale remnant

P200-210 = Wetlands on State of Wisconsin property (entrance)

W15-26 = Selected wetlands west of Black River

RT1, RT2 = Selected wetlands along north boundary west of Black River

P77 = Wetland classified as “wet meadow” rather than “swale”

Swales = Other Ridge and Swale wetlands (?) and Interdunal Swales

This summary shows clearly two things: most of the wetland acreage included in the spreadsheet provided by the applicant is not in the actual footprint of the project (see Fig. 1), and, in the actual project area, the rarest types are the most severely impacted.

Presumably, the twenty acres “avoided” are in the Black River complex and are avoided by moving the entrance road to State of Wisconsin land. The wetlands actually in the footprint of the proposed golf course, however, are the rarest types and the majority of them are directly impacted in both number and acreage. Fifty-seven per cent of wetland acreage impacted is from wetlands types considered so rare that detailed information concerning them was redacted in the response. In particular, two-thirds of the interdunal wetlands are directly impacted representing over 70 per cent of the acreage of that type on the property.

Of the wetlands that remain, even a cursory glance at the map shows that they will be highly susceptible to secondary impacts as most are very close to fairways, buildings, roads, paths and all the other “improvements” mentioned in questions 1, 2 and 8.

In response to DNR’s question # 13, the applicant ignores the two most obvious and serious secondary effects: changes in the quantity and quality of the water that reaches the Ridge and Swale and Interdunal Swale wetlands. These wetlands are there because the bottoms are at or near the local, dynamic water

table. With much of their previous infiltration areas lined with clay, asphalt, cement or roofs, shallow groundwater is likely to diminish in the summer due to a higher percentage of rain going to evaporation rather than infiltration. Furthermore, that which does infiltrate will have to be carrying more nutrients and more pollutants than that which previous infiltrated. As I pointed out in my initial report, a high infiltration rate is a “two-edged sword.” The applicant is repeatedly touting its benefits in getting rid of water but ignoring the detriments associated with decreased “treatment effect” due to decreased residence time in the soils.

In regard to DNR question Wetland #14, please see my previous comments in July. In short, I read all of the document mentioned, and it makes clear that the proposed project will severely impact the wetlands with the highest quality ratings.

In regard to DNR question Wetlands #15, please see my previous comment in July. In short, the Amsterdam Wetlands are not and never were as high quality as what is on this site, and there is no guarantee that this proposed mitigation bank will ever start let alone succeed. To adapt an old adage, “why trade a pheasant in hand for a pigeon in the bush?”

In the Waterways section comments 1 and 2, Stantec says that the OHWM at the site is 582.7 ft. per Sheboygan Co Zoning Dept. Interesting, but the OHWM in my understanding is a field-based value at any particular site because it depends on a number of factors that vary per site. That is why the guidance from Sheboygan Co. is qualified with “for zoning purposes only.” I also note that in response to comment #8 in the next section, Stantec responds that the wave run up is 588.1 ft. per FEMA guidance. From the topo map provided in the EIR, that looks very close to the tops of some of the dunes, and there is a 588 ft. benchmark just south of the property that is well inland. As we are informed in the runoff section, this area is rather flat. This is another “two-edged sword” concerning which Stantec uses one side but neglects to acknowledge the other when it does not help their effort. If the beach gradient is low, the wave run up is long.

Another danger that I see here that if a golf course is allowed this close to the lake, very quickly DNR will receive a request to armor the lakeside to protect it. These are active dunes in a dynamic area of the lakeshore. The detrimental effects of armoring on adjacent shorelines are well-documented. The neighbors of this shoreline are the residents to the north and the State Natural Area and Park to the south.

In regard to DNR question Stormwater #1 and 5, please see my previous comments in July. Applicant is just repeating what is in the EIR. In short, they tout the fact that the local soils will remove 80 per cent of the Total Suspended Solids before they reach the groundwater five feet below. Therefore, 20 percent of TSS ends up entering the groundwater in addition to all the dissolved materials. This fact is conveniently ignored in applicant’s response to DNR question Wetlands #13.

In regard to DNR question Other #3, it seems a bit strange to be worrying about protecting the few remaining dunes after permitting most of them to covered with imported soil and exotic grasses. I am sure there is an appropriate adage to cover this also!

Quentin Carpenter
23 October 2015