

2017  
OCTOBER



# Journal

"... When we see land as a community to which we belong, we may begin to use it with love and respect." ... *Aldo Leopold (1886-1948), American Forester*

## SECRETS OF THE DAGGER FLY IN THE SALMON CREEK WATERSHED

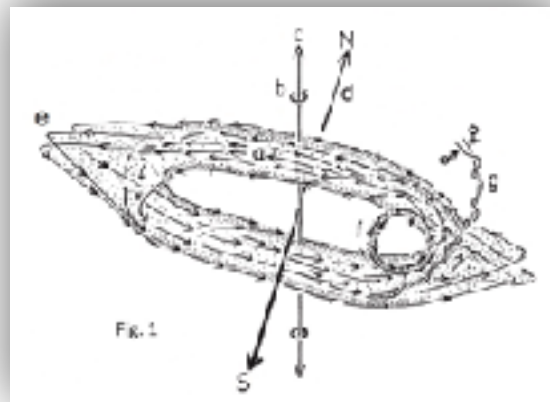
by Ronald Hennessey, Ph.D.

If you walk along the banks of a stream in the Salmon Creek watershed during late May through late July, you may witness a peculiar phenomenon: swarms of small flies rotating madly like wheels on an invisible bicycle. The swarms are formed by a dagger fly in the genus *Hilara*, and, although rather odd, they typically attract only passing interest even from professional biologists and entomologists. Until very recently, no one knew that these swarms represent the most complex, highly organized animal swarms ever observed anywhere in the world. To the mind of this author, they are among the greatest of the natural treasures to be protected by the Bodega Land Trust.

### Back and forth, up and down, and a new biological phenomenon

Swarms of *Hilara* sp. vary in length from about one to six feet and are flattened top-to-bottom like the tread on a battle tank or Caterpillar tractor. As they rapidly rotate, they turn slowly back and forth like the front wheel of a bicycle. Although these turning movements are random, they center on the sun's azimuth, that is, a point on the horizon most directly under the sun. The swarms also move in a third direction--up and down. The cause of the turnings and up-and-down movements is uncertain, but statistical analysis suggests that the cause is random, asymmetric density fluctuations within the swarms themselves. Whatever may be the mechanism of the movements, their adaptive value seems evident, *i.e.*, advertisement. Through their various movements the swarms are shouting "Come join us!" to nearby, unattached flies. What might be the adaptive advantage of recruitment? Clearly, recruitment increases each swarm member's chances of finding an unrelated mate. Mating with close relatives

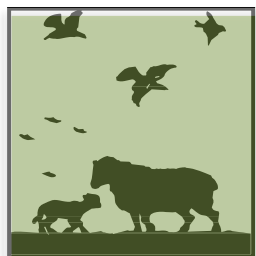
(contd. on page 4)



**Fig. 1** Schematic diagram of swarm.

- a, rotation about horizontal axis;
- b, back-and-forth motion about vertical axis;
- c, translational movement along vertical axis;
- d, translational movement along north-south axis;
- e, extended terminal path;

Bodega Land Trust



## A Message from the President

The Bodega Land Trust is a small organization with an ambitious vision: to keep the Salmon Creek watershed the special place it is today. From Occidental to Freestone to Bodega Bay, from Coleman Valley to Bodega, we want to maintain our sustainable agriculture, healthy forests, clean water, and scenic beauty.

Significant portions of the watershed are already permanently protected by conservation easements created by

private landowners who have shared our vision, but most of the land and streams in the Salmon Creek watershed currently have no permanent protection. With land prices and development pressure increasing, we need to press forward when opportunities become

available. At the same time, an organization like the Bodega Land Trust can take a very long view when necessary. We can, and do, pursue a project that takes a decade or more.

Therefore, we depend on patient donors and supporters. I want to thank all those who have supported the Bodega Land Trust in the 25 years since we began our work. Your support has come in many forms; donation of easements, attendance at our annual dinner and other events, volunteer help, and monetary contributions.

We are grateful to all of you.

Don Sherer

President, Bodega Land Trust



Don Sherer

### Our mission

Our primary purpose is the conservation of land and its communities, especially in the Salmon Creek watershed. Our main tools are conservation easements and education.

We have a total of 12 easements including two in the Atascadero watershed.

The heart of our educational program is our annual Walks and Talks series. The Walks allow participants to become intimately involved with some aspect of the watershed. The Talks are by experts in their fields and allow for questions and personal observations.

### ***BLT Board of Directors***

Don Sherer, President  
Susan Anderson  
Mary Biggs  
Bob Fink  
Sharon Welling Harston,  
Russ Pinto

### ***Newsletter Staff***

Editors: Hazel Flett  
Sandy Sharp  
Layout: Bob Fink

### **Table of Contents**

|  |    |
|--|----|
| Secrets of the Dagger Fly...               | 1  |
| Chanslor Ranch...                          | 6  |
| Lamb Walk...                               | 8  |
| North Coast Conservation Conference...     | 9  |
| Update regarding Freestone...              | 11 |
| Salmon Creek Watershed Council...          | 12 |
| Conservation Objectives & Easements...     | 13 |
| Monitoring Report...                       | 14 |
| Spring Monitoring Training announcement... | 15 |
| Annual Dinner announcement...              | 16 |

## **We are very pleased to introduce our newest Board member**

### **Susan Anderson**

Susan Anderson earned her Ph.D. in Ecology at UC Davis (Bodega Marine Laboratory) in 1984 for investigations of a West Coast commercial prawn fishery.



She subsequently worked for 25 years at the intersection of aquatic environmental research and environmental policy. She held a position in the Planning Department of the San Francisco Bay Regional Water Quality Control Board and was Group Leader for Ecological Research at the Lawrence Berkeley Laboratory.

In 1992, she was named a Pew Scholar in Conservation and the Environment in recognition of her research and policy accomplishments.

In 1997, she returned to the Bodega Marine Laboratory (BML) and settled in Western Sonoma County with the purpose of living closer to the land and sending her son to Harmony School.

At BML, she directed research on topics such as mining impacts on stream ecosystems and landscape-scale pesticide effects on Central Valley watersheds, later becoming Director of the Pacific Estuarine Ecosystem Indicator Research Consortium.

She retired several years ago from the Adjunct Faculty of UC Davis and today applies her interest in environmental management to the health of North Coast forests.

Together with her husband, she has managed their 46-acre forest property near Valley Ford as a preserve for 20 years.

## **Bodega Land Trust Advisory Council**

### **Carl Blanco**

Website administrator

### **Alastair Bleifuss**

Director, Santa Rosa Creek Stewardship Program, former BLT Board member

### **Ann Cassidy**

Board member, Gold Ridge Resource Conservation District

### **Ellie Fairbairn**

Post-Doctoral Research Fellow, Bodega Bay Marine Lab; BLT Walks & Talks; former BLT Board member

### **Hazel Flett**

Shepherd; BLT Walks & Talks Program; BLT Journal editor

### **Eric Koenigshofer**

Former Chair, Sonoma County Board of Supervisors, former BLT Board member

### **Allison Pharis**

Real Estate Broker

### **Robin Rudderow**

President, Rancho Bodega Historical Society; lawyer

### **Subir Sandyal**

Mycologist; chef

### **Sandy Sharp**

Treasurer; Journal editor and layout; former Board member

### **David Shatkin**

Salmon Creek Watershed Council

### **Nick Tipon**

Native American educator

poses the threat of inbreeding depression, a threat particularly acute in animals such as *Hilara* sp. that occur in small, isolated populations. The swarm movements are caused by random density fluctuations. This analysis, if correct, leads to a surprising conclusion: Although the movements are beneficial in that they enhance swarm recruitment, they have no genetic underpinnings. Rather, the movements are emergent properties that arise entirely from random statistical fluctuations. A beneficial trait without a basis in genetics has never before been reported in any animal.

### **Cooperation between independent swarms: A second new biological phenomenon**

Populations of *Hilara* sp. vary considerably from year to year, and in 2013 and 2014 the flies were numerous enough to support the formation of large, closely adjacent swarms. Such double swarms contain a mystery. If slow, turning movements are truly random in extent and direction as data suggest, what would prevent adjacent swarms from bumping into and disrupting each other? So far, there is no good answer to this question. All that can be said now is that closely adjacent swarms turn synchronously, allowing them peaceably to co-exist. The adaptive advantage of peaceful co-existence is revealed when the swarms are observed against the background of a blue sky: Flies are seen to travel between the tops of the two swarms. No doubt this increases the flies' chances of finding unrelated mates and minimizes the chances of inbreeding depression. A crucial point here is that the adjacent swarms, despite their synchronous movements, are basically independent of each other. That is, either one would continue to exist in the absence of the other. This means that, in a real sense, the two swarms are cooperating with each other in their synchronized movements and exchanges of members. Although many animals are known to cooperate with each other within the same swarm, *Hilara* sp. provides the only known example of cooperation between independent swarms.

### **A swarm of swarms: A third new biological phenomenon**

All the aforementioned behaviors would be amazing enough for one small species of fly, but there is more to tell--much more. During high population years, up to six swarms have been observed at the same site. All swarms at the same site can be interpreted as a single, multi-component swarm. A multi-component swarm has emergent properties, *i.e.*, properties not present in the individual swarms. These emergent properties are too complex to be described fully in the present article, but in brief they involve spatial extension, temporal continuity, reproductive potential, population stability, and gene flow.

The concept of a multi-component swarm is well known to mathematicians who specialize in an esoteric science known as "swarm robotics." Swarm roboticists set experimental rules for swarm behavior and create swarms on their computers. They then analyze the resulting behaviors and publish their observations in an esoteric journal, "Swarm Robotics." The important point here is that examples of multi-component swarms, although familiar to mathematicians, have been unknown in the living world--until now. Our amazing little *Hilara* fly scores another first.



**Fig. 2** Flight paths of rising male-female pair obliquely approaching the video camera, 17 ms per cell. Filled and stippled cells indicate relative positions at 83-ms intervals.

- x fly not visible in frame.
- a. 1.22-s period.
- b. Initial 380 ms of flight paths in a. enlarged 2.3x.



### **How males and females get together**

The behavior of individual flies within the swarms is also a matter of considerable interest. Mating behavior begins when a male *Hilara* finds himself beside another fly. It is unknown whether or not the male recognizes the sex of his object of interest, but in any case he veers toward his hoped-for mate and crosses over her (or his) path. If the fly of interest is female, she rises out of the swarm. The male keeps pace with her, spiraling about her until both are free of the swarm. At this point the situation becomes confusing because the flies are moving too fast and high to permit detailed observation. In a significant minority of cases, the flies contact each other, and if mating is to occur, it certainly occurs at this moment. However, in a large majority of cases, the female rejects the male's advances and both return to the swarm. Why would a female reject a male? A likely reason is that she senses that he is a close relative. Once again, the menace of inbreeding rears its ugly head.

### **A novel mating system: The fourth new biological phenomenon**

A second aspect of the *Hilara* mating system is novel enough to require new terminology. It can be dubbed "dual-preference size-assortative mating." Regular size-assortative mating is nothing new in the animal kingdom. Females of many animal species prefer to mate with larger males, or males may prefer to mate with larger females. What distinguishes *Hilara* flies is that male preference for female size seems to depend on the size of the male. Large males uniformly prefer slightly smaller females, but small males show two distinct preferences: either females that are slightly smaller than themselves or females that are much larger than themselves. The likely explanation for this peculiar mating system is beyond the scope of this article, but the main elements are (1) male avoidance of sperm competition from other males, and (2) a strong correlation between female size and fertility.

### **How a swarm mixes itself**

A swarm that simply rotated around and around would pose a problem for its members because flies would always travel with the same neighbors. Traveling with a stable group would be no different from being part of a very small swarm, and a very small swarm would mean few mating opportunities. *Hilara* has solved this problem by making the elongated ends of the swarm fuzzy. During each swarm rotation, some flies stay within the swarm's main body while others fly out to various distances before doubling back to rejoin the swarm. These excursions result in a constant turnover of nearest neighbors and hence a constant renewal of mating opportunities.

### **The value of the small and inconspicuous**

Nearly everyone understands the value of preserving plants, fish, birds, and large mammals. But what of the littlest members of the community? What about preserving tiny flies that hold marvelous surprises and offer opportunities for advancing our understanding of population genetics, cooperative behavior, and swarm robotics? What other secrets are waiting to be discovered in the area protected by the Bodega Land Trust?



**Ronald Hennessey, Ph.D.**

**Ron is a retired entomologist who has lived in Occidental since 2003. His constant companions are a gentle old dog and an emotionally-dependent cat that he rescued years ago from the county dump. Ron is an avid guitarist and a great fan of anything that crawls or flies.**

---

## FROM THE ARCHIVES: CHANSLOR RANCH

By Robin Rudderow, Archivist, Rancho Bodega Historical Society  
(Reprinted Courtesy of Rancho Bodega Historical Society)

Several people have recently asked me about the history of Chanslor Ranch. Here is what I've been able to find out.

A 437 acre dairy ranch, known as the "Sutherland Ranch", was purchased by James Coleman (born in Dublin, Ireland in 1825), probably in the 1860's following the subdivision of Rancho Bodega. The 1877 atlas shows a house on the ranch, in the same location where the current ranch house is located, and it was then called the "Ocean View House."

Sutherland was Coleman's second ranch. His first, purchased in 1857, was the 1000 acre "Coleman Hill Ranch," located between Occidental and the coast, near where Fitzpatrick Lane meets Joy Road. In 1871, Coleman leased a portion of the Sutherland Ranch to John Genazzi, and the rest of the ranch to N. Keefe. In approximately 1877, Hollis Hitchcock, the then owner of many large tracts of land in Rancho Bodega, acquired Sutherland Ranch.



The Upper Pasture, overlooking the Pacific Ocean with a glimpse of Salmon Creek

*Marie Hoff*

Salmon Creek was a lot bigger then, and boats could go up and down the creek to the ranches behind Chanslor Ranch. Catherine Poncia lived on the ranch as a girl. She told Abby Killey stories about a ship that wrecked at the mouth of Salmon Creek, providing her family with firewood, and about how she worked the fields planted with potatoes in the morning and THEN walked into Bodega Bay to go to school.

Fast forward to 1948 and enter John A. Chanslor. The ranch had grown to 705 acres, and under Chanslor's stewardship was operated as a guest ranch, offering horse back riding on the beach and on the trails above the ranch. Chanslor died in 1969 at the age of 58, leaving no wife or children, just a \$1.1 million estate that included Chanslor Ranch.

Chanslor Ranch was purchased by the Bodega-Salmon Creek Corporation, Tom Taylor, President, Verne Paule, Secretary, plus George Rich and Dave Heiman. Carrying on in the spirit of John Chanslor, the new owners operated the ranch as a dude ranch, an early version of a bed and breakfast. Bob and Bonnie Hardenbrook were the ranch managers. They moved to the ranch in 1973, their own three horses in tow, and set up the day-to-day operations. Bonnie tended the 10 or so horses and maintained the guest quarters, while Bob, an award winning chef, cooked for the guests and maintained the ranch lands. Guests paid \$16 a day. A special guest who frequented the ranch during those days was Liberace - apparently the stories of his stays are quite salacious. The Hardenbrooks left the ranch in 1984 after 10 years of making friends from around the world.

My records are sparse for the next 10 years, other than noting that the owners made a couple of efforts to break apart the acreage, or expand the operations, of Chanslor Ranch. In December 1976 they applied for a 4 way lot split, and in 1985 they applied for a 30 room expansion. Both were apparently defeated.

In 1994 George Gross leased Chanslor Ranch. Gross, who had spent his summers at a family dairy farm in Wisconsin, brought his enthusiasm for ranching to Bodega Bay via Los Angeles in 1991.

Bodega Bay is along the Pacific Flyway, a migratory route consisting of a string of coastal stopovers stretching from Alaska to South America. Chanslor Ranch, bounded on the north and west by Salmon Creek, has a large wetland that serves as a stop-over for ducks and other birds. The Chanslor Ranch wetlands are an important habitat for this area due to the natural diversity of the estuary, which includes a tidal lagoon, a freshwater marsh and pond, riparian habitat, a wet meadow, and seasonal pools, all favored by waterfowl and seabirds looking for good eating and resting.

George Gross promoted the protection of the wetlands as a wildlife habitat and an environmental educational preserve. For some period of time, 250 acres of rare estuary habitat at Chanslor Ranch was dedicated as a Wetlands Wildlife Preserve. In 1996, 5 high rise osprey nesting platforms were installed. PG&E donated the drilling for eucalyptus poles to hold up the platforms. Also, a turtle island was built in the pond to improve the habitat for the western pond turtle.

Gross offered guided horseback rides and hiking trails around the wetlands, and he embarked on numerous fundraising projects to promote the wetlands. In 1995 the Bodega Bay Seafood Art and Wine Festival was started to benefit the wetlands project. The festival drew 8,000 people in 1995, and by 1997 the attendance was up to 9,000. Traffic on Highway One was tied up all afternoon [ - let's keep that in mind the next time someone proposes an event center on the Coast!]. The last festival in Bodega Bay was in 2003, after that the festival was held in Bodega.

Guests at Chanslor Ranch have long enjoyed exploring Indian culture. Indian trails and artifact sites indicate human habitation at Chanslor Ranch as long as 8,000 years ago. Chanslor Ranch was the site of a chert quarry, where Coast Miwok gathered the flint-like material for making arrowheads.

The ranch had been listed for sale as early as 1997, but in late 1999 or early 2000, the Bodega-Salmon Creek Company applied for the County to purchase a conservation easement at Chanslor Ranch. This would have limited development at the ranch and preserved it as open space. The County approved the acquisition, but had not agreed on a price. At the same time, the State Parks Department was considering purchasing the ranch as an addition to the state parks system. Unfortunately, neither of those options came to fruition, and in May 2000 the ranch was split into two large parcels and sold to private owners.

The purchaser of Chanslor Ranch in 2000 was Chanslor Ranch, LLC, which was managed by Charlene Schnall, a Healdsburg real estate agent. George Gross continued to operate the ranch.

Abby Killey managed the two guest houses at Chanslor Ranch from 2001 to 2004. During that time the property hosted only three campsites. Classes from Bodega Bay to San Francisco came to the ranch to study the wetlands.

In 2014 Chanslor Ranch was purchased by Y&N Chanslor Ranch, LLC for \$2,950,000. The website [www.chanslorranch.com](http://www.chanslorranch.com) promotes at least 17 camp sites on the property - many of them accommodating multiple campers - as well as RV camp sites, rental of rooms in the ranch house, horseback riding and kayaking.

Do you know any other history about Chanslor Ranch?

Please let us know!

### **... an update on Chanslor Ranch by Hazel Flett, Bodega Land Trust**

New owner Jonathan Wang wished to improve the stewardship of the land. From 2015 Marie Hoff rotationally grazed a small flock of Ouessant sheep with the goal of reducing dead brush and stimulating plant growth. In 2016 the ranch added Scottish highland cattle and then two alpaca and a llama. In December 2016 Richard King, a grassland and holistic management specialist, led a grazing workshop that surveyed the results of these practices. The horse pastures were found to be severely overgrazed; they needed resting to reduce compaction and various techniques to stimulate plant growth. A consultant devised a holistic system for managing horses, and many horses were moved to an adjacent ranch.

Marie Hoff's Grazing Management Plan (February 2017) aims to *"realign grazing with the historic pattern of wildlife, thereby rejuvenating a healthy and dynamic ecosystem. It is grazing that the grassland system thrives upon, and a grassland system that keeps the hillside stable and intact."* The riparian areas are heavily under grazed *"with decaying matter expelling carbon dioxide into the air at a rate unbalanced by absorption via green plants."* Marie began to move 7 cows through *"the area at a rate of 1/4 acre per 1 to 3 days. The cattle mowed down grasses, blackberry vine and coyote brush, both dead and green, trudged through the brush, broke up overgrown area with their eating and by rubbing their bodies for scratching, left fertilizer, and mildly tilled the soil with their hooves, also leaving a nice layer of litter (broken up dry plants) to act as mulch. Within days after their exit areas that had been mainly dead for decades began growing fresh green grass."*

Chanslor Ranch has also been the site of coho introductions, from captive breed stock programs, into Salmon Creek in an effort to renew/restore the coho population of the creek. These introductions, managed by California Fish and Wildlife Service, are a memorable sight. From Salmon Creek estuary the fish head up the creek and its tributaries to spawn. The condition of the creek is a key factor in their success. •

---

### **WALKS & TALKS SERIES – LAMBING WALK by Hazel Flett**



Lambing at Bodega Pastures is what makes January, in my eyes, one of the loveliest times of the year. Green grass, new lives, attentive mothers - what could be better for a shepherd.

Visitors get to learn about pasture rotation, an important part of the environmental sustainability, feed hay to sheep and watch the frolics of baby lambs. They are shown the range of beautiful wool products from the sheep that help to keep the operation economically sustainable.

Thanks to visitor Barb for helping to deliver a lamb right at the end of the walk - the only ewe (a youngster) that needed help, during six weeks of lambing.

***MARK YOUR CALENDAR: LAMBING WALK 2018 will be on Saturday 13 January***



---

## **NORTH COAST FOREST CONSERVATION CONFERENCE: GROWING RESILIENCE IN OUR FORESTS AND WOODLANDS**

Susan L. Anderson, Bodega Land Trust Board

In June of this year, the Sonoma County Forest Conservation Working Group held the North Coast Forest Conservation Conference at Santa Rosa Junior College. It was an inspirational gathering of people in diverse sectors of forest conservation including forest landowners, forestry professionals, scientists, agency managers, Land Trust volunteers, tribal representatives, and elected officials. Generally speaking, the conference addressed two overarching themes.



*North Coast Forest Conference*

The first, was an examination of the status and future of North Coast forests. Presentations were compelling from scientific, economic, policy, and moral perspectives. The conference organizers highlighted the fact that private landowners are emerging as key contributors to the preservation of forests. Approximately 85% of Sonoma County forests are on private land. Significantly, however, landowners face many poorly understood challenges including: climate change with its associated alterations in our water and fire regimes,

new and destructive invasive species, habitat degradation from illegal marijuana cultivation, and constantly evolving regulations and approaches for road and streambed restorations.

The organizers painted a picture of a dramatic difference between forest conservation in other parts of the western U.S. and Sonoma County. In much of the west, the federal government, logging companies, and conservation organizations are the dominant players in the forest management world. Yet, for over a decade, the responsibility for health of our forests in Sonoma County is shared with private landowners, Land Trusts, and public/private/nonprofit partnerships (exemplified by Sonoma County Agricultural Preservation and Open Space District projects). Now, there are also private firms involved in conservation impact investing. The evolving market for forest carbon credits is one of the key trends shaping these emerging relationships.

An impressive aspect of this new perspective on our forests was a rather fearless effort to reinforce the moral viewpoint for preserving our land. County Supervisors James Gore and Lynda Hopkins implored us to remember our children's future and to work with local government toward practical actions -- bringing our communities and families together. The Kashia Band of the Pomo and the Hoopa tribes were represented by Reno Franklin and Darin Jarnaghan Sr, respectively. They both reminded us that the forests are not just a resource to be either commoditized or conserved but that they give us places to nourish ourselves, to gather, to live, and to revere life. They stated clearly that Native Americans have managed this land for 10,000 years. Active management is not a new concept! Dr. Kat Anderson, the banquet speaker and author of the renowned book "Tending the Wild", spoke of a need to "re-indigenize" the forests— essentially to embrace these Native American prac-

tices and to cultivate a spiritual dialogue with the earth. Finally, Dr. Robert Ewing, Visiting Scholar at UC Berkeley and former Weyerhaeuser executive lectured on the need for us to provide inspiring leadership that will activate natural human instincts to revere nature and work towards a sustainable future for our children. It was fascinating to hear such a diverse group articulate a similar mandate.

The second overarching theme was to showcase both practical resources available to landowners and examples of collaborative land management. Forest conservation projects often involve collaboration with neighbors, government agencies, nonprofits and, of course, foresters and private logging companies. It was recommended that landowners develop clear goals for their land, in general, and for specific projects. The size and complexity of the land area as well as the exact management challenges dictate the level of detail and professional input required. Larger and more difficult projects benefit from the development of a formal forest plan.

Forest practices that were widely recommended include: thinning of Douglas Fir encroaching on oak woodlands, removal of invasive plants, consultation with experts for disease-related problems, and promotion of road and stream improvements. Resources to aid landowners in accomplishing these goals are available.

For example:

- 1) University of California Cooperative Extension (UCCE) is an excellent resource for disease management issues.
- 2) The Natural Resources Conservation Service (NRCS) provides free advice and financial assistance on road and stream projects, degraded plant conditions, pest control, and other topics.
- 3) CalFire sponsors the California Forest Improvement Program (CFIP), a reimbursement program, applicable to properties with at least 20 acres of forest. Practices eligible for reimbursement include: plan development, forester supervision, site preparation, forest thinning, planting, and more.
- 4) Resource Conservation Districts (RCD) are broadly helpful in clarifying land management goals, erosion issues, and pasture and forest management schemes. Specifically note there is an excellent Handbook for Forest Ranch and Rural Road improvement on the Mendocino RCD website.

If you have worked with some of these groups in the past, note that eligibility and cost sharing requirements have been eased and also consider that collaborative projects among adjacent landowners usually have a higher funding priority.

In closing, over 33,500 acres of redwood, 58,000 acres of oak woodland, and 78 miles of trout stream (ref. Bill Keene, General Manager, Sonoma County Agricultural Preservation and Open Space District) have been protected in Sonoma County. Our county can become a national example in preserving working lands, wild lands, and communities, while developing new economies. The Bodega Land Trust with 12 conservation easements and a clear vision to further promote these broad goals in Western Sonoma County, is an important voice in promoting a collaborative vision of sustainability.

For more information Susan Anderson can be contacted at [suzanderson4@gmail.com](mailto:suzanderson4@gmail.com)

---

## UPDATE REGARDING FREESTONE – PROPOSED “HOSPITALITY CENTER”

Eric Koenigshofer, Attorney at Law

Many of you are following the proposal in Freestone to develop a “Hospitality Center” on Bohemian Highway at the site of the historic barn across from the Wildflour Bakery. The proposal came to light in January and was met with substantial resistance from people from Freestone and surrounding towns and neighborhoods.

At this time, the future of the proposal is uncertain but considerable progress has been made to prevent such a development. A major commercial development such as that proposed is incompatible with Freestone and the surrounding area and is also inconsistent with the Sonoma County General Plan.

While researching General Plan policies and zoning on the project site, I discovered that the Commercial Rural (CR) zoning category was incorrectly applied to many properties in Freestone. In fact, the General Plan states unequivocally that there is to be very limited CR zoning in Freestone. The General Plan limited CR zoning only to properties which were commercial in 1989. Somewhere along the line someone made an error in mapping the zoning in Freestone. The error in mapping created a situation where, in addition to the properties which were in commercial use in 1989, many residential properties were also mapped as CR. This was a direct contradiction of the policies in the General Plan.

Properties in commercial use in 1989 included the Freestone Store, the Wishing Well Nursery, Osmosis, Wildflour Bakery (previously Rocco’s bar and burger joint and a feed store and auto repair shop) and, the Phelps Tasting Room (formerly Pastorale).



*Freestone Store*

Supervisor Lynda Hopkins and Tennis Wick (Director of the Permit & Resource Management Department) concurred that the mapped zoning does not reflect the policies in the General Plan. Supervisor Hopkins took the matter to the Board of Supervisors which agreed to allocate staff time at PRMD to correct the zoning so that it conforms to the General Plan. This process will unfold later this year.

This is a great turn of events in that the proposed “Hospitality Center” relied in large part on the erroneous CR zoning. Another critically important benefit in conforming the zoning to the General Plan is prevention of residential properties from converting to commercial uses. This will allow Freestone to avoid excessive commercialization.

It is important that people continue to follow the process in Freestone. The outcome I suggest above will only occur if the community makes it clear that Freestone is off-limits to excessive commercialization. •

---

## SALMON CREEK WATERSHED COUNCIL'S NEWEST PROJECT

By Diane Masura and Noël Bouck

The Salmon Creek Watershed Council's newest project is a Welcome Packet. After about four years of saying how handy this would be for newcomers, a subcommittee (Diane Masura, Bob Fink, and Noel Bouck) finally got down to it and the booklet is developing quickly. As the emphasis is on the land stewardship that has long been a primary goal of the Council, the booklet includes sources of information on how to live gently and sustainably on West County land. It covers the details that a newcomer might need to set up life here and, in hopes of encouraging a vibrant sense of community, a large section on volunteer opportunities as well as listings of the environmental and cultural resources we all enjoy. Sample sections on water scarcity and the disappearing coastal prairies are reproduced below.



*Salmon Creek Watershed Council*

***Living with water scarcity.*** In West County water is a precious resource, a commons that we share with all our neighbors, from the people next door to the pumas that roam our woods, from the salmon in our creeks to the redwoods in our forests. For the health and survival of all living things in our part of Earth keep two things in mind. First, use as little water as you can, both indoors (short showers, water saving-appliances, especially toilets, washing machines), where domestic use can be as low as 25 gallons/person/day and outdoors (hand/drip water gardens, landscape with less thirsty natives). Second, manage with care the surplus that winter rains supply. We have been inspired over the years by Brock Dolman's storm water motto: slow it, spread it, sink it, and, more recently, save it. A booklet that explains how to use storm water to protect and replenish surface water and groundwater resources, offset well-water use, reduce erosion and pollution, and provide water security for your property can be found at [sonomarcld.org/html/rainwater.htm](http://sonomarcld.org/html/rainwater.htm). For more advice for owners of small properties see [oaec.org/our-work/projects-and-partnerships/water-institute/publications](http://oaec.org/our-work/projects-and-partnerships/water-institute/publications)

***Caring For Grasslands.*** The native California perennial grassland, or coastal prairie, persists as a strong component in many grasslands in the fog belt of Sonoma County. In recent decades, we have come to understand better how the root systems of grasses, particularly long-lived perennial species, hold water in the soil and allowing it to percolate into underground aquifers. Recent studies have demonstrated that management of grasslands through periodic, carefully timed grazing can capture CO<sub>2</sub> from the atmosphere and sequester it in the soil. For grasslands to continue these valuable eco-services effectively, they must be protected from overgrazing and also from under-grazing, which supports the encroachment of shrubs and trees. Mowing and weeding can be useful management tools on small parcels, but if you own a larger parcel it would be good seek advice from rangeland professionals. For ideas about how to maintain this important resource you can go to [sonoma.edu/cei/prairie/management/index.shtml](http://sonoma.edu/cei/prairie/management/index.shtml) or simply call or visit our splendid local RCD at 707-823-5244. [goldridgercd.org/](http://goldridgercd.org/). •



---

**MONITORING REPORT AND A  
THANK YOU TO MONITORS AND LAND HOLDERS  
by Sharon Sadler, Bodega Land Trust**

## **2016 Recap**

Thank you once again for everybody's help and enthusiasm. We had a great 2016. This is truly a *Community* Land Trust! We worked with twenty volunteer monitors this year.

We got to work with a few new local monitors in 2016 including Marc Dunia, Steve McNeal, Colleen Falconer from the Bodega Coffee Shop and intern Ryan Galloway. We also were blessed with the time and talents of returning monitors including Carol Sklar and Jack Proctor who led three monitoring trips each. Jay Sliwa led the steep Coleman Valley Canyon walk and has done so for the last eight consecutive years! Eileen Jang joined Fay Creek Corridor and the Silbershatz/Owyang easement teams. Jackie Screechfield led Big Tree and Jennifer Lane Trail walks for the second year running.

Lori Curtis has monitored various easements since 2009. She and Paula Smith have been monitoring the Brown's Canyon Easement for four years. Jeremy Sharp has been the fearless leader for Finley Creek for more than ten years. Bart Simmons monitored Sherer Easement for the second year. Connie Meyers, Marsha Klapperman, and Kathleen Kamins monitored the Redwood Creek Easement. Michael Parrish took the lead on the Freeman easement. Joan Mortenson and Janet and Walt Drucker monitored Fay Creek.



*Fay Creek*

*Jerry Dodril*

## **2017**

Aaron Dal Poggetto, an intern from Sonoma State's Environmental Studies Program and a Petaluma local, worked tirelessly January through April 2017 in the office, and helped to man the Bodega Land Trust's table at the Fisherman's Festival. After graduation he then immediately got a job as a Park Aide at Samuel P. Taylor State Park in Marin and is loving it. Tay-

lor from Santa Rosa Junior College also a Petaluma local helped in the office collating monitoring materials.

We held a Monitor/Volunteer Appreciation Lunch at the Silbershatz/Owyang Easement on August 26th and were kindly and generously hosted by Diana Owyang and George Silbershatz. It was a real joy to visit with everyone, relax, eat and sit by and in their pool.

If you are interested in monitoring or volunteering you can always call Sharon Sadler, Monitoring Coordinator, to join a monitoring crew for 2017/18 at 707-483-5407.

**Bodega Land Trust's  
Spring  
Easement Monitor Training**



**Salmon Creek Falls Education Center  
Salmon Creek School**

**Earth Day!**

**Sunday April 22, 2018**

**10:00 AM-2:00**

Questions, or to let us know you are interested in attending,  
Call: Sharon Sadler at 707-483-5407

---

**CONSERVATION EASEMENTS  
(FROM BLT'S NEW CONSERVATION EASEMENT BROCHURE)**

**CONSERVATION OBJECTIVES**

**Riparian and Watershed Values** - Coastal watersheds in western Sonoma County support a variety of endangered and threatened species such as coho salmon, steelhead trout, California freshwater shrimp and red-legged frogs. Habitat degradation and decreasing summer flow in the creeks threaten the environment. The Bodega Land Trust seeks to restore ecosystem balance by protecting stream corridors and aquifer recharge areas, restoring riparian habitat, improving water quality, and protecting instream flow.

**Agriculture** is an integral part of the western Sonoma County landscape and economy. Generations of ranchers and farmers have raised sheep, dairy and beef cattle, goats, apples, grapes and other crops. Estate taxes and development pressure make it difficult for agricultural families to maintain agricultural uses of land especially when landowners pass away. Bodega Land Trust wants to sustain the local agricultural community. Agricultural easements are a vital tool in this effort.

**Coastal Prairie and Forests** - The coastal prairie and coastal mist forests found in western Sonoma County constitute rare, threatened and important ecosystems in California. Both support great biodiversity, e.g., the spotted owl. Much of the coastal prairie is currently utilized for agriculture. Private, non-industrial landowners own over 65% of the forestland. Conservation easements ensure the continuity of these forests and coastal prairies and will allow for the continued good health and habitat values of our agricultural lands.

**View Sheds** - The country roads of western Sonoma County provide some of the most delightful scenery in California. Residents and tourists alike cherish the many different views while driving on west Sonoma County roads: open pastoral panoramas, ocean views, rolling hills, and redwood and coastal oak forests. Conservation easements protect the beauty of western Sonoma County that attracts the visitors on whom much of our economy depends.

### **WHAT IS A CONSERVATION EASEMENT ?**

Protects your property forever and Can prevent unwanted development

Can help keep your farm, ranch or land in the family

Provides a way to keep your property beautiful

Can preserve forest, streams, water & agriculture  
and often gives you a SIGNIFICANT TAX DEDUCTION

### **HOW DOES A CONSERVATION EASEMENT WORK?**

**You tell the Bodega Land Trust:**

What you want to prevent & What you want to permit

**You enter into a written agreement with the Bodega Land Trust (BLT):**

Giving BLT the legal right to **prevent** the things you want to prevent and **protect** the things you want to protect; This agreement is recorded, and binds you and all future owners of the property, ensuring protection forever. By choosing to give up some rights (for example, to cut the forest) you may receive a substantial income tax deduction.

### **WHAT HAPPENS AFTERWARD?**

BLT monitors the easement annually to ensure the protections are observed.

Monitoring times are arranged with your agreement.



**FALL HARVEST  
COMMUNITY DINNER  
SILENT AUCTION**

**BID EARLY & BID OFTEN**  
**THIS IS OUR OUR MOST IMPORTANT FUNDRAISER**

**SATURDAY, NOVEMBER 4TH 2017  
5:30 ~ 8:30 PM  
MCCAUGHEY HALL, BODEGA, CALIFORNIA**

**FALL HARVEST DINNER**  
CLASSICAL GUITAR BY PABLO RODRIGUEZ  
DINNER PREPARED BY LOCAL CHEFS  
**JODIE RUBIN & ALYSSUM REVALLO**

**\$20 / \$15 IF YOU BRING A SALAD OR DESSERT TO SHARE  
(\$10 TAX DEDUCTIBLE DONATION)**

INFORMATION [BODEGALANDTRUST.ORG](http://BODEGALANDTRUST.ORG) 707.874.9001

Find us on 

---

**PLEASE SUPPORT BODEGA LAND TRUST  
WE NEED YOUR SUPPORT.... THANK YOU!**

I would like to join or continue my membership at:

☐ \$25   ☐ \$50   ☐ \$100   ☐ \$500   ☐ \$100   ☐ Other \_\_\_\_\_

Please mail to: **Bodega Land Trust, PO Box 254, Bodega, CA 94922**

Make checks payable to: **Bodega Land Trust**

I am interested in being involved as:

- ☐ Board Member:
- ☐ Volunteer:
- ☐ Easement Donor: