



Advancing *Biosolids*  
Environmental Management  
Systems in Local **Communities**

NACWA WEF EPA

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**Week of November 2, 2009 - No. 645**



**To: NBP Web Site Registrants and Visitors**

**From: Sam Hadeed, NBP Office: 703-684-2418 or  
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**Subject: Weekly Biosolids Update from NBP**

Resource Management, Inc. Residuals Management Facility in New Hampton, NH Receives NBP EMS Certification; Authors Sought for WEF/ABC Biosolids Land Appliers Certification Study Guide Question Development; Canadian Biosolids Emissions Assessment Model; Auburn, NY City Council Pulls Items Related to Building Sewage Sludge Storage Facility; DE Sludge Recycler Closes Facility; Lots to Learn About Green from Swedes; Garden-Ville Partners with Victoria, TX to Compost Sewage, Brush; This Week in Washington from WEF.



From **Sam Hadeed**, [shadeed@wef.org](mailto:shadeed@wef.org). **Resource Management, Inc. Residuals Management Facility in New Hampton, NH Receives NBP EMS Certification.** The National Biosolids Partnership is pleased to recognize the Resource Management, Inc. Residuals Management Facility in New Hampton, NH as the 26th organization in the nation to be certified and admitted to the Partnership's environmental management system (EMS) for biosolids program. Resource Management, Inc. is one

of 100 organizations currently participating in the NBP EMS program. As the 26th organization certified and admitted into the NBP EMS program and first in New Hampshire, Resource Management, Inc.'s achievement recognizes that the agency has been independently verified as having an effective biosolids environmental management system. The Resource Management, Inc. Residuals Management Facility in New Hampton, NH biosolids EMS was independently verified on October 22, 2009 by the audit firm, KEMA-Registered Quality, Inc. [RMI Residuals Management Facility Audit Report](#)

From **Christine Radke**, [cradke@wef.org](mailto:cradke@wef.org). **Authors Sought for WEF/ABC Biosolids Land Appliers Certification Study Guide Question Development.** In cooperation with the Association of Boards of Certification (ABC), WEF is developing a certification study guide focused on **biosolids land appliers**. Volunteers are being sought to develop questions for the study guide. Questions will be based on [ABC's Need-to-Know Criteria for Biosolids Land Appliers](#) which can be found on [www.abccert.org](http://www.abccert.org). Section topics include:

- Communications and Outreach
- New Site Evaluation
- Nutrient Management System
- Site Operation and Management
- Monitoring and Recordkeeping
- Equipment Operation
- Safety

The anticipated publication of this study guide is in 2010. If you are interested in being a volunteer, contact Christine Radke of WEF staff at by no later than **December 21, 2009**. All reviewers and authors will be acknowledged in the completed study guide. Christine can be reached at [cradke@wef.org](mailto:cradke@wef.org), or by phone at (703) 684-2400, ext. 7013.

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From **Canadian Council of Ministers of the Environment. Canadian Biosolids Emissions Assessment Model**. The Canadian Council of Ministers of the Environment (CCME) announced last week that its [Biosolids Emissions Assessment Model \(BEAM\)](#) is now available on its website. The model was developed to better understand the impacts of GHG emissions from biosolids management in Canada and to serve as a decision-making tool for biosolids managers.

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From **Auburn, NY Citizen, 10-22-09. Auburn, NY City Council Pulls Items Related to Building Sewage Sludge Storage Facility**. The city is looking to build a place to store the by-product left over after the sewage treatment process. But at least two more weeks will pass before any construction is approved. The Auburn City Council pulled three items from Thursday's agenda related to a proposal to build a sewage sludge storage facility at the waste-water treatment plant. The storage unit would hold the biosolids until they are hauled away by truck. If approved, the ordinance and two resolutions would have authorized the city to bond for \$150,000, awarded the bid and declared the project to have a negligible environmental impact. The council did hear a first reading of the bond ordinance.

Those items are expected to be on the agenda for the next council meeting, which is Nov. 5. The city council does not meet on the fifth Thursday of the month. Auburn City Manager Mark Palesh said Thursday that the city is receiving more interest from local companies on the project. The city plans to continue to accept proposals while clarifying some of the specifics, Palesh said. The city sent out emergency requests for proposals earlier this month and received two quotes -- one for about \$130,000 or one for about \$260,000. The process was expedited because cold weather is on its way, and one of the purposes of the storage facility is to keep the sludge from freezing. Palesh said the delay will not be too long, but the city is eyeing the coming winter. "There's always a worry (about cold weather)," Palesh said. "We need to move on it expeditiously."

The council recently approved the shutdown of the sewage plant incinerator, which burned bricks made from the sludge material. The incinerator was shut down after structural problems were found and estimated costs to fix the problems exceeded \$1 million. Eventually, city officials plan to replace the incinerator with an anaerobic digester that

would turn the sludge material into energy-producing natural gas and compost. The plan is to have the material hauled away until the digester is built.

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From ***Delmarva, DE News Journal, 10-29-09. DE Sludge Recycler Closes Facility.*** A long-troubled Wilmington sludge recycling operation has shut down, a move that could add millions to regional wastewater treatment costs and chew up precious northern Delaware landfill space. Idling VFL Technology's "stabilization" plant off I-495 at East 12th Street diverted a 50,000 ton-per-year flow of dewatered sewage sludge into Cherry Island Landfill, offsetting gains from a space-saving yard waste ban at the same disposal site. Left in the aftermath are multiple government agency disputes and legal appeals over cleanup, monitoring and removal requirements for mountains of sludge, power plant ash and industrial residues at East 12th Street. Also unresolved is the city's refusal to accept liability for properly closing a landfill at the site that received more than 1.5 million tons of mixed sludge, ash and other materials from the city plant -- including more than 100,000 tons deposited illegally.

Earlier this year, the Department of Natural Resources and Environmental Control estimated that \$17 million might be needed to remove and safely dispose of a portion of the stockpile at East 12th Street. DNREC has only a \$500,000 cleanup and monitoring guarantee from VFL and its parent company, Utah-based Headwaters Inc. "The city often comes looking for relief from the state on tax issues. Now, on the other hand, they're turning around and creating a liability that's going to be paid by non-city residents," said Rep. Gregory F. Lavelle, R-Sharples. "It's just insane. On the one hand, we can't put yard waste in Cherry Island, but they're taking up the volume and nobody seems to want to resolve it."

City officials said in a written statement that they already have notified New Castle County about recent developments at the wastewater plant. County residents pay the majority of operating costs for the regional plant and account for about 70 percent of the sludge handled there. The switch to land filling, city officials said, increases the cost of sludge disposal to \$61.50 per ton, "almost double" the rate paid to VFL. State officials separately estimated that sludge disposal costs would rise to about \$3.7 million yearly.

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From ***Victoria, Vancouver, Canada Times Colonist, 10-24-09. Lots to Learn About Green from Swedes.*** But as Victoria project shows, we're moving the right way. "Think big, build small" would be a perfect motto for Sweden. One can find evidence of this while strolling through any Ikea store, of course -- the company is renowned for its innovative furniture designs packaged in flat, easy-to-transport boxes -- but it's also apparent on the streets of Stockholm and Gothenburg. Here, big thinkers are partnering with policy-makers and NGOs to construct densely populated, low-rise housing developments that run on holistic, closed-loop systems of waste, energy and water management.

During a recent study tour in the country, a group of Canadian architects, developers and politicians were given an inside look at a few of the newest, greenest projects in Sweden -- condo buildings that go far beyond the standard LEED qualifications in terms of sustainability. Take the restoration of Hammarby Sjostad, for instance, a waterfront space

on the edge of Stockholm that is in the midst of being transformed from industrial scrapyard to thriving residential community. It is an empty yet prime location, close to transit, with immense potential to showcase progressive design. As of now, Hammarby Sjostad has 15,000 inhabitants on nearly two square kilometres of land. The area is connected to the downtown core with a streetcar, a free ferry and roads (with bike lanes) made of semi-permeable asphalt that collects stormwater, channelling it to a treatment centre before diverting it back to the lake.

Waste is sorted by residents, who deposit their garbage into colour-coded, vacuum-operated chutes, which suck the material underground into a network of tunnels -- the glass and paper rattles over to a recycling depot, the organic waste ends up in a composting facility and the rest of the garbage is incinerated; the heat captured from this process is then channeled back into the neighbourhood for residential heating and electricity needs. Sewage treatment extracts biogas and biosolids (i.e., fertilizer) from the sludge that is then used by the Hammarby Sjostad community, and the heat captured in this process again makes its way back to the neighbourhood as part of the district energy system.

In short, the Swedish model isn't just about doing as many green things as possible or securing LEED certification; it's about making use of the way resources are connected to one another, and viewing waste from one process as fuel for another. "These guys are way ahead of us," says renowned Vancouver architect Peter Busby, one of the tour's participants, "and we should be paying attention, because we have the same climate." Although he was impressed by such things as the clean, educational and even social nature of the recycling rooms in Sweden's apartment buildings and offices, Busby was truly won over by the levels of insulation. "Their walls are much thicker and their windows are between R5 and R10," he says, noting the high ratio of indoor to outdoor temperature. "That's unbelievable. Our double-paned windows are R2, which means we lose five times the amount of energy."

But not all Canadian windows and walls offer poor insulation, and not all Canadian housing developments are shamefully behind those of the Swedes when it comes to sustainability. Busby can attest to this -- his architecture firm, Busby, Perkins and Will, spearheaded the design for Dockside Green, a holistic community in Victoria built on former industrial land. Here, locally treated wastewater is reused to flush residential toilets and keep green space alive; meanwhile, buildings use 45 per cent to 55 per cent less energy, thanks not only to efficient appliances and insulation but to an on-site waste-wood biomass plant that burns clean gas, which is used to heat the homes. Dockside also has a number of green roofs (an initiative the Swedes have been slower at embracing), and is striving to be greenhouse-gas positive -- that is, producing more energy than it consumes; in fact, it's already transferring excess heat to an exchanger in a nearby hotel.

Joe Van Belleghem, the developer behind Dockside, says that although he's aware of other green housing projects in Europe, the U.S. and Asia, trying to look abroad for inspiration has its limits -- Sweden, for instance, might have a similar climate as well as similar infrastructure, but it also charges higher taxes and gives far more control to municipal governments when it comes to policy changes. "In any case, we only had 40 days to assemble our proposal, so doing that kind of research wouldn't have been possible," he says. "But I believed that if we designed Dockside Green from a triple bottom-line approach, focusing on both social and economic principles, we could do something unique."

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From **Victoria, TX Advocate, 11-4-09. Garden-Ville Partners with Victoria, TX to Compost Sewage, Brush.** BLOOMINGTON - Mounds of earthy material dot the land at Garden-Ville's compost production site. And though the composter's products appear as earthen as clay, some of the compost is derived from sewage. "We're taking material that would just go into the landfill and be wasted and turning it into a beneficial product," Paul Gregory, manager of the

Photo: The composting process can take anywhere from six to eight weeks at Garden-Ville as it uses machines to treat the organic material that will eventually become compost.

local site, said. The composting site has been serving the Victoria area since May in a partnership with the city. In a given month, the city can transport up to 1,400 tons of sludge to Garden-Ville and 5,000 yards of brush, Gregory said. Before that is done, however, the sludge is treated and turned into biosolids.

Biosolids provide a nutrient-rich fertilizer to enrich soil. Sludge-based composts can be used to grow trees. Some even use them on vegetable gardens. Many municipalities recycle their wastewater to be reused for soil improvement. "It makes your yard look better, ultimately," Gregory said. "It's an aesthetic thing, but more than that, it's actually feeding the soil and reintroducing organic material back into the soil."

The treatment process is meticulous and involved. Biosolids composters must meet the Environmental Protection Agency's regulations. Garden-Ville's biosolids-based compost is a blend of mulch and sludge, Gregory said. Garden-Ville's San Antonio location turns its sludge into a compost called "Alamo Grow." Local master gardeners held a contest to name Victoria's own biosolids compost. The winning entry? Coastal Grow.

Garden-Ville has a 10-year contract with the city. Victoria is the only Texas city of its size to have a compost facility that recycles city waste, Darryl Lesak, environmental services assistant director, said. "The city of Victoria needs to be applauded for their efforts in recycling," Gregory said. "We're going to recycle tens of thousands of tons of material every year." People who would like to recycle their brush, grass clippings and yard clippings may do so at a rate of \$4.69 per cubic yard. The city receives a 5-percent royalty from all sales of locally produced fertilizers.

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From **Sam Hadeed, [shadeed@wef.org](mailto:shadeed@wef.org). This Week in Washington from WEF. This Week in Washington (TWIW)** is a free weekly e-newsletter of the Water Environment Federation's Government Affairs Department that is published on Fridays. It provides updates on the latest legislative and regulatory developments affecting the water and wastewater communities. View the [on-line edition](#). You can also bookmark this link for future reference. To receive via email, send your request to the **Editor – Sam Hadeed** at [shadeed@wef.org](mailto:shadeed@wef.org).

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