



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

July 17, 2013

Re: Belmont County
The Grove
Storm Water Construction Activity
Notice of Violation
Permit #0GC02010*AG

Mr. Ben Trafzer
Bedway Development Corp.
67877 Pancoast Road North
Belmont, Ohio 43718

Dear Mr. Trafzer:

On July 2, 2013, I visited your site on National Road. The purpose of the inspection was to determine the compliance of this site with the National Pollutant Discharge Elimination System (NPDES) permit for discharges of storm water associated with construction activity. The inspection was conducted under the provisions of Ohio's water pollution control statutes, Ohio Revised Code (ORC) Chapter 6111. I have the following comments:

Permit Coverage:

1. Part II.A.4 of the permit states: You shall design, install and maintain effective erosion controls and sediment controls to minimize the disturbance of steep slopes;

At the time of inspection, large amounts of sediment had eroded from both the eastern and western slopes of the project to the low lying areas below. The silt fence for both slopes was badly damaged and compromised with sediment. It is not an inadequate control for the steep slopes. Please relocate or repair silt fence to provide adequate sediment controls for the drainage area and to prevent it from being damaged or compromised with sediment in the future.

2. Part II.B of the permit states: Stabilization of disturbed areas shall, at a minimum, be initiated in accordance with the time frames specified in the following tables.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a surface water of the state and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. Permanent and temporary stabilization are defined in Part VII.

At the time of inspection, the outer slopes of the site appeared to have remained idle for more than 21 days. Whether at permanent or temporary grade, please stabilize all outer slopes and areas that have or will be idle for 21 days to help prevent sediment from compromising the silt fence.

- Part III.G.2.d.v of the permit states: If construction activities disturb areas adjacent to surface waters of the state, structural practices shall be designed and implemented on site to protect all adjacent surface waters of the state from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond) shall be used in a surface water of the state. For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in Part II.A.6, as measured from the ordinary high water mark of the surface water. Where impacts within this buffer area are unavoidable, due to the nature of the construction (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the buffer area are minimized.

At the time of inspection, the western slope had been heavily eroded and impacted the creek below with sediment. Please implement adequate controls to reduce sediment discharges to waters of the state. It is suggested that a diversion ditch be dug along the western slope, leading to an adequate sump for the amount of runoff from the site.

- Part III.G.2.e of the permit states: For all large construction activities (involving the disturbance of five or more acres of land or will disturb less than five acres, but is a part of a larger common plan of development or sale which will disturb five or more acres of land), the post construction BMP(s) chosen shall be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. The BMP(s) chosen must be compatible with site and soil conditions. Structural post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality

volume (WQ_v) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQ_v shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to the following equation:

$$WQ_v = C * P * A / 12$$

where:

WQ_v = water quality volume in acre-feet

C = runoff coefficient appropriate for storms less than 1 inch (Either use the following formula: $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$, where i = fraction of post-construction impervious surface or use Table 1)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

Table 1
Runoff Coefficients Based on the Type of Land Use

Land Use	Runoff Coefficient
Industrial & Commercial	0.8
High Density Residential (>8 dwellings/acre)	0.5
Medium Density Residential (4 to 8 dwellings/acre)	0.4
Low Density Residential (<4 dwellings/acre)	0.3
Open Space and Recreational Areas	0.2

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average. For example, if 60% of the contributing drainage area to the storm water treatment structure is Low Density Residential, 30% is High Density Residential, and 10% is Open Space, the runoff coefficient is calculated as follows $(0.6)(0.3) + (0.3)(0.5) + (0.1)(0.2) = 0.35$.

An additional volume equal to 20 percent of the WQ_v shall be incorporated into the BMP for sediment storage. Ohio EPA recommends that BMPs be designed according to the methodology included in the most current edition of the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA.

The BMPs listed in Table 2 below shall be considered standard BMPs approved for general use. However communities with a regulated MS4 may limit the use of some of these BMPs. BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage for successive rainfall events and avoid the creation of nuisance conditions. The outlet structure for the post-construction BMP shall not discharge more than the first half of the WQ_v or extended detention volume (ED_v) in less than one-third of the drain time. The ED_v is the volume of storm water runoff that must be detained by a structural post-construction BMP. The ED_v is equal to 75 percent of the WQ_v for wet extended detention basins, but is equal to the WQ_v for all other BMPs listed in Table 2.

Table 2
Structural Post-Construction BMPs & Associated
Drain (Drawdown) Times

Best Management Practice	Drain Time of WQv
Infiltration Basin or Trench ¹	48 hours
Permeable Pavement – Infiltration ¹	48 hours
Permeable Pavement – Extended Detention	24 hours
Dry Extended Detention Basin ²	48 hours
Wet Extended Detention Basin ³	24 hours
Constructed Wetland (above permanent pool) ⁴	24 hours
Sand & Other Media Filtration ⁵	24 hours
Bioretention Area/Cell ^{5,6}	24 hours
Pocket Wetland ⁷	24 hours

¹ Practices that are designed to fully infiltrate the WQv (basin, trench, permeable pavement) shall empty within 48 hours to provide storage for the subsequent storm events.

² Dry basins must include forebay and micropool each sized at 10% of the WQv.

³ Provide both a permanent pool and an EDv above the permanent pool, each sized at 0.75 WQv.

⁴ Extended detention shall be provided for the WQv above the permanent water pool.

⁵ The surface ponding area (WQv) shall completely empty within 24 hours so that there is no standing water. Shorter drawdown times are acceptable as long as design criteria in Ohio's Rainwater and Land Development manual have been met.

⁶ This would include Grassed Linear Bioretention which was previously called Enhanced Water Quality Swale.

⁷ Pocket wetlands must have a wet pool equal to the WQv, with 25% of the WQv in a pool and 75% in marshes. The EDv above the permanent pool must be equal to the WQv.

The permittee may request approval from Ohio EPA to use alternative structural post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. Construction activities shall be exempt from this condition if it can be demonstrated that the WQv is provided within an existing structural post-construction BMP that is part of a larger common plan of development or if structural post-construction BMPs are addressed in a regional or local storm water management plan. A municipally operated regional storm water BMP can be used as a post-construction BMP provided that the BMP can detain the WQv from its entire drainage area and release it over a 24 hour period.

According to the permit you filed with the Ohio EPA, your site is 8 acres. This exceeds the threshold for installing post construction BMPs. Please install adequate post construction BMPs for your site as outlined above.

Sediment and erosion controls for your site must meet the guidelines and design criteria set forth in the above mentioned Rainwater and Land Development manual. A copy of this manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil and Water Conservation, at (614) 265-6610.

Violators of ORC 6111 may be fined up to \$10,000 per day of violation. In addition, federal law allows for third party lawsuits for failure to comply with your NPDES permit.

Within fourteen (14) days of receipt of this letter, please submit to me at this office a written notification as to actions taken or proposed to eliminate violations of the permit. Your response should include the dates, either actual or proposed, for the completion of the actions. If you have any questions, please contact Aaron Wolfe at (740) 380-5277 or myself at (740) 380-5447.

Sincerely,



Clinton Kuenzli
Storm Water Section
Division of Surface Water

CDK/dh

Date & Time: Tue Jul 2 09:56:59 EDT 2013

Position: +040.0687° / -081.0463°

Altitude: 1178ft

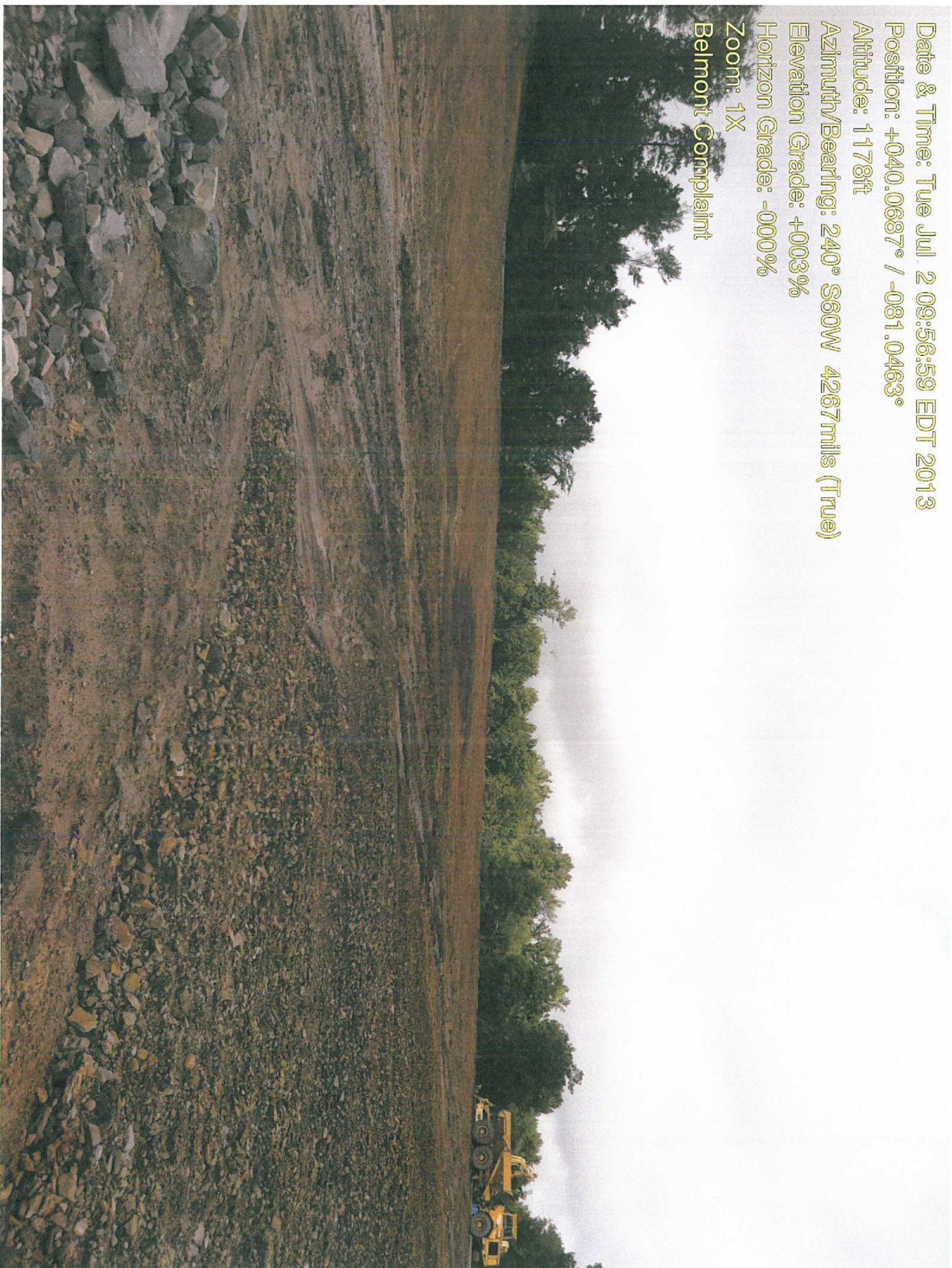
Azimuth/Bearing: 240° S60W 4267mils (True)

Elevation Grade: +003%

Horizon Grade: -000%

Zoom: 1X

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Date & Time: Tue Jul 2 09:59:39 EDT 2013

Position: +040.0685° / -081.0459°

Altitude: 1125ft

Azimuth/Bearing: 287° N73W 5102mils (True)

Elevation Grade: -007%

Horizon Grade: +001%

Zoom: 1X

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Date & Time: Tue Jul 2 10:09:28 EDT 2013

Position: +040.067° / -081.0483°

Altitude: 1289ft

Azimuth/Bearing: 356° N04W 6329mils (True)

Elevation Grade: -014%

Horizon Grade: +004%

Zoom: 1X

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Date & Time: Tue Jul 2 10:15:15 EDT 2013

Position: +040.0679° / -081.0488°

Altitude: 1112ft

Azimuth/Bearing: 229° S49W 4071mils (True)

Elevation Grade: -049%

Horizon Grade: +0000%

Zoom: 1X

Belmont Complaint

