



**Environmental
Protection Agency**

John E. Kasich, **Governor**
Mary Taylor, **Lt. Governor**
Scott L. Nally, **Director**

August 24, 2012

Greg J. Davies, Director
Department of Public Utilities
City of Columbus
910 Dublin Road
Columbus, Ohio 43215

Re: WWMP Amendments

Dear Director Davies:

We have received and considered your letter of August 8, 2012, regarding Columbus desire to incorporate Green Infrastructure practices into Columbus' Wet Weather Management Plan, approved January 26, 2009. Green Infrastructure is an approach that has many benefits, as well as a suite of implementation challenges that come as a part of the approach. We have carefully considered your proposal, and based on discussion between our respective staffs on August 10, 2012, we have agreed with the approach described below.

Phase A of the Alum Creek Relief Tunnel (Art A), listed as item 2 on your proposed project delay list, is a Large Scale System Strategy (LSSS). A proposed delay in the implementation of a LSSS would require formal modification of the Wet Weather Management Plan, including a public participation process. Your staff has agreed to provide me with a report by October 31, 2012, which would justify and support such an action if deemed necessary by the City.

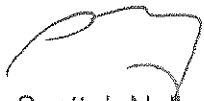
The existing Wet Weather Management Plan, however, also describes processes for identifying solutions to Priority Areas. These smaller scale solutions may be ideal for the use of Green Infrastructure. Given that you may need additional time to comprehensively study the potential of Green Infrastructure in the listed Priority Areas, it would seem that delaying the other mentioned projects might yield real benefits. I interpret the delay necessary to plan for increased use of Green Infrastructure in the Priority Areas to be consistent with the implementation of the existing, approved, Wet Weather Management Plan. The City of Columbus will provide an integrated Wet Weather Management Plan proposal by September 15, 2015 that is consistent with your August 8, 2012 proposal, with the exception of Item 2 (Art A) and the items mentioned below. The September 15 submittal shall also include the affordability analysis and the schedule Columbus would otherwise be required to submit by January 1, 2015, per the existing approved Wet Weather Management Plan.

Greg J. Davies, Director
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In response to concerns raised by my staff regarding the high potential for public exposure and many complaints arising from the Sanitary Sewer Overflows in the Park of Roses and Clintonville, your staff agreed to substitute these areas for the Miller/Kelton Priority Area for a pilot project for Green Infrastructure Implementation. This will result in a more aggressive approach in these areas to reduce the SSOs, which will reduce public exposure as well as complaints.

If you have any questions, please feel free to contact George Elmaraghy, Chief, Division of Surface Water at 614-644-2041.

Sincerely,



Scott J. Nally, Director
Ohio Environmental Protection Agency

c: George Elmaraghy, Chief, DSW
Isaac Robinson, Chief, CDO
Paul Novak, DSW
Mike Gallaway, DSW-CDO
Dax Blake, City of Columbus
Susan Ashbrook, City of Columbus

Greg J. Davies
Director

THE CITY OF
COLUMBUS
MICHAEL B. COLEMAN, MAYOR
DEPARTMENT OF
PUBLIC UTILITIES

August 8, 2012

Mr. Scott J. Nally
Director
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, OH 43216-1049

Dear Director Nally:

The City of Columbus met with your staff in early July to discuss a proposal that we are very excited about. We believe it has the potential to put Columbus and Ohio on the cutting edge of how to sensibly address the tough issues of eliminating sewer overflows and improving water quality. The purpose of this letter is to request Ohio EPA's approval of the City's proposed plan. As set forth below, the City is not proposing any delay in compliance with its Consent Orders. Instead, the City is proposing to take a fresh approach to the Consent Orders, and to spend the capital dollars above ground, transforming neighborhoods and creating permanent local jobs, instead of investing solely in little-used tunnels. Our proposal is consistent with USEPA guidance on Integrated Planning and it should result in **greater water quality benefits** than the current gray infrastructure CSO/SSO plan by incorporating both stormwater and sewer overflows.

Background

The City of Columbus entered into Consent Orders with Ohio EPA in 2002 (SSOs) and 2004 (CSOs). Pursuant to those orders, the City submitted a Wet Weather Management Plan to Ohio EPA on July 1, 2005. That plan was conditionally approved by Ohio EPA in January 2009.

The City has spent over a billion dollars to date in implementing the WWMP. The City has expanded its two wastewater treatment plants so that they can each treat 50% more wet weather flows. This work was done on time, by July 1, 2010, and has resulted in a dramatic decrease in wet weather overflows and bypasses.

In addition, the City has started construction on a CSO tunnel that will virtually eliminate CSOs in the downtown area. The original WWMP called for a near-surface tunnel and partial treatment for CSOs to an agreed level of service (four overflows per year). That work was supposed to be completed in 2025. Instead, the City is building a deep tunnel that will virtually eliminate CSOs downtown and will have the City meeting its level of service for downtown CSOs in 2015. In other words, the City will have virtually resolved its CSO issues in just ten years, and ten years ahead of schedule.



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Power and Water | Administration | 910 Dublin Road | Columbus, OH 43215 | T(614)645-7020 | F(614)645-3993
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columbus.gov

The work that remains to be done under the current WWMP is directed at eliminating SSOs and basement backups. Unfortunately, this work has a number of disadvantages. It is very expensive (estimated as an additional \$2.5 B) and will remove far less volume of overflows compared to the current CSO tunnel. Most of the money will be spent on two large tunnels that will only be put in service an average of 5 or 6 times per year.

Another significant disadvantage to the current WWMP is that it does not include any green infrastructure. Columbus entered into consent orders with Ohio EPA earlier than most other cities in Ohio and elsewhere. At the time the WWMP was being developed, the advantages of green infrastructure and how it might help resolve wet weather issues was not well understood. As a result, Columbus is one of the few major cities that does not include green infrastructure in its plan. Columbus should not be penalized for its early cooperation with Ohio EPA.

The existing WWMP will also do very little to improve the discharges from the City's storm sewer system. Stormwater is one of the leading causes of water quality impairment in central Ohio.

Recently, USEPA has recognized the importance of allowing cities to take into consideration all of the regulatory challenges of complying with the Clean Water Act, and prioritize work to achieve water quality goals more efficiently. In June, 2012, USEPA issued the "Integrated Municipal Stormwater and Wastewater Planning Approach Framework." According to this policy, cities are encouraged to integrate work needed to comply with stormwater regulations and sewer overflow elimination. The Integrated Plan Framework strongly encourages the use of green infrastructure to meet these challenges.

Columbus' Proposal

The City would like the opportunity to explore whether there is a better alternative than the current gray WWMP. Specifically, the City believes it is possible to create an Integrated Plan that has two major elements: removing stormwater from the sewers (commonly known as inflow/infiltration or I/I removal), and then routing that stormwater to green infrastructure for treatment prior to being released. The I/I removal would include removing I/I from private sources, such as homeowners' sewer laterals. The green infrastructure would include improvements in the public right-of-ways in our neighborhoods, such as porous pavement sidewalks, rain gardens, and trees. We also envision the removal of vacant housing and the creation of pocket parks as part of the plan. The plan may also need to include some gray solutions as well, such as tunnels or relief sewers but we are unable to properly design these features today without an examination of the full suite of options and how they integrate.

The potential benefits of this plan are enormous. First, there are environmental benefits. We believe it will significantly improve water quality compared to the gray WWMP. In addition, green infrastructure has been recognized as providing many ancillary benefits, such as air quality improvements, habitat, etc. It will also put Columbus ahead of stormwater regulations that are eminent.

Second, there are many other benefits to our community. The improvements we are envisioning may improve property values and help stabilize some of our most challenging neighborhoods. We also recognize that these improvements will require perpetual maintenance, which will in turn lead to permanent jobs.

To determine if this is feasible, the City needs to analyze a number of things. Specifically, the City needs to determine: is it practically and legally feasible to remove private I/I; can I/I removal coupled with green infrastructure provide quantifiable and reasonably certain elimination of SSOs and basement backups; and is it possible to gain acceptance of this plan from the public and our suburban partners. While this is an enormous undertaking, unparalleled in scope, we stand ready to dedicate the resources necessary to determine the answers to these questions.

Proposed Schedule

The current WWMP was submitted to Ohio EPA with a schedule that concludes in 2045. The January 2009 conditional approval letter requires the City to resubmit the schedule for the post-2025 projects in January 2015, and the revised schedule must be shorter than the current schedule. The City is also required to resubmit its affordability analysis in January 2015 to support its proposed revised schedule.

The City is asking Ohio EPA for approval to do the following:

- Submit an Integrated Plan that will replace the WWMP on September 1, 2015
- Also on September 1, 2015, submit a revised schedule for the gray WWMP as required by the January 2009 approval letter. This would include a schedule for finishing the gray WWMP more quickly than the current schedule. If the Integrated Plan is not acceptable to Ohio EPA, the City can finish the current gray WWMP no later than is currently scheduled. In other words, no time will be lost as a result of the City's Integrated Planning effort.
- Submit the affordability analysis required by the January 2009 approval letter on September 1, 2015.
- Delay the projects listed in Attachment A until the Integrated Plan is approved or denied.

The Integrated Plan that the City will submit on September 1, 2015 will:

- Comply with USEPA's Integrated Planning Framework, and its recently issued "General Accountability Considerations for Green Infrastructure."
- Include modeling demonstrating that the Integrated Plan fully complies with the Consent Orders
- Compare water quality advantages of Integrated Plan to the gray WWMP.
- Include proposed schedules and milestones. The schedule will be as expeditious as practical, and will be no longer than the current proposed schedule.
- Set forth legal authority to accomplish private I/I removal.
- Include public input in plan development and a plan for future public involvement in implementation.
- Include results of suburban outreach.

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The City is also prepared to undertake the following projects simultaneously with developing its Integrated Plan:

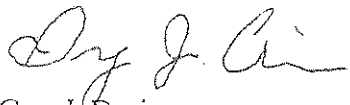
- Third Avenue Green Infrastructure for CSO and SSO areas
- Real Time Control of the Sewer Collection System
- Public Outreach
- Repurpose vacant lots in Barthman/Parsons area
- Priority Area Roof Control and Sewer Lining in Miller/Kelton area
- DSR 83 weir raise

The City requests a prompt response to its proposal for two reasons. First, we cannot meet the deadlines we are proposing unless we begin the work soon. We are ready to begin immediately, but need approval first. Second, some of the projects on Attachment A are scheduled to begin this year. If Ohio EPA does not authorize the City's Integrated Planning approach, we need to know as soon as possible so we can recommence the gray WWMP.

We are therefore requesting a response by September 10, 2012.

The City is very excited about the opportunity to be one of the leading examples of Integrated Planning. We look forward to answering any questions you have.

Sincerely,



Greg J. Davies
Director

GJD:sls

Attachment A

Near Term WWMP Projects (from the OEPA Schedule)

Proposed Delay in Schedule

1. ORT Preliminary Engineering (2015-2017)
2. ART Phase A Construction and Construction Management (2014-2019)
3. Markison Avenue Sewershed: Increased OSIS Capture Engineering (2015-2015)
4. King Avenue Sewershed: Local Storage Tank Engineering (2012-2015)
5. Indianola Avenue Sewershed: Connector Sewer, Local Storage Tank Engineering (2013-2016)
6. Frambes Avenue Sewershed: Local Storage Tank Engineering (2014-2017)
7. Alum Creek Sewershed: Storm Sewer Redirection Engineering (2015-2018)
8. Northwest Alum Creek Priority Area: System Optimization Engineering and Construction (2013-2014)
9. Northwest Alum Creek Priority Area: Suwanee/Railroad Relief Sewer Engineering & Easements (2014-2016)
10. Miller Kelton Priority Area: Gault Street Relief Sewer Engineering, Easements and Construction (2012-2016)
11. Barthman/Parsons Priority Area: Hinman Avenue Relief Sewer Engineering and Easements (2013-2015)
12. West Fifth Avenue Priority Area: King Avenue Relief Sewer Engineering, Easements and Construction (2013-2016)
13. West Fifth Avenue Priority Area: Third Avenue Relief Sewer Engineering and Easements (2014-2017)
14. Clintonville Priority Area: Whetstone Relief Sewer Engineering, Easements and Construction (2012-2017)
15. Clintonville Priority Area: Park of Roses Treatment Engineering, Easements and Construction (2012-2017)
16. DSR 250 Mitigation Activities: Engineering and Construction (2012-2014)

Proposed Schedule Maintained

1. Northwest Alum Creek Priority Area: Study (2008-2012)
2. Northwest Alum Creek Priority Area: Removal of DSR 317 (2013)

3. Northwest Alum Creek Priority Area: Raise DSR Weir Elevations Engineering and Construction (2013-2014)
4. Sullivant Avenue Priority Area: SSES Study (2010-2012)
5. Sullivant Avenue Priority Area: Physical Removal of DSR 96 (pending SSES Study) (2013-2014)
6. Early Ditch Priority Area: CIPP Lining Improvement Phase I Engineering and Easements (2013-2015)
7. Early Ditch Priority Area: CIPP Lining Improvement Phase II Engineering and Easements (2015-2017)
8. Miller Kelton Priority Area: Raise DSR 189 Invert Elevation (2012-2012)
9. Barthman/Parsons Priority Area: Weir Modifications to DSRs 205 and 208 (2012-2012)
10. Clintonville Priority Area: DSR 337 Mitigation (Richards Road Relief Sewer) Engineering, Easements and Construction (2010-2014)
11. OARS Phase I: Construction and CM (2010-2015)
12. OARS Phase II: Construction and CM (2011-2015)
13. Noble and Grant Sewershed: Inflow Redirection Construction and CM (2012-2014)
14. Town and 4th Sewershed: Inflow Redirection Construction and CM (2012-2014)
15. Cherry and 4th Sewershed: Inflow Redirection Construction and CM (2012-2014)
16. Mound e/o I-71 Sewershed: Inflow Redirection Construction and CM (2012-2014)
17. First Avenue Sewershed: Inflow Redirection Construction and CM (2012-2014)
18. Third Avenue Sewershed: Local Storage Tank Engineering and Construction (2011-2016) *
19. Moler Street Overflow Intercepting Sewer: Engineering (2015-2020)

Deleted Projects:

Plum Ridge Priority Area Removal of Driveway Drains Construction (2013-2014) **
 Whittier Street Sewershed: Near Surface Conduit to OSIS Engineering and Construction (2010-2015)***

NOTES:

* The Third Avenue Sewershed Local Storage Tank project has been modified as the tank is no longer needed. Project is proceeding forward under new methodology.

** The Plum Ridge Priority Area Removal of Driveway Drains has been determined to be ineffective.

***Project negated by the deep tunnel option of the OARS project