I. Construction Storm Water Excellence Initiative

II. Tennessee Department of Environment and Conservation (TDEC) Nashville, Tennessee

State Project Manager:

Robert Karesh, Tennessee Department of Environment and Conservation
Division of Water Pollution Control, Statewide Storm water 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

III. Total Project Cost:

The total amount of funding request is $200,000. The State of Tennessee is committing a minimum of $100,000 of in-kind funding for the same period. There are no other federal contributions to this program.

IV. Project Period: October 1, 2007 to September 30, 2011

V. Narrative Elements

A. 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. In an effort to eliminate siltation and improve water quality, we will develop criteria and incentives for MS4s to become Qualified Local Programs (QLP), as well as a formal "excellence" recognition and awards program.

Our innovation is to encourage MS4s to utilize the qualifying provision through the development of criteria, incentives and a formal excellence recognition and awards program. The utilization of this option will further several important goals, but most importantly will ensure the improvement of water quality through an efficient implementation of the Construction General Permit (CGP). It will also assist the construction community to comply with the CGP and encourage strong MS4 erosion prevention and sediment control programs. Our objective is to link the attainment of Qualified Local Program status to include additional (e.g., beyond those measures required in the permit) proactive and remedial measures to control the discharge of sediment into impaired waterbodies, implementation of provisions of approved sediment Total Maximum Daily Loads (TMDLs), and description of methods to evaluate whether storm water controls are adequate to meet the requirements of approved TMDLs.

B. As of March 2003, regulated small MS4s in Tennessee must obtain NPDES permits in accordance with the Phase II storm water program. Most regulated small MS4s in Tennessee have obtained coverage under the NPDES General Permit for Discharges

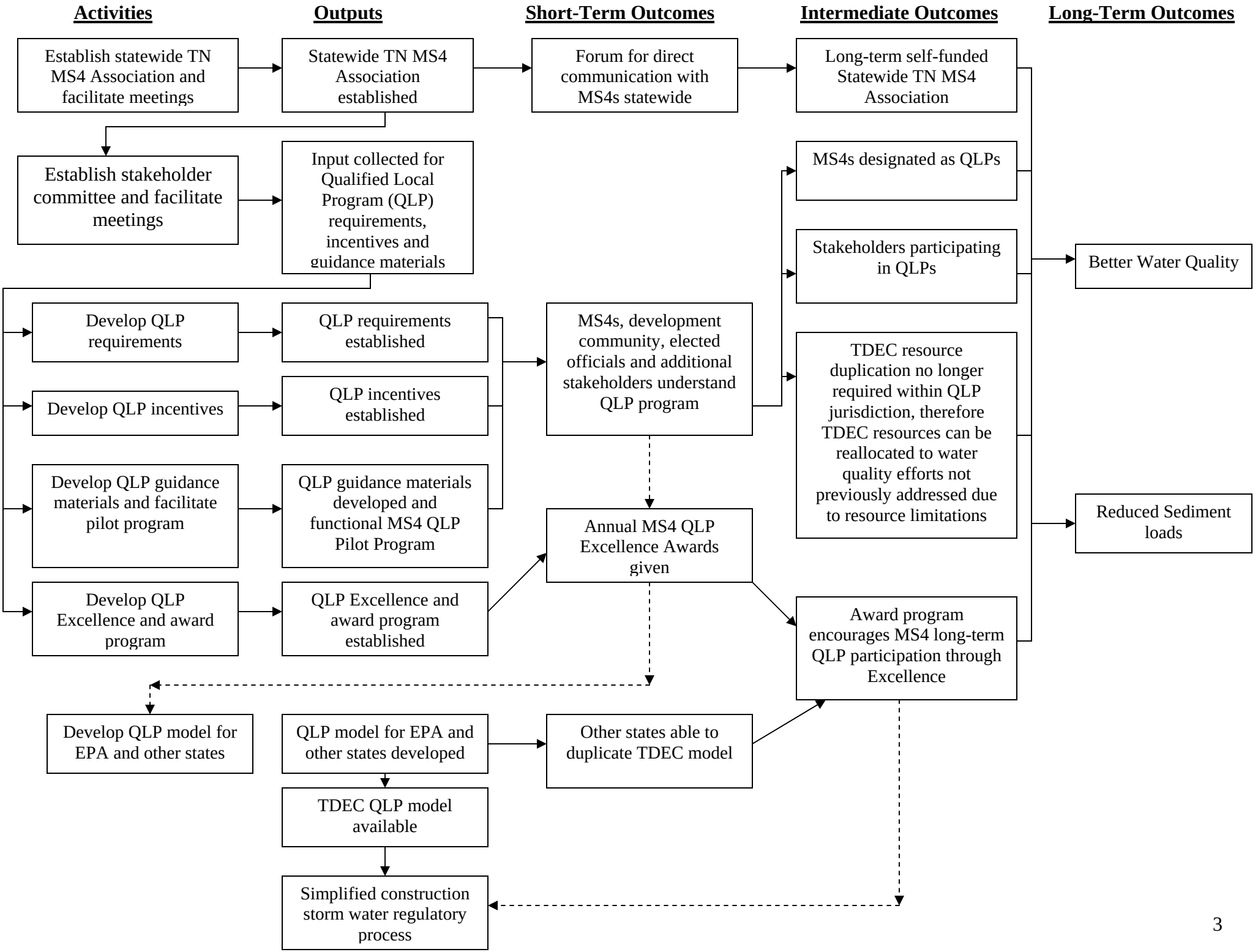
from Small Municipal Separate Storm Sewer Systems. In addition, the Tennessee Department of Transportation (TDOT) has been issued an individual MS4 permit that authorizes discharges of storm water runoff from state road and interstate highway right-of-ways that TDOT owns or maintains, discharges of storm water runoff from TDOT –owned or operated facilities, and certain specified non-storm water discharges. In many of the MS4s, we have implemented a TMDL process to quantify the amount of sediment that can be "assimilated" into the impaired municipal waterbodies, identify the sources of the sediment, and recommend actions to be taken to achieve compliance with applicable water quality standards based on the relationship between the sediment sources and in-stream water quality conditions. The objective of these sediment TMDLs is to allocate loads among all of the known sediment sources throughout a municipal watershed so that appropriate control measures can be implemented and water quality standards achieved. For existing and future regulated discharges from MS4s, sediment waste load allocations are to be implemented through the Phase II permits (including the General Permit). These permits will require the development and implementation of a municipal Storm Water Pollution Prevention Plan (SWPPP).

TDEC has approximately 25 employees with the responsibility of managing 6,500 currently active CGP coverages and approximately 90 MS4s. One of the most effective and efficient ways to prevent the expansion of water quality impairment related to construction is through the establishment of criteria to qualify MS4s and creatively determine incentives for MS4s to seek qualification. This project will result in a streamlined and more efficient process for managing construction storm water by eliminating duplication of the effort between the MS4s and TDEC. For example, a proposed land disturbance activity within the MS4 jurisdiction currently requires construction permit coverage from both the State and the MS4. A proposed land disturbance activity within a QLP jurisdiction would only require construction permit coverage under the MS4, resulting in a simplified submittal and approval process for the MS4, State and construction permittee.

We are not aware of any currently established incentives for qualified MS4s for construction storm water runoff. Funding this proposal will yield a process that will be duplicated across the region and the nation.

C. Goals and Objectives

1. See Key Milestone Table pages 6-8


Activities
Outputs
Short-Term Outcomes
Intermediate Outcomes
Long-Term Outcomes
Establish statewide TN MS4 Association and facilitate meetings
Statewide TN MS4 Association established
Forum for direct communication with MS4s statewide
Long-term self-funded Statewide TN MS4 Association
Establish stakeholder committee and facilitate meetings
Input collected for Qualified Local Program (QLP) requirements, incentives and guidance materials
MS4s designated as QLPs
Stakeholders participating in QLPs
Better Water Quality
Develop QLP requirements
QLP requirements established
MS4s, development community, elected officials and additional stakeholders understand QLP program
TDEC resource duplication no longer required within QLP jurisdiction, therefore TDEC resources can be reallocated to water quality efforts not previously addressed due to resource limitations
Develop QLP incentives
QLP incentives established
Develop QLP guidance materials and facilitate pilot program
QLP guidance materials developed and functional MS4 QLP Pilot Program
Reduced Sediment loads
Annual MS4 QLP Excellence Awards given
Develop QLP Excellence and award program
QLP Excellence and award program established
Award program encourages MS4 long-term QLP participation through Excellence
Develop QLP model for EPA and other states
QLP model for EPA and other states developed
Other states able to duplicate TDEC model
TDEC QLP model available
Simplified construction storm water regulatory process

2. Logic Model Narrative

Critical to the success of this grant is the establishment of a diverse stakeholder committee that can speak for the various groups they represent. Although there are few regional groups within the state, there currently is not an association that can represent the Phase I and II MS4s statewide. The first activity is the establishment and facilitation of a TN MS4 Association that will encourage statewide participation, with a regional group emphasis. We believe that actively promoting the establishment of a self-sustaining statewide TN MS4 Association is one of the keys to the success of the grant. It will be an invaluable format for communicating program information between TDEC and the participating MS4s, and will ultimately elect MS4 representatives for participation in the stakeholder committee.

The establishment of a statewide TN MS4 Association will include four regional groups (west, middle, east and southeast). The regional groups will meet quarterly, and statewide annually through a state conference event. This conference will be held in association with another established organization's conference, such as the Tennessee Chapter of the American Public Works Association (TCAPWA). The TCAPWA holds a state conference every fall, which includes continuing education seminars, workshops, and vendor exhibition.

Our proposed outputs include the establishment and facilitation of a stakeholder committee, development of the criteria for qualified MS4s, development and promotion of incentives for programs to become qualified, formal excellence recognition and awards program, workshops on the established process for MS4s across the state, and the delivery of a replicable solution to construction storm water management made available to other states, ECOS, EPA and stakeholder committee representatives.

3. Table and Narrative describing key activities and milestones

a. Current Situation and Need

TDEC has approximately 25 employees with the responsibility of managing 6,500 currently active CGP coverages and approximately 90 MS4s. One of the most effective and efficient ways to address the expansion of water quality impairment related to construction is through the establishment of criteria to qualify MS4s and creatively determine incentives for MS4s to seek qualification. This project will result in a more efficient process by eliminating duplication of the effort between the MS4s and TDEC. We are not aware of any currently established incentives for qualified MS4s for construction storm water runoff. Funding this proposal will yield a process that will be duplicated across the region and the nation.

b. Public Benefits

The utilization of the QLP program would further several important goals; most importantly it would ensure the improvement of water quality through an efficient implementation of the CGP. It would assist the construction community to comply with the CGP and encourage strong MS4 erosion prevention and sediment control programs. This project would also result in a more efficient process by eliminating duplication of the effort between the MS4s and TDEC.

c. Indicates Compliance with Requirements

This project supports two of EPA's strategic goals. Excessive sediment loading from land disturbance and construction activities in MS4s is a major ecosystem stressor, and has adversely impacted water quality in many waterbodies in Tennessee. It is fully expected that the implementation of the QLP option by MS4s will result in the improvement of

water quality in the long term due to the efficient implementation of the CGP. Therefore, this project supports EPA's Goal 2 – Clean and Safe Water.

It also supports Goal 5 – Compliance and Environmental Stewardship since it will include the development and implementation of incentives and excellence recognition for MS4s that pursue the qualifying status.

In Tennessee, TDEC implements the Clean Water Act's NPDES Phase I and Phase II regulations and this project will be conducted in compliance with those regulatory requirements. The stakeholder committee established under this proposal will determine whether or not regulatory flexibility is necessary for the implementation of the excellence program.

d. Reflect Environmental Outcomes

The inherent goal of this project is the improvement of water quality. However, this may be difficult to quantify due to various influences and factors such as economic downturn (fewer construction projects) and watershed pollutant sources outside the control of the QLP program (agriculture, climatic and forestry activities). Additionally, the first QLP pilot is not scheduled until the third year of a four-year program. Consequently, environmental outcomes are reflected indirectly through the outputs.

TASKS	MILESTONES	OUTPUT(S)	DATE
Conduct stormwater group preliminary organizational meeting (pre-award)	Note: Pre-award period	*TDEC/MTAS meetings to determine key MS4's for preliminary solicitation, etc.*	September 2007
Execute contract with the University of Tennessee's Municipal Technical Advisory Service (MTAS) [1]	QA plan submission	*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.*	October 2007
Conduct TDEC-MTAS project team preparation	Project team preparation meetings	▪ *Continuing identification of MS4's for TN MS4 Association.* ▪ *Venues scheduled for TN MS4 association meetings. Developing agenda's, informational literature, etc.* ▪ *Identifying specific contacts from various other organizations for the stakeholder committee.*	October 2007
Establish TN MS4 Association	▪ Initial meeting of TN MS4 Association ▪ Quarterly reports (at the end of each quarter during the 4 year grant period)	*Organize initial meeting of the statewide TN MS4 Association. Formalize the group. Set up a calendar of regional and state meetings, etc.*	December 2007
Establish stakeholder committee	Mission / meeting calendar for stakeholder committee	*Identify, contact, and obtain participation from representatives of the stakeholder groups. Set up and formalize the committee. Set mission, agenda, meeting calendar and milestones.*	December 2007

Facilitate stakeholder meetings to establish criteria	Scheduled stakeholder meeting	*Set venue, agenda, etc., and facilitate meetings in order to achieve stakeholder input on the criteria for qualifying a local program.*	January 2008
Announce the grant to the public and identify the representatives on the stakeholder committee	Announcement of public meetings	*Regional public meetings coordinated with the TN MS4 Association meeting*	February 2008
Develop and promote guidelines and incentives	Documentation of QLP guidance material and incentives	*With the information from the stakeholder committee meetings, develop guidance material and an incentive program for qualifying local programs.*	September 2008
Develop excellence recognition program	Documentation of the excellence program structure	*With the information from additional stakeholder committee meetings, input from additional groups such as the Tennessee Municipal League, etc., develop excellence recognition program*	October 2009
Announce to the public the completed MS4 materials for the publics input	Announcement of public meetings	*Regional public meetings coordinated with the TN MS4 Association meetings*	March 2010
Pilot the qualification of a MS4	Selection of MS4 for pilot	*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.*	June 2010
Develop and deliver workshops across the state	Scheduled workshops across the state	*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.*	June 2011
Deliver a replicable solution to other states	Submission of final project report to EPA	*With updates to workshop lesson plans and materials based on participant feed back, develop final guidance materials, workshop lesson plans, case histories etc., for delivery to EPA.*	September 2011

[1]The University of Tennessee (UT) Municipal Technical Advisory Service is a unique arm of UT's Institute of Public Service which was instituted to focus on assisting the needs of municipalities across the state. They have assisted TDEC in the preparation of storm water educational materials and the delivery of training. They also have an established relationship with MS4s across the state that could be critical to obtaining the participation of the MS4s in this project, as well as their interest in pursuing the QLP designation ultimately.

Quarterly Progress Reports

Quarterly program reports, and a detailed follow-up case study report to be prepared at the end of the grant period, including environmental outputs/outcomes to date, will be submitted to EPA, as required.

Quarterly (and a final) project report will include the following:

- A short summary of the work completed in the reporting period.
- Outputs, outcomes, etc. completed in the reporting period
- Description of progress on completing individual tasks and milestones reached.
- Any changes to the planned project schedule based on events.
- A look forward to the work to be done in the next reporting period.
- A summary of any revisions needed or made to the project work plan and/or QA Plan.
- Summary information of grant fund expenditures, by budget category.

e. Transferability

We anticipate that this work will be disseminated through the delivery of a replicable solution to construction storm water management made available to other states, ECOS, EPA and stakeholder committee representatives. Also a workshop would be developed to introduce MS4s across the state to the qualification process and the incentives for participation.

f. Public Involvement

This project will include a diverse stakeholder committee including representatives such as TDEC, MS4s, the Home Builder Association, Landscape Architectural Association, Professional Engineering Associations, General Contractor Association, State Planners Association, non-profit water quality groups, local universities and others involved in the construction community. We intend to partner and contract with the University of Tennessee's Municipal Technical Advisory Service (MTAS) on the grant administration and implementation. MTAS will facilitate the committee through the development of the criteria for qualified MS4s in construction storm water runoff control; development and promotion of incentives for programs to become qualified through a process established by the committee; development of a formal excellence recognition and awards program.

As noted in the Key Milestones table, regional public meetings will be held in February 2008 (coordinated with the regional MS4 Association meetings) to inform the public of the grant project and make them aware of the representatives participating in the stakeholder committee meetings. In March of 2010, regional public meetings will be held to inform the public of the completed materials and allow for their comment prior to launching the pilot.

4. Proposed or illustrative performance measures

The proposed or illustrative performance measures in this project would include:

- Number of MS4s participating in the TN MS4 Association;
- Number of TN MS4 Association meetings;
- Number of organizations represented within the stakeholder committee;
- Number of stakeholder committee meetings;
- Number of public meetings held to introduce the public to the process, and then to invite their input on the developed criteria;
- Number of workshops conducted to train MS4s across the state on the criteria, excellence program and pilot results;
- Comparison of compliance data in a MS4 post-QLP implementation to the compliance data before;
- Expected water quality improvement as modeled through in-house TMDL modeling and/or Corps of Engineers sediment load modeling.

VI. Reporting Requirements

Quarterly program reports, and a detailed final technical project report to be prepared at the end of the grant period, including environmental outputs/outcomes to date, will be submitted to EPA, as required.

The Final technical project report will include the following:

- Restatement of purpose and goals of the project;
- Project's logic model identifying the projected outputs and outcomes;
- Project milestone table identifying the stakeholders involved in the project and the general approach used;
- Specific statement of the key milestones that were included in project quarterly reports;
- Detailed description of the project results, both outputs (e.g., QLP criteria/ guidelines and parameters of excellence program, report on the pilot results, workshop materials, etc.) and outcomes (e.g., sediment load modeling results);
- Notices for workshops or stakeholder meetings, as well as any press releases or articles on the program;
- Analysis of the success of the project (and any challenges experienced during the project and how they were overcome) along with any recommendations of any changes that would have been incorporated into the plan in hindsight;
- Report on the status of the roll out of the QLP criteria and excellence program to other MS4s;
- Information on how the project will be recommended to other states for adoption and implementation;
- Financial report (addendum) on how well the projected costs matched the actual expenditures and any challenges that negatively impacted costs.

VII. Total Project Cost

The total amount of funding request is $200,000. The State of Tennessee is committing a minimum of $100,000 of in-kind funding for the same period. There are no other federal contributions to this program.

Detailed Itemized Budget

Activity	EPA Funds	State Leverage Funds	Total Project Cost
Professional Salaries	$80,000	$69,231	$149,231
Fringe Benefits (estimated at 30% of Salary)	$24,000	$20,769	$44,769
Travel	$10,000	$10,000	$20,000
Printing/Duplication	$15,000		$15,000
Training	$15,000		$15,000
Fixed and Administrative Costs (Negotiated Rate of 28%)(Contractual Cost)	$56,000		$56,000
Totals	**$200,000**	**$100,000**	**$300,000**

The contract budget includes all grant administration related expenses for the grant period (see: Fixed and Administrative Costs). Also covered are the principal's salary and benefits for the facilitation of statewide meetings for organizational and stakeholder input purposes, the travel and etc. associated with those meetings. No purchase of dedicated equipment is anticipated. The costs of developing, printing, duplicating etc. guidance and workshop materials is included, as well as location costs, lunch/coffee for all-day workshop attendees. Also covered are the principal's salary and benefits for the facilitation of these statewide workshops. Travel incidental to the project outside the state, if required. Costs of deliverables, as set forth in the contract shall be covered within this budget. MTAS will cost share principal's time and benefits (with documentation) if necessary to insure completion of all deliverables per contract.

Key Personnel

Robert Karesh

Robert Karesh was hired as the Statewide Storm Water Coordinator for the Tennessee Department of Environment and Conservation to build a team approach to storm water permitting, education and compliance. Mr. Karesh has a strong background in storm water regulation and water quality protection. He has served previously as the Storm Water MS4 Coordinator for Williamson County and as an Environmental Specialist for the Division of Water Pollution Control. Mr. Karesh facilitated the development of the Tennessee MS4 Working Group and the Tennessee Erosion Prevention and Sediment Control training program and handbook. He received his B.S. Degree in Biology, and has worked towards a Masters in Environmental Planning, both at the University of Tennessee.

John Chlarson, P.E.

B.S., Civil Engineering, Tennessee Technological University, 1983

John Chlarson has over 20 years experience in a wide variety of engineering applications, having worked for government, industry, and private consulting. He headed up a material-testing laboratory approved by the Corps of Engineers and the Department of Energy. He has also been the engineer in responsible charge for engineering offices for firms in both Tennessee and Kentucky. Mr. Chlarson was also a City Engineer, responsible, among other things, for a comprehensive Storm Water Management Program. He has had extensive experience in the design, review, and implementation of storm water control structures and measures.

John assisted Robert Haley, (former) Assistant Manager of the Permit Section of the Division of Water Pollution Control, in developing Tennessee's Phase II Permit Application, and the Annual Report. John also worked with Sidney J. Hemsley, J.D., in co-authoring a statewide Model Stormwater Ordinance and a statewide Model Stormwater Utility Ordinance for municipalities in the State of Tennessee. John has also assisted in the presentation of several previous Phase II classes across the State of Tennessee. He is actively involved in monitoring developments in the NPDES Phase II permit regulations, and is the lead contact on Phase II for the Municipal Technical Advisory Service. John is also the President of the West Tennessee Branch of the Tennessee Chapter of the American Public Works Association.