Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

September 18, 2012

RE: CUYAHOGA COUNTY
CITY OF STRONGSVILLE
MUNICIPAL STORM WATER
STRONGSVILLE POLICE STATION
NPDES PERMIT # 3GC04110

Ken Mikula, Engineer
City of Strongsville
16099 Foltz Parkway
Strongsville, OH 44149

Dear Mr. Mikula:

On September 11, 2012, I met with you and Lori Daily at the Strongsville Police Station to discuss options for correcting the violation cited during the audit of your municipal storm water program regarding failure to implement post-construction best management practices (post-construction BMPs) at that site. The Ohio EPA General Storm Water National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities #OHC000003 requires post-construction BMPs to be implemented on any site where the larger common plan of development or sale disturbs one or more acre of land. Our records indicate that construction activities associated with the redevelopment of the Strongsville Police Station was covered under this general NPDES permit (facility #3GC04110*AG). In addition, the Ohio EPA General Storm Water NPDES Permit for Small Municipal Separate Storm Sewer Systems (MS4s) #OHQ000002 requires the local post-construction program to be at least as stringent as the requirements contained in NPDES permit #OHC000003. Thus, the City of Strongsville was cited for failing to meet this requirement.

As this was a redevelopment project, the City of Strongsville is required to either (a) treat 20% of the Water Quality Volume (WQv) associated with the project, (b) reduce impervious area by 20% or (c) do a combination of these options so that they total to 20%. Upon review of the site, there has been no reduction in impervious area over pre-project site conditions. We discussed the implementation of permeable pavement in parking stalls as a means to reduce impervious area. NPDES permit #OHC000003 provides a 1:1 credit for permeable pavement toward impervious area reduction. The NPDES permit indicates the project disturbed 2.63 acres. Thus, to fully meet the post-construction requirements using this option, a minimum of 0.53 acres of parking area would have to be converted to permeable pavement.

We further discussed the use of bioretention to treat parking lot areas. After review of current site conditions, it appears that this may be a feasible option for the overflow parking area in the NW corner of the site. The parking lot is currently sloped to a landscape mound. Conversion of the mound to a bioretention cell should be a straight-forward process. Bioretention may also be an option in the SE corner of the site, but it would require more extensive reconstruction of the

parking lot in that area. Other standard post-construction BMPs that can be considered include sand filters. These provide an underground option, but you will need to further investigate elevations to determine if you have sufficient fall between storm water inlet and outlet to make this a feasible option here. As this is a small construction site, the City may also consider the use of proprietary BMPs; however, Ohio EPA only recommends the use of BMPs that have been tested using the Technology Acceptance Reciprocity Partnership's (TARP) Protocol for Stormwater BMP Demonstrations and achieve an 80% TSS reduction. A good source of information regarding the performance of proprietary BMPs in relation to TARP testing can be found at the University of Massachusetts Amherst Stormwater Technologies Clearinghouse at http://www.mastep.net/index.cfm.

Finally, we discussed off-site mitigation if no on-site solutions are feasible. The NPDES permit requires the City to provide justification as to why off-site mitigation is the only feasible option and limits the location of off-site mitigation projects to sites within the same HUC-14 watershed unit. The mitigation ratio is 1.5:1 of the WQv not treated on site, **or** the WQv at the point of retrofit, whichever is greater. If only a portion of the required WQv can be treated on site, that amount should be subtracted from the WQv for the Strongsville Police Department site before applying the 1.5:1 ratio to determine how much must be mitigated off-site.

Design specifications for bioretention, sand filters, permeable pavement and other standard post-construction BMPs can be found in ***Rainwater and Land Development***, *Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection* (Ohio Department of Natural Resources, 2006) at http://www.dnr.state.oh.us/tabid/9186/Default.aspx.

At the conclusion of the meeting, the City agreed to submit a detail plan for corrective action **by October 31, 2012**, along with a proposed schedule of construction. It is understood that due to timing, actual construction of BMPs may not occur until Spring 2013.

I look forward to receiving the plan of corrective action by the agreed upon date. If you have any questions, please feel free to contact me at (330) 963-1145.

Sincerely,

Dan Bogoevski

Dan Bogoevski
District Engineer
Division of Surface Water

DB/cs

cc: Anthony Biondillo, Building Commissioner, City of Strongsville
Thomas Perciak, Mayor, City of Strongsville

ec: Jason Fyffe, Ohio EPA, DSW, CO