

BEFORE THE
PHILADELPHIA WATER COMMISSIONER

IN RE: PHILADELPHIA WATER)
DEPARTMENT WATER AND) FY 2009-2012 RATES
WASTEWATER RATE PROCEEDING)

SUPPLEMENTAL DIRECT TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF THE PUBLIC ADVOCATE

DECEMBER 11, 2008

EXETER

ASSOCIATES, INC.

5565 Sterrett Place

Suite 310

Columbia, Maryland 21044

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Supplemental Direct Testimony of Jerome D. Mierzwa

1 Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS
2 ADDRESS?

3 A. My name is Jerome D. Mierzwa. I am a principal and a Vice President of Exeter
4 Associates, Inc. My business address is 5565 Sterrett Place, Suite 310, Columbia,
5 Maryland 21044. Exeter specializes in providing public utility-related consulting
6 services

7 Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL DIRECT
8 TESTIMONY?

9 A. The purpose of my supplemental direct testimony is to address the Philadelphia Water
10 Department's ("PWD's") alternative rate methodology for the recovery of stormwater
11 management related costs for residential and non-residential accounts for the three-
12 year period of Fiscal Years 2010 through 2012.

13 Q. HOW ARE STORMWATER MANAGEMENT RELATED COSTS
14 CURRENTLY RECOVERED BY THE PWD FROM NON-RESIDENTIAL
15 CUSTOMERS?

16 A. Stormwater management costs are currently included in the monthly service charge
17 for sewer service and recovered from non-residential customers on the basis of water
18 meter size. That is, the larger the size of a customer's water meter, the higher the
19 charge for stormwater management service. As subsequently explained in greater
20 detail, the PWD is proposing to bill separately for stormwater and sewer services.

1 The meter size based stormwater and sewer charges for FY 2010 initially proposed by
 2 the PWD in this proceeding are reflected in Table 1-S. Increased charges are
 3 proposed for FY 2011 and FY 2012. As subsequently explained, the PWD is
 4 proposing to phase-out meter size based stormwater charges over a three-year period.
 5

Table 1-S Philadelphia Water Department Proposed Monthly Stormwater and Sewer Service Charges FY 2010		
Meter Size	Stormwater	Sewer
5/8 inch	\$ 13.22	\$ 4.16
3/4 inch	70.04	13.54
1 inch	115.37	20.89
1-1/2 inch	228.33	38.81
2 inch	364.31	60.85
3 inch	681.13	111.67
4 inch	1,136.82	188.10
6 inch	2,271.24	373.22
8 inch	3,631.10	593.57
10 inch	5,221.20	855.12
12 inch	9,742.05	1,574.76

6
 7 Q. PLEASE DESCRIBE THE ALTERNATIVE RATE METHODOLOGY FOR
 8 THE RECOVERY OF STORMWATER COSTS FROM NON-
 9 RESIDENTIAL CUSTOMERS PROPOSED BY THE PWD.

10 A. The PWD is proposing to transition from the current meter size based approach to a
 11 individualized parcel based methodology for non-residential customers wherein
 12 stormwater management costs will be assessed to each non-residential customer
 13 based on a combination of the customer's actual gross and impervious property areas.
 14 Under this parcel based methodology, the stormwater charge assessed to each non-
 15 residential customer will be based 20 percent on the customer's gross property area
 16 and 80 percent on the customer's impervious property area. The adoption of an

1 individualized parcel based methodology and the 20/80 percent allocation
2 percentages were recommended by the Citizens Advisory Committee, which was
3 established in the 1990s to address the issue of stormwater cost allocation and
4 recovery. The adoption of an individualized parcel based methodology for non-
5 residential customers has not been proposed by the PWD until this time because the
6 necessary support systems and data were not previously available.

7 PWD's proposal provides for a three-year phase-in of the individualized
8 parcel based method. In Fiscal 2010, the stormwater charge assessed to each non-
9 residential customer would recognize 2/3 of the meter size based charge and 1/3 of
10 the parcel based charge. In Fiscal 2011, the meter size based charge would be
11 weighted 1/3, and the parcel based charge would be weighted 2/3. In Fiscal 2012, the
12 entire stormwater charge would base on the parcel method.

13 Q. DO YOU AGREE WITH THE PWD'S PROPOSAL TO TRANSITION TO
14 INDIVIDUALIZED PARCEL BASED CHARGES FOR THE RECOVERY
15 OF NON-RESIDENTIAL STORMWATER MANAGEMENT COSTS?

16 A. Yes. Charges for utility services such as stormwater management should be in
17 proportion to the amount of service being required by a customer. The parcel based
18 approach is superior to the meter size approach for non-residential customers because
19 parcel size is a much better indication of a customer's stormwater management
20 service requirements than water meter size. Many communities/utilities currently
21 assess, or are in the processes of adopting, stormwater management charges which
22 recognize parcel size. I also agree with the PWD's proposal to phase-in the parcel
23 based method over a period of time, although nothing requires that such a phase-in be
24 accomplished in three annual stages starting in FY 2010. A gradual phase-in will
25 temper the significant increase in rates some customers will experience, and as is

1 subsequently explained, provide these customers with an opportunity to take
2 affirmative actions to reduce their stormwater run-off and associated stormwater
3 charges.

4 Q. PLEASE EXPLAIN HOW NON-RESIDENTIAL CUSTOMERS CAN
5 REDUCE THEIR INDIVIDUALIZED PARCEL BASED STORMWATER
6 CHARGES?

7 A. The PWD has developed a stormwater credit program for customers which
8 implement on site stormwater management systems that reduce stormwater run-off.
9 Customers who implement on site systems may be eligible for credits which reduce
10 the gross area and/or impervious area upon which they are assessed charges.

11 Q. WHAT ARE THE BENEFITS OF ADOPTING A STORMWATER CREDIT
12 PROGRAM?

13 A. State and Federal stormwater regulations are causing the PWD to incur additional
14 capital and operating costs. Over the next decade, the PWD anticipates that it will
15 need to invest substantial sums to better manage stormwater. In certain areas of the
16 City, flooding conditions due to sewer overflows are experienced during periods of
17 heavy rain which will require extensive sewer construction. In addition, the PWD
18 anticipates that it will need to invest in additional infrastructure as a result of City
19 redevelopment efforts.

20 PWD's stormwater credit program is designed to provide non-residential
21 customers with the incentive to reduce stormwater run-off. A reduction to
22 stormwater run-off should reduce the costs that PWD will experience in the future to
23 address stormwater issues. A reduction in potential stormwater run-off will benefit
24 residential and non-residential customers. Depending on the magnitude of the

1 measures taken to reduce stormwater run-off by non-residential customers, there may
2 potentially be a reduction in flooding conditions in certain areas of the City.

3 Q. DO YOU HAVE ANY RECOMMENDATIONS CONCERNING THE
4 STORMWATER CREDIT PROGRAM?

5 A. Yes. The stormwater credit program grants discounts to non-residential customers,
6 on the condition that they demonstrate they have taken actions which reduce their
7 stormwater run-off. It is in the public interest for the granting of such discounts to be
8 as transparent as possible. Current records showing the amount and type of credits
9 granted to each property receiving a stormwater credit should be readily available to
10 the public, just like Board of Revision of Taxes records concerning the assessed value
11 of real property. These regulations should provide for the creation by the PWD of a
12 public records function to make this information routinely available to any interested
13 person.

14 Q. BRIEFLY DESCRIBE HOW THE PWD DESIGNED THE PARCEL
15 BASED CHARGES FOR STORMWATER MANAGEMENT SERVICE?

16 A. Consistent with the recommendation of the Citizens Advisory Committee, the PWD's
17 projected stormwater management revenue requirement was allocated 20 percent to
18 the gross area cost category and 80 percent to the impervious area cost category. The
19 costs allocated to each category were then divided by the applicable estimated units
20 of service. That is, gross area allocated costs were divided by gross area units of
21 service and impervious area allocated costs were divided by the impervious area units
22 of service. The resulting gross area and impervious area unit rates were then set at
23 500 square foot increments and adjusted by a collection lag factor.

24 Under the PWD's proposal, each non-residential customer will be assessed
25 stormwater charges based on that particular customer's actual gross and impervious

1 areas. Each residential customer is currently, and under PWD's proposal will be,
2 assessed stormwater charges based on the average gross and impervious areas of all
3 residential customers.

4 Q. PLEASE ELABORATE ON HOW PWD DETERMINED THE
5 ESTIMATED GROSS AREA AND IMPERVIOUS AREA UNITS OF
6 SERVICE.

7 A. Using various information and procedures, the PWD calculated the gross and
8 impervious areas of each non-residential delineated tax property, as defined by the
9 Board of Revision of Taxes ("BRT"), in its service territory. The BRT is the City
10 agency whose staff is charged with establishing real property values which serve as
11 the basis for real estate taxes levied by the City of Philadelphia. As such, and
12 consistent with the recommendations of the Citizens Advisory Committee, all streets
13 and highways were excluded from the units of service. The gross and impervious
14 areas of the BRT delineated tax properties were further reduced by: (1) the rate
15 discounts provided to certain customer classes; (2) expected collection rates; and (3)
16 estimated credits obtained through the stormwater credit program. The estimated
17 units of service were also reduced to eliminate the gross and impervious areas of
18 City-owned and Development Authority properties acquired pursuant to the vacant
19 property provisions of Philadelphia Code Sections 16-401, et seq.

20 Q. WHAT IS THE EFFECT OF THE PWD'S ADJUSTMENTS TO THE
21 GROSS AND IMPERVIOUS AREAS OF THE BRT DELINEATED TAX
22 PROPERTIES?

23 A. PWD's adjustments reduce the units of service utilized for rate design purposes and
24 increase the costs for all other customers. The discounts provided to certain
25 customers are required by City ordinance. The adjustment to reflect expected

1 collection rates are based on PWD's actual experience recovering billed revenues.
2 The stormwater credit program is designed to benefit all customers by reducing future
3 costs and reducing flooding in the City.

4 Q. IN PROPOSED REGULATION 304.1 (A), THE DEPARTMENT
5 PROPOSES TO BILL "[A]LL PROPERTIES" WITHIN THE CITY FOR A
6 SWMS CHARGE. DO YOU HAVE COMMENTS ON THIS PROPOSED
7 REGULATION?

8 A. Yes. My comments address: (1) the fact that "property" is undefined, and not
9 consistent with common usage; (2) the fact that the PWD has stated in discovery that
10 certain "property" is not subject to the stormwater management service ("SWMS")
11 charge and; (3) the fact that by City ordinance, customers presently have the right by
12 obtaining a Discontinuance Permit, to obtain a waiver of water and sewer charges,
13 including charges associated with stormwater management.

14 Q. PLEASE START WITH THE TERM "PROPERTY."

15 A. While the term "Property Owner" is defined in Regulation 300.0 of the definitions
16 section of Chapter 3, the term "property" is not defined and is used in a more
17 restrictive manner than common usage. I think the regulation would be clearer if the
18 term "Property" was defined as a parcel listed by the Board of Revision of Taxes.
19 Real property not included within the PWD's meaning include highways, streets,
20 sidewalks, railroad rights of way, and waterways.

21 Q. DOES THE REGULATION PROPERLY RECOGNIZE THAT NOT ALL
22 PROPERTIES WILL BE BILLED A SWMS CHARGE?

23 A. No. Proposed Regulation 304.1 (a) states that "all" properties will be billed a SWMS
24 charge, but in fact, there are exceptions to this rule. For instance, vacant properties
25 which are held by the City of Philadelphia or the Redevelopment Authority of

1 Philadelphia pursuant to Section 16-401 et seq. of the Philadelphia Code (particularly
2 Section 16-403(1)), are not subject to water, sewer and stormwater management
3 charges. The proposed regulations should reflect the fact that outstanding charges
4 for water and sewer including stormwater management may be abated at the time of
5 acquisition by the City, and shall not further accrue so long as these properties are
6 titled to the City or the Redevelopment Authority. The Regulations should also
7 specify that watershed parks will not be subject to a SWMS charge.

8 Q. PLEASE EXPLAIN HOW THE CITY ORDINANCE GOVERNING
9 DISCONTINUANCE PERMITS IMPACTS THE ABILITY OF THE PWD
10 BY REGULATION TO MAKE ALL RESIDENTIAL PROPERTIES
11 SUBJECT TO THE SWMS CHARGE.

12 A. I understand, upon advice of counsel, that under Philadelphia Code Section 19-1601,
13 a customer has the right to cause the PWD to discontinue water and sewer service
14 (with all associated charges) to a property which previously received water and sewer
15 service, upon payment of a fee of \$100.00. Such discontinuances have been
16 obtainable when a property owner desires to retain ownership of a property, while
17 minimizing monthly expenses associated with continued ownership. They are also
18 obtainable when a building has been destroyed or demolished. Traditionally,
19 "sewer" charges in Philadelphia have included charges associated with stormwater
20 management, because many parts of Philadelphia's sewer system consist of combined
21 sewers to collect and process both sanitary sewerage and stormwater. In the
22 regulations under consideration, the Department is proposing to continue to provide
23 sewer services which it has previously provided, but to assess those charges and bill
24 for them in a way which better recognizes the portion of the bill which may be
25 attributed to stormwater charges associated with the customer's property. As

1 concerns customers who have water and sewer service, the SWMS charge is not a
2 new charge, but rather results in a breaking out of charges for services previously
3 provided as part of the sewer charge.

4 For this reason, combining my knowledge of PWD operations, and advice of
5 counsel, I submit that the PWD does not have the authority by regulation to continue
6 to bill a customer for SWMS who has obtained or will obtain a Discontinuance
7 Permit. The PWD may not promulgate regulations which contradict a City
8 Ordinance.

9 Q. HOW DOES THIS CONCLUSION AFFECT THE CURRENT
10 REGULATIONS?

11 A. Regulation 305.1(i)(2) states that the “billing of Unoccupied Properties for water and
12 sewer shall be discontinued only on issuance of a Discontinuance of Water. Nothing
13 in this Section shall relieve a property owner of his responsibility for maintaining a
14 service line unless a Discontinuance of Water has been secured.” This provision
15 appears in Regulation 305 entitled “billing for water, sewer and stormwater service.”
16 Because Regulation 305.1(i)(2) refers only to “water and sewer” service, and not to
17 “water, sewer and stormwater service” or to “water and sewer (including stormwater)
18 service,” it leaves room for the misinterpretation that persons who have obtained a
19 Discontinuance of Water Permit may still be required to pay SWMS charges. In fact,
20 the response to PA-JM-38 indicates that the PWD is maintaining that Regulation
21 305.1(i)(2) requires customers who have obtained a Discontinuance Permit to pay the
22 SWMS charge. Again, on advice of counsel, I submit that such a requirement
23 concerning payment of SWMS charges is not consistent with Discontinuance of
24 Water Permit rights provided by municipal law.

1 Q. DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE
2 PROPOSED REGULATIONS?

3 A. At page 12 of PWD witness J. Rowe McKinley's supplemental direct testimony, he
4 explains the phase-in of the individualized parcel based approach for the assessment
5 of stormwater charges and the phase-out of meter based charges. He states that the
6 full parcel based charge would be applicable for FY 2012. Section 304.3(b)(4) of the
7 proposed regulations includes meter based charges for stormwater charges for FY
8 2012 (beginning July 1, 2011). Given that meter based charges will be phased-out by
9 FY 2012, it is not clear why these rates are included in the proposed regulations and
10 they should be deleted.

11 Q. DO YOU HAVE ANY COMMENTS ON THE EFFECTIVE COLLECTION
12 RATES REFLECTED IN THE DESIGN OF STORMWATER CHARGES?

13 A. Yes. The PWD is proposing, for the first time, to assess stormwater charges to
14 properties which do not have a current water or sewer account ("unbilled parcel") and
15 are currently not assessed any charges by the PWD. The following collection rates
16 for unbilled parcels have been reflected in the design of stormwater management
17 service charges:

Residential-Rows & Twins	0.0%
Residential-Singles	9.7%
Non-Residential	23.8%

19
20 In addition, because they will experience a large rate increase under the parcel based
21 approach, cemeteries and golf courses were assigned a collection rate of 75 percent.

22 The reasonableness of these collection rates cannot be evaluated at this time
23 because the PWD has no past experience with collections from unbilled parcels, and

1 it is uncertain as to how cemeteries and golf courses will respond to the large increase
 2 in rates. The uncertainty associated with collection rates associated with SWMS
 3 charges for unbilled customers is yet another reason why the adoption of a rate
 4 increase based on four successive test years is not appropriate. So that collection
 5 rates can be evaluated in future proceedings, I recommend that starting in FY 2010
 6 the PWD and the Water Revenue Bureau (“WRB”) thoroughly document their
 7 unbilled parcel and cemetery and golf course collection experience. This would
 8 include PWD’s experience with monthly billing collections and collections through
 9 liens placed on properties which do not pay their monthly bill.

10 Q. WHAT ARE THE UNITS OF SERVICE ASSOCIATED WITH UNBILLED
 11 PARCELS, CEMETERIES AND GOLF COURSES, AND HOW DO
 12 THOSE UNITS OF SERVICE COMPARE TO THE PWD’S TOTAL UNITS
 13 OF SERVICE?

14 A. The PWD is proposing rates in this proceeding based on gross area square footage of
 15 1,847,255,000 (66 square miles) and impervious square footage of 932,594,000
 16 (33 square miles). Prior to the PWD’s adjustment for expected collection rates, the
 17 gross and impervious areas of unbilled parcels, cemeteries and golf courses are as
 18 follows:
 19

Description	Gross Area	Impervious Area
Unbilled Parcels	290,058,238	152,097,177
Cemeteries	38,888,078	3,807,878
Golf Courses	53,980,086	3,113,878
Total	382,926,402	159,018,933
Square Miles	14	6

20

1 Thus, as shown above, the gross and impervious square footage of unbilled parcels,
2 cemeteries and golf courses is substantial.

3 Q. PLEASE COMMENT ON THE FACT THAT UNDER THE PROPOSED
4 REGULATIONS, ONLY NON-RESIDENTIAL AND CONDOMINIUM
5 PROPERTY CUSTOMERS ARE ELIGIBLE TO OBTAIN GROSS AND
6 IMPERVIOUS CREDITS.

7 A. It would be in the public interest to recognize and provide an incentive through rates
8 for actions taken by residential customers to reduce stormwater runoff associated with
9 their properties. However, stormwater credits should be based on cost of service
10 principles, because if they are not, then customers that take certain actions to reduce
11 however insignificantly their stormwater runoff may gain credits which amount to an
12 unfair subsidy from other customers. On the basis of discovery, we have verified that
13 the most likely method of controlling stormwater runoff for most residential
14 customers inhabiting Philadelphia row homes would be the use of rain barrels.
15 However, in order to manage the first inch of rainfall, a row home would need a
16 dozen 54 gallon barrels in good operating condition. This does not appear to be a
17 workable solution, given the fact that rain barrels themselves cost approximately \$160
18 apiece. The savings from the use of one rain barrel are estimated to be only \$0.60
19 per month (PA-JM-52). Moreover, to assure good operating condition, the
20 Department would have to undertake a system of monitoring which would likely cost
21 more than the savings to be accomplished.

22 The Public Advocate recommends that the PWD work with PennFuture and
23 the Next Great City Stormwater Subcommittee and other interested parties on a pilot
24 project one of whose principal goals would be to publicize the public benefits that
25 arise when many customers prevent even a small amount of stormwater runoff.

1 In light of the fact that the PWD proposes to subsidize efforts of some non-residential
2 customers who receive special rates to find ways to reduce their stormwater charges,
3 it would be appropriate also to provide assistance for a pilot educational and
4 demonstration effort directed toward residential customers. PWD should reassess its
5 public relations budget, with the aim of devoting relatively more resources to this
6 policy goal, while reducing other public relations activities.

7 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND
8 RECOMMENDATIONS.

9 A. My conclusions and recommendations are as follows:

- 10 • The PWD's proposal to adopt an individualized parcel based method for the
11 recovery of stormwater management service costs for non-residential customers is
12 consistent with cost-of-service principles, superior to the current meter size based
13 approach, and should be approved;
- 14 • The individualized parcel based method should be phased-in over a period of
15 time;
- 16 • The stormwater credit program should reduce future expenditures by the PWD
17 and reduce flooding in the City of Philadelphia and, therefore, benefit all
18 customers;
- 19 • I recommend that a current public record of all stormwater credits be maintained
20 by the PWD;
- 21 • Proposed Regulation 304.0 et seq. should be modified and/or clarified to:
22 (1) define the term "property"; and (2) explicitly reflect the fact that outstanding
23 charges for stormwater management service may be abated for properties titled to
24 the City or Redevelopment Authority pursuant to Philadelphia City Code Section
25 16-401, et seq.
- 26 • Regulation 305.1(i)(2) should be amended to explicitly provide that a person who
27 obtains a Discontinuance of Water Permit is not required to pay a stormwater
28 management charge;
- 29 • The meter based charges for stormwater management service for FY 2012 in
30 Section 304.3(b)(4) of the proposed regulations appear unnecessary and should be
31 deleted;
- 32 • The reasonableness of the expected collection rates assigned to unbilled parcels,
33 cemeteries and golf courses cannot be evaluated at this time due to the lack of

1 experience associated with these collections. I recommend that the PWD/WRB
2 thoroughly document its unbilled parcel, cemetery and golf course collection
3 experience starting in FY 2010; and

- 4 • The PWD should work with PennFuture and the Next Great City Stormwater
5 Subcommittee and other interested parties on a pilot educational and
6 demonstration program to publicize the benefits that arise when many customers
7 prevent even a small amount of stormwater run-off.

8 Q. DOES THIS COMPLETE YOUR SUPPLEMENTAL DIRECT
9 TESTIMONY?

10 A. Yes. It does at this time. I reserve the right to supplement my testimony as more
11 information becomes available.

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