Agenda: 06.21.07 Item: 8d

### M E M O

TO: Board of Directors

FROM: Environmental Analyst

SUBJECT: EDUCATION GRANT PROGRAM FINAL PROJECT REPORT:

"CREEK EXPLORATION CURRICULUM ENHANCEMENT FOR

IMPROVED WATERSHED HEALTH"

DATE: June 13, 2007

### **RECOMMENDATION**

It is recommended that the Board of Directors review this memo and accept the Education Grant Program Final Project Report for "Creek Exploration Curriculum Enhancement for Improved Watershed Health."

### **BACKGROUND**:

At the April 20, 2006 Board of Directors Meeting, your Board awarded Education Grant Program funds in the sum of \$1,898.00 to Tim Folkert, Mount Hermon Outdoor Science School for a project entitled "Creek Exploration Curriculum Enhancement for Improved Watershed Health." Said project provided funds to develop and expand the school's watershed and creek curriculum, as well as the purchase of books, water quality sampling materials, and work gloves.

On June 6, 2007 the District received Mr. Folkert's Final Project Report. See Attachment 1. Actual project cost relative to this project has been revised to \$1,823.74. It is recommended that your Board receive and accept the Education Grant Program Final Project Report for "Creek Exploration Curriculum Enhancement for Improved Watershed Health."

Betsy Herbert, Ph.D.	
Environmental Analyst	

BH/bsb

# Final Project Report for "Creek Exploration Curriculum Enhancement for Improved Watershed Health"

Tim Folkert
Assistant Director
Mount Hermon Outdoor Science School

Upon receiving the watershed grant, we were thrilled to get the opportunity to expand and develop our watershed and creek curriculum at Mount Hermon Outdoor Science School. These new resources were a much-needed addition to our current program. During the course of this project, we achieved much of what we had hoped to do, and learned a lot along the way. Here's a recap of what happened!

Our project began last summer when our administration team reconvened after a short break after our spring semester. We immediately went to ordering the supplies for the project, including the resource books, water testing supplies, and other creek sampling supplies. The allotted \$1,000 for personnel allowed myself to work part time developing the curriculum for the approaching school year. Much of July was spend developing and refining the curriculum, as well as learning the water quality testing procedures. The resource books we purchased with the grant money helped immensely in developing a scientific and conservation approach to watershed health and creek ecosystems. With the new curriculum in hand, we were ready for our incoming staff to arrive for our program training week.

During our training week, we introduced our staff to our new creek curriculum, as well as the rest of our program curriculum. They were excited and eager to use the new equipment and look through the new books. After our training period, we were ready for action with the students, and to implement our ongoing litter removal project. The first few weeks with the students took some getting used to. Some of our initial readings with the water quality testing kits seemed a bit wrong, and we soon figured out that we misunderstood the instructions of the phosphate testing kit. Once we corrected our mistake, we were back on track. During the year we calculated the averages for the water quality of Bean Creek. We discovered the average temperature was 51° F, the average pH was 7.5, the average phosphate level was 1.3 ppm, and the dissolved oxygen level was 6 ppm. One of the highlights for the students was capturing and identifying various creek insects with the use of our new equipment. Many students learned the importance of aquatic insects and how they can be an indicator of creek health. This opened their eyes to the importance of conserving our water resources.

Over the course of the year, our ongoing litter removal project continued to be a great success. Our final numbers came in somewhat lower than we expected, but over the course of the year, our school picked up nearly 20,000 pieces of trash and litter. Some of our groups even pulled old tires and broken wooden bridges out of the creek! We suspect

our numbers were below our estimate because we were picking up trash faster than it being littered! The good news is that our litter removal program will continue once of school goes back in session in September, where we can anticipate a similar outcome over the course of the next year.

Overall, the project was a great success. The students benefited greatly from the new curriculum and learned some great lessons about environmental stewardship. Our state also benefited from the new resources. Mount Hermon Outdoor Science School woulk to thank the San Lorenzo Valley Water District for funding this project. Without their assistance, this project would not have been possible. We are grateful for these resources and look forward to the continuing use of them in future years at Mount Hermon Outdoor Science School

## **Spending Report**

Item	Cost		
Personnel*	\$1,000.00		
Book: Conserve Water Educators' Guide	\$21.95		
<b>Book:</b> Where Does Your Water Come From	\$14.95		
<b>Book:</b> Watersheds – A Practical Handbook for Healthy Water	\$19.95		
Book: Pond and Stream Safari	\$16.95		
Book: Aquatic Insects of North America	\$77.95		
Hester-Dendy Invertebrate Samplers (10)	\$179.95		
Invertebrate Extendable Aluminum Handle Aquatic Net (3)	\$65.85		
6" Standard Aquatic Dip Net (30)	\$77.70		
Dissolved Oxygen Test Kit (2)	\$49.30		
pH Test Kit	\$33.70		
pH Test Kit Refill (3)	\$15.30		
Phosphate Test Kit	\$64.95		
Phosphate Test Kit Refill (3)	\$50.95		
Work Gloves (25)**	\$58.28		
Sales Tax	\$54.61		
GRAND TOTAL	\$1,823,74		

<sup>\*\$1,000</sup> was spent to fund 2 weeks of watershed curriculum development during last summer.

Please see copies of receipts for further information.

<sup>\*\*</sup>Five pairs of work gloves have not been purchased yet because we bought out all our desired glove San Lorenzo Lumber when we did the initial glove purchase.





155 El Camino Real Tustin, CA 92780 Phone (714) 838-4888 Fax (714) 838-5869 Page Date Order No.
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DR RICK OLIVER
MOUNT HERMAN CONFERENCE CENTER
37 CONFERENCE CENTER DRIVE
ATTN: OUTDOOR SCIENCE
MOUNT HERMAN, CA 95041

DR RICK OLIVER

MT. HERMON CONFERENCE CENTER

PO BOX 413

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MOUNT HERMON, CA 95041

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3	0	3	T-13508	NET: INVERTEBRATE EXTENDABLE	21.9500	65.8
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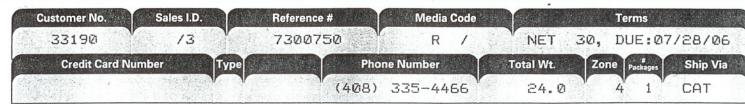


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### WILL CALL 7/8/06

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