

100 Years

# CAWD Connections



"Protecting your health and the environment"

CONSUMER NEWS FROM YOUR CARMEL AREA WASTEWATER DISTRICT

SPRING/SUMMER 2017

## Construction update

### Phase one renovation nearly complete!

After two years of ongoing construction, we're happy to report that Phase One of CAWD's Capital Improvement Projects 15-Year Master Plan is well within our projected budget, with completion slated for early fall.

"The time and effort to create an accurate design, and our team's diligent day-to-day management during construction have really paid off," said CAWD General Manager Barbara Buikema. "To date we've spent only 1.82 percent on design change orders, compared to the industry standard of 10 to 15 percent."

### Upgrades improve reliability and efficiency

- We are now testing our new 450,000-gallon digester, which breaks down the biosolids in wastewater. Although 150,000 gallons smaller than our current 1970s-era digester, improved technology allows it to provide the same output with lower operating costs.
- Our super-efficient dual gas/methane heat exchanger and boiler has been online for a year now. Along with our microturbines it can fully heat our digester in a circular, self-perpetuating system. During the process we transform our byproduct methane into electricity, which lowers our PG&E bills and prevents the release of greenhouse gas into the environment.



**KEEPING OUR MICROBES HAPPY**  
CAWD's new energy-efficient blower oxygenates our aeration tanks so microbes reproduce quickly to clean our wastewater. By creating ideal conditions in our "microbe farm," we remove contaminants like a stream or wetland does over time, but at a greatly accelerated speed.

## MICROORGANISM OF THE MONTH

### MEET "MANDY" MIXOTRICHA

During CAWD's biological treatment process, billions of microbes eat harmful bacteria and each other in our aeration basins, then settle out of the water column in our clarifier tanks. About a third of the biosolids produced at the plant is made up of microbes! The proteobacteria Zoogloea is an important player in the process, because it promotes "flocculation"—helping particles clump together and settle out of the liquid (the Greek translation of Zoogloea is "living glue.")

Proteobacteria are the most diverse of the three major phyla of bacteria and are

found everywhere, including inside plants, animals and humans. Microbes in the human gut help us digest food, absorb vitamins, and perform thousands of other vital (Cont. on page 2)

The proteobacteria "Mandy" *Mixotricha paradoxalis* is actually made up of five different cooperating organisms.  
Photo by Dean Soulia



- The microbes that clean our wastewater are happier than ever, thanks to our new, energy-efficient, variable speed blower that provides optimal oxygen saturation to our aeration tanks. This critical piece of plant equipment supports our biological activated sludge process, replacing our more power hungry 1998 model. Blowers require more electricity than any other plant equipment, and our new blower's state-of-the-art motor will provide considerable savings in energy and cost of operation. (Cont. on page 3)

### Call CAWD immediately if you see a spill!

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 call CAWD immediately—anytime of the day or night—so we can find the source and minimize contamination. CAWD crews continually clean and maintain our sewer system, but with 84 miles of pipe to monitor we count on the public to be our eyes and ears in the community, helping to protect property, human health, and the environment. If you see anything out of the ordinary please call us at 624-1248. After-hours please call the Carmel Police Department at 624-6403.

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Carmel Area Wastewater District  
3945 Rio Road  
Carmel, CA 93923  
831/624-1248







### Ray and his team help keep it clean

Congratulations to Ray De Ocampo on his promotion to Lab Supervisor. With over 28 years of experience, Ray is well-qualified to oversee our laboratory operations.

CAWD's three-member lab team continually tests water samples from all stages of treatment and reclamation so our operators can keep the plant running at peak efficiency.

Ray analyzes and maintains our data, ensuring its accuracy and that we meet permit requirements. CAWD treatment removes 95 to 99% of organic pollutants from local wastewater, and we have been recognized by the Central Coast Water Quality Control Board for our outstanding record. We typically discharge at 3 mg of BOD\* per liter, far better than the 30 mg or below required by the Environmental Protection Agency.

Ray is in charge of environmental compliance out in the community, working with local businesses to prevent toxins, medical waste, and fats, oils, and grease from entering our wastewater stream. He also coordinates our work with the Central Coast Long-term Environmental Assessment Network (CCLEAN), a five-agency collaboration that monitors discharges to protect the Monterey Bay National Marine Sanctuary.

"Underlying all the exhaustive testing is our mission to protect human health and the environment," said Ray. "We are always striving to improve our analysis and keep our community and workers safe."

\* Biochemical oxygen demand (BOD) is a standard industry measurement of how much oxygen microorganisms use when they consume organic matter.



**Carmel Area Wastewater District**

3945 Rio Road Carmel, CA 93923  
(831) 624-1248 ■ CAWD.org

**Free 24-hour sewer back-up service:** Call 624-1248, or 624-6403 after-hours. If water is backing up in your tub or toilet it is an emergency. Call us immediately day or night.

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.



We welcome the public to attend CAWD board meetings, held the fourth Thursday of each month at 9 am at the CAWD office.

#### Board of Directors

Greg D'Ambrosio Charlotte Townsend  
Michael Rachel Ken White  
Robert Siegfried

**General Manager, Barbara Buikema**

"Bug of the Month" © Anne Muraski 2001-2017

## Planning for sea level rise

Scientists project that climate change will cause as much as a 66-inch increase in sea level along the California coastline by the year 2100, worsening the effects of El Niño and storm surges. CAWD is one of 28 wastewater treatment plants in the state that have been identified as vulnerable to flooding.

Traditionally, coastal areas have built treatment plants near the shore at sea level so they could use gravity to collect wastewater, and then pipe treated water into the ocean. With predicted sea level rise, the District must make a plan to either protect the plant at our current location, or undertake a long-term, managed retreat from the shoreline.

In accordance with the State of California's Sea Level Rise Interim Guidance Document, CAWD is sending out a Request for Proposal to engineering consultant firms that specialize in the risk-assessment of sea level rise—this is a requirement to renew our primary, five-year operating permit through the Central Coast Regional Water Quality Control Board. The study will analyze the CAWD plant and collection system in relation to predicted sea level rise, and provide recommendations.

"The CAWD facility is not in any imminent danger, but we need to start analyzing the problem early to make sure that we have options down the road," said CAWD General Manager Barbara Buikema. "We are in a better position than some treatment plants. Our facility is about a half mile away from Carmel Beach, and includes eight acres of buffer land between the lagoon and the plant. Also, all our structures were built at 18 to 21 feet above sea level to provide extra flood protection." To read more about sea level rise and view maps of at-risk areas, please visit [pacinst.org](http://pacinst.org).

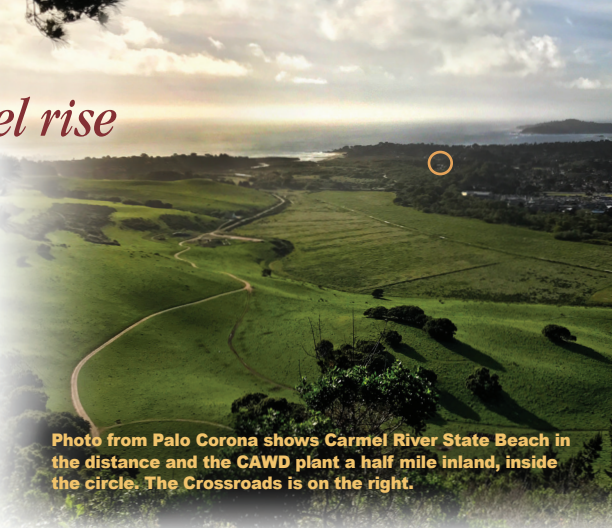


Photo from Palo Corona shows Carmel River State Beach in the distance and the CAWD plant a half mile inland, inside the circle. The Crossroads is on the right.

The marine worm *Olavius algarvensis* has no mouth, gut, or anus. Symbiotic bacteria serve as its digestive system instead.

MPI Bremen und Hydra Institut, Elba, C. Lott



Like most plants and animals (humans too), termites are composite organisms. Countless microbes crammed inside the termite's gut comprise up to 50 percent of its weight.

Photo by Dan Gage



### Microorganism (from front page)

functions, but in some life forms they go even further. For example, in Oligochaetes, a marine relative of the earthworm, proteobacteria actually are the gut. There is little food in the barren sea sediment where Oligochaetes live, but in the course of evolution millions of symbiotic bacteria have taken up residence under the worm's skin to help him survive, in exchange for shelter and protection. Like plants, the symbiotic bacteria fix carbon dioxide into carbohydrates, but unlike plants, their energy source is not sunlight. Instead, they use energy from toxic carbon monoxide and hydrogen sulfide in the environment. In fact, they are such good providers the worm has lost his entire digestive system, including its mouth, gut, and anus! While less efficient organisms like us must excrete waste and build sewage treatment plants, the gutless worm and its symbionts are master recyclers, supporting each other with almost no leftover waste.

### Our "selves" do not begin or end at our skin

Without sulfide in their environment, the Oligochaete's bacteria wouldn't be able to make food and the worms would die—or at least that's what scientists thought until they found *Olavius algarvensis*, a Oligochaete that lives in the sulfide-free sediment off the coast of an Italian island. How could that be? Amazingly, researcher Nicole Dubilier found a new, second symbiont bacteria living alongside the primary bacteria, producing the sulfide needed to feed the worm—an evolutionary ménage à trois.

Yet this complex relationship pales in comparison to the 150-plus species of symbiotic gut microbes that enable termites to digest wood—they amount to as much as 50 percent of the termite's weight! For example, one termite protozoan, "Mandy" *Mixotricha paradoxa*, is composed of five different organisms who all depend upon each other. The hairy cilia on the microbe's exterior (see photo, page one) are actually spirochete bacteria that appear to aid movement. Mandy's own flagella are just for steering. Researchers don't know whether the bacteria drag around Mandy or if she spurs them on like a team of horses! Other bacteria inside Mandy produce enzymes to digest wood cellulose, or break down waste into amino acids that the insect can use.

Without their symbionts, termites and Oligochaetes would quickly perish, just as humans would without our critical microbes. Biologists now consider all the bacteria and microbes that colonize our body as a complete organ—the human microbiome—just like our lungs, liver, or heart.



The much-maligned termite: without the hundreds of thousands of microbes in their guts, these vital recycling dynamos would not be able to digest wood and create new soil to keep forests healthy.

Photo by Charles Krebs



## How do we stack up to other utilities?

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



gas/electricity	cell phone	Cable bundle	water	CAWD proposed sewer fee
\$235	\$180	\$160	\$140	\$58.60

### Renovation *(Cont. from page one)*

- Our new electrical master control panel and transformer is now fully operational, part of our electrical system upgrades which will save energy and reduce operating costs in all areas of the plant.
- Construction will soon be complete on our new hypochlorite building. Hypochlorite will replace the dangerous chlorine gas previously used in our final disinfection process. Hypochlorite is safer for the community and CAWD employees, and it saves money on specialized safety equipment and training which will no longer be needed. The old chlorine building will be repurposed for offices and storage.
- The new storm water pump station can now deliver all the plant's storm water runoff to the headworks for treatment, making our facility totally self-contained to protect the surrounding environment.
- Our new low-maintenance screw press, which removes liquids from our digester biosolids, replaced our former obsolete belt press. The screw press uses dramatically less energy and produces much lighter biosolids, which decreases the cost of hauling and disposal.

With Phase One near completion, we have started the pre-design process for Phase Two and Three of the master plan. Projects include rehabilitation of our 70s-era primary digester to serve as a backup unit, more energy-saving improvements, and other backup systems to ensure continual operation during power outages and maintenance.

"Our responsibility to the community, human health, and the environment is something that CAWD staff and board members take very seriously," said Barbara. "As stewards of our wastewater system, we are dedicated to keeping our facility efficient, safe, and viable for generations to come, while using every ratepayer dollar to full advantage."

### BUILDING AN ENERGY-EFFICIENT FUTURE

The walls are poured on our new digester, and construction of the adjacent digester control building is nearing completion. The new facility is 25 percent smaller than our 1970s-era digester, but thanks to super-efficient technology it will provide the same performance with lower operating costs. Our old digester will be rehabilitated to serve as a back-up unit.



## CARMEL AREA WASTEWATER DISTRICT PROPOSED BUDGET

July 1, 2017-June 30, 2018

### Sources of Cash

\$15,091,748

Sewer User Fees	PBCSD* Fees	Capital Reserve Fund	Property Taxes	Reclamation Project	Interest Income/Other
\$6,995,437	\$2,890,765	\$2,192,617	\$1,734,000	\$895,423	\$383,506

46.4%

19.2%

14.5%

11.5%

5.9%

2.5%



Approximately \$15 million in Capital Reserves is helping to fund Phase One of CAWD's \$40 million Capital Improvements Projects 15-Year Master Plan. The remaining \$25 million in projects must be covered by user fees, one third of which is paid for by Pebble Beach Community Services District, per our agreement to provide them with wastewater treatment.

\* Pebble Beach Community Services District

### Uses of Cash

\$15,091,748

Capital Projects	Operations & Maintenance	Reclamation Project	Debt Service
\$7,537,440	\$6,817,857	\$519,945	\$216,506

49.9%

45.2%

3.4%

1.4%



As the plant renovation progresses, ratepayers will see annual, incremental fee increases to cover funding of Phase Two and Three. As a self-supporting, nonprofit agency, CAWD depends on user fees to fund replacement of infrastructure, as well as maintenance costs. Our goal is always to match revenues to expenses, leaving no profit.



**Please! Don't flush wipes!!**

Personal wipes and other supposedly “flushable” products cause costly backups and sewer overflows, have a heavy impact on the environment, and drive up the cost of wastewater treatment for everybody. These products damage treatment plant equipment and must be screened out and trucked to a landfill for disposal.

At the CAWD plant, two staff members have to dismantle our main influent pumps twice a week to remove entangled wipes—a process that takes 6 to 8 hours. The problem is so bad, lawmakers have introduced bills to prevent manufacturers from labeling products “flushable,” and some municipalities have sued for damages.

Go green and lower your carbon footprint with these tips:

■ The only thing that should be flushed down the toilet is toilet paper and human waste. Everything else should be put in the trash, recycled, or composted, as appropriate. If you must use wipes, put them in the garbage.

■ Consider using moistened toilet tissue instead of wipes. Toilet tissue requires less plastic packaging, reduces clogs, and most varieties do not contain potentially irritating chemicals and fragrances.

■ Even better, you can greatly reduce or even eliminate the need for toilet paper and wipes with a bidet. Common in most of the developed world—except North America—bidets are a key green technology because toilet paper manufacturing destroys virgin forests and wildlife habitat, creates cancer-causing chemicals, and has a large carbon footprint. Bidets are best for the environment, human health, cleanliness, your plumbing, and your pocketbook. Bidet water usage is trivial compared to the water required for toilet paper manufacturing.

Simple bidets start at \$25, easily attach beneath your existing toilet seat with no special fixtures, and use no electricity. Luxury bidet toilet seats provide heat, air drying, and variable spray modes. Either way, you'll see a huge savings on toilet paper and wipes while you protect your plumbing and our community's wastewater system.



## District receives double honors **CAWD is Safety Plant of the Year!**

Your Carmel Area Wastewater District was honored to receive the statewide Safety Plant of the Year award for 2017, beating out some of the largest wastewater districts in California! In addition, our Safety and Compliance Administrator, Joe Gregory, was singled out as the Outstanding Young Professional of the Year from the entire state. The double honor was bestowed by the California Water Environment Association (CWEA), which oversees certifications and promotes sound policies for the industry.

“Our General Manager and Board of Directors have a strong commitment to safety and training,” said Joe. “Our higher skill level keeps our community and workers safe, and helps to minimize workers’ compensation claims—and that helps keep sewer fees down too.”



**CAWD Safety and Compliance Administrator Joe Gregory, winner of the statewide CWEA Outstanding Young Professional of the Year award.**

### **CAWD is a safety leader, locally and statewide**

Since Joe joined the CAWD team in 2011, he's become a licensed safety professional and certified safety manager, earning over a dozen specialty certificates including electrical safety, fall protection, emergency management, medical first responder/emergency cardiac care provider, and much more. As a certified OSHA trainer, Joe is now able to certify employees to operate all our mobile equipment on-site—a large cost savings for our District.

Joe also trained and outfitted our Confined Space Rescue and Hazardous Materials Response teams. Besides having the ability to rescue their fellow workers, these highly skilled CAWD rescue teams are now a vital part of Monterey County's emergency response network. Previously there were no qualified local rescuers, so these emergencies required a long wait for out-of-area responders.

### **Building partnerships to share knowledge and cut cost**

Joe's initiative also remedied a longstanding lack of advanced vocational training in the Monterey Bay area. He organized experts from different local agencies and created a free training series in partnership with CAL FIRE, Monterey County Sheriff's Office, Monterey County Health Department, local fire and police, and other organizations. Now all these agencies are seeing substantial savings on the cost of employee travel, hotel stays, tuition, and lost productivity.

“We have lowered our training budget while expanding training opportunities tenfold,” said CAWD Maintenance Superintendent Ralph Stevens. “CAWD is becoming known as a safety training center in our area. Other agencies are calling us for advice.” Ralph, a 38-year industry veteran, has served as a mentor for Joe, and a champion for the safety program. “Almost every local agency has attended our trainings, and we also get attendees from as far away as Fresno, Merced, and beyond.” Both Joe and Ralph serve on multiple CWEA committees, and although it's rare to have more than one presenter from any district, they both taught courses at the April CWEA conference in Palm Springs.

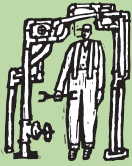
“Achieving our excellent safety standard is the result of a team effort involving everyone here at the agency,” said Joe. “It begins with support from administration and continues with our dedicated staff. CAWD employees are thirsty for knowledge and constantly honing their skills.”



**THUMBS UP CAWD employees suit up for a multi-agency Hazardous Materials Response training. Below: CAWD staff practice “vertical extraction,” a technical rescue technique requiring a litter basket and four-way pulley system.**







## How does CAWD set sewer rates?

CAWD's rate model was devised by the State Water Resources Control Board. It allocates costs based on **flow**, **biochemical oxygen demand (BOD)** and **suspended solids**.

**Flow** is the amount of liquid wastewater—at CAWD this is about 1.4 million gallons each day. A large cost of flow is for the energy needed to continually pump the water to the headworks where it then gravity feeds through the rest of the plant during treatment.

**Suspended Solids** are the particles of matter left in wastewater after heavier solids have settled out. When wastewater enters the plant it is screened at the headworks to remove large debris—this goes to the landfill. Then the water goes to a clarifier where larger particles settle to the bottom. This sludge gets pumped to a digester that turns it into compost. The remaining particles in the water are the suspended solids that must be consumed by the billions of microorganisms we propagate to clean our wastewater.

**Biochemical Oxygen Demand** is the amount of oxygen consumed by the microorganisms that eat bacteria and clean our wastewater. The more concentrated the wastewater, the more oxygen we need to support the microbes. More oxygen means more cost to run the large blowers which aerate the water in our secondary treatment tanks, which are like giant aquariums of microscopic animals. Much of the plant's equipment and infrastructure are there to keep our hardworking "bugs" happy and healthy.



**Carmel Area Wastewater District**  
3945 Rio Road  
Carmel, CA 93923  
(831) 624-1248 ■ CAWD.org

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### Board of Directors

Greg D'Ambrosio  
Michael Rachel  
Robert Siegfried  
Charlotte Townsend  
Ken White

### General Manager

Barbara Buikema

## — Proposition 218 Notification — Notice of Public Hearing on Proposed Sewer Rate Increase

**Thursday, June 22, 2017, 9:00 am**  
**Carmel Area Wastewater District**  
**3945 Rio Road, Carmel, CA 93923**

On June 22, 2017 at 9:00 a.m., or as soon thereafter as the matter may be taken up, the Carmel Area Wastewater District (CAWD) Board of Directors will hold a public hearing prior to the adoption of its sewer rates. The hearing will be held at the District offices located at 3945 Rio Road, Carmel, CA 93922.

The District remains fully committed and focused on the rehabilitation of our community's wastewater treatment plant. We began this process in 2012 by engaging Kennedy/Jenks Consulting engineers to assess the condition of our facility and prioritize capital projects, which resulted in our \$40 million Capitol Improvement Projects 15-Year Master Plan. Phase One of plan construction will be finished this fall (see newsletter article, page one), and we have already begun pre-design for the next two phases, which include the complete conversion of aging electrical panels and controllers, as well as other many other energy- and cost-saving measures.



CAWD Operator Christian Schmidt shows off our new master control panel and transformer—part of electrical system upgrades which will save energy and reduce operating costs in all areas of the plant.

In addition, we have begun planning for sea level rise which is predicted to occur along the coast over the next 100 years. As required for our operating permit, we are investigating the options of defending our current location, or conducting a managed retreat (see newsletter article, page 2). Concurrently, we are also planning the next 15 years of capital projects to maintain our collection system—the 84 miles of sewer main, plus pumps houses and other infrastructure that connects every home and business to the CAWD plant.

Maintaining our community's wastewater treatment system requires continuous replacement and rehabilitation. This vital work is only possible through extensive planning, analysis, and—most importantly—the support of our customers. We appreciate the backing we've gotten from the community, and we are totally committed to getting the most value out of every ratepayer dollar. To that end, we are constantly analyzing cost-saving potential on all levels. For example, we are repurposing buildings and rehabilitating existing equipment whenever it can save money, and we have updated our asset registry to include Phase One improvements, which will provide even greater certainty about the projected costs of Phase Two. We firmly believe that staying focused on asset risk is the best strategy to protect the investment of our ratepayers.

Those of us who have lived in the Carmel area for any length of time have benefited from a wastewater system paid for by federal Clean Water Act grant money (now basically non-existent) and funding from the ratepayers who came before us. As our treatment plant undergoes its first major upgrade in 30 years, your elected CAWD Board has determined that pay-as-you-go is the preferred method of financing so that we do not burden future generations with debt. Residential is by far our largest customer category. We are proposing an additional \$4.67 per month on your property tax bill. That is equivalent to a 8.66 percent increase, not an insignificant amount by any means, but necessary to secure our future. We think an additional \$56.04 per year is a good value to help maintain the long-term sustainability of our wastewater system, which protects human health and the environment, as well as supports property values, business, and tourism. We have a significant amount of work ahead of us, but together we can safeguard the quality of life in our community, now and for future generations. We invite you to review our master plan at CAWD.org, and contact us at 624-1248 if you have any questions about the upgrade.

The procedural requirements of Proposition 218 require that the District provide a notice of the proposed rate schedule to all property owners of record forty-five (45) days prior to holding a public hearing. In order for the increase to “not take effect,” a majority of property owners are required to file opposition to the increase.

Property owners may file a written and signed protest against the proposed increase with the Board of Directors of Carmel Area Wastewater District (CAWD) at or before the close of the public hearing. To be valid, a protest must be in writing even if you plan to attend the public hearing. E-mail protests cannot be formally considered. Each written protest must include the parcel owner’s name, service address, assessor’s parcel number for the parcel served, and the parcel owner’s signature. Only one protest will be counted per parcel. If you own more than one parcel, you may file a single protest, but it must identify each parcel you own. The protest must be signed by the property owner(s). If the signer(s) is not shown on the last equalized assessment roll of Monterey County as the owner(s) of the property, the signer(s) must provide written evidence of ownership of said property. For your convenience we have included a protest form on our website, CAWD.org. At the hearing, the Board of Directors shall hear all protests and tabulate the ballots.

Protests should be mailed or delivered to the same address as the hearing location. For more detailed information regarding the proposed rate plan, please call James Grover, CAWD Principal Accountant, at (831) 624-1248.

*The proposed annual charge for all user categories is as follows:*

### **Carmel Area Wastewater District Proposed Sewer Rate Increases for 2017-2018**

<b>User Categories</b>	<b>2016-17 Annual Rates</b>	<b>2017-18 Proposed Rates</b>	<b>Percentage of Change</b>
Bakery (each location)	\$ 2,487.40	\$ 2,726.44	9.61%
Bar (each location)	\$ 1,049.60	\$ 1,136.96	8.32%
Beauty Salon (each location)	\$ 867.32	\$ 937.98	8.15%
Business/Govt./Retail (1-10 employees = one unit)	\$ 391.92	\$ 424.10	8.21%
Camera/Photo (each location)	\$ 540.98	\$ 586.62	8.44%
Church/Synagogue/Mission (each location)	\$ 582.88	\$ 630.36	8.14%
Convalescent Hospital (per bed)	\$ 309.56	\$ 335.34	8.33%
Dental Office (per dentist)	\$ 588.36	\$ 634.78	7.89%
Gym/Health Spa (each location)	\$ 752.92	\$ 814.44	8.17%
Hotel/Motel (per room)	\$ 320.50	\$ 347.20	8.33%
Laundromat (per machine)	\$ 727.10	\$ 784.92	7.95%
Laundry (each location)	\$ 2,691.76	\$ 2,929.36	8.83%
Market (each location)	\$ 1,200.06	\$ 1,313.28	9.43%
Medical Office (per physician)	\$ 299.62	\$ 318.16	6.18%
Residential/Minimum vacant (each location)	\$ 647.14	\$ 703.18	8.66%
Restaurant (per seat/meal)	\$ 49.36	\$ 54.02	9.44%
School (per population)	\$ 26.84	\$ 28.98	7.97%
Service Station (per pump)	\$ 1,940.98	\$ 2,104.06	8.40%
Supermarket (each location)	\$ 16,915.86	\$ 18,513.28	9.44%
Special User (each location)	\$ 594.48	\$ 642.96	8.15%
Veterinary Office (each location)	\$ 1,496.16	\$ 1,621.48	8.38%
Vet Hospital/Boarding (each location)	\$ 4,277.74	\$ 4,636.04	8.38%