



Creek Currents

Sacramento Area
Creeks Council

www.saccreeks.org

Winter 2010

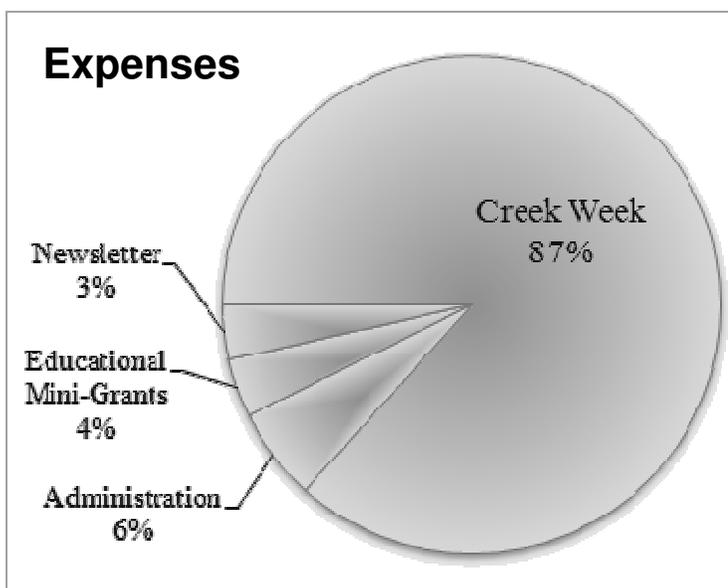
This Year's Accomplishments

This year, the Sacramento Area Creeks Council's Creek Week had a significant impact on the health of creeks throughout the Sacramento area. With your help, the Creeks Council accomplished the following:

- **Participants of Creeks Cleanup Week:**
 - Cleaned up 72 creek sites in the Sacramento Area including Antelope, Arden-Arcade, Carmichael, Citrus Heights, Folsom, Galt, Natomas, North Highlands, North Sacramento, Orangevale, Rancho Cordova, Rio Linda, and South Sacramento
 - Educated children, adults, community leadership, and businesses throughout Sacramento about the importance of clean creeks
- The Creeks Council awarded two mini-grants of \$500 each to teachers for environmental education.

- The Creeks Council worked with and advised many other environmental boards and committees in an effort to improve water quality, including:

- Aerojet Citizen's Advisory Group
- Alder Creek Watershed Planning Stakeholders
- American River Natural History Association
- American River Watershed Group
- Bufferlands Docents
- California Department of Water Resources
- California Native Plant Society
- Central Valley Regional Water Quality Control Board
- Effie Yeaw Nature Center
- Friends of the South Fork Kings River
- Friends of Swainson's Hawk
- Granite Bay Flycasters
- Habitat 2020
- Jepson Docent Planning Committee
- Laguna Creek Watershed Council
- Mather Vernal Pool Docents
- North Area Sportsmen Association
- Regional Water Authority
- Sacramento Region Community Foundation
- South County Water Recycling Stakeholders
- South Fork Kings River Clean-Up
- South Sacramento Habitat Conservation Plan
- Trout Unlimited
- Upper American River Foundation



Graph shows 2009 expenses. 2010 expenses are expected to be similar.

- The Creeks Council gave \$1,000 in cash and goods to the Girl Scouts, Heart of Central California to support Creek Stewardship projects.



Sacramento Area Creeks Council

P.O. Box 162774
Sacramento, California 95816
Phone (916) 454 - 4544
www.saccreeks.org

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The Sacramento Area Creeks Council provides information, educational resources, and stewardship opportunities that encourage the protection, restoration, and maintenance of natural streams in Sacramento County. Its goals are to educate the general public on the aesthetic, recreational, and ecological values of natural streams.

The Sacramento Area Creeks Council holds regular meetings, develops educational materials, and participates in neighborhood fairs and public events. It works with schools, neighborhoods, and youth groups to encourage creek cleanups and streambank restoration. It cooperates with city and county efforts to reduce pollution from stormwater runoff. It cooperates with other organizations to monitor developments along stream corridors. Membership is open to anyone who wishes to share in these activities.

Creeks Council meetings are generally held the third Monday of each month at the Arcade Creek Recreation and Park District office. Please call (916) 454-4544 for specific meeting dates.

What is the Creeks Council up To?

Plans are in progress for an "Adopt-a-Creek" style program

Your Sacramento Area Creeks Council is hard at work exploring the use of an "Adopt-a-Creek" style program as a way of expanding community involvement in creek stewardship. Many of you have participated throughout the years in our annual Creek Week cleanup effort, and we thank you for all your support.

You are probably quite familiar with the Adopt-a-Highway program and the noticeable benefits that come from that volunteer activity. We are looking at an Adopt-a-Creek program as a similar way for teams of volunteers to assume more of a year-round approach to stewardship of their neighborhood creeks.

This program has been successfully implemented in a number of communities across the Country, including the northwest, and we think the time is right for Sacramento to embrace this approach.

In addition to clean up activities there are other worthy activities we would like to see become a part of this creek stewardship effort such as: water quality monitoring, stream bank protection efforts, removal of non-native invasive plants, creating healthier habitats for fish and other wildlife, and providing educational programs like Dipping Into Creeks.

Over the next few months we will be firming up our initial ideas for how best to implement this program and expect to have it ready to press into action by this coming spring. Look for more details in our next newsletter.

In the meantime be thinking how you might volunteer your particular skills as we form these neighborhood teams. We are confident you will find it to be a very rewarding and fun experience; after all, most of us have been engaged for over twenty years!

-Your SACC Board Members. ■

Thank You Recent Donors!

J. Kay Tucker
Katrina Stotelmeyer

Save a Tree!

Please send your email address to
ucc@arcadecreekrecreation.com
so we can move toward an
electronic newsletter.



Volunteers pitch in at the 2010 Creek Week Cleanup.

Girl Scouts Monitor Water Quality at 20 Locations

A few sites show troubling results and the Scouts learn why

About 50 Girl Scouts fanned out across Sacramento County in April to test the water quality and assess the general condition of our creeks. Most of the girls reported that they felt well-prepared and had fun testing the water. Some of them wished they had worn long pants to protect legs from the brush and that they had brought garbage bags to pick up litter. Several of the groups told us that testing more frequently than once a year would make the data more meaningful. Over time, good and bad changes in conditions could be noted and acted upon.

Where they tested:

At 20 creek locations throughout Sacramento County, in the cities of Sacramento, Citrus Heights, Folsom and the communities of Antelope, Carmichael, Arden-Arcade, Southgate.

What they tested for:

Turbidity or clarity of the water. Clear water is generally cleaner and of higher quality than turbid water. Turbid water in Sacramento's creeks is often caused by the erosion of creek banks that are forced to hold too much water during the rainy season. Soil from construction or landscaping projects and roadway gunk are in the urban stormwater runoff that makes our streams' water dirty.

Temperature. Some stream life is very sensitive to changes in water temperature. Cold water can hold more oxygen than warmer water. All aquatic animals require oxygen. Streams that are not shaded by trees are at higher risk of developing high temperatures that threaten aquatic life.

Dissolved oxygen. Oxygen-rich water is an important part of a healthy and stable aquatic ecosystem. Warm water, high levels of

bacteria and rotting plants can decrease the amount of dissolved oxygen in the water.

pH. pH tells us the acidic or basic (alkaline) quality of the water. Most aquatic animals have adapted to live within a certain range of acid and base that is close to neutral. Water that is too acidic can hurt aquatic life by making any toxins in the water more available to the plants and animals. 7 is neutral. Below 7 is acidic. Above 7 is basic.

Data collected on the quality of the creek waters:

Turbidity levels ranged from clear to very cloudy. Water temperatures ranged from 12°C to 26°C. The ballpark measurement of dissolved oxygen ranged from 4 parts per million to 8 parts per million with 39% to 99% saturation. Ph levels were between 6 and 10. Of most concern were the low oxy-

see "Girl Scouts," page 5



Alder Creek is a good example of a healthy creek with its tree canopy and underbrush, intact banks, no algae, and clear moving water with an unsilted creek bottom. *Photo credit: AECOM.*



In contrast to Alder Creek at left, Morrison Creek has been straightened and concrete-lined so that it can carry large flows of water quickly. The health of the creek was not considered when the storm water drainage system was designed as new construction took place.

Are You Ready for a Flood?

Sacramento's Recent Flooding History

Sacramento's risk of flooding is the greatest of any major city in the country. Historically the Sacramento region has experienced flooding due to heavy rains and from the many rivers and creeks. In 1995, heavy rains hit the Sacramento region causing widespread localized flooding, in particular in the Arcade, Morrison, Florin, Union House and Dry Creeks. Two years later, a series of tropical storms hit northern California, causing the Cosumnes River to break through its levees in 24 places. Heavy rains in early 2006 caused many local drainage concerns and filled the Sacramento River.

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Preparing Ahead of Time

Take steps now to help your family prepare for an emergency, by:

- Knowing the safest route from your home or business to high, safe ground.
- Putting insurance policies and lists of personal property in a safe place, such as a safe deposit box.
- Preparing a family disaster supply kit complete with a flashlight, a battery operated radio, extra batteries, first aid kit and manual, emergency food and water, non-electric can opener, essential medications, cash and credit cards, sturdy shoes, warm clothing and blankets. Be sure to check expiration dates on all emergency supplies.
- Developing a flood response plan. Visit *StormReady.org* to view already prepared various evacuation maps showing hypothetical levee breaks, inundation levels and the time it would take for waters to rise in affected neighborhoods, and rescue and evacuation zones.

What to Do During a Storm

Because flood water can rise quickly, be prepared to evacuate before the water level reaches your property. During a storm:

- Move to higher ground if you can do so safely—DO NOT attempt to walk, drive or swim through moving water or flooded areas.
- Do not remove manhole covers or drain inlets.
- Before evacuating, if you can safely do so, turn off all utilities at the main power switch and close the main gas valve.
- If you are caught at home by rising water, move to the second floor or the roof. Take your disaster supplies kit with you.

Tune into radio stations KFBK 1530, KSTE 650, Y92.5, or V101.1 to obtain storm preparedness tips from the Stormwater Utility!

Real Time Flood Monitoring System

County of Sacramento Department of Water Resources developed an Automated Local Evaluation in Real Time (ALERT) system that, through a network of 48 gauging stations, collects rainfall and stream-level data, and provides Web site updates every 15 minutes. Local meteorologists and television stations utilize the ALERT Web site (*www.saccounty.net (search: stormready)*) to keep residents informed.

Sacramento County is in the process of updating our Local Hazard Mitigation Plan. The plan will assess the likelihood of various natural hazards, including flooding, earthquakes, extreme heat, and severe weather. The plan will then set goals, prioritize mitigation measures, and identify potential projects to reduce the impacts of natural disasters on residents and property in the County. A critical component of the plan is YOU. To develop the best possible plan, we need the participation of people living in the community to help us assess the likelihood of natural hazards and to identify measures to minimize impacts. For additional information on how to get involved, please log on to StormReady.org. ■

gen levels at two creek locations (4ppm) and the high alkaline reading of 10 at one creek location. Low Dissolved oxygen was at one site on Chicken Ranch Slough where the girls noticed large amounts of organic debris in the water – a possible cause. High alkaline levels (pH of 10) were found at a tributary to Dry Creek where data was collected in the late afternoon. Too many nutrients, such as fertilizer from lawns, can contribute to this problem. There was excessive algae reported here, which often results under these conditions. The high oxygen saturation of 92% at this site is consistent, because the algae, employing the process of photosynthesis for growth, consume carbon dioxide to produce an overabundance of oxygen in the water and raise the pH level. At night the algae and plants respire, depleting available dissolved oxygen. This results in large variations

in water quality conditions that can be harmful to other aquatic life.

Conditions at the creeks:

As you might have guessed, the Girl Scouts saw a wide variety of creek conditions. Creeks ranged in depth from a few inches to a few feet. The range of water width was

“... the Girl Scouts saw a wide variety of creek conditions.”

even greater – from three feet at the upper end of Verde Cruz Creek to thirty feet at the lower end of Laguna Creek. Most of the creeks surveyed had clay or mud bottoms, but a few had some cobbles or gravel. Trees were plentiful along one quarter of the creeks surveyed. Only one of the sites had substantial artificial bank protections such as concrete or rip rap. Fish were seen at two of the sites.

Lots of algae and an unpleasant odor were reported at a creek location with little flow. Another group commented that the sports activities and dog use in a park were hurting the creek. One group observed that non-native plants were growing near storm water drainage pipes that discharge yard clippings, along with water, into the creek. As a result, plants that inhibit floodwaters and provide little wildlife value, such as palm and catalpa trees, are growing in the creeks. Even at the creek sites with poor conditions, wildlife was observed.

Thank you to all the Girl Scouts who helped to take this April picture of area creeks. Our goal is a regular program of creek assessment in every season, including before and after the first rains, that will provide a more dynamic view. ■

Creek Week Cleanup and Celebration April 2010





Sacramento Area Creeks Council
 P.O. Box 162774
 Sacramento, CA 95816

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**NEXT CREEK WEEK CLEANUP IS
 SATURDAY, APRIL 16TH**



The Sacramento Area Creeks Council is dedicated to protecting and sharing the abundant natural treasures that make up the extensive creek systems of our region. As a member, you will receive many benefits, including our newsletter *Creek Currents*. To become a member or renew your membership, please fill out and mail the form below to: Sacramento Area Creeks Council, P.O. Box 162774 Street, Sacramento, CA, 95816.

YES! I want to help Sacramento area creeks. Enclosed is my tax deductible gift of:

- | | | |
|---------------|-------------------------|------------------------|
| \$10 Students | \$25 Regular membership | \$40 Family Membership |
| \$100 | \$250 | Other _____ |

I would like to be a member of the Sacramento Area Creeks Council.

I'm already a member; please accept my donation and renewal.

Make check payable to: Sacramento Area Creeks Council.

Name _____

Address _____

City, State, Zip _____

Phone _____ Email _____

Questions? Call: (916) 454-4544 Email: ucc@arcadecreekrecreation.com