



**District of Columbia
Water and Sewer Authority**

**Board of Directors
Environmental Quality and Operations
Committee Meeting**

Thursday, March 13, 2008, 9:30 a.m.
Room 407, COF, Blue Plains

SUMMARY MINUTES

Board Members

David W. Lake, Chairman
Joseph Cotruvo
Howard Gibbs
Jimmie Jenkins
Brenda Richardson
Paivi Spoon
Beverly Warfield

Staff Members

Jerry Johnson, General Manager
Avis Russell, General Counsel
Leonard Benson, Acting Chief Engineer
Linda R. Manley, Board Secretary

Presenter

Dr. Perry McCarty, Silas H. Palmer Professor Emeritus, Stanford University

I. CALL TO ORDER

David Lake called the meeting to order at 9:35 a.m. He explained the current agenda, indicating that the Environmental Quality & Operations Committee will recess and reconvene after Agenda Item VI, as being in response to a city council concern that the Committee considering issues with the DC water system was chaired by a representative of the suburbs. Board Chairman Robin Martin therefore established an ad hoc committee to be chaired by Joseph Cotruvo to consider these matters. For this meeting, the ad hoc committee will meet while the EQ&Ops Committee is temporarily recessed.

II. AWTP STATUS UPDATES

1. **BPAWTP Performance**

Mr. Bailey, Director of Wastewater Treatment, reported that February performance was excellent; in 100% compliance with all permit limits. Flow for the month averaged 296 MGD, with a 12-month rolling average of 295 MGD. Rainfall for the month was 4.2 inches, higher than the typical 2.6 inches; 12-month rainfall is still below average. Biosolids production was 1254 wet tons per day, and a 12-month average of 1171 wet tons per day. Effluent total nitrogen for the month was 9 mg/l with a 12-month rolling average of 6.1 mg/l, below the annual goal of 7.5 mg/l.

2. Status of Effluent TN Performance/Methanol Cost

Mr. Bailey advised the Committee that methanol prices have abated somewhat, down to \$2.10/gallon. It appears that WASA will be able to operate closer to the Chesapeake Bay Program Agreement annual goal nitrogen discharge target than indicated last month, since funds will allow more methanol to be purchased..

The Committee asked if downstream monitoring could be done to document any effects of elevated nitrogen. Mr. Bailey noted direct measurements would not produce meaningful results; the effects are estimated by modeling. WASA is working with Metropolitan Washington Council Of Governments on such modeling.

3. Status AWTP NPDES Permit Appeal

Mr. Bailey advised the Committee that there has been no change in status of the permit appeal. WASA is still awaiting a ruling by the Environmental Appeals Board.

4. Status of EPA Approval of TN/WW Plan

Mr. Bailey advised the Committee that a meeting has been scheduled with EPA in Philadelphia on April 9th to discuss the issues with the plan. Mr. Johnson commented that this represents significant progress, as previously they were not willing to agree to a meeting. Both technical and regulatory issues will be discussed (a position previously opposed by EPA.)

III. WATER SERVICES PROGRAM

1. Coliform Testing

Mr. Kiely, Assistant General Manager for Consumer Services, reported that there were no positive coliform results last month. WASA was successful in its request to EPA to discontinue use of the sampling site that had been problematic for the last three months. WASA had documented a cross connection issue with this site, and as per regulations had sampled upstream and downstream after each positive result, without finding any corresponding positive coliform results.

IV. DIGESTER PROJECT UPDATE

Mr. Benson, Acting Chief Engineer, updated the Committee on the status of development of a new Biosolids Management Plan (BMP). This update represents the biannual update requested by the Board when the Egg-Shaped Digesters Facility project was deferred three years in fall of 2006. Copies of pertinent cost trend indices were distributed, which verify that costs are still trending upward at a higher rate (8-10%) than the historical experience prior to 2004 (~3%). The unfavorable bidding climate for specialized wastewater treatment plant construction appears to be continuing. The bid prices for the Residuals Handling Facility as recently bid by the Corps of Engineers were discussed as more evidence of this environment. Proposals received on this project from several bidders were in excess of \$100M, as compared to an estimated cost in the mid-\$60M range, with an upper limit of \$90M. Through scope modifications, the Corps has negotiated the cost down to the \$90M range.

The planning work done to date on the BMP confirms that digestion should remain as the foundation. Land application is still viable and cost effective, however processes and/or treatment trains that produce a Class A product are desirable as a hedge against future legislative actions. Staff has reviewed and is considering some processes that were not proven when the 1999 BMP was adopted. Costs can be further mitigated by sizing the new facilities for maximum month production and handling higher peaks in other ways such as lime stabilization. Alternative vessel design that could be constructed by several entities, rather than specialized egg-shaped vessels can also reduce facility costs.

Processes being evaluated and priced at this time include a Cambi option, a digestion followed by heat drying option, and a hybrid which combines the two. Also being priced is cost of status quo/continuing lime stabilization and land application. It is noted that the existing solids processing systems must be upgraded to allow for the continued use at full solids production for the foreseeable future in this high wear and tear environment.

The financial position of WASA still is as it was last update-WASA is faced with the high costs of the LTCP and TN/WW plan, both regulatory mandated. It was noted that the digestion project is not specifically mandated. The new BMP will be evaluated against affordability criteria and rate impacts, including consideration of a phased implementation approach.

Mr. Lake offered the opinion that a workshop on the BMP to include BOD members would be an excellent idea.

V. ACTION ITEMS

The following contract items were submitted for Committee action:

Contracts Considered and Approved				
No.	Type	Prime Contractor	Scope	Amount
Joint Use				
DCFA #393-WSA	Engineering Services	Black & Veatch Corporation	Supplemental Agreement	\$273,662.00
Non-Joint Use				
040260	Construction	Anchor Construction Company	Option Year	\$2,000,000.00
040270	Construction	Anchor Construction Company	Option Year	\$2,000,000.00
WAS-05-014-AA-JS	Goods and Services	Wachs Utility Services	Option Year & Contract Mod.	\$2,110,275.00

The action items were discussed (joint contract by all members; non-joint use contracts by District members only), with no reservations expressed by Committee members. All items were recommended for forwarding to the full Board for approval.

VI. OTHER BUSINESS

No other business issues were raised.

VII. RECESS

Mr. Lake called for a recess to the Environmental Quality and Operations Committee at 10:25 a.m. so that Mr. Cotruvo could convene the new ad hoc Committee on Lead in DC Drinking Water meeting. The suburban members left while the ad-hoc committee met. The EQ and Ops Committee reconvened at 11:25 a.m.

VIII. CLIMATE CHANGE IMPLICATIONS OF WASTE TREATMENT

Mr. Lake introduced Dr. Perry McCarty, Silas H. Palmer Professor Emeritus at Stanford University, and asked Committee member Dr. Cotruvo to elaborate on the introduction. Dr. McCarty is a preeminent environmental engineer, responsible for advancing many innovative ideas in the wastewater treatment field that are now accepted as common practice, but which at the time were not considered as worthy of the attention and importance that he was advocating. In consideration of current global warming concerns he gave a presentation on the climate change impacts attendant to wastewater treatment. Wastewater treatment results in part of the anthropogenic contribution to greenhouse gas (CHG) accumulation; which in turn is a contributor to observed global warming.

Wastewater treatment contributes to CHG accumulation through carbon dioxide, methane and nitrous oxide emissions. The later two, although not emitted in as great a quantity as carbon dioxide (they represent 23% of the total CHG emissions) have a much higher global warming potential than carbon dioxide. Wastewater treatment plants offer the opportunity to capture methane and reuse it to generate electricity, offsetting the need for fossil fuel power generation and therefore reducing CHG emissions.

CHG emissions will likely be regulated as pollutants in the future; and/or producers will be subject to a carbon tax based on the tons emitted. This will impact the economics of wastewater treatment. Dr. McCarty concludes that waste treatment alternatives need to be reevaluated in light of climate change concerns; methane must be contained, CHG emissions and power consumption reduced, and anaerobic treatment alternatives considered. Wastewater should be recognized as a valuable resource.

Dr. McCarty entertained questions from meeting attendees, after which Mr. Lake thanked him for his presentation and attendees responded with a round of applause.

IX. ADJOURNMENT

Mr. Lake adjourned the meeting at 12:30 p.m.