

# Eel River Recovery Project Second Annual Retreat - 2013 Action Plan

October 20, 2012 - Emandal



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## Acknowledgements

The success of the second annual Eel River Recovery Project (ERRP) is largely owing to the preparation of ERRP Advisory Group members Jerry Albright and Sal Steinberg. Thanks again to Tam Adams and her family for allowing us to use the wonderful facilities at Emandal where the natural beauty and gardens create an idyllic atmosphere. Diane Higgins' help with food preparation was greatly appreciated by all who attended.

ERRP would like to thank Erick Burren, who heads the State Water Resources Control Board volunteer program, for traveling to this remote corner of the Eel River watershed. Attendees thoroughly enjoyed his informative and inspirational talk and ERRP looks forward to working with him and sharing high quality data. We understood his "take home" message which was that we need to take action if we want the Clean water Act enforced.

Thanks also to Stephen Kullman and Vincent DiMarzo of the Wiyot Tribe for traveling from the mouth of the Eel to close to its headwaters to attend. We were glad to learn about the activities and aspirations of the Wiyot Tribe with regard to the Eel River and look forward to working with them in partnership.

The retreat drew high caliber participants from throughout the watershed, which bodes well for the future of the ERRP's success. By investing their time in ERRP, the Advisory Group attendees helped sustain this new vehicle for citizens who care enough to take action. ERRP allows for creativity and citizens can use our umbrella and network to help the Eel River in any way they choose. The ERRP 2013 agenda is ambitious but achievable because of the tremendous good will of people throughout the watershed.



Retreat attendees on afternoon of October 20, 2012 at Emandal on the upper Eel River east of Willits.

## Convening

Excellent coffee was served by our hosts at Emandal and bagels from Los Bagels, cream cheese, fresh fruit and juice were provided for those arriving early. Preparation for slide shows and setting up poster displays and maps occupied some, while other attendees got acquainted or discussed issues before the start of the meeting.



U.C. graduate student **Keith Bauma-Gregson**, **Joe Scriven** of the Mendocino RCD and ERRP Advisory Group Executive Committee member **Kelly Harris** before retreat.

## ERRP Update

**Jerry Albright** was the driving force in organizing the retreat and he welcomed everyone, went over the agenda and talked about various planned activities throughout the day.

**Sal Steinberg** then made a presentation that touched on the health of the Eel River and recognized the breadth of ERRP activity, including recognizing many of the citizen monitoring volunteers throughout the watershed. Some ERRP volunteers were in attendance and Sal had them say a few words about the health of their tributary and why they wanted to participate in ERRP projects. See slide show: [Volunteers\\_ERRP\\_2012\\_Final\\_10\\_20\\_12.pdf](#).

ERRP Volunteer Coordinator **Pat Higgins** spoke next about the origins of ERRP, the 2012 Action Plan agenda, grants acquired and projects accomplished or in progress. Pat noted that the ERRP had developed a website (Diane Higgins), Google Groups list serve (Jerry Albright and Paul Futscher) and a program to prevent dumping of spent soil (Renada Laughlin) with almost all volunteer effort. He also described grant funded projects like Water Day, the basin-wide ambient water temperature monitoring and photopoint program; the toxic algae watch project and the fall Chinook salmon volunteer dive survey. In preparation for the afternoon session, Pat described how ERRP follows an agenda defined by the community, forms committees of interest, and then obtains resources to perform services. ERRP committees for 2013 will likely include Water Day, Water Conservation, Water Quality/Algae, Education, Fish Monitoring and possibly others depending on the level of grassroots interest. See slide show: [ERRP\\_Higgins\\_Retreat\\_10\\_20\\_12\\_Final\\_committee.pdf](#).

## Special Presentations

The Environmental Department (ED) Director of the Wiyot Tribe **Stephen Kullman** made a joint presentation with **Vince DiMarzo**, who is an ED technician and Tribal Council member. They provided background on the historic territory of the Wiyot Tribe, its culture and tradition and its current status and structure. The Wiyot Tribe Environmental Department monitors water quality in the lower Eel River and in Humboldt Bay. It also has diverse responsibilities, such as monitoring drinking water quality and waste disposal on the Reservation. The Wiyot Tribe is currently sponsoring a U.S. Fish and Wildlife Service funded study of Eel River Pacific lamprey, which is an important part of the Tribe's diet historically and is thought to be in decline. Stephen and Vincent discussed the Wiyot Tribe's co-sponsorship of lower Eel River fall Chinook dives and why fisheries and water quality data collected by ERRP are potentially important to them.



**Vince Dimarzo (l) and Stephen Kullman (r) of the Wiyot Tribe talking at ERRP retreat.**

**Erick Burres** gave a presentation entitled “An Introduction to Citizen Monitoring in California and The Clean Water Team.” See [Burres\\_Eel River CWT\\_Citizen Monitoring\\_10\\_20\\_12\\_sm.pdf](#).

The talk started out describing “citizen science” and its role, including the challenges of obtaining high quality data using volunteers. Erick recommended that Quality Assurance Plans (QAPs) be developed to insure that proper procedures are used. Erick continued by explaining the significance of pH in terms of health of the aquatic environment and how and why this metric may fluctuate.



**Erick Burres (right/front) makes a point and gets some smiles from the retreat audience.**

More than 520 volunteer monitoring programs exist nationwide and there are projects of this type in all 50 States with California having over 250 such groups. The State Water Resources Control Board and Cal EPA host a water quality web portal that explains how to understand water quality and can help understand whether drinking water is safe or whether fish are free of contamination in different geographic areas of the State. The California Data Exchange Network has also been set up to store all the data collected, including high quality data from volunteers, which could include ERRP data that could be uploaded and archived there.

Next Erick explained how citizen monitoring groups can build alliances and help secure funding and he described the diversity of project types. He noted that the majority of large river systems in California are listed as impaired. A successful approach to abating pollution he recommended is forming stakeholder groups, producing reliable data, informing the public and using the data to press for appropriate remedial action by government agencies. Erick and the Clean Water Team stand ready to assist ERRP by providing trainings and or technical support and loaning equipment.

## **Streamside Monitoring Demonstrations**

**Erick Burres** demonstrated a number of stream monitoring techniques and allowed attendees to test the equipment and discuss various applications of different types. Pat Higgins had placed an automated temperature probe in the Eel River at Emandal and he retrieved the probe and explained protocols for placement.



**Erick Burres explains how to use monitoring equipment to Graham and Dotti Russell.**



**ERRP volunteer coordinator Pat Higgins retrieves automated temperature sensing probe at Emandal.**

## **Conservation, Toxic Algae, Water Diversions, Soil, & Education**

**Larry Desmond** led off discussions and also acted as the facilitator for the afternoon session. His vocation is water system development and he is the owner and operator of Mendocino Waterworks. Larry talked about how many of his clients want to maximize water development and are not very concerned with conservation or aware of problems over-extraction may cause. He is particularly concerned with what appears to be careless development of roads and landings, which consequently pose an elevated erosion risk that can degrade water quality and fill in stream beds.

When it comes to water conservation, checking for and stopping leaks is the first priority. In order to detect leaks, you need a pressure gauge and/or and flow meter. Larry recommended that we acquire and circulate existing good books on water conservation and rural living, such as Basin of Relations by Brock Dolman of the Occidental Ecology Center. There are also many good publications from government agencies like the Natural Resources Conservation Service and the University of California Agricultural Extension. Larry then touched on legal requirements for water development and how many people do not meet them (i.e. appropriate water rights needed for impoundments).



**Larry Desmond explains the basics of water conservation as Dennis Slota, Vince DiMarzo and Dotti Russell listen.**

Pat Higgins added that HSU Master's candidate **Sara Camp-Shremmer** will be working on a technology transfer project to try and implement the upper Mattole River water conservation strategy somewhere in the Eel River basin. The Mattole project has been lead by Sanctuary Forest and they have won cooperation to develop off-stream storage tanks so residents no longer need to draw from the river during the period of lowest flows. She will be working with the ERRP Water Conservation Committee.

**Scott Greacen** of Friends of Eel River was allowed time to make a presentation because Sara Shremmer could not make the retreat. Scott stressed the need to do better with in-basin water management because the problem of over-use is becoming apparent. He pointed out that it is more difficult for us to argue for the Potter Valley Project removal in 2020 on the grounds of water supply when we have a large scale problem that remains unaddressed. The vineyard and winery owners are now claiming high ground because they are regulated whereas the marijuana industry is not. Scott is sponsoring a meeting in Covelo on November 10 to help map where large scale grows that are environmentally destructive are located. He said he was also looking for more information on case studies of particularly bad practices and photos for future publications.

Scott continued with discussion of water use by saying that the California Department of Fish and Game does not have sufficient staff to deal with water use problem. He thinks we need to take a cooperative approach to the problem instead of enforcement one. Pat Higgins pointed out that this is exactly the intent of ERRP. The new head of the California Conservation Corp in Fortuna informed Scott recently that there is \$3 million for CCC projects related to water quality improvement and erosion prevention and invited Eel River residents to propose project ideas.

**Keith Bauma-Gregson** is a graduate student at the University of California Berkeley studying under bioenergetics expert Dr. Mary Power. His research question will involve algae in the Eel River and he is very excited to be working with ERRP. Keith is a California native but did his M.S. work in Michigan. He loves the natural world and has a passion for its protection. See [Keith\\_ERRP Oct 20 2012\\_PDF.pdf](#)

Keith talked about the dynamic nature of river systems and how they change seasonally or in response to upland disturbance. He noted that the UC Angelo Preserve on the upper South Fork Eel River at Branscomb was an excellent lab and touched on some of the studies there. He will be only the second of Dr. Power's graduate students to focus his study off the preserve.

While algae is an indicator of water pollution and some species of blue-green algae may be toxic, Keith explained how it is part of a natural river system and very important ecologically. UC studies have shown that there is a high diversity of insect species that feed in algae beds and that the biomass there was likely important to terrestrial and aquatic organisms. He then shared some great photos of different types of algae found in the Eel River and that ERRP can use as a key.

One of the major questions of interest for Keith is why the Eel River has passed its tipping point and now harbors species of toxic algae that were not known historically. He explained why nutrient enriched systems tend to favor blue-green algae or cyanobacteria.

Keith expects his doctoral work to last 5 years and he looks forward to working with ERRP. He requested that we provide letters of support for grants that support his work and offered to volunteer on the Water Quality/Algae Committee. He ended by noting the importance of citizen science to broaden our understanding of aquatic ecosystems (see [www.inaturalists.org](http://www.inaturalists.org)). He also recommended that ERRP obtain and obtain and post Lear et al (2009) from the periodical *Freshwater Biology* (54:1532-1543).

**Paul Demanchuk** and his wife **Barbara** are part of the Van Duzen River ERRP toxic algae team. They love their dog and were shocked when a neighbor's dog died after playing in algae at the edge of the river near their home. The following year Humboldt County posted the Van Duzen River as toxic in mid-summer, but flows were so high that the problem was non-existent. Paul and Barbara decided that more data were needed so they joined the ERRP project. Paul said that the Dr. Paul Trichilo and Sal Steinberg of the Van Duzen Watershed Group were an inspiration to him with regard to citizen-assisted data collection. The Eel River is changing in undesirable ways and we need more data to know how to cope with the problems and maybe work to fix them over time. He recommended that everyone should consider doing something. If people provide pieces of the puzzle, the cumulative body of knowledge will be powerful.

**Bruce Hillbach- Barger** has been working on federal lands to clean up large scale marijuana grows mostly on Mendocino National Forest. He lives in Covelo in the Middle Fork Eel watershed. Bruce said that he was highly energized by the 2011 ERRP retreat and that he had also recruited active volunteers from ERRP members. June Ruckman, Jerry Albright and Martin Mitchell all worked hard on several projects, which was much appreciated by Bruce. June added that she felt that the clean ups, although hard work, were some of the most inspiring projects she had ever been a part of.

Bruce had major problems with getting permission from U.S. Forest Service (USFS) law enforcement to allow volunteers to clean up grows in the first year, but has now made progress. His new arrangement with the USFS is that, if security concerns prohibit grow clean ups, volunteers can do trail maintenance instead. An additional complexity in 2012 is that a number of grow sites slated for clean up on Mendocino National Forest were burned in wildfires, especially in the Middle Fork Eel River watershed.

The USFS has now recognized the large scale marijuana grows as a major problem and has appointed a resource officer focused specifically on this issue, which is helping Bruce cut red tape. Bruce noted that there is a group forming in northern Humboldt County to deal with marijuana grows on federal lands and he encouraged people to get involved. He sees signs that smaller local growers are starting to grasp the extent of the water use and water pollution problem related to their industry and may be ready to change.

**Sal Steinberg** gave a recap of the Young Scientist project he helped implement with a grant from the Save the Redwoods League. He worked with six students from Cuddebach School in the field at river-side. They measured water quality, did salmon surveys and wrote reports. Sal noted that some of the students were not excited about classroom work but excelled once in the field. He also had the students enter data on World Water Monitoring Day and network with students in other countries who were performing similar activities. Sal and David Sopjes have funds from a Humboldt County Fish and Game Advisory Committee grant to expand ERRP educational efforts. See [Young Scientists.pdf](#).

**Graham Russell** gave a recap of Water Day with some of the highlights but also some areas of needed improvement. Only 135 people attended in 2012 while over 200 came in 2010. Graham noted that conference calls worked well for planning and were very time-efficient. Pat Higgins added that calls were respectful even though people didn't know each other and that people willingly took assignments. Graham commended Rose Madrone, a former Redway resident who now lives in Portland Oregon, for her significant contributions and guidance. Dotti Russell expressed strong interest in continuing Water Day annually at the Mateel and she and Graham will once again serve on the Water Day Committee again in 2013.

## **Business Meeting/Action Planning**

Pat Higgins facilitated discussions and took notes. Committee assignments are preliminary and others are welcome to join.

Water Day: The first topic of discussion was Water Day. The question was raised whether it was reasonable to expect people to travel from throughout the watershed for the event given the rising price of gasoline. Does this suggest that the event should be rotated to Fortuna or Willits? Paul Futscher said he didn't think that the topic of water was of much interest in Willits and suggested that salmon might be a better focus. Bruce Hillbach-Barger added to the brainstorm saying the title should include water, salmon and eels.

Sal Steinberg said Water Day was a modest success and we need to build on it. He also thought the Mateel was the most appropriate venue because of our target audience. Someone suggested promoting Water Day through grow stores since they are showing an interest in being involved. Someone else suggested linking up with the Emerald Growers Association. Keith Bauma-Gregson noted that beer companies were big supporters of recreation and conservation in Michigan. Erick Burres noted that the Alaska Brewery also promotes conservation and even has an environmental grants program. Pat suggested that we pursue underwriting from local businesses as a supplement or alternative to grants.

The Water Day Committee will include Dotti and Graham Russell, Sal Steinberg, Pat Higgins, Rose Madrone, Larry Desmond and others who are inclined.

Salmon Day: Paul Futscher's idea for a Salmon Day was explored. He thought something simple would suffice and offered that more frequent less elaborate events might help build community interest. He thought it would be possible to get folks from Willits out to the bridge at Hearst for the upcoming concentration of Chinook salmon spawning. Pat Higgins offered to come down and explain salmon biology. Outreach will be through a poster, Willits News article and KZYX public radio. A tentative date of November 18 was set that can be cancelled if necessary because of river conditions. Pat will work with Paul F and others from Willits.

Education: Barbara Demanchuk is involved in ecology and arts education project that she says is quite successful and could be emulated by ERRP. Students are exposed to outdoor classrooms and are accompanied by varied scientific experts. Some classrooms are then also raising salmon eggs in aquaria. Barbara recommended that we think about holding an event outside with a more recreational and less academic thrust.

The ERRP Education Committee will include Sal Steinberg, David Sopjes, Diane Higgins, and Stephanie Davis among others.

Media Committee: The need to make Water Day video into pieces that can run on Humboldt Access and the Internet was discussed. Barbara Demanchuk is a professional video maker. She and Pat Higgins will serve on media committee to try and get funds for Water Day editing.

Water Conservation Committee: Will be comprised of Larry Desmond, Sarah Schemmer, Martin Mitchell, Maria Savage and Anna Burkas.

WQ Monitoring/Toxic Algae Committee: Paul Trichilo, Pat Higgins, Keith Bauma-Gregson, Paul & Barbara Demanchuk, Dotti and Graham Russell.

Fish Monitoring Committee: Pat Higgins, Sal Steinberg, Vince DiMarzo and Stephen Kullman (Wiyot), Ed Smith (Bear River), Nick Simpson (Humboldt Redwood Co.)

Retreat was adjourned at 4:45 PM.