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[Executive Director's Message](#)

NEWSLETTER SURVEY RESPONSE, SIGNIFICANT RULE-MAKING IN 2011, THE CARRINGTON EFFECT



Pam and I would like to thank everyone who took the time to respond to our short survey requesting feedback on the format and content of our monthly newsletter -- your response was overwhelming.

We are still reviewing the comments and suggestions, however, let me say that it was very clear from your comments that the newsletter is now read almost exclusively in electronic format and was much in need of reformatting. So beginning with this issue the double column format is no longer. To make reading easier, we have also added a table of contents which allows you to navigate to the section of your choice with a single click. Additionally, you will find that the newsletter is now linked with the SCAP website in order to access the meeting calendar and other reference materials.

In the coming months we will strive to incorporate many of your suggestions relating to content, including; an events calendar, a summary of statewide issues being collaborated on, more agency/staff/profiles, sharing personal experiences on collection system problems and solutions, and regulation summaries.

2011: Many New Challenges

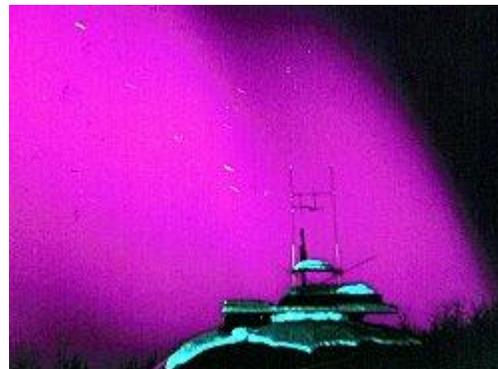
Speaking of changes, 2011 will usher in many new challenges for our cities and special districts, as stricter air regulations, biosolids bans, sewer overflow reporting requirements, new energy mandates, and effluent testing standards take effect.

In fact, 2011 may go down as a year noted for having some of the most significant rulemaking implementation ever witnessed by wastewater agencies in California. While many of our POTWs in the South Coast AQMD service area wonder how they are going to replace all of their internal combustion engines within the next decade and our collection system operators worry about reporting all of the private sewer lateral spills in their area, there may be no reason to panic .

The Carrington Effect

According to a NASA prediction, we have much bigger problems to solve. No, it's not the end of the world in the Year 2012, as predicted by the Mayan Calendar. What we may be facing, and has our major power suppliers worried, is a solar flare of such magnitude that radar, cellphone communication, GPS receivers, long distance telephone and power lines may be severely disrupted.

In 1859, on September 1st to be exact, an English astronomer, by the name of Richard Carrington, discovered and recorded a solar eruption so large that it rivaled the brightness of the sun. The resultant effect of this super-solar flare was the disabling of telegraph systems all over the world. Even more remarkable, was the eruption of brilliant red, green and purple auroras across all latitudes on Earth, including the Tropics. As it turns out, scientists at NASA have for some time been predicting the occurrence of solar flares and their relationship to sunspots. In the last 40 years there have been at least 3 major flare episodes (1972, 1989, 2005) recorded, and while not as large as the 1859 event, these flares nonetheless showered the Earth with charged particles that ultimately affected the magnetic shield surrounding our planet. The resultant "geomagnetic storms" from these solar flares generate huge electric currents that have knocked out power transmissions in Canada, melted power transformers in New Jersey and disrupted satellite-to-ground communication systems including GPS navigation systems.



According to scientists at the National Center for Atmospheric Research, solar sunspot activity follows an 11 year cycle, and although in 2006 we reached a Solar Minimum (a period of minimal solar activity) they are predicting that possibly as early as 2012 we will experience a Solar Maximum which could be 30%-50% stronger than the really nasty one that occurred in 1958. Fortunately, for us many of these predictions have been about as reliable as the Mayan Calendar. Nevertheless, it is wise to be forewarned and make sure those emergency standby generators are all fueled up. Maybe we can even get a special exemption from the air districts to run them longer!

Colorfully yours---John Pastore

Comments?

If you would like to leave a comment about content or layout of the newsletter, please contact at us at [SCAP](#).

Clean Water Summit Partners Update

Over the past 6 months the Summit Partners together with affected POTWs, and led by the efforts of CASA and Tri-TAC, have been working on a joint comment letter to the State Waterboard in response to the issuance of its draft Policy for Toxicity Assessment and Control. For those inland and live stream dischargers affected by this new policy, this has been a priority issue. Much has been written and discussed about the proposed changes in testing protocol and interpretation of results that, if not changed, could end up costing our POTWs significantly higher costs for compliance. While it was nearly impossible to address all concerns to everyone's satisfaction, the resultant comment letter does provide the Waterboard with a comprehensive list of recommended changes and alternatives. A copy of the submitted comment letter can be found on the SCAP website at the following link: <http://www.scap1.org/SCAP%20Alerts/110121%20Comments%20Re%20Toxicity%20Policy%20.pdf>.

AIR QUALITY COMMITTEE REPORT

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LOCAL AIR DISTRICT NEWS AT A GLANCE

Posted meeting dates and proposed new rule development for the following air districts can be found at these sites:

[Imperial County APCD](#)

[Mojave Desert AQMD](#)

[San Diego APCD](#)

[Santa Barbara APCD](#)

[Ventura County APCD](#)

[South Coast AQMD](#)

[SCAP Air Quality Committee and CWCCG Update](#) by Kris Flaig, City of LA

Members of the SCAP Air Quality Committee and CWCCG (California Wastewater Climate Change Group) were busy looking out for industry interests during the past few months. Such activities included ensuring that our interests would be incorporated into the State's Cap & Trade Program, as well as amendments to the State's Mandatory Reporting Requirements. Following up on some of these items, SCAP Air members asked SCAQMD staff for a timeline on how and when promised items would be agendized by CARB, while the CWCCG Program Director is following up in regards to specific questions on incentivizing offsets. Regarding protocols for offsets, CARB is still looking for direction and ideas, but CCAR (California Climate Action Registry), which seems to be the institution that will govern voluntary offset protocols, is resistant to accepting or working on anything that might benefit our industry.

The CWCCG is thinking about providing focus sessions at Tri-TAC on issues of wide interest, like Renewable Energy, CEQA Programs, or the Tailoring Rule, which is off to a running start, but for which questions remain. The cause for biogenics, including definitions for biomass, biogas, etc., seems to have taken a left turn with the recent publication by EPA of a contract document that attempted to summarize the status of greenhouse gas emissions, but may have misrepresented a number of equations and concepts. Jackie Kepke received a personal reply from CPUC Commissioner Timothy Alan Simon regarding our comments on renewables with a request to establish a dialogue. At the same time, the CEC accepted none of our comments for the RPS (Renewable Portfolio Standards) Guidebook.

Although Jackie has been giving us a great bang for the buck, the CWCCG did blow through some cash in coordinating writing and submitting five letters late last year, as well as coordinating meetings with regulators. So, CWCCG will be focusing on the most important aspects of climate change for the next few months. The CWCCG was created as an entity to more effectively focus our efforts on climate change, particularly greenhouse gases and renewable energy? A number of agencies actively support CWCCG activities, which result in tangible benefits to all members of this industry. Please consider taking part in CWCCG activities in whatever manner your budget allows. One option is participating on project-oriented committees, which Jackie has been putting together.

Meanwhile, the La Nina weather systems have not consolidated, so the winds of regulation and legislation go back and forth, north to south and east to west, as participants continue to jockey for position and ask critical questions of the next guy.

[Priority Reserve Lawsuits](#) by Greg Adams, LACSD

On January 7, 2011, the SCAQMD Governing Board held a public hearing to adopt proposed Rule 1315 and certify the associated 2,100-page CEQA environmental assessment. The adoption of this rule is critical to essential public services and small businesses that rely on the Priority Reserve. Without the successful adoption of this rule, another permit moratorium would be triggered when SB 827 sunsets on May 1, 2012. About 60 individuals provided testimony during the public hearing, where environmental groups expressed opposition to the proposed rule. Due to the amount of testimony received, the Governing Board closed the public hearing and directed SCAQMD staff to review the information received and report back to the Board for their deliberation at the February 4, 2011 meeting. Despite the anticipated adoption of Rule 1315, various environmental groups have expressed their opposition to the integrity of the credits distributed through the Priority Reserve and are expected to continue challenging the SCAQMD programs in California and federal courts of appeals.

[Section 185 Update](#) by David Rothbart, LACSD

SCAQMD recently modified proposed Rule 317 to rely upon EPA's January 5, 2010 Section 185 guidance memorandum. The proposed rule makes use of a Section 172(e) fee-equivalency approach replacing fees that would otherwise be paid by major stationary sources. Expenditures by EPA, CARB and SCAQMD on surplus emission reduction programs, such as truck replacement, clean fuels and bus retrofit programs, will be used on a dollar per dollar basis to offset the Section 185 fee obligations. Adequate equivalency funding appears to be available through 2020, when the 1-hour ozone standard should be achieved. In other words, major stationary sources should never be required to pay any Section 185 penalties, previously estimated to be about \$30 million per year. SCAQMD's Governing Board is scheduled to adopt the proposed rule on February 4, 2011. Although the proposed amended rule is reasonable and facilities at BACT should not be penalized, environmentalists are challenging EPA's guidance memorandum in court. **[Editor's note: Thanks in large part to the efforts of LACSD staff, who travelled multiple times to Washington D.C to lobby support for this modification, SCAP members, other public agencies and small businesses could soon benefit by the avoidance of an estimated \$30 million in annual penalties from operation of major stationary sources.]**

[SCAQMD Interview of the Month](#)

Los Angeles County Sanitation District's Assistant Departmental Engineer and Vice Chair of the SCAP Air Quality Committee, Greg Adams, discusses the history of the County Sanitation Districts, his agency's commitment to air quality and their efforts on recent local, state and federal regulatory issues. The entire interview can be viewed at: http://www.youtube.com/watch?v=-tXVnnMVNHo&feature=player_embedded#

BIOSOLIDS COMMITTEE REPORT

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[EPA Proposed Standards for Sewage Sludge Incinerators Update](#) by Matt Bao, LACSD

The proposed rulemaking, announced in October 2010, was intended to cut emissions of mercury, particulates, and other pollutants from sewage sludge incinerators, such as multiple-hearth and fluidized bed designs. It would also

establish opacity and emission limits for nine pollutants emitted from the regulated incinerator units, require installation of specific air pollution control devices, and require provisions for testing, monitoring, recordkeeping, reporting and operator training. The proposed rulemaking is the result of a US District Court order for EPA to promulgate restrictive emission standards for hazardous air pollutants.

CASA, NACWA, and two Californian agencies operating sewage sludge incinerators (the City of Palo Alto and Central Contra Costa Sanitary District) have sent comment letters to the US EPA, stating that the proposed rule would threaten the viability of biosolids incineration and optimization of renewable energy production. Specific issues with the proposed rule include incorrect calculation and overestimation of baseline pollutant emissions and the relatively small sample size of facilities (nine out of 218 incinerators) from which the proposed Maximum Achievable Control Technology (MACT) standards were derived.

In December 2010, the US EPA formally requested an extension from the US District Court until July 15, 2011 to establish the required emission standards for sewage sludge incinerators. This extension was requested to allow EPA time to respond to the more than 80 sets of comments that were received. Unfortunately, in January 2011, the US District Court denied the time extension and ordered EPA to promulgate emission standards by February 21, 2011. SCAP will continue to monitor this developing issue.

[Kern County Measure E Update](#) by Derrick Lee, City of LA

On January 18, 2011, the Kern County Board of Supervisors approved implementation of Measure E, a voter-passed initiative prohibiting the land application of any form of biosolids in the unincorporated areas of the County. On January 19, 2011, the Kern County Department of Health Services notified existing permit holders that they have six months to discontinue the land application of biosolids. A federal court had previously enjoined Kern County from enforcing Measure E from November 20, 2006 to November 9, 2010, when the federal case was dismissed solely on procedural grounds. On January 26, 2011, the City of Los Angeles, joined by a coalition of Southland wastewater utilities, businesses, and farmers, filed a new lawsuit in state court seeking to again enjoin and invalidate Measure E. Kern County' attorney had previously filed a motion seeking to make the Measure E controversy part of a long-standing separate state court case, in which SCAP is a party, concerning the legality of Kern's prior biosolids ordinance, which only banned land application of Class B biosolids. The Plaintiffs in that separate litigation have opposed Kern's motion, arguing that it is improper, and urged the court to allow adjudication of all Measure E issues within the newly filed case in state court.

[CDFA Proposed Regulations](#) by Tom Meregillano, OCSO (Source: CASA-Greg Kester)

In July 2010, CDFA solicited comments regarding its proposed regulations for renderers, collection centers, dead animal haulers and transporters of inedible kitchen grease. The proposed regulations could be interpreted as requiring POTWs, or compost facilities, that accept Fats, Oils, and Grease (FOG) or food waste to obtain a renderer license from CDFA. The California Association of Sanitation Agencies (CASA) and other interested parties have been working closely with CDFA, advocating the exemption of POTWs and composters from these proposed requirements. On December 14, 2010, CDFA released a "Notice of Decision not to Proceed with Rulemaking Action" to discontinue efforts to develop these new regulations. Although the proposed rulemaking action has been withdrawn from further consideration, CDFA could initiate a new regulatory proposal pertaining to the same or similar subject area at a later date.

[CalRecycle and FOG/Food Waste Receipt at POTWs](#) by Tom Meregillano, OCSO (Source: CASA-Greg Kester)

CASA continues to work closely with CalRecycle and the State Water Resources Control Board to resolve any attempts by CalRecycle to regulate the handling, transporting, and processing of FOG or food waste at POTWs that

utilize these materials as renewable fuel/energy. In August 2010, CASA, on behalf of the Clean Water Summit Partners, wrote a letter to Margo Reid Brown, the Director of CalRecycle, seeking relief from Local Enforcement Authority's (LEA) discretion to issue Transfer Station and/or Process Facility permits to POTWs accepting FOG or food waste. In response, Director Brown assured the POTW community that she is fully aware of the issue and that they will take reasonable steps to resolve such cross media issues. In conjunction with these efforts, CASA has also been working with SWRCB in an attempt to draft and develop permit language that could be incorporated in POTWs' NPDES, or other relevant permits, that would address any concerns that CalRecycle or LEAs may have regarding FOG and food waste. Once that language is developed, CASA hopes to convince CalRecycle that duplicative regulation serves no beneficial purpose, and that LEA discretion is not necessary.

LOCAL BRIEFS

[Holloway Mine Update](#) by Tom Meregillano, OCSD

On December 8, 2010, the Central Valley Regional Water Quality Control Board adopted a Waste Discharge Requirement (WDR) Order for the H.M. Holloway, Inc. Surface Landfill Mining Project. This mining project is located approximately eight (8) miles west of the intersection of I-5 and Hwy 46, near the community of Lost Hills, in Kern County. In accordance with the new WDRs, H.M. Holloway will be able to receive both Class B and Class A biosolids. The California Integrated Waste Board previously issued their Solid Waste Facilities Permit, on May 19, 2009, which allows for receipt of up to 2,000 tons of biosolids per day.

[Terminal Island Renewable Energy Project](#) by Derrick Lee, City of LA

The deepwell injection operations continue, and the formation is responding well to the approximately 150 wet tons of centrifuged cake and 200,000 gallons of digested sludge that are being injected daily. The City of Los Angeles is interested in increasing the wet cake deliveries, while decreasing the digested sludge quantities, to see how the increase in wet cake affects the overall process. The City is working on filing a new permit application to the Environmental Protection Agency by April 2011 in order to extend the existing research permit.

COLLECTIONS COMMITTEE REPORT

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[CCTV Inspection & NASSCO Codes](#) by Sam Espinoza, LACSD

Closed circuit television inspection (CCTV) is a vital component of effective collection system management programs. Information from CCTV inspections is used for condition assessment of pipes as well as identification of potential maintenance issues, such as the presence of grease and roots in the collection system. As we are all aware, sewer pipes deteriorate at different rates for various reasons and it is important to establish an inspection frequency tailored to the agencies needs based on material type, age, pipe size, and the criticality of its' location. Being aware of the condition of sewer pipes and its potential impact to the general public is important because structurally compromised pipes can lead to blockages, overflows or sinkholes. Most collection system owners already have a

well-defined and systematic approach for inspecting their sewer pipelines, however an equally important component of a CCTV program is managing and analyzing the large amounts of data generated in the field through this program.

To ensure that CCTV data can be properly managed and analyzed, it is imperative to use consistent and uniform data standards. NASSCO, the National Association of Sewer Service Companies, develops uniform standards and practices for sewer maintenance. As part of their Pipeline Assessment and Certification Program (PACP), NASSCO has created standard codes to represent different types of pipe defects and other notable characteristics observed during CCTV inspections, as well as a standard system of grading each sewer reach's overall condition based on these observations. This grading can then be used to set the priority for maintenance, rehabilitation and repair activities for the collection system.

By using NASSCO's inspection codes and PACP guidelines, an agency will have standard pipeline inspection practices and condition data that can be easily explained, shared, and compared with others. NASSCO offers training and certification for PACP and similar programs related to manhole and lateral inspections (MACP/LACP), as well as other facets of sewer maintenance. They also certify CCTV inspection software to ensure uniformity of inspection codes and related data. See their website, www.nassco.org, for training schedules and additional information.

[WDR Revision Update](#) by Bob Kreg, SCAP

On September 21, 2010 the State Water Resources Control Board (SWRCB) staff presented their recommendations for revisions to the current statewide waste discharge requirements (WDR) for all publically owned sanitary collection systems comprised of one or more miles of pipeline. Staff made seven recommendations to the Board. The recommendation that offered the most significant changes were in the following categories: "Private Laterals", "Operator Certification", "Notification", "De-minimis Spill Volume", "Private Collection Systems", "Prohibitions", and "WDR-NPDES". The following briefly describes the SWRCB's staff recommendations for each of the above categories.

Private Laterals

At issue is whether reporting of private lateral sewage discharges (PLSD) should remain voluntary or become mandatory. Staff recommended that the GWDR be revised to require the mandatory reporting of all PLSDs that the enrollee becomes aware of. Staff stated that requiring the reporting of PLSDs would provide a better picture of private lateral spills in California. Staff's recommendation was based upon data from Region 9 (San Diego), where PLSD reporting is required and a study done on PLSD's occurring in Orange County from 2002 to 2006. Staff acknowledged the enrollee's concern that reporting PLSD's could give the impression that the public system was deficient. To prevent this misconception staff will make feasible changes to the California Integrated Water Quality System (CIWQS) SSO Reports module to clarify that these spills are not from enrollee owned sewer pipes.

Operator Certification

Although staff acknowledged that mandatory operator certification could improve the overall collection system performance and GWDR compliance, staff recommended that mandatory certification not be imposed at this time. Staff's recommendation was based upon the impression that there is a lack of standardized training and certification programs in the state and that there could be potential financial burden on small communities.

Notification

Citing conflicts with the current notification requirements and Health and Safety Code, Water Code and Title 23 of the California Code of Regulations staff is recommending that the notification requirements be changed to require that only Cal EMA be notified. If adopted, this change will require that only Cal EMA be notified as opposed to the current requirement of notifying Cal EMA, health care and the Regional Board.

De-minimis Spill Volume

It has been suggested that a de-minimis spill volume be created that would eliminate the requirement for the notification or reporting of low volume spills or to simplify the notification and reporting process. SWRCB staff did not concur with creating a threshold below which notification or reporting would not be required but did review four different options for modifying the process. The option the staff selected would streamline the reporting process for Category 2 spills by reducing the data entry by 30% to 40%.

Private Collection Systems

Currently only publically owned collection systems are covered under the GWDR. If this change is adopted private systems may also be covered. Private systems could include shopping malls, gate guarded communities, etc. that discharge into the public system and other private collection systems that have NPDES or WDR permitted treatment systems. Which private systems would be included would depend upon their miles of pipe and/or the potential sewage conveyed.

Prohibitions

It has been suggested that the GWDR be amended to prohibit all sewage spills not just those that reach surface waters or create a nuisance as San Diego Region 9 has done. Based upon actual spill data, 87% of all SSOs do not reach surface waters and account for only 18% of the sewage spilled, whereas the 13% of spills that reach surface waters account for 82% of the total sewage spilled. SWRCB staff has concluded that the current formulation of prohibitions and emphasis on enforcement discretion for all spills in the Sanitary Sewer System WDR should remain unchanged.

WDR-NPDES

It has been recommended that the revised GWDR be adopted as an NPDES permit. Although the staff acknowledged that there are advantages to adopting the revised WDR as an NPDES or hybrid NPDES permit, staff concluded that since the GWDR is still in its early stages of implementation (full implementation for all size systems was not completed until August 2010) the regulation should remain a WDR. A hybrid NPDES permit would allow an enrollee to maintain their WDR status until they had a Category 1 spill. At such time they would be converted to an NPDES permit holder.

It was reported in the November Monthly Update that the new revised WDR would be available for public review and comment in December of 2010. However, as we start the New Year (Happy New Year everyone!) we have just been informed by Russell Norman P.E., Water Resources Control Engineer Statewide SSO Program, that the revised WDR will be released for public comment on February 22nd, with the comment deadline set for March 22nd and a public workshop scheduled for April 5th. Board action to adopt the new Order will be sometime in June. SCAP will continue to monitor this process and post updates as they become available.

[SSO Data Review Committee Update](#) by Bob Kreg, SCAP

The SSO Data Review Committee has completed its work on the Agency Performance Report. The report is now in the hands of the state's computer programmers who are shooting for a date in mid-March for a limited live release of the report. The report will allow agencies and the public to review and compare the performance of their agency to other agencies in their region and the state. Data will be available for viewing by current year, specific calendar year or all data collected since the agency was required to begin CIWQS reporting. The data displayed is the data that each agency has already submitted to CIWQS and does not require any additional agency data input.

Currently the Data Review Committee is working revising the annual questionnaire and the Category I and II spill reports. This work was started in November and has involved state staff from compliance and enforcement along with agency and association staff. The goal is to ensure that only relevant data is being collected and that the reporting process is improved. The annual questionnaire has been revised to almost act as a pre-audit check list and will include some data on lift/pump stations. As there is new data being asked for on the questionnaire, Russell Norman stated that the implementation would occur over approximately one year to allow agencies to obtain the data. The Category I and II spill reports have been changed from appearance point to event spill reporting. Currently, if a spill has multiple appearance points a separate spill report must be filed for each appearance point. Under the proposed changes a single spill report would be filed showing the most significant appearance point. Both the Category I and II spill reports have been reviewed to remove or revise duplicate or conflicting data requests. Clarification is also being added to improve the reporting accuracy. The Category II spill report has also been reduced in size. Batch uploading of spill reports will also be possible.

The work that the SSO Data Review Committee is conducting is always available in Google Groups at: <http://groups.google.com/group/ssso-data-review-committee?lnk=srg> . All postings and other data are open for review. Only committee members may post to the group but non-members may send their comments to SCAP or to Russell Norman at the SWRCB.

[Audits Are Coming!](#) by Bob Kreg, SCAP

The WDR/SSMP requires that a formal written audit be taken of the SSMP and its elements every two years from the date your elected governing body approved your SSMP. These are to be performance based audits that review and gage the performance of each of the SSMP elements including deficiencies and changes that have taken place during the prior two years. The audit does not have to be submitted to the Region or State Board unless requested. The audits follow the same time frames as the approval of the SSMP. The first audits are due for those agencies serving a population of 100,000 or greater in May 2011. Agencies serving populations greater than 10,000 but less than 100,000 are due in August 2011. Additionally the SWRCB still intends to conduct at least 2 random enforcement audits per Region over the next year. These enforcement audits will be conducted in cooperation with the Regional staff.

ENERGY MANAGEMENT COMMITTEE REPORT

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[CHP Technology Evaluation Report Available Featuring Case Studies from SCAP Members](#) by Andre Schmidt, LACSD

Selecting a CHP technology suitable for the specific size and configuration of a plant can be a challenge. To help confront this challenge, researchers from Brown and Caldwell investigated several existing technologies for producing heat and power from biogas—internal combustion engines, gas turbines, microturbines, and fuel cells in order to provide detailed process descriptions and performance and cost data. Their research also addressed factors such as infrastructure requirements, digester gas treatment, and operational issues, which have a significant bearing on technology selection. Additional beneficial uses for digester gas were also covered.

Their findings are included in an interim report entitled "Evaluation of Combined Heat and Power Technologies for Wastewater Facilities". The report was prepared under an assistance agreement awarded by U.S. EPA and WERF for the ongoing project *Evolution of Methane from Wastewater Treatment and Conveyance*. Included in the interim report are four in-depth facility case studies from SCAP members that demonstrate successful biogas-to-energy projects. Additional case studies will be incorporated into the final version of the document. More information, including a link to download the interim report, can be found at the following website: <http://www.werf.org/AM/Template.cfm?Section=Home&CONTENTID=16548&TEMPLATE=/CM/HTMLDisplay.cfm>.

[SCE Announces Enhanced Terms for "On-Bill Financing" Program](#) by Andre Schmidt, LACSD

SCE announced new terms for its "On-Bill Financing" program. The program provides zero-interest, no-fee loans for qualifying energy efficiency projects. The loan is repaid through the monthly SCE bill out of the savings created by the energy efficiency measure. Therefore repayment of the loan has no net cost, but savings from the energy efficiency measure are not realized until the loan is paid in full. For 2011, the loan limits have been significantly increased. Government and Institutional customers may receive loans of up to \$250,000 per service account and up to \$1 million for one service account per site. More information can be found on SCE's website at <http://www.sce.com/business/onbill/about-on-bill.htm>.

[CPUC Issues Decision Regarding TRECs](#) by Andre Schmidt, LACSD

On January 13, 2011 the California Public Utilities Commission voted to instate rules on tradable renewable energy credits (TRECs) that mirror rules adopted last March but were subsequently suspended. Highlights of the decision include:

- Unbundled renewable energy credits may be procured and traded separately from the underlying energy as TRECs.
- Investor-owned utility's (IOUs) and electrical service provider's use of TRECs for meeting renewable portfolio standard (RPS) requirements is limited to 25 percent of the RPS obligation.
- There is a \$50/MWh price cap on each REC for IOUs only.
- The 25 percent usage limit and the price cap restrictions sunset in December 2013.
- The rule applies only to the state's 20 percent renewables portfolio standard. Any new 33 percent standard could establish new rules.
- Virtually all out-of-state renewable generation does not qualify as bundled power and will count toward the 25 percent TREC limit.

All renewable distributed energy generated in California is TREC eligible, including power produced at wastewater treatment plants and used onsite. However, the 25 percent limit may limit the value of TRECs due to its effect on decreasing demand for TRECs. For instance, it is reported that San Diego Gas & Electric cannot use new TRECs deals for RPS compliance because they have already capped out based on the decision's definitions.

The California Energy Commission (CEC) issues a Renewable Energy Guidebook that governs implementation of various RPS laws and regulations. The CEC will need to issue an update to the Guidebook to implement the TREC decision.

In order to qualify renewable generation for the TREC market, the facility must be certified as renewable by the CEC and be registered with the Western Renewable Energy Generation Information System (WREGIS). See www.wregis.org for more information.

Paying Waste: Sewage Contains More Usable Energy Than Scientists Thought

A new study finds a previous estimate of wastewater's potential as a renewable energy source "a substantial underestimation", by Mike Orcutt | January 11, 2011 | 8 News | Energy & Sustainability

Is what you flush down the toilet wasted energy? People living in countries with flush-toilets and running water produce a huge amount of wastewater daily. This water, thanks largely to excrement, is full of organic compounds that store usable energy in their chemical bonds. Several methods can be employed to harvest it—for example, engineers can extract methane through anaerobic (oxygen-free) digestion, or produce electricity using microbial fuel cells.

In the past several years an increasing amount of research has focused on developing and improving on these methods, as harnessed sewage power could help water treatment plants produce enough power to meet all their own consumption—and even serve as a fuel source in developing countries where supplies are currently unreliable. But just how much usable energy does raw sewage hold? This was the question posed by the authors of a study published January 5 in *Environmental Science & Technology*. Their answer: wastewater likely holds a lot more than was previously thought. Elizabeth Heidrich, a PhD student at Newcastle University in England and lead author of the new study, studies microbial fuel cells—devices that generate electrical current by capturing the electrons freed as bacteria break down organic matter in wastewater. As she was preparing her doctoral research project she decided to determine how much energy engineers could count on wastewater to provide. "It seemed like an obvious question to start with," she explains—which was why she was surprised that hardly anyone had previously asked it.

Heidrich found only one study, published in 2004, which had tried answer to the question. The authors had tested a sample of raw municipal sewage collected from a Toronto treatment plant and, using calorimetry (the measurement of heat absorption and emission), calculated the internal chemical energy of the sample to be 6.3 kilojoules per liter. They also correlated the amount of energy found in the sample to its chemical oxygen demand (COD), a commonly used indirect measurement of dissolved organic compounds. Based on this correlation, they estimated that, in all, the wastewater produced in 2004 by the world's 6.8 billion people contained a continuous supply of energy somewhere in the range of 70 to 140 gigawatts. (One large nuclear plant produces around 1 gigawatt).

But the results of this study—which Heidrich notes have been cited multiple times in the microbial fuel cell literature—are problematic, she says. Before a sample can be tested in a calorimeter it has to be dry, and in this case the authors had dried their sample by leaving it overnight in an oven heated to 103 degrees Celsius and because the boiling points of several organic liquids—including methanol, ethanol and formic acid—found in sewage are lower than 103 degrees, Heidrich says, "I just felt like there would be stuff evaporating at that temperature." This loss would mean the authors had not accounted for all the energy contained in the sample.

So she and her colleagues collected their own samples—one from a plant that treats domestic, household wastewater and another from a facility that treats "mixed" wastewater containing chemicals disposed of by industrial facilities. Instead of using an oven they freeze-dried the samples before testing them in a calorimeter. They found that the industrial sample held about 16.8 kilojoules per liter, whereas the domestic sample contained 7.6—20 percent more than the previous study had reported for its domestic sample. Perhaps more importantly, given that wastewater samples are highly variable, Heidrich and her colleagues found that the commonly used COD measurement does not actually correlate to energy content, and thus is an unreliable metric. Had they relied on the same calculation methods employed in the previous study, the authors report, they would have found only around half the energy contained in each of their samples. Thus, the older estimate likely is a "substantial underestimation".

Heidrich's method has its own limitations: The freeze-drying step takes weeks, so it cannot be relied on as a routine testing method. And although the process preserves more organic matter than does oven drying, it still causes some energetic molecules to be lost. Regardless, Heidrich notes, the study's result has immediate real-world implications. "I think up until now domestic municipal wastewater has been seen as something that you can't really get energy from, so it's not worth the effort. Now hopefully that might change," she says.

WATER ISSUES COMMITTEE REPORT

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[Draft Policy for Toxicity Assessment & Control](#)

A brief discussion of this issue can be found on the Homepage under the heading Clean Water Summit Partners. A copy of the submitted comment letter can be found on the SCAP website at the following link: <http://www.scap1.org/SCAP%20Alerts/110121%20Comments%20Re%20Toxicity%20Policy%20.pdf>.

[Sediment Quality Objectives](#) by John Pastore, SCAP

The State Water Resources Control Board (State Water Board) intends to develop and adopt sediment quality objectives (SQOs) for enclosed bays and estuaries. This process will require approximately four years to complete.

As a beginning, staff is proposing to amend the Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality. The proposed amendments will only apply to surficial sediments within enclosed bays and estuaries of California. The proposed amendments consist of a narrative sediment quality objective to Section IV of Part 1 that protects resident finfish and wildlife from the detrimental effects caused by exposure to pollutants in sediment, a process for implementing these narrative objective, addition of new definitions in the glossary in support of the proposed narrative objectives, and corrections to omissions and typographical errors. The following documents are available for public review:

- [Draft Staff Report](#) - Proposed Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality for the protection of fish and wildlife
 - Appendix A [Draft Proposed Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality](#)
 - Appendix B - [Draft CEQA Checklist](#)
 - Appendix C - [Draft Economic Analysis](#)

Please be aware that the SWRCB will conduct a public hearing [Notice of Public Hearing](#) on April 4th to accept public comments on the proposed amendments and has scheduled an April 6th Board meeting for adoption.

[Discharge Monitoring Report Pollutant Loading Tool EPA-821-F-10-004](#) by John Pastore, SCAP

In an effort to improve transparency of information and public knowledge about pollutant releases that may cause water impairment, USEPA has introduced a new web tool for assessing point source pollution data. The data being

utilized is from National Pollutant Discharge Elimination System (NPDES) Permit Program Discharge Monitoring Reports (DMRs) for constituents that a facility is required by permit to monitor.

The new web tool is called the Discharge Monitoring Report (DMR) Loading Tool and USEPA is currently requesting comments and suggestions on how to improve the Loading Tool and the accuracy of the discharge monitoring data supporting it. According to USEPA, the Loading Tool is in beta-phase and is undergoing continual development and testing. . The Tool uses discharge monitoring report (DMR) data from ICIS-NPDES and PCS to calculate discharge loads. Although USEPA has verified the accuracy of the calculations, and has conducted a preliminary review of the tool output to verify the accuracy of the underlying DMR data used for the calculations, it appears that errors exist due to variety of reasons. Tri-TAC is currently drafting a response letter documenting many of its concerns and is requesting, among other things, that USEPA not release the annual loadings until all errors are identified and corrected. Information on the Loading Tool can be found on the USEPA website at: http://cfpub.epa.gov/dmr/ez_search.cfm .

Non Sequitar:

“You are not here merely to make a living.
You are here in order to enable the world to live more amply,
with greater vision, with a finer spirit of hope and achievement.
You are here to enrich the world, and you impoverish
yourself if you forget the errand.”

- *Woodrow Wilson*

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