

A CREEK RUNS THROUGH US

Newsletter of **SPAWN**, the **Salmon Protection And Watershed Network** ~ Fall 2006

RAINWATER HARVESTING SYSTEM BENEFITS CREEKS, SALMON AND SCHOOL

THIS SUMMER SPAWN PARTNERED WITH THE LAGUNITAS School District to construct a new kind of “creek friendly” project designed to protect local creeks and salmon populations.

THE MODEL PROJECT, A STORMWATER-HARVESTING SYSTEM, captures rainfall from the roof of a playground lunch-shelter during the stormy winter months and diverts it into a 30,000-gallon cistern that will serve to irrigate the School’s Organic Garden Project during the dry, summer period. Left un-captured, the runoff would have drained into a storm-drain that empties out onto an already eroded bank on Larsen Creek, a salmon-bearing stream in the San Geronimo Valley.

IF THIS INNOVATIVE AND SCALEABLE PROJECT was replicated throughout Marin, we could help re-charge underground aquifers, reducing the impacts of development and paved surfaces that cause our creeks to dry, stranding baby salmon.

CAPTURING AND RE-CYCLING WATER ON SITE COULD SAVE society and the environment enormous costs associated with building more dams (or desal plants, new Russian River Pipeline, etc.) to meet the water needs of a growing human population. It would also eliminate the enormous amount of energy needed to pump water from its source to treatment plants and then to users, and removes the need to treat water with chloramines for water used only for irrigation and landscaping.

AND THE IDEA IS ALREADY CATCHING ON. The school’s facility committee is already considering adding another catchment system off the roof of the school’s future gymnasium. We are also meeting with East Marin creek groups and Supervisors aides to discuss opportunities for replicating this system at additional schools.

CURRENTLY, IMPERVIOUS SURFACES FROM ROOFS, parking lots, driveways and roads prevent water percolation into underground aquifers, causing more dangerous and frequent flooding that threatens lives and property. The increased velocity and volumes of water also increase soil erosion, damage creek banks and cause harmful sedimentation that impacts salmon and other aquatic life.

SEDIMENT IS A KEY POLLUTANT IN SALMON STREAMS and bank erosion due to runoff from paved areas deposits fine



Organic garden with new cistern. This project could not have happened without the support of SPAWN members. A very special thanks to Richard Sloan and his crew, Josh Traub, Uli Zangpo, Denise Lussier, the School Facilities Committee, Lagunitas School Board, and the RWQCB and SWRCB.

sediment which smothers gravelbeds, key spawning and rearing areas for endangered salmon and steelhead.

WE WILL CONTINUE HELPING facilities and local homeowners come up with innovative ways to reduce their ecological footprint and help protect the environment for future generations.

For more information on this project and to learn about ways your school can conserve water and reduce non-point source pollution contact SPAWN and visit our website at

www.SpawnUSA.org

HOW MANY COHO CALL THE SAN GERONIMO VALLEY HOME?

New Study Launched to Understand Coho Survival in the San Geronimo Valley

SPAWN, MMWD AND THE PARK SERVICE have collaborated over the years to conduct spawning surveys to document the nesting population of coho salmon. SPAWN concentrates its efforts on half-a-dozen smaller tributaries in the San Geronimo Valley and has documented that 25% of the Lagunitas Creek population uses these small creeks, obliging agencies to seriously consider improving habitat in these previously neglected parts of the watershed. We now have a pretty good idea of spawning numbers throughout the watershed, which at least in the past 10 years of average to above-average rainfall, appear to be relatively stable varying year-to-year from approximately 150 to 550 nesting females. (Because coho have a 3-year life cycle, there are three separate year classes, and numbers between year classes vary by as much 400%).

TO BETTER PROTECT AND RESTORE this fragile population of salmon, we need to know what part of the salmon life cycle has exceptionally low survival. In other words: (1) Do enough eggs survive winter/spring storms to become fry? (2) Do enough fry survive the dry summer and following winter and spring storms to become smolts? (3) Do enough smolts survive their out-migration through Tomales Bay to grow to become ocean fish and then return to spawn?

FOR THE FIRST TIME EVER, AN OUT-MIGRANT SALMON survey was conducted in San Geronimo and Lagunitas Creeks to better understand these questions. As part of a larger monitoring effort, in spring 2006 SPAWN placed an out-migrant funnel trap near the downstream end of San Geronimo Creek. Over a 2-month monitoring season SPAWN captured 523 coho smolts. Using a mark/recapture model, we estimated 3317 +/-568 coho heading downstream as they left their rearing habitats in the San Geronimo Valley. How significant are the numbers? It's too early to tell, as we will need additional years of data to understand the trends. What this study did tell us is that a significant number of 1-yr old fish were able to survive last year's New Year's Eve storm.

Stay tuned, next year we start monitoring to better understand rearing habitat on San Geronimo Valley tributaries.

Saving Young Coho and Steelhead from Certain Death

DRYING ON THE TRIBUTARIES CONTINUES, exacerbated by the record heatwave this past summer. SPAWN staff and volunteers rescued 364 baby coho and 873 steelhead, bringing our total rescue over the past 7 years to well over 16,000 salmonids!

To see how many were rescued from your favorite creek visit <http://spawnusa.org/pages/page-2>.

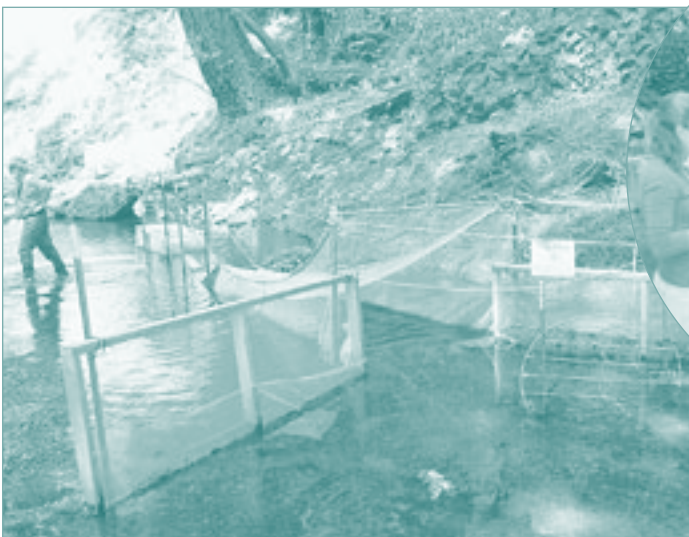


SPAWN volunteers rescued coho and steelhead on Larsen Creek during the 2006 record heatwave. 110-degree Fahrenheit temperatures accelerated widespread drying on the smaller tributaries.

Spawning Numbers Winter 2005-06

WE EAGERLY AWAIT THIS YEAR'S RUN! IN THE MEANTIME, a quick review. Last winter's year class of coho has historically been the lowest and '05-06 was no exception, with only a total of 184 redds (nests) being counted. Of the 184 total, 48 were found in the mainstem of San Geronimo Creek, and 54 in the small tributaries to San Geronimo Creek. Due to stormy conditions, some redds may not have been counted.

To see how many redds were counted in your favorite creek visit <http://spawnusa.org/pages/page-42>.



3,300 of the coho born during the record 2004 winter spawning season survived to rear in the San Geronimo Valley before heading out to sea this Spring.

The San Geronimo Creek smolt trap under towering redwoods on Turtle Island's newly acquired creek parcels.

RESTORED STREAMSIDE FORESTS IMPROVE WATER QUALITY

RESTORATION OF STREAMSIDE BUFFER AREAS on the San Geronimo Golf Course continues! It was extremely gratifying to watch as hundreds of volunteer hours transformed previously neglected and eroded banks on San Geronimo Creek to lush stands of native willow and other native species. It is a gentle reminder of our species' power to transform the landscapes we inhabit but in a positive way that benefits not just ourselves but the ecosystems we are a part of.

In 2006 we will reclaim an additional 5,000 square-feet of stream-side area for reforestation on both Larsen and San Geronimo Creeks. Streamside forests keep local creeks flowing cold and clean, essential habitat for baby coho!

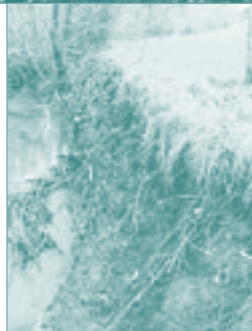
Become a Restoration Volunteer!

<http://www.spawnusa.org/upcomingevents/>



Thanks to the many SPAWN volunteers [and Mother Nature], after just six months, 600 willows and other newly planted vegetation grow lush on the banks helping to provide riparian habitat for coho salmon and protect the area from harmful erosion.

Same area as shown above but before restoration. This bank was steep and eroding into the creek.



"WOODY DEBRIS, LET IT BE!"



Students plant redwood trees along San Geronimo Creek. Generations from now these trees will become "large woody debris" in the creek, forming important salmon refugia.

SPAWNING SALMON TUCK IN UNDER AND BELOW WOODY structures to escape high flows during winter storms, and baby salmon establish territories in the deeper, colder pools that form under and around the wood structures. Woody debris structures are coho mansions!

DECADES WORTH OF REMOVAL OF DOWNED TREES AND rootwads (called "large woody debris") from creek channels and forests along the banks have left Valley creeks bare of this critical refuge habitat for coho and steelhead. This year, in partnership with private landowners on San Geronimo Creek, we are working to prevent woody debris from being chain-sawed and removed, and repositioning wood deposited in the creek during the flood to create a "large woody debris" structure that will benefit salmon and also protect adjacent creek banks from erosion.

SPAWN WILL CONTINUE TO HELP LANDOWNERS FIND WAYS to protect resources such as "woody debris" which are so critical to the recovery of coho salmon. There is still a lot of ground-work to do to get government agencies prepared to work with private landowners in a timely and affordable way. Good news is that many landowners in the Valley want to do the right thing, affording the coho population an opportunity to grow stronger in the Valley.

NATIVE PLANT NURSERY BLOSSOMS FOR THE FISH

EARLIER THIS YEAR, A VALLEY FAMILY VERY GENEROUSLY offered us a quarter-acre space to house our nursery. This summer our new shadehouse and greenhouse went up! Neighbors and core SPAWN volunteers have helped fledge this important program for the creeks. Thank You! Now, joined by Americorp Watershed Steward Program interns, we are busy collecting native plant seeds and cuttings in preparation for the restoration seasons ahead. This is a perfect opportunity to gain hands-on skills in native plant propagation.

Join us and help re-grow salmon habitat! Call us at

415 488-0370 x102

WSP interns, Natalie Galatzer and Heidi Lakies, working hard to propagate native plants for SPAWN's watershed restoration program.



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The Salmon Protection and Watershed Network
A Community Protecting Wild Coho Salmon and Their Creek Habitats

CALENDAR OF EVENTS

For more info check <http://SpawnUSA.org/upcomingevents/>

WINTER IS A BUSY SEASON, AND WE NEED YOU! JOIN OUR EMAIL LISTSERVE TO GET REGULAR UPDATES; SIGN UP BY EMAILING SPAWN@SPAWNUSA.ORG

Naturalist-led Creek Walks Begin Nov 11th! SPAWN's watershed naturalists greet the first heavy rains of fall joyfully, because it means they will soon be leading public tours to observe the spawning salmon in their colorful mating rituals. The first salmon has already been sighted in Tomales Bay. If there's one thing our naturalists love nearly as much as observing salmon, it's letting other people in on the fun! Tours are scheduled twice daily each Saturday and Sunday as well as special trips during Christmas and New Year's. RSVP required; please contact Creekwalk@SpawnUSA.org, 415-488-0370 x107.

Winter Salmon Seminar Series. This season we welcome local experts on amphibians, the Farallon Islands, trans-Pacific migrations, spotted owls and redwoods, and the health impacts of pesticide use. Seminars will take place every 3rd Thursday of the month (excluding winter solstice). Our first seminar, focused on amphibian ecology, is November 16th.

Creek Restoration work-parties will take place every 2nd Saturday morning from 10 to 1 p.m. beginning November 18th. Learn to collect native plant seeds and cuttings and restore critical streamside habitat for coho salmon. To sign up contact Spawn@SpawnUSA.org, 415-488-0370

Check inside to learn more!

BE A SALMON HERO! Join Today and Your Gift will be Doubled!

SPAWN's work would not be possible without the membership support of caring people like you! And right now, thanks to a matching grant by the Dean Witter Foundation, all membership donations up to \$15,000 will be matched dollar for dollar! That means that for every dollar you give, SPAWN will receive two dollars to help the salmon.

Members provide critical support to help SPAWN rescue thousands of juvenile salmon from evaporating pools each summer; restore creek-side habitat and grow native plants; share valuable info about living in harmony with creeks and wildlife; share the wonder of salmon migration with 100s of interested community members; and much more...

Your membership means more now than ever because for every dollar you give will be doubled! Please join today and enjoy special benefits including members only Creek Walks, the highly sought after "I Brake for Coho" bumper sticker, a newsletter subscription and more. Most important, you'll know that you are a critical part of our community's efforts to protect the endangered coho salmon for the future. Please use the convenient donation envelope enclosed to send your gift today. Thank you!

LEAVE A LEGACY OF SALMON SURVIVAL

By leaving a bequest or other estate gift to the Salmon Protection and Watershed Network, you will help us ensure that the amazing coho salmon and their beautiful habitats survive—and thrive—far into the future, and you may gain valuable tax benefits. SPAWN can also accept gifts of real estate with conservation value, or conservation easements, through your estate, or during your lifetime. *For information on these types of gifts, or to learn how to name SPAWN in your will, living trust or other estate plan, please contact Managing Director Erica Heimberg confidentially at [415] 488-0370 ext. 105 or Erica@SpawnUSA.org*

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SALMON PROTECTION AND
WATERSHED NETWORK [S P A W N]

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