AIR ISSUES & REGULATIONS COMMITTEE
A Committee of the Bay Area Clean Water Agencies

Spring 2009

Special AB 32 Edition

Special Interest Articles

- ✓ The AB 32 Scoping Plan
- ✓ Preparing for CA Mandatory Reporting of GHGs in 2009
- ✓ Cap-and-Trade
- ✓ USEPA's Mandatory Reporting of GHGs
- ✓ NACWA Recommend-ations for Obtaining Stimulus Funds

Section Index

Are You Prepared for Mandatory Reporting of Greenhouse Gases at Your Wastewater Treatment Plant?

Written by: Jim Sandoval

Many wastewater treatment plant (WWTP) operators are implementing greenhouse gas (GHG) emissions inventories for a number of reasons including mandatory reporting requirements, expectations of community stakeholders, environmental stewardship, facility master planning, and carbon offset auctioning or trading. This article focuses on California's mandatory reporting requirements, which went into effect in 2008. The mandatory reporting requirements have resulted from the implementation of the California Global Warming Solutions Act (AB 32) by the California Air Resource Board (ARB).

The biogenic CO_2 emissions from biomass-derived fuels [e.g. digester gas, landfill gas] are required to be included in the mandatory reporting inventory but are reported separately.

Mandatory reporting is currently required in California and other states for entities that meet certain direct GHG emissions thresholds. The details of this new California requirement are in Subchapter 10, Article 2, sections 95100 to 95133, title 17, California Code of Regulations (Title 17). Additionally the Western Climate Initiative (WCI) has implemented a mandatory reporting requirement that is similar to California's rule. WCI's jurisdiction includes California, six other western states, and four Canadian provinces. In California, the ARB's mandatory reporting requirements trump the WCI requirements.

BACWA Workshop—

Mandatory Reporting of GHGs

On April 28, 2009, BACWA will hold a hands-on workshop to assist POTWs with understanding the regulatory requirements for estimating and reporting their greenhouse gas emissions in accordance with the Mandatory Reporting requirements. Stay tuned for further details, which will be emailed to all BACWA member agencies and posted on the BACWA calendar at http://bacwa.org/Meetings/tabid/122/Default.aspx.

Mandatory reporting will be a national requirement in the US because the USEPA recently released their draft rule requiring mandatory reporting beginning calendar year 2010. Currently the ARB is having conversations with the USEPA to establish

[See Page 12 for continued article]

Get "Ready" to Be Stimulated

"Shovel-ready" that is. The latest national stimulus package, the American Recovery and Reinvestment Act of 2009 (ARRA), was approved by Congress and signed by President Obama on February 17, 2009. The ARRA's funding for infrastructure includes:

- $48 billion for transportation
- $7.38 billion for the water/wastewater sector (plus $1 billion marked for rural drinking water through the Bureau of Reclamation)
- $11 billion for the nation's electrical grid (including renewable energy)

With an emphasis on job creation, a priority for civil infrastructure will go toward projects that can be launched within three to four months once the money is allocated to state and local governments, and virtually all the stimulus money is to be in the pipeline within 18 to 24 months.

According to the American Association of State Highway and Transportation Officials, states have lined up some 5,000 projects. Citing analysis by The McIlvaine Company, Water World Online reports that there are 400 "shovel-ready" wastewater projects.

[See Page 15 for continued article]

AB 32 Updates

AB 32 Cap-and-Trade 101 – The Basics

Written by Sarah Merrill

The Basic Requirements for California

The AB 32 Scoping Plan identifies a cap-and-trade (C&T) program as one of the main strategies California will employ to reach emissions level goals by 2020.

Under C&T, a limit, or "cap", on GHG emissions from economic sectors will be established by the ARB and facilities that exceed regulatory emissions thresholds will be required to either reduce their emissions, trade for permits (allowances) to emit GHGs, or purchase carbon offsets. This program will provide financial incentives for all participating facilities to reduce GHG emissions, whether or not they are included in the C&T program.

The C&T program goes into effect on January 1, 2012. Entities required to participate in the program include industrial facilities that emit at least 25,000 metric tons of CO_2-e from combustion and/or process emissions, and facilities that produce fossil-fired electricity. In 2015, commercial and residential natural gas users and transportation fuels will be included in the C&T program.

The ARB is still deliberating about which emissions and sectors to include in their C&T program. POTWs could fall under the cap as an industrial source if they exceed this threshold, though further clarification for ARB regarding the roles of POTWs in the C&T program is still needed.

The emissions cap amount will be decreased over time by the ARB until the emissions target is reached for the state. Mandatory emissions reporting, as discussed on Page 1, will also be used to verify total emissions and will allow for reasonable estimates to be made regarding reduction progress and the cap amounts.

The California C&T program is coordinating with Western Climate Initiative (WCI) C&T program developers. WCI includes seven western states and four Canadian provinces. This regional approach to C&T has potential to double the amount of emissions reductions made, as compared to a California-only approach. This partnering will also reduce the potential for emissions "leakage" (i.e. the movement of production away from jurisdictions where carbon constraints exist to jurisdictions where they do not) to nearby states, support job retention within California, and increase leverage on the federal climate policy development processes. With a broader carbon market, the WCI seeks to increase opportunities for low-cost GHG reductions. See Page 7 for more information regarding the WCI.

See the following website for further details on California's C&T Program:
http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm

C&T DEFINITIONS:

- *Cap*: Total emissions allowed for capped sectors in the program; will decline over time to 2020 target
- *Allowance*: Permit to emit a ton CO_2-e
- *Offset*: A portion of the total compliance obligation that can be reduced from non-capped sources
- *Compliance obligation*: Total of allowances and offsets equal to a capped source's emissions at the end of each compliance period
- *CO_2-e*: carbon dioxide equivalent – the universal unit for comparing emissions of different GHGs, expressed in terms of the global warming potential of a unit of carbon dioxide

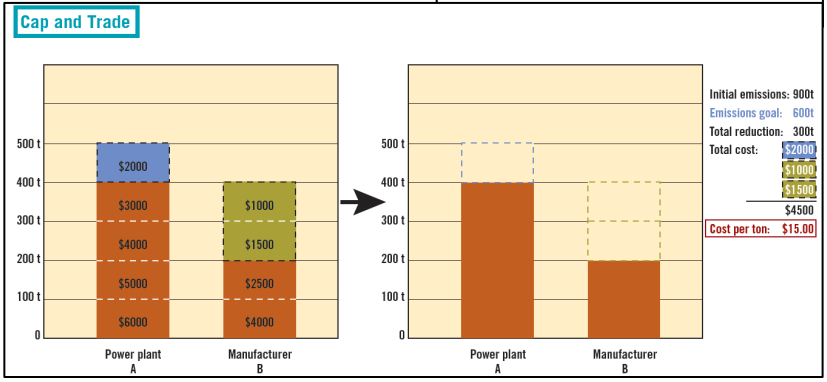
The Basics of Cap-and-Trade

ARB will determine which facilities and/or emissions shall have an overall emissions target or "cap". Then the cap amount will be determined which, in turn, defines the number of allowances available for the compliance period (i.e. the permitted amount of tons of CO_2-e that may be released).

The total number of allowances equals the total emissions in the cap. For example, if the cap is set at one million tons for a specific sector, then one million one-ton allowances will be distributed to facilities within the capped sector. Allowances will be distributed to facilities either via auction or direct allocation by the ARB. Allocations or auctions will occur at the beginning of each three-year compliance period. Excess allowances held by facilities can be traded or sold to others within the program to meet their emissions limit.

In Figure 1, the simplified example shows the overall cap as being set at 600 tons and Facilities A and B

Figure 1: Cap-and-Trade Example*



* taken from *Climate Change 101: Understanding and Responding to Global Climate Change*, published by the Pew Center on Global Climate Change and the Pew Center on the States

AB 32 Cap-and-Trade Program

The Basics of Cap-and-Trade (con't)

being issued a total of 600 emissions allowances. As shown here, the emitters have an incentive to trade because reduction costs tend to be higher for Power Plant A than for Manufacturer B. The total cost of the GHG emissions reduction is lower than if the facilities were not allowed to transfer allowances.

For those facilities not included in the capped sectors, there would be an opportunity to sell offsets. If quantifiable GHG emissions reductions are made, the amount that is no longer being emitted can be designated as an offset. This creates financial incentives for non-capped sectors to reduce their emissions as well. The specifics of the process and criteria for offsets are still being defined by the ARB.

At the end of a compliance period, capped sources will be required to report the sum of their allowances and offsets, which their actual emissions should not exceed at the end of a compliance period.

See the following website for further details about C&T: http://www.pewclimate.org/docUploads/Cap&Trade.pdf

Spotlight On:
Cap and Trade Programs
Local, National, & Global

ARB will be working on the development and implementation of the AB 32 Scoping Plan with the intention of **linking California's program to others across the country** and possibly across the globe.

ARB is working with the Western Climate Initiative (WCI), which includes most western states and Canadian provinces, in the development of a regional C & T Program.

Also mentioned in the Scoping Plan is a concept being evaluated that would include accepting offsets from projects in developing countries that could provide quantifiable reductions for California.

The AB 32 Scoping Plan: Background & Path Forward

Written by: Jim Sandoval

On September 27, 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006 (Núñez, Chapter 488, Statutes of 2006), which requires a reduction of greenhouse gas (GHG) emissions to 1990 levels by 2020 (~30% reduction). AB 32 outlines California's major initiatives for reducing greenhouse gas (GHG) emissions and sets the stage for California's transition to a sustainable, clean energy future.

The main strategies for making the 2020 reductions are outlined in the AB 32 Scoping Plan, which was developed by the California Air Resources Board (ARB) in coordination with the Climate Action Team (CAT) and approved by the ARB on December 11, 2008. The Scoping Plan *proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health*. These actions include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

A cap-and-trade program will be designed to achieve the majority of California's GHG emissions reductions. Additional key recommendations of the plan include strategies to enhance and expand proven cost-saving energy efficiency programs; implementation of California's clean cars standards; increases in the amount of clean and renewable energy used to power the state; and, implementation of a low-carbon fuel standard that will make the fuels used in the state cleaner.

Getting to the 2020 goal is not the end of the State's effort. According to climate scientists, California and the rest of the developed world will have to cut emissions by 80 percent from today's levels to stabilize the amount of carbon dioxide in the atmosphere and prevent the most severe effects of global climate change. This long range goal is reflected in California Executive Order S-3-05 that requires an 80 percent reduction of greenhouse gases from 1990 levels by 2050.

The Scoping Plan outlines a number of measures in various economic sectors (including the water sector) aimed at achieving the 2020 GHG emissions reduction goal. These measures were developed by ARB with input from state agencies, sector specific CAT subgroups and the public. Many of these measures are in developmental stages and the estimated costs, emissions reductions, applicable technologies, and other factors will likely change as they move through

[See Page 18 for continued article]

Fleet Features

By Sarah Merrill

Compliance Continues in '09 to Reduce On-Road Fleet PM

Effective January 5, 2007, California's Fleet Rule for Public Agencies and Utilities, title 13, sections 2022 & 2022.1 requires that public agency and utility vehicle owners reduce diesel particulate matter (PM) emissions by implementing the Best Available Control Technology (BACT) according to model year.

In 2009, a number of engines manufactured between 1960 & 2006 will be required to comply.

See Table 1 below for details.

The Fleet Rule applies to all on-road, heavy-duty, diesel vehicles with:

- Manufacturer's gross wt. rating >14,000 lbs.
- 1960 – 2006 model-year engines
- Or 2007 or newer model-year engine certified to >0.01 g/bhp-hr PM emission standard

Table 1 - Implementation Schedule for a Municipal and Utility, 1960 to Newer Model-Year Engines.

Group	Engine Model-Years	Percentage of Group to Use Best Available Control Technology	Compliance Deadline, As of Dec. 31
1	1960 – 1987	20 60 100	2007 2009 2011
2	1988 – 2002	20 60 100	2007 2009 2011
3	2003 – 2006	50 100	2009 2010
4	2007 and newer certified above 0.01g/bhp-hr std.	100	2012

Exclusions:

Low usage vehicles, low-population county, dedicated snow-removal vehicles, and gasoline fueled vehicles are excluded from the rule.

See the following website for further details:
http://www.arb.ca.gov/msprog/publicfleets/publicfleets.htm

Forklift Fleet Retrofitting Schedule Begins This Year

The off-road, large spark-ignition (LSI) equipment regulations have been in effect since May 25, 2008 and have undergone many recent changes to compliance deadlines and conditions.

Compliance is required of manufacturers, as well as any individual, business, municipality or government agency that owns or operates a fleet of four or more gasoline, propane, or compressed natural gas fueled off-road LSI (generally forklifts) pieces of equipment.

Although the regulation's effective date was January 1, 2000, ARB has agreed not to commence enforcement prior to April 1, 2009 , at the earliest. Also, the ARB agreed to allow equipment and retrofit kits purchased on or before March 31, 2009 to be accounted for in the fleet average emission calculations as long as these items are fully installed on or before December 31, 2009.

Exemptions can be made for low usage vehicles and fleets smaller than four pieces of equipment and/or forklifts.

Fleet Type	Number of units	Fleet Average Emission Level		
		1/1/2009	1/1/2011	1/1/2013
Large forklift fleet	26+	3.2 (2.4)	2.3 (1.7)	1.5 (1.1)
Mid-size forklift fleet	4-25	3.5 (2.6)	2.7 (2.0)	1.9 (1.4)
Non-forklift fleet	4+	4.0 (3.0)	3.6 (2.7)	3.4 (2.5)

*table units are in g/kW-hr

See the following website for further details:
http://www.arb.ca.gov/msprog/offroad/orspark

Fleet Features

Large and Small: 2009 Off-Road Diesel-Powered Engine Emissions Regulation

On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter (PM) and oxides of nitrogen (NOx) emissions from in-use, existing, off-road diesel vehicles. Reporting will begin this year.

This regulation is applicable to **self-propelled, diesel-fueled vehicles that cannot be registered and licensed to drive on-road with a minimum engine power of 25 hp or greater.** Examples of qualifying equipment includes**: loaders, skid steers, backhoes, forklifts, etc.**

The declining average emission rate target is set each year and can be met via:

1. Retrofits with verified diesel emission control systems (VDECS)
2. Replacing or rebuilding existing engines for a cleaner operating engine. Also, referred to as "repowering"
3. Replacing and/or retiring vehicles
4. Any combination of the above three options

Compliance is required of any person, business or government agency that owns or operates these types of vehicles in California, excepting agricultural or personal use.

It is important to note that this regulation's requirements and reporting deadlines vary by fleet size. The largest fleets will have the earliest deadlines. Fleet size is determined by combined fleet horsepower (hp). Low use vehicles, those operated < 100 hr/yr, are not included in the total hp sum.

Recent changes to the regulation have been made to lessen the requirements of the original regulation for many large fleets in the early years of the regulation implementation. Details are discussed in the Large Fleet Requirements below.

Use the table below to determine your fleet size:

FLEET OWNERSHIP	TOTAL FLEET HORSEPOWER[1]		
	0-2500 HP	2501-5000 HP	5001 HP +
FLEET	S	M	L
MUNICIPALITY[2]	S	M	L
FEDERAL GOVERNMENT	L		
STATE GOVERNMENT	L		

(1) Total fleet horsepower excludes vehicles used less than 100 hours per year
(2) For low population county options please see Small Fleet fact sheet.

Small Fleet Requirements

- Reporting begins August 1, 2009. Thereafter, annual reports will be due
- Beginning in 2015, the regulation requires each small fleet to either meet the fleet average PM emission rate

[See Page 11 for continued article]

In-Use, On-Road, Heavy-Duty Diesel Vehicles Regulation (Statewide Truck and Bus Regulation)

On December 12, 2008, the ARB approved a new regulation that will require on-road, heavy-duty vehicles to meet performance requirements between 2011 and 2023. By 2023, all vehicles must have a 2010 model year engine or equivalent.

Vehicles included are: **On-road, heavy-duty diesel fueled vehicles** with a gross vehicle weight rating (GVWR) greater than 14,000 lbs., yard trucks with off-road certified engines, and diesel fueled shuttle vehicles of any GVWR.
Exempt vehicles include: pick-up trucks and low-use or oversized vehicles (see website for details).
This regulation requires fleet owners to reduce emissions by upgrading existing vehicles by using one of three compliance options:

1. Retrofit and replace engines according to a prescribed schedule based on the existing engine model year

2. Retrofit and replace a set minimum number of engines to meet the 2010 new engine standards

3. Meet a lowered annual fleet average emission rate target each year set by the regulation

A Fleet Calculator and an Emission Inventory Spreadsheet are available online to assist with evaluation of different compliance strategies. See the following website for more information:
http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm

Incentive Funding Opportunities

The Goods Movement Emissions Reduction Program, funded by Prop 1B, provided $250 million to the ARB in the 2008-2009 budget, most of which is slated for on-road trucks. Grant funding through the ARB may also be available through the Carl Moyer Program. Also, loan guarantees are available through the Heavy Duty Vehicle Air Quality Loan Program. These funds may be available before some of the compliance deadlines. See the website below for details regarding your facility's eligibility:

http://www.arb.ca.gov/msprog/moyer/voucher/voucher.htm

California News

CCAR – TCR Transition

The California Climate Action Registry (CCAR) will be transitioning its responsibilities as California's registry for voluntary general reporting GHG emissions inventories to The Climate Registry (TCR), a national registry of greenhouse gas emissions.

CCAR members will not be transferred automatically to TCR. If a CCAR member agency decides to join TCR, their membership information can be transferred from the CCAR information given previously. Also, the annual contribution for membership is approximately the same as that of the CCAR. The quantification methodologies used for both registries are fairly consistent.

The primary difference between the CCAR and TCR is that reporting is required at the facility level for CCAR versus the entity level for TCR members.

CCAR will continue to provide project-level GHG emissions reduction research and protocol development.

For a detailed comparison of CCAR and TCR, and for further information visit:
http://www.theclimateregistry.org/

CEQA Now Considering Project GHG Impacts

Under the California Environmental Quality Act (CEQA), lead agencies are obligated to determine whether a project's climate change-related effects may be significant.

As a result of AB 32 and Executive Order S-03-05, the Governor's Office of Planning and Resources (OPR) was tasked with updating CEQA guidelines to include GHG emission limits. OPR asked ARB to make recommendations for setting GHG-related thresholds of significance.

The objective is to develop sector-specific thresholds for projects that will result in a substantial portion of the GHG emissions from new projects being subject to CEQA mitigation requirements.

Thresholds will include construction-related emissions and transportation emissions (Scope 2 and 3 emissions) for both construction and operational activities.

ARB released a preliminary draft of their recommendations in October 2008 for interim thresholds. The final draft, which is still pending, will be submitted for approval at the March 26 -27 ARB meeting. Public comments must be submitted to ARB before that meeting. A final request for comments will be issued before the March meeting. The OPR must adopt final guidelines by January 1, 2010.

Suggested Quantitative Standards:

- Residential & Commercial Projects
  - Performance standards for construction, energy, water, waste & transportation.
  - Upper limit on project emissions
- Industrial Projects
  - Emissions greater than 7,000 metric tons of CO_2-e/year for operational emissions are considered significant
  - Performance standard for construction

For more information:
http://www.arb.ca.gov/cc/localgov/ceqa/ceqa.htm

The Local Government Operations Protocol

The *Local Government Operations Protocol-For the quantification and reporting of greenhouse gas emissions inventories* (LGOP) was adopted by the ARB in September 2008. This document provides guidance on how to inventory GHG emissions resulting from government buildings and facilities, government fleet vehicles, wastewater treatment and potable water treatment facilities, landfill and composting facilities and other operations. ARB partnered with the California Climate Action Registry (CCAR), The Climate Registry (TCR), and Local Governments for Sustainability (ICLEI) to develop the LGOP.

The methodologies in the LGOP for estimating GHGs are sector-specific. A number of chapters may be of interest to BACWA members, particularly Chapter 10—Wastewater Treatment Facilities (WWTF), which was developed by the California Wastewater Climate Change Group (CWCCG). Several members of the BACWA AIR Committee were particularly involved with this project, including: John Elam of Tamalpais Community Service District; Randy Schmidt of Central Contra Costa Sanitary District, Stephanie Cheng and Susan Suzuki of East Bay MUD, and Jim Sandoval of CH2M HILL.

Chapter 10 of the LGOP provides a "top down" methodology for estimating WWTF GHG emissions—specifically methane (CH_4) and nitrous oxide (N_2O). It improves upon the US EPA protocol by enabling the calculation of GHG process emissions at a single WWTF with plant specific data or EPA default values. The EPA protocol is limited

[See Page 11 for continued article]

Climate Change Forum:
Tri-TAC, CWCCG, & Summit Partners

On February 12, 2009, Tri-TAC, CWCCG, & Summit Partners held a Climate Change Forum to collaborate regarding the climate change issues that affect wastewater treatment facilities and operations.

The main goals of the Forum were to discuss the need for climate change advocacy for the California wastewater (WW) sector, prioritize climate change issues, and develop a plan for the WW industry to address climate change issues.

Decisions and Priorities

All of the Forum's participants agreed climate change is of paramount urgency and to address the issues facing the wastewater sector, the following actions are going to be explored in the following order of priority:

1. Pursuit of a WW industry climate change advocate to begin in Spring 2009 (assuming funds can be raised)
2. Monthly Joint CWCCG/TRI-TAC Climate Change session to be held at tail end of Tri-TAC meetings, which will also serve as the proposed Quarterly Tri-TAC Climate Change Session
3. The BACWA, CVCWA, and SCAP Air Committees will continue to address climate change issues and collaborate with one another
4. CWCCG Climate Change blog to be initiated for timely distribution of climate change information and will also act as a forum to discuss specific climate change topics

For more information regarding the Forum and the path forward, please contact Jim Sandoval (Jim.Sandoval@ch2m.com).

Energy Management: Update on Sale of Renewable Portfolio Standard Eligible Renewable Energy Credits

By Andre Schmidt aschmidt@lacsd.org

The California Public Utilities Commission (CPUC) has issued an initial ruling that allows separation of renewable portfolio standard (RPS) eligible renewable energy credits (RECs) from the associated power. This ruling will allow POTWs to sell RECs associated with power generated from digester gas self-generation facilities. The RECs can be sold for self-generated power that is consumed on-site at the POTW and does not enter the grid. It is anticipated that the market value of these RECs will be approximately $10 to $30 per MW-hr.

The rules for the sale of RECs do not address greenhouse gas (GHG) offset credits, so it is expected that the sale of the RECs will be independent of GHG offset credits. However, sellers should review any offers to determine if the buyer is offering to buy RECs only, or GHG offset credits in addition to RECs.

The ruling was postponed during the January 29 and February 20 CPUC meetings. It has already been determined that once enacted, the ruling will be effective January 1, 2009. Depending on the outcome of the ruling, sales may be allowed retroactive three years from January 1, 2009. The issue is scheduled to be heard at the next CPUC meeting to be held March 12.

One important factor that is to be determined regarding the sale of the RECs is a ruling on retroactive eligibility. The Alliance for Retail Energy Markets is pushing for a rule interpretation that will allow for RECs to be sold retroactive three years from January 1, 2009. The utilities are opposed to this. Clarification and final ruling on retroactive sales has been differed to a later meeting date. In order to qualify for selling the RECs, the facility must be registered with the Western Region Energy Generation Information System (WREGIS). Guidelines for the self-registration process can be found at www.wregis.org. Self generation must be certified by the California Energy Commission, metered, and reported to WREGIS. Final guidelines for metering quality are still being developed, but it is likely that WREGIS will accept metering data of less than revenue quality in order to make the process more inclusive.

See the following website for more information regarding this program:

http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm

Bay Area Regulatory Updates

BAAQMD – Amended Regulation Affects Boilers, Steam Generators & Process Heaters in 2010

In July of 2008, BAAQMD Regulation 9, Rule 7 was amended to limit nitrogen oxides (NOx) and carbon monoxide (CO) emissions from industrial, institutional and commercial boilers, steam generators and process heaters. Compliance becomes effective in 2010.

There are a number of exceptions to the rule, including:

- Boilers, steam generators, and process heaters with a rated heat input of 2 million BTU/hour or less, if fired exclusively with natural gas, liquefied petroleum gas, or any combination thereof
- Boilers, steam generators and process heaters with a rated heat input less than 1 million BTU/hour fired with any fuel
- Boilers used by public electric utilities or qualifying small power production facilities, as defined in Section 228.5 of the Public Utilities Code, to generate electricity
- Waste heat recovery boilers that are used to recover sensible heat from the exhaust of combustion turbines or reciprocating internal combustion engines
- Kilns, ovens, and furnaces used for drying, baking, heat treating, cooking, calcining, or vitrifying

For further details on the requirements and exceptions, refer to http://www.baaqmd.gov/dst/regulations/rg0907.pdf

BAAQMD Pending Composting Rule

BACWA has been tracking the possible development of a BAAQMD Composting Rule that incorporates rules similar to those found in SCAQMD 1133 (co-composting) and SJVAPCD Rule 4565(co-composting, land application, & landfills).

BAAQMD is looking to survey/study composting operations (i.e. quantity, types, etc.) in the Bay Area. All types of composting (i.e. greenwaste, biosolids, food waste, etc.) will be considered. BAAQMD may propose an emissions rule that would include VOCs, ammonia, particulates, and GHGs. It has not been determined if end-use applications (i.e. land application, landfill ADC, etc.) of biosolids will be included.

Jim Sandoval (BACWA AIR PM/CH2M HILL); Tri-TAC, Zachary Kay (City of Santa Rosa), Dean Paige (City of Santa Rosa), and Greg Kester (CASA) met with Robert Cave, the BAAQMD contact for this specific regulation development process.

Attendees explained the operations and importance of compost operations to their facilities, presented issues for biosolids operators when similar rules were instated in South Coast and San Joaquin Air Districts, and stressed the need to consider cross-media impacts and net environmental benefits of composting operations. They also keyed in on vehicle emissions that may result from added trucking miles, moisture retention properties of biosolids as compost or via land application, and the significant energy consumption of producing inorganic fertilizer if biosolids were not land applied. They also encouraged Mr. Cave to look review lifecycle GHG impacts when considering a composting rule of this nature.

Robert Cave conveyed that this regulation is in the preliminary stages of development and is expecting a 2010 release date. Also, Mr. Cave encouraged future input from BACWA and other stakeholders throughout the regulation development process. The attendees made plans to stay engaged with him as his plans to develop the rule proceed in 2009. He would like to attend one of the 2009 Tri-TAC meetings in San Leandro so he can get a statewide wastewater-sector perspective on the cross-media and other impacts that a new compost rule may have on POTWs in the Bay Area.

BAAQMD GHG Fee for Stationary Sources

On May 21, 2008, BAAQMD's Board of Directors approved a new greenhouse gas (GHG) fee for air pollution sources in the region to subsidize the cost of the District's climate protection work.

All facilities holding a BAAQMD air permit for stationary sources are subject to the GHG fee schedule, effective July 1, 2008.

The annual GHG emissions will be determined by the BAAQMD for each permitted (i.e., non-exempt) source. GHG emissions would be based on the data reported to the BAAQMD for the most recent 12-month period prior to billing for permit renewals. For each emitted GHG, the carbon dioxide equivalent (CDE) will be calculated using the applicable Global Warming Potential (GWP) conversion factors in Schedule T of the BAAQMD Regulation 3-Fees. The annual GHG emissions would then be summed for a total CDE.

The fee for each facility would be $0.044 per metric ton of CDE. The GHG fee would be included in the annual permit renewal fee for all Air District-permitted facilities.

Regulation 3 and Schedule T can be found at this website: http://www.baaqmd.gov/dst/regulations/rg0300.pdf.

USEPA Mandatory Reporting Program for GHGs Released!

On March 10, 2009, the US EPA released a draft rule for mandatory greenhouse gas (GHG) emissions reporting. In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), the EPA has proposed a rule that requires mandatory reporting of GHG emissions in the United States.

As proposed, the EPA draft rule would place new mandatory reporting requirements on major source facilities operating in the US to report their GHG emissions. The new requirements would apply to suppliers of fossil fuel and industrial chemicals, manufacturers of motor vehicles and engines, as well as large direct emitters of GHGs with direct emissions equal to or greater than a threshold of 25,000 metric tons of $CO_{2\text{-}e}$ per year. Other sources covered under the rule include: cement production, iron and steel production, electricity generation, landfills, and wastewater treatment among others. According to EPA, approximately 13,000 facilities would be covered under the proposal. The first annual emissions report would be due to EPA in 2011 for the calendar year 2010.

However, the rule's Preamble states: *"The only wastewater treatment process emissions to be reported in this rule are those from onsite wastewater treatment located at industrial facilities, such as at pulp and paper, food processing, ethanol production, petrochemical, and petroleum refining facilities. POTWs are not included in this proposal because, as described in the Wastewater Treatment TSD (EPA-HQ-OAR-2008-0508-035), emissions from POTWs do not exceed the thresholds considered under this rule."*

Comments on the draft rule are due 60 days following publication in the *Federal Register* (which will occur "soon"). A public meeting will be held at the Sacramento Convention Center on April 16, 2009.

http://www.epa.gov/climatechange/emissions/ghgrulemaking.html

Climate Change News Around Capitol Hill

Congress Calls for Climate Change Legislation

In a letter dated October 2, 2008, members of Congress stated their collective interest and intention to address impeding climate change via new and environmentally aware legislation.

Goals of these new legislative measures would include:

- Reducing greenhouse gas emissions
- Nation-wide adoption of clean energy economy
- To minimize economic impacts of such legislation
- To aid communities and ecosystems harmed by climate change

Pelosi's Cap-and-Trade Bill

January 21, 2009 –

House Speaker Nancy Pelosi (D-CA) plans to bring a cap-and-trade bill to a floor vote in December 2009. This bill would:

- Be timely for international climate change talks at Copenhagen UN Climate Change Summit
- Would generate revenue for investments in renewable energy projects

Presidential Promise for "Green" Funding

November 18, 2008 –

"Few challenges facing America and the world are more urgent than combating climate change," then president-elect Obama said in a video presentation to the Governors´ Global Climate Summit in Los Angeles organized by California Gov. Arnold Schwarzenegger.

Obama's plans to address Global Warming:

- Adoption of a federal Cap & Trade Program to reduce emissions by 80% by 2050.
- $15 billion annually to encourage private-sector solar, wind, and biofuel energy projects

National Water Program Strategy: Response to Climate Change

Released on September 30, 2008, this document describes likely effects of climate change on U.S. water resources and infrastructure. It defines five major goals for responding to climate change impacts and identifies key response actions by the National Water Program to accomplish these goals.

http://www.epa.gov/water/climatechange/strategy.html

National Updates

WCI Updates

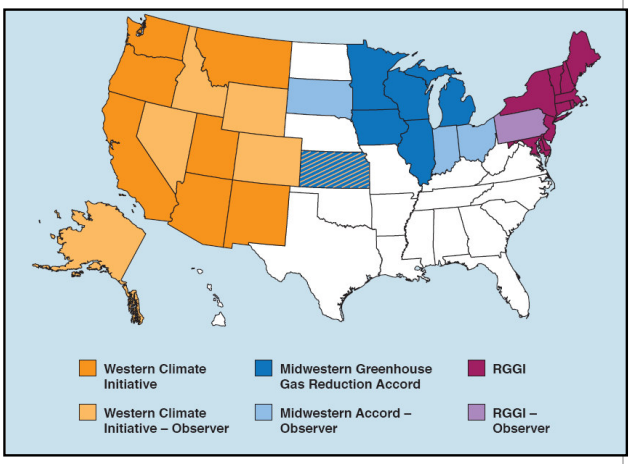
The Western Climate Initiative (WCI), launched in February 2007, is a collaboration of seven U.S. governors and four Canadian Premiers. The WCI Partners share a commitment to identify, evaluate and implement collective and cooperative ways to address climate change through a regional reduction of greenhouse gases (GHG).

In 2008, the WCI released draft designs for Mandatory GHG Reporting Requirements and for a Cap-and-Trade (C&T) Program. It would cover nearly 90% of the region's emissions, including those from electricity, industry, transportation, and residential and commercial fuel use.

The WCI C&T Program is closely tied with the California AB 32 program. The programs are expected to either be combined or compatible, allowing for trading across state lines.

As WCI membership is voluntary, any programs or reporting requirements apply to only participating states, such as California, and are trumped by any and all state or federal legislation.

See the following website for more information:
http://www.westernclimateinitiative.org/



Saving Energy at Your Plant: USEPA Energy Management Workshop

December 16, 2008-

Jim Sandoval, on behalf of BACWA, attended a workshop hosted by the USEPA entitled "*How to Reduce Energy Use and Increase Savings for Water and Wastewater Treatment Plants in the Southwest*".

The workshop focused on helping water and wastewater utilities to:

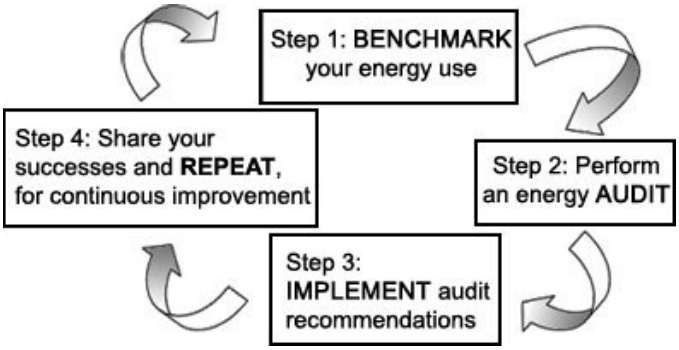
a. Set measurable energy goals to reduce consumption
b. Establish baseline through energy audit
c. Prioritize energy improvements
d. Identify objectives & targets
e. Implement energy improvements
f. Monitor & measure improvement
g. Manage energy to reduce operating costs

Two of the six key measures that the water sector will need to respond to under AB 32 Scoping Plan are *Energy Use Efficiency* and *Increase Renewable Energy Production*.

The USEPA lays out a systematic approach to increase efficiency and minimize operational costs for wastewater treatment plants.

The workshop really drove home the importance of understanding how WWTPs are consuming energy and seeking to operate one's WWTP more efficiently and lowering one's carbon footprint through renewable energy options.

Before a WWTP can effectively set energy management goals and develop an energy efficiency strategy, it is important to implement an energy audit. PG&E, SMUD and other utilities have staff and lending libraries of guides and tools that can help POTWs measure their power and gas consumption for individual equipment.



For further information on how to start saving energy at your plant, online resources are available at the following website:

http://www.epa.gov/region09/waterinfrastructure/index.html

The workbook that was used as a guide during this workshop, *Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities* can be downloaded at:
http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf

CWCCG & the Local Government Operations Protocol (con't)

to estimating country-wide process emissions from all WWT in the US.

Chapter 10 is considered Phase I of the CWCCG mission to create a more accurate methodology for estimating GHG emissions from WWTF processes. Research is underway by the Water Environment Research Foundation and Columbia University to create a "bottom up" methodology to measure and calculate N_2O emissions from nitrification/denitrification processes. In 2009 field measurements are being conducted at five WWTFs around the country (and hopefully more if funds can be raised) in order to develop data from a wide spectrum of WWTFs and climates. This data will feed into Phase II of the wastewater methodology, which is planned for development in 2010.

Further research (and funding) is needed to develop accurate protocols for other WWTF processes, such as N_2O emissions from wastewater effluent in receiving aquatic environments and from secondary treatment systems, such as aeration basins and trickling filters.

Chapter 10 is not intended for calculating WWTF process emissions under the ARB's Mandatory Reporting requirements because it is not an accurate methodology. It is more appropriate for voluntary emissions inventories. However, it is worth mentioning that on February 23, 2009, The Climate Registry distributed its appendix to the LGOP for public comment and acknowledged:

The Registry has found that in the absence of accurate site-specific data, the wastewater reporting guidance found in the LGO Protocol is the most comprehensive method available and accepted today for municipal wastewater activities. Local governments may use site-specific information and calculation methodologies to calculate emission from wastewater treatment facilities provided they are verifiable.

Websites for more information:
http://www.arb.ca.gov/cc/protocols/localgov/localgov.htm
http://www.theclimateregistry.org/resources/protocols/local-government-operations-protocol.php

2009 Off-Road Diesel-Powered Engine Emissions Regulation (con't)

target (to be determined for 2015) or apply the highest level VDECS to 20% of its hp

- Unlike larger fleets, small fleets are exempt from the NOx average portion of this regulation and are never forced to turnover equipment
- Note: there are exemptions to the retrofitting requirement for new engines.

Medium Fleet Requirements:

- Total fleet hp between 2501 – 5000 hp
- Annual reporting begins in June 1, 2009
- Beginning in 2013, the regulation requires that the fleet meet the annual fleet average emission rate target for PM or apply the highest level VDECS to 20% of its hp
- Beginning in 2013, the fleet must also meet the average emission rate target for NOx or turn over a certain percent of its hp (starting at 8% and increasing to 10% in later years)

Large Fleet Requirements:

- Total fleet hp >5001 hp and/or state or federal government fleets
- Annual reporting begins in April 1, 2009
- Beginning in 2010, the regulation requires that the fleet meet the annual fleet average emission rate target for PM or apply the highest level VDECS to 20% of its hp
- Beginning in 2010, the fleet must also meet the average emission rate target for NOx or turn over a certain percent of its hp (starting at 8% and increasing to 10% in later years)

In February 2009, the California state legislature has directed ARB to change some of this regulation, specifically larger fleet requirements, to lessen the impacts of this regulation in the early years of its implementation. The changes include the following:

1. Fleets who are now using their off-road vehicles less than they did as of July 1, 2007 may take credit for this reduced fleet activity to satisfy turnover and retrofitting requirements in 2010 and 2011

2. Fleets will be given credit (both PM and NOx) for any vehicle retirements made between March 1, 2006 and March 1, 2010 as long as total fleet horsepower decreased from the previous year

3. For the total cumulative turnover and retrofit requirements for the years 2011 through 2013, fleets may complete 20 percent of the total turnover and retrofitting by March 1, 2011, an additional 20 percent by March 1, 2012, and the balance by March 1, 2013

Exemptions Include:

- Vehicles less than 5 yrs. old (retrofitting requirement) or 10 yrs. old (turnover requirement)
- Specialty vehicles (see website for specific criteria)
- Engines with best available PM retrofits installed within the past 6 yrs
- Tier 4 or engines meeting Tier 4 standards

Further exemption details can be found on the ARB website, which also has Compliance Planning Tools, Fact Sheets, Reporting Forms and Other Information:

http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm

AB 32 Updates

AB 32 Mandatory Reporting (con't)

consistency between their requirements. However, there is no guarantee that their requirements will be equivalent.

California's mandatory reporting rule focuses primarily on industrial GHG emitters, which account for 80% of GHG emissions statewide, such as power companies, cement manufacturers and oil refineries.

The rule will provide useful facility-level GHG emissions data from these large industrial sectors that will help the ARB develop the emissions reduction measures outlined in the AB 32 Scoping Plan, such as a cap and trade program.

Many WWTP operations and other industries may also be subject to the requirements of mandatory reporting under three industry categories—general stationary combustion, electricity generation, and cogeneration.

General Stationary Combustion

General stationary combustion (GSC) is defined as the combustion of fossil fuels (e.g., natural gas, distillate fuels, motor gasoline, coal) and biomass-derived fuels such as biogas (e.g. digester gas, landfill gas), ethanol, biodiesel, biosolids, and wood waste. Facilities that produce at least 25,000 metric tons of CO2 per year from GSC are subject to mandatory reporting of GHGs for the combustion sources.

Under Title 17, GSC sources include stationary turbines, boilers, internal combustion engines, flares, etc. However, GHG emissions from emergency and backup generators, portable equipment, and mobile combustion are exempt from the GSC reporting requirement. The biogenic CO2 emissions from biomass-derived fuels are required to be included in the mandatory reporting inventory but are reported separately.

Purchased energy usage for a facility and the energy supplier's name are required to be included in the emissions report to the ARB, and GHG emissions from mobile sources may be reported on a voluntary basis.

Electricity Generation and Cogeneration

Mandatory reporting methods and thresholds for electricity generating facilities and cogeneration facilities are equivalent. Since cogeneration is more common for WWTPs, this article focuses on the description and requirements of cogeneration facilities.

Cogeneration facilities are subject to the Title 17 mandatory reporting requirements if they have a total nameplate generating capacity greater than 1 MW and they emit at least 2,500 metric tons of CO_2 per year from electricity

Mandatory Reporting: Assessing Your Facility

To quickly assess whether your plant is subject to the mandatory GHG reporting, CARB provides the table below and the following disclaimer in the regulation:

"The following table shows the approximate amount of fuel that, when fully combusted, would result in 25,000 and 2,500 metric tonnes of CO2 for selected common fuel types. This information is provided to give operators a rough estimate of whether or not a given facility falls within the scope of CARB's mandatory reporting program. However, this table alone may not be used to demonstrate that that a facility has no reporting obligation."

Table 3. Fuel Amounts Resulting in 25,000 or 2,500 MT of CO_2 by Fuel Type

Fuel Type	Fuel Units	Kg CO_2/Unit	Amount of fuel to produce 25,000 MT CO_2	Amount of fuel to produce 2,500 MT CO_2
Natural Gas (unspecified)	scf	0.05	459,140,464	45,914,046
	MMBtu	53.02	471,520	47,152
LPG (energy use)	Gal	5.79	4,317,757	431,776
Distillate Fuel (#1,2 &4)	Gal	10.14	2,466,011	246,601
Motor Gasoline	Gal	8.80	2,841,174	284,117
Landfill Gas	MMBtu	52.03	480,503	48,050
	scf	0.025*	916,301,950	91,630,195
Coal (Unspecified Other Industrial)	Short Ton	2,082.89	12,003	1,200
Jet Fuel	Gal	9.56	2,614,682	261,468
Kerosene	Gal	9.75	2,562,972	256,297
Petroleum Coke	MMBtu	102.04	244,996	24,500
	Short Ton	2530.70	9,879	988
Crude Oil	Gal	10.29	2,430,348	243,035

*Note: The emission factor shown includes only the CO_2 emissions from the combustion of landfill gas. It does not include the CO_2 pass-through emissions.

**

**Digester gas is similar to landfill gas & could be up to 40% less. Digester gas should be tested for high heating value for accuracy, per section 95111(c)(5) and 95125(c) of the regulation.

AB 32 Mandatory Reporting (con't)

Cogeneration simultaneously produces electricity and useful heat (i.e., thermal energy) using a single fuel such as natural gas, in single, integrated systems. The electricity and thermal energy is consumed on-site or made available to other users.

Cogeneration facilities are subject to the Title 17 mandatory reporting requirements if they have a total nameplate generating capacity greater than 1 MW and they emit at least 2,500 metric tons of CO2 per year from electricity-generating activities in any calendar year after 2007. If the GSC GHG emissions of a self-generating facility are less than 25,000 metric tons of CO2 per year and the total cogeneration nameplate generating capacity is less than 10 MW, then a facility may elect to submit an abbreviated emissions data report to ARB, per § 95112(c) in Title 17.

If you qualify for reporting and generate at least 10 MW, then you must calculate and report distributed emissions—i.e., cogeneration CO2 emissions from fuel combustion that is distributed between thermal energy, electricity generation and potentially manufactured product outputs.

Performing distributed emissions calculations requires you to understand the type of cogeneration facility you have—i.e., a topping cycle or bottoming cycle facility. In topping cycle cogeneration plants the energy input to the facility is first used to produce useful power output, and at least some of the reject heat from the power production process is then used to provide useful thermal output. One example of a topping cycle plant is a gas turbine or diesel engine that burns fuel to produce electrical or mechanical power. The exhaust provides process heat, or goes to a heat recovery boiler to create steam to drive a secondary steam turbine. This is a combined-cycle topping system.

In bottoming cycle plants the energy input to the system is first applied to a useful thermal energy application or process, and at least some of the reject heat emerging from the application or process is then used for power production. Bottoming cycle plants are much less common than topping cycle plants and are typically utilized in heavy industries where very high temperature furnaces are used. A bottoming cycle example is a waste heat recovery boiler that recaptures waste heat from a manufacturing heating process and utilizes it to produce steam that drives a steam turbine to produce electricity.

The operator of a cogeneration facility specified in section § 95101(b) is required to include the following emissions information in the GHG emissions data report for each report year:

1. Stationary combustion emissions by fuel type of CO2, CH4 and N2O (including biogenic CO2 emissions from biomass-derived fuels, which are reported separately)
2. Process emissions of CO2 from acid gas scrubbers or acid gas reagent used in the combustion source, if applicable
3. Fugitive emissions of CH4 from coal storage for coal-fired facilities
4. Fugitive emissions of hydrofluorocarbon (HFC) related to the operation of cooling units that support power generation, if applicable
5. Fugitive sulfur hexafluoride (SF6) emitted from equipment that is located at the facility and that the operator is responsible for maintaining in proper working order
6. Distributed emissions from fossil-fuel-based CO2 emissions

Items 2-6 are optional for operators eligible to submit an abbreviated report. The complete list of data requirements in the emissions report for cogeneration facilities is found in § 95112.

Wastewater Treatment Process Emissions

Although some specific process emissions are called out for reporting in the mandatory reporting rule, wastewater treatment process emissions are not required for reporting since methodologies for accurately measuring these emissions on a facility-level have not been established.

Examples of wastewater treatment process emissions include the following:

- N2O and biogenic CO2 from secondary treatment systems, such as aeration basins and trickling filters
- CH4 and biogenic CO2 emissions that are uncollected or

AB 32 Mandatory Reporting (con't)

controlled from anaerobic secondary wastewater treatment processes
- CH4 and biogenic CO2 fugitive emissions from solids handling processes (e.g., anaerobic digestion of sludge and sludge dewatering)
- CH4 emissions from the incomplete combustion of digester gas
- N2O emissions from nitrification and denitrification processes
- N2O emissions from wastewater effluent in receiving aquatic environments

Facility Requirements

The mandatory reporting requirements apply only

to the emissions of a single facility. Based on Title 17's definition of a "facility", a WWTP with multiple GSC sources would qualify as a single facility. In the case of a municipality or special district with multiple treatment or pumping facilities, each facility is counted separately even if multiple facilities have a common owner. Section 95102 of Title 17 provides a full definition of a facility.

The ARB is working to inform all GSC facilities emitting over 25,000 metric tons of CO2 of the requirement to report GHG emissions. But there is no guarantee that they will accurately account for all of the emitters and they are ultimately relying on industry to act in good faith.

If your wastewater facility includes GSC or an electricity generation or cogeneration system that generates at least 1 MW of power, then it is recommended that you implement a GHG inventory that documents the facility's GHG emissions for the first compliance year of 2008. This exercise is not only important for reporting purposes, but it will help you understand your facility's GHG emissions for master planning purposes and to be prepared for future changes or additions to regulatory emissions thresholds.

Compliance Timeline

Operators of GSC, electricity generation, and cogeneration facilities that meet the mandatory reporting GHG thresholds must report 2008 GHG emissions by June 1, 2009. According to Title 17, emissions reports for 2008 can be based simply on the "best available data and methods".

Facilities that are required to report their emissions are required to have a certified third party verify that the emissions monitoring and reporting complies with the requirements of Title 17. However, the Title 17 verification process (detailed in Subarticle 4, § 95130-95133) is optional for 2008 emissions reported in 2009. Beginning in the 2010 reporting year, the requirements become more stringent and the report for 2009 GHG emissions must be third-party verified and must meet the full requirements of the regulation.

Complete installation of needed measurement devices should have been installed by the end of 2008 and collection of fuel activity data measurements should have begun January 1, 2009. If your facility did not install these devices on time, then you should contact ARB staff as soon as possible.

Web-based Reporting Tool

All mandatory reporting of GHG emissions are to be reported to the ARB through their web-based reporting tool anticipated to be made available to the public in February 2009. The tool will enable reporters to report source inventory data, and calculate and report GHG emissions and power transactions. The tool will also provide public access to reported GHG information on the entity and facility level, and by geographic locality.

Some local air quality management districts, such as the South Coast Air Quality Management District, are considering their own reporting system for GHG emissions. However, at this time the ARB's system is independent and emitters within California are legally responsible to comply with it, irrespective of what district systems require. This process may change in the future as the ARB and local districts collaborate more on GHG emissions requirements.

Additional Information

For further and specific information on the ARB's mandatory reporting requirements, go to http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm
For GSC contact Patrick Gaffney at pgaffney@arb.ca.gov For cogeneration contact Renée Lawver at rlawver@arb.ca.gov
For electricity generation contact Pamela Burmich at pburmich@arb.ca.gov
For verification issues contact Rajinder Sahota at rsahota@arb.ca.gov

Get "Ready" to Be Stimulated (con't)

But at this point for most sectors it is unclear exactly how much money will go to individual customers.

Unlike the transportation sector, user-fee funded water and wastewater agencies—many already financially strapped—will receive monies in the form of loans and grants. Although not as attractive, as a condition of the funding there is the incentive to ramp-up projects in the coming months to create jobs. As a result, many wastewater and water agencies are considering fast-track design-build services.

American Society of Civil Engineers: 2009 Report Card on U.S. Infrastructure

Aviation	D
Bridges	C
Dams	D
Drinking Water	D-
Energy	D+
Hazardous Waste	D
Inland Waterways	D-
Levees	D-
Parks & Recreation	C-
Rail	C-
Roads	D-
School	D
Solid Waste	C+
Transit	D
Wastewater	D-

The following allocations in the ARRA may be of interest to wastewater agencies:

- $6 billion for local clean and drinking water infrastructure improvements
- $1.38 billion to support $3.8 billion in loans and grants for needed water and waste disposal facilities in rural areas
- $6.3 billion for Energy Efficiency and Conservation Grants
- $5 billion for the Weatherization Assistance Program
- $2.5 billion for energy efficiency and renewable energy research
- $6 billion for new loan guarantees aimed at standard renewable projects such as wind or solar projects and for electricity transmission projects
- $1 billion for other energy efficiency programs including alternative fuel trucks and buses, transportation charging infrastructure, and smart and energy efficient appliances
- $300 million for grants and loans to help regional, state and local governments, tribal agencies, and non-profit organizations with projects that reduce diesel emissions

The Clean Water State Revolving Fund and Drinking Water State Revolving Fund will receive $4 billion to help communities with water quality and wastewater infrastructure needs and $2 billion for drinking water infrastructure needs. The allocations to California are as follows:

- The Clean Water State Revolving Fund (CWSRF): $283.1 million (uses statutory allotment percentages)
- The Drinking Water State Revolving Fund (DWSRF): $159 million (uses allotment formula from 2003 needs survey (valid for FY2006-FY2009 funds))

Even though much of the stimulus talk was on having the bill fund "shovel-ready" projects, only $34.8 billion, or 11% of the bill's $308.3 billion in actual appropriations outlays, will occur by Sept. 30, the end of fiscal 2009, the Congressional Budget Office (CBO) says. After that, the pace will pick up. CBO estimates that 2010 will be a much bigger year, with $110.7 billion in appropriations-related outlays.

To expedite job creation, the following measures are required:

1. State Revolving Fund (SRF) monies shall be reallocated by the EPA where projects are not "under contract or construction" within 12 months of the date of enactment

2. Give priority to projects on state priority lists that are "shovel-ready", i.e. ready to construct within 12 months of enactment (although this is no longer an absolute restriction as it was on earlier versions of the stimulus bill)

Additional Resources

For more details on the ARRA, go to: http://www.epa.gov/recovery/.

For more details on the California Clean Water SRF Program, go to: http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

Additionally, the National Association of Clean Water Agencies (NACWA) is setting up a website where member and non-member utilities can share their experiences, difficulties, and successes regarding the stimulus package to benefit the entire clean water community. NACWA will also gather this vital information to learn the lessons of the stimulus package and apply them to the ongoing effort to create a long-term, sustainable local-state-federal investment partnership, including a clean water trust fund, while also being prepared for other clean water funding efforts

Get "Ready" to Be Stimulated (con't)

whether it is Clean Water SRF funding or a potential second stimulus package.

NACWA Recommendations for Obtaining Stimulus Funds

A. Get on the List

If you have not already done so, it is imperative to establish immediate contact with your state implementing agency and identify the projects that you believe may be eligible for stimulus funds. Even before the Stimulus Bill was passed, many states had sent notification letters, established websites and scheduled webinars to discuss potential procedures for implementation of the Stimulus Bill. [A sampling of such notice letters is attached in Appendix C.] There is no uniform approach to the application process; it will vary from state to state, and it will continue to be a moving target until the EPA guidance is finalized and the state agencies have prepared the necessary revisions to their IUPs.

Nevertheless, members interested in obtaining stimulus funds cannot afford to wait for clarification. By way of example, Ohio EPA has established a website and instructed stakeholders in a Jan. 29, 2009, letter that applications should be submitted electronically by Feb. 13, 2009 (this deadline was subsequently suspended, in a Feb. 13, 2009, letter from the agency). The North Carolina

Department of Environment and Natural Resources has requested that letters describing eligible projects be submitted by Feb. 20, 2009. Illinois EPA has announced that new or revised pre-applications for inclusion on the priority list should be filed by March 31, 2009. The Michigan Department of Environmental Quality has announced that final project plans must be submitted on or before July 1, 2009 in order to be included in the state's next priority list and IUP. The California State Water Resources Control Board has created an informational web page and asked that project descriptions be submitted via email, with no specific deadline being identified.

Most states already have more than enough projects on their existing priority lists to use all of their stimulus fund allocations several times over. The key to gaining access to the additional subsidization amounts in the ARRA, therefore, will be to submit projects that are given a relatively higher priority than others on the list. As mentioned above, Title VII of the ARRA specifically states that priority "shall be given" to projects on stat lists that are "ready to proceed to construction" within 12 months of enactment. Furthermore, the general provisions section in Title XVI directs that states "shall give preference" to activities that can be started and completed "expeditiously," with a goal or using 50 percent of the funds for activities that can be initiated within 120 days after enactment. To the extent that your projects can meet these ready-to-go standards, you will be in a good position to receive priority consideration for funding.

B. Get Involved in the Process

Along with immediately identifying eligible projects and getting those projects on their state priority lists, members should be actively engaged with their state agencies in the development of criteria by which the projects will be prioritized.

Members will also want to lobby their state agencies to take advantage of the opportunity afforded by the ARRA to provide more than 50 percent in the form of grants, negative interest, and principal forgiveness loans. In support of this goal, members can point to the language in the conference report stating that Congress expects EPA to "strongly encourage" the states to "maximize the use of additional subsidies." Members will also want to ensure that their state agencies do not inequitably allocate funds to rural or small communities, especially since the ARRA provides separate funding through other agencies for such systems. Revisions or amendments to the state's existing affordability criteria may be needed if the state currently uses such criteria to allocate SRF funds under its existing program.

As noted above, the draft EPA guidance would specifically require each state to provide "a description of the means by which the state will choose those projects that are ready to proceed to construction" as a part of the final IUP it must submit before the ARRA funds are awarded to the state. EPA has recommended that states submit these plans within 30 days after enactment. It is imperative, therefore, that interested parties monitor the process and coordinate with their state agencies as these selection criteria are drafted and included in their final IUPs.

C. Participate in Eliminating Roadblocks

Members will also need to work with their respective state agencies and legislatures to ensure that the state has the necessary legal authority to issue the types of grants, negative interest, and principal forgiveness loans called for under the 50 percent "additional subsidization" provisions of the stimulus package. Even though the new law explicitly waives the requirement in CWA § 603(d) that SRF funds may be used only to make loans, at terms not to exceed 20 years, many state enabling statutes and implementing regulations contain similar limitations that will have to

be corrected by emergency legislation or rulemaking at the state level. Even if a state chooses to forego the use of grants, some states have established fixed rates of interest under state law that would preclude the use of negative interest and principal forgiveness loans unless those

"Ready" to Be Stimulated? (con't)

restrictions are modified. EPA has indicated in its draft guidance that it will require each state to include in its final

IUP a declaration that the state has, or will have by a date certain, the authority to provide the form of additional subsidization funding required to be provided for the 50-percent portion of its stimulus grant.

Similarly, although affordability requirements were not included in the final stimulus package, many states have such requirements built into their state SRF programs, providing, for example, that low interest or zero interest loans are only available to certain classes of municipalities based on service area, population or income levels. To the extent that these state-level requirements are embodied in statute or regulation they may have to be amended in order to accommodate the forms of assistance contemplated by the new law.

D. Think Green

Because many states may be focusing on their existing priority lists to provide the majority of eligible projects, the best opportunities to obtain funding for new projects may be in the area of green infrastructure. As noted above, the stimulus package requires the states to devote 20 percent of their allocations to green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities, provided that there are sufficient eligible project applications.

EPA has indicated that it will require each state to "make a timely and concerted solicitation" for such projects, and, after 120 days following enactment of the bill, to certify in writing that it lacks sufficient eligible applications prior to using funds for conventional projects. The draft EPA guidance also contains, in Attachment 7, an extensive list of the types of projects that might be appropriate for the "green infrastructure reserve."

Specific examples of green infrastructure projects include:

- Implementation of comprehensive street tree or urban forestry programs
- Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways)
- Implementation of water harvesting and reuse programs or projects
- Implementation of wet weather management systems for parking areas such as porous pavement, bioretention, trees, green roofs, and other practices that mimic natural hydrology
- Establishment and restoration of riparian buffers, floodplains, wetlands and other natural features
- Downspout disconnection to remove stormwater from combined sewers and storm sewers
- Comprehensive retrofit programs designed to keep wet weather out of all types of sewer systems

Examples of environmentally innovative projects include:

- Green infrastructure/low impact development stormwater projects
- Decentralized wastewater treatment and/or reuse projects that reduce energy consumption, recharge aquifers and reduce water withdrawals and treatment costs
- Projects that preserve or restore site hydrologic processes through sustainable landscaping and site design
- Projects that use water balance approaches (water budgets) that preserve site, local or regional hydrology
- Projects that demonstrate the energy savings and climate change implications of sustainable site design practices to manage stormwater and CSOs
- Projects that demonstrate the differential uses of water based on the level of treatment
- Projects that identify and quantify the benefits of using integrated water resources management approaches

TOP 10 STATES CLEAN-WATER STATE REVOLVING FUND

STATE	$ INVESTMENT
New York	431,570,997
California	279,639,756
Ohio	220,115,115
Texas	178,709,751
Illinois	176,834,988
Michigan	168,121,008
New Jersey	159,778,179
Pennsylvania	154,879,758
Massachusetts	132,750,486
Florida	131,981,850

SOURCE: COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

The AB 32 Scoping Plan: Background & Path Forward (con't)

the regulatory process.

Water Sector Measures

The Scoping Plan defines the water sector to include groundwater, surface water, agricultural use, urban use, conveyance, treatment, wastewater, and recycling. According to the Plan, *approximately 19 percent of electricity and 30 percent of non-power plant natural gas consumed in California are used by the water sector to grow crops, supply residential, commercial and industrial development, and produce energy*. To minimize the sector's carbon footprint, the Scoping Plan includes the following measures:

1. Water Use Efficiency
2. Water Recycling
3. Water System Energy Efficiency
4. Reuse Urban Runoff
5. Increase Renewable Energy Production
6. Public Goods Charge for Water

The Scoping Plan states that *three of the measures (1, 2, and 4) are water supply reliability measures. While efficiency and recycling have many benefits to the sector, the GHG emission reductions from these measures are accounted for in reduced energy requirements. Two of the measures (3, 5) target reducing the amount of non-renewable energy used to convey and treat water and are also counted under the Electricity sector. These two energy efficiency measures apply to all the water projects, systems, and infrastructure in the State, large and small.*

In addition, a mechanism to make allowances available in a cap-and-trade program could be used to provide incentives for local governments, water suppliers and third party providers to bundle water and energy efficiency improvements for small businesses or in targeted communities. This type of allowance set-aside will be evaluated during the rulemaking for the cap-and-trade program.

ARB recommends the public goods charge to fund investments in the water sector to reduce GHG emissions. The public goods charge on water would be collected on water bills and then used to fund end-use water efficiency improvements, system-wide efficiency projects and water recycling. The Department of Water Resources has the overall responsibility of reducing GHG emissions caused by the water sector and designing the public goods charge program. The State has estimated that a public goods charge could generate $100 million to $500 million annually to invest in efficiency improvements and other projects that reduce GHG emissions.

BACWA Comments

In 2008 the BACWA AIR Committee led an effort among BACWA committees to provide verbal comments on the Scoping Plan at the ARB meeting on November 20th and written comments in a December 9th letter. BACWA had dialogue with other POTW organization around the state about the Scoping Plan issues that impact the wastewater sector, including the Southern California Association of POTWs (SCAP), the Central Valley Clean Water Agencies (CVCWA) and the California Wastewater Climate Change Group (CWCCG). All of these groups, along with individual POTWs, also issued comment letters to the ARB. BACWA's letter can be viewed at http://bacwa.org/LinkClick.aspx?fileticket=k50iqsljGEw=&tabid=36.

Some of BACWA's key comments encouraged the ARB to broaden its definition of organic materials to include biosolids and foodwaste; to expand its definition of conversion technologies so more potential biosolids to energy technologies would be considered renewable energy; to support the existing efforts to raise awareness among regulators about the cross media impacts of regulations; and to consider full lifecycle carbon impacts before promoting across-the-board recycled water projects and discouraging the use of alternative daily cover.

BACWA's comments also expressed concerns about the challenges for essential services agencies to compete in a cap-and-trade market and the impact the public goods charge for water will have on the "capacity" of public utilities to raise rates for important capital and operational improvements.

Implementation

The actions identified in the Scoping Plan to reduce GHG emissions will be developed in 2009-2010, adopted in 2011, and effective January 1, 2012. The ARB plans to utilize a formal structure to elicit public input in the regulatory process, including an extensive stakeholder outreach and involvement process. The regulatory development process will involve close and ongoing coordination with Cal/EPA, CEC, CPUC, and other state agencies.

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Important Dates

BACWA Workshops & Meetings:
April 28th 2009, 9 am – 3 pm -- Mandatory Reporting of GHGs for POTWs
May 13th 2009, 10 am – 1pm -- AIR Committee Meeting

ARB Mandatory Reporting Webtool Workshops:
March 17, 2009, 10 am – Noon -- General Stationary Combustion
March 27, 2009, 10 am – Noon -- Electricity Generation & Cogeneration Facilities
The complete Scoping Plan Implementation Timeline can be viewed at:
http://www.arb.ca.gov/cc/scopingplan/meetings/012909/sp_measures_implementation_timeline_012909.pdf

About Our Organization

BAY AREA CLEAN WATER AGENCIES (BACWA)

BACWA agencies are the day to day urban water resource managers and the stewards of the San Francisco Bay estuary. As such, it is the goal of BACWA to ensure that local and regional decisions makers understand and use scientifically sound data to make management decisions that will result in improvements and enhancement of the Bay estuary.

It is the goal of BACWA that all resource managers and decision makers understand the watershed dynamics and embrace a regional approach to water quality issues recognizing that regional problems call for regional solutions. For more information, visit http://bacwa.org/.

AIR ISSUES & REGULATIONS COMMITTEE (AIR)

The Air Issues and Regulations Committee (AIR) develops, analyzes and distributes scientific information regarding air pollution issues related to operation and maintenance of publicly owned treatment works. For more information, visit http://bacwa.org/Committees/AirIssuesRegulations/tabid/67/Default.aspx

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