# NATIONAL ASSOCIATION OF WATER COMPANIES

# PENNSYLVANIA CHAPTER

RECEIVED

FEB 1 9 2010

February 10, 2010

INDEPENDENT REGULATORY REVIEW COMMISSION

Chair Kathy L. Pape Pennsylvania American Water

800 West Hershey Park Drive P.O. Box 888 Hershey, PA 17033-0888 Phone: 717-531-3200 Kathy.Pape@amwater.com

Vice Chair
David Lewis
Columbia Water Company
220 Locust Street
P.O. Box 350
Columbia, PA 17512-0350
Phone: 717-684-2188
dlewis@pa.net

Secretary
William C. Kelvington
Pennsylvania American Water
800 West Hershey Park Drive
P.O. Box 888
Hershey, PA 17033-0888
Phone: 717-531-3370
William,kelvington@amwater.com

Treasurer
Kathy Miller
The York Water Company
130 East Market Street
P.O. Box 15089
York, PA 17401-1219
Phone: 717-845-3601
kathym@yorkwater.com

Past Chair
John D. Hollenbach
United Water Pennsylvania, Inc.
P.O. Box 4151
Harrisburg, PA 17111-0151
Phone: 717-561-1103
john.hollenbach@unitedwater.com

Governmental Relations Associate
Erik A. Ross
Delta Development Group, Inc.
2000 Technology Parkway
Suite 200
Mechanicsburg, PA 17050-9407
Phone: 717-441-1321
eross@deltaone.com

Counsel
Michael D. Klein
Dewey & LeBoeuf LLP
1101 New York Avenue NW
Suite 1100
Washington, DC 20005-4213
Phone: 202-986-8154
mklein@dl.com

www.nawc.org/

Environmental Quality Board P.O. Box 8477 Harrisburg, PA 17105-8477 RegComments@state.pa.us

RE: 25 Pa. Code Chapter 95 (Wastewater Treatment Requirements), Document Number: 7-446

Dear Environmental Quality Board:

Enclosed for filing please find the National Association of Water Companies, Pennsylvania Chapter's comments on the matter referenced above.

The National Association of Water Companies (NAWC) www.nawc.org/ represents all aspects of the private water service industry including ownership of regulated drinking water and wastewater utilities and the many forms of public-private partnerships and management contract arrangements. The Pennsylvania Chapter consists of 10 member companies that provide safe and adequate drinking water service to approximately 3.1 million Pennsylvanians in 485 communities over 38 counties. In addition, three of our member companies provide wastewater service to approximately 155,000 Pennsylvanians in 24 communities over 7 counties.

Very truly yours,

Kathy L. Chair

Before the Environmental Quality Board (EQB)

In Re: 25 Pa. Code Chapter 95 (Wastewater

Treatment Requirements)

Document Number: 7-446

Comments of National Association of Water Companies, Pennsylvania Chapter

The National Association of Water Companies, Pennsylvania Chapter (NAWC) represents all aspects of the private water service industry including ownership of regulated drinking water and wastewater utilities and the many forms of public-private partnerships and management contract arrangements. The Pennsylvania Chapter consists of 10 member companies that provide safe and adequate drinking water service to approximately 3.1 million Pennsylvanians in 485 communities over 38 counties. In addition, three of our member companies provide wastewater service to approximately 155,000 Pennsylvanians in 24 communities over 7 counties.

# I. Introduction

The Environmental Quality Board (EQB) proposes to amend 25 Pa. Code Chapter 95 (relating to Wastewater Treatment Requirements). The proposed amendments include the elimination of a redundant provision, the recognition of applicable Total Maximum Daily Load (TMDL) requirements, and the establishment of new effluent standards for new sources of wastewaters containing high Total Dissolved Solids (TDS) concentrations. TDS is comprised of inorganic salts, organic matter and other dissolved materials in water. They can be naturally present in water or the result of runoff, mining or industrial or municipal treatment of water.

1

TDS causes toxicity to water bodies through increases in salinity, changes in the ionic composition of the water, and toxicity of individual ions. The composition of specific ions determines toxicity of elevated TDS in natural waters. Also, as the hardness increases, TDS toxicity may decrease. The major concern associated with high TDS concentrations relates to direct effects of increased salinity on the health of aquatic organisms.

The surveys, analyses and studies referenced in the proposed rulemaking establish that the extent of existing and potential pollution from TDS, sulfates and chlorides is widespread.

The Department of Environmental Protection (DEP) is constrained from approving any significant portion of the pending proposals and applications for new sources of discharge high-TDS wastewater that include sulfates and chlorides, and still protect the quality of streams in this Commonwealth.

The existing practice for high TDS wastewaters is the removal of heavy metals, but currently no treatment exists for TDS, sulfates and chlorides, other than dilution. As documented by the rising levels of TDS in the waters of this Commonwealth, dilution can no longer be considered adequate treatment for high TDS wastewaters.

The Clean Streams Law (35 P.S. §§ 691.1—691.1001) delegates the authority to preserve and improve the purity of its waters and develop remedies to purify those waters currently polluted to the DEP, in the form of adopting rules and regulations as necessary to accomplish these tasks.

The NAWC generally supports the proposed rulemaking; however, we have some concerns and welcome this opportunity to offer the following comments to the EQB.

#### II. Comments

#### 1. §95.2 (5)

The NAWC seeks clarification of this paragraph. We interpret this paragraph as stating that an industrial plant utilizing surface water is not required to have an effluent stream of higher quality than the source water itself, provided that the discharge of effluent water is returned to the same receiving stream. We believe this paragraph should be revised to more clearly state its intent.

# 2. §95.10 (b) (1-4)

A new discharge of high-TDS wastewater is a discharge that did not exist on April 1, 2009, and includes a TDS concentration that exceeds 2,000 mg/L or a TDS loading that exceeds 100,000 pounds per day. The term "new discharge" includes an additional discharge, an expanded discharge or an increased discharge from a facility in existence prior to April 1, 2009.

Unless specifically exempted, new discharges of wastewater with high-TDS must comply with the following:

- Section 95.2 (relating to effluent standards for industrial wastes).
- The discharge may not contain more than 500 mg/L of TDS as a monthly average.
- The discharge may not contain more than 250 mg/L of total chlorides as a monthly average.
- The discharge may not contain more than 250 mg/L of total sulfates as a monthly average. The NAWC believes consideration should be given to reducing these levels based on the assimilative capacity of the receiving stream for dilution. For instance, a plant can discharge a high level of TDS under a low stream flow condition and cause a higher level of environmental damage than if that same discharge was done at a higher stream flow rate. As long as the

Discharge Elimination System (NPDES) permit. Therefore, the NAWC believes a condition

monthly average value were met, the discharge would be compliant with its National Pollutant

should be added to each individual permit showing the maximum TDS level based on the receiving stream flow. For some stream flows, the limit of 500 mg/L TDS may be appropriate. However, should a drought occur and stream flows be reduced, the NPDES permit should show a reduced limit (400 mg/L for example) for TDS to not harm the environment. The maximum TDS, total chlorides, and total sulfates concentrations should be tagged to a discharge stream flow, and not set universally at an average monthly value.

In addition, NAWC believes that using a monthly average of 500 mg/L TDS may still create a situation where downstream public water supplies exceed the Secondary Maximum Contaminant Level (SMCL) and must issue notices to their customers and take remedial actions. We believe the monthly average would be satisfactory as long as the TMDL in the receiving stream also never exceeds 500 mg/L TDS.

#### 3. §95.10 (c)

New discharges of wastewaters resulting from fracturing, production, field exploration, drilling or completion of oil and gas wells must comply with the following provisions, in addition to those mentioned above:

- There may be no discharge of wastewater into waters of this Commonwealth from
  any direct source of fracturing, production, field exploration, drilling, or well
  completion, (that is, produced water, drilling muds, drill cuttings, and produced sand).
- 2. Treated discharges of wastewater generated from fracturing, production, field exploration, drilling, or well completion may be authorized by the DEP under Chapter 92 (relating to National Pollutant Discharge Elimination System Permitting, Monitoring and Compliance). The discharges shall be authorized only from

- centralized waste treatment (CWT) facilities and approved Publicly Owned Treatment Works (POTWS).
- The discharge may not contain more than 10mg/L of total barium as a monthly average.
- 4. The discharge may not contain more than 10mg/L of total strontium as a monthly average.
- 5. Where a discharge from a CWT facility is proposed, the discharge must comply with the performance standards in 40 CFR 437.34 (relating to new source performance standards (NSPS)), in addition to complying with the discharge requirements above.
- 6. Where a discharge through a POTW is proposed, in addition to compliance with the requirements above, the following apply:
  - (i) Pretreatment shall be provided and comply with the performance standards found in 40 CFR 437.36 (relating to pretreatment standards for new sources).
  - (ii) The POTW shall develop and implement a Federal pretreatment program meeting the applicable standards found in 40 CFR 403.8 (relating to pretreatment program requirements: development and implementation by POTW).

Under §95.10 (c) (3) and (4), effluent standards are set for total barium and total strontium at 10 mg/L. The NAWC believes that consideration should be given to setting these effluent standards based on a local evaluation of discharge conditions. Stream flows, background concentrations, and distances from downstream industrial users should be used to evaluate the permitted discharge levels. It is difficult to set a statewide standard without consideration of local conditions.

In addition, the NAWC is concerned because water treatment plants are not equipped to remove TDS from drinking water and these pollutants are delivered through our pipes and out of the taps to our residents.

Moreover, the Water Resources Advisory Committee (WRAC) formed a subcommittee to work with DEP to examine the technologies available and the cost associated with the treatment of TDS. That subcommittee has determined that technologies exist to remove the pollutants so that the resulting effluent can be discharged to streams; however, in Pennsylvania the capacity to treat the expected levels of wastewater is not yet available. Numerous permit applications for these types of facilities have been submitted to the DEP and are currently being reviewed. We must find a solution for the flow-back water and production fluids. To that end, the NAWC recommends that the EQB consider pursuing a "technology" standard targeted at those drilling for natural gas since brine and fracturing have high concentrations of dissolved solids.

In addition, it may be advisable for DEP to examine the complexity of the treatment processes needed to comply with the proposed regulations and to decide if operator certification is warranted.

#### 4. Elevated TDS Levels Cause Unintended Consequences.

- Interfere with existing treatment processes, such as membrane filtration.
- Increase corrosion rates, putting PWS at risk for increased leaching of lead and copper in the distribution system and in customer's plumbing.
- Increased corrosion also weakens the integrity of distribution system pipes and could lead to more frequent water line breaks.
- Chlorides: Produce a salty, unpalatable, taste.

- Sulfates: May cause laxative-like effects, such as loose stool/diarrhea.
- Wastewater Treatment Plant (WWTP) Costs: If high TDS water is used by drinking water system, the local WWTP must then deal with high TDS discharges back into the stream.
- High TDS levels cause spotting of dishes and cloudy glassware. Customer satisfaction with the water supplier is lessened.
- Although secondary MCLs are in place for sulfates, chlorides, and TDS: Any increase
  will possibly cause some degradation to drinking water quality, palatability, and
  corrosion.
- High TDS levels in the Monongahela River Basin resulted in higher bromide levels,
   causing increases in THM levels within water supply systems.

# 5. TMDL Based on Q7-10.

During severe droughts, PWS generally need all of the source or supply they can get to meet demand and conservations releases.

Using Q7-10 could put water suppliers at risk on average: 7 days out of every 10 years.

This will force PWS to develop or rely on other sources during low flow events or risk a

Tier 1 Public Notification and possible "Do Not Drink" notice.

#### 6. Trading Credits.

Benefit must occur upstream of drinking water intake so that TMDL not exceeded.

However, trading credits are not currently available.

#### 7. Recommendations.

To insure that costs of treatment will not be passed on to customers of drinking water systems:

- TMDL: To insure PWS intakes comply with regulations, establish TMDLs below the SMCL on streams that are (or could be) PWS sources (at least 50 mg/L below SMCL).
- Protect stream quality at least down to the Q7-10 flow.
- Provide for further testing to determine if other harmful constituents, such as bromide,
   are present in discharges.
- Establish a real-time monitoring network on main stream segments using conductivity
  as an indicator of TDS levels. Develop alert mechanisms to water suppliers on
  increase of TDS levels.
- Develop effective practices to locate and manage other contributors of TDS (Acid mine releases).

# III. Conclusion

The NAWC appreciates the opportunity to present comments on this Proposed Rulemaking relating to Wastewater Treatment Requirements and respectfully requests that the EQB consider its comments on these issues. We also appreciate and acknowledge the DEP for their outreach efforts and collaboration with advisory committees and the statewide water and wastewater related associations on the drafting of this regulation.

Respectfully submitted,

Kathy L. Pape, Chair

National Association of Water Companies, Pennsylvania Chapter 800 W. Hershey Park Drive Hershey, PA 17033-2400 717-531-3200 (Phone) 717-531-3252 (FAX)

Kathy.Pape@amwater.com