



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
CADILLAC DISTRICT OFFICE



DAN WYANT  
DIRECTOR

May 28, 2015

VIA E-MAIL

Mr. J.R. Anderson  
Village at Grand Traverse, LLC  
3805 Edwards Road, Suite 700  
Cincinnati, Ohio 45209

Dear Mr. Anderson:

SUBJECT: Sampling Plan Required by Administrative Consent Order 000265  
Designated Name: Gr Traverse Town Center-Acme

On April 30, 2015, staff of the Department of Environmental Quality (DEQ), Water Resources Division (WRD), received a copy of your proposed sampling plan (Plan). The Plan was required to be submitted in accordance with paragraph 3.7 within 14 days of the execution of the Administrative Consent Order (ACO). Although the deadline was met for submittal of the Plan, an in-depth review by DEQ staff found that there are still some areas that need to be addressed and updated. The comments listed in this letter are organized according to the sections they pertain to in the Plan. The final version of the revised Plan should be sent to me at [jankowskib@michigan.gov](mailto:jankowskib@michigan.gov) or by mail to the Cadillac District Office no later than June 15, 2015.

**Introductory Section of the Plan**

1. In the introduction of the Plan, it is stated that sampling procedures are to be conducted when storm water is discharged from the detention basins on the property. This should be changed to include stream monitoring any time there is a discharge from the property due to a storm event, not just when the basins are discharging.

**Discharge Limits/Compliance Points Section of the Plan**

1. The location of the exact Sampling Locations (1, 2, and 3) on the property should be marked in some way both on-site (e.g., a stake) and in the Plan. This ensures consistency when sample collection is conducted.
2. The Plan should include where in the water column the sample will be taken; this will help to ensure the sample is conducted in a specific and consistent location. The DEQ understands that the slow release channels may not be very deep. You should, however, consider water column depth at Sampling Location 3 when sampling for instream monitoring (i.e., bottom, middle, or top of the water column).
3. The last sentence of this section should remain consistent with the ACO, and the phrase "*existing swale outlets/channels*" should read "*existing slow release channel outlets*".

### **Sampling Methods Section of the Plan**

1. The Plan should state, or have an area, that specifies what meter mode is going to be used to read the samples (e.g., signal average).
2. The Plan should also break down the step by step process on how the samples are collected at each Sample Location (i.e., fill the sample tube, empty, fill, empty, fill, and cap). The Plan should also break down the step by step process of how split samples with the DEQ will be performed.. To ensure sampling consistency with the DEQ, a description is provided below of how the DEQ and a representative for the Grand Traverse Town Center (GTTC) split samples on April 27 2015. Please consider this when modifying the Plan.

*The DEQ collected a sample at the designated spot for Location #3, facing up stream, using a plastic sampling bottle pre-labeled for the specific sampling location (i.e., 1, 2, or 3). We filled the bottle, emptied the bottle, filled the bottle, emptied the bottle, then filled the bottle again, and capped it. We then returned to the on-site Team Elmer's Construction trailer. Once we got our machines set up on the bench, we inverted the plastic sample bottle several times without adding air bubbles to mix the sample. We then each filled our sample tubes to run the samples from the plastic sample bottle. Prior to running the samples, we both inverted our sample tubes to ensure proper mixing without adding air bubbles, and placed them in the turbidity meter. After sampling was conducted, and the results were recorded, we offered to split the remaining part of the sample that was in the plastic sampling bottle with GTTC but due to the results being consistent and very low, your representative said sample preservation was not necessary. We agreed and disposed of the remaining portion of the sample on the ground.*

### **Sampling Frequency Section of the Plan**

The description of the sampling frequency does not accurately reflect the requirements established under the ACO. There are four paragraphs for this section and the corresponding comments are detailed below for each paragraph.

#### **1. First Paragraph:**

Under paragraph 3.5 of the ACO, if either of the two basins on the property is discharging, VGT is required take daily water samples. The language under paragraph 3.5 states that: "The individual samples used to calculate the daily maximum shall be representative of the discharges occurring on each calendar day from the basins."

Under the first paragraph, it is indicated that "one or more grab samples of the storm water discharge will be collected..." It was expected that a defined number of samples would have been provided as part of the sampling frequency. Please provide justification how it was determined that one or more samples will be representative of the discharges occurring for each calendar day for each basin and still meet the requirements of the ACO.

Under paragraph 3.6 of the ACO it states, in part: "When there is discharge from the basin(s) or during a rain event that results in storm water discharging from the Property, the VGT shall conduct daily in-stream sampling within Acme Creek at least 100 feet from Sample Location 2, but no farther than the western boundary of the Property as detailed on the map in Attachment B (Sample Location 3). At Sample Location 3, the daily maximum limit is 50 NTU. The individual samples used to calculate the daily maximum shall be

representative of the turbidity level in Acme Creek at Sample Location 3. The daily maximum limit is only valid from the effective date of this Consent Order to September 1, 2015.”

Under the first paragraph, it indicates that in-stream sampling will occur only when the basins are discharging. The Plan is required to provide details on in-stream sampling to be conducted if there is a discharge of storm water from the property other than from the basins. Additionally, the Plan proposes to take one or more daily in-stream samples from Acme Creek. As stated, it was expected that a defined number of samples would have been provided as part of the sampling frequency. The ACO requires that the individual samples used to calculate the daily maximum shall be representative of the turbidity level in Acme Creek. Please provide justification on how it was determined that one or more samples will be representative of the turbidity level in Acme Creek and still meets the requirements of the ACO.

The following sentence needs to be added at the end of the first paragraph to reflect the requirements of the ACO: *“The daily maximum will be calculated as the sum of the concentrations reported for the individual samples divided by the number of samples collected in a calendar day.”*

## 2. Second Paragraph:

The sampling frequency does not break down how the discharges are going to be monitored during a forecasted 2 year, 5 year, 10 year, and 25 year/24 hour rain event. The Plan should break down how the samples will be taken for each size storm event. It should also be taken into account when sampling for each size storm event with regards to the peak rate of discharge from the basins. For example, taking several samples spaced closer together during the period leading up to the peak discharge, and then a couple samples following the peak discharge spaced farther apart showing the falling turbidity level. Those samples would then be used to calculate a daily maximum.

## 3. Third Paragraph:

The last sentence of the second page under the sampling frequency section “as soon as possible (generally within 1 hour)” should be removed and replaced with “generally within 30 minutes” to be consistent with the ACO.

## Reporting Section

1. The description of when the storm water inspections were to be conducted in the first paragraph does not reflect what is required to be conducted under paragraph 3.12 of the ACO. Paragraph 3.12 states that: “The VGT shall have the Property inspected by a certified storm water operator for all disturbed areas and storm water discharge points every day that the VGT is actively conducting an earth change on the Property and during all rain events until the Part 31 and Part 91 permits are terminated. If VGT is not actively conducting an earth change activity on the Property and there are no rain events, then VGT shall inspect the site at least once per week. Each inspection shall be documented on a storm water log by the certified storm water operator and maintained on file at the Property by the VGT.” The language in the Plan needs to be modified to include the language found under

paragraph 3.12 of the ACO, or this section needs to state that all the property inspections and documentation shall be conducted in accordance with the requirements of the ACO.

2. Inspection sampling logs/results and inspection logs should be sent electronically per the ACO to my attention.

The DEQ anticipates your cooperation in correcting the items listed in this letter regarding the Plan. Should you have any questions or require further information, please feel free to contact me at the email listed in this letter or at the phone number listed below. You may also contact Mr. Justin Bragg at [braggj@michigan.gov](mailto:braggj@michigan.gov) or 989-705-3438.

Sincerely,



Brian Jankowski, P.E.  
District Supervisor  
Cadillac District Office  
Water Resources Division  
231-429-0982

cc/via e-mail: Mr. Jay Zollinger, Acme Township  
Mr. Allen Reilly, Horizon Environmental  
Mr. Steve Schooler, Anderson Real Estate  
Mr. Steve Folkersma, Team Elmer's  
Mr. Joseph Haas, DEQ  
Mr. Justin Bragg, DEQ  
Ms. Karen Boase, DEQ