

eacNews

Environmental Action Committee of West Marin

INFORMATION, UPDATES, INVOLVEMENT • SPRING 2004 • EAC, BOX 609, PT REYES STATION 94956

Dune ecosystem at Lawson's Landing Sand Quarry Should Be Shut Down

EAC has asked Marin County to shut down the Lawson's Landing sand quarry because the permit conditions have been violated and the quarry is damaging one of the richest dune ecosystems in California. Tomales Dunes, at the mouth of Tomales Bay, is home to at least 17 rare, threatened or endangered species, and is one of only eight places in North America where Pacific golden plovers overwinter. This is one of the few dunes ecosystems in California whose dunes have not yet been totally overrun by invasive European beachgrass (EBG). Tomales Dunes is identified in Marin County's Local Coastal Plan as an environmentally sensitive habitat area. Section 30240(a) of the California Coastal Act protects such areas "against any significant disruption of habitat values."

Tomales Dunes also has some mobile dunes, completely bare and shifting slowly with the wind. From these mobile dunes, the quarry takes up to 60,000 tons of sand each year for use in concrete, dairy barns, gardens, and golf courses. One result of the quarrying and other disturbances to the dunes is that European beachgrass is taking over both the vegetated and the mobile dunes, with a catastrophic effect on the ecology of the area.

The spread of European beach grass is a particular hazard for western snowy plovers, a threatened species that nests on sand. Snowy plovers need the low, sparse vegetation that native grasses provide; they will not nest in beachgrass, which grows high and dense and provides excellent cover for predators. Woolly-headed spineflower (*Chorizanthe cuspidata* var. *villosa*), considered as endangered by the California Department of Fish and Game, is present in the quarry and is also threatened by the spread of EBG. The Pacific



Tomales Dunes, with Tom's Point in the background



The quarry site

sand bear scarab beetle, which was previously found in the quarry area, has not been recorded there since 1998.

Sand quarrying at Tomales Dunes began in 1971. The Board of Supervisors approved the current quarrying permit in 1996, but the conditions attached to the permit have been violated.

Before the permit was issued, for example, the owners were supposed to remove the small amount of EBG that had invaded the quarry. This was not done, however, and by 1999 the owners' own consultants noted that EBG had spread to cover more than a quarter of the 23-acre quarry site. In 2003, noting that EBG "is slowly encroaching upon the open sand and native vegetation," the consultant told the owners, "It is our recommendation, and has been in past years, that the European beachgrass be removed from this quarry before it out-competes the native vegetation."

The owners have also ignored a condition that requires them to restore an abandoned quarry site, known as 76-04. Instead, the site is now completely overrun by European beachgrass and iceplant. In 1999, consultants hired by the quarry owners stated, "In past monitoring reports, it was recommended that the European beachgrass invading the old quarry site be removed to prevent it from out-competing the native vegetation and stabilizing the dunes. However, no remedial action has occurred, and... any attempts now to rid the quarry of this species would probably be futile."

EAC's request is also based on the fact that in approving the Quarry Permit, the Planning Commission made the scientifically erroneous finding that "the quarry operators

SCOTT HEERBAND

TERRY NORDBYE

continued on page 3

Keep Marin GMO-free

EAC is supporting a ban on the growing of GMOs in Marin. What's a GMO? It's a Genetically Modified Organism. GMOs are produced when scientists insert genes from various organisms (human, plant, animal, bacteria or virus) into plants. This technology differs fundamentally from traditional plant breeding in that it forces the exchange of genes across species barriers – an exchange that does not occur in nature. For example, genetic engineers have inserted viral and fish genes into tomatoes, spider genes into goats, jellyfish & chicken genes into potatoes and even human genes into rice.

Most commonly, the introduced gene is “built” of DNA from viruses and bacteria, which are chosen because of their ability to infect the host plant, that is, to overcome its defense mechanisms against foreign DNA. For technical reasons, a gene with antibiotic resistance may also be added to genetically modified organisms. Once inserted, the engineered genes are passed on to future generations. They may mutate, recombine with viruses, or be transferred to closely-related plants, with unknown and largely unstudied consequences.

The main genetically engineered crops are corn, soy, canola and cotton, though hundreds of other genetically modified crops are being developed. The main introduced characteristics are resistance to certain proprietary pesticides (such as Monsanto's Roundup) and the production of insecticides. A new branch of genetic engineering, called “pharming,” creates plants that produce pharmaceutical drugs and industrial chemicals.

EAC has asked for a ban on the growing of GE crops to be adopted as part of the Marin Countywide Plan, now being revised. There is also an effort to put a voter initiative banning GMOs in Marin on the ballot in November. The proposed ban does not apply to genetically modified organisms that are cultivated indoors for medical uses.

At present, there are no commercially grown GMO crops in Marin. Now, before GMOs become a factor in Marin agriculture, is the time to call a time-out in order to learn more about the impacts GMOs would have on our environment, health, agriculture, and economy.

—Catherine Caufield

For our proposal to add a GMO ban to the Marin Countywide Plan go to www.eacmarin.org/campaigns/#countywide

For more on the voter initiative to ban GMOs go to www.gmofreemarin.org



Alien corn?



Some of the reasons why we believe a ban is needed.

ECOLOGICAL IMPACTS

Increased Pesticide Use: Many crops have been engineered to withstand otherwise lethal doses of pesticides. Farmers using Roundup Ready soybeans use 2 to 5 times more pesticides than farmers of conventional soybeans. The increased use of pesticides threatens our waters and wildlife.

Super Weeds: Excess spraying has also created pesticide-resistant weeds in many American states and foreign countries. Such superweeds may displace native plants, destroy sensitive habitats, and disrupt ecosystems. In addition, herbicide-resistant plants could themselves become unstoppable weeds if they invade areas where they are not wanted.

Danger to Beneficial Insects: A number of crops have been engineered to produce an insecticide in all their tissues, including the edible grain and roots. Lab and field studies have shown that these plants can kill non-target insects, such as butterflies and beneficial insects and microorganisms.

IMPACT ON AGRICULTURE

Contamination of Conventional Crops: Pollen from GMOs can travel great distances and cross-pollinate with other crops. Seeds of GMO can also spread and contaminate other crops. Contamination by GMOs will cost Marin's growing number of organic farmers their certification since Federal organic standards do not allow organic foods to contain GMOs. Moreover, Federal standards require “an adequate border” between organic crops and GMO crops, so even farms whose crops are not contaminated by GMOs will lose their organic certification if GMO crops are grown nearby.

Consumer Confidence: Consumer disquiet about GMOs is widespread in this country. There is concern that the FDA, EPA and USDA are not adequately regulating genetically engineered food crops. The potential for contamination by GE crops will undermine consumer confidence in the purity and wholesomeness of organic and conventionally farmed agricultural products.

Lack of Labelling: Because there is no requirement for GE foods to be labeled as such, Marin's reputation as a producer of high quality foods will suffer if there is not a clear ban on their use.

FOOD SAFETY AND SECURITY

Long-term Effects: Genetic engineering is a technology with unknown and potentially dangerous consequences, such as the creation of antibiotic resistant bacteria strains and introduction of new toxins and allergens into the food supply. We should wait until more is known about the long-term effects of GMOs before allowing their planting in Marin County.

Monopoly Control of Seeds: Food security is undermined by the strictly enforced monopolies held on genetically engineered seeds by the three chemical companies that now control nearly all the seed companies in the United States.

Quarry, from page 1



ERRY NORBYE

only mine blow sand, a renewable resource that is continually replenished through natural, wind-induced conditions.” In fact, as was documented in W.S. Cooper’s 1967 monograph of the coastal dunes of California (Geol. Soc. Mem. Bull. 104, pp.

37-38), the shoreline dunes have been over run by European beachgrass, which traps most onshore-blown sand. Thus, the mobile dunes are no longer a renewable resource, but a finite one which is being steadily destroyed by continued quarrying.

The sand quarrying also poses a danger to the larger Tomales Bay ecosystem, including downwind habitats that depend on replenishment by blown sand. The 2003 Biological Monitoring report by the owners’ consultant found that quarrying activities “are currently not impacting the eelgrass shoal or the downwind dune scrub habitat... It must be questioned, however, for how many more years this large sand dune can be mined before the amount of sand available to shift and blow to downwind habitats is depleted.”

The County has acknowledged that quarrying has damaged the dunes. In 1983 a County-commissioned study of the then-active quarry site 76-04 found that “the current sand extraction rate does exceed the rate of replenishment.” The Marin County Department of Public Works subsequently acknowledged that “this has resulted in a deterioration of the surrounding dunes.” In response to this, the size of the quarry was increased in 1990 from 23 to 38.5 acres.. This was supposed to allow for “replenishment” of half the site by blown sand while the other half was actively mined. However, the extraction rate has also increased, from an average annual rate of 30,000 tons in the late 1970s to the current annual limit of 60,000 tons.

In view of all the above, EAC believes that the Lawson’s Landing Sand Quarry Use Permit 96-442 should be revoked immediately. Reinstatement should be contingent on compliance with all conditions of this and previous permits for sand quarrying at Lawson’s Landing, on compliance with the California Coastal Act, and on a determination of what, if any, level of extraction will not cause deterioration to the dunes or any neighboring habitats.

—Catherine Caufield

For more information on Tomales Dunes and the sand quarry, go to www.eacmarin.org/campaigns/#tomales2

Polluted Beaches Update

Chicken Ranch gets attention; the others don’t

A County monitoring program last year revealed that some of West Marin’s most popular swimming beaches are polluted. Among the affected beaches are Muir Beach, Heart’s Desire Beach, Chicken Ranch Beach, Millerton Point, and all three testing sites on Lagunitas Creek.

Due to funding difficulties, the County is no longer monitoring freshwater sites adjacent to beaches, though these lagoons, creeks, and channels have had the highest pollution readings. Among the likely sources of pollution identified by County staff are several ranches, a licensed waster disposal facility on the East Shore of Tomales Bay, the State Park toilet at Heart’s Desire septic system, horses, and home septic systems.

Undoubtedly the difficulty of identifying the source of the pollution and stopping it is a challenging task. So far, however, the County has decided to take action on only one polluted site, Chicken Ranch Beach in Inverness. The Open Space District, which oversees Chicken Ranch, is going to hire an independent consultant to prepare a water quality study and determine the source of fecal coliform and the potential causes for the high count. Once the study is completed, the county will “explore remediation”.

Supervisor Steve Kinsey can be reached at: Marin County Civic Center, San Rafael, CA 94903.

Fax 499-3645; email skinsey@co.marin.ca.us

To be notified by email of current beach status, go to www.earth911.org/WaterQuality/ex

For our letters to the County and the results of past monitoring, go to www.eacmarin.org/campaigns/#water

County, State, Feds gripped by Plan Mania

EAC is inundated with plans we must study, comment upon, and track through hours of meetings. Here are the current crop. Are we having fun yet?

County Development Code, phases I & II	59 pages
Draft Marin Countywide Plan	568 pages
Local Coastal Plan	4 pages
Marin County Open Space District Policy Review Initiative	80 pages
Tomales Bay State Park Preliminary General Management Plan	3 pages
Point Reyes National Seashore General Management Plan Update Concepts Document and background reports	194 pages
Draft Point Reyes National Seashore Fire Management Plan EIR	3 pages
Regional Water Quality Control Board TMDL Final Report	114 pages
Marin County Watershed Plan	343 pages
Total	3049 pages

Thanks to all who have supported EAC in 2004

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We regret that we cannot list all our donors, but we appreciate every one. Thank you for supporting EAC!

Tom Thornley: a gift to the future

From his home in Dillon Beach, contractor Tom Thornley had been waging a lonely fight against jetskis for a couple of years. "Then I read in the Point Reyes Light that EAC was working to ban them," says Tom, "and, boy, it was like the cavalry arriving!" Tom and his longtime partner, Robin Nelson, became members of EAC and eventually Tom joined the board.

Recently, Tom drew up a new will that leaves \$50,000 to EAC for the protection of Tomales Bay. When we thanked him for his generosity, he demurred, saying, "My gift is a logical extension of EAC's work to protect the place I love. I raised my children on Tomales Bay. The Bay is an important part of my family and who we all are. The reason I'm leaving money to EAC and not another group is because of the A in EAC."

As Tom says, a bequest to EAC is "a way of making a gift to the future." If you would like more information on how to include EAC in your estate planning, ask for our brochure on the subject or visit <www.eacmarin.org/bequests.htm> for sample language and other useful information.

EAC 2003 Financial Report

PROFIT & LOSS STATEMENT

INCOME

Contributions	\$6,857	73%
Investments & interest	730	1%
Special Events	22,878	25%
Sales	1,605	2%
Total Income	\$ 92,070	100%

EXPENSES

Program	\$1,993	75%
Administration	9,529	12%
Fundraising	11,057	13%
Total Expenses	\$2,579	100%

NET INCOME \$9,491

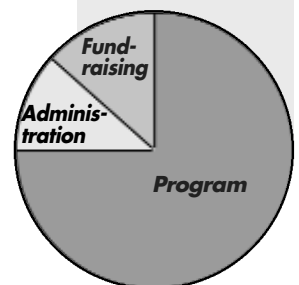
BALANCE SHEET as of December 31, 2003

Current Assets	\$7,804
Reserve Fund	35,547
Fixed Assets: Computers	1,568
Total Assets	\$3,860

Retained Earnings	\$63,860
Net Income	9,491
Total Liability & Equity	\$73,351

EAC EXPENDITURES

Fundraising:
 \$11,057 — 13%
 Administration:
 \$9,529 — 12%
 Program:
 \$61,993 — 75%



Taking Responsibility: Pathogens in Tomales Bay

By now most people realize that Tomales Bay has water quality problems. Unacceptably high levels of disease-carrying pathogens have made some of its beaches unfit for swimming (see a ricle on p. 3) and threaten oyster-growing operations with closure. To determine pathogen levels, we generally monitor for fecal coliform bacteria (or FCB, one of which is the notorious *Escherichia coli*) because it is easy to detect and culture.

FCB is found naturally in the digestive tract and feces of human beings and other warm-blooded animals and birds. It aids in the digestion of food and is not in itself dangerous to humans. However, if the host human or animal is sick, their feces will carry the virus, bacteria or parasite that made them sick. Thus, though FCB are not harmful themselves, their presence is an indicator of the possible presence of harmful organisms. Swimming in waters with high levels of fecal coliform increases your chances of being exposed to pathogens that cause illness.

In order to comply with the Clean Water Act, the Regional Water Quality Board is limiting the amounts of FCB that are to be allowed in Tomales Bay. The new limit is called the Total Maximum Daily Load (TMDL). But because testing for FCB does not identify the source of the bacteria (humans, domestic animals, or wildlife), the process has turned into a finger-pointing exercise, with homeowners, ranchers, boaters, and waste disposal site operators blaming one another—not to mention raccoons, seabirds, and seals.

Promising method for tracking microbial sources

If it were possible to identify the chief pollution culprits, the clean-up would be less contentious, more efficient and less expensive. Happily, a new technique, known as microbial source tracking (MST), is bringing that day nearer. MST attempts to connect a given microbe to its host by isolating various “markers” for a given microbe, such as antibiotic resistance or DNA profiles, and finding a match with markers for that same microbe collected from different host species.

For each pathogen being tracked, MST requires a sizable “reference library” of DNA from that pathogen for each species that may be contributing to water pollution. In the case of *E. coli*, for example, DNA from the *E. coli* in the water sample is compared to DNA from *E. coli* that has been collected from humans and other possible polluters. This is made complicated by the fact that pathogens have significant genetic variation not only from species to species, but also from one location to another and over time. In fact *E. coli* DNA can evolve and change every two years. Thus for each species and each pathogen, the library would need samples from a wide range of individuals from a variety of



Don't poo-poo his impact.

populations from different geographical areas, all regularly re-collected.

A recent MST analysis of Morro Bay, identified four main sources of pollution, (birds 24%, humans 17%, cows 15%, dogs 9%). However, the largest proportion of bacteria (26%) could not be identified. A more extensive library might have rearranged or expanded the list of polluters. The

cost and difficulty of establishing and maintaining such libraries is hindering the wider adoption of MST.

Mansour Samadpour, who conducted the Morro Bay study and who has started a company specializing in MST, claims that a library of half a million strains of *E. coli* taken from a range of warm-blooded species would be adequate to cover the entire country, if regularly updated. He estimates the cost to be at least \$10 million, but this estimate is considered over-optimistic by many others working on MST.

The EPA has convened a working group to develop standards and methods so that MST becomes a more reliable—and useful—technique. At its present level of sophistication, MST is not likely to be able to pin the blame for Tomales Bay's pollution problems definitively on either of the main candidate groups, human or cows. Even if, as some hope, birds or sea lions were found to be a major cause of pollution, our responsibility to clean up after ourselves would remain. The fact that wildlife contribute bacteria to Tomales Bay does not absolve humans from the responsibility of reducing the bacteria that they contribute directly or through ranching. Working together to reduce the human impact on the watershed is, in fact, why homeowners, boaters, campers, and ranchers have come together on the Tomales Bay Watershed Council.

—Catherine Caufield

Volunteer Opportunities

STOP NEEDLESS SUFFERING: Make sure that no one in West Marin has to go to bed cardless as a result of our beautiful Wendy Schwartz cards being out of stock at local shops. Replenish EAC's cards at exclusive locations. One hour once a month.

THRILL TO THE EXCITEMENT of an EAC mailing party! Join the super-exclusive EAC mailing group and gourmet cookie club. A great opportunity for those hoping for full-time employment in the fast-growing label-affixing industry! 2-3 hours once or twice a year.

Call 663-9312 to sign up or for more information.

Stop Drive-in Camping at Heart's Desire



*Let's not
pave
Paradise.*

In response to universal opposition, the State recreation and Parks Commission has agreed that a plan to open a drive-in campground at Heart's Desire Beach should be dropped. The proposal is part of the Tomales Bay State Park's General Management Plan. However, the actual wording adopted by the Commission leaves a loophole that could allow drive-in camping.

Heart's Desire is an increasingly rare and special place of solitude and quiet in the ever-rising din of our modern lives. Partly because of the low-impact nature of the public use of the park, Heart's Desire seems to be capable of renewing and restoring itself almost daily. Thousands of visitors can enjoy its charms on a long weekend, yet Monday morning the first visitor into the park will find the profound tranquility that is exactly what makes Heart's Desire so special.

Except as a means of arriving and departing, nothing about the park depends on or is enhanced by mechanical conveyance or accessory. Motorized camping, and the dependence on generators to power the electrical conveniences that are a common part of it, is contrary to the spirit of Heart's Desire.

The creation of a drive-in campground at Heart's Desire would fundamentally alter and damage a beautiful little park that has worked so well for so long. EAC and other supporters of the Park will continue to press for an unambiguous commitment to keep drive-in camping out of Heart's Desire.

Be a Dunes Docent

Learn about—and introduce others to—one of California's richest and most interesting dune ecosystems. Tomales Dunes, at the mouth of Tomales Bay, is the largest unprotected dune system in central California and supports at least 17 rare, threatened or endangered species. With its mobile dunes, dunes wetlands and amazing "Grand Canyon of the Sands", this is an astonishing and beautiful place.

If you would like to be trained as a dunes docent, please call Rick Johnson at 663-8386.

Beyond Organic

EAC has long been a supporter of agriculture in West Marin. We believe a healthy agricultural industry is important to the preservation of the character and landscape of West Marin. Though our comments on the Marin County-wide Plan, we have argued that to be healthy, agriculture must be sustainable, not only economically but also ecologically. Agriculture that minimizes its ecological footprint protects family farms, enhances agricultural incomes, promotes vibrant rural communities, buffers wildlands, enhances biological diversity, and reconnects food systems with ecosystems and the grocery list with the endangered species list. An ecological approach to agriculture encourages a seamless blend of working landscapes with healthy habitat.

This ecological approach goes beyond organic. Organic farming is certainly better for human health and better for the planet than its industrial alternative. However, current standards for organic farming do not go far enough. For example, even organic farming can harm creeks and wetlands and their associated endangered species by diverting large amounts of water and disturbing soil. And while consuming locally produced foods reduces environmental impacts from long-distance transport of food, it is still important to minimize the ecological impact of local food production.

Agriculture's ecological footprint can be reduced by going beyond organic, by farming in a way that protects riparian areas, wetlands and water resources. Row crops can be set back from sensitive habitats; farmers can conserve irrigation water or dry-farm. "Organic agriculture" must become "ecological agriculture" if it is to become truly sustainable.

EAC has tried to encourage and support ecological agriculture in many ways, including our work on the various Marin County Codes and Plans now under review (see article on page 3), our participation in the Tomales Bay Watershed Council, and collaborative efforts with Marin Organic. Nevertheless, we notice that over the past few years, there has been a breakdown in the prior history of cooperation and communication between the agricultural and environmental communities that led to, among other things, the creation and success of MALT. We are pursuing a number of ideas on how to rebuild the relationship. It is our hope that environmentalists and farmers can come together to promote ecological agriculture in a way that will benefit farmers, consumers, and the environment. In Marin, we are fortunate to have willing agriculturists and willing environmentalists; we hope that, with the revisions of the Marin Countywide Plan, the Local Coastal Plan, and the Development Code, the County will make use of this opportunity and encourage—or at least allow—these positive attitudes to take root and flourish.

—Gordon Bennett

Secret Septic Survey

The Coastal Conservancy is sponsoring a free private septic inspection program for homeowners in West Marin whose property is within 100 feet of any type of waterbody, such as a bay, coastline, stream, or ephemeral creek. An independent technician will inspect the tank and leach field and determine their condition. He will also offer advice about how to improve systems as necessary.

The inspection is completely confidential. The only information the technician will record is the general vicinity of the home (e.g. Inverness or San Geronimo Valley) the type of waterbody it is near, and the condition of the tank and field. No addresses are recorded. This general information will be used to get a better overall picture of the health of Marin's septic systems.

To sign up for a free inspection or to get more information, call the confidential septic hotline number: 415-473-2198.

For the latest on EAC activities & West Marin issues go to www.eacmarin.org.

New board member is for the birds

Rick Johnson, our newest board member, has a wealth of experience as a volunteer and activist. He has been a Peace Corps volunteer, a board member of Friends of Fitzgerald Marine Life Refuge, a tide pool docent, coordinator of the San Mateo County Breeding Bird Atlas, a field trip leader and bird song teacher to schoolchildren, and an organizer of the successful effort by Citizens for Orderly Growth to get a growth control ordinance adopted in Belmont. In 1992 the Audubon Society honored him with a statewide award for his wetland protection work.

Rick combined his expertise in business, health systems, and software to work for various health and computer concerns, including Stanford University Hospital.

After retiring, he and his wife, Maria Straatmann, herself a much-valued EAC volunteer, moved to the Inverness Ridge. Here Rick started a second career, nature sound recording. Earlier this year, he launched an online course called "Introduction to Bird Song and Sounds" (www.hear-birds.com), which Jules Evens calls "the best introduction to bird songs I have seen."

We feel fortunate to have someone with Rick's energy, experience, and dedication on our board.



EAC Board

Anne Baxter,
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Jerry Meral,
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Go rdon Bennett

Bruce Bowser

Jules Evens

Rick Johnson

Lynnette Kahn

Peter Martinelli

David Press

Mia Monroe,
Associate member

EAC Staff

Catherine Caufield,
Executive Director

33rd Annual Potluck

Time: 6 PM Friday June 18th ● **Place:** The Dance Palace, Point Reyes Station

A West Marin tradition, EAC's annual meeting and potluck dinner is famed for the excellence of its food and drink, the high quality of its speakers, and the early hour of its completion (home by 9:30!). This year, Dr. Ignacio Chapela, whose discovery that genetically modified corn had contaminated stocks of wild corn gave rise to an unprecedented scientific and political controversy, will speak on *Stalking the Wild GMO in Mexico and Marin*. **Reservations** are essential! Call 663-9312 to make yours.

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