

## **Exploration:**

# Setting up a (WEF sponsored) Municipal Wastewater Carbon Exchange (Supplement)

At WEFTEC 2006, The Water Environment Federation (WEF) announced a new climate change resolution during the Opening General Session in Dallas, Texas. The resolution recognizes climate change and its impacts on the planet's natural hydrologic cycle.

In summary, the resolution commits WEF to working with its members, members associations, and others to help reduce the impacts of climate change to better prepare the water quality community for its effects. It also urges WEF members and local agencies to become leaders in their own communities by taking steps to reduce greenhouse gas emissions from treatment facilities and related operations, and by educating the public.

Additionally, at the WEF Residuals & Biosolids Committee review meeting in January 2008, Mr. Bill Bertera, Executive Director of WEF discussed the following:

- a. WEF is developing a New Strategic Plan with priorities.
- b. WEF needs to prioritize initiatives. Rather see big projects instead of being nickel and dime with smaller projects.
- c. WEF becoming center stage because of recent droughts, etc.
- d. The Residuals & Biosolids Committee (RBC) needs to focus on educating WEF's Board and the House of Delegates on its initiatives.
  - Don't be afraid to ask for funding.
  - Don't be afraid to ask for WEF staff support.

The U.S. EPA strongly supports the concept of a Carbon Exchange which would provide dollar credits for utilization of green energy at municipal WWTPs. However, funding is very tight within the EPA, and the way forward is for stakeholders to work together to support important projects. Accordingly, in February of this year Peter Brady raised the possibility of WEF being a leader in an initiative to create a municipal Carbon Exchange. A discussion with Bob Cantilli of USEPA Office of Science and Technology/OW resulted in the following response:

"I would say the concept has a great deal of merit. EPA would certainly like to be involved, based on our interests in global climate change, energy conservation and biosolids management. Keep us posted and let us know how we can help support the effort."

#### APPENDIX - STAKEHOLDER SURVEY

A limited survey of other RBC stakeholders – NACWA, Consultants, and Individual WWTP management, elicited a similar response.

#### 1. Duffin Creek WPCP (near Toronto), Canada:

"This document (on a Carbon Credit Exchange) is good reading and breaks new ground for the WEF.

It is a good document to pass on to the board as they have committees that can evaluate this and give you good comments also get it on the agenda for funding etc.

Contact me if you need any further information or assistance on developing this.

Cordell Samuels
Superintendent
Duffin Creek WPCP"

## 2. Morris Forman WWTP, City of Louisville, KY:

"Louisville Metropolitan Sewer District fully supports the concept of a carbon credit exchange for wastewater facilities. In light of the increased practice of beneficial reuse of treatment plant effluents and biosolids generated in the wastewater treatment process, a carbon credit exchange has tremendous potential value for facilities. Additionally, it can afford municipal facilities the same economic and environmental incentives currently provided to private industry.

Robert W. Bates Wastewater Process Manager – Biosolids Louisville Metropolitan Sewer District"

#### 3. CH2M HILL, Consultants

"Excellent suggestion.

Referring to my paper, elsewhere in the Handout Folder: "Funding Biosolids Projects – A Losing Battle"

"The lack of adequate financial support for wastewater management projects in the United States has resulted in two classes of needed projects, non-discretionary projects that must be completed under penalty of legal action, and discretionary projects that are not required under

law. Projects pertaining to solids processing at wastewater treatment plants have become discretionary because of lack of USEPA enforcement of regulations pertaining to biosolids under the Clean Water Act......

These circumstances have resulted in the following example situations at treatment works:

- Excessive inventories of sludge solids in the liquid treatment trains of many works.
- Essential solids processing projects are being deferred for the foreseeable future.
- Ad hoc solids processing schemes that have become 'permanent.'
- Older tanks, buildings and equipment that are being recycled for a 'second' life.
- Unsafe working conditions and environments for treatment plant operators.
- Wastewater treatment agencies that are unable to invest in modern, energy efficient technologies.
- The construction of very few new anaerobic digestion and incineration facilities in the last five years.

The lack of funding has resulted in solids processing and biosolids management practices that are expedient, but not sustainable. This is because one must make do, with the lack of investment in discretionary projects for solids processing and biosolids management.

The result of the present situation is unfortunate. For example, energy recovery is spoken about but there are no incentives at the national level encouraging energy recovery......

A functioning municipal wastewater Carbon Credit Exchange would be a valuable component towards the financing of new biosolids projects, and would also enable local communities to significantly reduce fossil fuel emissions."

Timothy G. Shea, Ph.D, PE, BCEE Board Certified Environmental Engineer Principal Technologist CH2M HILL

### 4. Orange County Sanitation District, California

I have reviewed the attached exploration document on the setting up a WEF-sponsored municipal wastewater carbon exchange. The Orange County Sanitation District (OCSD) is already very active in assessing its "carbon footprint" and has staff active in developing protocols for accurately establishing our industry's greenhouse gas emissions. I can assure you that OCSD would both encourage and support WEF's efforts to develop a project that would lead to the creation of a municipal carbon credit exchange. Such an effort has the potential to provide a valuable financial benefit to wastewater agencies. Considering that a biosolids-to-energy facility recently included a reduction in their proposed biosolids management fees (\$4) as a result of the

benefit they anticipate from the voluntary carbon market, I believe that the wastewater industry has the potential to greatly benefit from a mandatory carbon credit market only if we are positioned properly. WEF's association with EPA, if only for their in-kind services, would also be of great benefit to further this effort.

Thanks for taking the lead on this important effort,

Layne Baroldi Orange County Sanitation District

P Brady note: research indicates that the reduction in biosolids management fees with a mandatory carbon credit market would be of the order of \$20

If you are interested to be involved in this exploration effort please contact Peter Brady.