BAAQMD 2017 Clean Air Plan - Control Measures That May Impact BACWA Members (listed by scheduled timing of rule development, if provided)

Legend

SS	Stationary Source
TR	Transportation
EN	Energy
BL	Buildings
AG	Agriculture
NW	Natural and Working Lands
WA	Waste
WR	Water
SL	Super-GHGs
FSM	Future Study Measure

***Air District to prioritize implementation of control measures filled with green shading**

Number	Name	Pollutant	Description	Rule Development Schedule (2015-2020)	Preliminary Notes, Concerns, Recommendations
SS2	Equipment Leaks	ROG, GHG	Reduce fugitive emissions of organic gases, including methane, from refineries, chemical plants, bulk plants and bulk terminals. Develop an implementation plan for Rule 8-18 to require future monitoring of equipment in heavy liquid service, require facilities to identify the causes of background readings greater than 50 parts per million volume (ppmv), etc.	Rule 8-18, adopted December 2015	The focus is on refineries; however, staff have inquired about leaks around anaerobic digesters and wanted to investigate further.
SS21	New Source Review for Toxics	TAC	Propose revisions to Air District Rule 2-5, New Source Review of Toxic Air Contaminants, based on OEHHA's 2015 Health Risk Assessment Guidelines and CARB/CAPCOA's 2015 Risk Management Guidance. Revise the Air District's health risk assessment trigger levels for each toxic air contaminant using the 2015 Guidelines and most recent health effects values.	NSR for Toxics, Rule 2-5, adopted in December 2016	Consider educating BACWA members on the implications of the revisions, via email and the website. Possibly have a presentation by SVCW on their recent experience.
SS16*	Basin-Wide Methane Strategy	GHG	Quantify and reduce emissions of methane, and its co-pollutants (e.g., N_2O and VOCs), from all sources throughout the Air District by implementing a coordinated strategy that combines research, rulemaking and collaborations with state agencies and other programs. The Air District will seek to better understand and quantify methane and nitrous oxide emissions at POTWs in order to inform potential rulemaking to address these potent greenhouse gases (under WR1). Waste, Water and Agriculture Sectors: "*Due to the uncertainty and poor understanding of the emissions from sources in these sectors, such as composting, wastewater treatment, and livestock, emissions reductions from amending Rule 8-2 cannot be estimated at this time* ."	To be completed in 2017	BACWA should track this and consider being involved in the rule-making, in coordination with control measure WR1.
SS17	GHG BACT Threshold	GHG	Revise Air District rules to reduce the threshold at which facilities must implement Best Available Control Technology to control their GHG emissions. This measure would lower the threshold at which facilities subject to the Air District's New Source Review permit program must implement the "Best Available Control Technology" to control their greenhouse gas (GHG) emissions below the current 75,000 tons per year (tpy) CO_2e. In addition, this threshold would apply to all regulated facilities, not just "major" facilities.	Rule 2-2, to be updated in 2017	BACWA should track and consider becoming involved in the rule amendment process to ensure the GHG emissions considered in this rule continue to be fossil fuel based (following EPA's determination).

SS20	Air Toxics Risk Cap and Reduction from Existing Facilities	TAC	Consider further reducing public exposure to toxic air contaminants (TACs) from existing facilities through Draft Rule 11-18.	Rule 11-18, to be adopted in 2017	Continue engaging BAAQMD staff on POTW concerns. Workshop being held March 9th.
SS22	Stationary Gas Turbines	NOx	Reduce NOx emissions from stationary gas turbines. The Air District is considering whether more stringent limits are warranted for medium-sized gas turbines.	Rule 9-9, to be updated in 2017	BACWA should track progress and can estimate the impact on members (i.e., look into how many members have gas turbines and implications).
SS31	General PM Emission Limit	PM	Reduce or revise the Air District's allowable weight rate limitations for particulate matter (especially, PM 2.5).	Rule 6-1, to be updated in 2017	Recommend tracking Rule 6-1 updates.
SS18	Basin-Wide Combustion Strategy	GHG, PM	Stabilize and then reduce emissions of greenhouse gas (GHG), criteria air pollutant and toxics from stationary combustion sources throughout the Air District by first establishing carbon intensity caps on major GHG sources (Phase 1), and then adopting new rules to reduce fuel use on a source-type by source-type basis (Phase 2).	To be completed in 2018	BACWA should be involved in this rule development on behalf of the wastewater community.
SS40	Odors	Odors	Propose amendments to Regulation 7 to strengthen odor standards and enhance enforceability. An evaluation of newer air monitoring technologies will be aimed at increasing enforceability of the rule with respect to a wider range of odorous compounds and sources. The rule was originally intended to reduce odorous emissions from operations such as refineries, **sewage treatment plants**, and rendering plants - with diversion of organics from landfills, odors are now being created at diverse operations of all sizes.	Regulation 7, to be updated in 2018	Track to understand potential cost for food waste diversion projects at POTWs to comply.
TR16	Indirect Source Review	All Pollutants	Consider a rule that sets air quality performance standards for new and modified development projects. Indirect sources are development projects that generate or attract motor vehicle trips, thus "indirectly" cause air pollution from vehicles and area sources. Area source emissions include fireplaces, home heating furnaces, hot water heaters, and landscape maintenance equipment.	To be complete in 2018	Recommend tracking the development of this rule.
WA1*	Landfills	GHG, ROG, TACs	Reduce emissions of methane and non-methane organic compounds from landfills by increasing standards for landfill gas collection control devices and fugitive leaks. Propose amendments to Air District Rule 8-34 to increase stringency of emission limits, including fugitive leak standards, and improve consistency with federal rules. Evaluate methane emissions at smaller or closed landfills where green waste has been accepted and consider amendments to Rule 8-34 to address fugitive methane emissions if deemed significant.	To be completed by 2018	May not have an impact on POTWs since this is focused on emissions from landfills vs diversion of the emissions source (organic waste).
WA2*	Composting and Anaerobic Digestion	GHG, ROG, PM	Recognizing more organic waste is being diverted from landfills to either composting, anaerobic digestion, or a combination of the two - the Air District will develop a rule that includes emission limits based on best management practices in other areas of the state. This control measure would reduce emissions of greenhouse gases (GHGs) and volatile organic compounds (VOCs) from anaerobic digesters and composting operations by requiring best management practices derived from measures adopted by the South Coast Air Quality Management District (SCAQMD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD). In turn, the Air District expects reductions in secondary PM emissions via ammonia emission reductions.	To be completed by 2018	Recommend reviewing BMPs in SCAQMD and SJVAPCD for reducing GHGs and VOCs from compost and anaerobic digestion facilities to understand what BAAQMD will be considering.

SS23	Biogas Flares	NOx	Develop a new Air District rule to reduce NOx from nonrefinery flares (i.e., landfills and anaerobic digesters) and investigate potential for more stringent limits on emissions from non-refinery flares. Require that all biogas and non-refinery flares meet lowest available emissions reduction (LAER) level of 0.025 pounds of NO_x per million Btu.	To be completed in 2020	BACWA to monitor and determine the impact of the proposed lower emissions limit for NOx.
SS32	Emergency Backup Generators	DPM, TAC	Reduce emissions of Diesel PM and black carbon from back-up generators through Draft Rule 11-18, resulting in reduced health risks to impacted individuals, and in climate protection benefits.	Rule 11-18, to be updated by 2020	Continue engaging BAAQMD staff on POTW concerns. BACWA estimating the cost impact to POTWs.
TR19	Medium- and Heavy-Duty Trucks	All Pollutants	Directly provide, and encourage other organizations to provide, incentives for the purchase of 1) new trucks with engines that exceed ARB's 2010 NOx emission standards for heavy-duty engines, 2) new hybrid trucks, and 3) new zero-emission trucks. The Air District will work with truck owners, industry, ARB, the California Energy Commission, and others to demonstrate additional battery-electric and hydrogen fuel cell zero-emission trucks.	Not included in the rule development schedule	Recommend tracking the development of this program to determine if BAAQMD will consider biogas to vehicle fuel.
EN1	Decarbonize Electricity Production	All Pollutants	Engage with PG&E, municipal electric utilities and CCEs to maximize the amount of renewable energy contributing to the production of electricity within the Bay Area as well as electricity imported into the region. Work with local governments to implement local renewable energy programs. Engage with stakeholders including dairy farms, forest managers, **water treatment facilities**, food processors, public works agencies and waste management to increase use of biomass in electricity production. The measure would promote and expedite a transition away from fossil fuels used in electricity generation (i.e., natural gas) to a greater reliance on renewable energy sources (e.g., wind, solar). In addition, this measure would promote an increase in cogeneration, which results in useful heat in addition to electricity generation from a single fuel source. Among the permit requirements required by the Air District is the condition that combustion equipment – such as gas turbines and heat recovery boilers – use the Best Available Control Technology (BACT) to minimize emissions. In addition, projects may be subject to emission offset requirements, Prevention of Significant Deterioration (PSD) analysis requirements, and health risk screening analysis (HRSA) requirements.	Not included in the rule development schedule	Recommend adding the following under "Issues/Impediments": the conflict between Proposed Rule 11-18 and GHG reducing goals promoting biogas recovery and use at POTWs. Continue engaging BAAQMD staff on this conflict and provide potential impacts, costs, and solutions (e.g., exemptions).
EN2	Decrease Energy Use	All Pollutants	The purpose of this control measure is to decrease the amount of energy consumed in the Bay Area through increased efficiency and conservation. With decreased energy use, less electricity generation is required, and thus there would be a reduction in the emissions of greenhouse gases (GHGs), criteria pollutants and toxic air contaminants (TACs).	Not included in the rule development schedule	Ensure POTWs would be given credit or acknowledged for their contributions in meeting this goal.
BL2	Decarbonize Buildings	All Pollutants	Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with low- or zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.	Not included in the rule development schedule	Engage with BAAQMD staff on the potential use of low-carbon biogas.

AG1	Agricultural Guidance and Leadership	GHG	Reduce GHGs from the agriculture sector, including working to obtain funding for on-farm GHG reduction activities; promoting carbon farm plans; providing guidance to local governments on including carbon-based conservation farming measures and **carbon sequestration** in local climate actions plans; and conducting outreach to agriculture businesses on best practices, including **biogas recovery**, to reduce GHG emissions.	Not included in the rule development schedule	Recommend including reference to POTW anaerobic digesters (not just dairy digesters) and collaborating with the Healthy Soils Initiative as well for the land application of biosolids to achieve carbon sequestration.
NW1	Carbon Sequestering in Rangelands	GHG	Include off-site mitigation of GHG emissions through carbon sequestration projects in the Air District's CEQA guidance and comments. Develop climate action plan guidance and/or best practices on soil management for local agencies and farmers and their associations to maximize GHG sequestration on rangelands.	Not included in the rule development schedule	Recommend including reference to POTW role in supporting this measure through land application of biosolids.
NW3	Carbon Sequestration in Wetlands	GHG	Identify federal, state and regional agencies, and collaborative working groups that the Air District can assist with technical expertise, research or incentive funds to enhance carbon sequestration in wetlands around the Bay Area. Assist agencies and organizations that are working to secure the protection and restoration of wetlands in the San Francisco Bay.	Not included in the rule development schedule	Recommend including reference to POTW role in supporting this measure in potential use of biosolids to restore wetlands.
WA3*	Green Waste Diversion	All Pollutants	Develop model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills. Reduce air pollutants and greenhouse gas (GHG) emissions from the disposal of green waste in landfills. Diverting green waste, **which includes both food and yard waste**, away from landfills or keeping it out of the waste stream entirely would reduce the amount of methane, nitrous oxide and other volatile organic compounds (VOC)s. May develop a zero waste goal for the community while avoiding incineration. May require use of compost in place of artificial fertilizers.	Not included in the rule development schedule	Track the development of policies to ensure POTWs continue to be eligible to receive diverted food waste and the production of bioproducts are considered for beneficial use.
WR1*	Limit GHGs from POTWs	GHG, ROG, TACs	Initiate a process to better understand and quantify GHG emissions at POTWs (i.e, water and wastewater treatment facilities). Explore rulemaking to reduce GHGs emitted directly within POTWs (nitrous oxide and methane). **Work with the POTW operators and existing organizations such as the Bay Area Clean Water Agencies (BACWA)** to obtain funding for the development of green infrastructure in POTWs. This measure will also explore the potential to streamline the Air District's permitting process to **promote biogas recovery**, as well as address potential cross-media regulatory issues such as State Water Resources Control Board regulations on nutrient removal (which may increase GHG emissions). Staff noted: *The* ***BACWA Air Issues and Regulations Committee*** *has expressed concern regarding potential Air District regulatory action targeting POTWs. According to BACWA, Air District regulations inadvertently discourage biogas recovery and use as a fuel substitute. For example, Air District Best Performance Standards for limiting air emissions from engines and boilers are difficult for bio-gas fired engines and boilers to meet cost-effectively. The Air District is therefore investigating these potential conflicts through implementation of this control measure.*	Not included in the rule development schedule	Engage with BAAQMD staff on this during our June meeting between BACWA and BAAQMD. Need to clarify our concerns accurately and assist BAAQMD staff with their efforts under this control measure.
WR2	Support Water Conservation	GHG	Develop a list of best practices that reduce water consumption and increase on-site water recycling in new and existing buildings; incorporate into local planning guidance. Reduce indirect emissions of GHGs associated with the electricity use required to capture, use, convey, store, conserve, recycle and treat water and wastewater in the Bay Area.	Not included in the rule development schedule	Recommend assisting in the devleopment of the best practices list.

SL1	Short-Lived Climate Pollutants	GHG, black carbon	Reduce short-lived climate pollutants, aka super-GHGs. Reduce methane from landfills and farming activities through various control measures listed under waste and agriculture sectors. Develop a rule to reduce methane emissions from natural gas pipelines and processing operations, and amend regulations to reduce emissions of methane and other organic gases from equipment leaks at oil refineries. Enforce applicable regulations on the servicing of existing air conditioning units in motor vehicles, support the adoption of more stringent regulations by CARB and/or U.S. EPA, and encourage better HFC disposal practices. To be coordinated with other control measures achieving SLCP reductions (e.g., WA1, WA2, WA3, WA4, AG2, AG3, SS2, SS13, SS14, SS15, SS32, SS34, TR14, and TR19).	Not included in the rule development schedule	Recommend monitoring this and other supporting measures to ensure POTWs continue to be considered part of the solution.
SL2	Guidance for Local Planners	GHG	Track progress in adoption and implementation of super-GHG reduction measures in local plans and programs. The Air District will develop guidance to help local agencies address short-lived climate pollutants (SLCPs), or super-GHGs, in their climate action plans and programs.	Not included in the rule development schedule	Recommend monitoring this and other supporting measures to ensure POTWs continue to be considered part of the solution.
SL3	GHG Monitoring and Emissions Measurement Network	GHG	Develop a GHG air monitoring plan/network for the Bay Area that includes strategic selection of measurement locations (to identify methane hot spots!), selection of relevant measurement technologies and procurement of appropriate GHG instrumentation, calibration gas standards and sampling logistics. Establish, operate and maintain the GHG air monitoring network. Collaborate with the scientific community to use different methods to estimate methane emissions in the Bay Area and identify sectors and areas for focused measurement study.	Not included in the rule development schedule	Important for POTWs to have accurate methodologies considered and appropriate measurement technologies and sampling approaches considered.
FSM - SS1	Internal Combustion Engines	NOx	Consider lower NO_X emission limits for some categories of internal combustion (IC) engines. This measure is based on San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4702 which appears to have lower NOx emission limits for some categories of internal combustion (IC) engines, compared to BAAQMD Regulation 9-8. Rule 4702 also applies to smaller engines than Regulation 9-8. It should be noted that the South Coast AQMD Rule 1110.2 (September 2012) applies only to engines larger than 50 bhp.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS2	Boilers, Steam Generator and Process Heaters	NOx	Examine the possibility of further NOx emission reductions from small Boilers, Steam Generators and Process Heaters from 2MM to 5MM BTU/hr in size. This measure is based on Measure D.1.2 from the 2012 San Joaquin Valley APCD PM 2.5 Plan. Measure D.1.2 examined the possibility of further emission reductions from Boilers, Stea m Generators and Process Heaters from 2MM to 5 MM BTU/hr in size through San Joaquin's Rule 4307.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS3	GHG Reductions from Non-Cap-and-Trade Sources	GHG	Use quantitative analysis to find greenhouse gas (GHG) reduction opportunities from stationary sources that are not covered under the ARB's Cap-and-Trade Program. Preliminary analyses indicate that the bulk of these emissions occurred in the biofuel, natural gas d istribution, **sewage treatment**, and landfills sectors.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS4	Methane Exemptions from Wastewater Regulation	GHG	Conduct research and testing to identify significant methane sources in the refinery wastewater collection systems and to determine how these sources may be minimized or controlled. In addition, investigate if nonrefinery wastewater systems have significant methane emissions and quantify potential emission reductions for methane, as well as for ROG, in order to determine if Rule 8-8 should be expanded to additional non-refinery sources.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.

FSM - SS5	Controlling SSMM Emissions	NOx, PM, SO_2, ROG, TAC	Reduce emissions by considering implementing requirements to minimize start-up, shutdown, maintenance, and malfunction (SSMM) emissions through abatement technology, equipment design considerations, revised activity scheduling or planned redundancy.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS6	Carbon Pollution Fee	GHG	Explore options for placing a fee on fossil fuels based on the carbon intensity of the fuel, to reduce use of fossil fuels. This reduction in consumption would reduce emissions of criteria pollutants, toxic air contaminant s and greenhouse gases (GHGs) not only because less fuel is combusted but also because less fuel i s processed and manufactured in response to reduced demand.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS8	Dryers, Ovens, and Kilns	NOx	Seek further emission reductions of NOx from combustion devices that are currently exempt from the requirements of Rule 9-7, specifically, devices in the category of “kilns, ovens, and furnaces used for drying, baking, heat trea ting, cooking, calcining, or vitrifying” (9-7-110.6)	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.
FSM - SS9	Omnibus Rulemaking to Achieve Continuous Improvement	GHG	This measure seeks to accelerate the pace of greenhouse gas (GHG) emission reductions in the Bay Area by exploring the feasibility of broad-sweeping, or “omnibus,” rulemaking.	Not included in the rule development schedule	Recommend BACWA track the development of this measure and engage with BAAQMD staff.