

FALL 2024

PIPE LINE

VOLUME 28 NUMBER 2

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BUILDING FOR TOMORROW



GENERAL MANAGER'S MESSAGE: WE'RE ON A MISSION

To protect public health *and the environment*.

For Central San, those three simple words at the end of our mission statement are more than mere words. They are our daily call to action.

Whether it's maintaining our 1,500+ miles of sewer pipes, conducting thousands of water quality tests every month, or assisting residents and local businesses in the safe disposal of hazardous waste, our commitment to the environment is woven into everything we do. While it's not always easy, turning our mission statement into tangible results is what we do.

In this edition of *Pipeline*, we share some of our challenges and successes as we strive to protect our precious planet:

NUTRIENTS:

One of the most significant challenges facing the Bay Area's wastewater treatment facilities is meeting new regulations on nutrient discharges to protect San Francisco Bay. Central San is on a mission to achieve the required nutrient reductions within ten years. Find out how we plan to get there on pages 6-7.

PLANT UPGRADES:

We are currently working on some of the most substantial upgrades to our aging treatment plant since the implementation of the Clean Water Act in the 1970s. These projects will ensure the reliability and resilience of our wastewater cleaning processes for years to come. Learn more on page 3.

SUSTAINABILITY HIGHLIGHTS:

We're proud to share some of our recent environmental success stories, from flipping the switch on a new solar array to maintaining our 26-year record of 100% permit compliance. Read more about these accomplishments on page 4.

And speaking of good news, be sure to check out the "kids' pages" at the back of this issue, where we share an inspiring comeback story that underscores why we do the work we do. And, no, you don't have to be a kid to enjoy these pages!

Transforming words into action is not something we can do alone. This season and always, we are thankful to partner with you, our customers, as we build a healthier, more sustainable future.

Roger S. Bailey
General Manager



YOUR DOLLARS AT WORK: TREATMENT PLANT UPGRADES

Every day at our treatment plant, we clean about 35 million gallons of wastewater—that's the equivalent of over 50 Olympic-sized swimming pools! However, parts of our plant have reached the end of their useful lives. We're currently at work on several major upgrades to our treatment facilities, including some of our most extensive plant renovations in nearly half a century.

AERATION BASINS

We are about halfway through Phase 1 of a major project to repair and replace mechanical equipment and concrete structures in our aeration basins. The basins provide an oxygen-rich environment for beneficial microorganisms that consume and break down pollutants in the wastewater. The concrete pours we're doing for this project are the largest since the construction of our Headworks facility (where wastewater enters the plant) over 30 years ago!

This first phase will renovate two of the four basins, with the remaining two to be upgraded starting in 2026. These improvements will enhance the efficiency of our biological treatment processes, improve reliability in the event of an earthquake, help us better protect the environment, and prolong the lifespan of these critical facilities.

SOLIDS HANDLING FACILITY

Work is well underway on a large-scale, multi-year rehabilitation of our solids handling facility to ensure reliable ongoing processing of wastewater solids and compliance with strict air quality regulations. The project is the largest single plant renovation Central San has undertaken since we expanded our treatment plant in the 1970s.

Inside this large facility, centrifuges remove water from sludge, which is then incinerated in one of our 4-story furnaces. Among the many components of this complex project are the replacement of aging equipment such as dewatering centrifuges, pumps, electrical systems, and air pollution control equipment.

Additionally, we will complete a seismic retrofit of the building with exterior concrete buttresses, pile foundations, and interior steel bracing to enhance protection for these essential systems in the event of an earthquake. We anticipate completing construction by 2028.



SUSTAINABILITY HIGHLIGHTS

NEW SOLAR ARRAY

At a special celebration this summer, Central San flipped the switch on a new 2.16-megawatt solar array adjacent to our wastewater treatment plant in Martinez. By generating clean, renewable energy, the array will offset most of the annual grid demand of our treatment plant and major pumping stations.

In addition to conserving resources, the project will save an estimated \$6 million in energy costs for Central San and our customers over the next 25 years. It will also help us eliminate 1,865 metric tons of carbon dioxide emissions annually—the equivalent of removing 444 gasoline-powered vehicles from the roads!



GREEN BUSINESS CERTIFICATION

Central San's Vehicle Maintenance Facility has been recertified as a Green Business by the Contra Costa Green Business Program. The program recognizes businesses and organizations that minimize their environmental impact through reducing waste, choosing safer materials, and conserving energy and water.

Our Fleet Services group is tasked with maintaining over 100 specialized vehicles essential to caring for our treatment plant and 1,500+ miles of sewer pipes. Their work ensures our fleet is safe, reliable, and ready for day-to-day operations and emergency response. Through achieving the Green Business certification, this talented team also embodies Central San's ongoing commitment to enhancing environmental sustainability across all our operations.



FULFILLING OUR COMMITMENT TO THE ENVIRONMENT

Every year, Central San collects and cleans about 13 billion gallons of wastewater. We work hard to ensure that every drop of water we clean meets or exceeds stringent federal, state, and local standards before we discharge it into beautiful Suisun Bay.

This past year, Central San extended our record of 100% compliance with our National Pollutant Discharge Elimination System permit to 26 consecutive years—more than a quarter century without a single permit violation.

In recognition of this achievement, Central San was recently honored with the Platinum-26 Peak Performance Award from the National Association of Clean Water Agencies. That's a record achieved by fewer than 20 of the over 16,000 publicly owned wastewater treatment facilities in the United States.



NEIGHBORHOOD UPGRADES

Central San regularly maintains, repairs, or replaces sewer lines and other parts of our wastewater collection system to ensure trouble-free service for our customers. Our construction projects may cause short-term inconveniences, but they provide long-term benefits for you and your neighbors. We appreciate your understanding!

Here's what we're currently working on:
(estimated completion dates in parentheses)

MARTINEZ URGENT FORCE MAIN REPLACEMENT will replace approximately 1,400 linear feet of 20-inch sewage force mains, including aerial crossings and connections to existing structures, in Martinez. **(November 2024)**

LAFAYETTE, PHASE 15 will replace approximately 1.8 miles of sewers in the Happy Valley, Deer Hill, Lafayette Hills, Downtown, and Trails neighborhoods of Lafayette. **(September 2025)**

PLEASANT HILL, PHASE 3 will replace approximately 1.7 miles of sewers primarily in the Gregory Gardens subdivision of Pleasant Hill. **(October 2025)**

BUCHANAN LIFT STATIONS ABANDONMENT AND SEWER will replace 1.0 miles of sewers, while also abandoning two aging pumping stations on John Glenn Drive and sewer mains crossing the Buchanan Field Airport in Concord. **(October 2025)**

NORTH ORINDA, PHASE 9 will replace approximately 1.9 miles of sewers primarily in Tappan Lane, Brookbank Road, Lombardy Lane, Mariposa Lane, El Dorado Lane, Las Cascadas Road, and Linda Vista, as well as various locations in Orinda, north of Interstate 24. **(December 2025)**

PUMPING STATION UPGRADES, PHASE 2 will replace/retrofit three pumping stations in Martinez. **(December 2025)**

SOUTH ORINDA, PHASE 9 will replace approximately 2.0 miles of sewers primarily in Overhill Road, Scenic Drive, Valley Drive, Leslee Lane, and Lavenida Drive, as well as various locations in Orinda, south of Interstate 24. **(February 2026)**

To learn more about these or other construction projects, please contact Senior Community Affairs Representative Chris Carpenter at ccarp@centralsan.org or (925) 229-7200, or visit: centralsan.org/construction

MEETING THE CHALLENGE OF NUTRIENTS

This past summer, the San Francisco Bay Regional Water Quality Control Board introduced new regulations requiring all Bay Area wastewater agencies to reduce nitrogen discharges by 40% from 2022 levels within a decade. Meeting this goal will be no small feat: **It will require the largest simultaneous public investment in treatment upgrades across our region since the passage of the Clean Water Act in 1972.**

Read on to learn more about what nutrients are, what Central San is doing to tackle this challenge, and what it means for you, our customers.

NUTRIENTS IN A NUTSHELL

Nutrients such as nitrogen and phosphorous enter our wastewater from human waste, food, soaps, and detergents. Even after wastewater is cleaned to required rigorous standards, some nutrients remain in the water that the Bay Area’s wastewater treatment facilities discharge into San Francisco Bay (or Suisun Bay, in Central San’s case). Nutrients also enter the Bay through runoff from stormwater, industry, and agriculture.

Nutrients are essential to sustain life, but there is a need for balance. Too many may contribute to excessive algal growth, harming aquatic animals. The new nutrient regulations were triggered by a 2022 algal bloom in San Francisco Bay that killed thousands of fish. With climate change, historically “normal” levels of nutrients may now be too much for the Bay’s ecosystem. Based on the studies so far, nitrogen is the primary nutrient of concern for the Bay right now, which is why the new regulations focus solely on nitrogen.

BUILDING BLOCKS TO MANAGING NUTRIENTS

Central San has an exceptional track record of environmental stewardship and is committed to doing all we can to reduce nutrient impacts to the Bay. **To ensure no stone is left unturned, we’re focusing on a number of building blocks as we work toward a 40% reduction:**

Construction is already well underway on improvements to our secondary aeration basins. These significant infrastructure upgrades will improve the efficiency of our biological treatment processes and enhance nutrient removal. Read more on page 3.



We are pilot-testing an innovative treatment technology that offers an exciting possibility for process intensification—that is, achieving greater nutrient removal within our existing secondary basins. This could help us reduce or avoid the high costs of building additional basins. Scheduled to run through the end of the year, our Membrane Aerated Biofilm Reactor pilot project is already showing promising results.



We are exploring opportunities to expand our existing recycled water system and implement new multi-benefit regional recycled water projects that would reduce nutrient impacts to the Bay while also conserving precious drinking water supplies.



Along with our partners in Bay Area Clean Water Agencies (BACWA), we continue to fund ongoing scientific research to better understand how and why nutrients are impacting the Bay and how we can most effectively protect its health.



To bring all these building blocks together, we are developing a nutrient management roadmap to guide our efforts over the next ten years. The roadmap will aid us in coordinating, planning, designing, and implementing multiple large-scale infrastructure projects in the most effective and cost-efficient manner.



HOW WILL WE PAY FOR IT?

As we develop our nutrient management roadmap, we are also exploring every avenue to help fund required improvements, from low-interest state and federal loans to bond funding and grant opportunities. Additionally, we continue to look for ways to enhance efficiency at every turn and to expand and implement multi-benefit projects, such as recycled water, to ensure we’re getting the most benefit out of every dollar.

But no matter how we slice it, additional rate increases will be needed to help pay for current and future projects to address nutrients and other infrastructure needs. We understand this may not be the news our customers want to hear. Rest assured, we are committed to being good stewards of your rate dollars and will make every effort to minimize impacts to your bill.

Watch for more information in the future as we continue to share updates about our plan to meet the new regulatory requirements. With your support, we are committed to doing everything in our power to protect our beautiful Bay, while continuing to provide you with the highest levels of reliability, service, and value.



EXPLORING CENTRAL SAN'S INTERNSHIP EXPERIENCE

Since July, I've worked as a communications intern at Central San. From day one, I've had the opportunity to do everything from organizing community events, crafting newsletter and social media content, and diving into projects like photography and graphic design. These experiences have not only sharpened my skills but also laid a solid foundation for my future career in the public sector.

To gain further insight into Central San's internship program, I spoke with three other interns about their experiences.

Article by
NASSER ALBAQOAL
Communications Intern
Administration



DENYS CHAUS
Engineering Intern
Operations
Optimization



Denys Chaus, an engineering intern in the Operations Optimization Division, has been able to apply classroom concepts at Central San's treatment plant. "This internship helped me apply my academic knowledge to real-world projects using fluid mechanics and thermodynamics," he says. Denys has also gained new experiences, "from understanding office life to learning about plant operations and the wastewater treatment process."

EMILY VAZQUEZ
Laboratory Intern
Environmental &
Regulatory Compliance



As an intern in Central San's Environmental Laboratory, Emily Vazquez says she is "analyzing data and performing chemical analyses, applying the laboratory principles I learned in school on a daily basis." She adds, "Central San has given me the opportunity to learn more about wastewater processes and branch into hands-on laboratory practice. I am thankful for the guidance I have received."

Central San's internship program offers well-paid, hands-on experience and career exploration opportunities while providing meaningful service to our community. Internships typically last six months and are open to current college or vocational school students and recent grads. If you or someone you know is interested in applying, please visit: centralsan.org/careers

ANGEL PRADO
Mechanical
Maintenance Tech II
Plant Maintenance



Many former interns are now full-time employees of Central San, while others have also gone on to successful careers in their fields. Angel Prado started as an intern in Central San's Mechanical Maintenance shop in January 2020, transitioned to a temporary employee position, and now works full-time at Central San as a Maintenance Technician II. He explains how the internship provided hands-on experience that complemented his A.S. degree: "Interning in the Mechanical Maintenance shop helped me apply my academic knowledge in Welding Technology to real-world projects."

Summing up his experience, Angel says, "My internship at Central San laid the foundation for my career."

CITIZENS' ACADEMY: JOIN OUR EMAIL LIST!

Get a behind-the-scenes look at the world of wastewater at the next session of our award-winning citizens' academy: Central San Academy. You'll learn all about our work, from collecting and cleaning millions of gallons of wastewater every day to preventing pollution, recycling water, piloting new technologies, and much more. Plus, it's a great opportunity to connect with other community members who share your curiosity and passion for protecting the environment.

Join our email list and be among the first to be notified when we announce our next session in the spring! Learn more and sign up at: centralsan.org/academy



CONNECT WITH US!

Follow Central San for upcoming tours and events, pollution prevention tips, news, photos, and more.

- @centralsandist
- @centralsandist
- @centralsandist
- centralsan.org/nextdoor

DON'T LET A FOG CLOG RUIN YOUR HOLIDAY

The holidays are approaching, and with them come delicious feasts and treats! As you prepare your holiday meals, remember to protect your household pipes and our sewer system. Fats, oils, and grease (FOG) should never go down your drain, as they can clog pipes and cause messy and expensive sewage backups.

To prevent a FOG clog from ruining your holidays, follow these simple tips:

Scrape food scraps into the compost bin before washing dishes.



Wipe greasy plates and pans with a paper towel before washing.



Bring your used cooking oil or grease to our Household Hazardous Waste Collection Facility. It will be recycled into sustainable biofuels, helping to protect your pipes and the environment!



Contact your local solid waste service provider for additional disposal options and guidelines.



By following these tips, you can enjoy your holiday meals without the worry of clogged pipes and sewage backups. Happy holidays from Central San!

HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY

4797 IMHOFF PLACE, MARTINEZ, CA 94553
1-800-646-1431 OR CENTRALSAN.ORG/HHW

RESIDENTS: Mon. – Sat., 7 a.m. – 2 p.m.

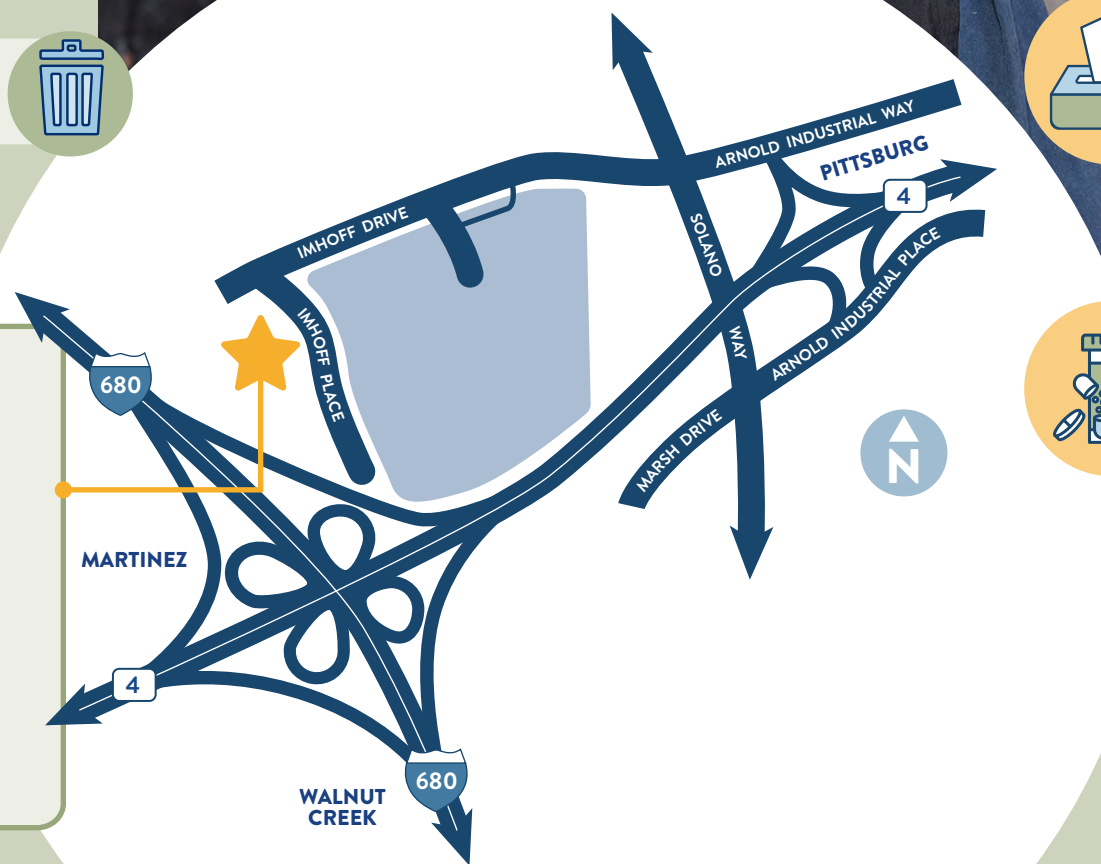
BUSINESSES: Mon. – Sat., by appointment

REUSE ROOM: Mon. – Sat., 7 a.m. – 1:30 p.m.

RECYCLED WATER FILL STATION: Mon. – Sat., 7 a.m. – 2 p.m.

(May close during periods of rain; please call ahead: 925-335-7717)

HOLIDAY CLOSURES: Nov. 28–29, Dec. 24 – Jan. 1, Feb. 12 & 17



FLUSH SMART THIS FLU SEASON

Cold and flu season is upon us, meaning many of us are reaching for disinfecting wipes, facial tissues, and medications. While safeguarding our health this winter, it's important to also safeguard the health of our environment by properly disposing of these products!

Here are some quick tips to help keep our waterways clean and our wastewater system flowing smoothly:

NEVER FLUSH CLEANING WIPES OR ANY OTHER WIPES



Because most wipes are made of plastic, they don't break down in water like toilet paper does. They remain largely intact as they pass through our system, clogging pipes, damaging equipment, and requiring costly repairs. Protect your household plumbing and our sewer system by disposing of all wipes where they belong: in the trash.

TOSS TISSUES IN THE TRASH



While it's tempting to throw used tissues into the toilet, flushed tissues can also lead to clogged toilets and pipes. Facial tissues are designed to have wet strength, meaning they may not disintegrate when flushed. Avoid any tissue issues by tossing them in the trash instead.

SAFELY DISPOSE OF MEDICATIONS



When pharmaceuticals are flushed down the toilet, those chemicals can harm local waterways and wildlife. Proper disposal of unwanted or expired medications helps protect the environment, as well as prevent accidental poisonings and drug abuse. Many retail pharmacies, hospital pharmacies, and law enforcement agencies offer safe and convenient drop-off kiosks throughout our service area. Ask your local pharmacy or visit med-project.org to find a location near you.

POLLUTION PREVENTION & RECYCLED WATER WINNERS

Congratulations to our 2024 Pollution Prevention Award Winners and Recycled Water Champions! Every year, Central San teams up with Sustainable Contra Costa to celebrate those who are helping to keep our community healthy, beautiful, clean, and resilient. This year's winners were honored at the 16th Annual Leadership in Sustainability Awards Gala in September.

KIMBERLY TAUGHER

Professor of Biology and Environmental Science, Diablo Valley College
Pleasant Hill

POLLUTION PREVENTION PARTNER

Kimberly Taugher has single-handedly introduced hundreds of Diablo Valley College (DVC) students to the work of wastewater treatment and pollution prevention, inspiring students' career paths and stewardship of our local environment. As a teacher-participant in Central San's treatment plant tours, she has personally toured Central San's facilities more times than most of our customers—and perhaps even some of our employees!



CONTRA COSTA TOPSOIL, INC.

Martinez

RECYCLED WATER BUSINESS CHAMPION

Contra Costa Topsoil is an over 20-year, large-scale user of Central San's recycled water. In the past five years alone, they have used almost 5 million gallons of recycled water for dust control and to add moisture to their product. We thank Contra Costa Topsoil for their decades of helping to conserve precious drinking water supplies!

KINJA SUSHI

Concord & San Ramon

POLLUTION PREVENTION AWARD WINNER

Kinja Sushi takes conservation and protection of the environment seriously. Each facility triple filters wastewater discharges at their sinks to prevent solids from entering the sewer system. They further protect the sewer system from fats, oils, and grease by dry wiping their dish- and cookware and maintaining their grease removal device. By properly storing used cooking oil, they prevent any spills into the stormwater system. They eliminated plastic water bottles by exclusively serving tap water, while also conserving water whenever possible. Additionally, the San Ramon facility has all energy-efficient lighting. We applaud Kinja Sushi for operating environmentally friendly food service facilities!



HARRY YOUNG

Martinez

RECYCLED WATER CITIZEN CHAMPION

Harry Young has been a customer of Central San's Residential Recycled Water Fill Station since 2015. This past year, from July 2023 to June 2024, he visited 138 times. In total, he collected 29,025 gallons of recycled water for irrigating his garden, proving one person can make a huge impact when it comes to saving water. Thank you, Harry, for being a frequent and dedicated recycled water customer!

COMEBACK STORY: HOW CLEAN WATER IS HELPING TO BRING BACK THE RIVER OTTER

Hey, kids! I'm Harrison, a North American river otter and proud member of Central San's Pipe Protectors crew! As a Pipe Protector, my job is to help teach people about keeping our water clean. Why is that important? Read the story below to find out!

River otters like Harrison aren't just cute; they're also great swimmers, with long, sleek bodies and webbed feet that help them zoom through the water. They eat everything from fish and crayfish to insects, frogs, and other small animals. River otters are found in a variety of aquatic habitats, including rivers, lakes, marshes, and more. They live near the water in natural hollows, under logs, or even old beaver dens. They're also super smart and curious!

River otters once started to disappear, but guess what? They're making a big comeback right here in the Bay Area, thanks to all the hard work people have done to keep our water clean. Let's go back to 1972 when the Clean Water Act was passed to see how.

This important law required that factories, cities, and even people at home had to start making sure that their dirty water was cleaned up before it went back into the environment. And you know who loved that?



River otters, who need clean water to live, play, and find their food.

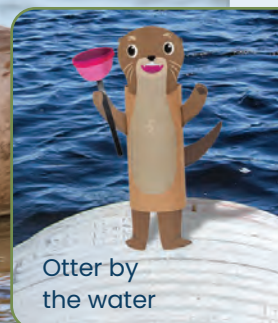
Central San is a big part of this success story! Every time you wash your hands or flush the toilet, it's our job to collect and clean all that dirty water. We work hard to make sure that the water that goes down your drain is safe and clean before we return it to the environment. This helps ensure that otters and other animals have safe places to live.

You can help river otters, too! Remember to keep wipes, trash, pet waste, medications, paints, chemicals, and other pollutants out of toilets and sink drains. Simple actions like these make a huge difference for river otters and the waters they call home. The growing numbers of otters splashing around the Bay Area shows we're doing something right.

To learn more about river otters and what you can do to help protect them, visit River Otter Ecology Project at: riverotterecology.org



River otter photo by Doris Sharrock



Otter by the water

CREATE YOUR OWN HARRISON OTTER!

If you love river otters as much as we do, here's a fun craft project you can try! With just a few household supplies, you can upcycle an empty cardboard toilet paper roll into your own Harrison Otter.

HERE'S WHAT YOU'LL NEED:

- An empty toilet paper roll
- Scissors
- Tape or glue
- **Optional:** string, crayons, paint, pipe cleaner, etc.

FOLLOW THESE EASY STEPS:

- Cut out all of the pieces on this page.
- Glue or tape Harrison's belly & head **A** to the upper middle of the toilet paper roll.
- Fold the arms **B** on the dotted line and glue/tape the white folded section to Harrison's body. Repeat for his tail **C**.
- Lastly, attach the legs **D** by gluing/taping the white tab to the inside of Harrison's toilet paper roll body.

The rest is up to you! You can add more decorations to Harrison, attach a string to turn him into a puppet or ornament, or even create your own collection of toilet paper roll critters. Let your imagination go wild!



Otter at an alma mater

SEND US A PHOTO!

Send a creative photo of your finished craft project to avallee@centralsan.org. Include your name and mailing address, and we'll send you a Harrison Otter sticker. We may even share your photo in an upcoming issue of *Pipeline*. One grand prize winner will receive a family membership to the Lindsay Wildlife Experience!



WE ARE HERE TO HELP

General Information	(925) 228-9500 or CentralSan.org
Sewer Overflows	(925) 933-0990
Household Hazardous Waste InfoLine	(800) 646-1431 or CentralSan.org/HHW
Recycled Water Fill Station InfoLine	(925) 335-7717
Sewer connection permits/Permit Counter	(925) 229-7371
Community Information Line	(925) 335-7702
Student Education Programs	(925) 335-7723 or CentralSan.org/Learn
Environmental Compliance	(925) 229-7288
Report illegal discharges into sewer system	(925) 229-7288 (during business hours); (925) 229-7214 (after hours)
Treatment Plant InfoLine (Report Odors)	(925) 335-7703
Employment Opportunities	CentralSan.org/Careers



Central San serves nearly half a million customers within its 146-square-mile service area.

- Wastewater collection & treatment; Household Hazardous Waste (HHW) disposal.
- Wastewater treatment & HHW disposal in Concord & Clayton by contract.
- HHW disposal only.

Central San headquarters, treatment plant, HHW Facility & Residential Recycled Water Fill Station.

The Central Contra Costa Sanitary District PIPELINE

Written and designed by Central San staff to communicate pollution prevention messages to the people and communities we serve.

Ann Vallée, Editor, Writer
Kelsey Lansang, Graphic Designer
Joseph Zumbo, Photographer
Nasser Albaqqal, Writer

View archived issues at CentralSan.org

Board meetings are open to the public and are usually held on the 1st and 3rd Thursday of each month at 2:30 p.m. in the Central San Board Room, 5019 Imhoff Place, Martinez. Meetings can be live-streamed at centralsan.org

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Please share or recycle this newsletter.