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OEC COMMENTS ON SHEFFIELD SCHOOLS' 401 APPLICATION

The Ohio Environmental Council ("OEC") represents hundreds of member environmental and conservation organizations, as well as thousands of individual members throughout the state of Ohio. On behalf of these members, we would like to thank the Ohio Environmental Protection Agency ("OEPA") for giving us the opportunity to comment on this proposed project. We ask OEPA and Sheffield Schools to please take the following comments into consideration as you move forward with this process.

I. Introduction: the value of wetlands

It is well established that healthy wetlands are dynamic ecosystems that provide practically irreplaceable benefits to the surrounding area. For one, they act as natural flood controls by containing potential flood water and releasing it slowly. This sponge-like behavior reduces the frequency of flooding, which saves money for the area by reducing the cost of lost work days and property damage. It also reduces the velocity of surface water flow, which minimizes stream down cutting and erosion. Wetlands also filter pollutants out of the water, leaving it cleaner for downstream users.

Thousands of plants, animals, and insects, some of which are threatened and endangered, find essential habitat in wetlands. Of particular note, wetlands are also home to many species of pollinators that have been proven to increase the productivity of nearby agricultural lands. The wetland on the site of this project is near agricultural lands which undoubtedly benefit from the wetland's presence.

Unfortunately, these ecological workhorses are becoming increasingly rare. Ohio has lost 90% of its original wetlands and continues to lose the ecological functions provided by the remaining 10% at an alarming rate. Even though OEPA's mitigation rules have provided almost 1.2 acres of constructed wetlands for every acre of wetland that has been destroyed by development,[1] the lower-quality constructed wetlands are generally not able to replace the ecological functions of natural wetlands.

[1] Micacchion, Mick, Brian D. Gara, and John J. Mack. 2010. *Assessment of wetland mitigation projects in Ohio. Volume 1: An Ecological Assessment of Ohio Individual Wetland Mitigation Projects*. Ohio EPA Technical Report WET/2010-1A. Ohio Environmental Protection Agency, Wetland Ecology Group, Division of Surface Water, Groveport, Ohio, at page 1. Available online at: http://www.epa.state.oh.us/portals/35/wetlands/M928_Final_Report_Vol_1.pdf

In fact, a study conducted by OEPA in 2010 found that over 60% of wetland mitigation projects were considered out-and-out failures. The study decided that jury was still out on another 15% of the projects, some of which may become failures down the line.[2] Indeed, just 4% of mitigation projects studied in 2010 hosted amphibian communities that were described as being in "good condition."[3]

The study concluded that "[m]any studies of mitigation wetlands have reported that for various reasons they provide a reduced level of functions and services and/or have a lower ecological condition than natural wetlands of the same type or class."[4] This study confirmed similar findings from an evaluation of wetland mitigation banks that took place in 2006.[5]

Because high-quality wetlands are so rare and valuable, we are pleased to see that the Sheffield Schools are pursuing preservation of a relatively large category 3 wetland. That said, we are always uneasy with proposals to fill in some of the highest quality wetlands in the state. In particular, we are concerned that this proposal would allow the applicant to purchase category 2 mitigation credits to compensate for impacts to a category 3 wetland. Even more importantly, we have a number of concerns with the proposed preservation effort that must be addressed in order to ensure that the preserved wetland stays healthy for the long term.

II. OEC's Concerns

This proposal would impact 5.6 acres of Ohio's highest quality wetlands—not something to be taken lightly. In order to compensate for this impact, the applicant should create or purchase credits for 5.6 acres of category 3 wetland. More importantly, the Sheffield Schools must take concrete steps to ensure that their preservation efforts are successful.

A. The proposed mitigation project does not compensate for the proposed impacts

The compensatory aspect of the applicant's mitigation plan is to purchase 8 acres of forested category 2 mitigation credits at the Edison Woods Nature Preserve.[6] However, this mitigation plan has little chance of replacing the ecological functions that will be lost when 5.6 acres of category 3 wetland are filled. As previously stated, Ohio EPA studies indicate that mitigation projects rarely meet their objectives. What's more, the proposed plan to purchase category 2 mitigation projects is already sighting the sights below the level of compensation for what was destroyed.

By definition, even a fully-functioning category 2 mitigation project can't replace the functions of a category 3 wetland. The Ohio Administrative Code defines category 3 wetlands as those that support

[2] *Id.* at page xi.
[3] *Id.*
[4] *Id.* at page 1
[5] Mack, J.J and M. Micacchion. 2006. *An ecological assessment of Ohio mitigation banks: Vegetation, Amphibians, Hydrology, and Soils.* Ohio EPA Technical Report WET/2006-1. Ohio Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, Ohio. Available online at http://www.epa.state.oh.us/Portals/35/wetlands/Bank_Report_Ohio_Final.pdf (finding at page 1 that 25% of mitigation bank acres did not qualify as wetland, and only 18% of those that did, or 13.5% of the total, qualified as "good" wetlands).
[6] Terracon, "Mitigation Plan" at page 4, also available on page 15 of part 2 of the PDF of the application available online at: ftp://ftp-gis.epa.state.oh.us/gisdepot/gisdata/dsw/401/SheffieldSchools/

"support superior habitat, or hydrological or recreational functions" and may be typified by "high levels of diversity, a high proportion of native species, or high functional values".[7] By contrast, category 2 wetlands "support moderate wildlife habitat, or hydrological or recreational functions".[8]

Ohio Administrated Code Section 3745-1-54 (D)(1)(c)(vii) states that compensatory mitigation for impacts to category 3 wetlands must consist of a category 3 wetland "of equal or higher quality". While the Administrative Code allows for flexibility as to how many acres of compensatory mitigation must be pursued when an applicant offers to preserve an ecologically significant wetland, the Code offers no such flexibility as to the quality of the required mitigation. Like must be mitigated by like.

We recognize the high ecological value of preserving 38.6 acres of high quality wetlands in perpetuity. However, we think that the principle of "no net loss" articulated in the Ohio Revised Code and Ohio Administrative Code requires that impacts to the highest quality wetlands be compensated for by the highest quality mitigation projects. While we understand that category 3 mitigation credits are simply not available for purchase, a mitigation ratio of 2:1 is more than appropriate when category 2 credits are purchased to compensate for impacts to a category 3 wetland. Indeed, the very fact that there are no category 3 credits available for purchase should be an indication of how rare and valuable the impacted wetlands are.

B. It is essential to maintain or improve the health of the preserved wetland

According to the application, the Sheffield Schools plan to fill 5.6 acres of category 3 wetlands[9] and preserve the remaining 39.4 acres of the existing on-site wetland.[10] According to the mitigation plan, the applicant will preserve this area by placing it under a conservation easement held by Lorain County Metroparks.[11]

Because the application does not contemplate satisfying the Administrative Codes' requirements for "like for like" compensatory mitigation, it is essential that the applicant and the easement holder are successful in maintaining or improving the quality of the preserved area. If the preserved wetlands are allowed to be impacted and degraded over time, the project will effectively become an impact to 45 acres of category 3 wetland that is offset by a few category 2 mitigation credits.

1. Trails must be created with extreme caution, if at all

The application materials make reference to two proposed trail construction projects that may impact the wetlands. The Mitigation Plan states: "[t]he [conservation] easement holder will be the Lorain County Metro Parks who anticipates using this land as a . . . trail connector between other park locations in the region"[12] Likewise, the application states that the School District itself plans to build a trail using a Safe

[7] Ohio Administrative Code Section 3745-1-54(C)(3)
[8] Ohio Administrative Code Section 3745-1-54(C)(2)(a)
[9] Terracon, "Section 401 Water Quality Certification Application" at page 1, also available on page 11 of part 1 of the PDF of the application available online at: ftp://ftp-gis.epa.state.oh.us/gisdepot/gisdata/dsw/401/SheffieldSchools/
[10] Terracon, "Section 401 Water Quality Certification Application" at page 17.
[11] Terracon, "Mitigation Plan" at page 5
[12] *Id.*

Route to School Grant that would "connect the Lake Erie shoreline with the Sheffield Lake trails which will connect to the Sheffield/Harris Road Wetlands Preserve which will connect to the school campus site and our wetlands preserve."[13]

Trails can impact wetlands in several ways. They cause habitat fragmentation, as the amount of "edge" habitat is increased.[14] This benefits the kind of generalist species—which already overpopulate most moderately developed areas like Sheffield—at the expense of typically rarer specialist species that live "deeper" in the biome. This effect is felt by both flora[15] and fauna.[16] If the trail is not a boardwalk, the waters of the wetland are continually impacted by soil compaction and sedimentation.[17] A trail also encourages an increased human presence in the area, which leads to an increase in trash and litter and leads to people "making their own" side trails.[18]

Although issues around the placing of fill and sedimentation are avoided by building a boardwalk instead of placing a hardened path, many of these problems apply to any kind of trail. Given the minimal amount of compensatory mitigation that is proposed in this application, we strongly encourage the School District to avoid placing a trail through the wetland. Rather, we urge the interested parties to seek ways to route the trails around the wetland. On the other hand, a trail that is needed for educational activities that would help maintain or improve the quality of the wetland may be desirable, if constructed under the oversight of a qualified wetlands scientist.

2. The applicant or the conservation easement holder should maintain an undeveloped buffer zone around the wetland

Wetland quality demonstrates a strong negative correlation with the intensity of surrounding land uses. For example, intensive land uses associated with urbanization and agriculture can increase the rate of sedimentation and pollutant contamination in a nearby wetland, among other impacts.[19] According to the Environmental Law Institutive, attempting to preserve wetlands without attending to buffers "is like trying to operate a municipal swimming pool without any attention to the pipes, the deck, the lifeguard stations, and the condition of areas draining into the water"[20]

As of today, the applicant's wetland is adjacent to a variety of land uses, including agriculture, forested land, residential development, and a school. The nearby land usage is moderate right now, but could easily become more intensive over time as development increases in the area. All else held equal, the wetland is likely to suffer degradation from such changes.

Consistent with the goal of "no net loss" of wetland functions, preserving a buffer area around the property would help prevent such degradation. Buffer zones protect wetlands in a variety of ways, from

[13] Terracon, "Section 401 Water Quality Certification Application" at page 4.

[14] U.S. Forest Service, "Planning Trails with Wildlife in Mind: A Handbook for Trail Planners" (September 1998) at page 6. Available online at: http://www.fs.fed.us/outdoors/naturewatch/start/planning/Trails-for-Wildlife-Handbk.pdf at

[15] *Id.* at page 22

[16] *Id.* at page 20

[17] *Id.* at page

[18] *Id.* at 14

[19] Environmental Law Institute, "Planner's Guide to Wetland Buffers for Local Governments" (March 2008) at page 7. Available for download at: http://www.elistore.org/reports_detail.asp?ID=11272

[20] *Id.* at 2

processing pollutants that flow from upland areas to preventing the buffer area itself from becoming a source of pollutant.[21] Buffers also act as a screen for wetland wildlife, limiting the impacts of nearby sources of light and noise, nearby domestic pets, and human presence. [22]

Because this preservation project must be effective for the long term, and in light of the very minimal mitigation proposed by the applicant, we encourage the applicant and OEPA to look for ways to incorporate a buffer area around the wetland.

3. The conservation easement language must be tightened and clarified

The language in the model conservation easement provided as part of the application has a number of peculiarities that should be addressed. For example, the model easement says that there are 25 acres of onsite wetlands.[23] All 39.4 acres should be preserved under any conservation easement that is accepted as a part of this application.

As another example, the protections put on the land under this model conservation easement are not very stringent or specific. For example, paragraphs 15 and 16 prohibit "timber harvest and removal, filling, grading, draining and any additional activities which may deter the natural value of the land."[24] All of the listed activities would totally destroy the wetland. The invocation of "any additional activities that would deter the natural value of the land" could mean anything or nothing. Given that the only activities specifically listed would completely destroy the wetland, we find such a vague catch-all phrase to be insufficiently protective of the wetland.

We assume that the model conservation easement that was attached to the application was simply meant as an early-stage sample, and that the language will be tightened up significantly before it is finalized. Developing protective language will require attention to detail on the part of the Schools, and perhaps consultation with government agencies or land trusts that are experienced in working with conservation easements.

4. The preserved wetlands must be protected, maintained, and improved.

The applicant indicates an intention to use the preserved wetland as an environmental education center for the school and for the public.[25] The application states that

> *The plan would include an extensive on site education program, where students and the public will have an opportunity to view, first hand, the habitat and characteristics of a wetland ecosystem. Additionally, the educators of the school's wetland ecology programs will take this land as an opportunity to display benefits of enhancement efforts and how they can benefit the wetland. Such enhancement efforts will consist of invasive species removal followed by planting of suitable native trees and shrubs to restore emergent areas to their original forested conditions prior to historic clearing activities. Other potential habitat uplift opportunities could consist of creating additional vernal pool areas to increase amphibian breeding areas.*
> . . .

[21] *Id.* at 7
[22] *Id.* at 9
[23] Draft Conservation Easement at paragraph 6, also available on page 43 of part 2 of the PDF of the application available online at: ftp://ftp-gis.epa.state.oh.us/gisdepot/gisdata/dsw/401/SheffieldSchools/
[24] Draft Conservation Easement at paragraphs 15 and 16. .
[25] Terracon, "Mitigation Plan" at page 5

Close supervision and planning between the school system's representatives and qualified wetland scientists will be applied to ensure that these projects are successfully completed.[26]

This proposal may be the key to the preservation project's long-term success. This project has great ecological potential if a highly qualified wetland scientist is involved in the design the curriculum. The scientist should also train the School's faculty to ensure that their classes maintain and potentially even improve the wetland's health. The Schools should work with EPA and other stakeholders to seek a qualified individual or organization to consult on this project.

We have seen too many instances where wetlands that were supposed to be "preserved in perpetuity" as educational centers have been shuttered after just a few years of minimal effort on behalf of the parties, only to be offered up for development later on. Even state agencies are not always able to live up to the rigors of perpetual preservation.

We have also seen instances where preserved wetlands were allowed to degrade over the years, until they could no longer provide the ecological benefits that made preservation worthwhile in the first place.

The preservation project is a good idea, but it will take considerable expertise and require the Schools to leave the wetlands primarily undisturbed except for well-planned education and maintenance activities. This is a difficult task that requires the specialized expertise of a trained wetland scientist. If the applicant does not demonstrate that it has both the attitude and the wherewithal to do this project right by seeking and following outside counsel over the long term, the permit application should be denied. But if the Schools are willing to consult with the necessary experts and follow their instructions, the project could be a great success and a real treasure for the wetland education courses offered at the School.

III. Conclusion

The Sheffield Schools have come a long way from being in a state of financial emergency just a few years ago, and we understand that their actions today are to some extent dictated by the language of their ballot issue and past land purchase decisions. The Schools also deserve commendation for stepping up to the plate and redesigning their construction project to minimize impacts to the wetlands.

That said, there is still a lot of work to be done on the conservation aspects of this project. The proposed mitigation credits do not compensate for the impacts to a category 3 wetland. If this project goes forward with such minimal compensatory mitigation, every effort must be made to ensure that the preserved wetlands remain robustly healthy long into the future. This means routing trials around the wetlands rather than through them, exploring the possibility of preserving a buffer zone around the existing wetland, tightening the language on the conservation easement, and, most importantly, bringing in a qualified wetland scientist to have a major role in shaping the educational projects so that they improve the wetland's health and quality.

[26] *Id.*

Thank you for the opportunity to provide comments on this proposal. We think the preservation project ultimately makes the project make sense from an environmental perspective, if done right. We hope that the agency and the applicant will consider our suggestions for how to improve the preservation and mitigation aspects of this proposal. Please feel free to contact us if you have any questions.

Sincerely,

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