



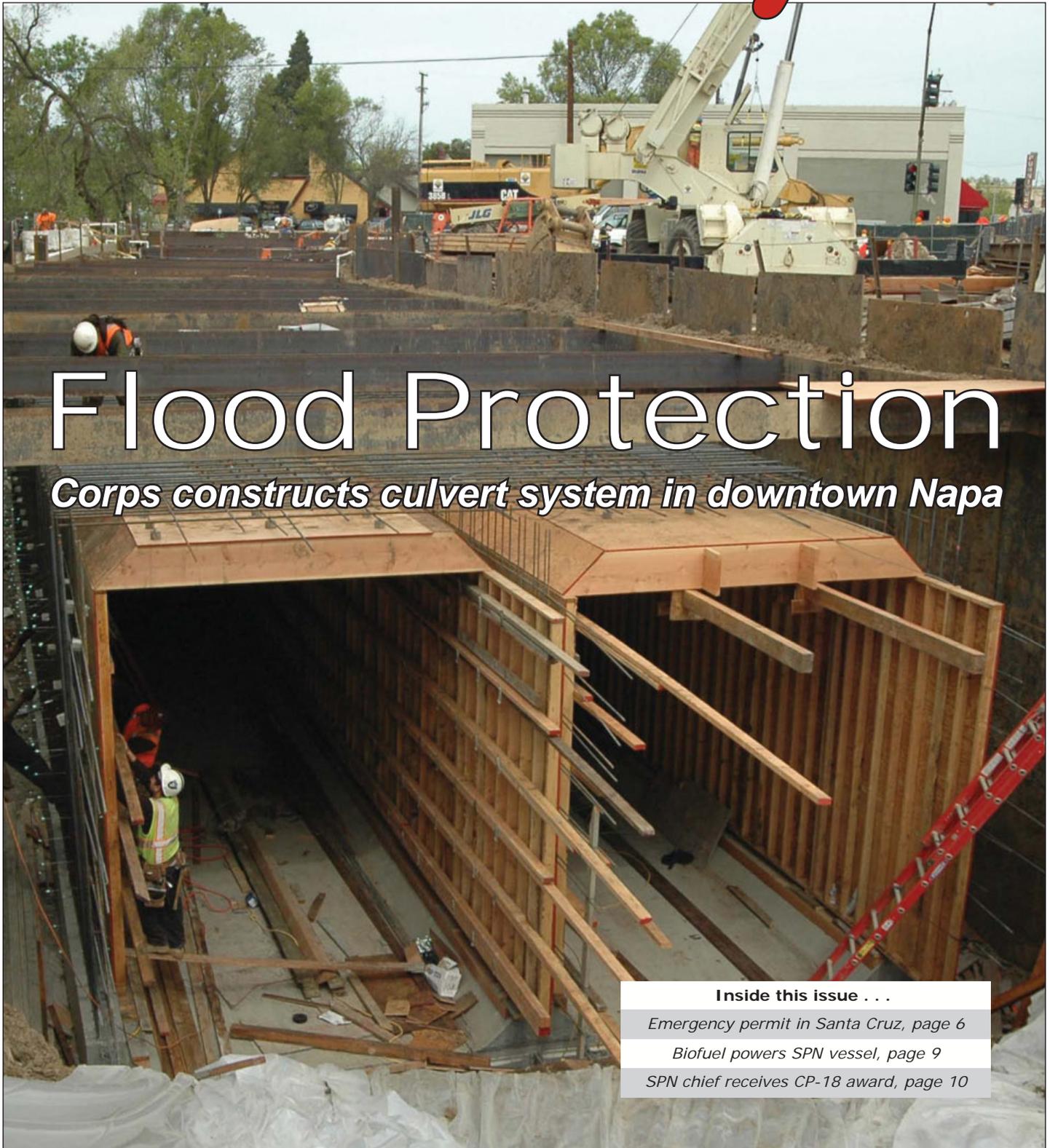
US Army Corps  
of Engineers®  
San Francisco District

# SPN **Surveyor**



[www.spn.usace.army.mil](http://www.spn.usace.army.mil)

June/July 2011  
Vol. 3, Issue 3



## Flood Protection

*Corps constructs culvert system in downtown Napa*

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# COMMANDER'S CORNER

## Keep safety top priority in your summer recreational plans

By Lt. Col. Torrey A. DiCiro  
San Francisco District Commander

Summer is here and that means many of you will be enjoying some well-deserved time off. Whether that entails a vacation getaway to Europe, a simple family outing to the Marin Headlands or an afternoon behind the grill, I encourage all of you to keep safety at the forefront of all of your activities.

### Visit our Lakes

You don't have to travel far to take advantage of two of our very own recreational destinations. In fact, Lake Sonoma and Lake Mendocino receive more than 1.5 million visitors every year. Both of these lakes offer the chance to hike, swim, boat, camp and fish. We have a fantastic ranger staff that will make sure you and your family stay safe in and around the water.

Check out some of our new public service announcements on boat safety from SPN Ranger Wayne Shull. The videos can be found on our district website, as well as on our new YouTube page. We are getting the message out through social media.

Whatever your activity may be, keep in mind these practical and valuable safety tips put together by A.R. Smith, SPN chief of the Safety and Occupational Health Office.

• **Alcohol and water activity do not mix** – Alcohol use is involved in more than half of the deaths reported in water



recreation sports such as swimming, diving, boating and skiing.

• **Don't swim alone** – Drowning is the second-leading cause of accidental deaths for people 15 to 44 years of age. Most drowning victims drown within 10 to 30 feet of safety. Swim only in designated areas and never overestimate your swimming abilities.

• **Hike with another person** – If you go off the beaten path, always carry a cell phone. Let a family member or friend know your hiking plans including route, destination and your estimated time of return.

• **Check your boat for required safety equipment** – Don't overload your boat with passengers or equipment. For power

boats, check your electrical system, and check your fuel system for gas fumes. Know the weather forecast.

• **Wear a life jacket** – The number one cause of drowning is not wearing a life jacket. Remember that life jackets only work when they are worn.

Learn about these and other summer safety topics through the Dept. of the Army's Safe Summer Campaign by visiting [www.safety.army.mil](http://www.safety.army.mil). The campaign runs through Sept. 30.

### Get Outdoors

Earlier this year, President Obama launched his "America's Great Outdoors" initiative in an effort to reconnect all of us to the outdoors. This month, we are promoting the President's initiative with a video campaign that captures the rich landscape of Lake Mendocino.

Formed by the construction of Coyote Dam in 1958, the lake covers more than 1,900 acres, offering hiking trails, campsites, boat launches, visitor center and a fish hatchery. In addition to providing flood control, water conservation and hydroelectric power, Lake Mendocino is also a great place to get some fresh air. We all need it.

### Think Safety

I want to thank all of you for your hard work and outstanding performance these last six months. It has been a busy half year for our District. We are working closely with our customers and executing projects. Enjoy your time off this summer and remember to always think safety first in everything that you do.

### District Commander

Lt. Col. Torrey A. DiCiro

### Acting Deputy Commander

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## SPN Surveyor

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## On the cover

*The Army Corps of Engineers Sacramento and San Francisco districts are building several flood management features along Napa Creek, including two double-barrel culverts, in an effort to protect homes and businesses in downtown Napa from floods. (Photo by Brandon Beach)*

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## Safety tips to beat the summer heat

By A. R. Smith  
District Safety Office

It's easy to get overheated while spending time and/or playing sports outside during the summer due to the higher temperatures and humidity levels hampering the body's ability to effectively cool itself.



Smith

Be aware of the symptoms of heat-related illnesses, as well as measures you can take to help avoid them.

### Prevent Heat Illnesses

- Keep hydrated by drinking water or non-caffeinated/non-alcoholic drinks throughout the day — even if you feel thirsty.
- Wear lightweight, light colored clothing that will reflect some of the sun's rays.
- Try to keep in the shade as much as possible.
- Do not eat a large amount of food during lunch.
- Stop participating in any sports if you become uncomfortably hot.
- Take air-conditioned breaks in your car if necessary.
- Wear a wide-brimmed hat.
- Be aware of medical conditions or medications that might increase sensitivity to heat.
- Wear sunscreen with SPF of 15 or higher to prevent sunburn.

*Smith is the chief of the district's Safety & Occupational Health Office. He may be reached at 415-289-3031.*

## Editor's Note

I am heading off to school this summer to attend the two-month Public Affairs Qualification Course at the Defense Information School at Fort Meade, MD. *SPN Surveyor* will be taking a short publication break during my absence. We will return with our Sept/Oct issue. Please continue to send your story ideas to [brandon.a.beach@usace.army.mil](mailto:brandon.a.beach@usace.army.mil). Thank you for your continued readership.

# Corps looks to reduce flood risk in Napa

Story & photos by Brandon Beach  
District Public Affairs Office

As a kid growing up in Napa, Victor Reynoso remembers the times when he and his friends would jump on their bikes to go see the floods.

“The water would get as high as three or four feet in some parts of downtown,” said Reynoso.

That was back in the 1960’s, a decade where the city had four major flood events, some even occurring in consecutive years.

These days, Reynoso has replaced his bike helmet with a hard hat, as he works as a construction representative for the U.S. Army Corps of Engineers San Francisco District. He still lives in Napa, where the Corps is helping to bring flood protection to a community that has been knee deep in water far too many times.

“Many of the business owners that I’ve spoken with are very happy that we’re here, and we’re getting this project done for them,” said Reynoso.

The project involves building two 600-foot-long double-barrel culverts directly below Main Street in order to reduce the risk of flooding from nearby Napa Creek.

“The culverts will be able to handle any excess flow from the channel,” said Frank Smith, an SPN project engineer who works alongside Reynoso. “If the channel reaches the point where it is going to hit flood stage, that extra water goes through the culverts and is bypassed down to the Napa River.”



*The Army Corps of Engineers is building several flood management features along Napa Creek, including two double-barrel culverts, in an effort to protect homes and businesses in downtown Napa.*

Construction crews broke ground in early January, after design work was completed by the Corps’ Sacramento District last year. SPN is handling the construction management portion of the project.

“We do all the on-site supervision, quality assurance and inspections,” said Smith.

The Corps chose ProVen Management, a San Francisco-based firm, as the primary contractor. The \$15 million project is be-

ing funded by the American Recovery and Reinvestment Act.

So far, crews have excavated the area and finished placing the reinforced steel and concrete that make up the shell of the two culverts, each one measuring 11 by 14 feet.

In addition to the culverts, the Corps is also looking to restore the habitat and overall water quality of the creek.

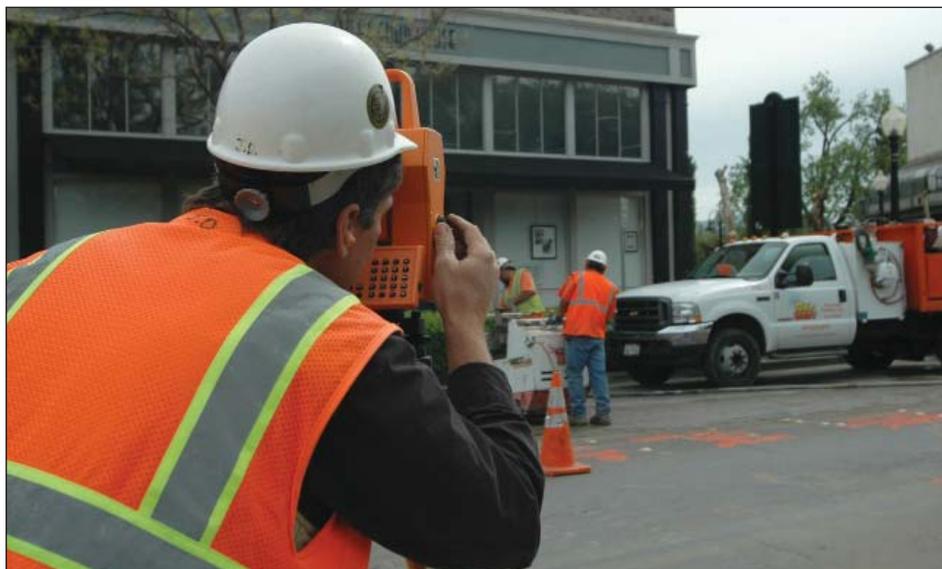
“The water is contaminated with hydrocarbon, so we have to filter that out,” said Reynoso. “It’s from diesel oil.”

Years ago, a gas station stood on the corner of Main and Clinton streets, reportedly leaking large amounts of oil over time into the groundwater. The Corps has set up a series of wells along the creek to pump out the water, where it is purified in detoxification tanks and discharged back downstream.

“We’ve taken out close to 4,000 cubic yards of contaminated soil,” said Smith. “It’s been reduced from 400 micrograms per liter to less than 50, so we’ve already taken most of it out.”

Rootwads, which are large tree stumps that have the roots still attached to them, are also being installed along the bank of the creek.

“You use them for slowing down the velocity of the water, as well as provid-



*A surveyor checks for any construction-related vibrations that may affect the historical buildings.*

Continued next page  
June/July 2011

Napa continued ...

ing shelter for fish,” said Smith, who noted that steelhead trout are common in the creek.

Construction crews are working around the clock, said Reynoso, to complete the culverts and bank enhancements by the middle of summer and reopen city streets.

The culvert work at Napa Creek is one part of a larger effort by the Corps to complete six different flood protection projects in Napa including new floodwalls, a dry bypass channel, three new bridges and several pumping stations. The footprint for these projects cover 6.9 miles of the Napa River and approximately two-thirds of a mile of channel modifications for Napa Creek, according to the SPK website.

Construction on a second set of culverts further west of downtown is also scheduled to begin later this year in an effort to carry additional flows from the creek.

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*For more information on the Napa River-Napa Creek Flood Protection projects, visit [www.spk.usacd.army.mil](http://www.spk.usacd.army.mil).*



*The Corps has set up a series of wells along Napa Creek along with these detoxification tanks to remove contaminants from the water. Close to 4,000 cubic yards of contaminated soil was removed from the creek.*

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## Lake Mendocino opens new facility

**Story & photos by Ryan McClymont**  
*District Public Affairs Office*

Construction was completed on a new maintenance shop at the U.S. Army Corps of Engineer’s Lake Mendocino park office April 28.

The 2,400-square-foot facility was designed for maintenance, welding, fabrication and to store park and dam equipment. The facility will also have a solar panel system on the roof to provide electricity to all the structures in the park headquarters area.

“We are using the solar panels to offset our utility power usage,” said David Serafini, a SPN project engineer at Lake Mendocino. “It gets us off the grid.”

The preliminary design of the \$650,000 project was created and approved in 2010, and construction began in January. The funding for the project was provided by the American Recovery and Reinvestment Act.



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*[Top] A view of the \$650,000 maintenance shop at Lake Mendocino three weeks prior to its completion on April 28.*

*[Far Right] An employee from BC Schmidt Construction finishes the electrical work during the final stages of construction.*

*[Right] A construction worker smooths out wet concrete at the new facility.*

# SPN issues emergency permit in Santa Cruz

By Brandon Beach  
District Public Affairs Office

The U.S. Army Corps of Engineers San Francisco District issued an emergency permit in Santa Cruz after a March 11 tsunami ripped through the city's 821-slip harbor leaving behind more than \$26 million in damages.

Triggered by the 9.0-magnitude earthquake that struck Japan earlier this year, the powerful tsunami flattened several docks and sank 14 boats. Damages to private boats alone were estimated at \$4 million.

Following the disaster, the Santa Cruz Port District applied for an emergency permit with SPN to begin its recovery efforts. SPN's Regulatory Division worked closely with the various resource agencies to issue a Regional General Permit 5



Gill

in less than six days.

"It allowed them to deal with the immediate effects of the disaster and stabilize the situation," said Cameron Johnson, a SPN regulatory branch chief.

The permit gave port officials the green light to begin repairing docks. Nearly 150 pilings will need replacing.

"Before we can issue a permit for this kind of work, we have to make sure there are no effects to listed species," said Paula Gill, a SPN regulatory manager who helped write the permit. "Under RPG 5, the Corps takes the lead role in coordinating this process."

Some of those listed species that reside in the Santa Cruz Harbor area include the California sea otter and steelhead trout, said Gill. The Corps coordinates with National Marine



www.laist.com

A boat remains tied to a damaged slip at the Santa Cruz Small Craft Harbor following the aftermath of a March 11 tsunami that ripped through the harbor causing \$26,000 in damages.

Fisheries Service, U.S. Fish & Wildlife Service and Environmental Protection Agency to evaluate potential impacts to species and identify Best Management Practices.

Time was of course critical to port officials, as financial losses of nearly \$60,000 a day, according to one harbor report, began to stack up with each day of the harbor's closure. RPG 5 is a way to expedite the permit-

ting process during emergency situations.

"They have to get things moving again, and we understand that," said Gill.

The harbor has since reopened, as of March 23, as all disaster-related debris has been removed from the channel and navigation has been restored. Repairs to docks and other infrastructure items will be ongoing through the summer.



Beach

## Letter of Appreciation

Jane Hicks, middle, chief of the San Francisco District Regulatory Division, accepts a framed letter from representatives of the City of Geyserville earlier this year, in appreciation for issuing a permit for the Geyserville 128 Bridge Repair Project.

Other members of the district's regulatory team that helped issue the permit include Jim Mazza, second from the left, Laurie Monarres, Roberta Morganstern and Andrea Meier.



East Bay Regional Park District officially opened its new Tidewater Boating Center in Oakland following a March 5 ribbon-cutting ceremony.

## *New aquatic center rows into Oakland*

Story & photos by **Brandon Beach**  
District Public Affairs Office

**E**ast Bay Regional Park District celebrated the opening of its new Tidewater Boating Center in Oakland March 5.

The 12,300 square-foot facility, which will be home to the Oakland Strokes junior rowing club, opens up a space along the Martin Luther King, Jr. Regional Shoreline once closed to the public by industry.

“In the 1880’s, this shoreline was open to everybody, but as we urbanized in the East Bay, we lost the ability to get down to our shoreline,” said Robert Doyle, the park district’s general manager. “We’re stitching back access to the bay through cooperative partnerships and efforts over the last 40 years.”

One of those partners was the U.S. Army Corps of Engineers. Since the \$4 million project was within a federal channel and the Corps’ jurisdiction, a permit was required by the San Francisco District’s Regulatory Division.

Not only does the estuary offer an

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*This is a marvelous step, particularly when all of us need the inspiration of nature.*

**Loni Hancock**  
Calif. State Senator

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ideal recreational outlet for young rowers, but it is home to thousands of migratory birds, including the endangered California clapper rail, and many fish species, said Jessie Burton-Evans, a SPN project manager who helped issue the permit.

“This is a marvelous step,” said Senator Loni Hancock, during her remarks, “particularly in a time when all of us need the inspiration of nature.”

*For more on the East Bay Regional Park District, visit [www.eb-parks.org](http://www.eb-parks.org).*



Members of the Oakland Strokes prepare to depart the dock area following last-minute instructions from their coach.

# SPN crew members tackle debris

By Ryan McClymont  
District Public Affairs Office

Whether it is a sunken boat, a floating tree or a dilapidated pier, the San Francisco District debris removal crews are armed with the tools to remove debris from the Bay to allow for safe navigation of the federal waterways.

“The *Raccoon* is one of a kind and perfect for the San Francisco Bay because of the nature of the debris rifts and the heavy lifting crane. We can scoop up debris out of the rifts, and we can tow quite a bit as well,” said Joe McCormack, captain of the *Raccoon*, a debris removal boat operated by the U.S. Army Corps of Engineers San Francisco District.

The current mission, one of many this year which contributes to 1,200 tons of debris removed from the Bay each year, was called

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*We can scoop up debris out of the rifts, and we can tow quite a bit.*

Joe McCormack  
Derrick Boat Captain

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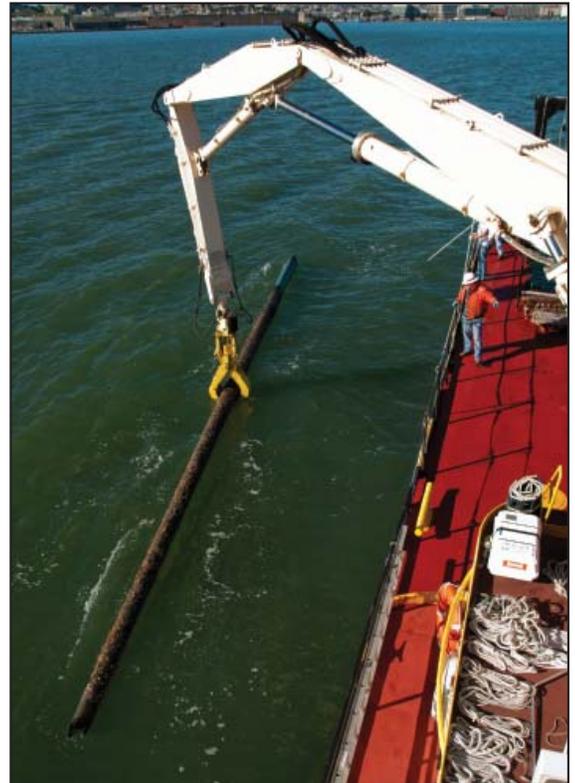
in by one of the Bay’s ferry boat captains. He reported a 40-foot long piling floating near the Bay Bridge at Treasure Island.

After some searching the piling was found, retrieved by the *Raccoon*’s crane, secured and safely removed from the Bay.

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*A crane operator on the “Raccoon” lifts a 40-foot long piling from Bay Area waters.*

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McClymont



photos by Kixon Meyer

## Dive team trains in SF Bay

[Left] A crew member from the “John A. B. Dillard, Jr.” helps lower an emergency boat into San Francisco Bay waters April 22 in preparation for an all-day dive training. [Above] Steve Shelton, left, a SPN budget analyst, is shown here tending the line for Andrew Rapp, a SPN engineering technician, while he waits for instructions from the dive supervisor. The SPN team is the only USACE dive team in the West Coast and assists the four districts of the South Pacific Division with inspections of breakwaters, bridges, levees, dams and locks. For more information on the team, contact Derrick Dunlap, deputy chief of Operations and Readiness Division, at 415-503-6772.



Beach

The "Raccoon," a San Francisco District debris-removal vessel based in Sausalito, Calif., is using for the first time a new biofuel called B100.

## SPN powers debris-removal vessel with biofuel

By Brandon Beach  
District Public Affairs Office

The U.S. Army Corps of Engineers San Francisco District is testing a new biofuel made entirely from soybeans to power its debris-removal vessel *Raccoon*.

Mechanics at the district's base yard in Sausalito, Calif., began overhauling the boat's engine several months ago in order to pump for the first time an almost 100 percent, non-petroleum fuel called B100. The results are already being well received on deck.

"The best thing about it is it's clean. It puts out less emissions; it has less odor, which makes the crew happy, particularly the boat operator, because he's up there by the stacks, and the diesel exhaust comes right into the pilot house," said Ken Danielson, chief of the district's Navigation and Structural Section. "It can be pretty nauseating."

One of the biggest issues with preparing the boat was figuring out how to supply enough heat to the *Raccoon's* fuel tanks.

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*It's really the right thing to do because it reduces our overall carbon footprint.*

Ken Danielson  
Chief, Navigation & Structural Section

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Unlike most boats that have their fuel tanks housed below deck in the hull area, the *Raccoon* was designed with its fuel tanks above deck. As weather in the Bay Area can be quite cold, heating this type of biofuel, which requires a temperature of 40 degrees or above to operate, proved tricky for mechanics.

"You get below 40 degrees, and it starts to get thick," said Danielson. "So we put 8,000 watts of heat on deck. We had to do all the wiring, thermostats, controls and

timers to keep the tanks warm."

Contrary to the petroleum-based diesel used on the *Raccoon* in the past, B100 is completely biodegradable and non-toxic. This new type of fuel is being used not only on the *Raccoon*, but on five other boats as part of a pilot program to test how clean energy can help fuel the Corps' fleet.

"It's really the right thing to do because it reduces our carbon footprint and gets us away from the dinosaur oil," said Danielson.

With the *Raccoon* operating almost daily in the greater San Francisco and San Pablo bays, any reduction with respect to the boat's carbon emission levels will be considerable over time. And if biofuel proves successful on the *Raccoon*, other SPN boats may be next.

"If this works out, then when the *Dillard's* cat engines are out of warranty, we will consider switching that one too," said Danielson.

The "John A.B. Dillard, Jr." is SPN's newest command and control vessel, commissioned into service last year. It joins a district fleet of debris-removal vessels that includes the *Raccoon* and *Grizzly*.

# EMPLOYEE NEWS

## District chief awarded "Journeyman of the Year"

By Brandon Beach  
District Public Affairs Office

Jeff Ide, Civil Design Section chief for the U.S. Army Corps of Engineers San Francisco District, was awarded the 2011 Career Program 18 Senior Journeyman of the Year for his work with the district's Leadership Development Tier II Program.

"I'm very honored. I never got into this work for the awards," said Ide. "I just do it because I enjoy it."

His dedication to mentoring emerging leaders was recognized during an April 12 ceremony in Orlando, where he received the award in front of his peers.

"I want to personally thank you for your time, dedication and continued contributions to ensuring that we recruit the best talent, develop a world-class workforce with a lifetime learning philosophy, and retain the talent required to serve the Army and the Nation," said Bob Slockbower, CP-18 Functional Chiefs representative.

CP-18 is the designated career field for engineers and scientists working within the Dept. of the Army. This was the third year for this award after being established in 2009, and the first to be given to a SPN employee. Ide competed with individuals from Installation Man-



Andre Mayeaux

Jeff Ide, left, SPN Civil Design Section chief, receives the 2011 Career Program 18 Senior Journeyman of the Year award from Deputy Chief of Engineers Maj. Gen. Bo Temple April 12.

agement Command and four other Army components for the honor.

Ide joined the district in 1998 as a civil engineer. He is a 2006 graduate of LDP III, a program offered at the regional level by the South Pacific Division. He began working with LDP II shortly after and is responsible for mentoring participants, developing curriculum and

teaching leadership courses.

Also receiving a CP-18 award was Daria Mazey, a SPN planner, who is this year's South Pacific Division Junior Journeyman of the Year. She was the SPN Mentorship Program lead for several years before moving to New York last month to begin graduate studies at Columbia University.

## Saying Farewell



Beach

Former SPN Deputy Commander Maj. Sam Volkman, left, receives the Meritorious Service Medal from SPD Assistant Chief of Staff Glen Reed during a farewell luncheon March 12 in San Francisco. Volkman leaves the district after two years of distinguished service to join the 18th Engineer Brigade in Heidelberg, Germany. He is replaced by Maj. David. Kaulfers as acting deputy.

## District hosts Shadow Day

By Brandon Beach  
District Public Affairs Office

Students from the University of California, Berkeley received a rare on-the-job look at life as an engineer during Shadow Day March 23.

The annual event, which gives Bay Area students a glimpse at the engineering profession, was co-hosted by the South Pacific Division and San Francisco District.

This year, two Berkeley civil engineering students met with Blair Jackson and Patrick Sing of SPN's Civil Design Section, Lisa Andes of the Water Resources Section, Katherine Reyes of Proj-

ect Management and Boni Bigorina, a SPD regional civil engineer.



Ferris

Students spent approximately one hour at each section observing the typical workday of these employees and learning about projects.

"Coming here they get to see career opportunities in engineering, and they get to see the Corps as an option once they graduate," said Nancy Ferris, program lead for SPN's Shadow Day. "It is also exciting for our employees to show what you can do in the real world."



# Earth Day at Lake Mendocino

*District Public Affairs Office*

**E**arth Day at Lake Mendocino featured a diverse program of educational activities for the public including ranger-led tours of the park’s Steelhead Conservation Hatchery and recycling center.

Games were set up for children and youth to learn more about the environment in which they live including a “Promise

Tree” scavenger hunt, wildflower seed planting and building bird houses.

There were approximately 55 visitors that came out for the all-day event.

Similar Earth Day activities were held at Lake Sonoma and the Bay Model Visitor Center in Sausalito, including a community-wide cleanup.

*-- Photos courtesy of Ranger Margot Royal*

[1] USACE Park Ranger Kevin Madsen, middle, fields questions from a group of children during Earth Day activities at Lake Mendocino April 23. [2] Ranger Paul Harris helps children build bird houses. [3] Ranger Poppy Lazoff Carroll joins children in painting an Earth Day mural.





**Building Strong: People**

**SPN biologist featured in USACE campaign video**

**Story & photos by Brandon Beach**  
*District Public Affairs Office*

**E**ric Jolliffe doesn't mind getting a little mud on his shoes. In fact, it's part of the job for this biologist with the Corps' San Francisco District.

Mud, or more accurately, dredged material, has played a key role in the development of the Hamilton Wetland Restoration Project in Novato, Calif. It is the foundation for building the kind of typography conducive to growing plants and attracting wildlife.

To date, more than 20 million cubic yards of dredged material has been placed on Hamilton for beneficial reuse.

"We are essentially using the mud to raise the elevation of the site, which would happen naturally if we breached it, but it would take decades longer," said Jolliffe. "This is a critical area for a couple of endangered species - the salt marsh harvest mouse and the [California] clapper rail. So there's an advantage to creating this site as fast as possible."

In order to speed up that process, engineers with the San Francisco District have established a temporary offloader several miles offshore where barges can unload their cargoes of dredged material. The system then slurries the material and moves it to different areas of the project site using a complex system of booster pumps, sub-stations and miles



*Eric Jolliffe, a San Francisco District biologist, explains on camera how dredged material is used to restore wetlands. He is standing on a seasonal wetland area at Hamilton, Calif., where the district is working to restore nearly 1,000 acres of a former Army airfield to wetland habitat.*

of pipeline.

The 988-acre project near San Pablo Bay is one of the largest habitat restoration projects on the West Coast. Jolliffe has been providing his biological expertise to this ambitious project for the last 15 years.

"This is the reason I came to the Corps; I don't think I would have come for another reason," said Jolliffe. "A project like this was very appealing to me. It

was going to be long term, and you get to work on it almost full time."

A biologist matches concerns for the environment with demands of urban development. Biologists are an integral part to the U.S. Army Corps of Engineers. The job is never boring. And neither are the people in it.

*To view videos of Eric and the Hamilton Project, go to [www.army.mil/USACE](http://www.army.mil/USACE).*

# Postcard from Afghanistan



USACE AED staff photo

*Hans Tolksdorf, left, a civil engineer from Lake Sonoma, recently deployed to Kandahar, Afghanistan in support of the nation's Overseas Contingency Operations. He is shown here with fellow USACE employee, Joseph Schwing, at an airport in Shindand Airbase.*

## ***Hello from Kandahar,***

*I arrived on Sunday [April 17]. That day my group from the USACE Deployment Center (UDC) went through Kandahar Air Field (KAF) customs where they searched our bags individually for prohibited items. From there, I met my sponsor, and we began the on-boarding process. After I received all the protective equipment, it was a short drive to my Forward Operating Base, called FOB Lindsey.*

*The first time making the drive "outside the wire" was a little nerve racking, especially since we had to go off road a little to avoid some vehicle obstructions. Since then, I have made the commute several times, and it isn't too bad anymore.*

*I am just starting work today, and there is a lot to do. They say that 50 percent of my time will be going to job sites all around Afghanistan Engineer District*

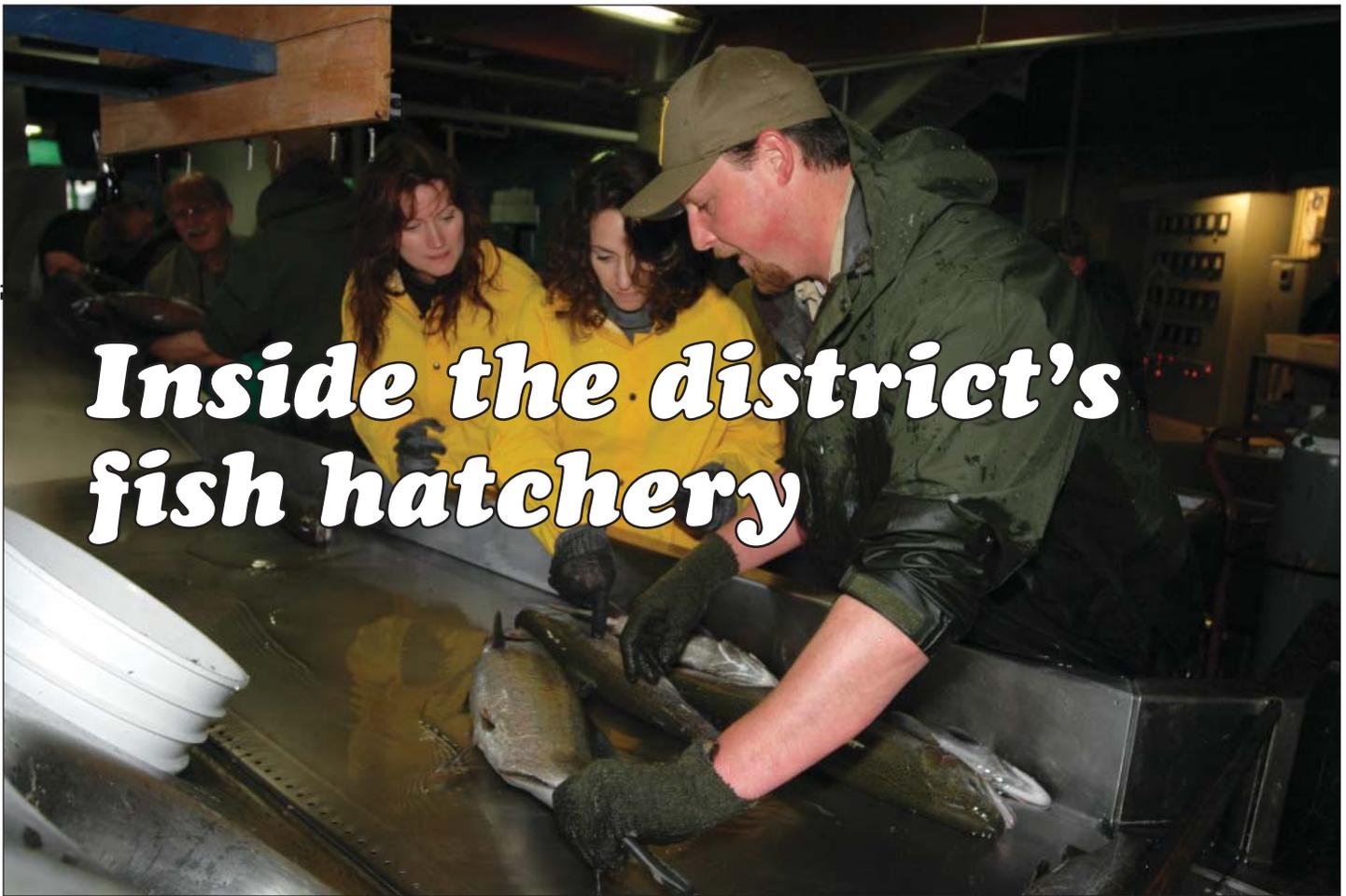
*— South (AED-S) by helicopter, plane and Mine Resistant Ambush Protected military vehicles (MRAP). I will be working on a Lab Inspection Program, which was set up to ensure that the local contractors are using USACE approved laboratories for their materials testing. Also, I will be doing Construction Management Evaluations (CMEs) and reviewing submittals for the Quality Assurance Branch.*

*Other than that, the food is good. I share a room with one other guy, an electrical engineer named Job.*

*I am scheduled to go "outside-the-wire" by MRAP next week, to a project to build a new "bridge," which is actually just an underwater crossing out here. I will take lots of pictures and send them soon.*

*Regards,*

***Hans***



# Inside the district's fish hatchery

*District Public Affairs Office*

**H**atchery technicians at the Don Clausen Fish Hatchery at Lake Sonoma hosted more than a dozen representatives from several state and local agencies March 24 to provide them with a rare hands-on look at their steelhead trout and coho salmon recovery operations.

The facility, which is fully funded by the Corps of Engineers, is operated by the California Department of Fish and Game. It was built in 1980 to mitigate for the loss of spawning habitat for salmon and trout. This habitat was blocked by the construction of Warm Springs Dam at Lake Sonoma, which is located on Dry Creek, a tributary of the Russian River, 10 miles northwest of the town of Healdsburg.

The hatchery is one part of the Milt Brandt Visitor Center run by the Corps, which provides the biological, cultural and anthropological natural history of Dry Creek Valley. More than 200,000 people visit the hatchery and visitor center annually.

The all-day event was hosted by the Corps' South Pacific Division and San Francisco District.

*[Above] Alan Bariani, right, a California Department of Fish and Game technician, shows Cheree Peterson, middle, South Pacific Division chief of CWIB, and Charlotte Ambrose, a recovery coordinator with the National Marine Fisheries Service, how to properly handle a fish March 24. Participants had the chance to see the different processes of spawning steelhead trout and coho salmon at the hatchery.*

*[Right] Christine Altendorf, Ph.D., SPD director of Programs, gets a surprise splash from a steelhead trout as she attempts to take hold of it.*



*-- Photos and reporting by Brandon Beach.*

# ENGINEERING CHALLENGE

Take on the engineering challenge in this month's SPN Surveyor. The first to solve this problem will receive a commander's coin, with the results being published in the Sept/Oct 2011 issue.

## The Problem

A contractor must install a French drain to the dimensions shown in the figure on the right. Before starting, you are informed that near surface groundwater will readily fill any excavation, and no personnel will be required to enter the trench during the installation. The contractor has pumping equipment but not the hardware to shore/brace an open excavation.

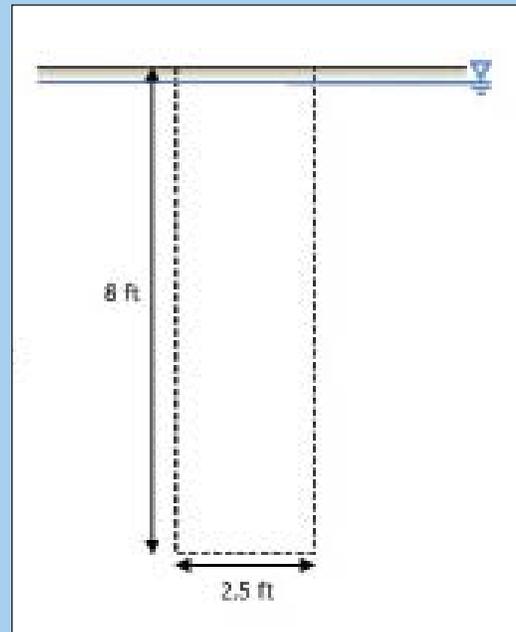
Make design recommendations that will (i.) minimize the excavation required and (ii.) ensure the trench will not collapse.

### In-situ soil properties

Wet Unit Weight = 95 lbs/ft<sup>3</sup>

Friction Angle = 15°

Cohesion = 150 lbs/ft<sup>2</sup>



Submit your answers via e-mail to John Jacobson at [John.H.Jacobson@usace.army.mil](mailto:John.H.Jacobson@usace.army.mil).

(This challenge was submitted by Nicholas Malasavage, a SPN civil engineer.)

**Congratulations to last issue's winner!**



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SPN Commander Lt. Col. Torrey DiCiro, left, presents a commander's coin to Hans Tolksdorf, a SPN civil engineer at Lake Sonoma and winner of the Surveyor's March/April Engineering Challenge.

## Answer to last issue's challenge

In the last issue of SPN Surveyor, readers were asked to answer two questions related to hydro-acoustic investigations. Here's how Hans answered them.

A1.  $D_1 = 96,758 \text{ m}$

A2.  $D_1 = 47.118 \text{ m}$

BONUS: It is assumed that the sound receptor (e.g. fish or marine mammal) is stationary for the entire duration of exposure to the pile driving sound. In this case, the single strike SEL value is constant over the entire exposure period, and the accumulated SEL can be calculated from the single-strike SEL and the estimated number of pile strikes. Realistically, a fish or mammal would change positions in the environment and the single strike SEL the receptor would experience would vary by strike.

# ASIAN PACIFIC AMERICAN HERITAGE MONTH

District Public Affairs Office

Asian Pacific American Heritage Month (APAHM) is celebrated in May to commemorate the contributions of people of Asian and Pacific Islander descent in the United States.

Congress passed a joint Congressional Resolution in 1978 to commemorate Asian American Heritage Week during the first week of May. This date was chosen because two important anniversaries occurred during this time: the arrival of the first Japanese immigrants in America on May 7, 1843 and the completion of the transcontinental railroad (by many Chinese laborers) on May 10, 1869.

In President Obama's proclamation of APAHM last year, he touched on past struggles:

"Asian Americans and Pacific Islanders have shared common struggles throughout their histories in America — including efforts to overcome racial, social, and religious discrimination. This year marks the 100th anniversary of the Angel Island Immigration Station in San Francisco Bay, a milestone that reminds us of an unjust time in our history. For three decades, immigrants from across the Pacific arrived at Angel Island, where they were subject to harsh interrogations and exams, and confined in crowded, unsanitary barracks. Many who were not turned back by racially prejudiced immigration laws endured hardship, injustice, and deplorable conditions as miners, railroad builders, and farm workers."

In 1990, Congress voted to expand it from a week to a month long celebration and in May.

Excerpts from [www.wikipedia.com](http://www.wikipedia.com) and [www.whitehouse.gov](http://www.whitehouse.gov).



Courtesy

## Celebrate Asian Pacific American Heritage Month in the Bay Area

District Public Affairs Office

Learn more about Asian Pacific American Heritage Month at these upcoming Bay Area events.

- The **7th Annual Asian Heritage Street Celebration** will be held Saturday, May 21, in front of the Asian Art Museum in San Francisco.



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Asian Art Museum in San Francisco.

It is the largest gathering of Asian Pacific Americans in the nation and features live music, art exhibits, martial arts and more. The festival is open from 11

a.m. to 6 p.m. and is free to the public.

The event takes place between Larkin and McAllister streets in the city's Little Saigon District.

For a complete schedule, go to [www.asianfairsf.com](http://www.asianfairsf.com).

- Tune into **KQED Public Radio** in May as it celebrates APAHM with a selection of award-winning radio documentaries beginning with "Exclusion and Resistance" on Saturday, May 7. This one-hour documentary explores the incarceration of Chinese immigrants at Angel Island in San Francisco Bay and the current issues of



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Angel Island in San Francisco Bay

Cambodian American deportation.

Popular stand-up comedian Margat Cho hosts "Post '65 Generation" on Wednesday, May 11 discussing the Immigration Act of 1965 that allowed Asian family members, entrepreneurs and skilled workers to immigrate to the United States.

Visit [www.kqed.org/radio](http://www.kqed.org/radio) for the complete program schedule. KQED San Francisco is on 88.5 FM and 89.3 in Sacramento.

- An Asian American Heritage Month celebration will be held in **Foster City** near San Mateo on Saturday, May 21 at the Foster City Public Library.

The all-day event will feature live music, art exhibits, author talks, food booths and arts and crafts for all ages.

The event is open from 10 a.m. to 4:30 p.m. and is free to the public. The library is located at 1000 East Hillsdale Blvd.

For details, visit [www.smcl.org](http://www.smcl.org) or call 650-574-4842.