

US EPA ARCHIVE DOCUMENT

Quarterly Project Progress Report

**Construction Storm Water Excellence Initiative 2007
EPA Grant# EI-96489108-0**

June 2010

**U.S. EPA State Innovation Grant Program
National Center for Environmental Innovation**

**Tennessee Department of Environment and Conservation
University of Tennessee, Municipal Technical Advisory Service**



Municipal Technical Advisory Service
In cooperation with the Tennessee Municipal League

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Project Description

Construction Stormwater Excellence Initiative

(Tennessee's State Innovation Grant Project- 2007)

Grantor:

US EPA State Innovation grant Program, National Center for Environmental Innovation

Grantee:

Tennessee Department of Environment and Conservation (TDEC)
University of Tennessee, Municipal Technical Advisory Service (MTAS)

State Project Manager:

Robert Karesh, Tennessee Department of Environment and Conservation
Division of Water Pollution Control, Statewide Stormwater Coordinator
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Nashville, TN 37243-1534
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Email: Robert.Karesh@tn.gov

Total Project Cost:

The total amount funded was \$200,000. The State of Tennessee has committed a minimum of \$100,000 of in-kind funding for the same period. There are no other federal contributions to this program.

Project Period:

October 1, 2007 to September 30, 2013

**Key Milestones (Including Outputs),
Reflecting The Projected Timelines For Completion¹**

Objectives and Outputs	Original Start Date (Amended Start Date)	Original Completion Date (Amended Completion Date)	Complete?	Slippage Explanation/Other Comments
Objective: Stormwater group preliminary organizational meeting (pre-award) Output(s): <i>TDEC/MTAS meetings to determine key MS4's for preliminary solicitation, etc.</i>	September 2007	May 2008	Yes	This objective combined with the 3rd objective while waiting for final signatures.
Objective: Execute contract with the University of Tennessee's Municipal Technical Advisory Service (MTAS) Output(s): <i>Due to MTAS's unique status within the State, their ability to deliver training and technical support statewide to local governments and their history as a TDEC partner in the Stormwater program, MTAS will be the sole contractor for the initiative.</i>	October 2007	Final Signatures May 2008	Yes	Final signatures were received by Contracts Division/TDEC May 2008
Objective: TDEC-MTAS project team meetings Output(s): <i>Continuing identification of MS4's for Stormwater group. Identifying specific contacts from various other stake holder organizations. Scheduling venues for organizational meetings. Developing agenda's, informational literature, etc.</i>	October 2007 (March 2008)	May 2008	Yes	As with Objective #1, TDEC-MTAS continued to work together on project and planning meetings during the delayed pre-award time. The final signatures were received by May 2008.
Objective: Establish stormwater group (Tennessee Stormwater Association) Output(s): <i>Organize initial meeting of the state regional group representative at a state level. Formalize the group. Set up a calendar of regional & state meetings, etc.</i>	December 2007 (March 2008)	June 2008	Yes	Due to delayed signatures for official contract award to MTAS, the development of the statewide Stormwater Association was not established until March 2008
Objective: Establish stakeholder committee Output(s): <i>Identify, contact, and obtain participation from representatives of the stakeholder groups. Set up and formalize the committee. Set mission, agenda, meeting calendar and milestones.</i>	December 2007 (May 2008)	May 2008	Yes	Due to delayed signatures for official contract award to MTAS, and the delayed establishment of the TNSA, the Stakeholder Committee was not established until May 2008

¹ Please see Revised Timeline Schedule in Appendix B

**Key Milestones (Including Outputs),
Reflecting The Projected Timelines For Completion¹**

Objectives and Outputs	Projected Start Date	Projected Completion Date	Complete?	Slippage Explanation/Other Comments
<p>Objective: Issue new MS4 General Permit</p> <p>Output(s): <i>With the new minimum requirements for baseline MS4 programs, develop the additional minimum requirements for QLP. This was not part of Grant.</i></p>	Not part of grant	July 2010	In process	TDEC worked with EPA to craft a permit that reflected the EPA's desire to see a "Green" permit with more emphasis on infiltration based permanent BMP's.
<p>Objective: Facilitate meetings to establish criteria</p> <p>Output(s): <i>Set venue, agenda, etc., and facilitate meetings in order to achieve stakeholder input on the criteria for qualifying a local program.</i></p>	January 2008 (June 2008)	June 2010	In process	Start date amended due to grant development delays but meetings have been held every quarter since the Kickoff meeting held August 15, 2008
<p>Objective: Develop and promote guidelines and incentives</p> <p>Output(s): <i>With the information from the stakeholder committee meetings, develop guidance material and an incentive program for qualifying local programs.</i></p>	Began in September 2008	June 2010	In process	Start date amended due to grant development delays but meetings to develop incentives/criteria have been held every quarter since the Kickoff meeting held August 15, 2008
<p>Objective: Develop excellence recognition program</p> <p>Output(s): <i>With the information from additional stakeholder committee meetings, input from additional groups such as the Tennessee Municipal League, etc., develop excellence recognition program</i></p>	October 2009	September 2010	In process	Began initial discussion October 2009, and after amending the project timeline, we will have two more quarterly meetings to discuss & finalize Excellence Recognition Program by September 2010.
<p>Objective: MS4's implement new permit</p> <p>Output(s): <i>MS4's revise their programs in accordance with new permit</i></p>	July 2010	January 2012	No	
<p>Objective: Pilot the qualification of a MS4</p> <p>Output(s): <i>Work with select MS4(s) volunteer(s) program(s) to work through guidance materials and document achieving the various elements involved in becoming a qualified program. Monitor the designated Qualified Program.</i></p>	January 2012	June 2013	No	To provide the MS4s with time to adhere to the new MS4 permit requirements, we requested a grant extension of two years. This projects the QLP Pilot start date for June 2012 and the QLP Program to go live in June 2013. Please see Timeline in Appendix B.

**Key Milestones (Including Outputs),
Reflecting The Projected Timelines For Completion¹**

Objectives and Outputs	Projected Start Date	Projected Completion Date	Complete?	Slippage Explanation/Other Comments
<p>Objective: Develop and deliver workshops across the state</p> <p>Output(s): <i>Based on the results of the pilot program, update the guidance materials. With the updated guidance materials and pilot program case history/histories, develop workshops lesson plans. Deliver workshops and guidance materials statewide.</i></p>	June 2013	August 2013	No	<p>The timeline was adjusted by two additional years to provide the MS4s with enough time to adhere to the new MS4 permit requirements; we requested a grant extension of two years. This new timeline projects the QLP Pilot start date for June 2012 and the QLP Program to go live in June 2013. Please see Timeline in Appendix B.</p>
<p>Objective: Deliver a replicable solution to other states</p> <p>Output(s): <i>With updates to workshop lesson plans and materials based on participant feedback, develop final guidance materials, workshop lesson plans, case histories etc., for delivery to EPA.</i></p>	September 2013	September 2013	No	<p>The timeline was adjusted by two additional years to provide the MS4s with enough time to adhere to the new MS4 permit requirements; we requested a grant extension of two years. This new timeline projects the QLP Pilot start date for June 2012 and the QLP Program to go live in June 2013. Please see Timeline in Appendix B.</p>

Part 1 – Synopsis of Accomplishments during the Reporting Period

During the ninth reporting period (ending June 30, 2010, 2nd quarter (calendar year), 2010), several project milestones were accomplished, initiated, or amended:

- The first week of May, 2010, there was historic level flooding in Middle and West Tennessee. Among the consequences, the public comment period for the new Small MS4 Permit had to be extended, delaying the permit issue date.
- On April 12, 2010, we sent out a notice of a change in date for the QLP Stakeholder Committee Meeting for the 2nd Quarter of 2010, to June 8, 2010, and an agenda to assist the Committee in preparing for the meeting. Work was done by TDEC, MTAS, and the Committee in preparation for the next meeting. The meeting was held on June 8, 2010.
- EPA reviewed a revised project timeline and project extension request, taking the issue of a new small MS4 permit and its impact on the project into account.²
- EPA approved our QAPP during this period. We had continued working with EPA representatives Gerald Filbin, Sean Flynn, and others during this period to assist us in developing a non-numeric based QAPP that will evaluate the data received through timely distributed survey instruments.³
- TDEC has continued to support the establishment of the Tennessee Stormwater Association (TNSA) with efforts outside the scope and funding of this grant.
 - TNSA provided continuing member representation in commenting on the draft General Permit for Small MS4's.
 - TNSA held regional meeting across the state which TDEC and MTAS attended in order to provide QLP and permit updates and obtain input on the QLP process.
 - TNSA worked with TDEC, EPA, MTAS and TDA (the Tennessee Department of Agriculture) on scheduling and preparing statewide workshops for next quarter addressing the new Small MS4 Permit, Green Infrastructure and the EPA Water Quality Scorecard, a new model stormwater ordinance, and the new Notice of

² Appendix B

³ Appendix B

Intent (NOI). These workshops are outside of the Grant, however they will assist the MS4's in preparing for compliance with the new permit, which in turns assists the MS4's in preparing to participate in the QLP option.

Part 2 – Narrative Discussion

A. QLP Stakeholder Committee

On February 10, 2010, we sent out a meeting summary for the QLP Stakeholder Committee Meeting from the 4th Quarter of 2009, to assist the Committee in preparing for the next meeting on May 5, 2010.

Then, on April 12, 2010, we sent out a notice of a change in date for the QLP Stakeholder Committee Meeting for the 2nd Quarter of 2010, to June 8, 2010, and an agenda to assist the Committee in preparing for the meeting. The meeting was rescheduled in order to allow for the finalization of the new Small MS4 Permit. Knowing the final requirements for a baseline MS4 program under the new permit will assist with finalizing the items for the Qualified Local Program.

On June 8, 2010, at the QLP Stakeholder Committee Meeting, Sean Flynn and Alanna Conley of the EPA were in attendance, as well as Paul Sloan, TDEC's Deputy Commissioner. These three all addressed the committee.

The agenda set out for the meeting was:

1. EPA Introductions,
2. An update on the new permit,
3. Revised QLP Timeline,
4. QLP Awards & Recognition,
5. Next Steps as a QLP,
6. QLP Application Process,
7. QLP Incentives Review

We ran through a quick overview of the process that the committee had been engaged in, and then discussed timelines as well as the grant time extension that we received from EPA.

We recapped the previous QLP Incentives discussions, and the initiation of the development of a “QLP Recognition and Awards” program. Multiple examples were discussed, included recognition ceremonies by the Commissioner with QLP Mayors, or additional points being added to state grant or loan applications. Members were encouraged to submit other awards/ideas. The intent of the “QLP Recognition and Awards” program is to encourage participants in the pilot phase to stick with the program and continue with it long-term.

The envisioned continuing role of the committee was also discussed. It is expected that the QLP Stakeholder Advisory Group will continue, at a minimum, to help with the development of the QLP program through the pilot phase and final rollout. This help, for example, could take the form of feedback and suggestions for mid-course “tweaking” of the program. In addition, we intend for the Committee to provide stakeholder representation on future stormwater permits and guidance development efforts.

B. Revised Project Timeline and Project Extension

On June 3, 2010, Sean Flynn, with EPA, accepted a formal project time extension request for consideration.

The driving force justifying the need for the time extension was the delay in the issuance of Tennessee’s new General Permit for Small MS4s. TDEC worked with EPA to craft a permit that reflected the EPA’s desire to see a “Green” permit with more emphasis on infiltration based permanent BMP’s. The MS4s will need time to revise their programs in accordance with the new permit. This unforeseen time adjustment would not leave enough time for a full Pilot Program prior to the original end date of the project.

C. Quality Assurance Project Plan (QAPP)

We received approval of our QAPP during this report period. We had continued working with the EPA during this period to develop a non-numeric based QAPP that will evaluate the data received through survey instruments. The assistance provided to us from EPA from Gerald Filbin, Sean Flynn, and others, is greatly appreciated.

A copy of the approved QAPP is provided under Appendix B.

D. Tennessee Stormwater Association

As provided for in this innovation grant, we have continued to support the TNSA during this reporting period. The following are highlights of relevant TNSA activities:

- The TNSA website received additional improvements and updates during this period. TNSA's permanent website committee met during the period to promote website improvement. The website is: <http://tnstormwater.org/>.

- TDEC has also continued to support the establishment of the TNSA with efforts outside the scope and funding of this grant.

The TNSA education coordinator, Cynthia Allen, attended the following TNSA meetings during the 2nd quarter of 2010:

April

- 4/6/10 SE TN MS4 Quarterly meeting- Chattanooga
- 4/8/10- M TN MS4 new permit meeting- Goodlettsville
- 4/12/10- TDEC Watershed Conference Steering Committee meeting- Ellington
- 4/23/10 –M TN MS4 Quarterly meeting- Franklin
- 4/27/10- Warner Park, workshop, Water Words that Work
- 4/28/10- TWRA/ USACE watershed mitigation meeting- Ellington

May

- 5/6/10- WaterWorks & MTSU as MS4 meeting
- 5/12/10- CDM/TDEC sponsored TMDL workshop- Vanderbilt
- 5/20/10 TDEC, Social Marketing meeting- Fleming Center

June

- 6/1/10- W TN MS4 Quarterly meeting- Germantown
- 6/8/10- QLP and TNSA Quarterly Board meetings- TDEC
- 6/28/10 NE TN MS4 Quarterly meeting- Gray TN

Ms. Allen is continuing to put together a statewide group of MS4s to participate in radio and television stormwater public education and outreach.

Ms. Allen concluded together the first group order for education and outreach print materials to take advantage of a print grant from the Department of Agriculture.

- TNSA worked with TDEC, EPA, MTAS and TDA (the Tennessee Department of Agriculture) on scheduling and preparing statewide workshops for next quarter addressing the new Small MS4 Permit, Green Infrastructure and the EPA Water Quality Scorecard, a new model stormwater ordinance, and the new Notice of Intent (NOI). These workshops are outside of the Grant, however they will assist the MS4's in preparing for compliance with the new permit, which in turns assists the MS4's in preparing to participate in the QLP option.

Part 3 – Projection of Activities, Accomplishments, and Major Expenditures for Next Quarterly Report

In a cooperative effort, TDEC, EPA, and UT-MTAS will present a series of statewide workshops in July. Here is the agenda for the workshops:

Introduction & MS4 101	Robert Karesh, TDEC & Alanna Conley, EPA
New Permit Discussion	Robert Karesh, TDEC
EPA Stormwater Toolkit	Vivian Doyle, EPA & MaryAnn Gerber, EPA
Green Infrastructure	MaryAnn Gerber, EPA
EPA Water Quality Scorecard	MaryAnn Gerber, EPA & Sid Hemsley, MTAS
Model Ordinance	John Chlarson & Sid Hemsley, MTAS
Notice of Intent Example	Robby Karesh, TDEC & John Chlarson, MTAS

A complete copy of the agenda can be found in Appendix A.

During the next quarter, the Small MS4 Permit should be issued. After the permit has been issued, a reasonable period will be allowed, and then the first of the surveys referenced under our approved QAPP will be conducted.

Part 4 – Financial Report

The project budget is on track for the goals and milestones of this project. Information Technology set up an internal account at MTAS under which project reporting continues to capture the Grant related hours. An invoice for January-March for \$12,564.21 was submitted to TDEC by MTAS on April 20, 2010, of this Quarter. A table based on that invoice is included below. TDEC, likewise, set up an internal tracking mechanism and continues to capture TDEC hours to apply toward the in-kind match.

Budget Category	Total Approved EPA Project Budget	Current Invoice: January 1 –March 31, 2010	Cumulative to Date
Professional Salaries	\$80,000	\$8,036.86	\$68,791.85
Fringe Benefits/Insurance	\$24,000	\$1,985.37	\$20,173.70
Travel	\$10,000	\$582.58	\$6,348.92
Printing/Supplies	\$15,000	\$0	\$131.58
Training/Special Services	\$15,000	\$320.59	\$2,381.59
Fixed and Administrative Costs	\$56,000	\$1,638.81	\$14,816.07
Totals	\$200,000	\$12,564.21	\$114,275.71

APPENDIX “A”

- A-1 December 8, 2009, Meeting Summary
- A-2 Final QLP Incentives
- A-3 June 8, 2010, QLP Meeting Reminder
- A-4 Stormwater Workshop Agenda
- A-5 June 8 QLP Meeting Agenda
- A-5 June 8 QLP Meeting Presentation (abridged)

A-1



TENNESSEE.GOV



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER POLLUTION CONTROL
401 CHURCH STREET
6TH FLOOR L&C ANNEX
NASHVILLE, TN 37243

February 10, 2010

TO: Tennessee Qualified Local Program Advisory Committee

RE: December 8, 2009 Meeting Summary

Good Day,

Once again, we want to extend our appreciation for your continued participation in our Qualified Local Program (QLP) Advisory Committee meeting held on December 8, 2009. Over the last two years, we have worked through numerous potential incentives and we now have a short list of realistic incentives and guidelines to attract the participation of prospective QLPs.

During this 4th quarterly meeting, the opening conversation revolved around the new MS4 permit which was originally scheduled to be issued June 2009, but is now scheduled to be on Public Notice in February 2010 and issued June 2010. The group was concerned that the delay of permit issuance would be a time constraint in the ability of the MS4 to successfully integrate QLP requirements and become Pilots.

We recognize that it is important to the success of this grant to provide the MS4s time to revise their programs and enable a full pilot period. We have spoken with EPA over a time extension and they concurred with our concerns and are positioned to grant us a two year extension. This new timeline projects the QLP Pilot start date for June 2012 and the QLP Program to go live in June 2013. Please see attached Timeline document.

The ensuing discussion then turned to our efforts at assessing QLP Grant Project Effectiveness. We discussed the process we've taken to develop the QAPP with EPA's assistance and explained that the QAPP will include a survey that may be delivered multiple times. In an effort to collect the most beneficial data, the group recommended that we perform a preliminary, interim, and final survey.

Our attention was then directed to the finalized versions of the following summarized QLP Incentives:

- a. **Construction General Permit fee split with QLP – Finalized**



- b. QLP status considered equivalent to program effectiveness monitoring – Finalized
- c. Standardized TDEC/ QLP Enforcement Protocol – Finalized
- d. MS4's applying for QLP Status will have to show that the necessary resources will be provided - Finalized
- e. QLP Status Requirements guaranteed Static – Finalized
- f. Streamlining QLP Procedures – Finalized

Please see the accompanying document *Final QLP Incentives* for summaries of each incentive.

After the QLP Incentives discussion, we initiated the development of a “QLP Recognition and Awards” program. Multiple examples were discussed, included recognition ceremonies by the Commissioner with QLP Mayors, or additional points being added to state grant or loan applications. Please submit other awards/ideas you may have before the next meeting.

It is expected that the QLP Stakeholder Advisory Group will continue, at a minimum, to help with the development of the QLP program through the pilot phase and final rollout. In addition, we intend for the Committee to provide stakeholder representation on future stormwater permits and guidance development efforts.

Our next meeting is scheduled in Nashville for **May 5, 2010**, from 10am -1 pm Central Time on the 17th floor of the L&C Tower. We will be sending you an Agenda in the near future.

Thank you again for your participation and the valuable input you provided to this Committee. If you have any questions please contact Robert Karesh or John Chlarson.

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Division of Water Pollution Control
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Final QLP Incentives:

Incentive #1: Construction General Permit fee split with QLP

Coverage equivalent to coverage under the construction general permit (CGP) may be obtained from a QLP. If a construction site is within the jurisdiction of and has obtained a notice of coverage from a QLP, the operator of the construction activity is authorized to discharge storm water associated with construction activity under the CGP without the submittal of an NOI to the division.

CGP permit coverage fees are specified in the TDEC Rules, Chapter 1200-4-11, and range from zero for sites less than 1 acre to \$7,500 for sites greater than or equal to 150 acres. Our goal with this incentive is to change the Rule such that seventy (70) percent of the total permit coverage fee would be paid to the coverage issuing QLP for costs associated with plan review, coverage review and issuance, inspections, enforcement, program administration and database management. The remaining thirty

(30) percent would be paid to TDEC for costs associated with the administration and oversight of the QLP program. In the event that the QLP waives the right to collect the 70% portion of the fee, the entire fee amount must be paid to TDEC.

TDEC is currently evaluating available Rule change options. If successful, TDEC will draft the rule change and propose it to the Water Quality Control Board for approval. Once approved by the Board, the final rule change will be submitted to Attorney General's office for legal review and then the Secretary of State's office for authorization. Our experience has been that this process can take up to 18 months to complete, depending on the complexity of the proposal.

Incentive #2: Standardized TDEC/ QLP Enforcement Protocol

MS4s are required to develop and implement an Enforcement Response Plan (ERP) that includes policies and procedures for stormwater ordinance enforcement. An MS4 that attains the status of a Qualified Local Program (QLP) may include steps in the ERP that allow for cooperative enforcement with TDEC. Our expectations are that this approach will increase construction activity compliance and establish a cooperative partnership between TDEC and the QLP.

When a QLP has proceeded through their ERP and the construction site activity remains in non-compliance, the QLP will be able to submit an Enforcement Assistance Request (EAR) form to the local TDEC Environmental Field Office (EFO). After a review for completeness, the EFO

will submit this EAR to the Enforcement Section and an Order may be expeditiously issued using the documentation submitted by the QLP. The enforcement will be based upon the facts, photographs, and enforcement actions

and assessed penalties documented by the QLP and issued under TDEC's authority to assess penalties up to \$10,000 a day as well as require corrective action.

The EAR will be a form approved by the State's Forms Committee and will include guidance.

Incentive #3: QLP status considered equivalent to program effectiveness monitoring

MS4's are required to implement a Storm Water Management Program (SWMP) that will reduce the discharge of pollutants to the maximum extent practicable and not cause or contribute to violations of state water quality standards. MS4's that discharge to stream segments identified as impaired are required to monitor and evaluate SWMP effectiveness. Monitoring protocols and methodologies are pollutant specific. For the purposes of the QLP program, the main pollutant of concern is siltation. Monitoring for stream segments identified as siltation impaired must, at a minimum, include the following, or equivalent:

1. Biological stream sampling utilizing the Semi-Quantitative Single Habitat (SQSH) Method as identified in the Division's Quality System Standard Operating Procedure for Macroinvertebrate Stream Survey, revised October 2006. The goal of this monitoring is to collect historical water quality trend analysis data for the purposes of documenting the improvement or deterioration of an impaired stream segment.
2. Visual Stream Surveys and Impairment Inventories, performed in an effort to identify and prioritize MS4 stream impairment sources. At a minimum, a survey must be performed immediately upstream and downstream of each MS4 outfall that discharges into an impaired stream segment. The goal of this monitoring is to evaluate if the pollutant of concern is being conveyed through the stormwater system, or if the general condition of the system itself is generating the pollutant of concern.

QLP programs are expected to be beneficial to long term water quality by effectively minimizing the discharge of construction activity related siltation through the stormwater system. Therefore, TDEC will consider an appropriately maintained QLP status as equivalent to the biological stream sampling referenced above. However, QLP's will still be required to perform the visual stream survey and impairment inventory referenced above to evaluate if non-construction related sources of siltation are being conveyed through the stormwater system, or if the general condition of the stormwater system itself is generating siltation.

Incentive #4: MS4's applying for QLP Status will have to show that the necessary resources will be provided.

MS4's applying for QLP Status will have to complete the LOS exercise to show the resources necessary for their program to support, at a minimum, the following requirements in their jurisdiction:

1. 2. Procedures for site inspection and enforcement: The MS4 must have procedures in place for its inspectors to evaluate construction site compliance. The ERP must include specific enforcement steps to ensure construction sites are in compliance with the MS4's program.
2. 3. Recognition of priority construction activity, including at a minimum, those construction activities discharging directly into, or immediately upstream of, waters the state recognizes as impaired or Exceptional Tennessee Waters; Pre-construction meetings with construction-site operators for priority construction activities; and Inspections by the MS4 of priority construction sites at least once per month.
3. 4. Specific procedures for SWPPP review and approval: These procedures must include an evaluation of SWPPP completeness and overall BMP effectiveness.
4. 9. Procedures for managing public input on projects: The MS4 must have mechanisms for providing notice of projects and receiving and considering comments from the public.
5. 10. Procedures for the issuance, tracking and reporting of Notice of Coverage for construction activities performed within the QLP jurisdiction.

The QLP application will contain the results of this exercise along with a signature blank for the Mayor (or responsible party) to sign, signifying that he/she is committing that the MS4 guarantees that the resources to support the minimum requirements for QLP Status will be provided.

Incentive #5: QLP Status requirements guaranteed static.

QLP Status requirements beyond the requirements for an MS4 program shall remain static for the duration of the contract between the QLP and TDEC.

Incentive #6: Streamlining QLP procedures.

As an incentive for MS4 participation, QLP program requirements have been streamlined where possible.

A-3

From: Jennifer Watson
To: QLP Advisory Committee
CC: Conley.Alanna@epamail.epa.gov; Flynn.Sean@epamail.epa.gov
Date: 6/8/2010
Time: 10:00 AM - 1:15 PM
Subject: QLP Meeting Rescheduled for June 8, 2010
Place: 17th Floor L&C Tower

Good Morning Everyone!

The general MS4 permit went on public notice on March 22, 2010, and is expected to be issued in June. The public notice period for the proposed permit ends on May 28th. Since our QLP minimum requirements are based on the new MS4 permit, **we are moving the next QLP meeting to Tuesday, June 8, 2010**, from 10-1 PM CT so we can finalize any changes to the QLP minimum requirements prior to our meeting.

Our agenda for the June 8th meeting will include the following topics:

1. EPA Introductions,
2. An update on the new permit,
3. Revised QLP Timeline,
4. QLP Awards & Recognition,
5. Next Steps as a QLP,
6. QLP Application Process,
7. QLP Incentives Review

Please continue to think about and submit potential ideas and opportunities for QLP Awards, Rewards, and Recognition.

Thank you! See you on June 8th!

Jennifer

Jennifer Watson

TDEC - Water Pollution Control
Enforcement & Compliance Section
Office: 615-532-0359
Jennifer.Watson@tn.gov



Municipal Technical Advisory Service
In cooperation with the Tennessee Municipal League



EPA, TDEC, TDA & MTAS Present
2010 Tennessee New Stormwater Permit Workshops

During July 2010, EPA, TDEC & MTAS are partnering to present Phase II Stormwater Workshops across the state. The Workshops will include National and State perspectives on Stormwater and Green Infrastructure; discussion on the 2010 issuance of the Phase II MS4 permit; introduction to EPA's Stormwater Toolkit and Water Quality Scorecard; and NOI and Model Ordinance exercises. The following is the workshop agenda:

Introduction & MS4 101	Robert Karesh, TDEC & Alanna Conley, EPA
New Permit Discussion	Robert Karesh, TDEC
EPA Stormwater Toolkit	Vivian Doyle, EPA & MaryAnn Gerber, EPA
Green Infrastructure	MaryAnn Gerber, EPA
EPA Water Quality Scorecard	MaryAnn Gerber, EPA & Sid Hemsley, MTAS
Model Ordinance	John Chlarson & Sid Hemsley, MTAS
Notice of Intent Example	Robby Karesh, TDEC & John Chlarson, MTAS

Workshop Schedule

The Workshops will run promptly from 8:00 Am – 5:00 PM

July 15, 2010
1100 Charlie Daniels Parkway
Mt. Juliet, TN 37122

July 28, 2010
State Office Building – Suite 550
540 McCallie Avenue
Chattanooga, TN 37402

July 27, 2010
TDOT Administration Building, 7345 Region lane
Knoxville, TN 37914

July 14, 2010, 2010
The International Harvester's Club
4523 Canada Road
Lakeland, TN 38002

Lunch and refreshments will be provided.

Please complete the registration below, and return it to the following address or visit our Web site to register online.

The University of Tennessee Municipal Technical Advisory Service Attention: Stormwater Permit Workshop Registration
120 Conference Center Building • Knoxville, Tennessee 37996-4105

Fax: (865) 974-0423 • Web site: www.mtas.tennessee.edu

If you have questions about registration, please contact Elaine Morrissey at (865) 974-0411 or e-mail elaine.morrissey@tennessee.edu

Name _____

Organization/ Employer _____ Title _____

Mailing Address _____

City _____ State _____ Zip _____

Daytime Phone _____ Fax Number _____ Email Address _____

The University of Tennessee will seek to accommodate all persons with disabilities. If you require auxiliary aids, special services, or other accommodations, please check here. Someone from our office will contact you

For Title VI/Title IX compliance, we ask for voluntary disclosure of the following:

Gender: Female Male Race: Caucasian African-American Other: _____

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution

June 8, 2010

Qualified Local Program Advisory Stakeholder Meeting

AGENDA

1. Welcome and Introductions
2. QLP Program Development Overview:
 - a. Grant Tasks and Milestones
 - b. Implementation Timeline Revision
 - c. Finalized QLP Incentives
3. Phase II MS4 Permit Re-issuance:
 - a. MS4 Permit Overview
 - b. Revised Minimum Requirements for QLP Certification
4. Evaluating Grant Effectiveness:
 - a. Survey Instrument and Data Collection
 - b. QAPP Finalization and Approval
5. Working Lunch
6. Discussion: Rewards and Recognition Incentive
7. Discussion: Next Steps
 - a. Developing QLP Application and Certification Process
 - b. Role of Stakeholder Advisory Group



QLP Advisory Committee Meeting
June 8th, 2010

Tennessee Department of Environment and Conservation (TDEC)
Division of Water Pollution Control



AGENDA

1. Welcome and Introductions
2. QLP Program Development Overview:
 1. Grant Major Tasks and Outputs
 2. Implementation Timeline Revision
 3. Finalized QLP Incentives
3. Phase II MS4 Permit Re-issuance:
 1. MS4 Permit Overview
 2. Revised Minimum Requirements for QLP Certification
4. Evaluating Grant Effectiveness:
 1. Survey Instrument and Data Collection
 2. QAPP Finalization and Approval
5. Discussion: Rewards and Recognition Incentive
6. Discussion: Next Steps
 1. Developing QLP Application and Certification Process
 2. Role of Stakeholder Advisory Group



Welcome and Introductions



**QLP Program
Development Grant
Overview**



Qualified Local Programs:
Construction Storm Water Initiative Grant

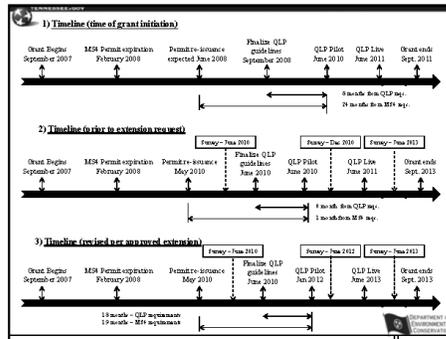
Grant Provider: EPA - Innovation Grant Program
Total Project Cost: Total funding is \$300,000
Project Period: October 2007 to September 2013
Project Partners: TDEC, MTAS, EPA and MS4s



Tasks	Outputs	Completion Date
Establish Tennessee Stormwater Association	Set up a calendar of regional and state meetings, etc	March 2008
Establish QLP stakeholder committee	Participation from representatives of the stakeholder groups	May 2008
Develop QLP Criteria and Incentives	Facilitate stakeholder input on the criteria for qualifying a local program	July 2010 (based on MS4 permit issuance)



Tasks	Outputs	Completion Date
Pilot QLP Program	Work with volunteer MS4 programs and monitor.	June 2012
Finalize QLP Program	Modification based on experience with pilot period. Open enrolment.	July 2013
Deliver replicable solution to other states	Develop final guidance materials for delivery to EPA.	August 2013



Finalized QLP Incentives:

1. Construction General Permit fee split with QLP
2. Standardized TDEC/ QLP enforcement protocol
4. QLP status considered equivalent to program effectiveness monitoring
5. MS4s applying for QLP demonstrate necessary program resources
6. QLP requirements remain static through contract period
7. Streamlining QLP procedures

Phase II MS4 Permit Re-issuance

Phase II General MS4 Permit Re-issuance:

- The NPDES Phase II General MS4 Permit expired February 26, 2008
- Existing MS4s maintain coverage under the general permit until the new permit is issued
- Public comment period ends July 1, 2010

Permit revision utilized:

- New EPA MS4 Permit Improvement Guide
- TDEC programmatic experience implementing and evaluating MS4 effectiveness
- Extensive comments and suggested language from many stakeholders, including TNSA

Six MS4 minimum control measures...

The Phase II MS4 permit is comprised of six elements, termed "minimum control measures," that are expected to result in the significant reduction of stormwater pollutants.



Six minimum control measures include:

6

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection/Elimination
- Pollution Prevention/Good Housekeeping
- Construction Site Runoff Control
- Post-Construction Runoff Control



Permit Focus: Performance Standards for Permanent Stormwater Management



- Runoff reduction design for infiltration, evapotranspiration, and reuse of the first inch of every rainfall event
- Projects that cannot meet 100% of the runoff reduction volume must treat the remainder with pollution reduction practices
- Runoff reduction is preferred as it can achieve both volume control and pollutant removal



Permanent Stormwater Cont.: Codes and Ordinances Review and Update



- Water quality scorecard must be completed within first year of permit coverage
- Developed to help MS4s evaluate, revise and create codes, ordinances, and incentives
- MS4s may choose a mixture of runoff and pollutant reduction practices



Permit Focus: Impaired Waterbodies and TMDLs



- Determine if stormwater discharges from the MS4 contributes pollutants of concern to an impaired waterbody and if a TMDL has been developed
- SWMP must be revised to include BMPs specifically targeted to reduce the identified pollutant



Permit Focus: Minimum Monitoring Requirements



- Monitoring based on stream impairment and pollutant type, including Siltation, Pathogens and Nutrients
- Requirements include analytical and visual stream survey and impairment inventory components
- Performed to assess MS4 program effectiveness and identify improvement opportunities



Permit Focus: Enforcement Response Plan



- MS4s must develop and implement an **enforcement response plan (ERP)**
- The plan must identify responses to violations and address repeat violations through progressive enforcement up to **\$5,000 maximum penalty**
- The MS4 must have the legal ability to employ enforcement responses

Permit Focus: Construction Stormwater Control



- EPSCs required through **ordinance or regulatory mechanism**
- EPSC requirements shall be consistent with **TDEC EPSC Handbook**
- EPSC plans **reviewed** for completeness and effectiveness
- Perform site inspection and enforcement

Permit Focus: Construction Stormwater Control



- Requirements corresponding to **current CGP** for design storm and special conditions for impaired or exceptional waters
- Require that **operators control wastes** such as building materials, concrete washout, chemicals and sanitary waste

Revised Minimum Requirements for QLP Certification

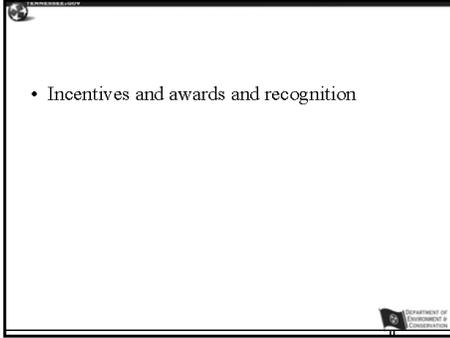


Revision includes:

- Language modified to make consistent with new MS4 permit
- Addition of requirement for compliance with upcoming turbidity effluent limitations and monitoring requirements

QLP Grant Effectiveness

- QAPP development and approval
- Survey example
- Dates for survey data collection



APPENDIX “B”

- B-1 Formal Time Extension Request Letter
- B-2 QLP Timeline Proposal and Comparison
- B-3 QAPP-Approved version w/ signatures



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
401 Church Street
L&C Annex 6th Floor
Nashville, TN 37243-1534

March 9, 2010

Mr. Sean Flynn
USEPA Region 4
Planning and Environmental Accountability Branch
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

Re: **Grant Extension Request**
Construction Stormwater Excellence Initiative 2007
EPA Grant # EI-96489108-0

Dear Mr. Flynn:

On February 10, 2010, we had a conference call meeting with you and Mr. Gerald Filbin to discuss the possibility of a two-year no additional cost time extension for our grant referenced above. This correspondence serves to document that meeting and to formally request an extension to our existing timeline.

We are requesting a two year extension for the purpose of providing time for MS4s participating in the grant's QLP Pilot Period to accomplish the following two actions:

- Revise their stormwater programs in accordance with new General Permit for small MS4s;
- Enable a full QLP pilot period.

Our General Permit for Small MS4s expired on February 26, 2008. Although we had originally projected the permit would be re-issued in June 2009, due to delays, it is now scheduled to be reissued in July 2010. The development of the permit has been mainly delayed due to the number and complexity of new or revised permit elements. The permit will go through a 60 day formal public comment period and the final issuance of the permit is anticipated in July 2010.

Due to the permit delay, MS4s will not have time to review the new permit and effectively update their programs prior to participating in the grant's Pilot Period, which is currently scheduled for June 2010. Keeping the grant under the current schedule would

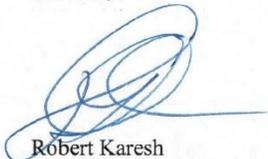
result in the MS4s using a portion of the Pilot Period for program update, rather than piloting the QLP program.

We feel it is important to the success of this grant to provide MS4s time to revise their stormwater programs in accordance with new permit requirements, as well as enable a full QLP pilot period. A two year extension would provide this needed additional time. Resultantly, the grant's QLP Pilot start date would be set for June 2012, and the QLP Program to go live in June 2013. This time extension includes no need for additional funds.

Please see the attached timeline document and adjusted grant milestones document. It is requested that our grant project period be extended from September 2011 to September 2013. We believe this extension will allow us to successfully meet the project tasks described in the attachments.

Thank you for your consideration of our grant extension request.

Sincerely,



Robert Karesh
Statewide Stormwater Coordinator
Department of Environment and Conservation
Division of Water Pollution Control

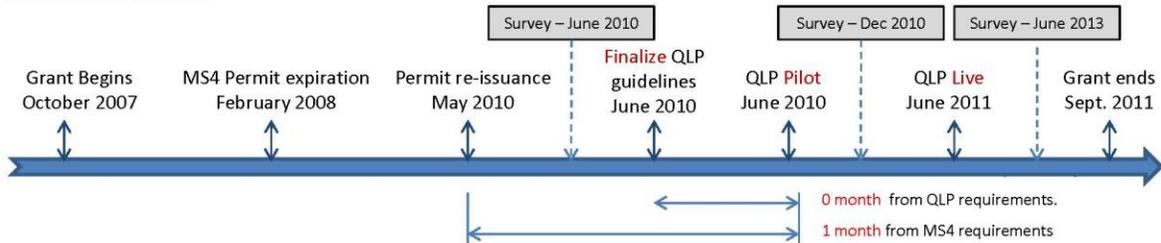
B-2

In order to provide the MS4s with enough time to adhere to the new MS4 permit requirements, we requested a grant extension of two years. This new timeline projects the QLP Pilot start date for June 2012 and the QLP Program to go live in June 2013.

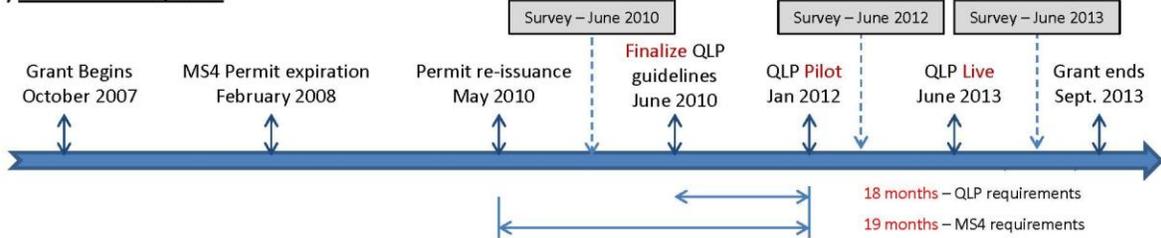
1) Timeline - At time of grant initiation



2) Timeline - Current



3) Timeline - Proposed



B-3

Construction Stormwater Excellence Initiative 2007

EPA Grant# EI-96489108-0

Tennessee Department of Environment and Conservation

Division of Water Pollution Control

Quality Assurance Project Plan

(Note: According to EPA's guidance on QMP's and QAPP's, this is a non-conforming, memo-style QAPP; however, it adheres to guidance provided by the social scientists in OPEI.)

Original Draft: October 2009

Revised: November 20, 2009; December 2009; January 2010; February 2010; March 2010

Project Lead Contact Information:

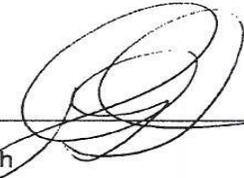
Robert Karesh

Tennessee Department of Environment and Conservation
Division of Water Pollution Control
Statewide Stormwater Coordinator
401 Church Street, L&C Annex, 6th Floor
Nashville, TN 37243 1534
Phone: 615.253.5402 Fax: 615.532.0686
Email: Robert.Karesh@state.tn.us

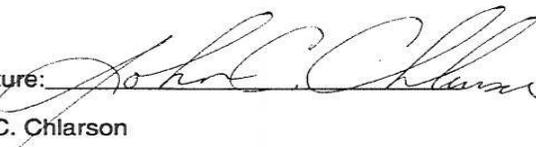
John C. Chlarson, P.E.

The University of Tennessee
Institute for Public Service
Municipal Technical Advisory Service
605 Airways Blvd, Suite 109
Jackson, TN 38301
Phone: 731.425.4785 Fax: 731.425.4771
Email: john.chlarson@tennessee.edu

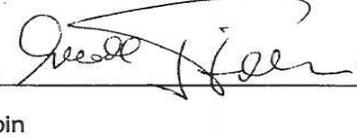
Approval Sheet

Signature:  _____ Date 5-24-10
Robert Karesh

Tennessee Department of Environment and Conservation (TDEC)
Statewide Stormwater Coordinator/Tennessee Grant Project Coordinator

Signature:  _____ Date 5-24-10
John C. Chlarson

Univ. of Tennessee – Municipal Technical Advisory Service (UT-MTAS)
Project Survey Quality Assurance Officer

Signature:  _____ Date 6-1-2010
Gerald Filbin

U.S. EPA – HQ, National Center for Environmental Innovation (NCEI)
Director – Innovative Pilots Division/NCEI Quality Assurance Officer

Signature:  _____ Date 6/3/10
Sean M. Flynn

U.S. EPA – Region 4, Planning and Environmental Accountability Branch
EPA Grant Manager

QAPP DRAFT

1. Project Abstract

The State of Tennessee's 2006 303(d) List identified a number of waterbodies within the boundaries of many of the State's Municipal Separate Storm Sewer Systems (MS4s) as not fully supporting designated use classifications due to siltation and/or habitat alteration associated with urban runoff, land development activities, and streambank modification associated with construction. Siltation (sedimentation) is the most frequently cited cause of waterbody impairment in Tennessee, impacting over 5,800 miles of streams and rivers. Excessive sediment loading from land disturbance and construction activities in MS4s is a major ecosystem stressor and has adversely impacted municipal stream biota, either directly or through changes to physical habitat.

Under CFR 122.44(s), TDEC can formally recognize a MS4 as a Qualified Local Program (QLP) if it has been shown to meet or exceed the provisions of the construction general permit. A QLP would be an MS4 that attains a demonstrated program quality beyond that of the normal, compliant, MS4. Therefore, in a further effort to reduce siltation and improve water quality, TDEC is developing criteria and incentives for MS4s to become QLPs. The goals of this program include:

1. MS4s find the QLP option desirable and apply for and are accepted as QLP's, both in the initial pilot and in the widescale rollout later. In seeking acceptance as a QLP, the MS4s take actions to meet or exceed the provisions of their construction general permit.
2. The QLP option leads to greater efficiency among participants and TDEC
3. Water quality protection under the QLP option is at least as good as non-QLP's under direct TDEC supervision, as demonstrated by maintenance of effective QLPs and by TDEC's ability to allocate resources away from QLP jurisdictions and related construction activities.

2. Definitions

Municipal Separate Storm Sewer System (MS4)- Municipal Separate Storm Sewer (MS4) is defined at 40 CFR §122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i.) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state;

- (ii.) Designed or used for collecting or conveying stormwater;
- (iii.) Which is not a combined sewer; and
- (iv.) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

A **Designated MS4** is an MS4 whose discharges must be permitted under the State of Tennessee's NPDES Permit.

National Pollutant Discharge Elimination System (NPDES) general permit- for small municipal separate storm sewer systems (MS4s). It authorizes discharges from small MS4s located throughout the State of Tennessee. There are two discrete small MS4 entities: currently permitted MS4s renewing their coverage and newly identified MS4s designated by the director of Division of Water Pollution Control including specific state college and university campuses with on-campus housing.

Participant- for the purposes of this QAPP, a participant is an MS4 that has volunteered and qualified to take part in the QLP Pilot Program.

Non-participant-for the purpose of this QAPP, a non-participant, is an MS4 that either did not volunteer or did not qualify to take part in the QLP Pilot.

Pilot Program- would be a period where TDEC will work with select MS4(s) volunteer(s) program(s) to work through guidance materials and document achieving the various elements involved in becoming a qualified program.

Qualified Local Program (QLP)- is an MS4 stormwater management program for discharges associated with construction activity that has been formally approved by the division as having met specific minimum program requirements, including those identified in 40 CFR 122.44(s). The intent of the QLP is to establish a streamlined and efficient process for managing discharges of stormwater associated with construction activities by eliminating duplication of the effort between the MS4 and the Division.

Quality Assurance Program Plan (QAPP) - This is a guidance document written to assure the quality of the collection of any primary or secondary data related to this project. According to EPA's guidance on QMP's and QAPP's, this is a non-conforming, memo-style QAPP; however, it adheres to guidance provided by the social scientists in OPEI.

Respondent- for the purposes of this QAPP, a respondent is an MS4 that receives and responds to the surveys developed under this QAPP.

Non-respondent- for the purposes of this QAPP, a non respondent is an MS4 that does not responds to the survey developed under this QAPP.

Stormwater Program- refers to the MS4 or the operation and administration of the MS4 by the responsible local government.

3. Measurement Approach Overview and Purpose

We intend to conduct three surveys of stormwater programs throughout the State in order to understand:

- The extent to which their attitudes about QLPs have changed over the course of the project.
- The extent to which project participants have changed their stormwater-related policy activities (i.e., behavior) relative to non-participants. Example: Increase in number of inspections.
- The extent to which the rate of complaints changes over time for QLP participants (perhaps relative to non-participants), to help judge whether environmental protection is being maintained.

Participation in the pilot program will be voluntary. Participation will be limited to MS4's that meet the minimum criteria developed as part of this initiative. Therefore we do not have a pre-determined pilot group size. The participants in the pilot program will be qualified volunteers from the approximately 100 designated MS4's in Tennessee. We will use the information collected to gauge the extent to which the pilot program has been successful, in order to judge whether the QLP elements tested and demonstrated during the pilot warrant using the QLP option in Tennessee, or if these elements need to be adjusted or modified prior to making the QLP option available to the remainder of the qualified MS4 population in Tennessee.

This data collection is authorized by EPA ICR 1755.08.

4. Detailed Description of Measurement Approach (Primary Data)

There is one primary data source: surveys of the designated MS4s throughout the state. We intend to use a web-based survey form:

- Data will be collected three times: prior to the beginning of the pilot period; during the pilot period, shortly after participants begin implementing aspects of being QLPs; and near the conclusion of the project period. The pilot period would be a period where TDEC will work with select MS4(s) volunteer(s) program(s) to work through guidance materials and document achieving the various elements involved in becoming a qualified program. We will monitor the designated Qualified Programs. Surveys will be approximately one year apart from each other. It is expected that the most valuable data with regard to behavior change and environmental outcomes will be collected in the final survey, allowing some time for the potential benefits of QLP participation to take hold.

- Anticipated length of survey response time is less than 30 minutes; respondent should allow additional time to access records in preparation for the survey.
- Since MS4s are familiar with Municipal Technical Advisory Service (MTAS) surveys, MTAS should conduct the survey. The stormwater program contact for each MS4 in Tennessee will receive the survey.
- We do not intend to use statistical analysis to make projections, as we intend to collect data from the entire relevant population of stormwater program contacts in the State.
- Specific measures that we will use the data to support will include percent of facilities achieving a desirable behavior or attitude change, improvement in complaint levels.
- The MTAS document: Surveying Citizens: A Handbook for Municipal Officials Who Want to Know What Their Citizens Think by David Folz will be used as supplemental guidance to conduct the surveys and prepare the reports, with guidance from EPA staff, contractors, and social scientists being primary.

5. Secondary Data Sources

Secondary data sources would include TDEC complaint records and enforcement data. TDEC complaint records are expected to be combined with information from the MS4s about their complaint levels, to get an accurate picture of the complaint rate for each MS4. We define complaint rate as the total number of complaints received by TDEC or the MS4 regarding stormwater-related construction activities in a particular MS4's jurisdiction divided by the total number of stormwater-related construction permits on record, for each fiscal year.

6. Quality Assurance Procedures

Prior to Data Collection:

The following approach will be undertaken to minimize potential bias during survey planning:

The survey methodology has been carefully vetted by TDEC, MTAS, and EPA staff and contractors, including a social scientist, to reduce the possibility of bias in the survey instrument. All questions were carefully examined in this context.

All stormwater programs across the State will be invited to participate in the survey to avoid bias in selecting (or “cherry picking”) respondents.

Additionally, the survey methodology will be reviewed by the QLP Advisory Committee, which is comprised of representatives from various stakeholder groups, including: stormwater programs (MS4s), the Home Builder's Association, the Association of General Contractors, environmental advocacy groups, TDEC, the Tennessee Department of Transportation, the Tennessee Chamber of Commerce, the Tennessee Stormwater Association, and others. We feel that the benefits of getting comments from a small number of MS4 stormwater contacts outweighs any limited, potential bias that might be caused by their reviewing the survey in advance of providing formal responses during the official survey process.

The UT-MTAS Library, the component of MTAS which will administer the surveys, conducts numerous statewide surveys on an ongoing basis. Their experience should help ensure minimal problems in implementation.

The Quality Assurance Officer will conduct a Readiness Review immediately prior to the data collection tasks: identifying targeted recipients, implementation staff training/review, self-certification, targeted follow-up and post-certification inspections. The QA Officer will report findings to the Project Manager, who will take corrective action (if any is necessary) before the data collection task begins. Further, the Project Manager and QA Officer will thoroughly debrief project implementation staff a short time after beginning their respective implementation tasks, to identify emerging/unanticipated problems and take corrective action, if necessary.

During Data Collection:

As stated above, rather than random sampling, we intend to use the entire set of permitted stormwater programs in the State of Tennessee.

MTAS has a standard follow-up protocol for tardy respondents:

- first time: an email reminder
- second time: another email reminder
- third time: a reminder by telephone

Mayors are included in our contact list and will be requested to encourage staff to complete surveys, if needed, as a last resort.

The surveys will be in electronic, interactive format. Data entry will be cross-checked and peer-reviewed for the distillation, summarization, and analysis and reporting. The results will be shared with TDEC and EPA and stored according to EPA policy.

After Data Collection:

We do not need to use inferential statistical techniques because we are conducting a census. Instead, we will be using descriptive statistics to characterize results from the respondents.

We will separately examine the data for the program participants and program non-participants to understand how the metrics are changing for each.

With regard to attitudes, this will help us understand the impact of the project and project-related outreach on both groups.

With regard to behavior changes and efficiency/complaint outcomes, comparing the trends between program participants and program non-participants will help understand if any observed changes among program participants are very different from what's happening among program non-participants. This can help reduce or eliminate potential biases (such as the slowdown in the economy, which might make permits go faster and complaints decrease, just because there are fewer projects).

With regard to checking for data quality, we will attempt to characterize non-respondents in terms of counts of types of non-respondents, looking at typing categorizations such as population size, per capita income, grand division of the State (West, Middle, East), overall program evaluation by their local TDEC field office, etc., and characterizing questions for which there is a poor response rate or data quality is otherwise poor.

7. Impact of Relevant Data Quality Issues

Precision:

For the questions, are they phrased appropriately to be understood well?

The survey methodology has undergone peer review.

Sensitivity:

Are the questions sufficiently detailed enough to be of analytical value?

We have considered sensitivity issues in designing the survey and believe we have an appropriate balance of sensitivity and practicality. For instance, we are collecting complaint data on a fiscal year basis, primarily because it is consistent with state/MS4 records, but it should still be sensitive enough to detect moderate trends. We believe that the vetting process with TDEC, EPA, MTAS, and stakeholder representatives on the QLP Advisory Committee will ensure this.

Representativeness:

Will the survey be conducted within a representative group?

Yes. We are conducting a census of all MS4 stormwater program contacts in the State.

Completeness:

Could a large number of non-respondents to the survey create a lack of representativeness?

Yes.

Is this expected?

No. MTAS follows up with respondents with a progressive level response protocol, as mentioned earlier, and has a very successful track record. If necessary, our primary contacts for each city includes the mayor, who can usually motivate staff to complete the surveys.

Can it be mitigated?

In the event of any non-response, we will characterize the non-respondents according to several different kinds of characteristics and assess the extent to which we believe overall results may be biased. These findings will be provided with any reports of results.

We will use such categorizations as population size, per capita income, grand division of the State (West, Middle, and East), overall program evaluation by their local TDEC field office, etc. These strata will be reviewed for commonalities or patterns.

Further, we have designed the survey checklist to attempt to minimize item non-response, by limiting the amount of time that answering a survey will take and injecting design elements that are intended to engage the survey population. Potentially sensitive questions have also been placed closer to the end of the survey. Upon completion of surveys, we will examine the data for item non-response and characterize questions for which there is a poor response rate or data quality is otherwise poor.

Comparability:

Do you anticipate making comparisons among groups or over time?

Yes.

Will your approach be sufficiently consistent to allow for such comparisons? Will you be tracking factors that might complicate comparison (e.g., changing regulatory or economic factors can influence comparability over time).

Yes. As stated above, with regard to behavior changes and efficiency/complaint outcomes, comparing the trends between QLP participants and non-participants will help understand if any observed changes among QLP participants are very different from what's happening among non-participants. This can help reduce or eliminate potential biases (such as the slowdown in the economy, which might make permits go faster and complaints decrease, just because there are fewer projects). We also intend to share preliminary results with our stakeholders in order to solicit feedback in terms of interpreting the results and understanding potential biases.

Please note that, because some MS4s will transition into QLP status over the course of the project, we will slightly alter the survey checklist for these MS4s to ensure they will interpret it properly. In making these alterations, we will ensure that data will be comparable to prior responses and to MS4s that have not become QLPs. (All versions of the survey are provided as attachments.)

Bias:

Have you addressed potential biases, such as a self-reporting bias?

Because we are largely relying on self-reported information, we cannot substantially remove self-reporting bias. However, we do believe that the survey delivery method and survey design will mitigate self-reporting bias because of the assurances of identity protection. Further, self-reporting is vital for much of the attitudinal information being collected.

Can you mitigate it in some way, such as by promising anonymity or verifying responses?

Yes. We are promising anonymity and conducting the survey through MTAS, which is a third party, non-regulatory agency that has a pre-existing role as a source of technical support and assistance to the respondents. We will also look to see if there is some sort of self-selection bias. By that, we mean whether the participants, by their nature, are very different than nonparticipants and likely to have different outcomes as a result. This might be more of a qualitative assessment.

8. Project Management

The Tennessee Grant Project Coordinator will be responsible for overseeing the data collection process and ensuring that consistent practices are implemented. MTAS’s QA Officer and the Tennessee Grant Project Coordinator will conduct QA on the data entered prior to any analysis.

Table 1: Project Implementation Personnel

Individual	Role in Project	Organizational Affiliation
Frances Adams-O'Brian	Project Survey Administrator	UT-MTAS
John C. Chlarson, P.E.	Project Survey Quality Assurance Officer	UT-MTAS
Robert Karesh	Tennessee Grant Project Coordinator	TDEC
Sean M. Flynn	EPA Grant Manager	US EPA Region 4
Gerald J. Filbin, Ph.D.	Director, Innovative Pilots Division, NCEI, EPA	US EPA HQ

9. Assessment/Oversight

Assessment and Response Actions

MTAS's Project Survey QA Officer will conduct a readiness review prior to primary data collection. The MTAS Project Survey QA Officer will report findings to the Tennessee Grant Project Coordinator, who will take corrective action, as necessary. Corrective action will be pre-approved by the MTAS Project Survey QA Officer. Collection of primary data will not begin until the MTAS Project Survey QA Officer certifies readiness. The Tennessee Grant Project Coordinator and MTAS Project Survey QA Officer will meet regularly with other project implementation staff to identify emerging/unanticipated problems and take corrective action, if necessary.

Reports to Management

Three kinds of reports will be prepared during the grant period of performance: readiness reviews (described above), regular quarterly progress reports, and a final report. Progress reports will note the status of project activities, identify any QA problems encountered, and explain how they were handled. The final report will analyze and interpret data, present observations, draw conclusions, identify data gaps, and describe any limitations in the way the results should be interpreted.

Table 2: Reporting

Type of Report	Frequency	Preparer	Recipients
Readiness Review	Before each major data collection task (specifically, before each survey)	MTAS Project Survey QA Officer	Tennessee Grant Project Coordinator
Progress Report	Quarterly	Tennessee Grant Project Coordinator	EPA Grant Manager (Copying US EPA OPEI)
Final Project Report	Once	Tennessee Grant Project Coordinator	EPA Grant Manager (Copying US EPA OPEI), QLP Advisory Committee stakeholders

APPENDIX “C”

C-1 MTAS Invoice