

115 Years

CAWD Connections

CONSUMER NEWS FROM YOUR CARMEL AREA WASTEWATER DISTRICT

SPRING/SUMMER 2026



"Protecting your health and the environment since 1908"

Scenic Rd. project nearly complete

CAWD's oceanside pipeline replacement on popular Scenic Road remains on schedule and on budget. Two separate crews have been working at opposite ends of the project to speed completion by the end of May, before peak beach season.

The \$7.4 million project also includes the completed upgrades on 14th Avenue and Carmelo Street, for a total of two miles of new pipeline and 235 new lateral connections to homes. CAWD has ensured public access to the beach and walking paths throughout construction, and we've had representatives on-site every day to answer questions and help residents drive in and out of their properties. In addition, the road will be resurfaced once the project complete.

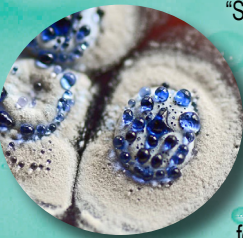
"It's been a pleasure to meet the many residents who have come out of their homes to talk to us," said CAWD Engineer Patrick Treanor. "Many have expressed their gratitude for the upgrade and our public outreach before construction, which is especially gratifying to hear."



CAWD Engineer Patrick Treanor answers questions from Carmel resident Jim Messermer during construction near Jim's home on Scenic Drive.

MICROORGANISM OF THE MONTH

MEET "STELLA" STREPTOMYCES, A TRUE SUPERHERO



Streptomyces is a powerhouse in research, producing two-thirds of all natural antibiotics in use today.

"Stella" *Streptomyces coelicolor* is a superpower bacteria that benefits most life forms on our planet. Stella is found in soil all over the world—and also plays a crucial role at the CAWD treatment plant. Unlike typical rod-shaped bacteria, she produces filament-like strands similar to fungus. These structures form a floc which clumps fine particles together for removal in our wastewater clarifier.

In the ground, the same branching mycelia networks decompose organic matter and build soil, making Stella vital for global carbon recycling and our food supply. *Streptomyces* is famously (Cont. on P. 2)

Caring for customers

One Scenic Road resident, Jim Messenger, was present during a recent photo session at the construction site.

"I'm impressed with how much CAWD cares about peoples' day-to-day needs in the neighborhood. Everyone from the flag guy to the equipment operators have been so professional and courteous," said Jim. "This is a huge, complex undertaking, yet the staff members took the time to answer my questions and advise me on an issue with my sewer lateral. CAWD epitomizes the true meaning of public service." (Cont. on back page)

See a spill? Call CAWD immediately!



We count on the public to be our eyes and ears out in the community. If you see water flowing out of a manhole cover, in the street, through cracks in the road or sidewalk, or coming out of the sewer relief valve in your yard, it is a serious emergency! Please contact CAWD at once. We respond to emergencies seven days a week, 24 hours a day, so don't hesitate to call us at 624-1248. After 5 pm, please call Carmel Police at 624-6403, and they will activate a CAWD response.

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Sign up for local pathogen reports

To mask or not to mask...

If you care for an elderly parent, are immunocompromised, or simply don't want to get sick after you attend a big event, CAWD's weekly pathogen reports can help you make informed decisions about risk levels.

CAWD has been collecting weekly samples from our local wastewater influent since 2020,

when the Centers for Disease Control and Prevention (CDC) established the National Wastewater Surveillance System to track the COVID-19 virus. CAWD and the City of Santa Cruz were the first to implement testing in our region. Since its inception, the program has expanded to include testing for influenza (the flu), monkeypox, measles, and the respiratory syncytial virus (RSV), as well as controlled substances like fentanyl, cocaine,

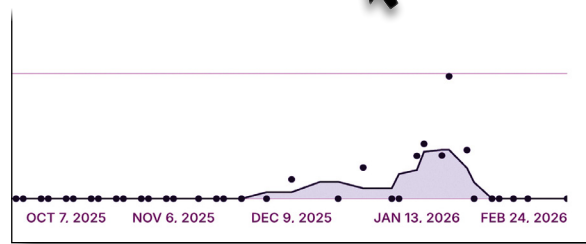
and methamphetamines. The CDC contracts with Verily lab in San Francisco to provide CAWD testing, which is shared with the Monterey County Health Department.

"Sewage monitoring can reduce disease transmission by identifying outbreaks early, and tracking the spread of pathogens," said CAWD Laboratory Manager Mohammed Serageldin. "Monitoring helps local and national officials make informed decisions on how to allocate funding to protect public health."

Note: the URL for CAWD pathogen reports has changed. You can now easily find the link on the CAWD.org home page. To receive monthly reports by email, click on the "Join Our Mailing List" tab on the bottom right of the screen.

Pathogen levels for Carmel Area Wastewater District, CA

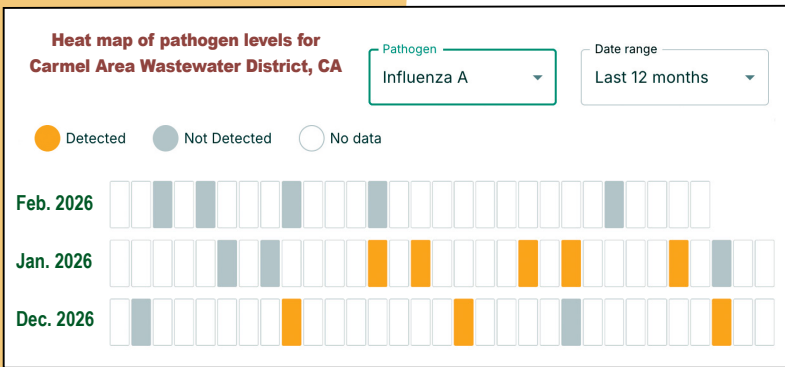
Dec 17, 2025 - 331.42 Virus/PMMoV



CAWD pathogen tests help locals assess risk levels

FAR RIGHT: CAWD data shows that on December 17 last year there was a sharp increase in flu virus found in our local wastewater.

BELOW: This graphic shows that no flu virus was detected in our local wastewater during February this year. The rectangles represent each day of the month. Orange indicates that the virus was detected, and gray means no virus was found. White rectangles are dates in which no sample was collected or tested.



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CAWD is a special district dedicated to protecting public health and the environment with the cost-effective collection and treatment of wastewater and the return of clean water to the environment.

Board meetings: last Thursday of the month at 9 am at the CAWD office, or attend via the zoom link at CAWD.org.

Board of Directors

Suzanne Cole Elise Weiland
Robert Siegfried Ken White
Kevan Urquhart

General Manager, Barbara Buikema

"Bug of the Month" © Anne Muraski 2026



The earthy smell of soil is produced by **Streptomyces**.

A **Streptomyces coelicolor** colony secretes droplets of blue-pigmented actinorhodin antibiotic, used to fight deadly MRSA infections.

Photo: Tobias Kieser, John Innes Centre

Microorganism (Cont. from front page)

responsible for supercharging the discovery of antibiotics, antifungals, antiparasitics, and anti-cancer agents that have saved countless lives. The *Streptomyces* genus is responsible for the production of roughly 75 percent of all natural antibiotics in use today!

Streptomyces serve as biofactories, producing around 100,000 natural compounds used in medicine, agriculture, and industry: probiotics safeguard fish in aquaculture, biopesticides protect crops, and enzymes improve flavor and texture in food. Stella breaks down harmful heavy metals and plastics in soil, and when grown in sewage sludge produces biolipids, which can be used to produce biofuels. *Streptomyces* and other bacteria point the way to a more sustainable future with less reliance on toxic processes and petrochemicals that pollute the environment, accelerate climate change, and cause political upheaval.

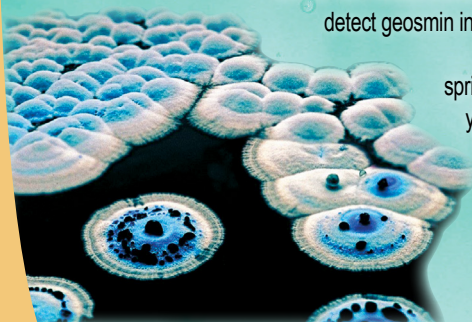
The smell of life

When you detect the pleasant, earthy smell of soil, that is "geosmin," a compound Stella produces when forming spores. Over the millennia, many animals have evolved to detect and prioritize the scent of geosmin because it leads the way to life-sustaining water and fertile ground. We marvel that sharks can detect blood at an extremely low concentration of one part per million, but humans can detect geosmin in as little as 5 parts per *trillion*—that's 200,000 times higher sensitivity!

Next time you delight in the earthy scent of your garden or the air after a spring rain, remember you are tapping into an evolutionary memory millions of years old that connects you to the entire web of life. Like a Stone Age hunter and gatherer sensing nearby fertile foraging grounds, a polar bear at sea turning toward the smell of land, or a kangaroo rat detecting hidden water in the desert, we are all drawn to what supports life.



Streptomyces grown under different conditions produce a variety of vibrant eco-friendly pigments that can be used in the fashion and textile industries to replace toxic synthetic dyes.



How do we stack up to other utilities?

Approximate monthly utility cost comparison for a typical California family of four



gas/electricity
\$375



cell phone
\$180



Cable bundle
\$160



water
\$140



CAWD sewer fee
\$79.40

CAWD updates ADU policies to state standards

The recent state mandate to increase housing and relax requirements for accessory dwelling units (ADUs) is increasing the demand on wastewater treatment facilities. As a result, facilities in Monterey County and the entire state have updated their policies to fund the treatment of higher flows, and to ensure that all customers equitably share the cost to operate and maintain their community's wastewater treatment systems.

Local ADUs are added to the sewer fee registry through the permitting process of the City of Carmel-by-the-Sea and Monterey County, and through CAWD's sewer lateral inspection program. Monthly sewer user fees are charged on property tax bills, broken into two payments per year. ADUs in use but not charged prior to April 28, 2022 (when the new policy was adopted) will not be charged fees until sale of the property or a major remodel triggers permitting and inspection requirements.

Connection fees and monthly sewer user fees will be waived for ADUs that are less than 500 square feet and part of an existing structure (Junior ADUs). Attached or detached ADUs more than 500 square feet will also incur no connection fee, but will be charged a monthly sewer user fee. ADUs built at the same time as the primary dwelling that are greater than 750 square feet, whether attached or detached, will be charged a separate connection fee and monthly user fee. *For more information please call 831-624-1248.*

CAWD has updated policies for ADUs to align with new state laws, and to ensure that the cost of operating and maintaining our community's sewer system is shared equitably by all users.



CARMEL AREA WASTEWATER DISTRICT PRELIMINARY BUDGET

July 1, 2026-June 30, 2027

Sources of Cash \$20,145,097

Sewer User Fees	Property Taxes	PBCSD* Fees	Capital Reserve Fund	Interest Income/Other	Reclamation Project
\$10,046,240	\$2,851,000	\$2,707,481	\$2,063,074	\$1,740,000	\$737,302

49.9%

14.2%

13.4%

10.2%

8.6%

3.7%



As you drive around town you may see various CAWD projects underway to help protect the health of our community and local environment. We are planning to spend about \$12.5 million on capital projects this fiscal year, self-funded with a combination of current year revenues and drawdown on our capital reserve fund. These large capital projects are necessary to help bring our collection system up to Central Coast Regional Water Quality Control Board standards.

* Pebble Beach Community Services District

Uses of Cash \$20,145,097

Operations & Maintenance	Capital Projects	Reclamation Project	Debt Service
\$11,061,449	\$8,399,846	\$683,802	\$0

54.9%

41.7%

3.4%

0%



As a self-supporting nonprofit, CAWD depends on user fees to fund infrastructure and maintenance. Our goal is to match revenues to expenses, leaving no profit. Our detailed assessments show that we need to spend \$9 million on our community's treatment plant, and \$77 million on our collection system over the next 15 years to keep it safe and reliable. We are committed to preserving the integrity of our community's sewer system, now and for future generations.





Tour your treatment plant!

Join Mark Dias, CAWD Safety Administrator and tour guide extraordinaire, on an eye-opening, behind-the-scenes tour of your community's wastewater treatment plant. Discover how we use science, technology, engineering, and microbiology to clean and treat 3 million gallons of wastewater each day for safe release back into the environment.

See how we propagate the trillions of microorganisms that break down pollutants in our activated sludge system, and visit the CAWD laboratory where technicians monitor microbes and track each stage of treatment. Tours also include a visit to our sophisticated reverse osmosis/microfiltration plant, which produces pristine recycled water that meets 100 percent of the irrigation needs for all Pebble Beach golf courses. You'll also learn how we convert methane gas into electricity to power the plant, and how we turn wastewater biosolids into organic fertilizer for fiber crops.

Mark can tailor the tour for your group whether it be a local club, civics organization, engineering professionals, neighborhood group, or your family and friends. Mark is also known for the regular tours and classroom visits he provides for local schools.

To request a tour, please email Mark at dias@cawd.org.

Staff inventions receive state honors

We congratulate CAWD Collections workers Barry Blevins and Seth Steele-Freitas for winning first and third place in the California Water Environment Association (CWEA) statewide Gimmicks and Gadgets Award. This prestigious award recognizes creative inventions that streamline on-the-job maintenance tasks. This is the first time that Seth has won the award, and the third time for Barry, who is also a former California Collections Worker of the Year.

Safer and more efficient

Seth's invention, the "drop hole cleaner," helps workers unclog the deep, concrete-encased pipes where wastewater enters the system from higher elevations. Seth fashioned a plastic tube with the exact curvatures needed to navigate through the connecting pipelines. Once the tube is positioned, staff can guide a high-pressure hose through it to clear clogs and restore flow.

"Drop holes can be up to 30 feet deep, and entering a high-risk confined space like that requires respiratory equipment, rescue harnesses, and other specialized gear," said Seth. "The drop hole cleaner operates from street level, making the job quicker, safer, and much less stressful."

Barry's first-place invention is a "pole light" that attaches to the speed poles regularly used to clear wastewater and storm drains. The poles have different attachments (two invented by Barry) to chop up grease, retrieve rocks, and remove obstructions. Using them can be like threading a needle with a hockey stick, especially because a second employee has to keep a light trained down into the hole. At least that's how it used to be, until Barry's pole light turned a two-man job into a one-man operation.

"I love science and problem-solving," said Barry. "Working with aging underground infrastructure can be difficult and dangerous, and we want to make the job safer and easier wherever we can."



Barry's "pole light" saves time and money by allowing one person to do a job that used to take two.



STELLAR STAFF CAWD employees Barry Blevins (left) and Seth Steele-Freitas received top honors for their time-saving, creative inventions.

Scenic Road (Cont. from front page)

As the Scenic Road project nears completion, CAWD is working on the design of another sewer construction project slated for 2027 which will upgrade 3.4 miles of pipeline in upper Carmel Woods and along Pescadero Road. In addition, last year we upgraded a total of two miles of sewer main line on Santa Rita and Guadalupe Streets, and other side avenues. The projects are part of your sewer district's capital improvement plan, a long-term investment of \$77 million to maintain our community's collection system.

"These projects are mainly replacing deteriorated clay pipes that were installed in the 1940s," said Patrick. "The new, seamless high-density plastic sewer pipes will provide safe, reliable service to residents, businesses, and visitors for at least the next three generations."

To view project maps and details, please visit CAWD.org/current-projects, or call us at 831-624-1248.

CAWD hired extra crews to accelerate work and reduce impact on Carmel-by-the-Sea's residents and visitors.

