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COUNTY OF ERIE

MARK C. POLONCARZ
COUNTY EXECUTIVE

October 22, 2012

Erie County Legislature
92 Franklin Street – Fourth Floor
Buffalo, New York 14202

RE: Erie County Sewer District Nos. 3 and 6
Revised State Pollutant Discharge Elimination System (SPDES) Permits

Dear Honorable Members:

Enclosed please find a memorandum from the Department of Environment and Planning pertaining to the revised SPDES permits for the Blasdell Wastewater Treatment Plant (WWTP), Lackawanna WWTP, and Southtowns Advanced Wastewater Treatment Facility.

Should your honorable body require further information, I encourage you to contact Joseph L. Fiegl, P.E, in the Department of Environment and Planning/Division of Sewerage Management. Thank you for your consideration on this matter.

Sincerely,

Mark Poloncarz, Esq.
Erie County Executive

MP/JF/ms

cc: Joe Fiegl, Deputy Commissioner, DEP
Maria Whyte, Commissioner, DEP

MEMORANDUM

To: Honorable Members of the Erie County Legislature
From: Department of Environment and Planning
Re: Erie County Sewer District Nos. 3 and 6
Revised State Pollutant Discharge Elimination System (SPDES) Permits
Date: October 4, 2012

SUMMARY

Your Honorable Body is requested to receive and file the following correspondences pertaining to the newly revised SPDES permits for the Blasdell Wastewater Treatment Plant (WWTP), Lackawanna WWTP, and Southtowns Advanced Wastewater Treatment Facility (AWTF).

FISCAL IMPLICATIONS

None at this time. The enclosed memorandums detail the potential future fiscal impacts that the revised SPDES permit requirements will have on the ratepayers of Erie County Sewer District Nos. 3 and 6.

REASONS FOR RECOMMENDATION

After approximately five (5) years of discussions during this most recent round of negotiations, the Erie County Division of Sewerage Management and the New York State Department of Environmental Conservation (NYSDEC) have come to terms on new SPDES permits for the Southtowns AWTF and Blasdell WWTP in Erie County Sewer District No. 3, as well as the SPDES permit for the Lackawanna WWTP in Erie County Sewer District No. 6. The effective date of these revised/modified SPDES permits will be November 1, 2012.

BACKGROUND INFORMATION

Publicly owned treatment works in New York State have discharge permits administered by the NYSDEC. These SPDES permits are effective for a period of five (5) years, after which typically the permit is either administratively renewed or modified. The NYSDEC commenced the permit modification process for the Blasdell WWTP, Lackawanna WWTP, and Southtowns AWTF several years ago, with the SPDES documents recently finalized.

CONSEQUENCES OF NEGATIVE ACTION

None. This is a receive and file request.

STEPS FOLLOWING APPROVAL

None. This is a receive and file request.

Encl.
Cc: Erie County Budget Office
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Maria Whyte
Commissioner 10/9/12

Encl.
Cc: Erie County Budget Office
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MARK C. POLONCARZ
COUNTY EXECUTIVE

MARIA R. WHYTE
COMMISSIONER

JOSEPH L. FIEGL, P.E.
DEPUTY COMMISSIONER

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT
** MEMORANDUM **

FROM: Joseph L. Fiegl, P.E. – Deputy Commissioner JLF

TO: Erie County Sewer District (ECSD) No. 3 Board of Managers

DATE: September 25, 2012

RE: Revised State Pollutant Discharge Elimination System (SPDES) Permits Southtowns Advanced Wastewater Treatment Facility (AWTF) and Blasdell Wastewater Treatment Plant (WWTP)

After approximately five (5) years of discussions during this most recent round of negotiations, the Erie County Division of Sewerage Management and the New York State Department of Environmental Conservation (NYSDEC) have come to terms on new SPDES permits for the Southtowns AWTF and Blasdell WWTP. In addition to the existing permit parameters, several new requirements have been added. The following is a high level summary of the newest permits and the related impacts:

Southtowns AWTF

- Installation of a new sampling point on the pipe leading to the Southtowns AWTF and ORF outfall within 12-months. The cost associated with this installation should be minor in comparison to other work that will be necessary.
- Chlorine residual: more stringent limitations on both the main outfall and overflow retention facility (ORF) have been incorporated. Initially, the current chlorine residual limitation will be in place, with the final limitation subject to completion of a study with an enforceable implementation schedule. The SPDES permit "Schedule of Compliance" requires the study to be completed within two (2) years. A consultant will be retained to complete this analysis and the associated work. It is anticipated that dechlorination on the ORF will be feasible, which will be an improvement included in the Rush Creek Interceptor project. For the main outfall, another method such as using ultraviolet (UV) disinfection units will be necessary. Those upgrades have been estimated to be over $7,000,000. There will be other disinfection methods considered.
- Ammonia: a new daily maximum limitation has been placed on the main outfall. Due to the uncertainty associated with this limit, the SPDES permit "Schedule of Compliance" includes an ammonia study to be completed within two (2) years. It is unknown at this time if any upgrades will be necessary to address this new limit. A consultant will be retained to complete this analysis and the associated work.
- Cyanide and Phenolics: sampling and testing of cyanide and phenolics. Per the "Schedule of Compliance," once 12-months of data have been collected a study should be commenced and completed within one (1) years time. It is important to note that the cost to complete this type of sampling and testing has increased over the last few years due to the limited number of regulator approved contract laboratories having the equipment necessary to perform this work. Typically, if the tests indicate elevated concentrations, source track down is completed. A consultant may be retained to complete this analysis and the associated work, if the sampling data indicates it is necessary.
- Documentation of ECSD No. 3's Collection System Program (already completed).

- Development of an Infiltration/Inflow and Sewer System Evaluation Survey work plan within four (4) months. This will likely be completed with in-house staff. There will also be an ongoing program in the collection system to address various items listed in the SPDES permits for infiltration/inflow and peak wet weather flows. Substantial investment in the collection system will be necessary. ECSD No. 3 already has some programs in place to address this, such as the annual cured-in-place pipe lining budget item; more will be required.
- Update of the Southtowns AWTF "Wet Weather Operating Plan" within six (6) months. This will likely be completed with in-house staff.
- Drafting of a "Facility Report" detailing the capacity needs of the Southtowns AWTF within four (4) months. This will likely be completed with in-house staff using existing documentation.
- Completion of a "No Feasible Alternative Analysis" for the ORF within 54-months. A consultant will be retained to complete this analysis and the associated work.
- Reporting on the methodology to address the emergency bypass between the influent and effluent wet wells within six (6) months. This will likely be completed with in-house staff using existing documentation. The improvements are to be implemented as part of the Rush Creek Interceptor project.
- Numerous additional sampling requirements for various parameters, including E. Coli during July and August and short-term high-intensity mercury and PCB sampling in the first 12-months. This will require additional staff time, equipment, and outside laboratory testing services. Similar to cyanide and phenolics, the cost to complete this has increased over the last few years due to the limited number of regulator approved contract laboratories having the equipment necessary to perform the testing.

There are several unknowns at this time – with the required studies to provide additional information. For certain, a change will be necessary to address the chlorine residual limits at an estimated cost of over $7,000,000 (with other less expensive options to be evaluated). The following are the less defined costs:

- Ammonia treatment
- Collection system work: several million dollars; would have been necessary regardless of the permit.
- Potential capacity upgrade of Southtowns AWTF (new UNOX reactor, clarifier upgrades): could be upwards of $30,000,000.
- Potential high rate biological treatment for the ORF: unknown at this time, but would be tens of millions of dollars.
- Operation, laboratory, maintenance, and reporting expenses: too early to quantify.

In addition, there are unknowns associated with a non-SPDES permit regulatory item: the Southtowns AWTF incinerators. Coordination with the NYSDEC will be required for this item as well, with minimum capital investment of $2,000,000 expected. ECSD No. 3 will also have the typical replacement of aging equipment/facilities and the associated costs.

<u>Blasdell WWTP</u>

- Chlorine residual: a more stringent limitation on the main outfall has been incorporated. Initially, the current chlorine residual limitation will be in place, with the final limitation subject to completion of a study with an enforceable implementation schedule. The SPDES permit "Schedule of Compliance" requires the study to be completed within two (2) years. The Rush Creek Interceptor project will address this issue (study already completed).
- Emergency bypasses at Blasdell Pumping Station and Labelle Pumping Station: to address the permitted sanitary sewer overflows at these locations. The SPDES permit "Schedule of Compliance" requires the study to be completed within 18-months. The Rush Creek Interceptor project will address this issue (study already completed).

- Numerous additional sampling requirements for various parameters, including E. Coli during July and August and short-term high-intensity mercury sampling in the first 12-months. This will require additional staff time, equipment, and outside laboratory testing services.

The Rush Creek Interceptor project will address all of these issues. The Rush Creek Interceptor project is estimated to be $12.5 million and has been awarded a $5 million grant through the NYSDEC to implement. Upgrades to the influent pumping and ORF at the Southtowns AWTF are included in this project.

Cc: Erie County Legislature
Erie County Budget Office
M. Whyte, Commissioner
G. Absolom/K. Kaminski
D. Millar/3.2.3.SPDES Sanitary
J. Carr/M. Salah/7.2.3.SPDES Sanitary

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MARK C. POLONCARZ
COUNTY EXECUTIVE

MARIA R. WHYTE
COMMISSIONER

JOSEPH L. FIEGL, P.E.
DEPUTY COMMISSIONER

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT
** MEMORANDUM **

FROM: Joseph L. Fiegl, P.E. – Deputy Commissioner JLF

TO: Erie County Sewer District (ECSD) No. 6 Board of Managers

DATE: October 1, 2012

RE: Revised State Pollutant Discharge Elimination System (SPDES) Permits
Lackawanna Wastewater Treatment Plant (WWTP)

After approximately five (5) years of discussions during this most recent round of negotiations, the Erie County Division of Sewerage Management and the New York State Department of Environmental Conservation (NYSDEC) have come to terms on a new SPDES permit for the Lackawanna WWTP. In addition to the existing permit parameters, several new requirements have been added. The following is a high level summary of the newest permit and the related impacts:

Lackawanna WWTP

- Installation of a new flow meter for the primary effluent bypass at the Lackawanna WWTP within 9-months. The cost associated with this installation should be minor in comparison to other work that will be necessary.
- Chlorine residual: more stringent limitations on both the main outfall and overflow retention facility (ORF) have been incorporated. Initially, the current chlorine residual limitation will be in place, with the final limitation subject to completion of a study with an enforceable implementation schedule. The SPDES permit "Schedule of Compliance" requires the study to be completed within two (2) years. A consultant will be retained to complete this analysis and the associated work. It is anticipated that initially dechlorination will be feasible, with minimal capital costs required.
- Ammonia: a new daily maximum limitation has been placed on the main outfall. Due to the uncertainty associated with this limit, the SPDES permit "Schedule of Compliance" includes an ammonia study to be completed within two (2) years. A consultant will be retained to complete this analysis and the associated work. There could be substantial costs associated with this requirement, with a preliminary analysis indicating that a new treatment process would be required at a cost of over $7,000,000.
- Phenolics: additional sampling and testing of phenolics. Per the "Schedule of Compliance," once 12-months of data have been collected a study should be commenced and completed within one (1) years time. It is important to note that the cost to complete this type of sampling and testing has increased over the last few years due to the limited number of regulator approved contract laboratories having the equipment necessary to perform this work. Typically, if the tests indicate elevated concentrations, source track down is completed. A consultant may be retained to complete this analysis and the associated work, if the sampling data indicates it is necessary.
- Documentation of ECSD No. 6's Collection System Program (already completed).
- Development of an Infiltration/Inflow and Sewer System Evaluation Survey work plan within four (4) months. This will likely be completed with in-house staff. There will also be an ongoing program in the collection system to address various items listed in the SPDES permits for infiltration/inflow and peak wet weather flows. Substantial investment in the

collection system will be necessary. ECSD No. 6 already has some programs in place to address this, such as the annual cured-in-place pipe lining budget item; more will be required.

- Update of the Lackawanna WWTP "Wet Weather Operating Plan" within one (1) year. This will likely be completed with in-house staff.
- Completion of a "No Feasible Alternative Analysis" and study for percent removals within 42-months. A consultant will be retained to complete these analyses and the associated work.
- Numerous additional sampling requirements for various parameters. This will require additional staff time, equipment, and outside laboratory testing services.

There are several unknowns at this time – with the required studies to provide additional information. For certain, a change will be necessary to address the chlorine residual limits, with at this time minimal capital costs expected. The following are the less defined costs:

- Ammonia treatment: potentially over $7,000,000
- Collection system work: several million dollars; would have been necessary regardless of the permit.
- Potential capacity upgrade of Lackawanna WWTP to address percent removal requirements (new filters?). Note that this may not be achievable through traditional means due to weak influent sewage.
- Potential high rate biological treatment for the ORF: unknown at this time, but would be tens of millions of dollars.
- Operation, laboratory, maintenance, and reporting expenses: too early to quantify.

ECSD No. 6 will also have the typical replacement of aging equipment/facilities and the associated costs. That is one reason why the Division of Sewerage Management will continue to pursue with the NYSDEC the option of eliminating the Lackawanna WWTP and conveying said flows to the Buffalo Sewer Authority – as well as all other options necessary to decrease the capital cost requirements for ECSD No. 6.

Cc: Erie County Legislature
Erie County Budget Office
M. Whyte, Commissioner
G. Absolom/K. Kaminski
J. Carr/ D. Millar/M. Salah/6.2.3.SPDES Sanitary

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