

2017 annual report



YOLO-SOLANO
AIR QUALITY MANAGEMENT DISTRICT



Clarksburg, CA

APCO Message

Our Air District encompasses many diverse and fascinating communities and landscapes, from agricultural farmlands to bustling cities; Yolo-Solano AQMD is a thriving region full of opportunity and history. Air quality continues to be an important issue, with the District working with our federal and state partners, as well as with local growers and business owners, to improve air quality.

We have the task of implementing two new bills in 2018, AB 1132 and AB 617, that give air districts additional authority and responsibilities. Furthermore, we plan on implementing the state oil and gas methane regulation by developing a registration program. Though these three efforts are important pieces in improving air quality, there is still more work that needs to be done.

Yolo-Solano AQMD is committed to our mission and in providing cleaner air for all our residents and business owners who live, work, and breathe here. We hope you will join us in our efforts and think about what you can do to lower pollution in your community. From choosing not to burn wood during 'Don't Light Tonight' advisories to driving less, how we behave and what we do will impact future air conditions.

I hope you enjoy the information provided in this report and from all of us here, we thank you for your continued interest in Yolo-Solano AQMD.

Sincerely,

Mat Ehrhardt, P.E.
Executive Director/Air Pollution Control Officer (APCO)



Dixon, CA

Contact



Yolo-Solano Air Quality Management District

1947 Galileo Court, Suite # 103
Davis, CA 95618
www.YSAQMD.org

Phone:(530) 757 - 3650
Fax:(530) 757 - 3670
Ag Burn Line:(530) 757 - 3660
'Don't Light Tonight' Line:..... (530) 757 - 3787

Our District

MISSION

To protect human health and property from the harmful effects of air pollution.

WHAT WE DO

The Yolo-Solano Air Quality Management District (District) works to fulfill its public health mission in a variety of ways. In its regulatory role, the District enforces rules on stationary sources of air pollution and creates strategies to meet federal air quality standards. In its land use role, the District gives guidance to local agencies on air quality impacts on project and planning documents. In its public health role, the District monitors local air quality and raises public awareness.

DISTRICT BOUNDARIES

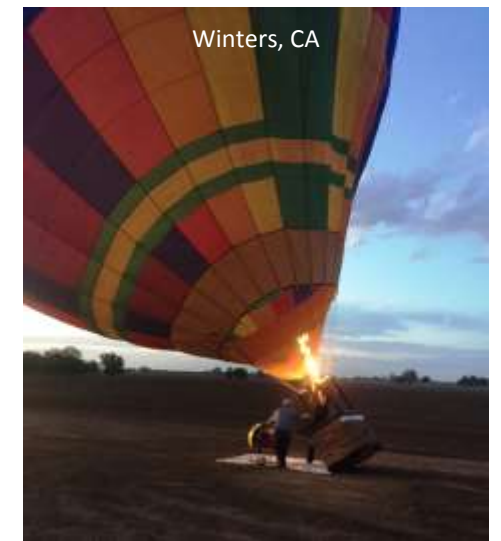
The District was formed in 1971 and covers all of Yolo County and the Northeastern portion of Solano County that includes Dixon, Rio Vista and Vacaville. The remainder of Solano County is part of the Bay Area Air Quality Management District as they are considered part of the Bay Area Air Basin.

BOARD OF DIRECTORS

The District's Board of Directors is comprised of 14 local elected officials: four from the Yolo County Board of Supervisors, three from the Solano County Board of Supervisors, and one from each of the City Councils of Davis, Dixon, Rio Vista, Vacaville, West Sacramento, Winters, and Woodland. The Board meets monthly to discuss and set policy on matters under the District's jurisdiction. Six Board committees also work on specific issues such as the annual budget, incentive programs and certain policies.

The following is the 2017 roster for the Board of Directors:

- Matt Rexroad: Chair, Yolo County Supervisor
- Constance Boulware: Vice Chair, Vice Mayor for City of Rio Vista
- Harold Anderson: Council member for City of Winters
- Thom Bogue: Mayor of City of Dixon
- Monica Brown: Solano County Supervisor
- Duane Chamberlin: Yolo County Supervisor
- Dilenna Harris: Vice Mayor for City of Vacaville
- Mark Johannessen: Council member for City of West Sacramento
- Jim Provenza: Yolo County Supervisor
- Don Saylor: Yolo County Supervisor
- Tom Stallard: Council member for City of Woodland
- Rochelle Swanson: Council member for City of Davis
- Skip Thomson: Solano County Supervisor
- John Vasquez: Solano County Supervisor



Winters, CA

Approximately
354,000 residents
live in the
Yolo-Solano Air Quality
Management District,
which roughly covers
1,500 square miles.



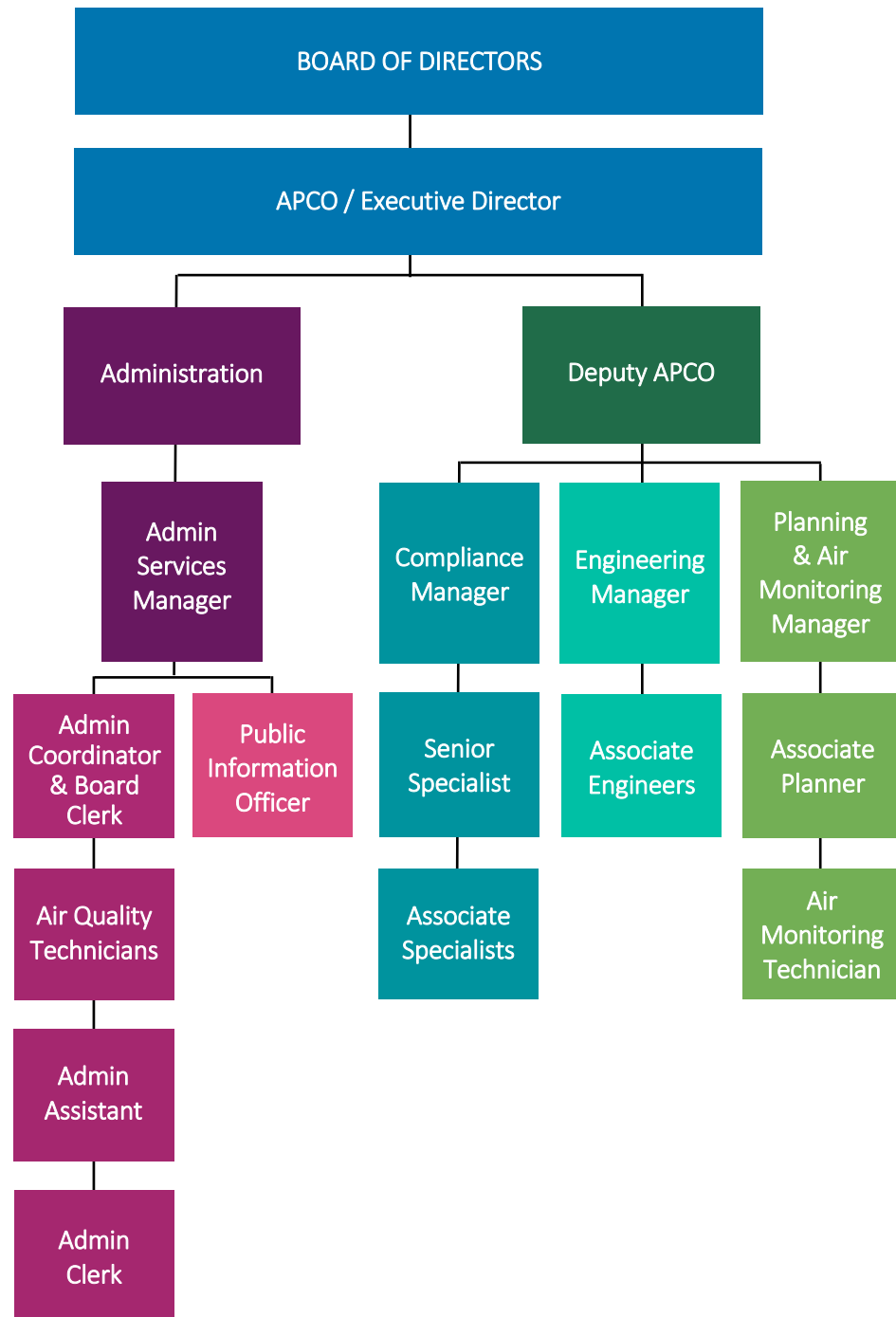


Rio Vista, CA

DISTRICT STAFF

The District currently has 22 full time employees who have a variety of expertise and skills. Staff work in the divisions of Administration, Engineering, Compliance, and Air Monitoring and Planning. The District's highly trained staff work collaboratively to maximize resources and provide the best service possible to the public.

Staff are considered a part of the community's fabric and work closely with businesses and companies to find solutions to their needs while enforcing rules on emissions and control technology. Yolo-Solano has a rich agricultural heritage and staff work with growers every day to ensure their work doesn't impair air quality.



In Yolo and Solano County, more than 120,000 children and adults have been diagnosed with asthma.

Based on CA Department of Public Health 2016 Statistic.



Woodland, CA

BY THE NUMBERS

The District's Board of Directors adopted a proposed 2017-2018 budget in July and a final budget in September. The budget continues to maintain the District's focus on protecting air quality in the most cost effective ways possible to maximize public dollars. The District's financial statements are audited annually and reviewed by the Budget and Audit Committee and the full Board of Directors.

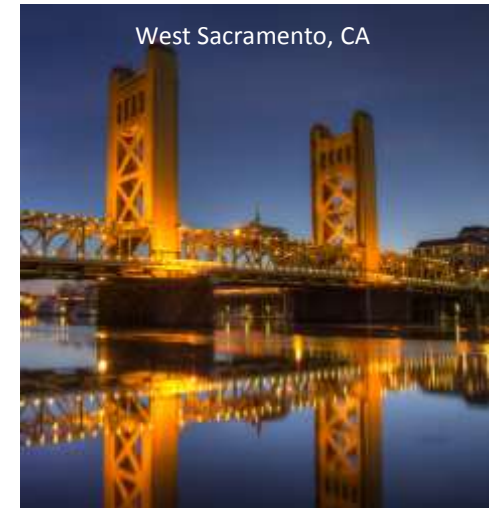
The District's permit revenue includes all fees paid by regulated sources of air pollution, including ag burning program participants and those engaging in asbestos removal work.

Vehicle registration fees are collected for the District by the CA Department of Motor Vehicles. These funds are mandated for specific programs aimed at reducing the impact of transportation on local air quality.

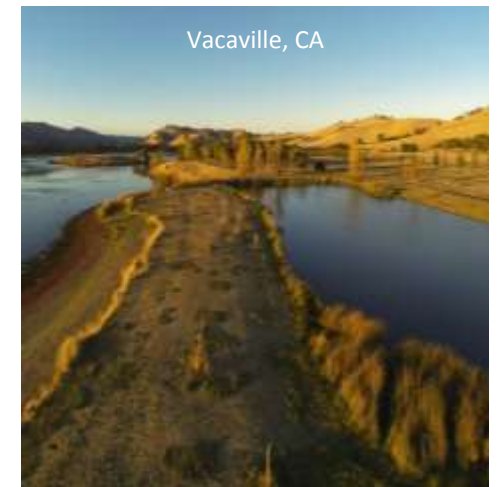
	REVENUES	EXPENSES	
PERMIT PROGRAMS & OTHER REVENUE Permit fees for businesses, engine registrations, portable engines	50% \$3.5M	46% \$3.2M	GENERAL & ADMINISTRATIVE EXPENSES
DMV FEES \$6 of every vehicle registration in the District	40% \$2.8M	27% \$1.9M	INCENTIVES & GRANTS Clean Air Funds, Clean Equipment Program, restricted contingency
PROPERTY TAX A share of Solano County property tax	10% \$650K	19% \$1.3M	SERVICES & SUPPLIES Operating expenses, professional services
		8% \$550K	OPERATING CONTINGENCY
	\$6.95 MILLION		
	2017-2018 Budget		



California is home to 35 local air quality districts, ranging from small, single county districts to multi-county agencies, whose primary responsibility is to regulate air pollution from stationary sources.



West Sacramento, CA



Vacaville, CA



Our Air

PARTICULATE MATTER (PM)

Particulate pollution, also known as particulate matter (PM), is a mixture of solid particles and liquid droplets found in the air. Transportation and solid fuel combustion (such as wood burning) are major sources of PM. Some particles (PM10) are large enough to be seen with the human eye while others (PM2.5) are so small they are 1/30 the width of a human hair.

PM was mild in the District during the spring, with March and April having all 'Good' air quality days, but picked up in the summer, with August having 26 days of 'Moderate' air quality, and in the winter, with December seeing 23 'Moderate' air quality days. October had 2 'Unhealthy' days due to the wildfires in Napa and Solano County. In all, the District saw 234 days with 'Good' air quality for PM in 2017.

OZONE (SMOG)

Ground-level ozone, commonly known as smog, is formed when nitrogen oxides (NOx) react with volatile organic compounds (VOCs) in the presence of sunlight. The major sources of NOx and VOCs include vehicle exhaust, industrial and utility plant emissions and chemical solvents.

Ozone concentrations were highest during the month of August in the District with 15 days of 'Moderate' air quality and 1 day that was 'Unhealthy for Sensitive Groups.' For the entire year, the District had 304 days with 'Good' air quality for Ozone.

WILDFIRE AND SMOKE

This year the District was impacted by fires, both locally and regionally. On July 6, the Winters Fire started off Highway 128 and Pleasant Valley Road near Winters, CA, burning a total of 2,269 acres. More than 100 fire personnel were on the scene, including 10 fire engines.

In late August, the District was heavily impacted by wildfire smoke drifting from the Ponderosa Fire in Butte County and wildfires in Southern Oregon. Additionally in October, the Tubbs Fire, Atlas Fire, and Nuns Fire in Sonoma and Napa County burned more than 143,000 acres, impacting air quality in the region.

Number of Days in Each Category Based on Maximum AQI



Our Data

AIR MONITORS

The District operates air monitoring equipment in four cities: Woodland, West Sacramento, Rio Vista and Vacaville. The equipment at these sites check for PM2.5, PM10, or ozone.

The California Air Resources Board (CARB) operates a fifth site in Davis on the UC Davis campus. All of these monitors provide air quality data to District staff and the public on several criteria pollutants and meteorological information that helps shape air pollution forecasts.

Find local and daily air quality forecasts by:

1. Visiting www.YSAQMD.org
2. Signing up at <http://ysaqmd.enviroflash.org>
3. Checking www.SpareTheAir.com

FORECASTING

The District provides forecasts every day of the year that help the public prepare for potentially poor air quality and assist staff in executing its three programs for smoke abatement and ozone. Some of the conditions studied in forecasting air quality include atmospheric pressure, wind speed and direction, temperature and precipitation.

Atmospheric pressure is critical as high pressure systems tend to restrict vertical mixing and decrease winds. Winds can help to disperse pollution while vertical mixing allows for air to circulate. The worst air quality days in the winter usually correspond with a high pressure system sitting over Northern California.

Winds are an important condition to look at as they can help or hinder a variety of situations. For example, winds on a hot day during the summer can help to disperse ozone while winds during a wildfire can transport smoke and particulate matter into adjacent communities.

Temperatures can also affect air quality. High temperatures in the summer are typically associated with high ozone levels as sunlight is required for the chemical reaction that creates smog. Additionally, low temperatures in the winter can lead to more wood burning which sends particulate matter into the air and lowers air quality.

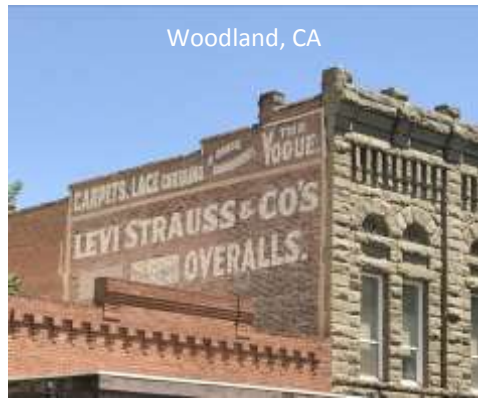
Precipitation is also a potential factor as rain helps to cleanse the air and improve air quality. Storms that have enough atmospheric action help create better dispersion and vertical mixing, allowing air pollution to scatter while bringing in fresher air.



More than 1,240,000 acres were burned in California during 2017, including the Thomas Fire, the largest wildfire in California history, that burned +281,000 acres.

Based on CALFIRE and US Forest Service Combined Year To Date.





Woodland, CA

Residents in the District were estimated to travel more than 12,000,000 vehicle miles in 2017.

Based on the 2013 California Air Resources Board Almanac.



Winters, CA



Esparto, CA

Our Efforts

STATIONARY SOURCE PROGRAM

The District's chief regulating authority is controlling air pollution emissions from stationary sources, which are any permanent equipment or process that has the potential to emit air pollution, such as food processing plants, biomass facilities, paint booths, emergency diesel generators or gas stations.

Any business that has the potential to emit air pollution must first apply for an Authority to Construct (ATC) prior to installing equipment. Once installed and tested in compliance with the ATC, the business must obtain a Permit to Operate (PTO) that describes the maximum levels of annual emissions and additional directives needed to protect the public's health.

Annually, sources are inspected and permits are renewed. Emergency generators are inspected every two years. Permits are revised any time a source modifies its equipment or process. When sources are suspected to be in violation of District rules, staff investigate the issue and if the source is out of compliance, the District issues a Notice of Violation (NOV) and will work with the source to settle the issue or pursue legal recourse.

PORTABLE EQUIPMENT

In lieu of a District PTO, certain portable equipment can get registered with CARB's Portable Equipment Registration Program, which allows the equipment to operate statewide with a single registration. More than 1,070 units have registered with the District as their 'home district.'

ASBESTOS

The Federal Clean Air Act mandates that many renovation projects of a certain size and commercial demolitions must have materials surveyed for asbestos. This year the District, who enforces this program, reviewed and released 544 projects and processed 78 renovation/demolition notifications.

AGRICULTURAL BURNING

This program allows permit holders, such as growers and land managers, to burn on certain days that smoke is unlikely to have an impact on local air quality. Each day, District staff consult with CARB and contracted forecasters to determine the local burn status. NOV's are issued to individuals burning without a permit and daily authorization, or for non-compliance with open burn rules. This program does not extend to fireplaces, wood stoves or vehicles.

2017 STATS



123

NEW ATCs ISSUED



180

VIOLATIONS ISSUED



1,692

ACTIVE PTOs



2,324

INSPECTIONS COMPLETED

TRANSPORTATION INCENTIVES

The State of California regulates the transportation sector, which is accountable for about 70% of ground-level ozone precursors in the region. The District works diligently to meet state and federal air quality standards and finds ways to reduce local emissions from cars and trucks.

California legislation allows air districts to collect up to \$6 for each vehicle registration to fund programs and staff focused on reducing air pollution from transportation and implement the California Clean Air Act. The District also collects a small percentage from local property tax in Solano County from a previously approved bill.

Each year the District invites projects aimed at reducing transportation emission to apply for its Clean Air Funds program. In 2017 the District awarded close to \$400,000 to 14 different projects in the following categories: (2) Clean Technologies/Low Emission Vehicles, (2) Alternative Transportation, (5) Transit Services and (5) Public Education.

City of Rio Vista: Front Street Upgrades	YCTD: TMA Incentives
YCTD: Route 220 Expansion	STA: Bus Shelter
City of Winters: Dual Car Charger	City of Woodland: Vehicle Replacement
UC Davis: EV Infrastructure Improvements	City of Rio Vista: Truck Replacement
Efficient Drivetrain: Charging Station	Breathe CA: PTEP & Community Events
City of Davis: Lights in a Pinch	City of Davis: Community Bicycles
Cool Davis: Community Education	Valley Vision: Cleaner Air Partnership

PUBLIC OUTREACH

The District's public outreach program is focused on educating local communities on various programs, efforts and data on air quality and how to reduce their emissions and exposure. In 2017 staff attended more than 12 events, ranging from libraries to festivals, and spoke with over 750 people to build awareness across age groups and locations.

Spare The Air (STA) is an annual program that runs from May 1 to September 30 that issues advisories when the AQI for ozone is forecast to reach 126 or higher and asks residents to drive less. The month of July had the most alerts with 6 days while September had the longest consecutive stretch of STA alerts with 4 days.



17 Alerts in 2017

The District has social media accounts with Facebook and Twitter and regularly posts air quality forecasts, smoke or fire advisories that may impact air quality, as well as informational facts or figures to better engage residents and followers.



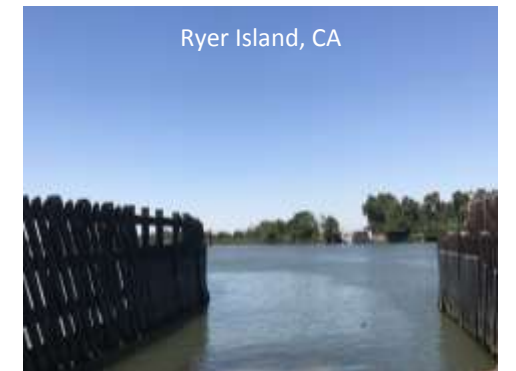
'Don't Light Tonight' (DLT) is a voluntary program that runs November 1 through the end of February that asks residents to refrain from burning wood on days that the forecast for particulate matter will exceed a certain threshold. December had 8 consecutive days of DLT advisories due to a ridge of high pressure sitting over Northern California.



14 Advisories in 2017



2018 Clean Air Calendar



Ryer Island, CA



Dixon, CA



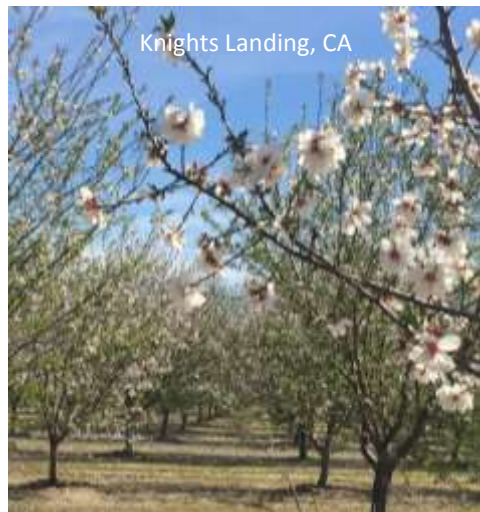
Clarksburg, CA



Davis, CA

The District currently has more than 4,200 EnviroFlash subscribers, 1,100 Twitter followers and 1,000 Facebook followers.

To sign up for alerts, visit: <http://ysaqmd.enviroflash.org/>.



Knights Landing, CA

Our Feats

COMMUNITY WOOD SMOKE SURVEY

From December 2016 through April 2017, more than 1,400 residents participated in the District's community wood smoke survey that asked questions about the frequency of wood burning devices during the winter months, knowledge of health impacts due to wood smoke and awareness of the 'Don't Light Tonight' advisory program.

TWO RULE REVISIONS

The District revised two rules in 2017. Rule 2.31 (Solvent Cleaning and Degreasing) was revised to include a reduction on the applicable Volatile Organic Compound (VOC) content limitations for cleaning and equipment for ultraviolet printing operations.

Rule 3.25 (Federal New Source Review for New and Modified Major PM2.5 Sources) was revised to meet the requirements of the Federal Clean Air Act and requires a pre-construction permit for any new major source of PM2.5 or major modification of an existing major source.

ADOPTION OF THE SACRAMENTO REGIONAL 2008 NATIONAL AMBIENT AIR QUALITY STANDARDS 8-HOUR OZONE ATTAINMENT AND REASONABLY FURTHER PROGRESS PLAN

The Board of Directors approved this plan on October 13, 2017, which requires nonattainment areas, such as the Sacramento region that the District is a part of, to submit plans demonstrating how they will meet the reasonable further progress requirements of the Clean Air Act.

VACANCIES FILLED AT THE DISTRICT

Due to staff retirements and promotions, five positions were filled in 2017 including Administrative Clerk, Administrative Services Manager, Associate Engineer, Engineering Manager and Public Information Officer.

SOCIAL MEDIA ACCOMPLISHMENT

The District reached an all-time monthly high on both social media accounts in October due to engaging content and local or regional incidents. On Facebook, the District's posts were seen more than 104,000 times while gaining 300 additional followers. On Twitter the District's tweets earned more than 90,000 impressions and added more than 230 followers. On average each month, the District's Facebook page receives 10,000 views while Twitter receives 20,000 impressions.

IMPLEMENTATION OF (NEW) FINANCIAL SYSTEM

Starting in June 2017 the District initiated a plan to move the financial system in-house.

Our Goals

RULE REVISIONS

The District expects to bring at least 2 rule revisions to the Board of Directors in 2018 after thorough public outreach and workshops with affected sources.

Rules are amended in the interest of fulfilling the District's mission and planning commitments and as required by the California Air Resources Board and the United States Environmental Protection Agency (EPA).

WOOD STOVE CHANGE-OUT PROGRAM

The District will be accepting applications in 2018 for a new incentive program that provides financial assistance to low-income residents living in the District to replace their old wood stove with an EPA certified device that is cleaner, newer and better for the environment and air.

The program aims to reduce the air pollution that comes from wood smoke, which contains gases, toxics and particulate matter that can penetrate deep into the lungs and cause short term health effects like coughing and worsen existing conditions like asthma and heart disease.

IMPLEMENTATION OF AB 1132 AND AB 617

The District will begin implementing two bills in 2018 that will hold polluters more accountable for their emissions and give air districts additional authority in improving air quality.

AB 1132 passed in May 2017 and strengthens current law by giving California's 35 air districts the ability to more quickly shut down businesses that are emitting dangerous levels of air pollution. This bill will allow air districts to issue temporary orders to cease operations in violation of federal or state air quality standards.

AB 617 passed in July 2017 and aims to establish a uniform system of annual emissions reporting for toxic air contaminants and criteria air pollutants, which stationary sources will now be required to report on. Additionally this bill expedites the cleanup of old equipment.

OIL AND GAS REGISTRATION PROGRAM

The California Air Resources Board adopted a regulation to control methane emissions from oil and gas production activities. District staff will work with stakeholders and the Board of Directors this year to develop a registration program for natural gas production and storage facilities in the District.



West Sacramento, CA



Woodland, CA



Winters, CA



Yuba City, CA



YOLO-SOLANO
AIR QUALITY MANAGEMENT DISTRICT

2017 Annual Report
Produced by: Jenny Tan, Public Information Officer
Available Online at: www.YSAQMD.org/about-the-district/news-outreach/reports/