

TO: BOARD OF DIRECTORS  
 FROM: BRUCE BUEL *BBB*  
 DATE: APRIL 3, 2008

**AGENDA ITEM  
 E-3  
 APR. 9, 2008**

**SCIENCE DISCOVERY TO PROVIDE CLASSROOM EDUCATION**

**ITEM**

Participate with partners in retaining Science Discovery to provide water conservation classroom education [RECOMMEND APPROVAL].

**BACKGROUND**

Staff has had a number of discussions, moderated by Kari Wagner of the Wallace Group, with Mark Zimmer (Operations Superintendent for Golden State Water, Nipomo and Los Osos), John Schempf (General Manager for Los Osos CSD) and David Tolley (President of S&T Mutual Water), regarding the concept of utilizing the education services of Science Discovery classroom presentations on water conservation. The concept involves sharing costs of development between the four water suppliers, with individual suppliers paying for classroom presentations in the elementary schools in the supplier's area.

The Water Conservation Program, as directed and adopted by the Board, strongly focuses on public education and outreach, and the Science Discovery presentations program is listed in the Water Conservation Program as one of the education/outreach measures. The budget for the program, approved by the Board, includes funding for the Science Discovery program.

Mike diMilo, the director of Science Discovery, made a presentation to the NCSD Board on March 26, 2008, which was also attended by Mr. Zimmer.

The estimated total cost of the program is \$14,000. NCSD's shared cost for program development is estimated at \$3,150. Additional costs will include a per-classroom-presentation cost of \$105.

<b>ESTIMATED SCIENCE DISCOVERY TOTAL SHARED DEVELOPMENT COSTS</b>		
<i>Item #</i>	<i>Description</i>	<i>Cost</i>
1	Develop Class Presentation	\$ 2,700
2	Design and Fabrication of Five Water Puzzle Pieces	\$ 9,500
3	Write and Distribute Teacher Newsletter	\$ 975
4	Program Administration (1 year)	\$ 825
<b>Total:</b>		<b>\$14,000</b>

<b>ESTIMATED SHARED COSTS</b>		
<i>Water Supplier</i>	<i>% Share</i>	<i>Costs Share</i>
Los Osos Community Services District	22.5%	\$ 3,150
Nipomo Community Services District	22.5%	\$ 3,150
Golden State Water Company (2 offices)	45%	\$ 6,300
S&T Mutual Water Company	10%	\$ 1,400
<b>TOTAL:</b>		<b>\$14,000</b>

**RECOMMENDATION**

Staff recommends that your Honorable Board authorize the execution of agreement with Science Discovery.

**ATTACHMENTS**

*Draft Cooperative Agreement to Fund the Development of the Water Conservation Education Program by Science Discovery*

*Waterways Teacher Newsletter for Water Education (example of teacher newsletter)*

*The TREEmendous Paper Tale (example of student activity sheet)*

**COOPERATIVE AGREEMENT TO FUND THE DEVELOPMENT OF THE  
WATER CONSERVATION EDUCATION PROGRAM  
BY SCIENCE DISCOVERY**

Water is a precious commodity. For this reason, making efforts to conserve water is of the utmost priority for the Los Osos Community Services District, Nipomo Community Services District, Golden State Water Company (Los Osos and Nipomo areas) and S&T Mutual Water Company, who all together provide water service to over \_\_\_ customers within the Los Osos and Nipomo areas. Each water purveyor is striving to find new ways to reduce their dependency on their water supply and ultimately reduce the per capita demand.

A proposal has been provided to these water purveyors to develop and implement a Water Conservation Education Program for elementary schools in the Los Osos and Nipomo areas (see attached proposal). The proposal is provided by Science Discovery, whose mission statement is:

*Science Discovery will implement a water conservation school education program of exceptional quality. Class presentations will meet the educational objectives of the water purveyors AND correlate with the California Academic Science Standards, meeting the needs of the local teachers.*

\_\_\_ percent of the customers in the Los Osos and Nipomo areas have kids in elementary school. Educating our children to conserve water is vital to the future of water conservation. These students take home valuable insight on how they can change their habits as well as their family's habits and ultimately reduce the amount of water they use on a daily basis.

Over water use is not just one entity's concern, it is everyone's concern and this is why the water purveyors in Los Osos and Nipomo are joining together to help develop the material that will be used by Science Discovery to teach the students how they too can conserve water and make an impact in Los Osos and Nipomo. Based on the proposal issued by Science Discovery on \_\_\_\_, 2008, the fees to develop this program are as follows:

1. Develop Class Presentation	\$2,700
2. Design and Fabrication of Five Water Puzzle Pieces	\$9,500
3. Write and Distribute Teacher Newsletter	\$975
4. Program Administration (1 year)	\$825
5. Class Presentations (each)	\$105

In a joint effort, the four water purveyors are working with Science Discovery to provide the best tools for the students in Los Osos and Nipomo for water conservation. Each of the water purveyors will accept agreements with Science Discovery to share the costs for the development (Items 1 through 4) of these tools based on the following percentage:

Los Osos Community Services District	22.5%
Nipomo Community Services District	22.5%
Golden State Water Company	45%
S&T Mutual Water Company	10%

In addition, each purveyor will be responsible for the cost for the class presentations (Item 5) at the schools within their own service boundary. Based on this formula, the costs (not including costs for reproduction or Item 5) are:

Los Osos Community Services District	\$3,150
Nipomo Community Services District	\$3,150
Golden State Water Company	\$6,300
S&T Mutual Water Company	\$1,400

Below is acknowledgment from each of the water purveyors that they agree to this cooperative agreement and commit to supporting the development of the Water Conservation Education Program Developed by Science Discovery.

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John Schempf  
 General Manager  
 Los Osos Community Services District

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Celeste Whitlow  
 Water Conservation Specialist  
 Nipomo Community Services District

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Mark Zimmer  
 TITLE  
 Golden State Water Company

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David Tolley  
 TITLE  
 S&T Mutual Water Company

# Water Ways

Teacher Newsletter For Water Education

Sponsored By The City of Paso Robles



Fall 2007

## New Class Presentation & Field Trip Highlight Water Education Program

The City of Paso Robles is proud to announce a **NEW** interactive class presentation, ***Where Does That Water Go?*** The program is designed for grades four through six, and is correlated to the California Academic Science Standards. Presentation topics focus on earth and life science, and are given by an experienced science educator. All public and private schools in the City of Paso Robles are eligible for this **FREE 45 minute program!**



Students will learn about many of the potential pollutants found in their homes, and how they can prevent these products from contaminating local creeks, waterways, and our ocean environment. Students learn that what they do at home *can* effect local waterways and ecosystems.

**Call 781-8341 To Schedule or For Questions**  
**Don't Forget About These Other Great Programs!**  
***The Story of Your Water & Water Reclamation Field Trip***

## The Story of Your Water

3rd	4th	5th	6th
<p><b><u>Life Sciences</u></b> 3c. Living things cause changes in the environment</p> <p><b><u>Physical Sciences</u></b> 1f. Evaporation/melting occur during heating g. When two or more substances are combined a new substance with new properties can be formed</p> <p><b><u>Investigation &amp; Experimentation</u></b> 5d. Predict the outcome of a simple investigation</p>	<p><b><u>Life Sciences</u></b> 2b. Matter may change forms d. Decomposers recycle matter 3d. Most microorganisms are beneficial e. Organisms can change the physical condition of the environment</p>	<p><b><u>Physical Sciences</u></b> 1a. When two substances react they may form substances with new properties</p> <p><b><u>Earth Sciences</u></b> 3a. Most of the Earth's water is salt b. When liquid water evaporates it changes form c. Water moves in the air from place to place d. Origin of water used by local communities</p>	<p><b><u>Earth Sciences</u></b> 4a. The sun is the major energy source powering the water cycle 6a. The utility of energy sources is determined by factors b. Classify different energy sources as renewable or nonrenewable</p>

## Where Does That Water Go?

4th	5th	6th
<p><b><u>Life Sciences</u></b> 2. All organisms need energy and matter to live and grow a. Plants are the primary source of matter and energy in food chains b. Producers and consumers (herbivores, carnivores omnivores, decomposers) compete for food c. Decomposers recycle matter from dead plants and animals 3. Environment impacts survival ability of organisms a. Ecosystems can be characterized by living and nonliving components b. Different environments influence species survival rates c. Plants and animals have interdependent relationships d. Microorganisms can be beneficial.</p> <p><b><u>Earth Sciences</u></b> 5 Waves, wind, water, and ice shape land surface c. Moving water erodes landforms (weathering, transport, and deposition)</p> <p><b><u>Investigation &amp; Experimentation</u></b> 6. Scientific progress is made by asking meaningful questions and conducting careful investigations</p> <p><b><u>Earth Sciences</u></b> 4.1 Physical and human geographic features define parts of California</p>	<p><b><u>Earth Sciences</u></b> 3. Water on Earth moves between oceans and land through evaporation and condensation d. Fresh water is limited (rivers, lakes, underground sources, and glaciers) e. Students know origin of the water used by their local communities</p> <p><b><u>Investigation &amp; Experimentation</u></b> 6. Scientific progress is made by asking meaningful questions and conducting careful investigations h. Draw conclusions from scientific evidence</p>	<p><b><u>Life Sciences</u></b> 5. Organisms exchange energy and nutrients among themselves and with the environment a. Sunlight energy is transferred to producers, used for photosynthesis, and transferred through food webs b. Matter is transferred over time. e. Organism survival dependent on abiotic factors</p> <p><b><u>Earth Sciences</u></b> 2. Topography is reshaped by weathering and by transportation and deposition of sediment a. Water running downhill helps shapes landscape, including California landscape b. Rivers and streams are dynamic systems (erosion, sediment transportation, floods) 6. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation b. Natural energy and material resources are renewable or nonrenewable</p>

## Other Great Programs For Your Class

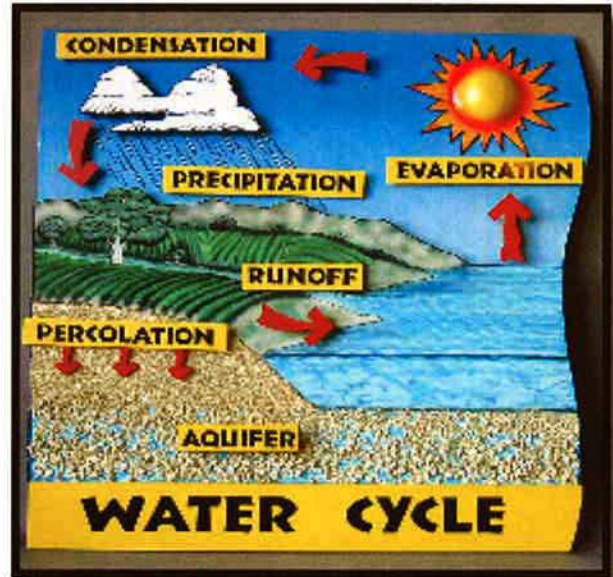
### *The Story of Your Water* Grades 3-6

Designed to complement science standards, this interactive 45 minute class program will teach students about the water cycle, water treatment, reclamation, and water conservation in the home and yard. Presentation includes vivid graphics and follow-up materials to use in class!

### Water Reclamation Field Trip Grades 3-9

Students can visit the Paso Robles Water Reclamation Facility, observing first-hand how wastewater from school and home is cleaned. This 75 minute field trip will impress upon students of all ages, the importance of responsible water use and conservation.

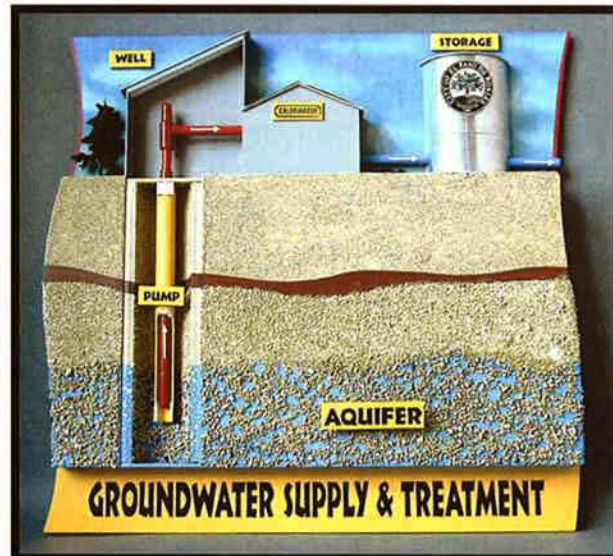
**Bus cost for the field trip is paid  
by the City of Paso Robles!**



**Above:** Students learn the water cycle by applying label in the correct places. This 3-D water cycle board keeps students attention and interest.

**Below:** Second graphic for *The Story of Your Water* allows students to visualize their water source.

**Below Left:** Paso Robles water reclamation facility, site of new, 75 minute field trip.



**Call 781-8341 to schedule or for questions**



# To Schedule A Program or Field Trip

Call 781-8341

OR

Fill Out The Form Below and Fax To 781-8343

Name \_\_\_\_\_ Telephone School \_\_\_\_\_

School \_\_\_\_\_ Best Time To Call \_\_\_\_\_

Grade Level \_\_\_\_\_

<u>Program(s) Requested</u>	<u>Date, 1<sup>st</sup> Choice</u>	<u>Date, 2<sup>nd</sup> Choice</u>	<u>Time</u>
The Story of Your Water	_____	_____	_____
Where Does That Water Go?	_____	_____	_____
Water Reclamation Field Trip	_____	_____	<u>9:00am-10:30am</u>

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Sponsored by The City of Paso Robles





Name \_\_\_\_\_

# The TREEmendous Paper Tale

What Did *You* Learn?



1. List three things that forests provide.

\_\_\_\_\_

2. What item below makes up the largest part of our trash?

circle your answer

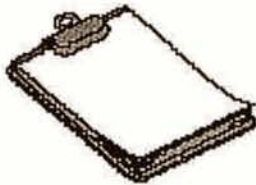
Plastic    Glass    Metal    Green waste    Paper

3. Name three items made of paper than can be recycled at home or school? Example: Magazines

\_\_\_\_\_

4. How many pounds of paper do most Americans in one year? (circle your answer)

50                      200                      400                      700



5. Why is it important to recycle paper?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

