

ROUND 11 CAPITAL PROJECT NOMINATION FORM
LAKE TAHOE FEDERAL SHARE EIP CAPITAL PROJECTS
APPENDIX K

Project Name:	Lake Tahoe Nevada Stormwater Load Reduction Plan Development - Phase 1b	EIP Number: <i>(Required)</i>	628, 10110, 10111
Federal Agency Sponsor: <i>(Required)</i>	US Environmental Protection Agency	Contact:	Jack Landy
Threshold:	Water Quality	Phone Number:	775-589-5248
Threshold Standard:	WQ-1, WQ-2, WQ-3, WQ-4, WQ-5	Email:	Landy.Jacques@epamail.epa.gov
FUNDING REQUESTED IN THIS ROUND:		\$ 360,000	

Federal Share EIP Consideration

Select "yes" or "no" for each question. If you have a "yes" response, briefly describe. **Projects must meet one or more of these 5 items.**

1. Does the project involve federal land? Yes No
 If yes, is the federal land involved important to successful implementation of the project?

2. Is this project identified in the EIP? If yes, please ensure the EIP number is identified in the above project information box. If no, provide a description of the projects contribution to the EIP program. Yes No

EIP # 628 Urban runoff model
 EIP # 10110 Direct loading from urbanized and non-urbanized area
 EIP # 10111 Loading rates from stormwater runoff
 Additionally, because the ultimate goal of Stormwater Load Reduction Plans to target load reduction actions, this project is indirectly related to any EIP water quality improvement projects specified for the urban area within Nevada Lake Tahoe.

3. Does the project involve the conservation of a federal or regional threatened, rare, endangered, or special interest species? Yes No

4. Does the project involve an identified federal interest such as the detection and eradication of non-native invasive species (aquatic or terrestrial)? Yes No
 If yes, identify the species?

Yes, this project will ultimately help to restore and maintain the waters of Lake Tahoe, which is designated an Outstanding National Resource Water (ONRW) due its ecological status as one of the few large, deepwater, ultraoligotrophic lakes in the world with unique transparency, color and clarity. Conservation of this national treasure is important for the purposes of human enjoyment into the future.

5. Does the project contribute to supporting implementation of capital projects in the EIP? Such projects that fulfill this function would include technical assistance, data management, and/or resource inventories?

Yes

No

Yes, this project is the first step toward TMDL/EIP implementation for Nevada Lake Tahoe urban jurisdictions. Stormwater load reduction plans for Washoe and Douglas Counties and the Nevada Department of Transportation will facilitate implementation of targeted and cost-effective strategies and actions and will provide reasonable assurance that load reduction milestones can be attained through implementation of the actions specified.

Check all Capital Focus Area(s) that apply:

- 1. **Watershed and Habitat Improvement**
- 2. **Forest Health**
- 3. **Air Quality and Transportation**
- 4. **Recreation and Scenic**

Check all that apply (must meet a minimum of one category):

- 1. **Continued emphasis on forest ecosystem health/fuels reduction projects considering the LTBMU Stewardship Fireshed Assessment and Lake Tahoe Basin Multi-Jurisdictional Fuels Reduction and Wildfire Prevention Strategy.**
- 2. **Continued implementation of projects approved in Rounds 5 through 10 which implement the EIP. Project proposal should clearly describe the phase/product being produced along with the consequence of not completing the project phase proposed for Round 10.**

List Rounds and funding:

- 3. **Project is consistent with and contributes toward TMDL pollutant reductions within the four source categories (atmospheric, urban & groundwater, forested uplands, and stream channel). NOTE: If “yes”, then please respond to questions in the accomplishments section of the nomination proposal.**

- 4. **Control of aquatic invasive species and prevention and/or detection of new aquatic invasive species.**

Project Nomination Proposal Outline

Project Summary (a brief summary which clearly describes the proposed project –maximum 200 words)

- Summarize ONLY this Round 11 project.

This project is the first of two phases envisioned for the development of stormwater load reduction plans (SLRPs) for Nevada Tahoe urban jurisdictions. SLRPs are adaptable plans which specify the actions and strategies that each jurisdiction will implement in order to meet Lake Tahoe TMDL load reduction requirements. The work to be accomplished features the following tasks: (1) delineate jurisdictional catchments; (2) estimate pollutant load from catchments; (3) develop a strategy by which catchments shall be prioritized for specific load reduction actions. This work represents the first phase of work necessary for Nevada Tahoe urban jurisdictions to develop, finalize and implement targeted, efficient and cost-effective actions on the ground.

Project Description

Introduction

- Provide project background which explains the situation and state the problem and how it will be addressed.

Note: Focus needs to be the project in Round 11 not a history of an ongoing project or program.

The Lake Tahoe TMDL involved an extensive scientific effort to understand the causes of clarity loss within Lake Tahoe and outline a logical implementation approach to mitigate the problem. The TMDL source analysis determined urban stormwater to be the greatest source of fine sediment particle (FSP < 16 µm) and phosphorous loads that control clarity. To meet an interim Clarity Challenge target of 80 feet of clarity within a 20 year timeframe, local jurisdictions and transportation agencies must reduce their respective stormwater FSP loads by approximately 34% from 2004 baseline levels. It is estimated an investment of approximately \$1 billion on urban stormwater projects designed to reduce pollutant loads will be needed to meet the Clarity Challenge.

As a part of the stakeholder participation component of the Lake Tahoe TMDL development process, NDEP has been meeting regularly with Douglas and Washoe Counties, NDOT, Nevada Division of State Lands, and the Tahoe Regional Planning Agency to discuss the urban stormwater implementation approach within Nevada Lake Tahoe. An outcome of these Nevada Tahoe TMDL Implementation Partnership (NTIP) was agreement that upon approval of the Lake Tahoe TMDL, a Memorandum of Agreement (MOA) will serve as the framework for TMDL implementation within Nevada Lake Tahoe with respect to the urban stormwater source category. To be entered by NDEP, Washoe County, Douglas County and NDOT, the MOA will include annual and five-year load reduction milestones.

The MOA will furthermore require each Nevada urban jurisdiction to develop a stormwater load reduction plan (SLRP) that specifies the actions and strategies that will be implemented in order to meet the load reductions milestones. SLRPs may be regarded as streamlined versions of National Pollutant Discharge Elimination System (NPDES) stormwater management plans (SWMPs). However, they are intended to be focused specifically on the primary TMDL pollutants of concern (FSP < 16 µm and nutrients).

An outcome of the Nevada agency stakeholder meetings was that agreement to take the phased approach outlined in the table below to develop SLRPs for each jurisdiction. The bold text indicates the work that would be accomplished through this application. Included in the

table is the approach, lead agency and proposed funding sources to accomplish the work.

Phase	Primary Tasks	Approach	Lead ¹	Proposed Funding Sources ²
1a	Inventory, map and assess condition of stormwater assets (including outfalls and noting hydrologic connectivity)	Outfall mapping with HC rating shall be prioritized; mapping and condition assessment of other assets shall occur as resources allow; stormwater treatment BMP condition shall be prioritized and accomplished using BMP RAM	Douglas County with contractor support; NTCD for Washoe County & NDOT	Round 10 USFS Erosion Control Grants
1b	Delineate and prioritize catchments for implementation	The analysis will be consistent with the Pollutant Load Reduction Strategy conducted by CA stormwater permit holders. It is envisioned an analysis similar to Task 1 of the Placer County Stormwater TMDL Strategic Plan shall be accomplished for each of the NV urban jurisdictions.	EPA (sponsor) & NDEP (with contractor support)	SNPLMA Round 11 Capital
2	Assess and specify implementation strategies and actions (including operations and maintenance and budget and finance plans)	It is envisioned an analysis similar to the Placer County Stormwater TMDL Strategic Plan shall be accomplished for each of the NV urban jurisdictions; strategies and actions may differ between jurisdictions.	Douglas County, Washoe County & NDOT (likely with contractor support)	SNPLMA Round 12 Capital and/or Round 11 USFS Erosion Control Grant

1 Lead specified is entity through which funding is or may be requested.

2 Funding sources other than grant funds administered by LTBMU have been omitted, but may include Nevada Division of State Lands' Water Quality and Erosion Control or Lake Tahoe License Plate grants, NDEP Nonpoint Source Pollution Program (Section 319h) or Section 106 grant funds, and/or other local match funds.

- Describe what Round 11 is specifically funding; list the number of years the requested funding will cover; briefly describe how this project links into previous and future projects, and identify other round funding.

***NOTE:** Focus should be on finishing current/phased projects. If project is new in Round 11, clearly identify if the project is for planning or implementation and how it will be completed with Round 11 funds. Identify if Round 12 or other funds will be needed to complete the project. Please identify total non-SNPLMA funds that are being contributed/dedicated to the proposed Round 11 project and the source of those funds.*

The primary tasks to be accomplished using through this grant are the delineation and prioritization of catchments for each of the three Nevada Tahoe urban stormwater jurisdictions. This is indicated as Phase 1b in the table above. A further description of the work to be accomplished follows.

Delineate Catchments within Jurisdictions

This task involves coordinating with the Counties and NDOT to produce a GIS-based catchment layer. Catchments shall be delineated with consideration given to Lake Clarity Crediting Program factors/requirements which includes connectivity to surface waters. The catchment layer will be linked to an attribute data table containing existing catchment

information including Pollutant Load Reduction Model (PLRM) input data. The outfall mapping and indication of hydrologic connectivity work carried out in Phase 1a, which will already have been completed by the start of this project, will be used as a basis for delineating catchments. In addition, the catchment layer and database shall incorporate any of the other stormwater asset information that has been completed for Phase 1a.

Prioritize Catchments for Strategies and Actions

For this task, a methodology shall then be developed and implemented to prioritize catchments to receive stormwater improvements. Because it is a primary factor in the prioritization of catchments to receive stormwater improvements, the methodology shall primarily be based upon pollutant delivery to Lake Tahoe. As such, the methodology should consider the major factors controlling pollutant loading including, but not limited to, catchment hydrologic connectivity, land use type and distribution, directly connected impervious area, roadway pollutant delivery potential, etc. While the methodology and results of the Placer County Stormwater TMDL Strategic Plan were not available for detailed review prior to submittal of this application, it is envisioned that a similar approach will be conducted. The methodology will be applied consistently across Nevada Lake Tahoe. The information obtained from this work will provide the basis for describing the types and quantities of actions needed to sufficiently meet load reduction milestones, work which shall be accomplished through Phase 2.

It is anticipated the project (Phase 1b) will be complete within one year from when funding agreements are put in place. At this time, NDEP does not anticipate SNPLMA Round 12 funds will be needed to complete the project (Phase 1b). This stated, urban jurisdictions will still need to accomplish Phase 2 in order to finalize their respective SLRPs. A primary reason for phasing SLRP development was the anticipation that jurisdictions may wish to employ different strategies for achieving TMDL objectives. Therefore, urban jurisdictions may pursue funding through either the Round 11 USFS Erosion Control Grant Program or SNPLMA Rd 12 Capital Grant for this purpose. It is our intent that Phase 2 work will be carried out in a consistent manner by and between Lake Tahoe urban stormwater jurisdictions.

- Describe the “readiness” of this project to move forward (urgency, capacity, capability, environmental documentation, interagency agreements, etc)

Several events are anticipated to have occurred by the time funding comes available (assumed January 2011), which will make this project ready to move forward at that time:

- A Memorandum of Agreement (MOA) will be signed between NDEP, Douglas and Washoe Counties and NDOT for the purposes of TMDL implementation. SLRP development will be required as terms of the MOA;
- Urban jurisdictions will map and inventory their stormwater outfalls and BMPs using Round 10 USFS Erosion Control Grant Funding;
- Urban jurisdictions will have undergone testing and training of the Lake Clarity Crediting Program and Pollutant Load Reduction Model, facilitating SLRPs to be developed in a manner most relevant to and in consideration of Program/tool needs and requirements;
- Meetings will be held with said entities to outline roles and responsibilities, coordinate a detailed project workplan and to craft and distribute an RFP to retain a service provider immediately upon availability of funding.

SLRP development is of primary urgency and critical importance to demonstrate accountability that water quality improvement expenditures were used in the most targeted,

efficient and effective manner possible.

- Describe partnerships for this project. (if applicable, project should identify committed/secured partner funding and/or other partner contributions (describe) and how it is integrated into the project)

The project involves the collaboration and coordination of the following entities:

USEPA – project sponsor, grant administration, and project advisory committee agency member;

NDEP – grant administration, subcontract manager, and potential in-kind federal match as project advisory committee agency member;

Washoe County – providing \$35,000 cash match and in-kind local match as project advisory committee agency member;

Douglas County - providing \$35,000 cash match and in-kind local match as project advisory committee agency member;

NDOT - providing \$35,000 cash match and in-kind State match as project advisory committee agency member;

NDSL – potential in-kind State match as project advisory committee agency member and cash match through grant funding;

TRPA – potential in-kind local match as project advisory committee agency member; approval authority for counties to provide cash match using interest from Water Quality Mitigation Funds;

NTCD - potential in-kind match as project advisory committee agency member.

Note: The form requests information about project goals, objectives, accomplishments, and questions the program is designed to answer across several different sections. These issues are closely linked and your individual responses should provide a cohesive description.

Goal – Purpose and Need (“larger” statement of future expected outcome – usually not measurable)

It is important to understand that the purpose of the TMDL was to quantify the level of effort that would be needed to restore historic clarity within Lake Tahoe. For this reason, the analysis approach was necessarily gross to accommodate the basin-wide scale. The analysis was never intended to offer a prescriptive approach to implementation. It was always expected that once this top-down approach was completed, implementing jurisdictions would need to do a more detailed on-the-ground analysis to determine how they would meet the required load reduction requirements. Stormwater control plans offer several benefits. They:

- Provide an organized framework for implementing jurisdictions to prioritize and target actions for cost-effectiveness;
- Provide reasonable assurance to regulatory agencies that the strategies and actions to be implemented are capable of meeting established load reduction milestones.
- Are adaptable through time if progress toward achieving milestones is not occurring as expected;

For all these reasons, stormwater control plans enable implementing jurisdictions to demonstrate greater accountability for expenditures of public monies on water quality improvements. Therefore, the goal of this project is to carry out those Phase 1b tasks necessary to be completed in order to define the strategies and actions that will be employed by individual Nevada Tahoe urban jurisdictions.

Objectives (specific measurable statements of action which when completed will move towards achieving the goal)

Note: Objectives will form the basis for the milestones/deliverables to be identified in Appendix B-8

- Describe how fulfilling objectives will contribute to the achievement of one or more environmental thresholds (air quality, water quality, soil conservation, vegetation, fisheries, wildlife, scenic, noise, recreation). Provide measures if applicable. For example: acres treated, miles of stream restored for each objective.

The project will contribute to the achievement of water quality thresholds by articulating a plan for each Nevada Tahoe urban jurisdiction to achieve the TMDL Clarity Challenge. Specifically, Douglas and Washoe Counties and NDOT will implement the resulting plan, resulting in a 34% reduction from their respective 2004 baseline stormwater loads. Furthermore, SLRP implementation is expected to result in ancillary benefits to other water quality objectives, including tributaries and stream environment zones, as well as the resource areas of fisheries and wildlife and air quality.

- Describe the estimated environmental risks from unintended consequences of the proposed project (if applicable).

There are no known environmental risks from unintended consequences of the proposed project.

Accomplishments

- Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project)

Note: Differentiate between direct and/or primary project effects and secondary and/or overall watershed effects.

Anticipated project accomplishments include the following products and deliverables:

- Detailed SLRP Phase 1b workplan
- Project Advisory Committee meetings notes summarizing roles, responsibilities, tasks and assignments for completing Phase 1b scope of work. and summary progress reports
- Request for proposals (RFP) to retain professional services for requested work
- GIS-based map indicating catchment boundaries and stormwater outfalls
- GIS-based attribute table(s) linked to catchment boundaries which, at a minimum, includes the following information:
 - Catchment identification
 - Jurisdiction(s) identifier
 - Areal size
 - Pollutant loading estimates
 - Hydrologic connectivity rating
 - Prioritization criteria scores and overall rank
 - BMPs and other stormwater assets to the extent they are mapped and resources allow
- Draft and final catchment pollutant load estimation methodology (including hydrologic connectivity methodology) & catchment pollutant load estimates by jurisdiction

- Other criteria factors deemed relevant for consideration in catchment prioritization
- Phase II (strategies and actions, budget and finance plan) proposed workplan and Request for Proposal to retain professional services for requested work.

- Describe how the project results/accomplishments will be communicated and made available to the public.

It is anticipated that individual jurisdiction's SLRPs will be placed on NDEP's website and/or TIIMS once they are finalized.

- If you checked "yes" for the project being consistent with and contributes to TMDL pollutant reductions please consider and integrate the following in the project description:

- a) Describe whether, and how, the project demonstrates advanced, alternative, or innovative practices.

Results from the Lake Tahoe TMDL analysis suggest that continuing to implement current best practice will not enable the Clarity Challenge to be attained. Therefore, SLRPs will by necessity need to explore and incorporate innovative and advanced technologies, strategies and actions in order to meet load reduction milestones contained in the MOA.

- b) If project includes project level monitoring, describe ability of proposed monitoring strategy to contribute to the state of TMDL knowledge. Also describe if purpose of the capital project is to conduct data collection and/or analysis related to Lake Tahoe clarity.

No monitoring or data collection will be conducted for this project. However, the project shall include an analysis through which reasonable assurance is provided that the jurisdictional implementation plan will result in the attainment of load reduction milestones contained in the MOA.

- c) Describe treatment approach for reducing pollutants and/or measures to address connectivity between pollutant sources and Lake Tahoe or its tributaries. Identify target pollutants, and, to the degree feasible, provide quantitative estimates of project effectiveness at reducing pollutant loads (and/or a commitment to provide post-project estimates).

The approach for reducing pollutants will be articulated in each of the individual jurisdiction's SLRPs. The strategies and actions described must be adequate to provide at least a 34% load reduction from each jurisdiction's 2004 baseline stormwater loads.

- d) If appropriate, describe whether, and how, the project can be combined or coordinated with other TMDL implementation projects.

Prior to final workplan development and the hiring of a contractor to carry out the project, the results of previous efforts related to Stormwater Management Plan (SWMP) development for California jurisdictions will be reviewed. It is anticipated that the Placer County TMDL Strategy Development Project will serve as a model for carrying out SLRP development for Nevada jurisdictions.

The collaborative approach being taken to Phase I SLRP development will foster relationships between Nevada Tahoe urban jurisdictions and promote coordination during the strategies and actions phase to complete the SLRPs. In particular, there is great interest in collaborating and coordinating projects between NDOT and the individual counties for those catchments containing highways. It is understood that coordinating efforts offers the best chance to maximize cost-effectiveness of implementation efforts.

Monitoring

- Describe the project monitoring that will be implemented as part of this project including:

- List the questions the monitoring program is designed to answer.

Not applicable.

- Describe any coordination with, or input from, the science community on monitoring and adaptive management that has occurred on the development of this nomination and what changes (if any) to the project were made as a result of this input.

Not applicable.

- Describe the methods and strategies (i.e. monitoring, research, or both) that will be used to verify whether the project goals and objectives have been met? (*Note: A detailed monitoring plan and/or research plan is not required, however, enough detail must be provided to allow someone that is unfamiliar with the project to understand and evaluate the proposed methods and strategies.*)

EPA will be the grant administrator while NDEP will be the manager of the project. Both agencies will provide all technical and administrative services needed for contract completion, including monitoring, supervision and review of all work performed as well as budget coordination and scheduling to assure that the project work is completed within budget, on schedule, and in accordance with approved procedures, applicable laws, and regulations. Progress reports describing the activities undertaken and the accomplishments toward achieving project goals, tasks and targets shall be submitted on a quarterly basis.

- Describe whether the monitoring or research associated with this project fits into or is part of a larger monitoring or research program.

This project is inherently connected to the TMDL, Lake Clarity Crediting, Regional Stormwater Quality and Environmental Improvement Programs.

- Describe how information from the monitoring and/or research will be used to improve the continued performance of the proposed project or future similar projects.

The purpose of the project is to conduct an analysis that will ensure targeted actions and projects to reduce fine sediment particle load reductions. Using SLRPs as a framework for implementation will not only provide assurance that the actions and strategies are capable of meeting load reduction goals and targets, but will ultimately result in the most cost-effective use of resources and enable the most efficient restoration of Lake Tahoe clarity.

Attachments

- If applicable, include 8 ½ X 11 map depicting the project

Appendix B-8

**LAKE TAHOE RESTORATION PROJECTS
ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES**

Project Name:	Nevada Tahoe Stormwater Load Reduction Plan Development - Phase I	Agency:	US Environmental Protection Agency
Prepared by:	EPA, NDEP, Washoe and Douglas Counties, NDOT	Phone:	(775) 589-5248
SNPLMA Project #:		EIP #:	628, 10110, 10111

Identify estimated costs of eligible reimbursement expenses:

1. Planning, Environmental Assessment and Research Costs (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)	\$ _____	_____ %
2. FWS Consultation – Endangered Species Act	\$ _____	_____ %
3. Direct Labor (Payroll) to Perform the Project	\$ _____	_____ %
4. Project Equipment (tools, software, specialized equipment, etc.)	\$ _____	_____ %
5. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ _____	_____ %
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ _____	_____ %
7. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ 300,000	83 %
8. Other Direct and Contracted Labor: Agency payroll for the Contracting Officer to do project procurement, COR, Project Inspector, Sec. 106 Consultation if required, NEPA Lead, Project Manager, Project Supervisor, and subject experts to review contracted surveys, designs/drawings, plans, reports, etc.; Also covered is the cost to contract for a Project Manager and/or Project Supervisor if contracted separately from other project contracts)	\$ 60,000	17 %
9. Other Necessary Expenses (see Appendix B-9)	\$ _____	_____ %
TOTAL:	\$ 360,000	_____ %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Detailed Phase I workplan/RFP solicitation	12/31/2010
Project kick-off meeting notes with selected service provider	3/31/2011
GIS-based catchment map and linked attribute tables	6/30/2011
Pollutant load estimation methodology	9/30/2011
Final catchment pollutant load estimates	12/31/2011
Final Completion Date: 12/31/2011	

COMMENTS: