

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 our 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 staff also benefited from the new resources. Mount Hermon Outdoor Science School would like 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: <i>Conserve Water Educators' Guide</i>	\$21.95
Book: <i>Where Does Your Water Come From</i>	\$14.95
Book: <i>Watersheds – A Practical Handbook for Healthy Water</i>	\$19.95
Book: <i>Pond and Stream Safari</i>	\$16.95
Book: <i>Aquatic Insects of North America</i>	\$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

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

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

Please see copies of receipts for further information.

ACORN NATURALISTS



155 El Camino Real
Tustin, CA 92780
Phone (714) 838-4888
Fax (714) 838-5869

Page	Date	Order No.
1	06/28/06	167373A

S
O
L
D
T
O

DR RICK OLIVER
MOUNT HERMAN CONFERENCE CENTER
37 CONFERENCE CENTER DRIVE
ATTN: OUTDOOR SCIENCE
MOUNT HERMAN, CA 95041

S
H
I
P
T
O

DR RICK OLIVER
MT. HERMON CONFERENCE CENTER
PO BOX 413
SUPERINTENDENT OF SCIENCE SCH
MOUNT HERMON, CA 95041

Customer No.	Sales I.D.	Reference #	Media Code	Terms		
33190	/3	7300750	R /	NET	30,	DUE:07/28/06
Credit Card Number	Type	Phone Number	Total Wt.	Zone	# Packages	Ship Via
		(408) 335-4466	24.0	4	1	CAT

WILL CALL 7/8/06

Qty.	B/O	Shipped	Item #	Description	Unit Price	Disc	Extension
1	0	1	INV-5114	AQUATIC INSECTS N. AMERICA	77.9500	--	77.95
1	0	1	WTR-9175	CONSERVE WATER: ED GUIDE	21.9500	--	21.95
2	0	2	TEST-10279	DISSOLVED OXYGEN	24.6500	--	49.30
10	0	10	T-9289	HESTER-DENDY SMPLR 14 PLATE	17.9500	--	179.50
30	0	30	T-2287	NET: 6" STANDARD DIP NET	2.5900	--	77.70
3	0	3	T-13508	NET: INVERTEBRATE EXTENDABLE	21.9500	--	65.85
1	0	1	WTR-5117	POND AND STREAM SAFARI	16.9500	--	16.95
1	0	1	TEST-5305	PH TEST KIT	33.7000	--	33.70
3	0	3	TEST-5306	PH TEST KIT: REFILL	5.1000	--	15.30

ACORN NATURALISTS



155 El Camino Real
Tustin, CA 92780
Phone (714) 838-4888
Fax (714) 838-5869

Page	Date	Order No.
2	06/28/06	167373A

S
O
L
D
T
O

DR RICK OLIVER
MOUNT HERMAN CONFERENCE CENTER
37 CONFERENCE CENTER DRIVE
ATTN: OUTDOOR SCIENCE
MOUNT HERMAN, CA 95041

S
H
I
P
T
O

DR RICK OLIVER
MT. HERMON CONFERENCE CENTER
PO BOX 413
SUPERINTENDENT OF SCIENCE SCH
MOUNT HERMON, CA 95041

Customer No.	Sales I.D.	Reference #	Media Code	Terms		
33190	/3	7300750	R /	NET 30, DUE:07/28/06		
Credit Card Number	Type	Phone Number	Total Wt.	Zone	# Packages	Ship Via
		(408) 335-4466	24.0	4	1	CAT

WILL CALL 7/8/06

Qty.	B/O	Shipped	Item #	Description	Unit Price	Disc	Extension
1	0	1	TEST-14416	TEST KIT: PHOSPHATE	64.9500	--	64.95
3	0	3	TEST-14417	TEST KIT: PHOSPHATE REFILL	16.9500	--	50.85
1	0	1	WTR-8236	WATERSHEDS, A PRACTICAL GUIDE	19.9500	--	19.95
1	0	1	WTR-10190	WHERE DOES WATER COME FROM?	14.9500	--	14.95
					MERCHANDISE INVOICE TOTAL \$		688.90
					STATE SALES TAX \$		49.95
					INVOICE TOTAL \$		738.85
					BALANCE \$		738.85
					PAYMENT DUE ON 07/28/06		

LUMBERMENS

A Pro-Build Company

CUSTOMER . DELIVERY COPY

FELTON BRANCH 402
5843 GRAHAM HILL RD
FELTON, CA

95018-9737

(831)335-4423 *****

* INVOICE - CHG *

INVOICE #: 6233244

DATE: 5/24/2007

9:04 AM

PAGE: 1

ACCOUNT: 400-00002280-000

MOUNT HERMON ASSOC. INC.

PO BOX 413

MOUNT HERMON

95041

OUTDOOR SIGNS

SOLD TO

SHIP TO

SELLING STORE 402 SHIPPING STORE 402 SALES PERSON 4795 BERNARDO Z

334857-00

CUSTOMER P.O. # TERMS 10TH NXT MTH



QUANTITY ORDERED	QUANTITY SHIPPED	U/M	ITEM	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
8	8	EA	50251174	2224XL LEATHER PALM GLOVES	8EA 2.331	18.6
7	7	EA	50251048	2224S LEATH PALM GLV SIZE-S	7EA 2.331	16.3
6	6	EA	50251049	2224M LEATH PALM GLV SIZE-M	6EA 2.331	13.9
4	4	EA	50251050	2224L LEATH PALM GLV SIZE-L	4EA 2.331	9.3

Thank You

Deliver by: 5/24/2007

CUSTOMER SIGNATURE

Order

DATE DELIVERED # 0
DELIVERED BY

NET SALE	TAXABLE SALE	TAX %	TAX	TOTAL
58.28	58.28	8.00	4.66	62.94

REV 01/07

SEE REVERSE FOR TERMS OF SALES