

Appendix B-8

**LAKE TAHOE RESTORATION PROJECTS
ESTIMATED DIRECT COSTS & KEY MII**

Project Name: Accelerated Implementation of the BMP Retrofit Program in the Lake Tahoe Basin Agency: Sponsor: BOR
 Prepared by: Jane Freeman Phone: (775) 588-4547 ext. 248 EIP #: 16
 SNPLMA Project #: _____

Identify estimated costs of eligible reimbursement expenses:

1. Planning, Environmental Assessment and Research Costs (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)	\$ <u>0</u>	<u>0</u>	%
2. Direct Labor (Payroll) to Perform the Project	\$ <u>0</u>	<u>0</u>	%
3. Project Equipment (tools, software, specialized equipment, etc.)	\$ <u>0</u>	<u>0</u>	%
4. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ <u>0</u>	<u>0</u>	%
5. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ <u>0</u>	<u>0</u>	%
6. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ <u>489,000</u>	<u>100</u>	%
7. Other Direct Costs (direct labor for agency personnel to do project procurements; COR; PI; personnel assigned as NEPA lead; personnel assigned to review contracted surveys, designs/drawings, reports, etc.; project manager and/or project supervisor; and contracted costs for project manager and/or project supervisor if contracted separately)	\$ <u>0</u>	<u>0</u>	%
8. Indirect Costs	\$ <u>0</u>	<u>0</u>	%
TOTAL:	\$ <u>489,000</u>	<u>100</u>	%

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Over-the-Counter Approval Procedure	November 1, 2006
Training seminars/workshops	October 15, 2007
1,500 Certificates of Completion	December 31, 2007
500 BMP evaluations	December 31, 2007
Final Completion Date	December 31, 2007

COMMENTS: The estimated key milestones dates may vary based on when funding is received. It is anticipated that more than 1,500 certificates of completion and 500 BMP evaluations will be completed for the funding requested, therefore, it is requested that additional evaluations and Certificates of Completion be permitted to be charged under this grant should funding allow.

APPENDIX I

LAKE TAHOE CAPITAL PROJECT PROPOSAL

Project Name: Accelerated Implementation of the BMP Retrofit Program in the Lake Tahoe Basin
Capital Focus Area: Lake Tahoe Basin
EIP #: 16

Lead Agency: The Environmental Protection Agency
Contact: Jane Freeman, Lake Tahoe Basin Coordinator
Threshold: Water Quality
Phone Number: (775) 588-4547 ext. 248
Threshold Standard: WQ-1
WQ-7
WQ-8
Email Address: freeman.jane@epa.gov

Is this a multi-year Project? Yes
(If "Yes", describe in the Detailed Project Description below number of years or phases and which year the requested funding will cover)
Total Project Cost: \$5,000,000
Funding Request in this Round: \$489,000

Project Summary (maximum 200 words):

The Accelerated Implementation of the Best Management Practices (BMPs) Retrofit Program in the Lake Tahoe Basin ("the project") seeks to install water quality measures, called BMPs, on Tahoe's developed properties by 2008. In response to quickly-approaching compliance deadlines, the project will facilitate BMP installation on multi-family, commercial/industrial, public service, and lakefront properties, while TRPA's partner agencies, the Natural Resources Conservation Service, the Nevada Tahoe Conservation District and the Tahoe Resource Conservation District, will continue to facilitate BMP installation and provide technical support on single-family residential properties through separate funding. The project will also support program management so that holistic, program-level decisions can be made. Finally, the project will accelerate BMP installation on all developed land uses by creating innovative programming such as third-party certifications and over-the-counter approval of self-prescribed BMP designs. The quality of technical assistance will be maintained through staff training, database management, and outreach efforts to the public. Program monitoring and evaluation will be incorporated to ensure that desired goals are attained.

This proposal seeks one year of funding to support the continued implementation of the project.

Detailed Project Description:

The project is the Accelerated Implementation of the Best Management Practices Retrofit Program in the Lake Tahoe Basin, the goal of which is to implement BMPs on Lake Tahoe's developed properties by 2008. The project, funded by State and Federal partners, provides technical assistance to private property owners to facilitate the implementation of BMPs; this represents the private sector contribution of the Environmental Improvement Program. This proposal seeks one year of funding to support the continued implementation of the project.

I. Background

The Environmental Improvement Program (EIP) is a multi-million dollar endeavor to help restore Lake Tahoe's clarity and environment by implementing more than 700 capital improvement projects in the Tahoe Basin. One project within the EIP, Project #16, is known as the Best Management Practices (BMP) Retrofit Program. The BMP Retrofit Program facilitates implementation of water quality improvements called Best Management Practices (BMPs) on Tahoe's existing developed parcels. The BMP Retrofit Program is distinctive because individual property owners pay for the improvements installed on their property. The federal and state contributions toward the BMP Retrofit Program provide technical assistance to private property owners to empower them to install BMPs, thereby providing the private match funds to the EIP.

The BMP Retrofit Program, based on Chapter 25 of the Tahoe Regional Planning Agency's (TRPA's) Code of Ordinances, requires all developed property in the Tahoe Basin be retrofitted with BMPs. Through the application of BMPs, the ordinance seeks to protect Lake Tahoe's water quality and reduce nutrient and sediment loads carried to Lake Tahoe by non-point source pollution. Through a Memorandum of Understanding (attached), the Tahoe Regional Planning Agency provides program management, policy interpretation, and technical assistance to multi-family, commercial/industrial, public service, and lakefront properties, while the Natural Resource Conservation Service provides technical support to the program and the two Conservation Districts provide technical assistance to single-family residential properties through separate funding.

II. Project Purpose and Need

Of the almost forty thousand developed properties in the Tahoe Basin, over seven thousand have completed the BMP Retrofit Program by installing and maintaining BMPs on their property. This leaves eighty percent of developed properties to be retrofitted within the next three years. Therefore, it is imperative to accelerate program implementation to more efficiently assist property owners, meet regulatory requirements, and achieve environmental thresholds.

III. Project Goal

Facilitate BMP implementation on the remaining privately-owned developed properties in the Lake Tahoe Basin by October 15, 2008 by providing services as delineated in the MOU (attached) with the EIP #16 partners to reach compliance with the BMP Retrofit Program.

IV. Detailed Project Attributes

In order to attain the project goals, the following strategies will be implemented:

1. Implement BMPs on multi-family, commercial, industrial, public service and lakefront properties by providing technical assistance in the form of BMP Evaluations, BMP Facilitations, and BMP Retrofit Permits. The private property owner will pay for BMP installation, providing a nonfederal contribution and partnership in funding for each property assisted;
2. Accelerate BMP implementation by creating innovative programs that empower property owners, certify professionals, and increase efficiency. These programs will include a third-party certification program and over-the-counter approval of self-

prescribed BMP designs, and will be implemented in coordination with our partnering agencies;

3. Increase effectiveness of public EIP projects and help achieve water quality thresholds by focusing technical assistance on private properties located next to public EIP projects;
4. Facilitate program management so that holistic decisions can be made to keep the program focused. The program manager will promote cooperation with Strategic Partners and key stakeholders, strengthen internal coordination, make policy interpretations, and update planning documents such as the Strategic Plan and Communication Plan, as necessary;
5. Keep all partners up-to-date on the latest scientific information about stormwater pollution prevention and erosion control by encouraging learning and training;
6. Effectively and consistently enter, manage, and utilize data to update statistics on program performance measures such as number of BMP evaluations performed, number of BMP Certificates of Completion issued, quantity of runoff reduced. Additionally, property owners will be sent automatic BMP maintenance reminders.
7. Perform outreach and enhance communication by:
 - Continuing outreach to alert property owners to program requirements through the newspaper, radio, television, brochure mailings, and workshops;
 - Providing training seminars for County, City and TRPA inspectors and the staff of our Strategic Partners who approve BMP designs for new and existing development; and
 - Managing the BMP Hotline, answering questions at the front counter, and responding to phone requests for information.
8. Monitor progress, evaluate results, and adapt program by:
 - Tracking the private monetary contribution to BMP installation on all commercial, multi-family industrial, public service and lake front properties;
 - Tracking the rate of BMP implementation to establish a baseline;
 - Tracking the rate of BMP implementation after accelerating programs are enacted to evaluate program performance;
 - Tracking the volumetric reduction in stormwater runoff;
 - Evaluating program success based on percent rate increase in implementation;
 - Performing QA/QC to ensure BMPs are installed and maintained correctly; and
 - Learning from the program evaluation and QA/QC process and incorporate changes as needed.

Describe the goals and objectives of the project:

The goal of the project is to implement BMPs on developed properties in the Tahoe Basin by 2008.

The project will meet objectives WQ-1, WQ-7, and WQ-8 under the Water Quality Improvements/Erosion Control Focus Area. The project will provide conservation technical assistance to private landowners to implement the BMP Program (WQ-1). The project will incorporate program monitoring, evaluation and adaptive management to

ensure BMP effectiveness (WQ-7). The outreach component of the project will specifically target resident and out-of-Basin property owners, realtors and contractors to inform them of BMP Retrofit Program requirements and the availability of technical assistance through brochure mailings, newspaper advertisements, radio and television spots, Public Service Announcements, public presentations, and workshops. The project will also provide training opportunities to other agencies that play a part in approving BMP designs for new and existing development (WQ-3).

Describe the anticipated project accomplishments:

The anticipated accomplishments of this one-year proposal include:

- Provide BMP Evaluations for 500 multi-family, commercial, industrial, public service, and lakefront properties;
- Issue *Certificates of Completion* for 1,500 properties;
- Create the Over-the-Counter Approval of Self-Prescribed BMP Designs program to accelerate BMP implementation;
- Kick off outreach campaign to promote the Over-the-Counter program;
- Provide two training seminars for County, City and TRPA inspectors and the staff of our Strategic Partners who approve BMP designs for new and existing development;
- Provide one workshop for contractors, engineers, landscape architects, and other BMP professionals;
- Establish baseline values for BMP implementation rate and reduction in stormwater runoff;
- Perform post-grading season QA/QC to ensure that BMPs are being installed and maintained properly.

The anticipated accomplishments of the project ending in 2008 include:

- Implement BMPs on developed properties in the Tahoe Basin by 2008;
- Foster a sense of environmental stewardship among Lake Tahoe's property owners;
- Significantly reduce nonpoint source pollution at the source;
- Significantly reduce development impacts on hydrology;
- Significantly reduce amount of contaminants, sediment, and nutrients entering water courses and ultimately Lake Tahoe; and,
- Significantly contribute to the achievement of water quality thresholds at Lake Tahoe.

Describe the "readiness" of this project to move forward (Environmental documentation, etc.):

The project is already in progress and this funding will allow the project to continue to be implemented with the existing framework, while providing for program acceleration.

Describe partnerships for this project. (Include documentation):

The BMP Retrofit Program encompasses EIP project #16, and is a partnership between TRPA's Erosion Control Team, the Natural Resource Conservation Service (NRCS), the Nevada Tahoe Conservation District (NTCD), and the Tahoe Resource Conservation District (TRCD). In 2002, these four agencies entered into a Memorandum of Understanding that specified TRPA's Erosion Control Team as the lead on commercial, public service, multi-residential and lakefront BMP implementations, TRCD and NTCD the lead for single-family residential BMP implementations, and NRCS as the lead for technical issues and support.

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

The questions the monitoring program is designed to answer

The monitoring approach

Whether this project monitoring fits in to a larger monitoring or research program?

To evaluate program progress, assess the environmental results of BMP implementation, and adapt the program as needed, the following will be tracked:

- The private monetary contribution to BMP installation on all commercial, multi-family, industrial, public service, and lakefront properties;
- The percent increase in BMP implementation after accelerating programs are implemented;
- QA/QC efforts to determine whether BMPs are installed and maintained correctly;
- The amount of stormwater runoff reduced by BMP implementation;
- The estimate of pollutant loading reduced resulting from BMP implementation; and
- Other factors as necessary.

Estimates of pollutant load reduction and stormwater runoff reductions will be made available to Lahontan Regional Water Quality Control Board and Nevada Department of Environmental Protection to support the larger TMDL effort.

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

The Tahoe Interagency Information Management System (TIIMS) online BMP database, currently in development and funded through a separate grant, is anticipated to be the primary vehicle to communicate project results and make them available to the public. Database features are to include an interactive GIS map that allows property owners to go to the TIIMS website, look up their property and immediately know all related BMP information. The TIIMS BMP database will effectively track the implementation of water quality improvements on properties in the Lake Tahoe Basin through a secure, parcel specific BMP data repository that is easily accessible via the internet. Additionally, other media will be utilized as appropriate, including but not limited to press releases and column articles marking significant milestones of the program's success.

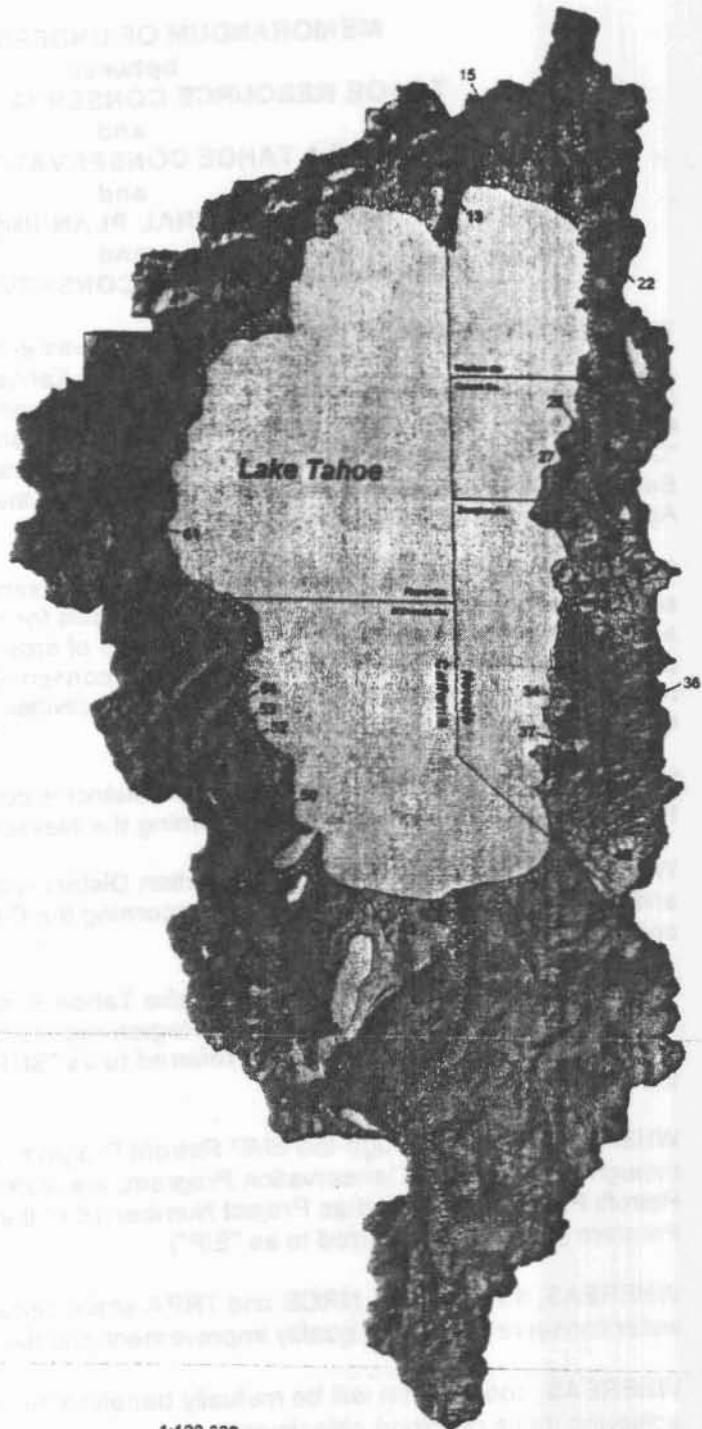
Include an 8 ½ X 11 map depicting the project.

Please see below.

Priority



NUMBER	NAME
1	TAHOE STATE PARK
2	SWITCH CREEK
3	BARTON CREEK
4	LAKE FOREST CREEK
5	DOLLAR CREEK
6	CEDAR FLATS
7	WATSON
8	CARNELIAN RIV. CREEK
9	CARNELIAN CANYON
10	TAHOE MESA
11	GRIPP CREEK
12	JONES BEACH
13	EAST STATELINE POINT
14	FIRST CREEK
15	SECOND CREEK
16	BURRY CEDAR CREEK
17	WOOD CREEK
18	THIRD CREEK
19	WCLINE CREEK
20	MILL CREEK
21	TUNNEL CREEK
22	BONPLAND
23	SAND HARBOR
24	MARLETTE CREEK
25	SECRET HARBOR CREEK
26	SLISS CREEK
27	DEADMAN POINT
28	SLAUGHTER HOUSE
29	GLENBROOK CREEK
30	NORTH LOGAN HOUSE CREEK
31	LOGAN HOUSE CREEK
32	CAVE ROCK
33	LINCOLN CREEK
34	SKITLAND
35	NORTH ZEPHYR CREEK
36	ZEPHYR CREEK
37	SOUTH ZEPHYR CREEK
38	MICHAEL CREEK
39	BURKE CREEK
40	EDGEWOOD CREEK
41	SLUOLY PARK
42	SLUOLY CREEK
43	TROUT CREEK
44	UPPER TRUCKEE RIVER
45	CAMP RICHARDSON
46	TAYLOR CREEK
47	TALLAC CREEK
48	CASCADE CREEK
49	EAGLE CREEK
50	SLISS STATE PARK
51	RUBICON CREEK
52	PARADISE FLAT
53	L'ORIELY GULCH CREEK
54	SIERRA CREEK
55	WEEDS
56	GENERAL CREEK
57	MORNEY CREEK
58	QUAIL LAKE CREEK
59	HOWENWOOD CREEK
60	MADDERN CREEK
61	EAGLE ROCK
62	BLACKWOOD CREEK
63	WARD CREEK
64	TRUCKEE RIVER



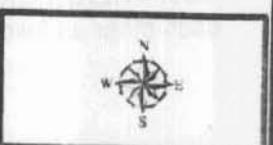
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Revised by Janet H. Rogers
September 9, 1997



Priority Watersheds



MEMORANDUM OF UNDERSTANDING
 between
 TAHOE RESOURCE CONSERVATION DISTRICT
 and
 NEVADA TAHOE CONSERVATION DISTRICT
 and
 TAHOE REGIONAL PLANNING AGENCY
 and
 NATURAL RESOURCES CONSERVATION SERVICE

This MEMORANDUM OF UNDERSTANDING was entered into the _____ day of _____, _____, by and between the Tahoe Resource Conservation District (hereinafter referred to as "TRCD"), the Nevada Tahoe Conservation District (hereinafter referred to as "NTCD") (TRCD and NTCD are hereinafter collectively referred to as the "Districts"), the U. S. Department of Agriculture, Natural Resources Conservation Service (hereinafter referred to as the "NRCS") and the Tahoe Regional Planning Agency (hereinafter referred to as the "TRPA").

WHEREAS, the Districts have entered into a Memorandum of Understanding, and its supplements, with the NRCS, establishing a basis for an enduring cooperative working arrangement in carrying out planned programs of erosion, sediment, water, and stormwater controls for the improvement and conservation of all environmental resources and administration of conservation activities and natural resource management; and

WHEREAS, Nevada Tahoe Conservation District is designated as a Nevada entity and therefore is restricted to matters concerning the Nevada side of the Tahoe Basin; and

WHEREAS, Tahoe Resource Conservation District is designated as a California entity and therefore is restricted to matters concerning the California side of the Tahoe Basin; and

WHEREAS, the Regional Plan for the Lake Tahoe Basin and the Water Quality Management Plan for the Lake Tahoe Region require the installation of Best Management Practices (hereinafter referred to as "BMPs") on all improved properties in the Tahoe Region; and

WHEREAS, TRPA through the BMP Retrofit Program, and the Districts and NRCS through the Backyard Conservation Program, are working to accomplish the BMP Retrofit Program identified as Project Number 16 of the Environmental Improvement Program (hereinafter referred to as "EIP").

WHEREAS, the Districts, NRCS and TRPA share certain common objectives in soil and water conservation, water quality improvement and the use of BMP's; and

WHEREAS, cooperation will be mutually beneficial to the Districts, NRCS and TRPA in achieving these common objectives;

NOW THEREFORE, in consideration of these premises, the parties hereto do agree with each other as follows:

Tahoe Regional Planning Agency

I. THE DISTRICTS, TO THE EXTENT POSSIBLE, AGREE TO:

- A. Cooperate with TRPA and NRCS by working with Tahoe Region property owners, for the purpose of facilitating the installation of BMP's on all improved residential properties in the Tahoe Region.
- B. Assume the lead role providing assistance to property owners in evaluation and implementation of BMP needs for improved single-family residential structures not subject to a TRPA permit.
- C. Site visit each parcel pursuant to property owner requests to determine the need for BMPs in accordance with TRPA and local ordinances and policies.
- D. Develop BMP Plans, in accordance with the Regional Plan for the Lake Tahoe Basin, Chapter 25 of the TRPA Code of Ordinances, TRPA's BMP Handbook, and NRCS standards and specifications taking into consideration local ordinances and policies as necessary for each property owner and incorporating the following:
 - 1. Infiltration requirements
 - 2. Cut/Fill Slope Stability
 - 3. Revegetation
 - 4. Paving of Driveways
 - 5. Stabilization of Drainage Ways
 - 6. Irrigation
 - 7. Fertilizer
 - 8. Other BMPs
- E. Provide a copy of the BMP Plan to each property owner and to TRPA.

II. NRCS, TO THE EXTENT POSSIBLE, AGREES TO:

- A. Cooperate with TRPA and the Districts by working with Tahoe Region property owners, for the purpose of facilitating the installation of BMP's on all improved properties in the Tahoe Region.
- B. Provide technical assistance to property owners in evaluating BMP needs for improved single-family residential parcels for the purpose of protecting water quality.
- C. Provide technical assistance to the Districts for BMP Plans when requested in accordance with TRPA and local policies and ordinances.
- D. Upon request, provide technical assistance in the monitoring and evaluation of implementation of BMP Plans contingent upon staffing resources.
- E. Provide a copy of the BMP Plan to each property owner, the Districts, and to TRPA.

- F. Assist the Districts in assuming the lead role in evaluation and implementation of BMPs on single-family residential structures.
- G. Provide engineering technical assistance, contingent on staff resources, to the Districts and TRPA.

III. TRPA, TO THE EXTENT POSSIBLE, AGREES TO:

- A. Consult and cooperate with the Districts and NRCS in implementing TRPA's Regional Plan and Goals and Policies.
- B. Cooperate with the Districts and NRCS in developing BMP Plans on single-family residential properties as requested by the Districts.
- C. Assist and cooperate with the Districts and NRCS in education and information programs designed to make the public aware of the need for implementing BMPs.
- D. For the purposes of the BMP Program, designate a liaison to serve as an individual agency representative to the Conservation District Boards.
- E. Assume the lead role in evaluation and implementation of BMPs on commercial, public service, recreation tourist accommodation properties, and multi-family properties.
- F. Issue "Certificates of Completion" for properties in compliance with the BMP Retrofit Program.
- G. Pursue compliance measures, when necessary, to correct violations of the BMP Retrofit Program Priority Watershed schedule.

IV. IT IS MUTUALLY AGREED THAT:

- A. Implementation of the BMP Retrofit Program, and the Backyard Conservation Program, is dependant upon funding availability. Each agency will continue to pursue funding to finance and expand the programs.
- B. Representatives of the each agency will meet periodically, at least quarterly, to review and coordinate the implementation of the BMP Program.
- C. Each agency will each designate a staff member as a liaison person for implementation of this MOU.
- D. The NRCS Field Office, District Conservationist will serve as a member of the TRPA Advisory Planning Commission (hereinafter referred to as "APC"). This appointment is subject to limitations of the TRPA compact and is subject to reappointment by TRPA on a biannual basis.
- E. Inform property owners of TRPA's Priority Watershed compliance dates and provide assistance with the establishment of an implementation

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- F. Collaborate with and assist other cooperating agencies in sponsoring and coordinating educational programs to promote general understanding of BMPs.
- G. Assist the cooperating agencies in the identification of conservation problems and needs within the Lake Tahoe Basin in order to promote the objectives common to the agencies involved in the agreement.
- H. Each agency will participate in the quality assessment/quality assurance (hereinafter referred to as "QA/QC") process to review BMP Plans and implementation. The QA/QC process shall be conducted on an on-going basis, at least twice annually.
- I. Collaborate on a program to provide consistent training to all staff evaluating BMPs.
- J. This Memorandum may be amended by mutual written consent of the parties hereto. Any party may withdraw from this agreement by giving sixty (60) days written notice to the others stating the reasons for withdrawal.

IN WITNESS THEREOF, the parties hereto have executed this agreement on the day, month, and year first written above.

Date: 10 SEP 2002

TAHOE RESOURCE CONSERVATION DISTRICT
By 
Robert G. Dolton, President

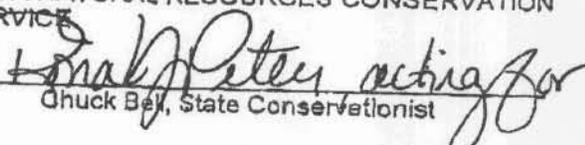
Date: _____

NEVADA TAHOE CONSERVATION DISTRICT
By 
Dr. Don Miner, Chairman

Date: 9-20-02

TAHOE REGIONAL PLANNING AGENCY
By 
Juan Palma, Executive Director

Date: 1/23/04

USDA NATURAL RESOURCES CONSERVATION SERVICE
By 
Chuck Bay, State Conservationist

Authority: 16 U.S.C. 590d and 2005

11

The undersigned hereby certifies that the information furnished herein is true and correct to the best of his knowledge and belief.

I, the undersigned, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief.

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I, the undersigned, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief.

I, the undersigned, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief.

CONFIDENTIAL

[Signature]
[Name]

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