

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Storm Water Management Plan – Public Education / Elementary School
DATE: April 17, 2007

NEEDS: For the City Council to hear a presentation of proposed materials that will be presented to schools regarding Storm Water Pollution Prevention.

FACTS:

1. In 1972, the Federal Water Pollution Control Act, also referred to as the Clean Water Act (CWA), was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.
2. On December 8, 1999, EPA required municipalities with a population of 25,000 or more to prepare and submit a Storm Water Management Plan to the Regional Board for their review and approval.
3. The Storm Water Management Plan provided specific activities, programs and management practices the City is obligated to enact in order to obtain/maintain compliance with storm water discharge requirements. There are six “minimum control measures” required under the Regional Board’s Regulations. These are:
 - Public Education and/or Outreach on Storm Water Impacts
 - Public Participation and Involvement
 - Illicit Discharge Detection and Elimination Procedures
 - Construction Site Run-Off Control Procedures
 - Post-Construction Run-Off Control Procedures
 - Pollution Prevention/Good Housekeeping.
4. Under Public Education/Elementary School, the City will be presenting materials to elementary school children about storm water pollution prevention.
5. The City is also required to have two public meetings per year regarding storm water pollution prevention. One was in February and the second is this meeting.

**ANALYSIS &
CONCLUSION:**

Mike di Milo with Scientific Discovery has developed educational materials regarding water conservation which he presents to schools. He has added storm water pollution prevention to his repertoire. The new storm water pollution prevention materials will be presented to the City Council at their meeting.

**POLICY
REFERENCE:**

1972 Federal Water Pollution Control Act

**FISCAL
IMPACT:**

Mike di Milo is already under contract with the City as part of the City’s conservation efforts. Addition of storm water pollution prevention will cost \$105 per presentation and can be covered within his existing contract.

OPTIONS:

- a. Hear the presentation regarding storm water pollution prevention.
- b. Amend, modify, or reject the above option.

Prepared by:
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Attachment (1)
Flyers



SLO Co
Partners for Water

You are the solution to stream



This interactive class presentation 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 teacher. All public and private schools in San Luis Obispo County are eligible for this FREE, 40 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 ecosystems. The presentation also covers stream ecology, run-

noff, food chains and more. See page page two for correlations to the science standards.

Two eye-catching 3-D display boards, specially designed for this program bring vivid colors, textures and images to the presentation. The stream board offers a crosssectional view of a stream with fish, plants, and other aquatic life. The interactive home environment display allows students to clean up hazards and pollutants, encouraging them to take action in cleaning up local streams and their own household habits.



Stream Board

Stream board details local riparian environment.



**For More Information Or To Schedule a Program
See Back Page Or Call 783-7776**



Storm Water Pollution Prevention Education Program

Behavioral Objectives

Students Will Know:

1. How to define Storm Water
2. That storm drains collect and deliver untreated water to local creeks/ ocean
3. Household items such as fertilizers, herbicides, pesticides, used motor oil, cleaners, pet waste,create environmental hazards if they are not properly used or disposed of.
4. That riparian ecosystems can be polluted by runoff from their homes
5. Organisms in food chains transfer contaminants from one animal to another
6. Two types of bacterial and chemical contamination that can pollute local creeks
7. Two environmental factors that lead to runoff or erosion where they live

Students Will Demonstrate The Ability To:

1. Identify household products that can cause storm water pollution
2. List four general storm water pollution prevention tips
3. Identify where storm drains are located in their neighborhood
4. Identify their local creek/riparian habitat

Class Presentation Correlations

Grade Level

4th

5th

6th

Life Sciences

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 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

Earth Sciences

5. Waves, wind, water, and ice shape land surface
 - c. Moving water erodes landforms (weathering, transport, and deposition)

Investigation & Experimentation:

6. Scientific progress is made by asking meaningful questions and conducting careful investigations
 - a. Differentiate observation from inference
 - c. Formulate and justify predictions based on cause-and-effect relationships

History & Social Science

- 4.1 Physical and human geographic features define parts of California
3. CA regions are comprised of unique characteristics and physical environments that affect human activity

Life Sciences

No Correlations

Earth Sciences

3. Water on Earth moves between oceans and land through evaporation and condensation
 - a. Ocean water covers most of earth's surface
 - d. Fresh water is limited (rivers, lakes, underground sources, and glaciers)
 - e. Students know origin of the water used by their local communities
4. Energy from the Sun heats Earth unevenly, causing air movements that change weather patterns
 - c. Causes and effects of different types of severe weather

Investigation & Experimentation:

6. Scientific progress is made by asking meaningful questions and conducting careful investigations
 - a. Classify objects (e.g., rocks, plants, leaves) appropriately
 - b. Develop testable questions
 - d. Identify dependent and controlled variables in an investigation
 - e. Identify independent variable in scientific investigation and apply to results
 - g. Record data graphically (charts, graphs, and labeled diagrams) and make inferences
 - h. Draw conclusions from scientific evidence

Life Sciences

Ecology:

5. Organisms exchange energy and nutrients among themselves and with environment
 - a. Sunlight energy is transferred to producers, used for photosynthesis, and transferred through food webs
 - b. Matter is transferred over time
 - c. Populations of organisms can be categorized by environmental function
 - d. Ecological roles of organisms sometimes similar in similar biomes
 - e. Organism survival dependent on various abiotic factors

Resources:

6. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation
 - a. Utility of energy sources determined by conversion factors and consequences of this process
 - b. Natural energy and material resources are renewable or nonrenewable

Earth Sciences

2. Topography is reshaped by the weathering of rock and soil and by the transportation and deposition of sediment
 - a. Water running downhill is dominant in shaping landscape, including Californian landscape
 - b. Rivers and streams are dynamic systems (erosion, sediment transportation, floods)
 - c. Beaches are dynamic systems (movement of sand)