



Delaware River Basin Commission

WATER MANAGEMENT ADVISORY COMMITTEE

November 4, 1999

MEETING SUMMARY

The Water Management Advisory Committee (WMAC) meeting began at 9:30 a.m. at the Commission (DRBC) office in West Trenton, NJ. The meeting agenda is attached [[see Attachment 1](#)].

COMMITTEE PROCEDURES

The meeting began with a discussion of Committee responsibilities and procedures led by Jeffrey Featherstone. Mr. Featherstone reviewed the history of the establishment of the Committee and the responsibilities of the Committee as detailed in Resolution 98-21, the resolution that established the Committee. The role of the Committee is to advise the Commission and its staff on water demand forecasting, implementation of water conservation regulations, ground water flow modeling, integrated resource planning and watershed-based planning. Mr. Featherstone stated that many of these issues were identified in a recent strategic planning effort as high priorities of the Commission and Delaware River Basin stakeholders. Mr. Featherstone also reviewed Commission procedures for promulgating regulations.

Committee procedures were discussed by the Committee including issues related to a quorum, voting, Committee Chair, designees and frequency of meetings.

With regard to the issue of the need for a quorum, certain Committee members including Mr. Milan and Mr. Mercuri stated that since many members travel far and meetings will be held only a few times a year, no quorum should be required. Mr. Miri and Mr. Gast expressed concern that there be a quorum to take action.

On the issue of voting, members were in general agreement that the Committee would try to reach consensus whenever possible. If consensus cannot be reached and a vote is needed, several Committee members felt that at least 2/3 of the members would need to be present. Mr. Schuyler suggested that if 2/3 of the members weren't present for a vote, the vote be conducted electronically via e-mail. Mr. Schuyler also expressed the importance of writing a dissenting, or minority, opinion. Ms. Noble agreed, stating that the reasons for not arriving at a consensus should be explicitly stated.

With regard to the Committee Chair, Mr. Featherstone stated that the responsibilities would include: conducting meetings, consulting with staff on the agenda, and reporting to the Commission once a year. Issues related to term and rotation of chair were discussed. Mr. Featherstone stated that one option used by other committees was: the Committee would select a chair and vice chair; the chair would serve 1-2 years and be replaced by the vice chair. Several members representing the Basin States including Mr. Miri, Mr. Lavery and Mr. Gast felt that to avoid the meetings being dominated by the Basin States, State members should not serve as Chair. With regard to selecting a Chair, it was decided to postpone the selection until the next WMAC meeting. Ms. Bowers requested that Mr. Featherstone chair the first meeting and he agreed.

Mr. Race asked whether members could send designees to represent them. Mr. Featherstone suggested that sending designees would be acceptable as long as it was subject to a formal process and the designee would be appointed for a specific meeting only.

Mr. Schuyler asked whether the meetings could be teleconferenced. Mr. Featherstone stated that equipment is available. Several Committee members expressed concern with regard to over-reliance on teleconferencing.

Mr. Featherstone stated that Commission staff would write up the consensus of the Committee on procedural issues for review and final decision-making at the next meeting. [[See Attachment 2.](#)]

DELAWARE RIVER BASIN WATER USE ASSESSMENT AND FUTURE EFFORTS

Esther Siskind presented current and proposed work efforts needed to complete a water use assessment for the Delaware River Basin. Mr. Featherstone stated that the last time a formally adopted water use assessment was undertaken by DRBC was during the Level B Study in the early 1980s.

Ms. Siskind's presentation included the need for performing Basin water use assessments and a proposed workplan. Commission staff is proposing that a reliable baseline of current water use be developed before projections be performed. A baseline water use profile report would be prepared for the years 1990-1996. Analyses to be included in the report were presented. After developing estimates of water use, consumptive use would be estimated. Water use projections would then be performed. With the completion of the water demand assessment, water demand would be compared with water supply to develop a water use budget.

Mr. Featherstone asked whether the proposed workplan was acceptable to the committee. There was general agreement that it was. Mr. Lovell expressed concern that large demand projection efforts were begun in the past, but not completed due to a lack of resources. Mr. Featherstone stated that water use assessment is a long term commitment of DRBC and that Evelyn Borbely is a full time staff person dedicated to the effort.

Current efforts by Commission staff include preparing the baseline profile report. Certain data are still missing and use category definitions need to be made consistent across States. To ensure that future use assessments are conducted more efficiently, it was requested that States begin to assemble needed data. A list of DRBC Water Use Data Needs was circulated.

Discussion ensued about whether the data were available. Mr. Lavery stated that the NYS Department of Health, rather than NYSDEC, collects these data. Mr. Gast stated that Pennsylvania is already submitting most of the requested data electronically to DRBC. Mr. Miri asked whether he could receive a copy of the data needs list via e-mail so he could circulate it among NJDEP staff. Mr. Lovell stated that most of the data exist in their database. Each State member was asked to report back at the next meeting on whether the needed data are available in either electronic or paper form. Ms. Bowers stressed the need to start collecting data on wastewater discharges for the consumptive use assessment now so the data would be available by the time the assessment would begin. Ms. Best-Wong volunteered to provide whatever data EPA maintained.

It was also suggested that a future consideration of the Committee could be amending the Commission Resolutions requiring service metering and/or source metering to include these reporting requirements. Mr. Schaefer agreed that this should be considered.

Evelyn Borbely then presented estimates of Delaware River Basin potable water use from the data that have been collected to date. Potable water includes public water supply and domestic self supplied water. Potable water use and population data were presented for each State and for the Basin as a whole for the years 1990-1996. In general, between 1990 and 1996, water use in the Basin declined by six percent, while population increased. These statistics indicate that water conservation measures have been effective in the Basin. The Pennsylvania and Delaware portions of the Basin, and the New York City and D&R Canal exports experienced a decline in water use over the period, while the New Jersey and New York State portions of the Basin experienced an increase. All States experienced increasing population during the period. Committee members expressed enthusiasm over the data presented and requested copies of the presentation as part of the minutes. [[See Attachment 3.](#)]

WATER CONSERVATION: THE NEXT STEPS

Mr. Featherstone gave an overview of DRBC's water conservation regulations including requirements for low flow fixture installation, source metering, service metering, leak detection and repair plans and water conservation plans. He stated that certain follow-up activities were now needed to ensure that the regulations were being implemented, particularly those related to leak detection and repair. Mr. Featherstone also discussed the success of New York City's conservation programs.

Ms. Noble asked whether Committee members should write to their congressional representatives in opposition to the Knollenberg bill that would remove national standards for water conservation plumbing fixtures. Mr. Featherstone stated that Carol Collier, on behalf of the Commission, had written a letter on this issue to congressional representatives. He also indicated that it appeared most of the congressional representatives in the Basin opposed the bill.

Ms. Siskind followed this discussion by presenting a list of proposed next steps. She stated that the direction of the Commission over the past decade was one of regulation and policy setting. It was now important to enter a phase of monitoring the implementation of the regulations and evaluating their effectiveness. Many of the "proposed next steps" address these issues. The proposed next steps include: updating leak detection and repair plans; determining the status of service metering; training State reviewers of water conservation plans; developing guidance for conservation pricing studies; sponsoring transfer sessions; using the water use database to evaluate the effectiveness of conservation; and public education.

A discussion ensued on leak detection and repair (LD&R) plans. According to DRBC regulations, LD&R plans are to be updated every 3 years and Basin States are delegated the responsibility for ensuring that the plans are updated. The last completed plan update was in 1994. The 1997 plan update was not completed. Several Basin States expressed that there is a lack of resources available to implement the LD&R program. Mr. Miri stated that the NJDEP position for this task was cut. Mr. Gast said that 1997 plan updates were initiated in Pennsylvania, but was not sure if they were completed. Mr. Lavery stated that the NYS Department of Health was responsible for this task. Mr. Mercuri asked whether LD&R was a priority only in drought years. State representatives suggested that the update cycle be changed to once in 5 years. Ms. Siskind suggested that a targeted effort focused on purveyors with large unaccounted for water percentages (over 15 percent is suggested by DRBC's regulations) could reduce the effort. These purveyors could be required to submit a plan for reducing unaccounted for water to below 15 percent.

Mr. Featherstone suggested that the States report unaccounted for flows for 1998 at the next WMAC meeting. The last time this information was reported was in 1994. If unaccounted for water has declined, the Committee would have a stronger basis for changing to a longer update cycle. Committee members were in agreement with this suggestion.

After breaking for lunch, Mr. Featherstone asked that Committee members review the other "proposed next steps" in order to develop agreement on priorities at the next meeting. He specifically asked that the Basin States determine whether service metering had been fully implemented in their States. He also requested that members come prepared to discuss ideas for transfer sessions.

GROUNDWATER PROTECTED AREA PROGRAM

The modeling and GIS effort that was undertaken by the Commission and the US Geological Survey (USGS) to develop withdrawal limits in the Groundwater Protected Area in Southeastern Pennsylvania was presented by Greg Cavallo. Mr. Cavallo's presentation included an overview of the groundwater protected area and regulations; the methodology used to arrive at withdrawal limits in the regulations; and a demonstration of how GIS can be utilized to target key issues and problems for groundwater analysis and regulation. Examples included the ability of the GIS to readily identify problematic geology and wells of different sizes. Mr. Cavallo discussed the applicability of such an assessment to other areas of the Basin.

Ms. Noble asked whether GIS layers such as land use/cover and impervious surfaces would be available due to their importance in developing integrated resource plans. Mr. Cavallo responded that land use/cover data were available to some extent, but impervious surface data were not readily available.

Mr. Gast asked whether the Committee is responsible for integrated resource planning. Mr. Featherstone responded that it is and that at the next meeting staff would present the requirements for integrated resources plans (IRPs) as outlined in the groundwater protected area regulations. However, the regulations only address IRP content and staff would seek input from the Committee on developing procedures for IRP review and acceptance.

Ms. Bowers stated that Chester County was beginning to develop a process for developing IRPs. Both Mr. Gast and Ms. Bowers expressed urgency with regard to developing procedures for IRPs since several localities are in the process of developing them. Mr. Featherstone said IRPs would be explored in more detail at the next meeting.

Mr. Featherstone circulated a scope of work that is part of a recently signed agreement between Pennsylvania and DRBC for development of a prototype IRP and groundwater model, among other tasks.

USE OF WASTEWATER SPRAY IRRIGATION

Mr. Featherstone introduced this topic by stating that it was added to the agenda at the request of the Commission who wanted a recommendation from the Committee on how far the Commission should go in endorsing it.

Mr. Ron Sloto presented the current USGS pilot study to evaluate wastewater spray irrigation. The pilot study is taking place on a parcel in New Garden Township in Chester County. The USGS has developed and begun to implement a sampling protocol that measures runoff, groundwater recharge and pollutant loadings from spray irrigation. In addition, impacts on the nitrogen cycle and a water budget will be developed. Sampling will take place for two years and results should be completed in approximately three years.

Mr. Gast asked how transferable the data would be to other areas. Mr. Sloto responded that he expected results to be applicable to Piedmont areas. He mentioned the Pennsylvania State University study which was conducted in a forested area and would not likely be applicable to conditions in southeastern Pennsylvania.

Mr. Featherstone asked whether the study would be able to answer questions such as: Can spray irrigation eliminate/reduce the soil moisture deficit so that when it does rain, groundwater would be recharged? It is important for DRBC to have this information because the groundwater protected area regulations allow spray irrigation as mitigation in potentially stressed basins and percent recharge is uncertain. Mr. Sloto responded that the study is evaluating these types of issues.

In general, the Committee members seemed to favor encouraging spray irrigation, however, it was stated that perhaps a decision should not be made until after the results of the USGS study were completed. The issue of weighing additional nitrogen loadings vs. the need for recharge was raised. Mr. Sloto stated that these had to be considered in the context of the purpose of spray irrigating - i.e. to remove a point source discharge, need for recharge, etc.

Several State members expressed concerns over the use of spray irrigation on golf courses, specifically related to potential bacterial/pathogenic contamination and access to golf courses after spraying. Each Basin State was asked to determine what their position was on this issue and how it was regulated and permitted in their respective States.

WATER USAGE TERMINOLOGY

Mr. Featherstone stated that DRBC would like guidance from the Committee on water usage terminology and

that poorly defined terminology has led to confusion in the past. An example is definitions for consumptive use and depletive use. He requested that State members determine how these terms are defined in their respective States for further discussion at the next meeting. Mr. Lavery also suggested that staff review DRBC regulations to determine where conflicting terminology exists. This terminology should then be compared to Basin State definitions. The need for definitions for greywater and reclaimed water was also raised. Ms. Siskind said that examples of such definitions exist and could be provided to the Committee.

STORMWATER

Mr. Featherstone circulated a letter from representative David Steil commenting on an article written by Carol Collier and Janet Bowers entitled, *Droughts, Floods and Sprawl - They're All Connected*. Representative Steil stated that he was interested in further exploring the use of stormwater controls for recharging groundwater. Mr. Featherstone asked that the Committee review the letter for future discussion. Ms. Noble stated that perhaps the Committee would be interested in sponsoring a transfer session on stormwater.

NEXT MEETING

Mr. Featherstone and the Committee developed a list of agenda items for discussion at the next meeting. [[See Attachment 4.](#)] Many members felt that the list was lengthy and should be prioritized by the Commission. Mr. Featherstone agreed to ask the Commission to prioritize the list at its December meeting. It was also suggested that DRBC staff establish a website for the WMAC and Mr. Featherstone agreed.

The next meeting will be held on February 17, 2000 at 9:30 a.m. in the DRBC office in West Trenton, NJ.

ATTACHMENT 1
AGENDA
Water Management Advisory Committee Meeting
Delaware River Basin Commission
West Trenton, NJ
November 4, 1999
9:30 am

1. Committee Procedures and Selection of Chairperson
 2. Presentation of Delaware River Basin Water Use Assessment and Future Efforts
 3. Water Conservation: The Next Steps
 4. Status of Ground Water Protected Area Program
 5. Use of Wastewater Spray Irrigation as Alternative Water Supply
 6. Water Usage Terminology
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ATTACHMENT 2
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WATER MANAGEMENT ADVISORY COMMITTEE PROCEDURES

The Water Management Advisory Committee (WMAC) reached a preliminary consensus on the following Committee procedures at its first meeting held on November 4, 1999. The procedures will be finalized at the next Committee meeting to be held on February 17, 2000.

- **Voting**. Decisions will be made by consensus, whenever feasible. When a consensus cannot be reached, a vote will be taken. At least 2/3 of the members - 14 members - are required to hold a vote. If 2/3 of the members are not present at a meeting, the vote will be held electronically via e-mail. Decisions that will require a vote include Committee recommendations on which the Commission would need to take action. For recommendations on staff activities with no Commission action required, only a consensus and/or vote of members present will be required. The Committee Chair will prepare a report expressing the opinions of the dissenters including reasons why a consensus could not be reached.
- **Quorum**. No quorum is needed to hold a meeting.
- **Committee Chair**. Responsibilities of the Chair include: conducting meetings, consulting with Commission staff on meeting agendas, and reporting to the Commission once a year. The Committee will have a Chair and Vice Chair. The Vice Chair will carry out the responsibilities of the Chair when the Chair is not present. Basin State members will not serve as Chair or Vice Chair. The selection of Chair and Vice Chair will take place at the next WMAC meeting. Term and rotation will be also be decided at the next meeting.
- **Designees**. Members may send designees to Committee meetings. However, a member may only assign a designee for a specific meeting and must do so by writing a letter to the Committee Chair. The designee will have the same privileges as the member including voting rights.
- **Meeting Schedule**. Meetings will be held four times a year, unless the Committee decides otherwise.

ATTACHMENT 3

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DELAWARE RIVER BASIN POTABLE WATER USE PRESENTED AT THE WMAC MEETING OF November 4, 1999

ATTACHMENT 4

Possible Agenda Items for WMAC Meeting of February 17, 2000

1. Minutes, Selection of Chair, Committee Procedures
2. State Reports
 - Water Use Database Needs : Availability of Information
 - Service Metering: Implementation Status
 - Unaccounted for Water
3. Water Conservation - Next Steps
4. Groundwater Protected Area
 - Integrated Resources Planning
 - Instream Flow Analysis - How to do?
5. Water Usage Terminology
6. Spray Irrigation

- States to report position on golf courses and State regulations/permitting requirements

7. Stormwater - David Steil letter and possible transfer session

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