

## APPENDIX I

### LAKE TAHOE CAPITAL PROJECT PROPOSAL

|   |  |   |
|---|--|---|
| <b>Project Name:</b><br><b>BMP Retrofit – SFR<br/>developed parcels</b>   | <b>Capital Focus Area:</b><br>Watershed and Habitat Improvement Focus<br>Area. Water Quality Protection Program. | <b>EIP #:</b><br><b>16</b>                                  |
| <b>Lead Agency:</b> Natural<br>Resources Conservation<br>Service (USDA)   | <b>Contact:</b><br>Jane Schmidt, District Conservationist  |   |
| <b>Threshold: Water Quality<br/>Threshold Standard: WQ4-<br/>A, WQ6, WQ5, WQ2-C</b>   | <b>Phone Number:</b> 530-543-1501 (101)  | <b>Email Address:</b><br>Jane.schmidt@ca.usda.gov           |
| <b>Is this a multi-year Project?<br/>(If “Yes”, describe in the Detailed<br/>Project Description below number<br/>of years or phases and which year<br/>the requested funding will cover)</b> | <b>Total Project Cost:</b><br><b>\$17,000,000</b>  | <b>Funding Request in this Round:</b><br><b>\$1,690,000</b> |
| YES   |  |   |

**Project Summary (maximum 200 words):** Provide technical assistance to developed single-family residential property owners on the design of retrofit BMP’s, or during the installation of these BMP’s to control urban stormwater runoff containing sediment, nutrients, grease and oil on-site during runoff events. This project is expected to generate an estimated \$10 million worth of projects installations, contributing to the private sector portion of the EIP. Design criteria will meet TRPA Ordinances, and practices reflect the TRPA *BMP Handbook* and NRCS practice standards, based on the best available science. Products include “Site Evaluations”; a plan for landowners including engineering and agronomy based practices for BMP’s. The education and outreach component will be commensurate with the need to convince landowners to take voluntary action to plan and install BMP’s to meet TRPA priority watershed timelines for compliance.

#### **Detailed Project Description:**

Single family residential parcels that have been “hardened” by impervious surfaces such as roads, driveways and rooftops contribute sediment and nutrients to Lake Tahoe at an accelerated rate, and impair water quality. Concentrated rain and snowmelt flush sediments and nutrients from privately owned parcels into nearby stream or storm drainage systems, which in turn deliver this pollution to the Lake. Private landowners usually do not have the technical knowledge to conduct an assessment of runoff and erosion on their land, calculate runoff volumes and size BMP’s, and are unfamiliar with practices that can be used to infiltrate runoff and control erosion.

This project is expected to continue as prescribed by TRPA. While the project may be modified to reflect TMDL implementation, there is no indication that there will be a dramatic shift in BMP Retrofit needs due to the TMDL. At this time, approximately 35% of BMP’s are installed on the Nevada side and over 6% have been installed on the California side.

#### **Describe the goals and objectives of the project:**

This project addresses WQP-ED1, WQ-A1 for education and technical assistance components. . Provide single-family residential parcels with design and implementation assistance with retrofitting developed properties with BMP’s to reduce or eliminate soil erosion and excessive runoff that contributes pollutants to Lake Tahoe. Assist landowners to voluntarily meet TRPA’s BMP implementation schedule for priority watersheds. Coordinate BMP Retrofit in residential areas with local jurisdiction’s work on erosion control projects in the same area, to maximize benefits and positive cumulative effects. BMP Retrofit is a part of the “treatment train” approach, intended to

complement larger public-works scale projects, and increase their effectiveness and life-span.

**Describe the anticipated project accomplishments:** Technical assistance is provided to 2,000 private property owners in the form of site evaluations (plans for BMP practices), and technical assistance to landowners and private contractors during installation of those practices. The investment in providing technical assistance to private landowners is expected to produce a return of \$10 million worth of projects installed, and contributes to the private sector portion of the EIP.

**Describe the “readiness” of this project to move forward (Environmental documentation, etc.):** Program is ongoing, with technical and staffing infrastructure in place. Project is ready to execute additional deliverables as funding is received.

**Describe partnerships for this project. (Include documentation):** Technical assistance on conservation issues is provided to private landowners within the Tahoe Basin through the “Backyard Conservation Program”, a partnership effort with the Nevada Tahoe Conservation District, the Tahoe Resource Conservation District and NRCS. An MOU outlines responsibilities among these 3 agencies and TRPA for the BMP Retrofit Program. UNR Cooperative Extension supports some educational aspects of the program. Accomplishment of tasks for this project will be in accordance with a Strategic Plan, prepared by the BMP Retrofit partnership. Efforts are coordinated with local jurisdictions to avoid duplication of effort and most effectively utilize resources. (Copies of MOU and plans available in hard copy, upon request.).

**Describe the project monitoring that will implemented as part of this project including: (1) The questions the monitoring program is designed to answer**  
Investigate concerns on effectiveness of residential scale BMP’s, especially with long-term maintenance issues. Adapt practices or products used to reduce the cost of installation, increase the ease of installation, and allow easy maintenance of BMP’s. Continually consider and adapt new technologies to residential scale applications. Adapt practices and implementation strategies to new policies and regulations, such as P7 and the TMDL. Revise implementation approach as needed to incorporate new scientific data, such as updated soils information or sources contributing fine sediment to the decline in Lake clarity.

**(2) The monitoring approach**

Field trials of new or adapted BMP practices, or new products for residential applications. Field observations on selected practices targeting estimated effectiveness of the practice over time, maintenance issues and opportunities for improvement in these areas. Tie these efforts into other science and research efforts as these opportunities arise.

**(3) Whether this project monitoring fits in to a larger monitoring or research program?**

Yes, it fits into a larger context of science and research in the Basin. While there are significant challenges to collecting statistically valid data for residential BMP performance and effectiveness, there are ample opportunities to collect data on applied BMP practices that would prove useful in continually improving the program. Data collected may support broader modeling efforts to improve long-term effectiveness of BMP's. These opportunities need to be identified as additional efforts in science and research are funded; we expect to work in a cooperative effort with the science community on these issues. NRCS will participate with specific monitoring needs identified by research.

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

An education and outreach program is in place and is delivered through the *Backyard Conservation Program*; a primary focus is on BMP Retrofit. Materials have been developed to explain the rationale for the program, and demonstration sites and workshops are utilized as teaching tools. Other components of outreach and education include media articles or segments, one-on-one contacts with landowners, Tip Sheets explaining practices, and school projects. TRPA survey data from P7 efforts will be used to target audiences with specific education messages and use communication methods that have proven to be effective. This aspect of the program is commensurate with the need to gain voluntary compliance with the BMP Retrofit Program.

For the monitoring aspect, an annual report will be prepared and shared with partners and with the science community.

**Include an 8 ½ X 11 map depicting the project.**

This project includes all private lands with single-family residential, developed parcels, in the Lake Tahoe Basin, and is not easily depicted on a specific map. The project will continue to coordinate with local EIP projects as they come on-line.

**Appendix B-8**

**LAKE TAHOE RESTORATION PROJECTS  
ESTIMATED DIRECT COSTS & KEY MILESTONE DATES**

Project Name: BMP Retrofit – SFR Parcels Agency: Natural Resources Conservation Service (USDA)  
 Prepared by: Jane Schmidt Phone: 530-543-1501 EIP #: 16  
 SNPLMA Project #: \_\_\_\_\_

**Identify estimated costs of eligible reimbursement expenses:**

|  |    |                  |            |   |
|--|----|------------------|------------|---|
| <b>1. Planning, Environmental Assessment and Research Costs</b> (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)   | \$ | <u>110,000</u>   | <u>7</u>   | % |
| <b>2. FWS Consultation-Endangered Species Act</b>  | \$ | <u>0</u>         | <u>0</u>   | % |
| <b>3. Direct Labor (Payroll) to Perform the Project</b>  |    | <u>30,000</u>    | <u>2</u>   |   |
| <b>4. Project Equipment</b> (tools, software, specialized equipment, etc.)   | \$ | <u>5,000</u>     | <u>-</u>   | % |
| <b>5. Travel</b> (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)  | \$ | <u>5,000</u>     | <u>-</u>   | % |
| <b>6. Official Vehicle Use</b> (pro rata cost for use of Official Vehicles when required to carry out project)   | \$ | <u>0</u>         | <u>0</u>   | % |
| <b>7. Cost of Contracts, Grants and/or Agreements to Perform the Project</b>   | \$ | <u>1,162,000</u> | <u>69</u>  | % |
| <b>8. Other Direct Costs and Contracted Labor:</b><br>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) | \$ | <u>124,500</u>   | <u>7</u>   | % |
| <b>9. Other Necessary Expenses</b> (See Appendix B-9)  | \$ | <u>253,500</u>   | <u>15</u>  | % |
| <b>TOTAL:</b>  | \$ | <u>1,690,000</u> | <u>100</u> | % |

**Estimated Milestone Dates:**

| Milestones/Deliverables:  |              | Date:                |
|---|--------------|----------------------|
| <b>BMP Site Evaluation Plans or technical assistance with implementations</b> | <b>2,000</b> | <b>Sept 30, 2009</b> |
| Final Completion Date:  |              | <b>Sept 30, 2009</b> |