



Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area

Policy #: OP.11

Effective Date: March 5, 1997	Last Revised: 10/11/06
Contact: Planning Department, Executive Office	Former Policy #:OP.11
Reviewed by Chief Operating Officer: Michael J. Hornbrook	Date: 4/13/07
Reviewed by Internal Audit: John A. Mahoney	Date: 4/17/07
Approved by Executive Director: Frederick A. Laskey	Date: 4/17/07

Purpose This policy explains the criteria and purpose that MWRA will use to evaluate any request from a community for admission to the MWRA sewer system and any requests from entities or individuals for sewer service to locations in communities not included in Section 8 (c) of the MWRA Enabling Act (Chapter 372 of the Acts of 1984).

Eligibility This policy applies to communities seeking admission to the MWRA sewer system and to all parties seeking sewer services for locations outside the MWRA sewer service area as set forth in 8 (c). A community must be a local body within the meaning of Section 2 (h) of the MWRA Enabling Act.

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

In this Policy This policy contains the following parts:

Policy Name / Part Name	Page #
Policy Statement	3
Admission Criteria A. Enabling Act B. Other Criteria	3
Application Process Initial Review Findings Required by Statute Additional Requirements MWRA Review of Application	6
Charges Entrance Fee Annual User Charge	13
Connection Costs and Arrangements	15
Annual Update	15
Waivers	16
Attachment A	17
Attachment B	18

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Policy Statement

On occasion, requests for sewer service are received from entities or communities not included in Section 8 (c) (which establishes the geographic area comprising the MWRA sewer service area). Although MWRA cannot accommodate such requests without legislation authorizing MWRA and/or a community listed in the Enabling Act (listed community) to provide sewer service beyond its geographic area, this document describes the policy under which such requests will be reviewed to determine whether sewer service can be provided by MWRA without jeopardizing the quality or quantity of service it is committed to provide to listed communities. Transport capacity in the MWRA sewer system is constrained, particularly during wet weather, and limits sufficient capacity to permit a new community or any other entity to join the MWRA Sewer System. MWRA will review requests for service with careful attention to strict application of standards and requirements set forth in this policy.

Admission Criteria

In evaluating whether to permit the admission of new communities to the MWRA sewer system, or whether to grant requests for service to locations outside the MWRA sewer service area, the MWRA must evaluate the following two groups of criteria:

A. Enabling Act Criteria

1. Communities

To approve an application of a community not listed in Section 8 (c) for extension of the sewer system, the MWRA must, in accordance with Section 8 (c) and other provisions of the Enabling Act, find that:

- The safe capacity of the sewer system as extended will be sufficient to meet ordinary wet weather demand.
 - All feasible actions have been taken and shall continue to be taken by any community to which the system is extended to minimize infiltration and inflow.
 - An industrial pretreatment program is in effect within any such community in accordance with applicable laws and regulations.
-

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Admission Criteria - continued

- The MWRA Advisory Board and the Department of Environmental Protection have approved the extension of sewer service after due consideration of feasible alternatives to such extension.
 - Admission of a new community must be approved by
 - the Department of Environmental Protection,
 - other regulatory bodies, where required,
 - the MWRA Advisory Board, and
 - the Governor and the General Court, as specified in Section 8 (c).
 - No city or town not presently served by the MWRA can be added to the MWRA sewer service area without a majority vote by the city council of a city or the majority vote of the town meeting of a town (Section 8 (e) of the Enabling Act).
- B. Additional Criteria (for all applicants, including applicants other than communities)
- Any expansion of the MWRA sewer system shall strive for no negative impact on existing MWRA sewer system communities.
 - New service to a location outside the MWRA sewer service area must be approved by the Governor and General Court.
 - Any consideration of the acceptance of a new community or a portion of a community must be accompanied by strict application of requirements, policies, and standards, given that a) transport capacity in the MWRA system is limited; b) any expansion of the MWRA system shall strive for no negative impact on the existing sewer system communities; and c) the MWRA Enabling Act requires that MWRA must find that the safe capacity of the sewer system as extended will be sufficient to meet ordinary wet weather demands and all feasible actions have been taken by any local body to which the system is extended to minimize infiltration and inflow.
 - The applicant must fulfill the requirements with respect to a baseline verifiable four to one gallon reduction of inflow, payments, and progress reporting for flow removal, community master planning requirements, requirements necessary to maintain compliance with MWRA's NPDES permits, applicable municipal permits and MWRA's Sewer Use regulations, as set forth in this policy or in the applicable permit or regulation.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Admission Criteria continued

- Applicants have given due consideration to feasible alternatives.
- For applicants other than new communities, all sewer system connections shall be made through the existing community systems, unless otherwise permitted to connect to the MWRA system.
- The applicant must meet all legal requirements for admission or service.
- Service to a location outside the MWRA sewer service area, other than a new community, must also be approved by
 - The transporting community (letters of approval from the DPW Director and the Chief Executive Officer in the community. The approval letter(s) should state that there is no objection to MWRA's provision of sewer service to the site).
 - The community of origin (letters of approval from the DPW Director and the Chief Executive Officer, stating that there is no objection of MWRA's provision of sewer service to the site)
 - Other regulatory bodies, where required.
 - The Advisory Board
- Upon admission, the applicant will pay fair compensation for past investment in the MWRA sewer system by existing sewer communities, as set forth in this policy. The user of the connection must also pay all costs of providing the connection and any connection-specific additional operating charges.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process

The following process will be used by MWRA to evaluate requests from communities and entities outside the MWRA sewer system for sewer service:

A. Initial Review

An applicant requesting sewer service to a location outside the MWRA sewer service area should contact in writing the Executive Director regarding a request for sewer service. MWRA will set up an informational meeting with the applicant to discuss the request. Based on information learned at that meeting, MWRA will allow the applicant to submit a formal application or inform the applicant that at this time, there is not sufficient capacity in the MWRA transport and/or treatment system. Information regarding MWRA projects which would affect capacity will be discussed. A written response, if made, after this initial review is not a determination that is final or binding on MWRA. A final determination as to capacity or other conditions required for approval of a request shall be made only by the Board of Directors after formal application and review of the record as provided in this policy.

B. Application

The applicant should submit the completed application (three copies) to the MWRA Executive Director for review. MWRA staff will review and evaluate the application to determine the impacts of the additional service requested on the MWRA sewer system, treatment plant, and ability to meet the service needs of MWRA communities. Concurrently with sending the application to MWRA, the applicant must send copies of the completed application to the Directors of Public Works of all communities downstream as identified by MWRA.

C. Requirements

In a formal application for entrance to the MWRA sewer system, an applicant must provide detailed documentation of the necessary findings required by Section 8 (c) of MWRA's Enabling Act. A formal application from an applicant other than a community must include the written approval of the community of origin and of the transporting community, which must be a community listed in Section 8 (c). In addition to providing documentation for meeting the requirements above, all applicants must provide documentation to enable MWRA to determine with a reasonable level of confidence that the following conditions are met:

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

- NPDES permit compliance. Approval of a connection requested for any new location (including a single-family residence) or a community to the MWRA sewer system is consistent with the flow limit parameters and other provisions established in MWRA's applicable National Pollutant Discharge Elimination System (NPDES) permit. The proposed flows will not result in surcharging or other overflows in the MWRA's transport system, exceed treatment capacity, or result in noncompliance with any NPDES permit effluent limits or terms or conditions. Design conditions are defined as peak sanitary, peak infiltration and peak inflow (associated with a 1 year 6 hour storm) all occurring simultaneously. Peak sanitary flow for both the proposed connection and the MWRA service area will be based upon design population estimates.
- Sewer Use Regulations. Discharges from the proposed connection will comply with the MWRA Sewer Use Regulations and the terms and conditions of Municipal Permits issued by MWRA.
- Inflow Removal Requirements. Each applicant (whether a community, entity, or individual) shall at a minimum achieve a verifiable four to one gallon reduction in peak inflow within the transporting community or further downstream, as provided below. The verifiable four to one-gallon reduction in peak inflow is a baseline requirement of the MWRA. (MWRA recognizes the right of the transporting community to require a supplemental reduction in wastewater or infiltration/inflow in addition to the MWRA requirement.)

The applicant shall work cooperatively with the transporting community and communities downstream to identify projects that will achieve a verifiable four to one gallon reduction in peak inflow based on a one year, six hour design storm (about 1.7 inches) and *DEP Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Survey (Revised January 1993)*. A Flow Removal Report must be submitted to MWRA and the MWRA Advisory Board, showing how at least a four to one gallon reduction of inflow will be achieved within the transporting community or further downstream. Projects identified for inflow reduction cannot be projects that are being funded as part of MWRA's Infiltration/Inflow reduction program.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

- Master Plan Requirements.
 - A community applicant must provide MWRA with a Wastewater Management Plan for the community. For plan contents, refer to the outline for a Local Wastewater Management Plan in Attachment A. The community applicant must address how the requested connection to MWRA is consistent with the stated objectives of the municipality's plan.
 - An applicant, other than a community or single family residence, which has a proposed wastewater flow of over 90,000 gallons per year must address within its application how the requested connection to MWRA is consistent with the objectives of the community of origin and transporting community's Local Wastewater Management Plan. (For plan contents, refer to the outline in Attachment A). MWRA may reject applications that propose connections that are inconsistent with applicable municipal plans. MWRA may reject applications for those cases in which the community does not have a Local Water Supply and Wastewater Management Plan.
 - An applicant for single-family residence or a location proposing a wastewater flow of less than 90,000 gallons of wastewater flow per year need not meet local plan requirements.
- Documentation that all applicable approvals have been obtained from the Secretary of Environmental Affairs in the MEPA process, the Water Resources Commission in the Interbasin Transfer Act process, the MWRA Advisory Board, the General Court, and the Governor. MWRA staff will work to streamline the approval process, review application material concurrently with other approval processes, and work with state agencies to document environmental impacts and impacts on MWRA's system.
- Maintenance Plan. The applicant should affirm that it will be responsible for pipe maintenance and for assuring that no connections will be made to the pipe without prior approval by the MWRA.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

D. MWRA Technical Review

MWRA must also make a determination, based on its review and any additional information provided by the applicant, that:

- The proposed additional discharge will not significantly change the conclusions reached under approved planning and design documents, including DP-29, Combined Sewer Overflow (CSO) Plan, Secondary Treatment Facilities Plan/Environmental Impact Report (EIR), Residuals Management Facilities Plan, and Interceptor and Pump Station Facilities Plans/EIR (Framingham, Wellesley, Braintree-Weymouth, East Boston, etc.).
- The proposed additional service is consistent with agreements to which MWRA is a party, including community mitigation agreements.
- Acceptance of the proposed discharge is consistent with sound wastewater system management.
- Acceptance of the proposed discharge will not jeopardize MWRA's ability to comply with current and anticipated federal and state laws and regulations applicable to MWRA.

E. Coordination with other Regulatory Processes

Other regulatory approvals or permits may be required before a request for service may be approved. A final application to MWRA should include documentation of all required regulatory approvals. It is the responsibility of the applicant to obtain all such approvals. Copies of all applications or requests for regulatory approval shall be submitted to the MWRA as early as practicable to facilitate MWRA review of the request. MWRA will cooperate with other regulatory agencies to coordinate its review where possible, and will review and comment in other regulatory processes as appropriate. Regulatory reviews may proceed concurrently with MWRA staff's initial review, but final action by MWRA Board of Directors cannot be taken until the following regulatory approvals, where required, have been obtained.

- Massachusetts Environmental Policy Act
- Interbasin Transfer Act

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

- Massachusetts Department of Environmental Protection
- Sewer Extension or Connection Permit, G.L. c. 21 s.43 and 314 CMR 7.00

F. Legislation

Legislation is required to extend the MWRA sewer system to a local body not listed in Section 8 (c). Legislative authorization is also required for MWRA and a municipality to provide sewer service to an entity outside the communities listed in Section 8 (c). Proposed legislation should be submitted to MWRA for its review prior to filing. MWRA may require certain conditions to be included in proposed legislation, such as the authority to obtain a lien against the property in the event of nonpayment of MWRA charges.

Legislation should be in the following form and include the following language:

1. Communities

Section 1. Paragraph (c) of section 8 of chapter 372 of the acts of 1984 is hereby amended by inserting the word [insert the alphabetically preceding community] in line [insert #], the following word: - [name of community to be added].

Section 2. The provision of main sewer services by the Massachusetts Water Resources Authority to the [insert the community] shall commence only after the MWRA Board of Directors has voted approval having first made the findings as set forth in paragraph (c) of section eight of chapter three hundred and seventy-two of the acts of nineteen hundred and eighty-four and having made such other determinations in accordance with the applicable policies of the Authority, and after all required approvals have been received, including, as applicable, other regulatory bodies where required and the MWRA Advisory Board.

Section 3. This act shall take effect upon its passage.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

2. Applicants other than Communities

Legislation needs to be drafted to include the authorization to provide sewer service to the location in question. The legislation should include the following language:

Section 1. The Massachusetts Water Resources Authority may provide sewer services through [insert transporting community] to the property located at [insert address] in [insert community of origin] as shown on a deed recorded in the [insert county] County Registry of Deeds, Book [insert#], Page [insert #] provided that discharge may not exceed a maximum of [insert #] gallons per day, unless an additional amount is approved by MWRA. The Authority may allow the property to be used and serviced by said sewer system to the same extent as parcels of property located within the district currently served by the Authority. All costs and expenses incurred for engineering, design, supervision, labor, equipment, and materials relative to the sewer tie-in shall be paid by said property owner.

Section 2. The provision of sewer services by the Authority shall commence only after the MWRA Board of Directors has voted approval having first made findings as set forth in paragraph (c) of section eight of chapter three hundred and seventy-two of the acts of nineteen hundred and eighty-four and having made such other determinations in accordance with applicable policies of the Authority and after all required approvals have been received, including, as applicable, the approval of the community of origin, transporting community, other regulatory bodies where required, and the MWRA Advisory Board.

Section 3. This act shall take effect upon passage.

G. Order of Approvals

Following MWRA technical review, the request will be submitted to the MWRA Advisory Board for review.

If approved by the Advisory Board, the request will be submitted to the Board of Directors for approval.

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

Subsequent to the completion of technical review of an application by MWRA and following consultation with the Advisory Board, MWRA staff may upon the request of an applicant, submit a status report to the Board of Directors to inform it of the request, the status of staff's technical review, and the status of other pending permits or approvals.

H. Actions Required Prior to Connection

A community must complete the following flow removal actions before it may make a connection to the MWRA system:

- Complete the work described in the Flow Removal Report
- Submit a Flow Removal Completion Report to MWRA and the MWRA Advisory Board documenting completion of the flow removal work.
- No connection may be made until the flow removal work is completed and the MWRA staff and the MWRA Advisory Board have voted to accept the Flow Removal Completion Report. The MWRA Board of Directors may also elect to review and approve the Flow Removal Completion Report.

Applicants other than a community may chose to complete the requirements stated above or may complete the requirements set forth below prior to connection to the MWRA sewer system:

- Provide payment of 100% of the estimated cost to complete the work described in the flow removal report as follows:
 - To one or more communities which will be performing the work under an agreement to complete the work within one year of payment; or
 - To MWRA if the work is to be performed other than under an agreement with one or more communities. Such payment will be held in an interest-bearing escrow account as determined by MWRA until the work is completed. MWRA will return the escrowed funds and interest after the work is completed and upon vote of the MWRA Board of Directors and the MWRA Advisory Board. If the work is not completed within one year of payment into escrow, MWRA may release the escrowed funds and interest to the transporting community (s).

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Application Process - continued

No connections by an applicant, other than a community, may take place until it has made the payment under this provision and MWRA staff and the MWRA Advisory Board have voted to approve the payment.

I. Municipal Permit or Agreement for Other Requests for Sewer Service

If MWRA approves the request for new service, it will establish any appropriate terms and conditions of service in the form of a municipal permit for a community or in an agreement with a non-community applicant other than an applicant that will become a customer of a transporting community.

An agreement may set forth as appropriate terms relating to maintenance responsibilities, billing and payment provisions, limitations on further connections, and annual reporting requirements.

Charges

The following charges will be assessed by MWRA to cover costs of servicing entities from communities outside the MWRA sewer system for sewer service:

A. Entrance Fees

The following charges will be assessed by MWRA to cover costs of servicing entities from communities outside the MWRA sewer system for sewer service:

B. Communities

MWRA will charge an entrance fee to cover the new user's fair share of the costs of the sewer system in place at the time the user's request for service at the time the user joins. The entrance fee recovers the new user's proportional share of the sewer system's asset base that has already been paid for by the existing users of the system. The basic formula is as follows:

$$\frac{\text{New user's flow}}{\text{Total system flow (Including new flow) 3Year Average}} \times \text{Sewer System Net Asset Value}$$

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Charges - continued

C. Other requests.

The entrance fee for all other locations shall be based on either the user's fair share of the cost of the sewer system in place at the time the user's request for sewer service is approved pursuant to the basic formula above, or shall be based on the cost to repair or replace a failed septic system, whichever is greater. For the purpose of this policy, the cost to replace a faulty septic system will be based on the cost that is used as the basis for the Massachusetts Department of Revenue Title 5 Septic System Expenditure Credit (TIR99-20: Title 5 Septic System Expenditure Credit) of \$15,000.00 in 2006, as inflated by Boston construction indices in subsequent years.

D. Annual User Charge

A community admitted to the MWRA sewer service area shall pay the prevailing rate for sewer service as established by the MWRA Board of Directors pursuant to Section 10 of the Enabling Act and the sewer rate methodology approved by the Board.

Where a user, other than a community, is connected to the system of a transporting community, the user will be billed through the transporting community at its local rate, unless MWRA determines to charge the user directly. A user that is billed through the transporting community at its local rate should be considered a customer of the transporting community and shall pay no retail charge to the MWRA. When MWRA directly charges a user that is connected to the system of a transporting community, the transporting community may charge the user for providing its sewer services to the user.

Where a user, other than a community, is connected directly to the MWRA system, or MWRA determines to charge a user that is connected to the system of a transporting community, from outside an existing sewer service area community, MWRA will charge an annual use charge directly to the user, to be calculated as follows:

User's metered volume	X	unit cost derived from the wholesale portion of a modified retail bill in place in the 90th percentile community
-----------------------	---	--

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Charges - continued

The development of the unit cost ensures that the proportional share of sanitary flow, non-sanitary flow, and non-flow costs which are part of each community's wholesale payment are reflected in the wholesale portion of a retail bill. The method of calculating unit costs in the 90th percentile community is detailed as Attachment B to this policy.

The units' costs calculation is updated annually following adoption of MWRA fiscal year community charges.

Connection Costs and Arrangements

The user of the connection shall pay all the costs of providing the connection and any connection-specific additional operating charges.

New communities shall connect to the MWRA system pursuant to a direct connection permit under MWRA sewer use regulations unless an alternative means of connection is approved. All other sewer connections for a location outside the MWRA sewer service area shall be made through a transporting community that is listed in Section 8 (c), unless otherwise permitted to connect directly to the MWRA system in accordance with MWRA sewer use regulations.

The community of origin, transporting community and proponent entity (including single family residences) shall seek to develop appropriate institutional agreements regarding management, maintenance, auditing procedures (for accounting for wastewater volume) and other as needed issues, for any connection to the MWRA wastewater system.

Annual Update

An annual update shall be provided to the MWRA Board of Directors on the status of any new connections into the MWRA Wastewater System, and shall at a minimum include information regarding in-progress inflow projects and the status of payments due to either MWRA or the proponent entity

Continued on next page

Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, Continued

Waivers

The MWRA may, in its discretion, waive any of the conditions or requirements set forth in this Policy, not otherwise mandated by law or regulation, if it finds that the applicant has demonstrated unusual factors or extraordinary circumstances which would make imposition of a condition or requirement upon the applicant unfair or inappropriate and finds that the proposed action will not jeopardize the MWRA's ability to provide services to its wastewater communities. Entrance Fees and Annual User Charges shall not be waived.

Continued on next page

Local Wastewater Management Plan Outline

Water Supply

- Identify existing and potential water supplies in the community, Zone II delineations, Interim Wellhead Protection Areas, and/or Zones A and B delineations for surface water sources, and watershed boundaries.
- Identification of all water supply options, including local, regional and conservation options.

Wastewater

- Describe existing wastewater systems. This should incorporate information in any existing DEP approved water supply and wastewater facilities plan.
- Identification of all wastewater disposal options.
- A discussion of the DEP wastewater reuse policy, as applied to the community should be included

Regional Plans

- Describe any existing regional or watershed plans and how these plans relate to the plans of the local community. Refer to reports and plans developed by regional planning agencies, local watershed associations, and other appropriate regional and/or non-governmental agencies.

Future Plans

- Analysis of existing zoning and master plan, including EOEa build-out analysis available from Massachusetts GIS.
- Identification of future water and wastewater needs and various alternatives for meeting these needs.
- Summary and evaluation of water infrastructure plans based on build-out and future needs.
- Summary and evaluation of wastewater infrastructure plans based on build-out and future needs.
- Overall summary based on above information.

Analysis and Conclusions

- An action plan, with timetables for implementation of the recommendations of the plan, a budget, and identification of people responsible for implementation.

Attachment B

(OP.11)

Method for Calculating Estimated MWRA Sewer Charge Million Gallons in the 90th Percentile Community

After computing communities' charges each year, the MWRA calculates a total charge per million gallons, which represents the community's total charge divided by its total flow (sanitary flow as well as I/I). If this charge per million gallons (MG) were calculated as a charge per 90,000 gallons, the amount of sanitary flow in some households, the resulting charge would understate the wholesale portion of a retail bill because each household must also cover a portion of the community's non-sanitary flows. Therefore, it is necessary to develop a modified cost per MG by community to capture both the sanitary and non-sanitary flows.

The method of performing the calculation is detailed below. Note that the calculation is performed independently for each sewer system community, and the modified cost per million gallons is then ranked on a high to low basis. The choice of a 90th percentile community ensures that new system users generally pay more than current users; while 10% of communities have estimated sewer charges in excess of the 90th percentile community, 90% fall at or below that level.

For each community in the sewer system, the calculation is completed as follows:

1. Take community charge per MG. Data source - MWRA current fiscal year charge per MG;
2. Identify portion of charge per MG that is allocated on the basis of total flow (both sanitary and I/I). Data source - MWRA current fiscal year data;
3. Calculate amount of charge per MG which results from total flow (line 1 * line 2);
4. Calculate the non-flow portion of the charge per MG (line 1 less line 3). This represents the charge per MG which is driven by population and strength factors, and which all households must share in paying;
5. Take portion of community flow that is sanitary flow that is non-I/I flow. Data source - MWRA current FY data;
6. Calculate a charge per MG as if all flow were sanitary flow (line 3 divided by line 5).

7. Calculate the modified unit cost per MG, which is a combination of non-flow portion of charges and the charge per MG of sanitary flow (line 4 plus line 6); and
8. Sort communities by charge per MG from high to low. The 90th percentile community is the one where the charge is lower in 90% of the communities and higher in the remaining 10%. In the existing configuration of 43 sewer communities, the 90th percentile would be the fifth-ranked community.

All input data is available from the MWRA each July following the development of final rates and charges.