First Hearing Report
Ribov #620 Drainage Project
Drainage Petition per O.R.C. 6131
March 9, 2015

This report has been prepared for the preliminary hearing on a drainage improvement petition filed by Stephen L. Sheets and others on September 17, 2014.

The general location and course of the requested improvements is quoted from the petition as follows:

> *"In Delaware County, Kingston Township within the Ribov #620 watershed and generally following, but not limited to the course and termini of the existing improvement."*

The following is the nature of the work petitioned 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, 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, report 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 an 8-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 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 2 - 3% of the construction assessment.

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 would also be assessed for both construction and maintenance costs in the same manner as private property owners.

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 on

December 15, 2014. Commissioner Barb Lewis requested a site visit on February 3, 2015 as she was newly elected and had not taken her position prior to the December 2014 viewing. Next, a preliminary hearing is held to consider the initial feasibility of the proposal. It is this preliminary 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 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 using onsite evaluation and a review of available aerial photography, topographic mapping and soils mapping and drainage project archives. According to the historical records, the proposed project area was improved via the ORC 6131 process in 1948 in a similar scope and nature to the current request.

Currently the drainage system does not appear to be functioning at or near the required capacity due to a lack of comprehensive maintenance and the generally deteriorated condition of the infrastructure. The absence of uniform surface grading has resulted in periods of ponding in the upper reaches of the watershed near Todd Street Rd. Sporadic "blowouts" along the course of the existing subsurface drains were also observed. The open channel does not have sufficient depth to provide an adequate outlet for the adjacent subsurface drainage. While the existing drainage system still provides some degree of drainage benefit, it does not appear to function as a good and sufficient outlet and would not meet the commonly applied United States Department of Agriculture, Natural Resources Conservation Service standards and specifications for rural drainage.

Proposed Improvements

The proposed improvements would consist of the following basic elements:
(See the attached map for location)

Construction Estimate Main A
(Sheets parcel/Todd Street Rd. to the confluence with Little Walnut Creek)

Seeding and Mulching	$12,100.00
Subsurface drain installation	$ 6,752.00
Grade Stabilization structure	$ 7,500.00
Surface drain shaping and grading	$ 3,650.00
Open channel restoration/ Log jam removal	$ 9,750.00
Tree and Brush Clearing	$ 8,000.00
Access Drive/Channel Crossing	$ 3,500.00
Main Construction Subtotal	**$ 51,252.00**

Construction Estimate Main B
(Lanum and Kistner parcels to the confluence with Main A)

Seeding and Mulching	$ 14,166.00
Subsurface drain installation	$ 14,025.00
Grade Stabilization structure	$ 5,000.00
Surface drain shaping and grading	$ 12,750.00
Open channel restoration/ Log jam removal	$ 1,000.00
Tree and Brush Clearing	$ 13,000.00
Access Drive/Channel Crossing	$ 2,000.00
Main B Construction Subtotal	**$ 61,941.00**
Drainage Maintenance First year start up (5.0% of estimate)	$ 5,659.65
Project Administration, Survey, and Engineering (15% of estimate)	$ 16,978.95
TOTAL	**$ 135,831.60**

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.**
- **Should the project fail to be approved at the final hearing the benefiting land owners, as defined by ORC 6131 may still be responsible for the actual cost of project administration, survey and design per ORC Sec. 6131.09**

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. The ORC further defines benefits as:

- "Elimination or reduction of damage from flooding."
- "Removal of water conditions that jeopardize public health, safety, or welfare."
- "Increased value of land resulting from the improvement."

The ORC defines benefitted land as follows:

"Lands 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."

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

Factors Favorable/Unfavorable

Section 6131 of the Ohio Revised Code 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:

Factors favorable to the improvement:

1. Improved surface and subsurface drainage in the watershed.
2. Probable increase in productivity on farmlands.
3. Improved outlet for subsurface drainage components of household sewage treatment systems and for residential drainage systems.
4. Annual inspection and maintenance of improvements in perpetuity will reduce future continued deterioration of the surface and subsurface drainage infrastructure.

Factors unfavorable to the improvement:

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

Benefits Versus Cost

Assessments for property within the watershed are calculated based on the benefits derived. Based on a Soil and Water Study conducted by the Cooperative Extension Services of the Ohio State University in July of 1979 titled "Drainage—What is it Worth" stated that, typically, drainage improvements in agricultural areas are beneficial due to increased agricultural crop yields. The main premise of this study was that "Benefits = Increased Yield x Market Price." This benefit does not take into consideration other drainage benefits such as more timely tillage or harvesting.

The increased value or benefit for residential properties is much more subjective and difficult to quantify. For residential properties, the lack of an adequate drainage outlet can dramatically deteriorate the condition of household sewage treatment systems potentially limiting the value of the home for resale as well as costing thousands of dollars to repair or construct an alternate sewage treatment system should the existing system fail. 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 stormwater 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. However, the testimony brought to the Board by the landowners as to whether the benefits of this project exceed the costs, should be given 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 cost and schedule of assessments would be prepared. Additionally, a more detailed benefit versus cost analysis will also be performed to further determine the feasibility of advancing this proposed project.

Prepared by,

Scott Stephens
Resource Conservation Program Coordinator
Delaware Soil and Water
Conservation District

Approved by,

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

First Hearing Report Addendum #1
Ribov #620 Drainage Project
Drainage Petition Amendment per O.R.C. 6131
April 30, 2015

This addendum has been prepared for the preliminary hearing on a drainage improvement petition amendment filed by Kingston Township on March 9, 2015 for the East Lateral of Main A on the Ribov #620 ditch.

The viewing of the amendment as well as a continuation of the original December 15, 2014 viewing for portions of the proposed improvements not viewed at the original view, was conducted on April 13, 2015

The proposed improvements would consist of the following basic elements:
(See the attached map for location)

Construction Estimate East Lateral Main A
(Todd Street Rd. to the confluence with Main A)

Seeding and Mulching	$ 3,611.00
Subsurface drain installation	$ 4,290.00
Grade Stabilization structure	$ 5,000.00
Surface drain shaping and grading	$ 3,250.00
Open channel restoration/ Log jam removal	$ 2,500.00
Tree and Brush Clearing	$ 4,000.00
Access Drive/Channel Crossing	$ 3,500.00
Construction Subtotal	**$ 26,151.00**
Drainage Maintenance First year start up (5.0% of estimate)	$ 1,307.55
Project Administration, Survey, and Engineering (15% of estimate)	$ 3,922.65
Total	**$ 31,381.20**

Prepared by,

Scott Stephens
Resource Conservation Program Coordinator
Delaware Soil and Water
Conservation District

Approved by,

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