First Hearing Report
Moore No. 1-#361 Watershed
Drainage Petition per O.R.C. 6131
January 29, 2024

This report has been prepared for the preliminary hearing on a drainage improvement petition filed by Jose Ranero, Anesa Stevenor-Ranero and others on July 24, 2023. The original petition has been signed by 6 individuals representing 5 of the 30 parcels in the watershed.

The course and termini of the requested improvements are quoted from the petition as follows:

> *"In Delaware County, Concord Township, within the Moore No. 1 #361 watershed and generally following, but not limited to, the course and termini of existing improvements."*

The following is the nature of the work requested, as quoted from the petition:

> *"To generally improve the drainage, both surface and subsurface, to a good and sufficient outlet, by replacing, repairing or altering the existing improvements as required and/or creating new surface and subsurface drainage mains or laterals, as requested, by this petition."*

Petition Process

This petition has been submitted according to Section 6131 of the Ohio Revised Code (O.R.C.), which authorizes the Board of Commissioners to act on behalf of benefited property owners to make drainage improvements. If the Board of Commissioners decides to proceed with a project, the costs related to the improvements and the development of plans, reports and schedules are assessed to the landowners in the watershed according to the benefit received to their watershed acreage. These special assessments will be added to the property taxes for each property and can be spread over a maximum of a 15-year period. Property owners may also choose to pay their assessment in a lump sum payment prior to placement on their property taxes. Additionally, the improvements will be placed on the Delaware County drainage maintenance program in perpetuity, per O.R.C. Section 6137, and the annual maintenance assessment will appear on property tax statements as a special assessment in the same manner as the construction assessments. These annual maintenance assessments are generally in the range of two to five percent of the construction assessment.

The decision to approve a petition project is a 3-step process. First, a viewing of the proposed improvement is conducted for the Commissioners to familiarize themselves with the watershed and general conditions. The Commissioners conducted the viewing for this project by drone video on November 13, 2023. Next, a preliminary hearing is held to consider the initial feasibility of the proposal. It is this preliminary First Hearing that is before us today. If this petition is approved, a final hearing will be conducted to further consider this petition. At that time, final details such as engineering plans and specifications, cost estimates, and a proposed schedule of assessments will be known.

Existing Conditions

The Delaware Soil & Water Conservation District and Delaware County Engineer's Office have made the following observations of the watershed using onsite evaluation, and a review of available historic records, aerial photography, topographic mapping, soils mapping, and drone video:

- The Moore No. 1-#361 watershed, as defined for this hearing, measures approximately 153 acres. The current landuses in the watershed are predominantly agricultural and rural residential.
- Improvements have been made in the watershed utilizing the drainage petition process in 1913. These improvements appear to consist of subsurface drain pipe installation only.
- The existing drainage system east, or downstream, of State Route 745 is comprised of narrow open channel that is heavily covered with brush and woody vegetation, a broad surface drainage swale that appear to lack a defined shape or channel, and a subsurface drain pipe designed for the agricultural needs of the watershed. The outlet for the subsurface drain pipe was not able to be identified.
- The existing drainage system west, or upstream, of State Route 745 is comprised of grassed waterway, farmed surface drain swale, and a subsurface drain pipe. No significant degradation in the drainage system has been observed in this portion of the watershed.

The drainage system east of State Route 745 does not appear to be functioning at optimum capacity due to a lack of comprehensive maintenance and the generally deteriorated condition of the infrastructure. The lack of a defined surface drainage swale and fully functional open channel has led to increased out-of-bank flows and the accumulation of debris along the length of the channels. The lack of an identifiable outlet for the subsurface drain pipe indicates the possibility the system may not be meeting the standards for good agricultural and rural residential drainage. These conditions are indicators of an overburdened, unmaintained, and aged drainage infrastructure. While the existing drainage system still provides some degree of drainage benefit, it does not appear to function as a good and sufficient outlet.

Estimate of Cost, Factors Favorable/Unfavorable, Benefit vs Cost

O.R.C. 6131 requires the County Engineer to state, in a report, factors favorable and unfavorable to a proposed project, estimate the cost of the project, and state an opinion as to whether the benefits of the project exceed the cost. The following information is presented for your consideration:

Construction Estimate

The proposed project would begin on or near the outlet of the existing open channel to O'Shaughnessy Reservoir and extend upstream to the east right-of-way for State Route 745. The major items of work would include open channel reconstruction, surface drain shaping and grading, subsurface drain pipe replacement, clearing of brush and vegetation, seeding and mulching of disturbed areas, installation of private drive culverts, and the installation of erosion control measures.

Project Estimate	
Construction	$ 70,368.00
Project Administration, Survey, and Engineering (10% of construction estimate)	$ 7,036.80
Drainage Maintenance (O.R.C. 6137) first year start up (5% of construction estimate)	$ 3,518.40
TOTAL PROJECT ESTIMATE:	**$ 80,923.20**

NOTES:

- **It is important to understand that the above estimates are preliminary and made in the absence of a current detailed topographic survey of the project area.**
- **The above estimate does not contain a contingency amount. The amount of necessary contingency would be evaluated as part of the survey and engineering design of the project, and added to the estimate presented at the Final Hearing. Contingency cost is typically estimated at 15-20% of the final construction estimate. As an example, a 15% contingency would add approximately $12,000 to the construction estimate.**
- **Should the project fail to be approved at the final hearing the benefiting land owners, as defined by O.R.C. 6131, may still be responsible for the cost of project administration, survey, and engineering design.**

Assessments

If the project moves forward to the second hearing, the Ohio Revised Code instructs the County Engineer to calculate the assessments to individual property owners based on the benefits received from the improvements for the various properties in the watershed. O.R.C. 6131 states that *"uplands that have been removed from their natural state by deforestation, cultivation, artificial drainage, urban development, or other manmade causes shall be considered as benefited by an improvement required to dispose of the accelerated flow of water from the uplands."* Benefits are further defined by the O.R.C. as "elimination or reduction of damage from flood; removal of water conditions that jeopardize public health, safety, or welfare; and increased value of land resulting from the improvement."

It should be noted that property owners are only assessed for those improvements that are located downstream from their properties. No property is assessed for improvements located upstream. The public agencies that own rights-of-way for public roads and other public lands are also assessed for both construction and maintenance costs in the same manner as private property owners.

Individual parcel assessments are not calculated for the preliminary hearing and are only calculated if the petition moves forward to a second, or final, hearing.

Factors Favorable/Unfavorable

Factors favorable to the improvement:

1. Improved surface and subsurface drainage in the watershed.
2. Improved outlet for subsurface drainage components of household sewage treatment systems and for residential drainage systems.
3. Reduction of future deterioration of surface and subsurface drainage infrastructure.
4. Annual inspections, maintenance, and protection of the improvement in perpetuity.

Factors unfavorable to the improvement:

1. Temporary land use disruption during construction.
2. Cost of construction and maintenance may be a burden to some landowners.
3. Removal of existing trees and brush in improvement area.

Benefits versus Cost

Assessments for property within the watershed are calculated based on the contribution to and benefits derived from the improved drainage system. For a project of this nature, it would be reasonable to consider the increased value of the land that would result from an improved drainage outlet. In this area, an improved outlet would allow for storm water drainage to efficiently flow through the area to a good and sufficient outlet. Also, for residential properties, the lack of an adequate drainage outlet can negatively impact the condition of household sewage treatment systems, potentially limiting the value of the home for resale. Should the existing system fail, the cost to perform repairs, or construct an alternate sewage treatment system, can range from the thousands to tens of thousands of dollars. It would also be reasonable to consider the cost of environmental degradation due to residential sewage treatment systems that may not be functioning properly. Other benefits that are commonly perceived as a result of drainage improvements focus on quality of life and positive neighborhood perception. Communities that have planned and maintained storm water drainage infrastructures generally have higher resale values than those communities that are known to have a history of drainage problems or flooding.

Conclusions

Based on all of the information gathered and generated for this project, I believe this project is technically feasible and would adequately serve the project area's drainage needs. The testimony brought to the Board by the landowners, however, as to whether the benefits of this project exceed the costs, should be given significant consideration in the decision to move forward with this project.

Should the current petition be approved to proceed to a final hearing, the petition bond will be returned and detailed plans, specifications, estimated costs, and a schedule of assessments would be prepared. Additionally, a benefit versus cost analysis will also be performed to further determine the feasibility of advancing this proposed project.

Prepared by,

Bret Bacon
Deputy Administrator
Delaware Soil and Water Conservation District

Approved by,

Chris Bauserman P.E., P.S.
Delaware County Engineer

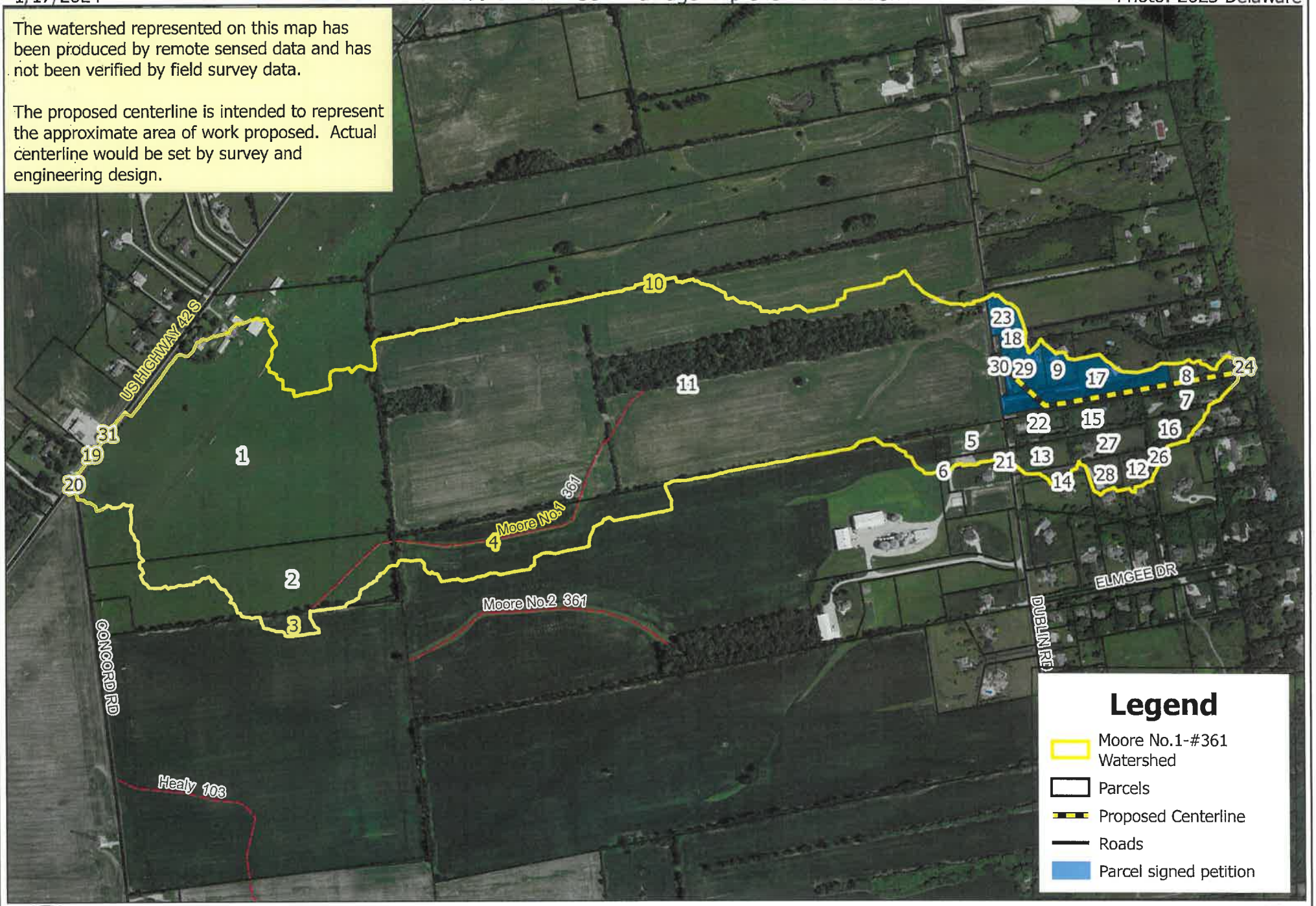
1/17/2024

Moore No.1-#361 Drainage Improvement Petition

Photo: 2023 Delaware

The watershed represented on this map has been produced by remote sensed data and has not been verified by field survey data.

The proposed centerline is intended to represent the approximate area of work proposed. Actual centerline would be set by survey and engineering design.



Legend

- Moore No.1-#361 Watershed
- Parcels
- Proposed Centerline
- Roads
- Parcel signed petition

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Feet

Note: The Delaware SWCD makes no guarantee or warranty as to the accuracy of the information on this map.