

TAHOE SIERRA PROJECT 9

Lake Tahoe Schoolyard BMP Implementation

DIRECT PROJECT ADMINISTRATION

Work Item 9.1: Project Administration

- 9.1.1 **Administer Project.** The Schoolyard BMP Implementation Partners* (please refer to footnote at the end of this work plan) shall provide all technical and administrative services as needed for project completion, review all work performed, and coordinate budgeting and scheduling to assure that the project is completed within budget, on schedule, and in accordance with approved procedures, applicable laws, and regulations.
- 9.1.2 **Prepare Quarterly Progress Reports.** The Schoolyard BMP Implementation Partners shall meet project requirements through regular communication with TRCD and the completion of quarterly progress reports submitted to TRCD by the 30th of the month at the end of the calendar quarter (March, June, September, and December). The progress reports shall describe activities undertaken and accomplishments of each task during the quarter, milestones achieved, and any problems encountered in the performance of the work completed for the project. The description of activities and accomplishments of each task during the quarter shall be in sufficient detail to provide a basis for payment of invoices and shall be translated into percent of task work completed for the purpose of calculating invoice amounts. All subcontractor activities and expenditures shall be documented in progress reports.
- 9.1.3 **Notify TRCD.** The Schoolyard BMP Implementation Partners shall notify TRCD at least fifteen (15) working days prior to any public or media event publicizing the accomplishments and/or results of the project so that TRCD may provide the opportunity for attendance and participation by SWRCB/DWR representatives.
- 9.1.4 **Prepare Draft Project Report.** The Schoolyard BMP Implementation Partners shall prepare a draft project report that includes the results of the tasks listed above. The report shall include the following narrative sections:
- A brief introduction including a statement of purpose, the objectives of the project, and a description of the approach, accomplishments, and lessons learned during the project.
 - A list of the task deliverables previously submitted as outlined in the Work Tasks.
 - Any additional information that is deemed appropriate by TRCD.
- 9.1.5 **Submit Draft Project Report.** The Schoolyard BMP Implementation Partners shall submit copies of the draft project report to TRCD for review and comment.

9.1.6 **Prepare Final Project Report.** The Schoolyard BMP Implementation Partners shall prepare and submit a final project report that incorporates comments made by TRCD on the draft project report.

Work Item 9.1 Submittals: 9.1.2 Quarterly Progress Reports to TRCD, 9.1.5 Draft Project Report, 9.1.6 Final Project Report

LAND PURCHASE/EASEMENT

There are no applicable work items for this project under this category.

PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL DOCUMENTATION

Work Item 9.2: Project Assessment and Evaluation Plan

9.2.1 **Prepare PAEP.** The Schoolyard BMP Implementation Partners shall prepare a Project Assessment and Evaluation Plan (PAEP). The PAEP shall include a Project Summary, Goals and Desired Outcomes, as well as Project Performance Measures Tables for each category of activities identified in the project. The PAEP shall be submitted for approval at the start of project implementation and shall be used to monitor project progress, measure success, and evaluate environmental benefits resulting from the project.

Work Item 9.2 Submittals: 2.1 PAEP

Work Item 9.3. Tahoe Truckee Unified School District Schoolyard BMP Retrofit Design

9.3.1 **Rideout Elementary School Retrofit: BMP Design, Calculations and Permit Processing.** The Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design and obtain a TRPA BMP Retrofit Permit prior to construction.

9.3.1.1 Complete BMP plans and calculations.

9.3.1.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.3.2 **Tahoe Lake Elementary School Retrofit: BMP Design, Calculations and Permit Processing.** The Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design and obtain a TRPA BMP Retrofit Permit prior to construction.

9.3.2.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the Tahoe Truckee Unified School District (TTUSD) or TRPA.

9.3.2.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

Work Item 9.3 Submittals: 9.3.1 Set of engineered plans and required permits for Rideout Elementary School; 9.3.2 Set of engineered plans and required permits for Tahoe Lake Elementary School

Work Item 9.4 Lake Tahoe Unified School District BMP Retrofit Design

9.4.1 **Bijou Community School Retrofit: BMP Design, Calculations and Permit Processing.** TRPA permitted erosion control and storm water runoff projects have been completed for the parking lot area and portions of the asphalt playground area. Therefore, the Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for the remaining project area at the school site and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.1.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the Lake Tahoe Unified School District (LTUSD) or TRPA.

9.4.1.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.4.2 **Lake Tahoe Environmental Magnet School Retrofit: BMP Design, Calculations and Permit Processing.** TRPA permitted erosion control and storm water runoff projects have been completed for the parking lot area and portions of the asphalt playground area. Therefore, the Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for the remaining project area at the school site and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.2.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the LTUSD or TRPA.

9.4.2.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.4.3 **Sierra House Elementary Retrofit: BMP Design, Calculations and Permit Processing.** TRPA permitted erosion control and storm water runoff projects have been completed for the parking lot area. Therefore, the Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for the remaining project area at the school site and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.3.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the LTUSD or TRPA.

9.4.3.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.4.4 **South Tahoe High School Retrofit: BMP Design, Calculations and Permit Processing.** TRPA permitted erosion control and storm water runoff projects have been completed for portions of the parking lot area and various locations of the internal campus. Therefore, the Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for the remaining project area at the school site and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.4.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the LTUSD or TRPA.

9.4.4.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.4.5 **South Tahoe Middle School/Al Tahoe Campus Retrofit: BMP Design, Calculations and Permit Processing.** TRPA permitted erosion control and storm water runoff projects have been completed for the parking lot areas of both campuses and portions of the asphalt playground area of the Middle School campus. Therefore, the Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for the remaining project area at the school site and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.5.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the LTUSD or TRPA.

9.4.5.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

9.4.6 **Tahoe Valley Elementary Retrofit: BMP Design, Calculations and Permit Processing.** The Schoolyard BMP Implementation Partners shall finalize the BMP retrofit design for Tahoe Valley Elementary and obtain a TRPA BMP Retrofit Permit prior to construction.

9.4.5.1 Complete BMP plans and calculations. Adequate time has been included for changes to be made to the plans at the request of the LTUSD or TRPA.

9.4.5.2 Obtain a BMP Retrofit Permit from TRPA and an Encroachment Permit from Placer County.

Work Item 9.4 Submittals: 9.4.1-9.4.6 Set of engineered plans; 9.4.1-9.4.6 Required permits

9.5 Environmental Documentation

No further environmental documentation is required for this project. The Lake Tahoe Schoolyard BMP Implementation project implements TRPA's Code of Ordinances, Chapter 25 ("BMP Retrofit Program"), which requires all Tahoe Basin property owners to retrofit their properties with Best Management Practices that infiltrate the stormwater generated by a 20 year/1 hour storm and stabilize all bare soil onsite.

TRPA's environmental documentation requirements are analogous to those of NEPA and CEQA, and are contained in Article VII of the TRPA Regional Planning Compact, Chapter 5 of the TRPA Code of Ordinances, and Article VI of the TRPA Rules of Procedure. In compliance with these requirements, Environmental Impact Statements were certified for the TRPA Regional Plan and the Water Quality Management Plan for the Lake Tahoe Basin ("208 Plan"). The BMP Retrofit Program, implemented under Chapter 25 of the TRPA Code of Ordinances and Volume III of the 208 Plan, is analyzed in these two environmental documents. In addition, the BMP Retrofit Permits that will be issued for the project pursuant to Chapter 25 of TRPA's Code of Ordinances will have its own environmental review, in the form of a TRPA Initial Environmental Checklist, to ensure that no additional significant environmental impacts above and beyond those evaluated by the Regional Plan EIS and 208 Plan EIS result from work performed under the permits. No environmental improvements implemented under this project will be outside the geographic scope of TRPA's jurisdiction.

CONSTRUCTION/IMPLEMENTATION

Work Item 9.6 Tahoe Truckee Unified School District BMP Construction

9.6.1 Rideout Elementary Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference.

9.6.2 Tahoe Lake Elementary Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA

Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference.

Work Item 9.6 Submittals: 9.6.1 – 9.6.2 Copies of final inspection form completed by TRPA project inspector

Work Item 9.7: Lake Tahoe Unified School District Schoolyard BMP Retrofit Construction

Projects described below are not necessarily identified in sequence of construction.

9.7.1 Bijou Elementary Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

- 9.7.1.1 Construct sediment basin at NW end of paved playground area to trap and store the sediment from storm water runoff, sized to treat water from the design storm.
- 9.7.1.2 Log slope stabilization on 4ft slope along west perimeter of campus.
- 9.7.1.3 Install cobble filled drywell assembly to provide infiltration facility for roof downspout and storm water collection areas.
- 9.7.1.4 Construct rock lined ditch NE perimeter of softball field to prevent erosion in drainage swale area.
- 9.7.1.5 Construct footbridge to prevent foot traffic in natural drainage area/swale that is subject to continued pedestrian travel.
- 9.7.1.6 Construct Drain Inlet and storm piping to divert flow of runoff water to sediment basins.
- 9.7.1.7 Apply bark, gravel or another effective form of erosion control over heavy pedestrian paths of travel in bare dirt areas.
- 9.7.1.8 All barren areas and areas disturbed by construction activities shall be revegetated in accordance with TRPA Best Management

Practices and/or treated with and application of mulching materials.

9.7.1.9 Construct an A.C. curb to function as a water conveyance facility, providing controlled flow of water to treatment water treatment areas.

9.7.1.10 Construct dripline trench under eaves of pitched roof rooflines to accommodate roof water runoff.

9.7.2 Lake Tahoe Environmental Magnet School Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

9.7.2.1 Construct A.C. swale as a water conveyance system on perimeter of identified paved areas.

9.7.2.2 Construct sediment basins to trap and store the sediment from storm water runoff, sized to treat water from the design storm. Basins (two) to treat parking lot and playground area storm water runoff.

9.7.2.3 Construct grease-sand-oil separator facility integrated with new drain inlet and storm drain system to provide treatment of parking lot storm water runoff. Additional storm drain system to be constructed to transport water from separator to sediment basin.

9.7.2.4 Construct cobble filled infiltration trench for treatment of storm water runoff along identified paved areas.

9.7.2.5 All barren areas and areas disturbed by construction activities shall be revegetated in accordance with TRPA Best Management Practices and/or treated with and application of mulching materials.

9.7.3 Sierra House Elementary Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

- 9.7.3.1 Construct A.C. swale as a water conveyance system on perimeter of identified paved areas.
- 9.7.3.2 All barren and severe slope areas and areas disturbed by construction activities shall be revegetated in accordance with TRPA Best Management Practices and/or treated with and application of mulching materials.
- 9.7.3.3 Construct Drain Inlet and storm piping to divert flow of runoff water to sediment basins-water treatment facilities.
- 9.7.3.4 Construct infiltration drainage system for subgrade treatment of storm water runoff from site.

9.7.4 South Tahoe High School Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

- 9.7.4.1 Construct an A.C. curb to function as a water conveyance facility, providing controlled flow of water to treatment water treatment areas.
- 9.7.4.2 Construct an A.C. swale to function as a water conveyance facility, providing controlled flow of water to treatment water treatment areas.
- 9.7.4.3 Construct Drain Inlet and storm piping to divert flow of runoff water to sediment basins.
- 9.7.4.4 Construct grease-sand-oil separator facility integrated with new drain inlet and storm drain system to provide treatment of parking lot storm water runoff. Additional storm drain system to be constructed to transport water from separator to sediment basin.
- 9.7.4.5 Construct “V” ditch on steep cut slope with permanent water bars to reduce velocity of water flow.
- 9.7.4.6 Construct wood retaining wall at the toe of the large cut banks, proving a bench for vegetation growth, retention of sediment from the slope and establishing a barrier to access of the steep unstable slope.
- 9.7.4.7 Reconstruct earth berm on sediment basin.
- 9.7.4.8 Construct dripline trench under eaves of pitched roof rooflines to accommodate roof water runoff.
- 9.7.4.9 Construct infiltration trench on steep grades, install permanent baffling to slow the velocity of runoff water to allow for infiltration.

- 9.7.4.10 Install permanent water bars in existing dirt channels to slow the velocity of water flow and revegetate the channel.
- 9.7.4.11 Clean existing flow lines, drain inlets and pipes to assure water is properly conveyed as originally designed.
- 9.7.4.12 All barren areas, areas requiring back fill and areas disturbed by construction activities shall be revegetated in accordance with TRPA Best Management Practices and/or treated with and application of planting and mulching materials.

9.7.5 South Tahoe Middle School/Al Tahoe Campus Construction. Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

- 9.7.5.1 Construct dripline trench under eaves of pitched roof rooflines to accommodate roof water runoff.

9.7.6 Tahoe Valley Elementary Construction: Per approved plans, BMPs will be installed on the school site to meet TRPA Chapter 25 Code of Ordinances BMP Retrofit requirements. A pre-construction meeting will be set up with TRPA to verify the elements and specific location of the work. Work shall be completed in the summer to avoid student interference. Construction elements will include:

- 9.7.6.1 All barren and severe slope areas and areas disturbed by construction activities shall be revegetated in accordance with TRPA Best Management Practices and/or treated with and application of mulching materials.

Work Item 9.7 Submittals: 9.7.1-9.7.6 Copies of final inspection form completed by TRPA project inspector

Work Item 9.8: School Site BMP Retrofit Outreach

9.8.1 Coordinate with Partners. Teachers and community partners will meet at minimum annually for partnership development

and networking, and pool resources for outreach opportunities. Sierra Watershed Education Partnerships (SWEP) will host annual partnership meetings for networking and outreach.

9.8.1.1 Create school site implementation teams: A project liaison will work with teachers and school site project managers to coordinate student demonstration projects and outreach with BMP implementation work being done. SWEP will work with the district in this process in order that hired consultants understand their responsibility and obligation in involving the schools' teachers and students in the planning process.

9.8.1.2 Create a BMP outreach plan for individual sites.

9.8.2 Provide Training about Project Implementation. SWEP shall host annual trainings to provide teachers with the necessary technical assistance to describe BMP implementation projects that are occurring on their school sites.

9.8.2.1 Train participating teachers in existing water quality principals and BMP techniques; provide information about contracted work through project liaison.

9.8.2.2 Train teachers for BMP specific projects: site analysis and existing conditions, developing student maps, creating plans for student monitoring, restoration, and outreach.

9.8.3 Student BMP Implementation Projects. Involve students in school site BMP planning, implementation and outreach.

9.8.3.1 SWEP will create preparatory activities related to BMP retrofit planning, design and implementation occurring on their school sites.

9.8.4. Annual Public Outreach. Conducted by students to the community about school site water quality improvements, students will inform the public about changes taking place on their campuses by hosting community tours of the school, writing letters and articles to the newspaper, and creating brochures explaining the projects' progress, purpose and effect on water quality.

9.8.5 Update Schoolyard BMP Website Update. On an as-needed basis, SWEP shall update the progress of the Schoolyard BMP projects on the projects page of the SWEP website (www.4swep.org) to include new outreach material and events. SWEP will also submit progress reports to the regional TIIMS website (www.tiims.org).

ENVIRONMENTAL COMPLIANCE/MITIGATION/ENHANCEMENT

There are no applicable work items for this project under this category.

CONSTRUCTION ADMINISTRATION

There are no applicable work items for this project under this category.

OTHER COSTS

There are no applicable work items for this project under this category.

***Schoolyard BMP Implementation Partners**

The following Schoolyard BMP partners will implement the project: Their roles in implementing the project are defined below.

Lake Tahoe Unified School District and Tahoe Truckee Unified School District

- Hire the design team including engineers, planners and other consultants as necessary.
- Manage the design process to assure compliance with environmental and educational site requirements.
- Approve the design and manage the permit and environmental review process.
- Hire construction contractors and manage the construction process.
- Provide maintenance of BMP's once installed

Sierra Watershed Education Partnerships

- Provide school site partners with technical support, and resources for training and outreach about water quality and BMP implementation
- Engage community and project partners in school site activities and demonstration projects
- Facilitate communication with project and regional partners; LTUSD, TTUSD and contractors, engineers, and others involved in the project to ensure that outreach activities are coordinated with engineered/contracted work
- Coordinate all public outreach for the Schoolyard BMP implementation project
- Coordinate meetings, as needed, to communicate with school district partners, parents, teachers and community partners

Tahoe Resource Conservation District

- Provide technical BMP education and assistance to teachers and students at all school sites
- Work with SWEP, LTUSD and TTUSD to ensure project readiness
- Outreach and provide informational materials to landowners and managers on other important conservation topics including fire defensible space, irrigation and fertilizer management, invasive weeds, and household hazardous waste.
- Coordinate with schoolyard BMP partners and local jurisdictions through regular meetings and activities.