

Clause 13 in Report No. 16 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on November 17, 2016.

13

Consultant Selection for Installation, Operation and Maintenance of Wastewater Flow Meters and Rain Gauges

Committee of the Whole recommends adoption of the following recommendations contained in the report dated October 14, 2016 from the Commissioner of Environmental Services:

1. Council approve the award of the contract for consulting services for the installation, operation and maintenance of wastewater flow meters and rain gauges to AECOM Canada Ltd. (AECOM), pursuant to Request for Proposal RFP 16-128 for an initial term of two years at a fee of \$2,988,328.40, excluding HST, and authorize the execution of the contract on behalf of the Region.
2. The Commissioner of Environmental Services be authorized to exercise the option to extend the contract for three additional terms of one year each, on the same terms and conditions, for a total five year cost of \$7,756,857.25, excluding HST, provided that the consultant has performed the services to the satisfaction of the Commissioner and the total cost is within the Capital Spending Authority for this project.

Report dated October 14, 2016 from the Commissioner of Environmental Services now follows:

1. Recommendations

It is recommended that:

1. Council approve the award of the contract for consulting services for the installation, operation and maintenance of wastewater flow meters and rain gauges to AECOM Canada Ltd. (AECOM), pursuant to Request for Proposal RFP 16-128 for an initial term of two years at a fee of \$2,988,328.40, excluding HST, and authorize the execution of the contract on behalf of the Region.

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2. The Commissioner of Environmental Services be authorized to exercise the option to extend the contract for three additional terms of one year each, on the same terms and conditions, for a total five year cost of \$7,756,857.25, excluding HST, provided that the consultant has performed the services to the satisfaction of the Commissioner and the total cost is within the Capital Spending Authority for this project.

2. Purpose

This report seeks Council authorization to retain consulting services for installation, operation and maintenance of wastewater flow meters and rain gauges used for the Inflow and Infiltration Audit Program. This program is an integral part of the Inflow and Infiltration Reduction Strategy (the Strategy) required by Condition 8 of the Southeast Collector Individual Environmental Assessment (SEC IEA).

The Region's Purchasing Bylaw requires Council authorization to award a Request for Proposal over \$2,000,000 or when the recommended proponent is not the lowest cost. In this case, the recommended proponent has submitted the lowest cost; however, their bid is greater than \$2,000,000.

3. Background and Previous Council Direction

The Inflow and Infiltration Audit Program commenced in 2012

As part of the conditions of approval of the Southeast Collector Trunk Sewer Individual Environmental Assessment, the Ministry of Environment and Climate Change (the Ministry) mandated the Region to prepare an Inflow and Infiltration Reduction (Strategy). This Strategy was prepared in 2011 and was updated recently in March 2016.

The Inflow and Infiltration Audit Program is a key component of the Inflow and Infiltration Reduction Strategy. On [May 17, 2012](#), Council received and approved award of contract (RFP 12-20) to AECOM Canada Ltd. for providing services for the development, implementation, data management and field operation, maintenance and support of the Inflow and Infiltration Audit Program for a total of four years.

To date, 249 flow monitoring sites and 71 rain gauges form the Region's wastewater flow monitoring network to continuously gather flow and rainfall data throughout the Region and local municipalities.

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All flow meters are recording data in real-time in both the Regional and local municipal systems. Data is used by Regional staff for ongoing inflow and infiltration reduction analysis to identify high priority areas of excessive inflow and infiltration across the Region that warrant further investigation. Results of this program assisted in the identification of remedial works, which to date have led to a reduction of 9.6 million litres per day in inflow and infiltration in the York Durham Sewage System, representing 24 per cent of the Strategy's 2031 reduction target.

Attachment 1 provides a map of the catchment areas and installed flow monitoring locations and Attachment 2 provides the installed rain gauge locations.

A new contract is required to continue the maintenance and operation of existing wastewater flow meters and rain gauges

Works under contract (RFP 12-20) are expected to be completed by the end of 2016. Continuation of the program is important to implementation of the Strategy required by Condition 8 of SEC IEA. Data collected through this program will continue to be the basis for identifying potential sources of inflow and infiltration and performing inflow and infiltration reduction and capacity related analyses.

Contract (RFP 12-20) provides two main services:

- Installation and maintenance of wastewater flow meters and rain gauges including all necessary field investigation and coordination works and data quality assurance and quality control (QA/QC) and reporting;
- Management of flow and rainfall data

Data management service is provided by AECOM through their sub-consultant FlowWorks Inc. under contract (RFP 12-20). On [September 22, 2016](#), Council authorized the Region to enter into a direct purchase agreement with FlowWorks Inc. to enable staff to continue using its data management services and customized features designed specifically for the Region.

New contract does not include data management, which will be provided by FlowWorks Inc.

This report seeks authorization to award consulting services to AECOM, for the operation and maintenance of existing wastewater flow meters and rain gauges, and the installation and maintenance of approximately 15 additional wastewater flow meters and 2 additional rain gauges per year. Maintaining the monitoring sites is necessary to provide accurate data required by Regional staff to carry out

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inflow and infiltration related analysis and to quantify the inflow and infiltration reduction as a result of completed remedial works.

Work currently covered under contract (RFP 12-20) for the data management service will be undertaken by FlowWorks Inc. and is not part of this assignment.

4. Analysis and Implications

A two-year contract term provides flexibility for future program review

The term of the contract is for two years with an option to renew for three additional terms of one year each, at the sole discretion of the Region and on the same terms and conditions. This arrangement provides the flexibility for terminating or extending the contract after two years, which would be based on the performance of the consultant in the first two-year term.

Request for Proposal RFP 16-128 was issued in September 2016

In accordance with the Region's Purchasing Bylaw, Request for Proposal RFP 16-128 was released in September 2016 to obtain consulting services for field operation, maintenance and support of the Inflow and Infiltration Audit Program.

The request for proposal detailed the scope of work required, which included the following services:

- System-wide wastewater flow and rainfall monitoring, maintenance, operation and support services for approximately 400 short-term and long-term flow and rainfall monitoring sites within nine local municipalities as per existing and future catchment area delineation maps
- Real-time flow and rainfall monitoring and validation of data to ensure delivery of high quality datasets required for analyzing inflow and infiltration reductions and monitoring performance of audit basins
- Program management plan implementation and update including lifecycle, operation, maintenance and monitoring of equipment, asset management, meters replacement strategy and reporting
- Program communication plan implementation and update
- Catchment areas delineation maps update

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RFP 16-128 was advertised in the *Daily Commercial News* and through the Region's Bids and Tenders notification system and closed on October 6, 2016. Six proponents obtained the bid document and four proponents submitted proposals in response to the request for proposal.

Proposals evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in two separate envelopes. The overall proposal score was evaluated based on a weighting of 80 points for the technical proposal and 20 points for the financial proposal. Technical proposals were evaluated prior to any knowledge of financial information.

The Region's proposal evaluation team reviewed the four technical proposals based on the following criteria:

- Experience of proponent, proposed team and project manager in Regional and similar projects
- Proposed key staff and project manager's qualifications and training
- Project understanding and methodology
- Project management approach and deliverables
- Proponent's policies for quality assurance and quality control processes, health and safety, environmental management and traffic control
- Similar project references
- Value added services and innovative concepts

To be considered for award, proponents must achieve a minimum technical score of 60 per cent (48 points out of the potential 80) to have the financial portion of the proposal considered. If a proponent does not achieve this minimum technical score, their financial proposal is returned unopened. Technical and financial results for each proponent are summarized in Table 1 below.

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Table 1
Consultant Proposal Evaluation Summary

Consulting Firm	Technical Score (Out of 80)	Total Fee (excluding taxes)	Financial Score (Out of 20)	Total Score (out of 100)
AECOM Canada Ltd.	70.4	\$2,988,328.40	20	90.4
ADS LLC	50.2	\$5,430,319.00	11	61.2
Civica Infrastructure Inc.	29.3	N/A	N/A	N/A
XCG Consulting Ltd.	28.9	N/A	N/A	N/A

Evaluation summary revealed AECOM as the successful proponent

The proposal submitted by AECOM demonstrated a clear understanding of the project requirements and provided an experienced team committed to providing the services stipulated in the scope of work. The proposal submitted by AECOM represents the best value for the Region.

Supplies and Services branch reviewed the evaluation summary and issued their report confirming that AECOM be recommended as the successful proponent to undertake the services for the Inflow and Infiltration Audit Program.

5. Financial Considerations

The fee for the proposed work for the initial term of two years is \$2,988,328.40, excluding HST. Adequate Capital Spending Authority is included in the approved 2016 budget as part of the Region's Inflow and Infiltration Reduction Program. Funding for three additional optional one-year terms for a combined total of \$4,768,528.85 will be requested through future budget processes as part of the Inflow and Infiltration Reduction Program. The total five year cost is \$7,756,857.25, excluding HST.

Based on competitive pricing within the financial proposal submitted by AECOM and industry standards, the fee for the proposed work represents value for money for this project.

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As part of the Inflow and Infiltration Reduction Strategy, the subject works are funded by development charges. The Inflow and Infiltration Reduction Strategy is required as a condition of approval of the Southeast Collector, which is a key project to support Regional growth to 2031 and beyond. Inflow and infiltration reduction recovers capacity in the wastewater system to permit advancement of capacity assignment without the need to advance infrastructure investments.

6. Local Municipal Impact

This financial investment supports local and Regional efforts

All monitoring sites within the Inflow and Infiltration Audit Program are installed in the local wastewater systems, which provide wastewater flow data to support local and Regional efforts at determining high inflow and infiltration risk areas for further investigation and remediation.

Local municipal staff have been involved in developing the Inflow and Infiltration Reduction Strategy to ensure local objectives are met and are key partners in the Inflow and Infiltration Audit Program. A Memorandum of Understanding between the Region and each local municipality has been executed as part of the Inflow and Infiltration Audit Program. Local municipal staff have full access to flow and rainfall data within their respective municipality through FlowWorks Inc.

7. Conclusion

As part of the Inflow and Infiltration Reduction Strategy, the continuity of the Inflow and Infiltration Audit Program is a regulatory requirement as mandated by the Ministry under Condition 8 of the Southeast Collector Trunk Sewer Individual Environmental Assessment.

Four proposals were received and evaluated in accordance with the Region's Purchasing By-law. The proposal from AECOM represents the best overall value to the Region and it is recommended that the assignment be awarded to AECOM for an initial term of two years at a fee of \$2,988,328.40, excluding HST, with an option to renew for three additional terms of one year each, at the sole discretion of the Region and on the same terms and conditions for a total five year cost of \$7,756,857.25, excluding HST.

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of Wastewater Flow Meters and Rain Gauges

For more information on this report, please contact Stephen Fung, Director,
Infrastructure Asset Management, Environmental services at ext. 73025.

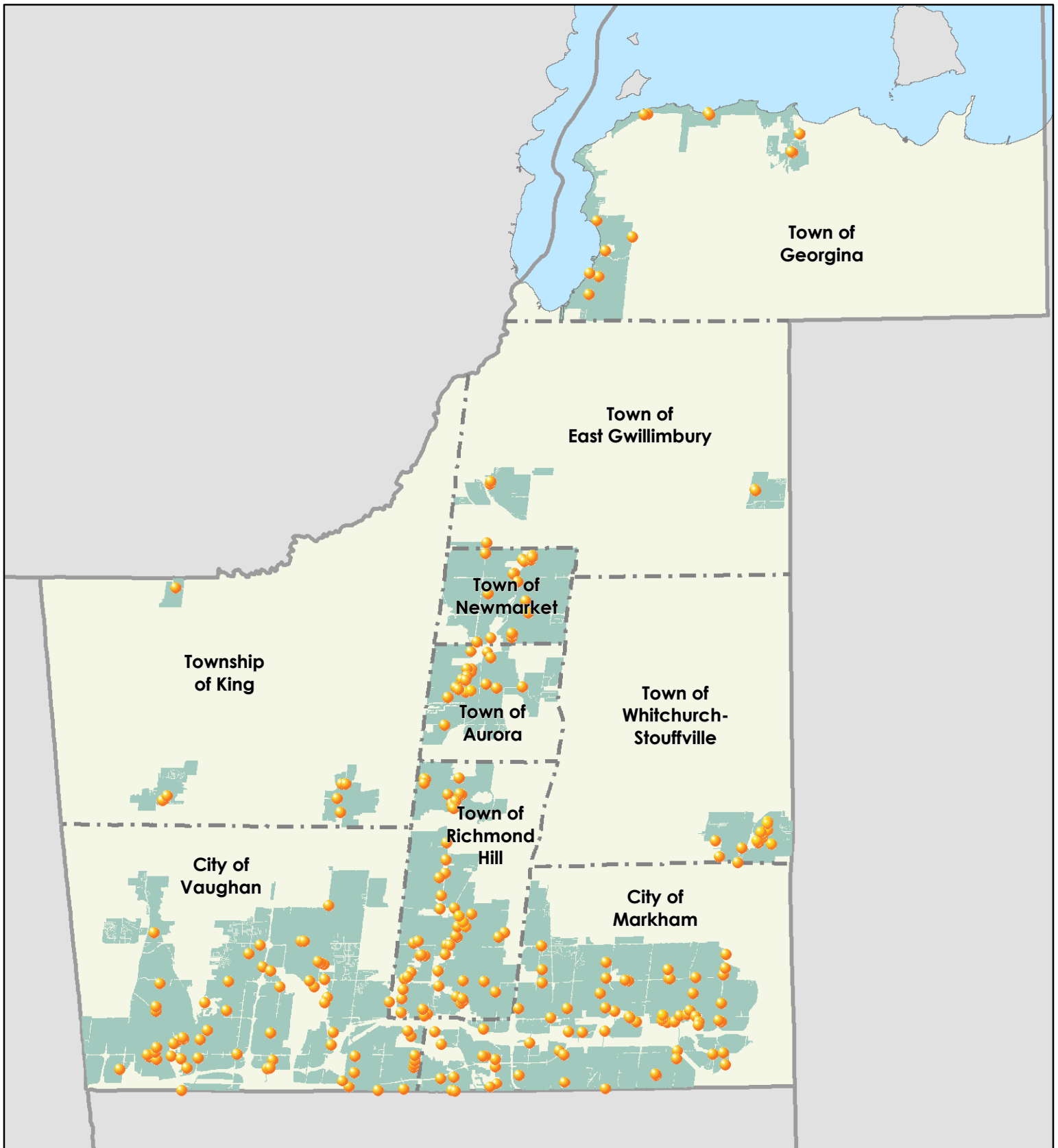
The Senior Management Group has reviewed this report.

October 14, 2016

Attachments (2)

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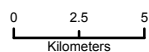
Accessible formats or communication supports are available upon request



**Consultant Selection for Installation,
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Flow Meters and Rain Gauges**



Predefined Catch Basins and Flow Monitoring Locations

November 3, 2016

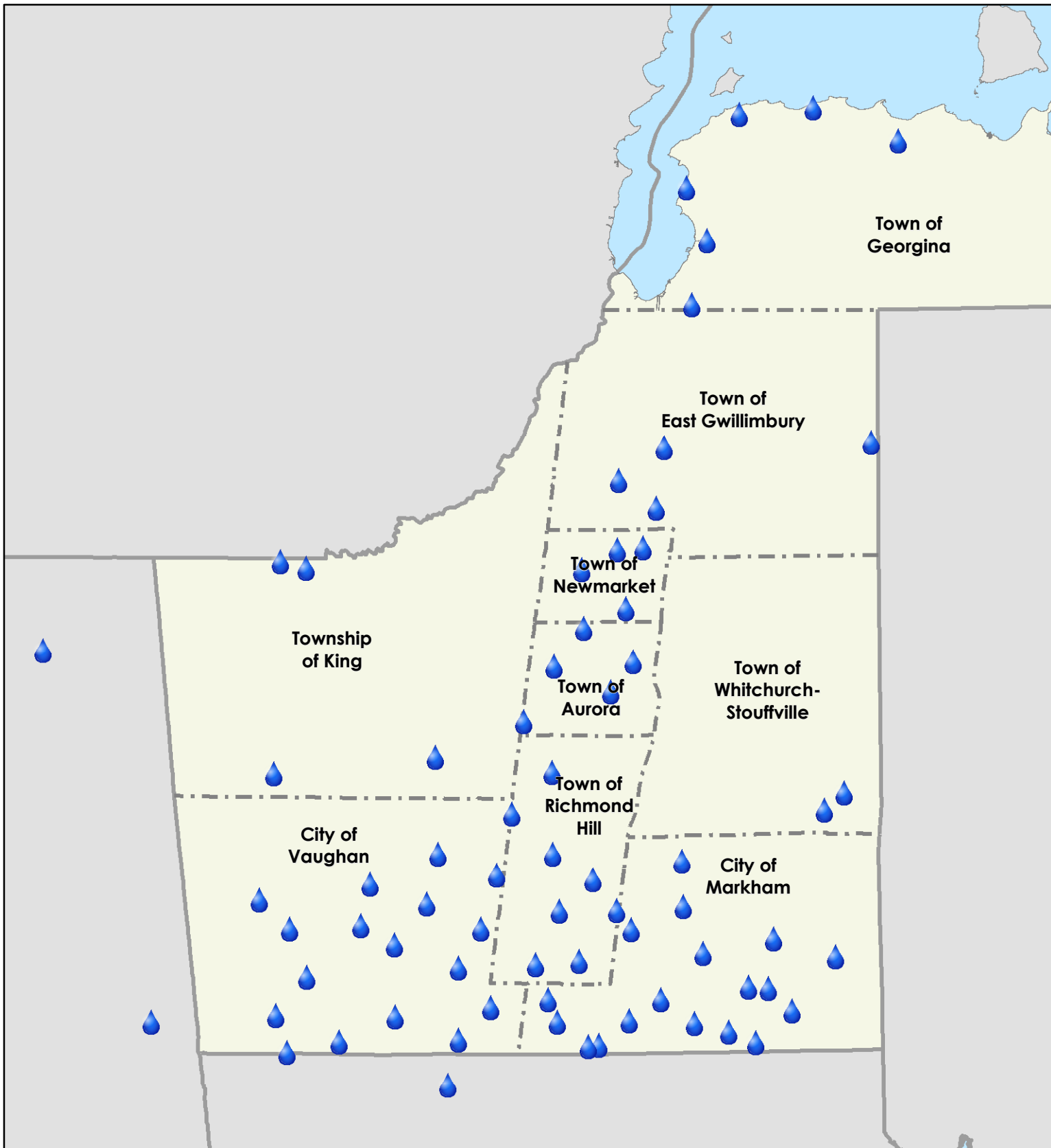


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Legend

-  Flow Monitoring Site (249)
-  Flow Monitoring Catchment Area

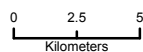




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Rainfall Monitoring Sites

November 3, 2016



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 Rainfall Monitoring Site (71)