

CAMP FIRE USA

WATER CONSERVATION PATCH PROGRAM

Sponsored by the San Diego County Water Authority



The **Water Conservation Patch** program is designed to educate members about their water supply and why there is a need for conservation in San Diego County. This is a good way to introduce the concept of conservation to Starflight members or to provide a more complete education on water supply and conservation issues up to the Horizon level. This program is for San Diego County residents only.

THE REQUIREMENTS ARE AS FOLLOWS:

STARFLIGHT - choose 4 from the first six requirements on the following list.

ADVENTURE - choose 8 out of the following list of requirements.

1. Describe what it means to conserve something.
2. Read a brochure on how to conserve water with your leader, or own your own.
3. Be able to name at least 5 ways to conserve water in and around your home.
4. Draw a poster of yourself doing something to conserve water.
5. Write your own pledge to conserve water and say it before your group.
6. Describe what happens to water during the water cycle.
7. Learn some basic facts about where San Diego's water comes from.
8. Look around your house and find one area where you think you might be able to do a better job of saving water. Take action to improve the situation.
9. Learn about three plants that need very little water to grow. Know their names and where they come from (where they grow naturally).
10. Look at a topographical map (one that shows details of elevations and mountain ranges) of the United States and identify the following locations: The Sierra Nevada Mountain range and the path of the Colorado River.

DISCOVERY/HORIZON

Complete the following five conditions:

1. Learn some basic facts about California's water supply systems. How does your water get to San Diego?
2. Identify your local water supplier. What agency serves water to your neighborhood?
3. Read a brochure or pamphlet on how to conserve water.
4. Name at least 5 ways to conserve water in or around the house. (Continued)

5. Write a short description of the following terms: conservation, reclamation, desalination.

Choose two of the following options:

1. Have a discussion with your family about water conservation and what you have learned about water as you have worked on this patch. Ask your family to keep an eye on their water use habits for a week and then decide together if there are any permanent steps they can take to help save water. Suggestions – if your toilets are not water conservation models (1.6 gallons per flush) find out if your local water agency offers assistance to help you purchase more efficient models. Measure the amount of water that collects in a bucket when you leave the showerhead running for one minute. Investigate replacing it with a low-flow model (possibly available for free from your local water agency) if you collect more than 4 gallons in one minute. Set automatic timers on sprinkler systems to water only during evening or early morning. Make sure the hose has an automatic shut-off nozzle when you wash the car. Check for rebates on front-loading washing machines when its time to purchase a new one.
2. Learn about three types of plants that need very little water to grow. Know their names and where they come from (where they grow naturally).
3. Design an experiment that will demonstrate some part of the water cycle. Suggestions - Make a rain gauge to measure rainfall or invent some way to demonstrate one of the concepts that you have learned while working on this program.
4. Investigate how water is purified to make it safe to drink. Group leaders may wish to contact their local water district to see if there is a water treatment plant nearby and if tours are available.

The following is a list of resources that may help you complete the requirements for this patch. It is helpful if the group works on the patch together and leaders request information for the group rather than each individual.

BOOKS - Check your local library

Deserts *Posell, Elsa* (Children's Press, 1991) Describes the climatic conditions, flora, and fauna of the desert, and explains that some people find it habitable and others profitable for its mineral riches.

The Magic School Bus At The Waterworks. *Cole, Joanna.* (New York, Scholastic Inc. 1986). Good resource for water treatment information.

Sunset Garden Book (California, Sunset Publishing Corporation, 1992) Good resource for information on water efficient plants.

Water For All *Morgan, Sally* (Franklin Watts, 2000) Examines the different water sources in the world, how water is treated, and the problem of supplying clean water to the world's increasing population.

WATER What it is, What it does *Seixas, Judith S.* (New York, Greenwillow Books. 1987). An introduction to simple water concepts.

The Young Scientist Investigates Water *Jennings, Terry* (Chicago, Children's Press. 1982) Information on the properties of water. Includes many good experiments.

INTERNET LINKS

For information about the San Diego County's water supply, local water agencies and conservation visit the San Diego County Water Authority's site. <http://www.sdcwa.org/>

For information about the Water Cycle visit the USGS "water science for schools" site. <http://www.ga.usgs.gov/edu/index.html>

There are many sources of information on drought tolerant plants and low water use gardens available on the internet. Visit the Water Conservation Garden at Cuyamaca College <http://www.thegarden.org/> for more information.

Information on the water cycle, experiments with water, conservation and weather information **available from the Camp Fire Council.**

Requests for tours and information regarding water treatment should be directed to your local water provider.

SAN DIEGO COUNTY WATER AUTHORITY MEMBER AGENCY PHONE NUMBERS

CARLSBAD MUNICIPAL WATER DISTRICT	760-438-2722	RAINBOW MUN.WATER DISTRICT	760-728-1178
CITY OF DEL MAR - Water Utilities Department	858-755-3294	RAMONA MUNICIPAL WATER DISTRICT	760-789-1330
CITY OF ESCONDIDO-Water Utilities Dept.	760-839-4657	RINCON DEL DIABLO MUNICIPAL WATER DISTRICT	760-745-5522
FALLBROOK PUBLIC UTILITY DISTRICT	760-728-1125	CITY OF SAN DIEGO - Water Utilities Department	619-533-7555
HELIX WATER DISTRICT	619-466-0585	SAN DIEGUITO WATER DISTRICT	760-633-2676
LAKESIDE WATER DISTRICT	619-443-3805	SANTA FE IRRIGATION DISTRICT	858-756-2424
CITY OF OCEANSIDE	760-435-5800	SWEETWATER AUTHORITY (NATIONAL CITY, SO. BAY ID)	619-420-1413
OLIVENHAIN MUNICIPAL WATER DISTRICT	760-753-6466	VALLECITOS WATER DISTRICT	760-744-0460
OTAY WATER DISTRICT	619-670-2222	VALLEY CENTER MUNICIPAL WATER DISTRICT	760-749-1600
PADRE DAM MUNICIPAL WATER DISTRICT	619-448-3111	VISTA IRRIGATION DISTRICT	760-597-3100
PENDLETON MILITARY RESERVATION	760-725-1061	YUIMA MUNICIPAL WATER DISTRICT	760-742-3704
CITY OF POWAY	858-668-4401		

Send in the form below, or call and leave a message including the information below, to request a packet of brochures to assist you with this project. As members complete the requirements for the patch please fill out the record sheet on the following page. When it is complete, return it to the address below. Please allow two weeks between the time you send in your request for patches and the date you wish to distribute them. Certificates will be printed so take care to write names legibly.

Send all requests for information or patches to:

Education Department – Patch Program
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
(858) 522-6720

Cut off and return the section below to request information

Please send a brochure packet that will assist my group in completing the Camp Fire USA water conservation patch.

Name: _____

Number of members in group: _____

Address: _____

Phone Number: _____

Level of Group Members: _____

PATCH PROGRAM LOG SHEET

Camp Fire USA

Use the following log to keep track of the completion of requirements and to provide the Water Authority with a record of recipients.

NAME - Please Print!!!!	Patch Requirements (√)								Date Completed
	1	2	3	4	5	6	7	8	
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									

PLEASE INCLUDE THE FOLLOWING INFORMATION WHEN RETURNING THIS SHEET

Group Leader's Name: _____

Mailing Address: _____

Phone Number In Case of Questions: _____

Mail to:
 Education Department
 San Diego County Water Authority
 4677 Overland Avenue
 San Diego, CA 92123