



Morro Bay National Estuary Program Community Project Application Cover Sheet

Project Title: Watershed Protector Demonstration Station and Educational Toolkit

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Amount Requested: \$5,000.00

Total Estimated Project Cost: \$44,124.00 (Please see budget details on last page)

Amount and Source of Other Funding (if relevant): \$39,124.00 (Please see budget details on last page)

Project Description Summary:

This application seeks to secure funds to build the following:

- Watershed rainfall infiltration demonstration (similar to the one in this video <https://www.youtube.com/watch?v=1YjFfEiqWZY>)
- Customized 8x8 Watershed Protector EZ-up with matching custom sidewall and digital fitted table cover
- Creation and printing of a Watershed Protector Activity booklet with a Watershed Protector Pledge and certificate. PDF will be available for additional reproduction.
- Test tube rack with soil samples from throughout the watershed to emphasize differences in particle size, texture, and biological components as you move from the top of the watershed, down.
- PowerPoints that address watershed issues and impacts for use with school groups and at State Park trainings

State Park staff plan to use this demonstration and tool kit with Junior Rangers, school groups, at State Park booths (such as at The Mid-State Fair and special events at the Morro Bay Museum of Natural History), and at State Park trainings. Materials will emphasize the Morro Bay National Estuary Watershed but will be broad enough for use elsewhere in the County and State.

Materials will highlight the importance of watershed management, water quality protection and enhancement, protection of natural hydrologic processes, and watershed restoration. Materials will cover the causes and adverse effects of ground water loss, reduced infiltration, erosion/sedimentation, elevated nutrient levels, and impacts to fresh water and estuary species.

Sharing this Watershed Demonstration and toolkit with the local community will foster an increase in awareness of the movement of water through the water cycle. It will create an understanding of the concept of a watershed and show the effects of land cover and its management on rainwater infiltration and runoff. It will show K-12 classrooms, college students, State Park employees, and the general public how important our watersheds are and how humans impact them.

This Watershed demonstration and toolkit will give people the tools to create positive changes such as practical implementation measures of rainwater harvesting for water storage in the soil, groundwater, and surface reservoirs. They will also benefit from an understanding of the effect that increased impervious areas have on water movement in the watershed. Individuals will also learn water and land management options that decrease runoff and promote infiltration.

Additionally, we are willing to loan it to other NGO's and partner agencies who want to collaborate on watershed related educational and outreach purposes.



Check off the Comprehensive Conservation and Management Plan Priority Issue(s) addressed by the proposed project:

- Sedimentation.
- Bacterial contamination.
- Elevated nutrient levels. Toxic
- pollutants.
- Scarce freshwater resources.
- Preserving biodiversity.
- Environmentally balanced uses.

Briefly describe how your project addresses the priority issue(s) you checked above.

This demonstration will be used in conjunction with the activity booklets and/or PowerPoints and lesson plans for education and outreach to address the above management plan priorities. This is a demonstration that will be utilized at State Park trainings, with various school groups of all ages, and at booths at local events.

The proposed project must work to implement at least one of the Action Plans that address the Priority Issues listed above. The Action Plans are detailed beginning on page 23 of the Management Plan, which can be found at <https://www.mbnep.org/>.

In the space below, please list the relevant Action Plan(s) and briefly describe how they will be addressed by this project.

The Watershed Rainfall Infiltration Demonstration Station will work to implement the **Education and Outreach Action Plan** as described below in the Morro Bay National Estuary Program Comprehensive Conservation Management Plan.

EO-1 Public Outreach:

The demonstration will be used at outreach events throughout the watershed and be available to partners to borrow for their events to demonstrate the need for watershed and wetlands protection and enhancement, stormwater BMPs, water conservation, freshwater resource management, and the conservation of ecosystem functions. The demonstration will address such issues as watershed and water quality impacts of urban development, recreational uses, fire suppression tactics, over-grazing, and fire exclusion on groundwater re-charge, in-stream and steelhead habitat, and water loss.

EO-4 Formal Education Programs:

The demonstration and toolkit will be used in conjunction with the activity booklet in several facets. K-12 Students in the parks within the estuary and during outreach to classrooms will learn the basic water cycle model and estuary science as well as understand that estuaries and watershed are important to their community. State Park employees will benefit from this demonstration at Fire Response and Ranger Cadet trainings to better understand the importance watershed management and park operations, such as fire suppression and suppression repair tactics, the need to repair dozer lines to reduce sedimentation and encourage native plant recruitment in upland habitats, and the impact of roads and trails on our watersheds. College students will benefit from this simulator by experiencing science from people working in the field and using scientific knowledge in their everyday endeavors. This kind of interaction can make scientific concepts, and scientific careers, more meaningful and accessible to students allowing for career insight. The general public will have a great visual to better understand the watershed that they live in as well as be provided take-home messages on what they can do daily to better conserve and protect our ground water.

Watershed Protectors Budget

Requested MBNEP Grant Funds

Item	Quantity	Amount
Materials to build Watershed Infiltration Demonstration (including extra soil and vegetation bins for repeated use at local events)	Various materials	\$1,000.00
Printing of Watershed Activity Booklet	2000 @ .23 each	\$460.00
Customized 8x8 EZ-up with sidewall and digital table cover	1	\$1,500.00
GEMS River-cutter Unit (lesson plan book, used)	1	\$10.00
Plastic test tubes and wooden stand for soil samples	1 set (12 tubes with 1 stand)	\$30.00
Contribution towards materials design and art work	n/a	\$2,000.00

MBNEP Grant Total: \$5,000.00

State Parks In-Kind Match

Item	Benefit Rate	Amount
<i>Environmental Scientist</i> - help develop materials and PowerPoints, use of demonstration at State Park trainings	200 hours @ \$56.68/hour	\$11,336.00
<i>SP Interpreter III</i> - help develop materials, use of demonstration with school groups, Junior Rangers, with the PORTS program, at local events, etc	200 hours @ \$59.13/hour	\$11,826.00
<i>SP Interpretive Specialist, seasonal</i> - help develop materials, use of demonstration with school groups, Junior Rangers, with the PORTS program, at local events, train docent staff to utilize materials, etc	200 hours @ \$18.70/hour	\$3,740.00
<i>Forestry Aide</i> – collect seeds and cuttings, out-plant and maintain planted bins for use with demonstration	100 hours @ \$30.72/hour	\$3,072.00
<i>Volunteer</i> – retired engineer – will build demonstration	200 hours @ \$20.00/hour	\$4,000.00
<i>Volunteer</i> – retired teacher – will help develop activity booklet and lesson plans to be used with demonstration	100 hours @ \$20.00/hour	\$2,000.00
Soil, wood chip and rock for soil bins	n/a	\$ 150.00
Materials design and art work matching funds	n/a	\$3,000.00

Total State Parks In-Kind Match: \$39,124.00

Total Project Budget: \$44,124.00