ESTUARY

TUGBOATS TOWING GIANT PLASTIC BAGS may soon be taking up to 20,000 acre-feet of water per year from each of two northcoast rivers — the Albion and the Gualala — to Southern California. Alaska Water Exports, part of an international consortium called World Water SA, has already shipped water from Turkey to Cyprus using the plastic bag technique. San Diego water officials are intrigued, but have told the company to get its permits, conduct its studies, and come back with a solid proposal.

THE BUSH BUDGET WOULD TERMINATE USGS' TOXICS Substances Hydrology Program and National Water Quality Assessment Program (in a $22 million cut), two programs with long-term studies underway in S.F. Bay. The proposed budget would in turn supply $10 million to the National Science Foundation for a new water quality grant program. See *www.usgs.gov/public/press/public_affairs/press_releases/pr1556m.html*

TERRORISTS COULD CONTAMINATE a water source with either a biological or chemical agent, or use a relatively small explosive to disable hydroelectric turbines that provide electricity to a wide area, according to a new report by the Pacific Institute for Studies in Development, Environment and Security. The report details how large water bodies, forests, farms, mines and even wildlife can be attacked, and makes suggestions for reducing terrorist threats (see *NowOnline*).

THE YOLO BYPASS WILDLIFE AREA GREW BY 12,808 ACRES this December. The $16.6 million purchase of historic wetlands, grasslands and creekside forest, as well as the mouth of Putah Creek, from the Glide Trust and Los Rios farms was funded by the state and facilitated by the Nature Conservancy. In related news, a Yolo Bypass Management Strategy was published last fall that seeks to provide a coordinated framework for a mix of public and private land uses in the bypass, and a balance of habitat protection, agriculture and flood conveyance. See *www.yolobasin.org*

WORKERS BROKE GROUND FOR A BRACKISH WATER DESAL facility in Alameda County late last year. The state-of-the-art-facility will use reverse osmosis membranes to remove salts and other minerals from brackish groundwater, and through blending, help lower water hardness levels throughout the county water district's service area.

Champions of a Wild Watershed

Tom Gamble's seen an eagle run after a mouse "like a cat with wet paws." His dad can identify a bird by the whistle of its wings, and says he's spotted blue oak seedlings this year for the first time in four decades. His grandad's gravesite, ashes scattered in the hills, was chosen as a home by the first nesting bald eagle pair in Napa County anyone can remember. Noticing these kinds of things comes from living on the land a long time, from walking and riding the acres year in and year out, from fencing it and finding its water and trying to get a living from it, the kind of time no scientist or government resource manager ever gets to give to a piece of land.

But pretty much everyone involved in a three-year-old partnership to create a Blue Ridge Berryessa Natural Area is as passionate as the Gambles, three-generation ranchers, about what landscape architect Robert Thayer calls "the dagger-shaped peninsula of wild, empty land dangling off the Mendocino National Forest and sheathed by Napa Valley vineyards and Solano County subdivisions."

This 750,000-acre chunk of land, gathered along a blue spine, is a place where California's human and natural histories collide. Here the silvery green serpentine rock cuts along the road evoke a zone of tectonic shifts, the golden grass is dotted with blue oak and the dirt bikes and jetskis coexist with mountain lions, tule elk and Canada geese. It's a place where miners have dug for gold and the government has taken land from settlers like Launcelot Gamble to build dams and bring water to the arid West. It's also a place where kayakers can get in a wilderness run and boaters can raft up to party, and where despite the fact that all the vehicles have oversized tires, they can still be burst by the fallen cone of a gray pine.

"People look up from the valleys on either side and see some kind of ridge up there that's low and dry and hot and doesn't have any pretty redwoods or big rocks, and they write it off; it's a kind of cognitive void," says U.C. Davis' Thayer of this place spanning five counties and harboring no more than about 5,000 people (see map page 2).

"But you go up there and you think you're in Montana or Wyoming," he says. "It's so remote you can't get a tank of gas between the Capay Valley and Clear Lake. It's a place you can really get lost. It gets under your skin and in your blood. That's why we all keep meeting, because we all really like the place."

This bunch of people first met in 1998, when Ray Krauss of Homestake Mining Company, which owned about 20,000 acres in the region at the time, decided to close up shop and invited the mine's neighbors to discuss what to do with its property. The company had already made a deal with U.C. Davis to convert its actual mining facilities and surroundings – world renowned as a model of environmental stewardship — into an environmental research reserve. But Krauss was still scratching his head about what to do with an 8,000-acre plot – park or public land or private grazing or what? The plot bordered the new university reserve and a 16,000-acre federal recreation area.

According to Cal Fish & Game's Jim Swanson, who attended that first meeting, he wasn't really seriously considering acquiring the Homestake parcel until "we realized that with the adjacent university and federal lands, it fit into a nice large landscape approach to the thing."

Then George Gamble, Tom's father, pointed out that they were just talking about "the tip of the iceberg" and suggested "the grander possibility" of conserving lands all the way from Napa's Lake Berryessa into Colusa County 50 miles to the north. Thus the idea of working together — scientists, government land managers, private ranchers

continued - page 2

BLUE RIDGE CONTINUED

and others — to forge a Blue Ridge Berryessa Natural Area was born. Membership in the group has since grown to 130 agencies, organizations and individuals, about 30-40 of which regularly attend the monthly meetings, and whose members include boaters, anglers, rafters, bikers, hunters, resort owners and elk lovers.

"We're not a police power or a planning agency, just a bunch of people interested in trying to conserve this landscape," says Thayer.

The partnership is currently doing some landscape-level think-tanking about a conservation strategy for the whole region, whose boundaries remain only loosely defined, and collecting data on the plants, animals, hydrology, climate, soils and human populations of the area.

The idea is to use this data to develop a series of "suitability models" highlighting which parts of the Blue Ridge Berryessa area are best suited for the preservation of biodiversity, for example, or for general recreation, tule elk, cattle ranching and the like. Collecting the data as one big integrated unit, instead of each individual organization collecting its own data and then not being able to make it match up on others' maps and computer platforms, is an enormous benefit, say members of the partnership.

The data, and the information-sharing opportunities of the partnership itself, will also facilitate more sitive land-use planning. "When you're responsible for planning for one park or open space, you have demands from all constituencies, who all want something from your land, " says Krauss, who has moved on from his mine work to lead the partnership. Instead of trying to serve all users with one piece of land, the partnership can spread out demand across the region and focus activities – fishing, hunting, camping, etc. – in the most appropriate places.

Here's one example of how this all plays out. With the help of funds raised through the partnership, Cal Fish & Game did go ahead and acquire the 8,000 acres from Homestake, which it calls the Knoxville Wildlife Area. The wildlife area is adjacent to both U.C. Davis' reserve and the Knoxville Recreation Area, a dirt bike and big jeep heaven owned by the Bureau of Land Management (BLM). At the partnership meetings, the university's Susan Harrison expressed concerns about OHV (off-highway vehicle) impacts on fragile serpentine ecosystems spanning all three parcels – historical OHV use of the area has included everything from tearing up and down the canyons to shooting at propane tanks and fleeing the fire ball. Private landowners at the partnership meetings, meanwhile, complained about OHVs trespassing on their properties.

"They drive over our fences, do a donut in the grass, then drive out," says Tom Gamble.

Meeting discussions led to major changes in BLM's trail enhancement plan for the recreation area, including the creation of loops and cut-offs to some dead-end roads into the most sensitive canyons. According to BLM's Rich Burns, the original trail enhancement plan had been embroiled in battles with Napa County and private landowners for years. "If the Blue Ridge Berryessa partnership had not come along, we'd still be in lawsuits over the trails," he says. "The partnership created a good forum

or us to get public input." Indeed, some of the input came from bikers like Bill Dart of the American Motorcycle Association whose members are seeing themselves excluded from more and more areas of California. "He wants to have a place he can go and know he's not going to get shut out," says Burns.

"A certain level of trust has built up after all these monthly meetings," says John Hoffnagle of the Napa Land Trust, fiscal agent for the partnership. "All these OHV issues got dealt with in the meetings instead of the newspapers."

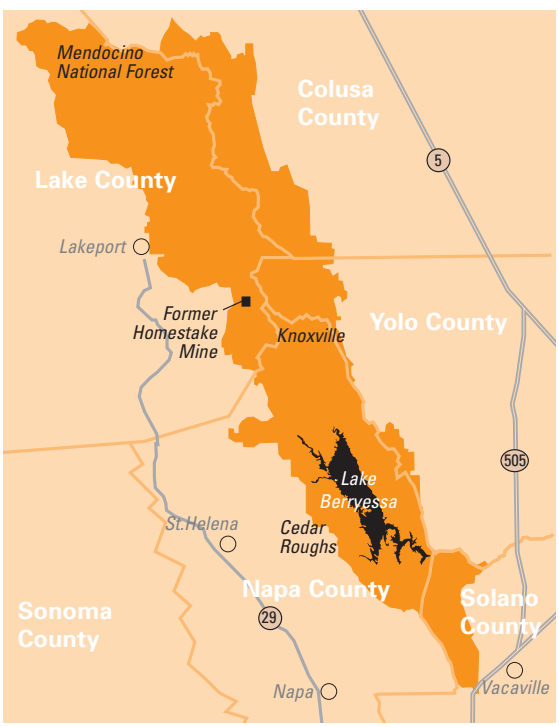
Since OHVs are not allowed on state lands, clear signage at the BLM's border with the new state wildlife refuge was also important. The partnership facilitated cooperative agreements about signage and public access. "This way, the public doesn't get surprised when they move from state to federal land and the rules change. Our maps now show both properties and make the rules very clear," says Fish & Game's Swanson.

This January, Swanson began another Blue Ridge Berryessa partnership project – sending out a convict crew to cut down the exotic tamarisk plant from the edges of Etiquerra Creek, then painting the stubs with herbicides to kill the invader. The tamarisk wreaks havoc on riparian zones, overrunning native vegetation and sucking the creek dry of water in the summer when species like the endangered red-legged frog need it most. The seeds float downstream and take root, so any eradication effort has to begin at the headwaters. Through the partnership, Swanson was able to gain access to the creek's uppermost reaches on U.C. Davis land before working his way downstream. "It's much easier to get this kind of watershed-level work done through the partnership," he says. "They even found us some money to do it."

Cathi Wilbanks is also happy to have the partnership's help with a slightly more political project. Wilbanks, who helps manage the Bureau of Reclamation's 1.6 million acre-foot Berryessa Reservoir and its 10,000-acre waterfront, is preparing new concession contracts for seven resorts around the lake by 2009 and developing a visitor services plan as part of the process. Some contracts for long-term trailer villages date back to the 1950s, but Reclamation may move toward short-term uses like campgrounds and hiking support services. "We can become the gateway to the more dispersed recreational opportunities other agencies like BLM and Fish & Game may provide, and in this way

continued - page 6

BLUE RIDGE BERRYESSA NATURAL AREA



RESTORATION

CONTROLLING CREEKSIDE COWS

East Bay MUD has always had cows chewing the grass on its watershed lands in Contra Costa and Alameda Counties. Now for the first time, the utility district has published a detailed plan for regulating cattle grazing so that the bovines can have minimal impact on water quality and even provide benefits to the environment.

In less enlightened times, the philosophy regarding grazing was "maximal utilization," explains EBMUD's Steve Abbors. Ranchers paid a considerable amount of money to the district for use of its lands, and the cows helped to reduce fire danger by keeping fuel loads low. The negative effects became more apparent as hooves contributed to soil erosion and water quality suffered with pathogens, nutrients and sediments finding their way into the district's creeks and reservoirs.

In 1996, the district adopted a master plan for managing its entire 28,000 acres of watershed lands, which called for the development of a range management program. Grazing is permitted on about 10,000 acres of EBMUD's property. The district board then passed a *Range Resource Management Plan* in December 2001.

"We're trying to focus on protection of water quality and biodiversity to the greatest extent possible," says Abbors. That's not easy – much of the EBMUD property is on the urban interface, where fire protection is a major, and justified, concern. He notes that grazing is sometimes the only practical method of checking the rampant growth of flammable grass and brush – controlled burns are "very problematic" for nearby homeowners. Hand mowing is also fiscally unfeasible because there are dozens of parcels spread out over two counties that would all need trimming at the same time. "We're not going to buy a mower for each one of them," he says.

There's a wide variety of soil types, topography, flora and fauna among the different parcels, and the plan mandates development of one and five year programs for each "allotment." Certain watersheds – most notably those around San Pablo, Briones and Upper San Leandro reservoirs — are particularly sensitive because they store water that is regularly used by the district's customers. Those watersheds are more tightly regulated – streams around them are out-fenced with a 100-foot buffer, for example. Grazing is not allowed nearby during winter months, when rains can wash bacteria-laden feces into the water. Abbors says that EBMUD is in the process of fencing off stock ponds on its land and pumping the water to troughs nearby. That way cows don't trample the vegetation and muddy the water, and as a result, many of the ponds can serve as habitat for red-legged frogs and other creatures.

Instead of selling grazing leases to the highest bidder, the plan calls for using an "appraisal method" for selecting ranchers. The district will evaluate a rancher's current operations to see if best management practices are being used, and other environmental criteria, such as experience with integrated pest management techniques, will also be included.

Unlike the grazing plans drawn up by the East Bay Regional Park District, the EBMUD program has created virtually no controversy. "Overall, [EBMUD] seems to have a pretty good approach in how they handle things," says the Sierra Club's Norman La Force. He adds that Abbors and his staff are "very environmentally in tune" on many issues, and have won the respect of local activists.

Abbors says that attitudes have gradually changed since he started working for the district in the mid 1980s. "There was nothing written, no plan at all," he recollects. He says that over the years, agency staff have come to appreciate both the detrimental effects and the benefits of grazing. "They understand the balance." Many of the practices embodied in the management plan have already been put into effect, he adds, noting that grazing levels have been cut in half since 1993. Still, having a comprehensive plan in writing will be a big help. "The bottom line is that it really helps us stay on course."

ENVIROCLIP

ONCE-THROUGH ONCE-OVER

A controversial proposal to more than double the size of the Potrero power plant in San Francisco faces an important March 21 vote of the S.F. Bay Conservation and Development Commission (BCDC). The commission will decide whether or not to back the Mirant Corporation's plan to construct a "once-through" cooling system for its natural gas turbines, which supply local electricity.

The plant currently generates about 360 megawatts. The new construction would add another gas-fired turbine, and produce 570 more megawatts. Neighborhood activists and environmentalists have long opposed the new plant, citing air quality, noise, and environmental justice concerns.

Aquatic activists have other concerns. Once-through cooling constantly sucks Bay water to cool the turbines and recirculates it, heated, back into the ecosystem. The older turbines use this technology, taking approximately 226 million gallons of water per day. The new generator would add another 228 million gpd to that total.

BayKeeper's Jonathon Kaplan says that alternative technologies can be used to cool the turbines without causing so much damage, among them air cooling with fans or a "hybrid" air/water system using less water.

Mirant admits that millions of fish and other critters are killed by the coolers, but insists that once-through is the best available technology. Mirant's Ron Kino says there isn't room on the 20-acre power plant site for the alternative system's cooling towers. Another possibility, using San Francisco's "gray water," may not be feasible either, he says, because the city may not be able to provide a water supply on a 24-hour, 365-day-a-year basis.

"Their assessment is inadequate," counters Kaplan, pointing out that the company didn't even consider the purchase of nearby properties to accommodate new towers.

A staff report from the California Energy Commission (CEC) largely supports Kaplan's position. "The proposed use of once-through cooling creates potentially significant impacts on aquatic biological resources that may not be mitigable," it states. The staff also concluded that either hybrid or dry cooling would work, and it favored using reclaimed city water, which, it noted, would reduce the amount of treated water discharged into the Bay.

BCDC is scheduled to take up the issue at its next month's meeting. Its vote is technically a recommendation to the CEC, which has the final decision on which cooling system the plant will use. **O'B**

PEOPLE

USGS APPOINTS WATER CZAR

"He's definitely a westerner, with western attitudes about land use," is one insight offered about Bill Sexton, an Idaho native who was recently appointed head hydrologist for the U.S. Geological Survey's western region.

This assessment, by Colorado journalist and former Sierra Club activist Lewis McCool may seem surprising if one looks at Sexton's résumé. Sexton has spent most of the last decade in Washington, D.C., most recently as Deputy Director for Ecosystem Management for the U.S. Forest Service.

Sexton says he jumped at the chance to leave Washington for his new post at the U.S. Geological Survey. "For me, the West is home," says Sexton. "I'm very much looking forward to getting back."

Sexton faces a number of challenges in his new job. His predecessor, John Conomos, is a first-rate hydrologist with a strong research and publication record. Conomos shepherded the USGS into the contemporary era by helping to institute the agency's ecosystem-oriented Place-Based Studies Program. Conomos spent a great deal of time on the water, and, in particular, on San Francisco Bay.

Sexton, on the other hand, has been at the cutting edge of changes in the U.S. Forest Service, but he is a soil scientist and manager rather than a hydrologist. After studying soil science at the bachelor's and master's degree level, Sexton received a master's degree in public administration from Harvard University. He earned a doctoral degree in soil science from the University of Idaho in 1986.

Sexton, by most accounts, is neither a firebrand nor a hardcore scientist, but a savvy bureaucrat. In a recent interview, Sexton was extremely cautious in his answers. According to Bob Hirsch, Associate Director of Hydrology for the USGS, Sexton's appointment shows an increased emphasis on interagency cooperation. Driven by tight budgets, as well as the exigencies of science and politics, federal agencies are finding it necessary to work together more closely these days.

"People can anticipate that I'll be interested in a lot of collaboration and partnership building, working with a wide variety of organizations and interest groups," says Sexton, agreeing with Hirsch's assessment. When asked if he considers himself primarily a scientist or a manager, Sexton unhesitatingly chose the latter. But he says that he regards his primary role as "taking the background I already have and helping support the mission of the USGS, which is very much in line with high-quality data and the best available science." Sexton says he believes that solid, objective science – the kind that the USGS is known for – is the key to resolving often-polarized western environmental issues.

Once Sexton settles into the regional hydrologist's office in Sacramento, he'll have his hands full with the perennially difficult problem of Western water. People used to shoot each over water in the Old West, and things haven't gotten a lot more peaceful. But as a veteran of the embattled U.S. Forest Service, Sexton is no stranger to controversy. As supervisor at the San Juan National Forest from 1988 until 1993, Sexton had his share of critics.

continued - back page

TECHNOFIXES

CRAB GAS

Results of an 18-month study that used nitrogen gas to deoxygenate ship's ballast tanks suggest that getting rid of aquatic hitchikers could also help shipping companies reduce their maintenance bills.

The results of the study, conducted by researchers from the Monterey Bay Aquarium Research Institute, the Monterey Bay National Marine Sanctuary, the Elkhorn Slough National Estuarine Research Reserve, and a Japanese ship manufacturer, were unveiled in a recent issue of *Biological Conservation*. Researchers pumped nitrogen gas into ballast tanks continuously to remove oxygen, killing invasive species and helping slow corrosion. They then examined impacts on three invasive aquatic species — the green crab, zebra mussel, and Australian reef-building tubeworm. After only two days of nitrogen treatment, 79% of the tubeworms and 97% of the green crab larvae had died. After three days, 82% of the zebra mussels were dead. Since most ocean crossings take between two and three weeks, it is unlikely that any of the organisms would survive such a journey. While the nitrogen treatment kills the worst invaders, certain species of anaerobic bacteria and marine algae that can survive low-oxygen conditions might need further treatment, according to researcher Kerstin Wasson.

Deoxygenation's greatest selling point may be its economic benefits. According to researcher Masayasu Matsuda, corrosion rates were reduced to about 10% of the rates found in the tanks containing oxygen. The average cost of maintaining ballast tanks on a typical cargo ship (using traditional methods like painting) for 25 years is about $10.9 million, according to Matsuda. Deoxygenation would reduce that cost by at least $1 million and possibly more.

Maurya Faulkner with the State Lands Commission says the technology is a step in the right direction but needs to be tested on vessels during real voyages. Although funding for such tests might be a challenge, she says, the potential cost savings to the shipping industry is a definite plus. John Berge, with the Pacific Merchant Shipping Association, agrees: "It sounds like a win-win situation." But Berge wonders whether the technology's level of invasive species removal will satisfy regulatory agency requirements. So far, he says, there are no standards on exactly how clean ballast water must be.

Those standards may soon become clearer. In February, Northern California's U.S. District Court ordered the EPA to respond to a petition filed three years ago by environmental, fishing, and other groups asking for better controls on ballast discharge. According to Linda Sheehan with the Ocean Conservancy, the Coast Guard drafted guidelines for ballast water treatment last year that simply need to be signed off on and published. "Everybody wants this," says Sheehan. "I can't understand why they haven't been put in the Federal Register yet. There's no reason why the EPA and Coast Guard can't work together on this."

Contact: Research@elkhornslough.org; msy_Matsuda@shi.co.jp; John Berge (415) 352-0710 or Linda Sheehan (415) 979-0900 LOV

POLLUTION

MURRES HELP SOLVE SPILL MYSTERY

An unassuming black-and-white seabird was not only the victim of a mystery oil spill that has plagued the coast this winter between Point Reyes and Monterey Bay, but also offered critical clues as to the spill's location. The spill almost exclusively affected common murres, according to wildlife veterinarian Mike Ziccardi. Murres often raft on the surface of the water in large groups approximately 20-30 miles offshore, so if the source of the spill had been closer to shore, rescuers would likely have found other species covered with oil.

Knowledge of the birds' preferred habitat — combined with the fact that the Coast Guard had spotted an oily sheen a few miles southeast of the Farallones in December — helped investigators pinpoint the source of the oil, says Dana Michaels of Cal Fish & Game. In February, the Coast Guard sent down a remote operating device to investigate the S.S. Jacob Lukenbach, a steamship that had sunk near the Golden Gate Bridge in the 1950s with 457,000 gallons of fuel oil aboard. Investigators compared oil samples from the steamship with the oil coating the birds' feathers; results confirmed the Lukenbach as the culprit. Investigators now believe that oil from the Lukenbach was responsible for similar bird oiling incidents in 1992-93, 1997-98, 1999 and 2001. Michaels says that certain winter air and water currents may have stirred up sediments or other blockages that kept the leaking oil from dispersing during other seasons.

Between November 2001 and February 2002, over 1,500 birds were found covered in oil from the Lukenbach. Of those, 627 were alive, and about 40% (a relatively high rate for oiled birds) were rehabilitated and released, according to Ziccardi, who is part of the Oiled Wildlife Care Network, a group of 24 agencies that works to rescue oiled wildlife.

The Coast Guard must now figure out how to prevent any further discharges of oil from the old wreck. The U.S. Navy Supervisor of Salvage has been called in for consultation, according to Lt. Tim Callister with the Coast Guard, who says the dynamic currents in the area surrounding the Lukenbach will make salvage a challenge. According to Callister, the Coast Guard will either stabilize, remove or plug the leaking vessel. Contact: Dana Michaels (916) 327-9948 LOV

OILED BIRD FIXES

Rehabilitating oiled birds isn't easy, and many don't make it through the exhausting ordeal. But a new state-of-the-art facility that opened last year in Cordelia may increase their chance of survival.

In past spills, volunteers often scrambled to help birds using makeshift facilities. In contrast, the new San Francisco Bay Oiled Wildlife Care and Education Center has a 10,000-square-foot wildlife hospital with areas for intake, holding, washing and drying, food preparation and medical treatment. Eventually the center, also a new home for the International Bird Rescue Research Center which rehabilitates injured birds, will have two large rehab pools and several aviaries.

A better solution, however, is preventing birds from becoming oiled in the first place. California has a dedicated bird hazing program that uses everything from shiny Mylar tape tied onto stakes (for spills in mudflats) to bird "bombs" that replicate the sounds of fireworks and laser lights to scare birds away from spills. In addition, two new, more complicated, devices are being evaluated for use in S.F. Bay. The Breco Bird Scarer blasts high-intensity sounds from inside a 79-pound buoy. The buoy is designed to drift with the oil and broadcast sounds — ranging from barking dogs to sirens — over a 72-hour period. Another device, the Phoenix Wailer, blasts sounds of up to 140 decibels from a box atop four sprawling legs attached to large floats. The Wailer, which has been used by San Francisco International Airport for years, can be programmed to make the sounds more random and less easy for the birds to adjust to. The sounds can also be played from alternating speakers to give the impression they are coming from different directions.

So far, tests performed on the Breco by U.C. Davis researchers have had disappointing results, perhaps because Bay birds are used to lots of background noise, says researcher Desley Whisson. Whisson thinks the Wailer, which is undergoing more Bay tests this season, will be more successful because it is louder, makes more of a visual impact and uses more natural sounds. "If anything's going to work, this one will," says Whisson. Contact: Care Center (707) 207-0380 or Desley Whisson (530) 754-8644 LOV

AGENCYINSIDER

SHORE FISH NEEDS SCRUNTINIZED

Nineteen species of nearshore fish need additional protection and management, according to an assessment by Cal Fish & Game. The agency released a draft management plan for nearshore fish — those found less than 120 feet from shore — this winter. A revised plan, incorporating feedback from public meetings, will come out this April and go through another round of Fish & Game Commission hearings (see calendar).

The agency ranked the state's fish by certain criteria — their range of habitat, level of current protection, and fishing pressure, among others. Among the 19 species needing help were grass rockfish, black rockfish and blue rockfish. One reason the plan singles out rockfish for management is that they're not federally regulated like salmon or other fish that move up and down the coast between states. "Most of them stick around," says Fish & Game's Eric Knaggs. "They really are a California species; they rarely travel more than 20 miles away."

The plan analyzed four alternative harvest control rules that would form the basis for managing the nearshore fishes. Alternatives included no change in management; establishing nearshore conservation areas; prohibiting fishing in 30-50% of the fishes' habitat; restricting gear and/or limiting commercial fishers to sports fishing gear; and establishing marine protected areas. The plan's preferred alternative included establishing marine protected areas (as fishery replenishment areas), to be used in conjunction with annual total catch limits. North, Central, and South Coast fisheries would be managed separately.

The Ocean Conservancy supported the preferred alternative although it would like to see the number of protected areas increased. In addition, it asked Fish & Game to make sure to choose areas of the right size, shape and characteristics so that "the fish can do what they need do in them," says the Conservancy's Karen Rana. Contact: Karen Rana (415)979-0900 or Nancy Wright (831)649-2942 LOV

BLUE RIDGE CONTINUED

take the pressure off them to also provide high-density visitor services," she says.

BLM's Burns adds that the partnership has helped "articulate to many stakeholders that not everything is a park, and that wild land doesn't have to have all amenities."

Just how many restrooms and water fountains and parking lots and trails the region should have has been much discussed in the partnership meetings, which has enabled new audiences to comment on the visitor services plan, says Wilbanks. In general, the partnership supports the expansion of short-term visitor services and is also interested in promoting hiking and non-motorized boating opportunities on the jetski and speedboat-jammed lake. The Gambles, whose property now fronts the lake, say that between Memorial and Labor days, it's like living next to Interstate 80.

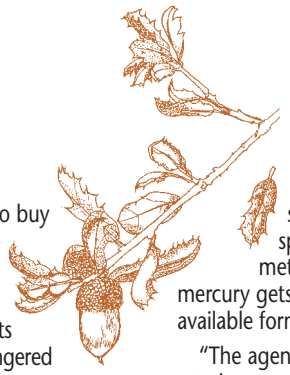
But on a spring day this February, the lake was quiet. Riding down the lake's gravel eastside road with Tom Gamble, this writer delighted in the sight of a solitary bald eagle on a high branch, flocks of white pelicans floating and coasting over the blue water and tiny kestrels hovering like hummingbirds as they searched for rodents. A fence runs along the road to keep people out of the shoreline wildlife refuge.

Gamble isn't sure he wants to see more visitors invited to the lake. The way he sees it, the more services, the more growth pressure on the landscape. One solution may be to change the visitor mix, he says. Gamble also worries about growth pressure for the Blue Ridge Berryessa region coming from the Association of Bay Area Governments, which is asking each county to do its part to provide affordable housing for the region, a request Napa County has not fulfilled. "Napa gives Berryessa's water to Solano County and they grow tilt-up homes, so why can't they be part of Napa's housing solution?" he says.

Certainly the Blue Ridge Berryessa area lies in the shadow of creeping vineyards and ranchettes, the kind that have swallowed so much of California's oak grasslands already, and threaten the kind of ranching and farming livelihoods the partnership is committed to protecting.

"If there isn't some viable agriculture here, our ranches will all get split up and developed," says Gamble. "The only way the partnership can retain credibility is to have the participation of local landowners. The government doesn't have enough money to buy all this land."

"On the state level, we've been concentrating on buying pockets of wetlands and habitats for a few threatened and endangered species," adds Fish & Game's Swanson. "But this is a really large habitat of high-quality oak woodlands and grasslands."



Leather Oak

Almost everyone who has hiked or rafted or visited its ridges and canyons has an amazing wildlife encounter story. Susan Harrison describes bellowing at a cow one day and getting an interested bellow back from a mountain lion. Thayer waxes poetic about one five-minute interlude in which he saw a roadrunner, got buzzed by a golden eagle and crossed mama and baby bear tracks not more than one hour old.

But the natural beauty on the surface belies one natural flaw, at least in terms of efforts to restore the Bay-Delta ecosystem. The landscape is rich in naturally occurring cinnabar, also known as quicksilver and mercury. Historic and abandoned mercury mines pepper the watersheds of the two main creeks draining the region: Putah Creek flows into Lake Berryessa, whose dam appears to be blocking downstream movement of the mercury; free-flowing Cache Creek is one of the biggest ongoing contributors to the Estuary's mercury problem. Fish in the S.F. Bay-Delta Estuary and Lake Berryessa contain such high mercury levels that there's a state health advisory limiting human consumption.

"Not everything is a park..."

"Mercury is a much bigger problem downstream, and in local lakes, than at the headwaters," says U.C. Davis mercury expert Darell Slotton. The real problem is not mercury concentrations in the creek waters, but how mercury changes into a more biologically available form in quiet lakes and wetlands and then accumulates in fish and birds. "If you drank the water out of Cache Creek for an entire lifetime, you'd get about the same mercury hit as eating one meal of bass from the creek or Bay," says Slotton.

Slotton says Cache Creek, the retired Homestake mine site and its Davis Creek reservoir, and the surrounding historic mines of the Blue Ridge Berryessa area provide "one of the premier natural environmental mercury research labs in the world." Slotton has been monitoring different organisms in the Davis Creek reservoir and studying the seasonality, the spikes and drops, of mercury methylation (in which one kind of mercury gets converted into another, more available form) in the reservoir.

"The agencies are well aware of the historic mercury problem in this landscape, and are doing a ton of research to address it," says Slotton. "The spotlight directed by the Blue Ridge Berryessa group on this same landscape, with the creation of a research reserve at the Homestake mine, can only help." The partnership's work to find the most appropriate upland uses – uses that minimize road impacts and runoff and siltation and the creation of more pavement – will also help minimize water quality problems downstream.

There are still more stories to tell of this landscape, tales of the thriving forest of Sargent's cypress in the Cedar Roughs area, the unparalleled wildflower display threatened by star thistle, the three university research reserves where environmental scientists are studying everything from fire ecology to plant evolution, the interest of national conservation groups in the area's elk herds and wild turkeys, even the gas stations that have switched over to MTBE-free gas to protect the lake's water quality. Then there's Tom Gamble's dream of sustaining his ranching heritage with premium grassfed beef, the university's annual contest for the best poetry and photos about the region, the memories of Gamble's neighbor Herb Gunn, who traveled to Washington in the last days of World War II to plead with lawmakers not to flood his valley. And at the heart of all this now are the accomplishments of what Gamble calls "a confederacy of people who want to see basically the same thing on these lands" – the six conservation easements, 11 public land acquisitions, ten education efforts, 15 plans and studies, 27 habitat enhancement projects, and 12 improvements to trails and facilities undertaken through the Blue Ridge Berryesssa Natural Area partnership as of June 2001.

So why does this partnership have such vitality? Some say it's the enthusiasm and energy of Ray Krauss. Some say it's the passion for the place among its participants. Some say it's simply a good idea in the right place at the right time. "Whatever it is, I wish I could put my finger on it and patent it," says Hoffnagle. Contact: Ray Krauss (707)539-4330 **ARO**

PLACES TO GO & THINGS TO DO

WORKSHOPS & SEMINARS

MAR 7 THURS

GROUNDWATER EDUCATION WORKSHOP

Location: Monterey CA
(916)444-6240
Sponsor: Water Education Foundation
www.watereducation.org

MAR 7 THURS — 8 FRI

SUSTAINING SEASCAPES: THE SCIENCE AND POLICY OF MARINE RESOURCE MANAGEMENT

Topic: Large-scale conservation of marine ecosystems, considering novel approaches to the sustainable management of biodiversity and fisheries.
Sponsors: Environmental Defense, NOAA, National Park Service, U.S. Fish & Wildlife and others.
Location: American Museum of Natural History, New York City
(212)769-5200 or tickets@amnh.
http://research.amnh.org/biodiversity
email: biodiversity@amnh.org.

MAR 12 TUES — 13 WEDS

STORMWATER MANAGEMENT WORKSHOP

Topic: The S.F. Bay Regional Water Quality Control Board is adopting new requirements in permits held by most Bay Area municipalities that will significantly impact municipal budgets and substantially change how local agencies review, approve and monitor development, redevelopment and capital improvement projects.
Sponsors: BASMAA; Center for Watershed Protection; Dept. Water Resources; EPA
Location: Elihu Harris Bldg., Oakland
Cost: $70 (includes materials and lunch)
(510)622-2304

MAR 21 THURS — 22 FRI

LOWER COLORADO RIVER TOUR

Topic: Three-state tour, including visits to Hoover Dam, Lake Mead, a wildlife refuge and the Salton Sea, and discussion of issues such as California water use.
Sponsor: Water Education Foundation
Location: Las Vegas, Nevada
www.watereducation.org

MAR 21 THURSDAYS THRU MAY 16

LAKE MERRITT — WINDOW TO THE WORLD

Topics: Urban runoff filters and Lake Merritt; the history of Lake Merritt; Oakland's Creek Protection Ordinance
Sponsor: Lake Merritt Institute
Location: 1st Classroom of the Boating Center, 568 Bellevue Ave., 7:30-9 p.m.
(510)238-2290

MAR 25 MON — 29 FRI THRU

FLOODPROOFING CONFERENCE

Topic: Floodproofing methods, products, techniques, programs and issues that have developed since the first conference in 1999. Posters will demonstrate what works (and doesn't). Field tours and additional training workshops available.
Sponsor: Assoc. State Floodplain Managers
Location: Tampa, Florida
Cost: varies
(608)274-0123

MAY 8 THURS — 9 FRI

AN AMERICAN QUILT: CRAFTING A REGIONAL FUTURE

Topic: Conference exploring issues important to the Central Valley, including homeland and food security, trade and valley agriculture, downtown infill, affordable housing and more.
Sponsor: Great Valley Center
Location: Sacramento, CA
(209)522-5103
www.greatvalley.org

MEETINGS & HEARINGS

MAR 11 MON — 15 FRI THRU

PACIFIC FISHERY MANAGEMENT COUNCIL MEETINGS 2002

Location: Sacramento
www.dfg.ca.gov/mrd/mlma/calendar/externalcalendar.html
(831)649-2870 (DFG)

MAR 22 FRI

RMP ANNUAL MEETING

Topic: Update on the recent progress of the Regional Monitoring Program for Trace Substances, and plans for its improvement.
Sponsor: S.F. Estuary Institute
Location: Oakland
(510)746-7334

APR 25 THURS

FISH AND GAME COMMISSION MEETING 2002

Location: Sacramento
www.dfg.ca.gov/fg_comm/2002mtgs.html

HANDS ON

APR 1 MON

WATER AWARENESS POSTER CONTEST

Fourth-grade students are invited by the California Farm Water Coalition to illustrate the link between water and food through a poster. Entries due by April 1, 2002.
For guidelines, (916)441-7723 or
www.cfwc.com

APR 6 SAT

HELP OILED OR INJURED SEABIRDS

Volunteer orientations held on the first Saturday of every month from 10 a.m. to 12 p.m.
Call the Oiled Wildlife Care and Education Center and the Int'l Bird Rescue and Rehabilitation Center
(707)207-0380 ext. 107

NOW IN PRINT & ON LINE

Beyond the Drain: Sustaining Agriculture and Improving Water Quality in California's San Joaquin Valley
Free by calling the San Francisco Estuary Project
(510)622-2465

Final Staff Report on Recommended Changes to California's Clean Water
Act Section 303(d)
Central Valley Regional Water Quality Control Board
(916)255-3368
www.swrcb.ca.gov/rwqcb5/TMDL/

Gala Days: Guide to Environmental Festivals in California
Bern Kreissman, Bear Klaw Press
(530)753-7788 or *www.bearklaw.org*

Hydrodynamic and Suspended-Solids Concentration Measurements in Suisun Bay, California, 1995
U.S. Geological Survey Water Resources Investigations Report 01-4086.
http://water.usgs.gov/pubs/wri/wri014086/

Marine, Coastal and Watershed Resources Directory
Coastal Commission
www.coastal.ca.gov/publiced/pendx.html

Missing Water: The Uses and Flows of Water in the Colorado River Delta Region
Pacific Institute for Studies in Development, Environment, and Security
Copies from (510) 251-1600
www.pacinst.org

The New Economy of Water: The Risks and Benefits of Globalization and Privatization of Fresh Water
Pacific Institute for Studies in Development, Environment, and Security
www.pacinst.org/reports/new_economy.htm

Proceedings of the November 14-15, 2001, Salmon and Steelhead Symposium
www.cemar.org

Summary of findings about circulation and the estuarine turbidity maximum in Suisun Bay, California
U.S. Geological Survey Fact Sheet FS-047-98, 6 p.
http://sfbay.wr.usgs.gov/access/suisunbay/dschoell/

Threats to the World's Freshwater Resources
Pacific Institute for Studies in Development, Environment, and Security
www.pacinst.org/reports/freshwater_threats.htm
Copies from (510) 251-1600

Yolo Bypass Management Strategy: A Framework for the Future
Yolo Basin Foundation
www.yolobasin.org

EXECUTIVE DIRECTOR SOUGHT

The Aquatic Outreach Institute, a nonprofit offering educational programs on creeks, watersheds and the Bay for teachers and the public, seeks an executive director to provide overall leadership and management of the organization; design, review, and implement new and existing programs; raise funds; and conduct public relations. Contact: jr@aoinstitute.org.

FESTIVAL FRENZY

Wild on Wetlands Weekend, Los Banos
March 9-10
(800) 336-6354
www.losbanos.com/wow.htm

Fort Bragg Whale Festival, Fort Bragg
March 16-17
(800) 726-2780
www.mendocinocoast.com

Aleutian Goose Festival, Crescent City
March 22-25
(800) 343-8300
www.redwoodlink.com/soar.

Heron Days, Near Clear Lake
April 13-14
(800) 525-3743
www.lakecounty.com

Godwit Days, Arcata
April 19-22
(800) 908-9464
www.godwitdays.com

SEXTON CONTINUED

Mark Pearson of the Friends of San Juan Forest characterized Sexton as pro-development at the expense of the environment, citing his approval of a natural gas pipeline through scenic Delores Canyon, a large ski resort, and more than 30 coalbed methane wells. "I think he's responsible for the worst decisions ever made in the San Juan National Forest and some of the worst ever made in Colorado," says Pearson.

Lewis McCool, who dealt with Sexton as a Sierra Club activist on timber issues, was more moderate in his assessment. He says Sexton was a leader in the U.S. Forest Service's shift from resource extraction to recreation, an historic but often fractious transition.

"Back in the mid 70s and 60s, there had been huge timber sales in the San Juan forest," McCool remembers. "The scars still haven't healed. Sexton pretty much eliminated clear cuts in the forest. He foresaw the pressure from more intense recreational use and started the process of upgrading the campgrounds in the forest. They had been fairly primitive campgrounds for tenters and backpackers so that was controversial, too."

McCool says Sexton's open management style was an improvement over that of his predecessors, an attribute that may stand him in good stead at the USGS, where he will have to deal with nine district offices in nine Western states, more than $96 million in water programs and a huge array of state, local and federal agencies. "I would say he was receptive, willing to listen to me," says McCool. "I felt like we had a pretty good working relationship. I don't know in the end if that changed any decisions, but it was a cordial open-door kind of arrangement." SZ

YOUR INDEPENDENT SOURCE FOR BAY — DELTA NEWS & VIEWS

ESTUARY

FEBRUARY 2002 VOLUME 11, NO. 1

Editorial Office: PO Box 791
Oakland, CA 94604
(510)622-2412
bayariel@earthlink.net

Estuary Web site at
www.abag.ca.gov/bayarea/sfep/news/newsletter/index.html

Subscription Q&A: (510)622-2321

STAFF

Managing Editor: Ariel Rubissow Okamoto
Senior Editor: Lisa Owens-Viani
Graphic Design: www.dcampeau.com
Contributing Writers: Bill O'Brien
Susan Zakin

ESTUARY is a bimonthly publication dedicated to providing an independent news source on Bay-Delta water issues, estuarine restoration efforts and implementation of the S.F. Estuary Project's *Comprehensive Conservation and Management Plan* (CCMP). It seeks to represent the many voices and viewpoints that contributed to the CCMP's development. ESTUARY is funded by individual and organizational subscriptions and by grants from diverse state and federal government agencies and local interest groups. Administrative services are provided by the S.F. Estuary Project and Friends of the S.F. Estuary, a nonprofit corporation. Views expressed may not necessarily reflect those of staff, advisors or committee members.

CHANGE SERVICE REQUESTED

PRESORTED
FIRST CLASS MAIL
U.S. Postage
PAID
Oakland, CA Permit
No. 832