



FISHING FOR DATA

Some Bay Area anglers will be casting with a purpose other than recreation and dinner this May — fishing at 13 specific sites for samples to be used in a new scientific study of contaminant levels in Bay fish. They'll be looking for white croaker, surfperch, jacksmelt, shark, striped bass and sturgeon. Their catch will be delivered to Cal Fish & Game labs, where technicians will test muscle tissues for a wide range of toxics.

The study — organized by a coalition of environmental groups, public agencies and scientific organizations — was inspired by concerns about health risks to San Francisco's growing population of subsistence fisherpeople. If sampling from this \$175,000 pilot project shows toxics are bioaccumulating in the fish at levels of concern, then a larger scale study and complete health risk assessment may be needed, according to the S.F. Regional Board's Karen Taberski. Taberski expects results from the pilot by November.

Anglers teaming up to collect the fish include Fish & Game officials and volunteers from San Francisco Anglers for Environmental Rights (SAFER). "This shows that community organizations and government can communicate, work together, and reap the benefits of unity without compromising on the issues," says SAFER's Kalon Wofford. "It's helping to broaden the community's trust in government, which at this point we don't have," he says. Contact: Karen Taberski (510)286-1346

KA

Tomato Detox

Farmers under pressure to deliver unblemished, worm-free tomatoes to the big canning companies may find an alternative to conventional pesticides in an environmentally friendly program now being offered to growers in the Dixon area.

The Dixon package offers everything from tips on beneficial insect use to crop insurance and represents a coordinated thrust toward pesticide reduction on the part of major government ag agencies. Everyone is in on it. The EPA gave the nonprofit Bio-Integral Resource Center (BIRC) a \$200,000 grant to advise the tomato farmers on Integrated Pest Management (IPM), an approach that minimizes petrochemical use and maximizes natural pest control. The local Resource Conservation District is backing up BIRC. The U.S. Department of Agriculture (USDA) is offering a \$20/acre incentive for a 20 percent pesticide reduction under its 1994 Integrated Crop Management Program (SP-53). And the Federal Crop Insurance Corporation (FCIC) carved out the nation's first-ever crop loss policy for growers using IPM.

"We're asking them to make a psychological shift from farm practices that date back to World War II," says FCIC's Bill Murphy. "Their comfort zone with this is where crop insurance comes in."

"The biggest change is that we're recognizing this as a legitimate farming practice, so that even if crop damage occurs under IPM, we'll call it insurable," says Larry Heitman of a major insurance company.

The pilot project will enable up to ten farmers of processing tomatoes to place 25-50 acres apiece in an IPM program. They can go as far as they want — from basic pest monitoring to an all-out effort involving cover crops, transplanting, pest-resistant tomato varieties, microbial insecticides and beneficial insect releases.

"We can't keep harping on the farmers to change without changing our institutions too," says EPA's Paul Feder. He says government has historically pushed farmers down the road to chemical dependence. That dependence is now increasing chemical threats to wildlife, water quality and human health. Half a million pounds of pesticides are applied to California's processing tomatoes each year. The Sacramento area, meanwhile, grows 90 percent of the nation's processing tomatoes. "This is where everyone gets their ketchup," says BIRC's Sheila Daar, who adds that the potential health risks to children — who lap up ketchup, tomato soup and spaghetti sauce — are one reason they chose this particular crop for the pilot.

Feder says the chemical question comes full circle back to consumers. "We're so plasticized, we want everything to look perfect," he says.

But the environmental cost of perfection may be too high. A recent University of California report projects that 150 pesticides will be declared off limits in the next five years. And the Clinton Administration has vowed to put 75 percent of the nation's farms into healthier pest management programs by the year 2000, an about-face in federal agricultural policy.

"We're asking farmers to do a 180-degree turn and to take all the risks," says Daar, who made a major effort to bring all the vested interests together to figure out a productive approach. "The farmers' initial reaction ranged from curious to skeptical to hostile, especially with EPA at the table," she says, and commends Feder's cooperative demeanor. "It's taken us a year to build some trust and develop the implementation program now underway."

"We've tried to put a little security out there for those willing to experiment," sums up USDA's Tim Hatten. Contact: Paul Feder (415)744-2010 or BIRC (510)524-2567 ARO

NEWS ROUND-UP

CREOSOTE RECONSIDERED

Cal Fish & Game officials will no longer endorse projects which involve sinking creosote covered wood pilings into state waters. The policy change results from a legal case charging an agency official with violating state anti-pollution laws after he allowed installation of creosote pilings at a Solano County wharf repair project. Creosote, a wood preservative derived from coal tar, contains polyaromatic hydrocarbons (PAHs) that can leach into the water. Dumping PAHs in state waters has long been illegal but their use on pilings has been tolerated, says Fish & Game's Mike Rugg. In future cases where it has comment authority, the state agency will recommend against creosote use. Instead it will suggest options such as concrete, fiberglass or metal pilings, or other wood coatings. Industry representatives, who say that these alternatives are too expensive and that concrete presents an earthquake hazard, are asking Fish & Game to reconsider. Contact: Mike Rugg (707)944-5500 *O'B*



SELENIUM SUIT

Environmentalists and fishermen are taking Exxon and Unocal to court for discharging too much selenium into Bay waters. The suit, filed in U.S. District Court this March, says the discharges violate the federal Clean Water Act. It also contends that the selenium is a health risk for anglers, especially several minority groups who rely on Bay fish as a food source. In late 1993, the S.F. Regional Board granted the refineries a four-year extension for making mandated cuts in selenium discharges, and the plaintiffs aren't happy with the delay. *O'B*

SCREENING OUT RED TAPE

Sticking out into the Sacramento River is a new kind of fish screen, akin to a giant fishing bobber, attached via a 42" diameter pipe to water diversion pumps on a Sutter County tomato farm. The screens, installed April 1, are a demonstration project not only for new fish protection technology (designed by Murray, Burns and Kielein), but also for how off-feuding state and federal fish officials can cut red tape and get things done. Project proponents also hope to show how small farmers can more effectively protect winter-run salmon and other migratory fish. *FH*

BASE HIT

The Bay Commission's Will Travis recalls planning for the reuse of Hamilton Air Force Base as a failure — a process that took far too long (19 years) and involved too much wasted effort. To prevent a repeat performance, his agency is organizing a new forum to not only promote understanding between diverse public and private interests, but also to provide a one-stop resource for local governments grappling with actual on-the-ground conversion issues. One visit to a forum meeting — with all the region's major state and local regulatory agencies and special interests at the table — could answer a lot of the local government's questions, says Travis. Contact: Will Travis (415)557-3686 *ARO*

RCDS BOLSTER REGIONAL LINKS

The Bay Area Council of Resource Conservation Districts hired its first project manager, Lisa Hokholt, this spring, strengthening coordination among the region's 13 districts and boosting implementation of the Estuary Project's *Comprehensive Conservation and Management Plan* for the Bay and Delta (CCMP). The CCMP identifies RCDs as central facilitators of watershed management activities on private lands. "Now we have some help to link the successes of one RCD to the needs of another," says council chair Jim Toland. Contact: Lisa Hokholt (510)672-4577 *ARO*

UC MARE ISLAND?

It's got location, wetlands and best of all, it's polluted. That's why UC Davis officials say the Mare Island Naval Shipyard, slated to close in 1996, would make an ideal site for a research station. The university recently submitted a proposal to use the island to monitor environmental conditions in nearby San Pablo Bay, study the response of native plants and animals to pollution, track the movement of contaminants through water, air and soil, and develop new cleanup technologies. The proposal is one of about twenty now being considered by Vallejo. *O'B*

NATURAL VENTURES

STRESSED-OUT BIRDWATCHING

Gaggles of geese, beavies of swans, braces of ducks and carloads of humans descend on the Cosumnes River preserve. The birds loaf and feed on over a thousand acres of newly restored wetlands; the people watch the birds. But Preserve managers say even seemingly benign activities like birdwatching can cause problems. "Waterfowl in particular have very stringent energy requirements for migration and breeding. If someone walking along the marsh kicks up 5,000 ducks, there's a lot of energy expended. Eventually, especially if other stresses follow, you can lose some birds..." says the Bureau of Land Management's Holden Brink. "We're trying to establish a tradition of use here," says the Preserve's Greg Elliott. "If there's too much disturbance, the birds won't come back."

Educating visitors offers the best chance of balancing public access with habitat protection, says Elliott. Through a combination of tours, signs and exhibits, Elliott hopes to teach the Preserve's 13,000 annual visitors about how their activities affect the wildlife. "If we just put up a bunch of rules, people don't understand the reasons behind them, she says. "But when we actually talk to them, the visitors are totally receptive. We're learning that natural resource management is sometimes not so much management of the ecosystem, but management of the human impact on it," says Elliott. Contact: Preserve Visitor Center (916)684-2816 *KA*

INSIDE THE AGENCIES

MOTHER LIQUOR

The Estuary has a big dose of mother liquor to swallow and local officials are now examining the best way to spoon it out. Mother liquor, an old-fashioned term for bittern, refers to what's left behind after sodium chloride has been removed from bay water to make table salt. And the dose in question amounts to 440 million gallons.

The bittern lies in a 315-acre salt pond, one of 10,000 acres of North Bay ponds purchased from Cargill Inc. by a consortium of public agencies this January and destined for wetland restoration. Most of the \$10 million purchase price came from Shell Oil's settlement on the 1988 Martinez spill. "Progress for wildlife usually comes in small steps," says Cal Fish & Game's Boyd Gibbons, "but this is an opportunity to restore habitat in a vast area."

But before restoration can take place, the bittern and other accumulated salts need to be diluted and discharged — without harming fish and wildlife. Gibbons' agency, as caretakers of the new property, is busy working out ways to do this.

Disposal options include discharge to San Pablo Bay or the Napa River, or railcar transport to a land disposal site. According to the S.F. Regional Board, studies so far indicate that discharge to the river or bay would be environmentally acceptable if the bittern is diluted 100:1. It will take up to 44 billion gallons of fresh water to do this, according to Fish & Game's Mike Rugg, water which would come from either existing rights to the Napa River or the local sewage treatment plant.

Dilution methods vary from a direct infusion of water to an incremental addition involving the reversal of the entire salt production system. In this scenario, the bittern would be slowly diluted with river water as it moves backwards through the salt crystallization ponds toward San Pablo Bay.

"It took 30 years to accumulate, and it could take just as long to turn around," says Rugg. "But I know we can do it."

Environmentalists are worried about the impacts of dispersing the bittern into the site's many deep water ponds — ponds frequented by canvasbacks and scaup. "These birds are already subject to a lot of other stresses like selenium," says the Audubon Society's Barbara Salzman.

While keeping the bittern out of the ponds and discharging it into the Napa River could help waterfowl, it could harm migratory bass, trout and shrimp. "We don't want to make a saline barrier for fishes so they don't recognize home water," says Rugg. Some fish also actually live in the salt ponds. Rugg says his agency's overall objective is to find a disposal method that protects all the existing beneficial uses of the ponds. Contact: Mike Rugg (707)944-5523 ARO

STATE SPANNER IN BASE CLOSURE WORKS

Officials recently discovered that large parcels of Alameda Naval Air Station, Mare Island Naval Shipyard and Hunter's Point may revert to state control once the federal government leaves. "The issue is whether the state's sovereign interest in the land survives its use by the federal government," says Jane Sekelsky of the State Lands Commission, which is currently reviewing the original pacts that dedicated state-owned lands to the federal bases. The pacts may show that any landfill area on the bases that was once a tidal or submerged part of San Francisco Bay must be returned to state control. Sekelsky says the state would then hold this land subject to the public trust, which means the land could only be used for water-borne commerce, navigation, fisheries, water recreation, open space or other similar purposes. Clearly, these uses conflict with many of the others — housing, educational facilities, nonprofit institutions, businesses — proposed for civilian conversion. The only way out may be a land exchange, whereby state lands would be swapped for other lands suitable for public trust uses of the same or greater value. Contact: Jane Sekelsky (916)445-1012

KA

TECHNO-FIXES

MINING WATER

Like the Babylonian king Nebuchadrezzar who turned to Daniel when he couldn't get what he wanted from his top soothsayers, the state's Department of Water Resources has turned from hydrologists to geologists in the search for new water to solve Delta environmental and Los Angeles drinking water supply problems. Department geologists are now looking into water mines — accessed by high-tech wells in Sutter and Sacramento County — as a way get 70,000 extra acre feet of water during drought years.

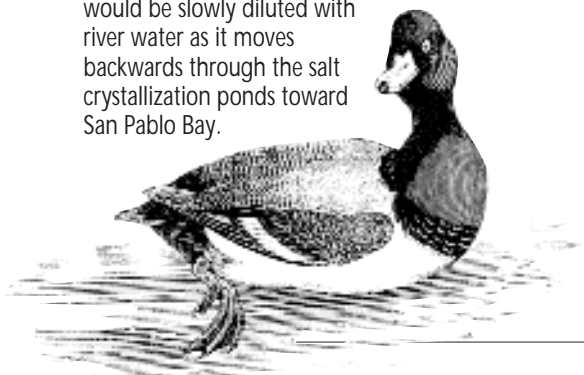
It was concern about possible damage to groundwater reserves and basins from the mining that propelled geologists to the forefront of the water search says the department's John Fielden. "I am reasonably optimistic this can be done but it may begin with a smaller scale test program," says Fielden.

The test program, at this point, is a proposal to install about 15 wells for the South Sutter Water District. An expanded program would include test wells in two other water districts — the Natomas Central Mutual Water Company and Pleasant Grove-Verona Mutual Water Company. Combined, the wells should mine about 40,000 acre feet of groundwater for surface use, says Fielden.

Another 30,000 acre feet may be tapped on Yolo's Conaway Ranch (the biggest individual contributor to the state's 1991 water bank). Still more might come from Kern County's underground reserves. Fielden says Northern California projects would probably be used for Delta problems, and Southern California projects for urban drinking water.

In the past, similar proposals by state geologists infuriated Butte Sink farmers, who saw the wells as a kind of Trojan horse, but local managers say attitudes have changed. "With the politics that currently exist, it's impossible to build dams," says Natomas' Peter Hughes. "This plan would enable us to develop a bubble of water underground that could benefit us and the state during a drought." Contact: John Fielden (916)653-9495

FH

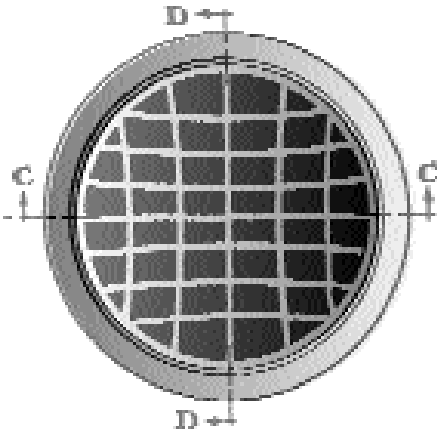


MUNICIPAL BEAT

ALAMEDA'S ANTI-RUNOFF CAMPAIGN

You might expect an agency like the Alameda County Urban Runoff Clean Water Program to toil along in relative obscurity. But these days its name is on bill boards, bus signs, newspaper ads, radio and television.

Alameda's Sharon Gosselin says her agency is trying to educate people who aren't aware they're polluting the Bay when they pour unwanted liquids down storm drains, drive their cars or spray pesticides on their gardens.



The billboards show a couple running along a beach. The water is a bright fuchsia color. "That must be the paint you dumped down the storm drain," one of them remarks. Monthly press releases from the program deal with seasonal topics. The December one, for example, tells people who are winterizing their cars how to dispose of used oil and antifreeze.

The \$200,000 campaign is part of Alameda's compliance with new federal urban stormwater control regulations. Gosselin says the response has been good, especially from radio stations, which have invited her to appear on numerous talk shows.

Most folks, Gosselin believes, are happy to find out how they can help keep the Bay pollution free. "Without a whole lot of effort, people can make a big difference," she says. Contact: Sharon Gosselin (510)670-6547 O'B

TOUGH CHOICES

SAN JOSE SETBACKS

The banks of San Jose's every creek, trickle and ditch, if they have any riparian value, will soon be subject to a set of new guidelines for development. But as city officials flesh out the details, they've been unable to agree on one crucial point — how far back from the creek is far enough to protect biodiversity.

The guidelines cover toxics runoff, restoration and planting procedures, recreational use, noise, lighting, even building orientation — if a creek bank is too private it's likely to invite degradation and dumping. But the stumbling block seems to be what the actual distances from various land uses — buildings, streets, parks, golf courses — should be from the creeks.

"There's little scientific evidence one way or another to suggest that any particular distance is better," says Mike Rigney of Coyote Creek Riparian Station. But Rigney thinks 100 feet makes sense based on professional judgement, guidelines already on the books in other cities and the recommendations of natural resource agencies. He thinks substantial setbacks are essential as buffer zones in the highly disturbed riparian corridors of urban areas.

But San Jose's Planning Department feels a blanket 100-foot setback — recommended by its Planning Commission — is too broad and isn't scientifically defensible. "We don't

want the guidelines to be pie in the sky because they won't get implemented," says the city's Pat Colombe. "The stuff that gets implemented is practical and usable."

Rigney says legal and developer interests leaned on the city to "water down" the guidelines and include various exceptions to the 100-foot setback. But Colombe says the city is simply being very specific. "We don't want to be negotiating with developers on a case-by-case basis for every project," she says.

Exceptions presented by staff at a March 24 City Council committee meeting included a lesser setback for tiny trickles, golf courses, streets and small parcels flanked by existing development where lesser setbacks are already the norm.

As this issue goes to press, San Jose's planning staff, City Council, Planning Commission and Parks and Recreation Commission each had a different view on the setbacks issue. Colombe says she hopes these differences will be resolved by the end of April.

In the meantime, the illusive scientific evidence for setbacks may be on the horizon. Rigney says a Stanford student is now examining the relationship between riparian biodiversity and land uses for his Ph.D. thesis. Contact: Pat Colombe (408)277-4576 ARO

CAN CITIES WATER FARMS?

A new \$2 million, two-year study will examine the economic and environmental effects of transporting wastewater from Bay Area cities back to the Delta. The study, funded by the Bureau of Reclamation and Bay Area water and wastewater agencies, implements one of the action items in the Estuary Project's *Comprehensive Conservation and Management Plan* (CCMP).

According to the CCMP, an estimated 400,000 acre feet a year of treated urban wastewater could be reused to irrigate farms or repel salinity intrusion into the Delta (tides bring salt water farther up river when freshwater outflows are low). "We'll be looking at every drop produced

in the Bay Area," says Michelle Plà of the S.F. Department of Public Works. Plà says that a number of issues need to be examined, including the quality and quantity of the reclaimed water, how it will be blended with Delta sources and the complex problem of how to fairly allocate the costs among the urban and agricultural beneficiaries of the project. "This study will let us know if there are any fatal flaws in the concept," she says.

If researchers find that the idea is feasible, the next step will be to draw up an environmental impact statement. Plà says it would cost "several billion" dollars to construct the facilities needed to move the water to the Central Valley. Contact: Michelle Plà (415)554-8228 O'B

ENVIRO-CLIP

GRASSLAND FIX

There's a myth that you can't control nonpoint source pollution (because it comes from so many sources), and another myth that selenium is so all pervasive in San Joaquin Valley soils that it's beyond control. There are also myths that agricultural drainage can't be regulated, that voluntary BMP (best management practice) programs are the only way to go and that farmers will balk no matter what. But these myths are debunked by an Environmental Defense Fund study released this April (see *Now in Print*).

The study presents a package of nonpoint source pollution control options and economic incentives to curb selenium pollution from agricultural drainage. It uses the San Joaquin Valley's Grasslands area, with its infamous selenium runoff problems, as a case study. And it suggests that many of the perceived obstacles to nonpoint control can be overcome.

"When faced with a nonpoint problem, the automatic response shouldn't be 'let's adopt a BMP,' it should be 'let's look at all the tools available to do the job and pick the best ones,'" says the Environmental Defense Fund's Terry Young.

The best ones for Grasslands, according to the EDF study, are a system of tradable discharge permits among water districts, coupled with economic incentives for farm-level pollution control. Two

tools EDF suggests for accomplishing this are the setting of a selenium TMDL (Total Maximum Daily Load) for the San Joaquin River and the establishment of a new regional drainage district.

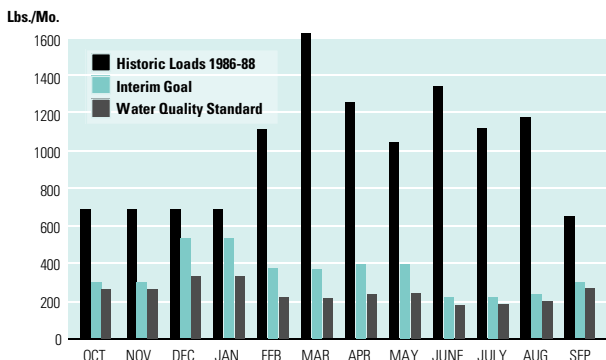
The river currently exceeds the EPA's water quality standard of 5 parts per billion selenium in water. Farmers and water districts complain the standard's too tough and expensive to meet. Regulators, meanwhile, have little history of agricultural water pollution regulation and enforcement, according to Young. "They have cold feet about getting started," she says.

EDF thinks establishing a TMDL for the river would be a good first step for regulators. Developed with both technical advice from Joe Karkoski of the Central Valley Regional Board and some proven EPA methodology, EDF's proposed TMDL calculates what the discharge load would have to be each month — given seasonal flow changes in the river — to hit the 5 ppb standard.

"Our TMDL allows you to predict if you're going to have a glass or a pitcher of water to muck up," says Young. For modelling purposes, and since the 5 ppb standard is currently so far from being met, EDF chose an interim selenium reduction goal for the TMDL (see graph). "Even with the standard exceeded once every five months, you still get dramatic improvement," she says.

EDF's study goes on to propose giving a newly established regional drainage organization the permit for the whole TMDL. The regional agency would then divvy up the load among its half dozen water districts and numerous farmers. The tradable permit system would allow districts which exceed their allocations to buy from districts which have some left over. According to Young, this approach is a much more flexible and cost-effective than mandatory BMPs, as one district or farmer may have better on-the-ground tools for achieving selenium reductions than another.

MONTHLY SELENIUM LOADS FROM AGRICULTURAL DRAINAGE TO SAN JOAQUIN RIVER: DRY AND BELOW NORMAL YEARS



SPECIES SPOT

BUBBLY WINERY AIDS BROOK

Most "adopt a stream" programs don't get underway until it's too late — when the water's already polluted, the habitat nearly destroyed, and the fish long gone. But Zach Berkowitz wants to do things differently. He's starting Trout 2000 to save Napa County's Redwood Creek, which he says is "in pretty good shape." Berkowitz works for Domaine Chandon, a well-known sparkling wine producer with vineyards along the creek's headwaters on Mount Veeder. About 15 percent of the creek's 8000-acre upper watershed encompasses vineyards. Berkowitz is contacting other landowners so Trout 2000 can begin a land use survey and detailed inventory of Redwood Creek's condition. He wants the group to take a stewardship role, working to make improvements and prevent any future degradation.

Berkowitz and other potential Trout 2000 participants recently toured the watershed with Dennis Bowker of the Napa County Resource Conservation District and an EPA biologist. The biologist, armed with an electric stunner, caught a dozen rainbow trout in a single 100-foot section of the creek, including one fish nearly a foot long. "It made my day," says Berkowitz. Bowker says he's impressed by the landowners' attitude. "They've made the connection between their activities on the upper reaches and the health of the stream," he says. Contact: Zach Berkowitz (707)944-8844 O/B

Tradable permits are just one of the incentives EDF proposes to encourage drainage reductions. Effluent fees (the more you pollute the more you pay) and water input pricing (the more you use the more you pay) are two others.

Young says the next step is to get parts of the study implemented in the San Joaquin Valley. "This study has both local clean-up value and national precedent value," she says. "With Clean Water Act reauthorizers grappling with major questions about what to do about nonpoint source control, and with agriculture one of the most contentious of these sources, any study that suggests there might be a workable way around this is timely." Contact: Terry Young (510)658-8008 ARO

DREDGE SCOOP

PORT UPGRADE IMPACTS

"A dribble here, a dribble there" is how the Port of Oakland's Jim McGrath describes port plans for disposal of 5.8 million cubic yards of sediment to be dredged during its 1994-1996 deepening project. In the environmental impact analysis released this March, the preferred alternative ("B2") combines disposal to the ocean, Oakland's Galbraith golf course and Sonoma Baylands, where dredged material will be used to elevate subsided lands to tidal levels and restore wetlands.

It's not that McGrath's unhappy. "I'm glad to be doing wetland restoration," he says. But the combination of disposal methods means the logistics are complex and the costs are high. Physical characteristics and degrees of contamination will dictate which sediments go where.

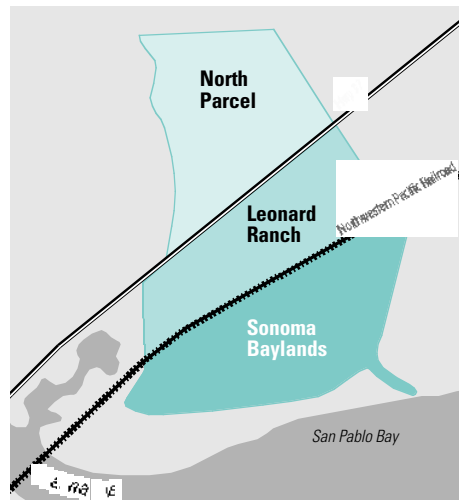
The project's EIS/EIR examined 23 disposal sites around the Bay, in the ocean and on surrounding uplands. Analysis narrowed the field down to eight sites, none of which could take the full volume of material. The port came up with 12 alternative combinations, and settled on B2. Cost estimates ranged from \$80- \$169 million, with B2 coming in at \$143.4 million. Adding Sonoma Baylands to the disposal ticket increases the price tag by over \$27 million. But the baylands project is politically popular. And McGrath thinks costs will come down once the details are worked out.

The Sierra Club's Jim Royce doesn't like the Galbraith component. "Why are we improving golf courses when we could be enhancing the shoreline?" he says. McGrath says "it all boils down to what do you do with the bad stuff. And no one outside Oakland has the economic interest to take it." McGrath agrees that Galbraith isn't perfect. "In a world that wasn't quite so polarized, and where the agencies and special interests all trusted each other, we could probably be much more creative, pay less for disposal *and* build habitat," he says. Comments on the EIS/EIR are due May 2. Contact: Jim McGrath (510)272-1174 ARO

SONOMA SOLUTIONS

Major rehab plans are steaming ahead for 830 acres of North Bay hayfields divided into three parcels. But in the push to promote dredged material reuse for tidal wetland restoration on one parcel (Sonoma Baylands) and to explore the potential for a dredged material rehandling facility on another (Leonard Ranch), the U.S. Fish & Wildlife grew concerned that seasonal wetlands were getting lost in the shuffle. These concerns, shared by the Audubon Society and Save the Bay, were resolved this March. In a letter to the Army Corps dated March 23, the Service gave the Sonoma Baylands project its nod of approval.

PROJECT SITE



Concerns were resolved when the Coastal Conservancy expressed its intent to add 24 acres of seasonal ponds to the Sonoma parcel and to begin site-specific planning and engineering studies to turn the third "North Parcel" (see map) into a seasonal wetland (implementation will be dependent on funding). Several other activities should help smooth future wetland restoration in the North Bay. First, a new study will develop a scientific rationale for what the region's future wetland mix should be (see *Hard Science*). Second, the Bay Commission and the EPA will make the leap from this science to local and regional policy with coordinated North Bay planning initiatives. Contact: Darren Fong, USFWS (916)978-4866 ARO

HARD SCIENCE

BAY WETLANDS BLUEPRINT

Plans for several large-scale wetland restoration projects in the North Bay raised some questions no one felt comfortable answering: How much of what kinds of wetlands do we want where, and why? The answer is now in the pipeline. A new study, undertaken by the Aquatic Habitat Institute and funded by seven state and federal agencies and the LTMS (Long Term Management Strategy for Dredged Material Disposal), will develop a scientific rationale for regional wetland habitat goals by December 1994.

The study will document the historical and current distribution of wetlands in baylands and watersheds that drain directly into the San Francisco Estuary. It will also examine climatic controls; current abundance of endangered species, waterfowl, shorebirds and eel grass beds; and the landscape's resistance to wetland restoration (utilities, roads etc.). A series of technical workshops will gather experts to review the data and make recommendations.

"We'll be asking how much habitat in what array do we need to support target populations of species, and where and how does the urban infrastructure restrain us," says Collins.

Collins also serves on several endangered species recovery teams and hopes to fold species recovery goals into the new regional wetland goals. "Clinton, Babbitt and Wilson all have new directives saying that government should be helping to protect species with regional, as well as state and national plans," he says.

The regional wetland goals, once complete, will take the form of maps for each major watershed. "The maps won't dictate land use or ecological objectives for real estate parcels," says Collins, "but they will indicate the required amounts and relative spatial relationship of wetland habitats." Having scientifically grounded goals in hand, says Collins, should advance the development of a much-needed regional wetlands policy.

Contact: Dr. Josh Collins (510)231-9539 ARO

PLACES TO GO & THINGS TO DO



WORKSHOPS & SEMINARS

CEQA: The Latest Changes

MON•4/25•All day

Topic: The latest changes in the California Environmental Quality Act (CEQA).

Sponsor: Assoc. of Bay Area Governments
MetroCenter, Oakland

Cost: \$160-\$195 (510)464-7964

Urban Stream Restoration Training

WED•4/27•All day

Topic: Innovative urban stream restoration techniques.

Sponsor: Golden State Wildlife Federation and Urban Creeks Council
Various East Bay field locations

Cost: \$110; \$60 students (510)848-2211

Teacher Training Workshop

SAT•4/30•All day

Topic: How to effectively use the "Save Our Seas Curriculum" in the classroom.

Sponsor: California Coastal Commission
Bay Model, Sausalito

Cost: \$10 (415)788-6150

ACWA's 1994 Legislative Seminar

THUR•5/5•All day

Topics: Reforming the California Endangered Species Act, linking land use planning with water supply and pinpointing nonpoint sources.

Sponsor: Assoc. of California Water Agencies
Beverly Garland Hotel, Sacramento

Cost: \$190-\$380 (916)441-4545

"Protecting the Bay Commons" Save the Bay's Biennial Conference

SAT•5/7•8:30 AM-2 PM

Topics: What citizens need to know about the Public Trust Doctrine and other tools for protecting the Bay commons.

Sponsor: Save San Francisco Bay Association
Boalt Hall, U.C. Berkeley, Berkeley

Cost: \$10 (510)452-9261

Attorney Briefing

THUR-FRI•5/12-13•All day

Topics: Water marketing, water rights priorities, ground water management and implementation of the CVPIA.

Sponsor: Water Education Foundation

Cost: \$350 (916)444-6240

2nd Ann. Volunteer Monitoring Workshop

TUES•5/17•All day

Topics: Bay Area volunteer monitoring activities, government interest in volunteer monitoring and funding opportunities.

Sponsors: Aquatic Habitat Institute and EPA
Aquatic Habitat Institute, Richmond

Cost: \$10 (415)744-2012

U.S. Geological Survey Open House

SAT-SUN•5/21-22•All day

Topics: Exhibits and displays of USGS research, tours of laboratories, resources for teachers and USGS mapping abilities.

Sponsor: U.S. Geological Survey
USGS Western Region Center, Menlo Park
(415)329-5000

"Taking Charge of Change" ACWA Spring Con.

WED-FRI•5/25-27•All day

Topics: Delta standards, watershed management and local government restructuring.

Sponsor: Assoc. of California Water Agencies
Town & Country Hotel, San Diego
Cost: \$255-\$560 (916)441-4545



MEETINGS & HEARINGS

Bay Delta Oversight Council

FRI•4/15•All day

Topics: Finalize BDOC objectives, discuss workshops and review progress of technical advisory committees.

Delta King, Sacramento (916)657-2666

SFEP Watershed Demonstration Projects Quarterly Meeting

TUES•4/19•9:30 AM

S.F. Regional Board, Oakland (415)744-1990

State Water Resources Control Board

THUR•4/21 (Tentative)

Hearing Room—901 "P" Street, Sacramento
(916)657-0990

Review of Standards for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary — Public Workshop

TUES•4/26•10 AM

Topic: Public comment on process for developing and implementing new Bay-Delta standards.

1st Floor Auditorium, 1416 9th St., Sacramento
(916)657-1873

Bay Delta Oversight Council Public Workshops

6 Meetings scheduled statewide April-May

Topics: BDOC objectives, public input and next steps.

(916)657-2666

Corte Madera Creek Watershed Planning Public Meeting

THURS•5/5•7-9 PM

Topic: Public input on plan to restore and protect Corte Madera Creek.

Sponsors: SF Regional Board, SF Estuary Project, Environmental Forum of Marin, Kent Middle School, Kentfield
(510)286-4398

State Water Resources Control Board

THUR•5/19 (Tentative)

Hearing Room—901 "P" Street, Sacramento
(916)657-0990

Central Valley Regional Water Quality Control Board

FRI•5/20•9 AM

(916)255-3039

NOW IN PRINT

An Analysis of the Beneficial Uses of Dredged Material at Upland Sites in the San Francisco Estuary

S. F. Bay Conservation and Development Commission
Copies from Steve Goldbeck (415)557-3686

Using Economic Incentives to Control Agricultural Pollution

Congdon & Young, Environmental Defense Fund
Copies from (510)658-8008

Layperson's Guide to the Central Valley Project

Water Education Foundation
Copies from (916)444-6240

S.F. Bay Regional Board Staff Recommendations: New and Redevelopment Controls for Stormwater Programs (to assist municipalities)

S.F. Regional Board
Copies from (510)286-0378

1994 Briefing Book

Environmental and Energy Study Institute
Copies from (202)628-1400

QUESTIONS ABOUT STORMWATER?

Call the S.F. Regional Board's new Stormwater Information Line for details on the industrial and commercial elements of the stormwater program.
Contact: (510)286-0629

BUSINESS WISE

VERNAL TANGLE

More than one hiker has accidentally discovered a vernal pool on a seemingly dry path or field — by stepping into the muck. Stepping into an unexpected muck might also be a good description of what happened to State Senator Tim Leslie, R-Roseville when he introduced legislation (SB 1708) to create a vernal pools mitigation bank.

“The intention of this legislation was to simply create something confined to the financing side of the equation,” says spokesman Roger Wildermuth. “But we are realizing it is going to be very difficult to limit ourselves just to financing, and that we’ll have to work with the issue of regulation.”

Leslie’s legislation would create a bank account developers could pay into when they encounter environmental impact problems with vernal pools. Such mitigation banks for all kinds of wetlands have been endorsed not only by frustrated developers but also by major environmental groups and agencies.

Cal Fish & Game’s counsel Hal Thomas says mitigation banks are viewed as a key to the implementation of a new strategy of advance, rather than reactionary planning. He says the state hopes to see the creation of central land refuges, purchased with development mitigation monies, all over California.

But so far, mitigation bank legislation has been unable to get past the four federal and two state agencies involved in wetland regulation, and Leslie’s bill is no exception. Relief is some form may appear this summer, when the National Academy of Sciences releases a report on how wetland regulation can be untangled.

“We have an attorney that we work with who candidly admits this is one of the most complicated areas of law, and one that he often doesn’t understand,” says Wildermuth.

Leslie says he’s committed to making the idea work, despite the mess. “Not only would this bill provide a new model for balancing the needs of business and the environment, but it would also do so without asking taxpayers to foot the bill,” he says. Contact: Roger Wildermuth (916)969-8232 *FH*

ESTUARY



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