EEL GRASS IN THE OAKLAND HARBOR?

The Port of Oakland is looking for a way to divvy up the spoils from its planned 50-foot dredging project. And it thinks it may have found a perfect disposal site, right in its own back yard.

The Port proposes employing approximately 7 million cubic yards of the dredged materials to establish an eelgrass strewn, shallow water habitat in a portion of the middle harbor formerly used by the Navy. If the project gets the go ahead, the Port would not only create a feeding and roosting area for birds such as the endangered California least tern, it would also save millions of dollars in disposal costs.

The Navy dredged the 190-acre basin to a depth of up to forty feet, and built three finger piers for loading and unloading its supply ships. According to the Port's Jody Zaitlin, however, the basin lacks the space necessary to accommodate modern container ships. "It's not going to be very useful to us."

But then again it might be. The Port will have to dispose of 12-15 million cubic yards of material to construct the 50-foot-deep channels it so badly wants. Using the middle harbor site would cost an estimated \$7 per cubic yard. Dumping it in deep ocean waters would cost \$17/cy, and barging it to a wetlands restoration project at the former Hamilton Air Force Base would be \$20/cy, says Zaitlin, adding that those are "very preliminary estimates." It would take an additional \$4 million to turn the basin into habitat, but that's still far cheaper than the other options.

Zaitlin says the Port is taking advantage of a rare opportunity to establish a badly needed habitat in the heart of the industrialized Bay. Most of the basin would still be underwater, even at low tide, but the depth would be reduced to 2-10 feet, making it much more productive as a habitat for plants and fish. In addition, the Port will build a salt marsh and several artificial bird roosting islands along the shoreline. The project will accommodate humans as well. People in non-motorized boats will be able to cruise the waters and there will be a fishing pier, trail and waterfront park where visitors will be able to observe the avian activity.

Most of the dredge spoils will be relatively clean Merritt sand, but the Port will have to do more than just dump it in the basin, Zaitlin adds. It will build a jetty across the entrance to deflect the



Warblers Refuel at City Creek

When the yellowest of all warblers —
the aptly named yellow warbler
— makes a migratory pit stop at Coyote
Creek in the heart of San Jose it usually
gains weight. A long-term bird-banding
program at the Coyote Creek Riparian
Station found that over half of these
winged visitors fattened up during their
rest and refueling stop on the long fall
flight from North America to Mexico.

"It shows that even the small fragments of creekside habitat we have left are really important to neotropical migrants," says the Station's Chris Otahal.

The station placed a series of nets on poles to trap the yellow warblers — 4-5-inch-long members of a brightly colored, constantly flitting bird family that one guide calls the "butterflies of the bird world." The warblers fly into these extremely fine "mist nests" and fall into a pocket. Station volunteers then weigh, measure, band and release them for recapture and comparison later.

The program found that many *Dendroica* petechia used the site for extended periods during the fall migration (mean of four days, range 1-13 days). Of these resting birds, 57.9% gained mass, 15.8% maintained mass and 26.3% lost mass, indicating that most birds used the area for refueling. Fat load changes ranged from a loss of 1.5 grams to a gain of 5 grams (mean gain was 0.5 grams). Such gains are quite substantial considering the average mass of these birds is only 10.1 grams. Each gram of increased fat allows an individual bird to increase its flight range by over 200 kilometers.

Otahal was surprised by the relatively small amounts of fat put on, compared to eastern migrants.

"Western migrants may have a different strategy, picking up a little mass and moving on to the next site in little hops, as opposed to the larger hops and bigger gains of eastern birds," he says. Otahal speculates that this difference may be due to the habitat differences, with western migrants having to find islands of seasonal food and water in a largely dry landscape while eastern migrants have large, contiguous wooded areas in which to rejuvenate.

Otahal says more warblers have been visiting Coyote Creek lately. "The water district's small creek restoration site has brought more birds in," he says. The species is closely associated with riparian areas, depending on the cottonwood and willow trees of creek banks for resting and breeding grounds. Farming and urban development in the warbler's historic creekside breeding grounds in the Central and Santa Clara Valleys has resulted in a "dramatic decline" in California breeding populations since the 1930s, according to Otahal.

But others among the seven neotropical migrant species banded at the Coyote Creek site were worse off. Most of the Pacific Slope flycatchers, for example, had

used up all their fat reserves and were starting to burn muscle tissue during their stay at Coyote Creek. "These birds are so stressed, there's no room for error," says Otahal. "If this site disappeared, it would be hard for them to make it any further."

Contact: Chris Otahal (408)262-9204 ARO



BULLETINBOARD

NINE CALIFORNIA PLANTS LISTED

Nine "really rare" plants associated with upland wet spots, seeps and warm springs in California got federally listed as endangered on October 22, 1997, according to U.S. Fish & Wildlife's Jan Knight. The plants, many of which inhabit the North Bay region and seven of which are already state-listed, include Clara Hunt's milkvetch, white sedge, Sonoma alopecurus, Vine Hill clarkia, Pitkin Marsh lily, Kenwood Marsh checkerbloom, Calistoga allocarya, Napa bluegrass, and showy indian clover. Most of them occur only on private land, says Knight, and thus no federal "take" (loss) limits can be established for the plants under current law. Indeed there is "no federal nexus" for the kind of protection enjoyed by other species under wetland development or levee maintenance permits, for example, according to Knight. The Service is currently working on a recovery plan. According to environmental groups in lawsuits with the Service, the nine plants are among 95 species nationwide and 160 in California that the Service has allowed to dwindle toward extinction by stalling on final listings. Contact: Jan Knight (916)979-2710 ARO

GREENER OAKLAND BUSINESSES

Abbey Press and 23rd Street Auto Repair recently received official certification as "green" businesses through a program run by a partnership of elected officials, environmental regulators, utility companies and business groups. To be certified, a business must be in compliance with environmental protection requirements and also conserve energy, water and other resources. Businesses that meet the standards get a window decal and logo to show off to their customers. Abbey has reduced paper waste and eliminated chemicals from as many printing processes as possible, even advocating paperless business transactions. The auto repair store carefully manages hazardous materials and water. "My customers know that I run a clean, environmentally friendly garage because local compliance

agencies and utilities have been here to verify it," says the shop's Andres Herrera. Contact: Pam Evans (510)567-6770 ARO

WARM OCEAN LURES BASS

Scientists recently began exploring the possibility that the long-term decline in the Estuary's striped bass population may have been initiated by a 1976-1977 global climate shift, rather than by low freshwater flows and high exports over the years. New findings suggest that the shift in global climate produced frequent periods of warmer ocean temperatures that stimulated migration to the ocean by many older striped bass. This resulted in a sharp decline in the abundance of older fish, which subsequently contributed to the declining recruitment of 3-year-olds in the Estuary. Although Atlantic striped bass have traditionally migrated and

wandered in the near-shore ocean, the

sudden and frequent reversions to such

sport fish in California initiated a decline

wabennett@ucdavis.edu (Largely excerpted

from the Autumn 1997 IEP Newsletter).

behavior by this popular introduced

in the Estuary. Contact: Bill Bennett

WATER WARS BUBBLE

Virtually all parties to negotiations over the allocation of 800,000 acre feet of water set aside for fish restoration by the CVPIA are unhappy with a compromise plan announced by the Department of the Interior in late November. The plan seeks to meet the CVPIA's fish restoration goals though a combination of eight measures, including water releases on the San Joaquin and Sacramento rivers. "We're very disappointed with Interior's actions," says Save the Bay's Barry Nelson, "They have weakened protection for fish in dry years." Farmers

are also displeased: one day after the plan was announced the San Luis & Delta Mendota Authority, which represents large agricultural water users, filed suit in federal court to have it thrown out. CH

NEW HABITAT BILL ON THE HILL

Republican John Chaffe of Rhode Island introduced a new bill this October that would create a national estuarine habitat program designed to restore a million acres of wetlands across America by the year 2010. Supporters say Senate bill S1222 has 21 co-sponsors on all sides of the political debate. Rather than drawing money from U.S. EPA and competing with the existing National Estuary Program, the bill seeks \$100 million a year from sources such as the U.S. Army Corps of Engineers. Save the Bay's Barry Nelson says there are lots of worthy restoration projects in S.F. Bay that might never get a chance of being funded without it. ARO

TREASURE ISLAND TREATMENT MARSH?

Environmentalists and public trust groups are proposing that Treasure Island's base clean-up and redevelopment include creation of a 10-20 acre water treatment wetland on the island's eastern flank. A new 55-page feasibility report explores opportunities for building a wetland to treat stormwater before it enters the Bay. The island was constructed on Bay fill at high cost to the estuarine environment, so it seems fitting that it now contribute to a cleaner Bay, say report authors. The proposed wetland could be constructed in an area that already needs to be excavated to remove contaminated soil. Project proponents — Arc Ecology, Golden Gate Audubon, Public Trust Group and Urban Ecology have been shopping the proposal around and recently succeeded in getting it into one of the redevelopment's EIS/EIR options. The environmental impact report is due by January. Contact: Eve Bach (415)495-1786 ARO



BUREAUCRACY

REVAMPING VERNALIS

A long-awaited plan to protect salmon in the San Joaquin River while collecting new data on fish friendly flow-to-export ratios is nearing completion, according to negotiators. The San Joaquin has long been a focus of California's water wars, farmers, environmentalists and water districts haggle over how much water to leave in the river for fish and how much to pump for agriculture and export. Heavy pumping in the past has devastated the river's once abundant salmon runs.

The Vernalis Adaptive Management Plan (VAMP) grew out of a lawsuit filed by water users in 1995 against regulatory agencies over exports and spring flows at Vernalis, a monitoring station downstream of the confluence of the San loaquin and its tributaries. the Merced, Tuolumne and Stanislaus Rivers. The San Joaquin River Group Authority claimed that the flows established to protect fish by the 1994 Bay-Delta Accord and codified by the 1995 state Water Quality Control Plan were not scientifically justified. According to the EPA's Patrick Wright, state and federal agencies agreed to work with water users on an implementation plan for Accord Flows, but insisted that the resulting plan be "equally protective of salmon and designed as an experiment to sort out the differential effect of various factors affecting fish survival."

Under the plan, flows during the mid-April to mid-May fish migration period would be set at specific levels depending on the year's water conditions. "For every condition we will have a set flow-to-export ratio so that we can compare their effects on salmon survival," says the Bay Institute's Gary Bobker. By and large, flows under the plan will be comparable to those established by existing law. The plan also calls for a fish barrier at the head of Old River and a "ramping down" mechanism at the end of the flow period so that fish don't get stranded when flows are reduced.

Still unresolved is who will provide the water and money needed to implement the plan. Under the Central Valley Project Improvement Act (CVPIA), water users

on the San Joaquin upstream of the Friant Dam are temporarily exempt from providing water for restoration purposes; instead they make a larger contribution to the CVPIA Restoration Fund. Negotiations now are focusing on the use of the Fund to compensate water users on the river's tributaries for the water they provide situation that makes environmentalists uncomfortable. "There's a lot of controversy over using restoration money to pay water users to meet water quality standards," says Bobker. However, environmentalists are considering whether it's possible as a temporary measure.

Some of the water may come from the 800,000 acre-feet/year of water set aside by the CVPIA for environmental restoration. In November the Department of the Interior announced eight measures designed to meet the law's goal of doubling anadromous fish population in Central Valley rivers. The measures will ensure that sufficient water will be available to meet the VAMP's target flows, according to Wright.

Details surrounding export limitations remain to be hammered out. "We've been working from the premise that there will be no net loss over the course of the year," says Dan Fults of the Friant Water Users Authority. "If someone has to cut back on pumping during the flow period, we want to make sure that they can make it up." Environmentalists are concerned that a no-net-loss approach not be used to prevent the use of CVPIA

Assuming the remaining issues can be resolved, negotiators say they hope to start implementing the plan this spring. The plan is scheduled to last for 12 years. At the end of that time, says Bobker, "the hope is that we will have enough data to allow us to revisit some of these issues," such as assessment of responsibility for water contributions and funding.

In the meantime, says Dave Fullerton of the Natural Heritage Institute, "the agreement is important as a precedent. It shows how you can set up a management system to be protective, and maximize the opportunity to increase scientific understanding." Contact: Patrick Wright (415) 744-1024 CH

FARM**yard**

RICE HABITAT SWELLS

There's seven times as much flooded rice field habitat for ducks to feed and frolic in that there was four years ago. The California Ricelands Habitat Partnership now boasts at least 150,000 acres of rice fields winter-flooded for wildlife in the Sacramento Valley. "If you count the marshlands on private duck clubs and state and federal refuges, the total is probably over 200,000 acres," says Mike Bias of Ducks Unlimited, one of the organizations in the partnership, which began as a 20,000-acre pilot project in the winter of 1993.

After a state law was passed restricting rice burning, the partnership formed to test whether flooding postharvest fields could effectively decompose rice "straw" while offering winter habitat for migrating waterfowl. So far, the project has met with success, both in decomposing straw and offering habitat for large numbers of ducks. "We're proud of what we've accomplished," says Steve Butler, a grower and duck hunter. "We went from an all-time low in the late 1980s to the large numbers of birds we see out here now." Estimates of the number of ducks using the ricelands range from 2-4 million.

Although there's more waterfowl habitat and cleaner air in the valley, some hunters have begun to complain they aren't seeing as many ducks. Wildlife managers explain that when more ducks are crowded into less space, the hunting is easier, and some hunters feel more successful. Other hunters feel that crowding too many birds into less habitat is unethical. The worry is that if you make things too good for ducks by dispersing them over large areas, hunters will stop spending money on managed wetlands. At least 70% of California's marshland is owned and managed by duck hunters.

Cal Fish & Game's Glenn Rollins says that duck hunters not only pay dearly for blinds and licenses, but often pay more for water to flood their wetlands.



FARMYARD CONTINUED

Farmers who flood and operate duck clubs on their fields pay more than farmers who flood just to provide habitat. "We've got eight species of ducks supporting over 200 species of birds out here," he says.

In an effort to get a better distribution of ducks throughout the valley, Rollins is working with farmers elsewhere to teach them how to establish hunting programs. He feels there is probably some optimal amount of habitat that will support the maximum amount of ducks possible and still allow for good hunting. But other factors affect duck numbers too. If breeding habitat in the north is dwindling or isn't good quality, for example, just creating more winter habitat won't increase bird numbers.

In the meantime, the flooded rice fields are providing benefits for more than just the waterfowl sought by hunters. "You've got all kinds of shorebirds wintering here, western sandpipers, killdeer, avocets," says Rollins. "Plus wading birds, ibis, egrets, herons, even gulls. You see them standing out there eating crayfish." Counts of shorebirds in the Sacramento Valley last winter numbered in the hundreds of thousands. Rollins would like to see farmers manage their wetlands for these birds too. Although most ducks prefer depths of at least a foot (or deeper), shorebirds prefer shallower water. "You'll often see them around the edges of the fields," he explains.

Despite the concerns of a growing number of hunters, most people agree that the Ricelands Partnership is a good thing, allowing agricultural land to remain productive while providing much-needed habitat. Some wonder what will happen in drought years, when every drop of water is needed for fish flows, or when the market for rice straw (for alternative energy, erosion control, etc.) takes off and growers can make more money from selling their straw than flooding it. But in the meantime, a new and possibly bigger threat to ricelands has emerged. "You're starting to see cotton in the Sacramento Valley," says Mike Bias. More cotton fields mean less rice habitat and more problems for rice growers (cotton is sensitive to the

PEOPLE

OUR LADY OF THE CREEKS

Carole Schemmerling arrives at the Urban Creeks Council office breathless and disheveled after a morning spent babysitting her ten-month old granddaughter, mediating a neighborhood tree dispute, and rescuing some trampled ferns on Blackberry Creek. She frowns at the pile of telephone messages awaiting her from friends of creeks groups, teachers, students of all ages and local politicians — all seeking advice. But Schemmerling can't say no when it comes to creeks.

Schemmerling has served as Bay
Area coordinator of the Urban
Creeks Council for the past
three years and as council
president for twelve years
before that. She was also a
member of Berkeley's Parks
Commission for over a decade.
When Schemmerling first suggested
to the Parks Commission that they dig
up long-buried creeks and bring them back
above ground "They just stared

above ground "They just stared at me blankly," she says. But she and other creek advocates, including landscape architect Doug Wolfe, persevered and in 1985 they helped resurface an underground stretch of Strawberry Creek in the Berkeley flatlands and convert an adjacent former blighted railroad right-of-way into a charming neighborhood park named after the creek.

How does one become obsessed with creeks? "I grew up in the slums of Philadelphia," explains Schemmerling. "But my grandfather would take us to this beautiful clear stream, Wissahicken Creek, a tributary of the Schuykill River. The creek was an oasis to me, a haven," she says. Later, Schemmerling saw Appalachian streams bright orange with runoff from steel mills, and when her family moved to Cleveland near the Cuayahoga River ("you know, the one that caught on fire"), she realized not everyone shared her values about creeks.

When she moved to the Bay Area, Schemmerling became fascinated by the snippets of streams that still flowed openly throughout the East Bay. "I wanted to get them out of those pipes," she says. After the Strawberry Creek success, Schemmerling went on to champion the opening up a stretch of Codornices Creek. And later when the park at Thousand Oaks School needed renovation, she convinced the city to dig up the section of Blackberry Creek below.

During the "down time" between creek uncoverings, Schemmerling was busy behind the scenes. "She had this impatience to do something," says Ecocity creator Richard Register. "She thought that if we couldn't uncover creeks, we could at least call attention to them." Schemmerling's suggestion of painting blue creek "stripes" across streets beneath which creeks were buried evolved into the salamanders, snakes and other "creek critters" Register designed as stencils for Berkeley storm drains.

Which Berkeley creeks does
Schemmerling hope to uncover next? The
ultimate "urban" creeks: a branch of Derby
Creek that flows beneath People's Park,
and the section of Strawberry Creek
that flows between the UC campus
and downtown Berkeley.

If anyone can unearth these two creek stretches, it will be Carole Schemmerling, says Ann Riley of the Waterways Restoration Institute—

Schemmerling's long-time friend.
"Carole has this knack for pulling in
different kinds of people, neighborhoods,

"I wanted to get

the creeks out of

those pipes."

and community groups and organizing them around creeks to better their neighborhoods," says Riley. When tempers in El Cerrito flared last summer over a creek restoration that city had undertaken, the diplomatic Schemmerling allayed the fears of angry residents by showing them slides of other restoration projects and talking to them

about what the creek would eventually look like

Beneath Schemmerling's easy-going exterior lies the passion of a true conservationist. "There are places I'll never see, places I'll never go to," says Schemmerling. "But I want to know that they're there." Meanwhile, she focuses on doing what she can, here and now. "I have no illusion we can return things to the way they once were," she explains. "But to me anything that begins to resemble the way things were naturally is so much more interesting." Recently, a fellow creek-restorationist told Schemmerling he'd seen a 16-inch steelhead in the lower reaches of Codornices Creek. Although fish haven't migrated all the way up Codornices for years, just knowing they're testing the waters is enough for Schemmerling for now. "That pleases me no end," she sighs. LOV



PLANNING

WETLAND-FRIENDLY FARMING IN THE NORTH BAY

Green velvet on duck heads; sunlight on grape leaves; hay waves, dozing dairy herds, long grasses tossed by Bay waters these are all images from a new film on the San Pablo Baylands. The film premiered this October before a crowd of 250 local citizens, decisionmakers and press, marking the passing of another milestone in Save the Bay's partnership program to promote wetland and wildlife-friendly stewardship of the Bay's four-county, 50,000-acre northern fringe.

"The film paints a picture of a land nobody knows about, the Bay Area's last, vast expanse of open space, wildlife habitat and agriculture," says the S.F. Bay Commission's Jeff Blanchfield, whose agency is spearheading another of the four major wetland protection programs that have zeroed in on the North Bay in recent years. "It's absolutely wonderful, we've already shown it to our commissioners," he says.

Accompanying the film is a 12-page overview of the history and value of the San Pablo Baylands, and of options for protecting both its family farms and natural resources. This overview, and the more detailed forthcoming report it previews, is the product of 18 months of workshops and steering committee meetings with landowners from the region, ranging from individual farmers to state and federal agencies that own and manage area wildlife refuges. According to Save the Bay's Marc Holmes, his Partnership for San Pablo Baylands is different from the North Bay's other wetland-targeted efforts because it has acknowledged the need to protect agriculture, as well as wetlands, from the get go, and because it is working with landowners outside the regulatory arena to make them "the guiding body" for future protection efforts.

"So much is coming down here so fast we don't know who to trust," says farmer Norm Yenni. "Save the Bay's doing the best job it can without a regulatory approach."

Holmes points out that more than half of San Pablo Bay's diked wetlands are unprotected and vulnerable to development, particularly along the Highway 101 corridor where cities like Novato have a "disinclination" to preserve them. Imminent threats include a proposed doubling in size of the Bel Marin Keyes lagoon community, and a planned 18-hole

golf course at Black Point. But no one's going to accept the same kind of government intervention used to create the South Bay's large refuges and the Suisun Marsh protection plan, says Holmes, nor are public dollars available in the astronomical amounts needed to replicate that approach today in the North Bay.

"We can't purchase or regulate urbanization out of the area," says Holmes. "Our best hope is sound stewardship by the landowners themselves."

According to the plan overview, such stewardship may take the form of voluntary best management practices by

farmers such as vineyard cover crops to prevent erosion, integrated pest management to minimize chemical runoff, bird boxes to shelter songbirds, deer fences allowing mammal migration, composting to enhance soil fertility,

continued back page

CHANGES IN BAYLAND HABITAT ACREAGE

	HISTORICAL 1770-1820	MODERN 1997
SUBTIDAL OR INTERTIDAL HABITATS		
Deep Bay (≥3 fathoms)	95,289	81,250
Shallow Bay (<3 fathoms)	163,314	164,418
Intertidal Bay Flat	43,822	26,382
Mature Tidal Marsh	185,860	16,572
Young Tidal Marsh	1,261	17,350
Muted Tidal Marsh	4,473	6,002
Lagoon	47	2,326
DIKED HABITATS		
Diked Marsh possib	le native land use	9,220
Ruderal Bayland	ű	3,731
Grazed Bayland	ű	7,278
Farmed Bayland	ű	24,311
Managed Bayland	ű	53,841
Storage or Treatment Pond	d "	4,652
Low Salinity Salt Pond	ш	11,329
Medium Salinity Salt Pond	"	9,926
High Salinity Salt Pond	и	3,927
Inactive Salt Pond	ш	9,649

The S.F. Estuary Institute's Bay Area EcoAtlas recently yielded these new comparisons between past and present wetland acreages (within an area defined by the historical extent of the tides downstream of the confluence of the San Joaquin and Sacramento rivers). For an updated version go to www.sfei.org (EcoAtlas Version 1.50, pre-release 4, used here).

NEXTGENERATION

CANOEING THE SLOUGHS

Many of the sloughs that riddle the edges of the Bay look like little more than ditches. But a new Save the Bay program is giving middle and high schools students an up close-and-personal view of these channels and their ecological importance.

Canoes in Sloughs teaches participants about canoeing and then takes them into the sloughs for a day of bird and plant observation, water testing, and pollution-source identification. "Canoes let you go places you wouldn't ordinarily see," says Save the Bay's Amy Windrope. "With this program, the kids get to see that there's really lots of wildlife right in their own backyards."

"It was an incredible opportunity to get students out on the water and show them in the real world what we are learning in the classroom," says Redwood High School teacher Joe Stewart, who recently took all three of his freshman/ sophomore integrated science classes through the program. "It's a unique program because we start by talking about the issues confronting the Bay and then go into the science of it, instead of the other way around," says Windrope.

So far this fall approximately 800 students have participated in the program, which was launched last spring with a grant and technical assistance from the Chesapeake Bay Foundation. The Toyota Corporation recently awarded the Foundation a grant to export its 30-yearold Chesapeake canoeing program to other areas. In addition to the student program, Canoes in Sloughs has also held two one-week programs for teachers, "focusing on the Bay as a teaching tool and a resource management dilemma," says Windrope.

Windrope says that one of the best things about her program is that it is completely mobile. "There are sloughs all over the Bay," she says. "Recently we put the canoes in the water just a few hundred yards from the back of a school," she says. Most excursions so far have focused on the North Bay, but eventually Windrope says she hopes to include not only the entire Bay Area, but also upstream rivers as well. "We want to show everyone in this watershed that they are connected to the Bay," she says. Contact: Amy Windrope (510)452-9261



TOXICS

WILSON SCRAPS BAY PROTECTION PROGRAM

With a stroke of the pen, Governor Wilson has sent the state's Regional Boards scrambling to complete clean-up plans for toxic hot spots in San Francisco and other California bays by the end of the year long before needed studies of these sites are complete.

In October Wilson vetoed legislation that would have continued funding for the Bay Protection Toxic Cleanup Program, created in 1990 to identify, evaluate and monitor toxics in water, sediment and Baycaught fish. The program had been supported by fees paid by municipal and industrial dischargers. Wilson also directed the Regional Boards to carry out the existing law, which requires that clean-up plans be delivered to the State Board by January 1st.

"This was never anticipated," says the S.F. Regional Board's Karen Taberski, noting that a 1995 implementation plan produced by the State Board directed the Regional Boards to focus on data collection and monitoring rather than developing cleanup plans through the end of 1997. Indeed, Taberski is just finishing up a painstaking three-year effort to develop scientifically sound toxicity testing protocols and reference sites. She has screened 150 suspected toxic hot spots using the new methods.

Taberski says that under standard procedures, once a contaminated site is identified, additional studies are conducted to determine the aerial extent of the contamination and clean-up feasibility — a process that can take an additional three to 10 years. Only after these studies are complete would a cleanup plan be developed. "We've been given just ten weeks," says Taberski.

In his veto letter, the governor criticized the program's approach to human health risk assessments — a claim that Save the Bay's Keith Nakatani dismisses as "completely insupportable." Nakatani says he believes that the reason for the veto was that "this legislation would have put teeth in the program and forced big dischargers to do some real cleanup." M'K Veloz of the Northern California Marina Association says her members "fully support the governor's logic."

As a result of the accelerated timeframe, Taberski says the clean-up plans will consist primarily of options such as capping or dredging contaminated sites. Where responsible parties can be identified, the Regional Board will require them to conduct aerial extent and feasibility studies, and develop clean-up plans themselves.

According to the State Board's Gita Kapahi "the plans that the Regional Boards provide at the end of the year will be proposed plans that will satisfy the law, but they will not be considered complete until the State Board adopts them." The Board has until June 1999 to develop a final clean-up plan for the entire state. In the meantime, additional data that has already been gathered will be analyzed and incorporated in the plans. The governor has ordered the State Board to draw up a budget proposal to keep the program afloat for the next year and complete the clean-up plans, although precisely where these funds might come from is still unknown.

"The law is specific about what the plans must include and these plans are going to have big holes in them," says Save the Bay's Nakatani. "We are skeptical that they will be able to fill those holes in one year." Contact: Gita Kapahi (916)657-0883



SPECIESSPOT

HUMANS AND CANINES BEDEVIL BEACH BIRD

Snowy plovers made headlines recently when dog-owners at San Francisco's Ocean Beach bitterly protested the enforcement of leash laws to protect the sparrow-sized birds. But the real action has been behind the scenes, where the National Park Service, U.S. Fish & Wildlife and others have been quietly working to craft long-term plans to help the waning beach bird.

In 1993 Fish & Wildlife listed the coastal population of the Western snowy plover as a threatened species. Much of the bird's decline is due to loss of habitat, as well as habits that make it susceptible to predators and careless humans. Plovers like to nest in shallow depressions on sparsely vegetated stretches of beach. Because the sand-colored birds blend into their surroundings, walkers, joggers, dogs, horseback riders and vehicles can inadvertently crush nests or drive off adult birds, leaving the eggs and chicks to die of exposure or predation. The plover's nesting season runs from mid-March through mid-September, which coincides with the heaviest human beach use. "You can definitely see why they've become a threatened species," says Fish & Wildlife's Dan Burford.

Early in 1998, the Park Service expects to release a plover management plan for Ocean Beach that addresses the full range of factors affecting plovers and their habitat, with a particular focus on sand management and recreational beach use.

"Ocean Beach is just one piece of the picture, but if you don't have that piece the entire picture falls apart — each site is important for recovery," says Fish & Wildlife's Ruth Pratt. Just 28 plover nesting areas remain in California, Oregon and Washington. Plovers are remarkably consistent, according the Park Service's Daphne Hatch, who says she has seen banded birds return year after year not only to the same roosting area, "but also to the same part of the beach, where they hang out with the same crowd of birds."

Plovers nest at several locations around the Bay, including the salt ponds of the South Bay. The Hayward Area Recreation District recently acquired 155 acres of the former Oliver Brothers salt ponds near Highway 92, which it plans to manage for plover habitat.

Fish & Wildlife is currently developing a recovery plan covering the entire West Coast, and Pratt says she hopes to complete a preliminary draft next summer. The plan will include specific range wide management actions designed to protect the plover. However, according to Pratt, one of the most important parts of the plan will be a massive public education effort to raise awareness among beachgoers and others about the tiny birds underfoot. Contact: Ruth Pratt (916) 979-2725 CH



PLACES TO GO & THINGS TO DO



WORKSHOPS & SEMINARS

FIRST NATIONAL MITIGATION BANKING CONFERENCE

Learn from others' successes and mistakes at the nation's first "how-to" conference on mitigation banking. **Sponsor:** Terrene Institute **Location:** Washington, DC (703) 548-5473

MAY

WATERSHED '98

TO (703) 684-2400

Watershed Management: Moving from Theory to Implementation **Sponsor:** Water Environment Federation Location: Denver, CO



HANDS ON

FRIENDS OF SAUSAL CREEK **SOLSTICE CELEBRATION AND POTLUCK**

Help the Friends of Sausal Creek celebrate the first successful season of plant restoration work on Sausal Creek. **Sponsor:** Aquatic Outreach Institute **Location:** Dimond Park Recreation Center, Oakland 2:00 PM (510) 231-9566

BAY INTERPRETIVE TRAINING

Training topics include: Fins, Scales & Gills (fish and shark anatomy and art); Bay Scientist, Me? (Field class exploring rocky shore life and water chemistry); Seashore Secrets (field class examining tidal life).

Sponsor: Berkeley Marina Environmental Education Program **Location:** Shorebird Nature Center, Berkeley Marina Cost: \$35 9:00 AM-12:30 PM (510) 644-8623

TRIVIA CONTEST EVENT

(415) 243-8373

Benefitting Communities for a Better Environment's Zero Dioxin Campaign **Sponsor:** Communities for a Better Environment

Location: Fort Mason Center Cost: \$500.00 and up per table for 10. Call for individual ticket prices. 7:00 PM

JAN SAUSAL CREEK WORKDAY

Restoration activities **Sponsor:** Friends of Sausal Creek, Aquatic Outreach Institute **Location:** Dimond Park (510) 231-9566

DEADLINE: RIVER OF WORDS CONTEST

River of words is a poetry and art contest that invites children in grades K--12 to explore their own watershed, discover its importance in their lives and then express what they learned, felt or saw through words or images.

Sponsor: International Rivers Network, Library of Congress (510) 433-7020



MEETINGS & HEARINGS

BRIEFING ON DREDGED MATERIALS MANAGEMENT OFFICE PILOT PROJECT

Sponsor: Bay Commission Location: Metro Center, Oakland 1:00 PM-5:00 PM (415) 557-3686

HEARINGS ON CVPIA DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Public hearings to receive comments on the Draft PEIS for the Central Valley Project Improvement Act, which legislated significant changes in the operation and management of the CVP to give fish and wildlife protection equal priority with agricultural and

Sponsor: Bureau of Reclamation **Locations:** Red Bluff, Ft. Bragg, Fresno, Oakland and Sacramento. (916) 978-5100

FFR

DELTA IN-CHANNEL ISLAND **WORKGROUP MEETING**

Sponsor: San Francisco Estuary Project

Location: Sacramento 1:30 PM-3:30 PM (510) 286-0780

CCMP IMPLEMENTATION **COMMITTEE MEETING**

Sponsor: San Francisco Estuary Project

Location: Vacaville 10:00 AM-12:30 PM (510) 286-0780

THE REGIONAL MONITORING PROGRAM FOR TRACE SUBSTANCES (RMP) ANNUAL

Sponsor: San Francisco Estuary Institute

EE GRASS CONTINUED

wake of passing shops, along with a berm and channels to help keep the sediment in place. A few eelgrass plants will be put in place by divers, and will hopefully spread throughout the basin.

The Bay Plan will have to be amended for the project to move forward. One major issue is whether it's classified as a "dredge disposal site" or "habitat restoration," notes the S.F. Bay Commission's Eric Larson. are a lot of other restoration sites the fill could be used for," he says. The agency also has questions about the viability of the eelgrass plantings and the possibility of the dredge spoils drifting back into

David Nesmith of the Sierra Club's Bay Chapter says his group is "cautiously supportive" of the restoration project. He credits the Port with "hiring the best people in the business" to design the habitat (Keith Merkel & Associates), but he says the "larger question" is whether or not the fifty foot dredging is worth the potential environmental risk.

Zaitlin is confident any obstacles can be overcome, and says the Port hopes to start dredging in May of 1999. It will take several years to complete the restoration, and to the casual human observer, the subtidal areas won't appear to be all that different. But, she says, "To the birds and fish, things are going to look much better." Contact: Jody Zaitlin (510)272-1100 O'B

IN MEMORIUM

ESTUARY is saddened to report the recent accidental death of long-time environmentalist and San Joaquin River crusader Carla Bard, who was profiled in our June 1997 issue.





WETLAND-FRIENDLY FARMING, CONTINUED

and or conservation easements, tax incentives and management agreements that promote on-farm wetland protection.

One best management approach that would greatly benefit wildlife would be a shift from winter to summer cropping. "If farmers could switch from dry farming to irrigation they could grow summer crops, freeing up land to operate as seasonal wetlands in winter," says Holmes. What crops, water sources and fertilizers could be used for such changes are things Holmes hopes to see researched on a model farm proposed as part of the stewardship program.

"I'd like to know if we can get the soil right to grow grapes or asparagus on tidelands — asparagus is pretty good money," says Yenni. "An experimental farm could help answer these questions."

So farmers like Yenni don't have to shoulder the risks of experimenting,

Save the Bay is proposing the model farm be located on public lands. Skaggs Island, proposed for acquisition by U.S. Fish and Wildlife, is one possible location.

According to Fish & Wildlife's Betsy Radtke, her agency can use a special use permit to allow farmers to develop farming techniques on the island that are both beneficial to wildlife and specific to the unique conditions of the North Bay — "techniques they can then take home and use on their home farms," she says. "It would be a good use of this property until it can be restored to wildlife habitat."

The model farm, education programs (see Next Generation, p.5), and a new organization and clearinghouse for stewardship efforts are the centerpieces of Save the Bay's program — now being considered for CALFED funding. Despite a worthy vision and excellent film, the real long-term benefits and products of the \$500,000 program remain unclear.

But the farmers and landowners are still at the table, points out Radtke, who serves on the partnership's steering committee. "We still haven't gotten to implementation, and that's the big test," she says.

Landowners like Yenni are worried that no matter how good the stewardship efforts are, regulators such as the Bay Commission will eventually take over. But the Commission's Blanchfield insists his agency has no such authority. Meanwhile other landowners worry that even a stewardship approach is too limiting. "We don't want to be locked into farming for eternity," says rancher Jim Haire.

"The good thing about the plan is it's a tool box — you can pick and chose what to use," says Yenni. "I think you'll see some people using it in time. Politically, we're going to have to in order to get by." Contact: Marc Holmes (510)452-9261 ARO

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