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September 7, 2022

Erin Lish
Indiana Department of Environmental Management
Office of Water Quality, Wetlands and Storm Water Section
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

**Penrose (formerly Elsbury & Myers / Balmoral), SE of N CR 300 E and E CR 100 N,
Center Township, Hendricks County, Indiana**

Dear Ms. Lish,

The initial concern presented in the "Overview" section of the Hoosier Environmental Council (HEC) letter appears to be focused on avoidance and minimization efforts and, more specifically, that these efforts were not considered sufficiently enough and that there is not enough mitigation. Per your email request, below is a detailed description of the avoidance and minimization measures as well as the alternatives and analysis of the proposed project. Also enclosed are the responses to the three questions posed by the HEC.

Avoidance and Minimization Measures:

The site consists of 13,375 linear feet of stream, of which Lennar Homes plans to primarily impact 832 (using the number from HEC letter). The amount of stream impact is approximately 6% of the total streams encountered on the project. Lennar Homes took great care to avoid as much of the stream channels as possible, and only infringe on stream areas as necessary to allow for access to other portions of the development. In fact, a rather large area of open space has been set aside throughout the community, which is evident in the Northeast, Central, South Central, and Southeast portions of the proposed community allowing for rather large riparian buffers and thousands of linear feet of stream to be left undisturbed. Instead of filling the riparian areas, piping the streams, and converting these areas into usable land, a decision was made to avoid them and minimize potential impacts to water resources.

Where access to other portions of the property became problematic, and with no other solution available, proposed impacts in the form of sumped culverts became unavoidable. These impacts will not impede the conveyance of water and are designed to allow for both water and wildlife to freely traverse the system. The culverts are sumped to allow for a natural bottom allowing for fish, crayfish, salamanders, and other aquatic dependent organisms to thrive post construction. In addition, due to the State of Indiana's requirements which mandates the creation of detention/retention basins, additional impacts in the form of outfall structures are also proposed. These

impacts are minimal and also do not impede conveyance or disrupt the life cycle of aquatic organisms once established.

The project has been intentionally designed to minimize impacts to water resources. Forested areas of the property within the riparian zone will be avoided as much as possible while still allowing for minimal water resource impact. Forested areas of the property within the riparian zone of the streams will be avoided, and minimal tree removal will occur throughout most of the riparian stream corridors except for the proposed houses and road within the vicinity of the existing pipeline easement. Proposed housing, road, retention pond, and pipeline construction are predominantly relegated to the upland agricultural field and pasture areas of the site.

Lennar has proposed compensatory mitigation in the form of supporting the State In-Lieu Fee Program. This is a costly endeavor compared to onsite mitigation. The estimated fee for this mitigation approach is approximately \$360,000.000 (using current estimated numbers). Due to the structure of the Federal Mitigation Rule (MR), it discourages readily onsite mitigation approaches to enhance nearby streams within the Abner Creek watershed and instead recommends the applicant spend its resources on mitigation yet to be established somewhere else outside of the local watershed. This mitigation approach is outside of Lennar's control as they are simply abiding by State and Federal guidelines in accordance with the MR.

Alternatives and Analysis:

Lennar Homes chose this piece of ground for a plethora of reasons including its obvious location immediately adjacent to a community that already has infrastructure (water, sewer, etc.). This location also provides access to two county roads with another ingress/ egress connection to the neighborhood to the east. The local planning commission has approved this approach. The initial project plan was to maximize the entire landscape for full lot potential. Considering the number of streams and the linear feet of each system within the property, Lennar Homes looked at alternatives to developing the site. Instead of filling in the streams and placing lots throughout the entire property, multiple areas have been set aside. The approximate non-developed/ open space areas total 47 acres (equivalent to 33% of the property), with alternatives between zero and 47. This acreage does not include the retention ponds that although are not natural features, they do provide foraging and breeding opportunities for dabblers, turtles, fish, crayfish, birds of prey, freshwater mussels and neo-tropical migratory songbirds.

Hoosier Environmental Council (HEC) Letter Questions and Concerns Responses:

Did the Applicants consider low impact development techniques or green infrastructure as part of the analysis? Green infrastructure and low impact development are practices that are often used to offset the harmful water quality impacts of urbanization. These techniques are aimed at reducing infiltration rates and boosting water quality.



RESPONSE:

The State of Indiana currently does not have any regulations or administrative rules requiring homeowner associations to restrict or prohibit fertilizer or pesticide use as part of the Water Quality Certification process. Lennar Homes takes pride in following State and Federal Rules and Regulations as it relates to stormwater runoff. The project has integrated several detention basins in accordance with local regulations which will store stormwater and also trap, filter and help reduce nitrogen, phosphorus and pesticides from entering stream channels. In addition, as stated before, there are large swaths of undeveloped riparian zones that will also function as buffer systems to stormwater runoff that may contain fertilizer and/ or pesticides prior to entering stream channels.

Did the Applicants consider adding stream buffers to protect and enhance the water quality of the non-forested headwaters?

RESPONSE:

Yes, as previously mentioned, the project area has multiple large swaths of open space which includes riparian buffers (undeveloped, protected land) surrounding approximately 13,000 linear feet of the stream channels.

Can IDEM impose certain conditions on this permit that will boost its effectiveness, such as monitoring requirements to ensure there will be no degradation of Abner Creek?

RESPONSE:

Most stream systems within the State of Indiana are degraded and/ or impaired, and many of these degraded streams are miles from development. It would be an unfair burden to tax Lennar Homes with the challenge of ensuring that no degradation would occur in Abner Creek, let alone in this portion of its watershed as the community would not be able to control upstream inputs. As stated, Lennar Homes is building several retention ponds to attenuate flood waters and reduce conveyance downstream from the property during a storm event.

In addition, much of the land within the proposed development is currently in agricultural production, which consists of bare dirt for approximately seven months out of the year. The bare dirt is exposed to torrential downpours during winter and spring, the wettest months of the year and runs off into the adjacent waterways. The Natural Resource Conservation Services (NRCS) has recorded soil loss on average in cropland as approximately 3 tons per acre from water and 2.5 tons per acre from wind. This development will in essence eliminate soil erosion due to wind and water. Upon the completion of construction, the community will have year-round vegetation in the form of grasses, wildflowers, shrubs, and trees which will be perennially rooted within the soil, essentially eliminating the loss of soil as there will not be any more opportunities for bare soil to occur.



If you have any questions or need any additional information, please do not hesitate to contact me at (317) 324-8542 or marc.woernle@meristem.life.

Sincerely,



Marc Woernle, PWS, LEED AP
Principal Ecologist
Meristem, LLC

cc. Stu Huckelberry, Lennar Homes of Indiana
Keith Lash, Lennar Homes of Indiana
Bailey Duncan, Meristem





INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

September 23, 2022

Susie McGovern
Hoosier Environmental Council
3951 North Meridian Street, Suite 100
Indianapolis, IN 46208

Dear Ms. McGovern:

Re: Section 401 Water Quality Certification
Project: Penrose
IDEM Number: 2022-597-32-ERL-A
COE Number: LRL-2021-746-sjk
County: Hendricks

Thank you for your letter regarding the proposed Penrose project in Hendricks County. Your interest in Indiana's water quality is appreciated.

In your letter you provided the following comments on the proposed project:

- I. Applicants for Water Quality Certifications must demonstrate to IDEM that proposed impacts to aquatic resources are necessary. If an applicant is unable to completely avoid impacts to aquatic resources, they must demonstrate how proposed impacts have been minimized.
 - IDEM requested a more detailed analysis of avoidance and minimization measures from the applicant. It is the opinion of IDEM that the applicant has appropriately minimized impacts to aquatic resources as a result of the proposed project. Specifically, Lennar Homes has minimized impacts to streams on the project site to only approximately 6% of the total linear feet of stream on site.
- II. IDEM can impose conditions to ensure that impacts to aquatic resources will comply with state water quality standards.
 - IDEM included conditions in the Section 401 Water Quality Certification to ensure that construction activities will comply with state water quality standards, including conditions specific to erosion and sediment control.

- III. HEC is concerned that the proposed mitigation will not offset the water quality impacts of both the construction and operation phases of the project.
- The applicant has proposed to purchase in-lieu fee credits in accordance with the Federal Mitigation Rule in an amount considered to be sufficient to offset the water quality impacts of the project, including temporal loss.
- IV. Plans only include one retention pond for water quality control.
- Section 401 of the Clean Water Act only regulates discharges of dredge or fill material below the ordinary high water mark (OHWM) of waters of the U.S. Retention ponds and other storm water related aspects of the project will be reviewed and authorized by the MS4, as well as the local planning and zoning board.
- V. HEC is concerned that authorization of this project without an improved mitigation plan or permit conditions will degrade the quality of Abner Creek and its headwaters. Therefore, HEC respectfully requests that the applicant demonstrate that the impacts are necessary and minimized, and propose more protective mitigation requirements.
- It is the opinion of IDEM that the applicant has appropriately minimized impacts to aquatic resources as a result of the proposed project and has proposed to purchase in-lieu fee credits in an amount considered to be sufficient to offset the water quality impacts of the project.
- VI. Did the applicant consider low impact development techniques or green infrastructure as part of the analysis?
- The applicant has included several stormwater detention basins as a part of the development plans. In addition, there are large areas of riparian buffers along the many linear feet of undisturbed stream channels.
- VII. Did the applicant consider adding stream buffers to protect and enhance the water quality of the non-forested headwaters?
- The applicant has included riparian buffers along approximately 13,000 linear feet of stream channels on the project site.

VIII. Can IDEM impose certain conditions on this permit that will boost its effectiveness, such as monitoring requirements to ensure there will be no degradation of Abner Creek?

- The applicant is including several retention ponds in the development plans. These retention ponds will help to attenuate flood waters, as well as trap and filter out pollutants such as fertilizers and pesticides before they reach the tributaries to Abner Creek.

Following receipt of your letter IDEM acquired a copy of a more detailed description of avoidance and minimization efforts from the applicant, as well as a more detailed description of the alternatives analysis for the proposed development. After reviewing the report, project application, and correspondence from the applicant, IDEM has issued a decision in response to the application. A copy of the applicant's response to Hoosier Environmental Council's comments and a copy of IDEM's decision is attached.

If you have any questions, feel free to contact me at ELish@IDEM.IN.Gov or at 317-232-0516.

Sincerely,



Erin Lish
Wetland Project Manager
Wetlands and Stormwater Section
Office of Water Quality

Attachment: Meristem Response to Public Comments from HEC
2022-597-32-ERL-A