



District Initiates Rate Study

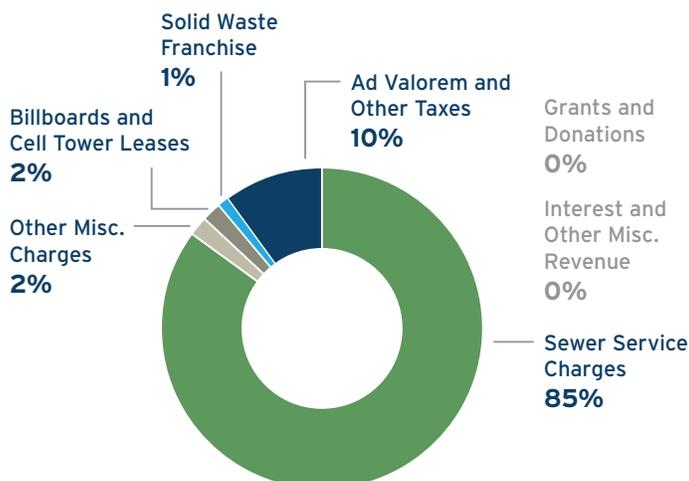
With property tax bills arriving in your mailboxes beginning in September, many of you may wonder how the District determines what to charge for your sewer services and what these charges pay for. Like most government charges, the process Mt. View Sanitary District (MVSD) uses to determine how much to charge is “prescribed by Code” (found in Chapter 7 of the MVSD District code on the District website). Per the Code, the District’s sewer service charges are based on the actual cost of service to collect, convey, treat, and dispose of our customers’ wastewater and to fully fund the construction, repair, rehabilitation, and ultimate replacement of all of the facilities and equipment required to provide these services. The actual costs of operation and maintenance are allocated to the volume of water processed and the two primary contaminants removed by the treatment facility. These two

contaminates are Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) (See sidebar). These three components of the District’s cost of service are used to determine the average cost of service for a single family home receiving wastewater services from the District.

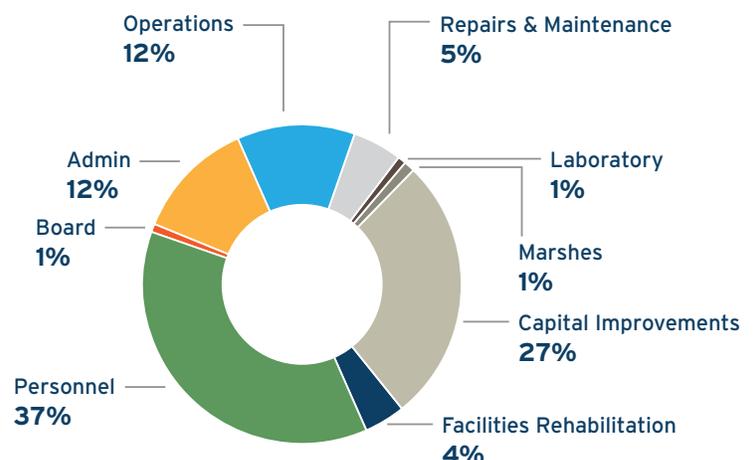
Based on a study performed in 2008, the average wastewater discharged from a single family residence is 700 cubic feet per month or approximately 175 gallons per day. The 2008 study further determined that approximately 60% of the District’s cost of service is attributed to the volume of flow treated. BOD treatment represents approximately 19% of the total cost and TSS removal the remaining 21% of cost. These factors are then applied to determine the cost of service for the typical single family residence to establish the

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MVSD FY 2016-2017 Revenues
A closer look at MVSD’s revenues for the 2016-2017 Fiscal Year.



MVSD FY 2016-2017 Expenses
Detailed breakdown of MVSD’s budget for the 2016-2017 Fiscal Year expenses.



Sewer Service Charge for an “Equivalent Dwelling Unit” or EDU, which for Fiscal Year 2016-2017 has been increased from \$530.66 per year to \$544.44 per year, an increase of 2.614%.

All MVSD residential customers are charged the single flat rate sewer service charge of \$544.44 per residential unit. However, the MVSD Board of Directors recognizes that the last rate study commissioned is now 8 years old and that California’s on-going drought has dramatically changed our customers’ water use practices. Many residents are likely contributing less flow into the system than before the drought. The District has initiated a new Rate Study to make certain that rates and charges continue to be fair and equitable to all users.

The Rate Study will evaluate the total District revenue required to fully fund all of the District’s activities, including the District’s Capital Improvement and Facilities Rehab Programs. As the District’s service area matures, the opportunities for development of previously un-sewered areas decreases and the District, in effect, becomes “Built Out.” New homes pay new connection fees to help offset the capital investment existing users have made in sewer pipes, pump stations, treatment



The rate study will help the District make sure the District’s Sewer Service Charges fully funds operations and maintenance activities as well as the replacement of critical operational equipment like this Digester Boiler unit which is used to keep the Biosolids Digester at optimal temperatures.

What are BOD and TSS?

Biochemical oxygen demand (BOD) (also called biological oxygen demand) is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period. In wastewater treatment it is used to measure the amount of organic pollution that must be treated and removed from the wastewater. Typical treatment includes biological removal (good bacteria eating bad bacteria).

Total suspended solids (TSS) is a water quality parameter used to assess the quality of wastewater after treatment. It is the dry-weight of particles that can be trapped by a filter and is another measure to determine how much solid material must be treated and removed from the wastewater. Typical treatment includes sedimentation (settling) and filtration.

facilities, and the District’s two marshland habitats. New homes, while adding more flow and load to the system, also add to the annual revenues from Sewer Service Charges. As the District nears full “Build Out” of its service area, Sewer Service Charges become an increasing percentage of all District sources of revenue to fund the District’s Operations and Maintenance, as well as the District’s Capital Improvements and Facilities Rehabilitation.

For the Fiscal Year 2016-2017, 85% of the District’s revenue comes from the Sewer Service Charge. The remaining 15% of revenue is collected from a variety of sources (see pie chart for details). The District has been debt free since 2012 and has been able to fund several major capital projects from existing and current revenues. However, the District’s facilities are aging and many treatment process units are approaching the end of their useful life. The District Engineer has recently updated the Capital Improvement and Facilities Rehab Programs and has identified a capital funding gap of approximately \$3.5 million over the next five years. The Rate Study will evaluate whether the existing rate structure is sufficient to continue funding the District’s Capital Improvement and Facilities Rehabilitation projects on a pay as you go basis. It will make recommendations with respect to future Sewer Service Charges taking into consideration the impacts of continuing to operate on a pay as you go basis as well as funding options including debt financing of capital projects. Check out MVSD.org for more information about the rate study.

Capital Improvement Project Update

At the July 2016 Meeting of Mt. View Sanitary District Board of Directors, the Board was provided with an update to the District's Capital Improvement and Facilities Rehabilitation Programs (CIP/FRP). The previous CIP/FRP was adopted in 2011, and the Phase I projects identified then have all been substantially completed or determined to be unnecessary at this time. The major projects completed include the rehabilitation of the Influent Pump Station at the treatment plant and rehabilitation of the Ferrous Chloride storage tank. The District spent approximately \$7.3 million on Phase I CIP/FRP projects over the past five years and was able to fund all of the reinvestment in critical infrastructure on a pay as you go basis, without incurring debt, from a portion of the District's annual sewer service charges, which have only increased by inflation over the same period.

The District is now embarking on Phase II of the updated CIP/FRP. The District Engineer has reviewed the projects identified and updated the priorities based on additional information and analysis collected over the past five years. The Phase II

projects are those projects that are necessary over the next five years and are estimated to cost approximately \$13 million. District staff have identified existing funding sources that include \$1.6 million in Ad Valorem property tax and an estimated \$7.9 million from Sewer Service Charges and developer Connection Fees collected over the next five years. Recognizing that there is a funding shortfall, staff is looking at ways to reduce construction costs. We are also looking at lower cost projects that can extend the useful life of District facilities, allowing the larger projects to be safely and responsibly deferred to the future. The funding shortfall may also require the District to incur debt at some point in the future.

These projects are one of the ways the District continues to protect Public Health and the environment, in a safe and reliable manner, at a responsible cost for our customers and rate payers.

For more information on the District's Capital Improvement and Facilities Rehabilitation Programs, check out our website at MVSD.org.

New NPDES Permit

The District's new National Pollution Discharge Elimination System (NPDES) Permit R2-2016-0023 was adopted by the Regional Water Quality Control Board on May 11, 2016 with an effective date of July 1, 2016.

Some of the significant changes from our previous permit are:

- **Reduction of Effluent discharge limits** for Biochemical Oxygen Demand and Total Suspended Solids from Monthly Average of 30 mg/L and Average Weekly of 45 mg/L to 15 and 25 respectively. These limits are achievable and typical for recent shallow water discharger NPDES Permits.

- **The addition of Effluent Cyanide discharge limits** of 7.0 ug/L (micrograms per liter) Average Monthly and 13 ug/L Maximum Daily.
- **Increased monitoring frequency** of Effluent Benzo(a)Anthracene from biannually to quarterly and Cyanide from quarterly testing to monthly.
- **The Chronic Toxicity test organism was changed** from mysid to inland silverside based on sensitivity screening results.
- **Addition of quarterly nutrient monitoring** requirement in marsh and receiving water.

A copy of the permit can be accessed at:

http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2016/R2-2016-0023.pdf

Pollution Prevention

MVSD is one of the many dischargers to the San Francisco Bay. Pollution Prevention (P2) is critical to the protection of this vital estuary. MVSD has established Source Control Programs to keep pollutants from residences and businesses out of the sewers and the Bay.

“ A large part of preventing pollutants from entering into the sewer system is making sure the public is informed about how they can help us achieve our P2 goals. ”

A large part of preventing pollutants from entering into the sewer system is making sure the public is informed about how they can help us achieve our P2 goals. MVSD uses The Mt. View Monitor, the District website (www.mvsd.org), Facebook, the Wetlands Field Trip Program and billboards to provide you with information about proper disposal of toxics and hazardous materials.

MVSD's current list of pollutants of concern include mercury, copper, cyanide, dioxins, benzo(a)anthracene, fats, oils and grease (FOG), pharmaceuticals and medical sharps. The District also contracts with Central Contra Costa Sanitary District to provide inspections at businesses that may be at risk of discharging unwanted pollutants to the sewer system. Among others, these businesses include dental offices, restaurants and vehicle service facilities.

The District's recently adopted NPDES Permit has increased the Source Control monitoring requirements for benzo(a)anthracene and cyanide. To access the MVSD NPDES Permit follow the link in the Permit article.

Thank you for doing your part to keep pollution out of our precious waterways!

McNabney Marsh Management Plan

In June 2015, MVSD hired the non-profit organization Ducks Unlimited Inc. (DU) to create a management plan for McNabney Marsh. The 138-acre wetland is jointly owned by the MVSD and the East Bay Regional Park District (EBRPD), with an agreement that gives MVSD full responsibility for its management. Because of both historical and current conditions McNabney poses many significant management challenges. These issues will need to be addressed if the wetland is to flourish both as critical habitat for fish and wildlife and as a prominent site for recreational and educational opportunities for the local community.

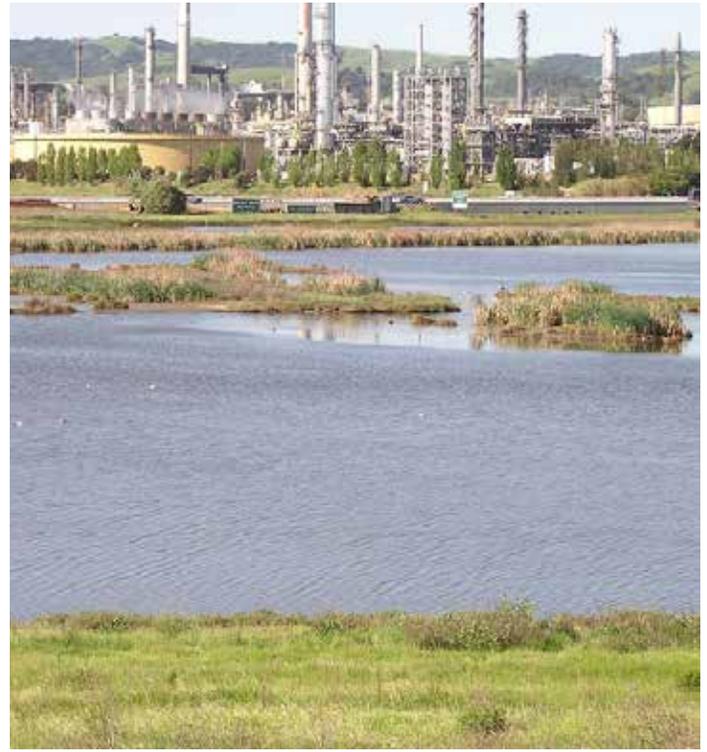


District Manager Neal Allen presenting at the May 4th public meeting.

Operation of the Peyton Slough tide gates in June 2009 compounded many of the challenges created by the construction of infrastructure over the past decades. Although the tide gates have allowed some brackish marsh features to return, it has also increased water stagnation, algal blooms, nuisance odors, and decreased ground nesting habitat for waterfowl and shorebirds. MVSD hopes that through the creation of a well-researched and thoughtful plan,

challenges such as more frequent and severe algal blooms and their associated odors can be addressed through establishing appropriate management goals, objectives, and actions. MVSD staff are working closely with DU to not only create a document that will help the District address the sites' many challenges but also to identify outside funding sources to help finance the necessary management actions.

MVSD and DU held a public meeting on the evening of May 4th to get feedback on the considered draft goals, objectives, and actions for the site. This feedback will be incorporated into the draft plan, which will again be made available for public comment on the District's website later in August, with the final plan available in late summer or fall 2016.



Twenty Years of Wetlands Education for Local Students

One of MVSD's most recognized programs just completed its 20th year of collaboration to bring environmental and pollution prevention education to Contra Costa County 3rd, 4th, and 5th Graders. Developed and performed as a partnership between MVSD and the Lindsay Wildlife Experience, (LWE) The Wetlands Field Trip Program started providing fieldtrips through Moorhen Marsh in 1996 for students in Martinez Elementary schools. Today,



thanks to various grants including an award of \$9,625 from the Contra Costa County Fish and Wildlife Committee for school year 2015-2016 and revenues from the District's cell tower and billboard leases, students from schools throughout Contra Costa County take advantage of the complimentary field trip experience.

During their 4-hour, hands-on exploration of Moorhen Marsh, students have the opportunity to view and appreciate great blue herons, green herons, pied-billed grebes, Canada geese, cinnamon teal, muskrat, river otter, black-tailed deer, western pond turtles, and gopher snakes, among other wildlife species. Dip-netting activities allow for close up inspection of a variety of fish and invertebrate species including three-spined stickleback, dragonfly nymph, and crayfish, while "take-home" materials help teachers reinforce the pollution prevention and wetland habitat conservation messages back in the classroom.

The partnership with LWE extends to their dedicated staff who provide instruction on pollution prevention

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and water quality, the value of wetland habitats for people and wildlife, and aquatic animal adaptations. The combination of Moorhen Marsh's unique, high-value, wetlands habitat and the LWE instructional staff are key to the success of MVSD's very popular

environmental education experience. Over the past 20 years, this vital partnership has benefitted the fish and wildlife of Contra Costa County by increasing awareness, appreciation, and understanding of the functions and values of wetland habitats and the wildlife they support.

Did you know that you can help to keep this program going for the next 20 years?

MVSD's Board of Directors established the Dorothy M. Sakazaki Environmental Endowment Fund (Fund) specifically to support the District's environmental programs with a top priority being the Wetlands Fieldtrip Program. The Fund is an Internal Revenue Code Section 501 (c) (3) charitable organization. For more information on the Fund, the Wetlands Fieldtrip Program, or where to make your tax deductible charitable contribution, please visit our website at mvsd.org.

MVSD project wins statewide "Award of Excellence"



We are very pleased to announce that an MVSD project was recently honored with an Award of Excellence by the California Association of Sanitation Agencies (CASA). CASA is a statewide organization of public wastewater agencies and is

focused on the regulatory, legislative and legal issues faced by those agencies.

The award was for the recently completed Influent Pump Station Improvement Project. This project was honored in the Outstanding Capital Project category. You may remember reading about the Influent Pump Station Improvement Project in the August 2015 edition of *The Mt. View Monitor*. As part of the CASA awards event that was held August 11, MVSD developed a short video about the project. You can view it on our website at www.mvsd.org.

Upcoming Board Meeting Dates:

MVSD Board of Directors meetings are held on the second Thursday of each month at the District office at 3800 Arthur Road and are open to the public.

Thursday, September 8, 2016, 6:30 pm

Tuesday, October 4, 2016, 6:30 pm

Thursday, November 10, 2016, 6:30 pm



Get to Know the Snowy Egret

Among the most elegant of the herons, the snowy egret (*Egretta thula*) shows off immaculate white plumage with black legs and bill and bright yellow feet. Breeding snowy egrets display lovely gossamer plumes that once fetched top dollar as decorations for women's hats. In 1886, these plumes were valued at \$32 per ounce – twice the price of gold! Plume-hunting decimated many snowy egret populations until protections were passed in the early twentieth century. President Theodore Roosevelt signed an Executive Order on March 14, 1903 to create Pelican Island as the first national wildlife refuge in the US. The refuge's mission was to protect snowy egrets and other water birds from extinction.



A snowy egret forages for small fish at the pond's edge.

The recovery of snowy egrets was a conservation triumph and helped to usher in the modern environmental movement. Today, this species is a common site in both Moorhen and McNabney marshes where it actively forages for fish along pond edges and shallow wetlands.

District Website Gets a New Look



MVSD's newly updated website launched in July. The information you need has been reorganized for easier access. We've added a section for residents and businesses, a section with more information about our wetlands, and other great features that make it easier for you to learn about the service MVSD provides its customers. If you haven't seen it yet, visit www.MVSD.org to check it out!

Fall 2016 Weekend Programs:

LET'S LEARN ABOUT RAPTORS!

Saturday, September 10

11:00 am - Noon

Join Jenny Papka and four of her raptor friends (live birds of prey) from Native Bird Connections (NBC). NBC strives to inspire respect, reverence and responsibility for the natural world by respectfully caring for non-releasable birds and educating the public on the natural history and behavior of raptors in the San Francisco Bay Area and beyond. This is an all indoor program appropriate for families with children ages 5-years old and up. Reservations are required and space is limited for this FREE program. Contact Kelly at kdavidson@mvsd.org for more information and to sign up!

COAST CLEAN UP DAY - MCNABNEY MARSH & WATERFRONT ROAD

Saturday, September 17

9 am - Noon

Calling all kayakers and canoers! Join the world's largest volunteer effort for our oceans, creeks, and wetlands by participating in Coastal Cleanup Day in McNabney Marsh. Those on foot will help clean up trash along a section of McNabney Marsh and Waterfront Road. Those who can bring their kayak or canoe, will assist with trash removal from the water. Participants must pre-register. Contact Elissa at erobinson@ccrcd.org for more information and to RSVP.

WORM COMPOSTING WORKSHOP

Saturday, October 15

10:00 am - Noon

Earthworms can "recycle" your fruit and vegetable scraps into extremely rich compost called "worm casts." Using a specialized variety of worms and a simple "worm box" you can do your part to reduce waste and at the same time make compost. Whether you live in a house with a yard or live in an

apartment, condominium or townhouse you can use a worm box to "recycle" your fruit and vegetable scraps. Join us for this very popular and FREE two-hour workshop by contacting Contra Costa County at 925-674-7831. Space is limited, so register today!

WETLANDS BIRDING FIELD TRIP

Saturday, November 12

7:00 am - 9:00 am

Join the District Biologist for a fun and informative hike around the wetlands complex. We will introduce you to the diversity of resident and migrant birds found in and around these historic Contra Costa marshes. Contact Kelly to RSVP at kdavidson@mvsd.org. Here is what you need to know:

- Meet at the observation platform just before the tunnel.
- Dress in layers and wear comfortable, closed-toed shoes.
- Bring binoculars if you have them; we have a few pairs to loan.
- Beginners are always welcome.
- Rain cancels!

HELP CONSERVE MONARCH BUTTERFLIES - PLANTING IN THE MILKWEED GARDEN

Saturday, November 12

10:00 am - Noon

The Monarch Butterfly is like royalty in North American popular culture. Their fall migration covers as much as 3,000 miles and takes 6 generations to complete! In recent years Monarch populations have plummeted by over 90%, primarily due to a drastic loss in their only larval food plant - milkweed. Join the District Biologist for an indoor presentation on the natural history and migration marvels of the monarch butterfly. Afterwards, if the weather cooperates, we will head outside to plant, weed, and water in the butterfly garden. Contact Kelly to register at kdavidson@mvsd.org or 925-228-5635 x19. Space is limited to 12 participants.



MT. VIEW SANITARY DISTRICT

3800 Arthur Road
PO Box 2757
Martinez, CA 94553
925-228-5635

