Delaware River Basin Commission

WATER MANAGEMENT ADVISORY COMMITTEE (WMAC) MEETING
MARCH 10, 2003

COMMITTEE MEMBERS PRESENT:

Janet Bowers	Chester County Water Resource Authority
William Gast	Pennsylvania Department of Environmental Protection
Dave Milan	Superior Water Company
Ferdows Ali	New Jersey Department of Agriculture
Joseph Miri	New Jersey Department of Environmental Protection
Bob Molzahn	Water Resources Association
Stewart Lovell	Delaware Department of Natural Resources & Environmental Control
Frank Schaefer	U.S. Army Corps of Engineers
Ronald Sloto	U.S. Geological Survey
John Mello	U.S. EPA Region 2
Leroy Young	Pennsylvania Fish & Boat Commission

OTHER ATTENDEES

Colin Apse	The Nature Conservancy (via telephone)

DRBC STAFF PRESENT

David Sayers	Planning and Implementation Branch
Jessica Sanchez	Basin Planner
Tom Brand	Project Review Branch
Anthony Bonasera	Project Review Branch
Robert Limbeck	Planning & Implementation Branch

CALL TO ORDER

The meeting was called to order by Dave Milan (standing in for Chairwoman Jan Bowers) at 9:40 a.m. Jan

Bowers arrived at 9:50 a.m., but did not chair the morning portion of the meeting.

REVIEW OF MINUTES AND REVIEW AND APPROVAL OF AGENDA

Minutes from the December 18, 2002 meeting were reviewed. Mr. Gast motioned to approve the minutes. The motion was seconded by Dave Milan and the motion carried. The agenda for the meeting met with approval from the committee.

STAFF REPORT AND UPDATE ON BASIN PLAN PROGESS

Jessica Sanchez reviewed progress on the Basin Plan. In December, consultants Resolve put together a progress report for the Watershed Advisory Council. The January WAC meeting focused on the process and implementation of the basin plan. What do we envision the plan to be, who do we envision to implement it and how? An issue that came up, which was actually brought up in the WMAC committee in September was: Is this a plan for the DRBC or is this a basin plan for the entire Delaware River Basin? It was clarified that the purpose of the Plan will be a Comprehensive Water Resources Plan for the Delaware River Basin (Basin Plan or BP). This is distinct from the DRBC's Comprehensive Plan.

The Basin Plan is a goal and direction setting document for water resources protection and use in the basin. It is anticipated that all water resource agencies will compare their agendas and their programs against the BP.

There is still a need for a separate DRBC Comprehensive Plan which is more closely tied to the Compact. This will be more focused than the Basin Plan, but will take direction from it; the Basin Plan is necessary because no one agency single-handedly handles everything that has an impact on water resources protection and use in the Basin. There are numerous agencies, individuals and organizations that are involved in this and need to fit into the Basin Plan.

The DRBC Comp Plan will likely reflect the KRAs and the goals that are in the Basin Plan. The framework is still a skeleton - it has the five key issue areas (KRAs), it has goals and objectives and we are developing management strategies.

Staff has put all of the documents and presentations used at the WAC meeting on a website and encourages the committee to use these resources. Jessica Sanchez noted that only KRAs 1, 2, & 3 have been drafted so far. Staff is waiting for feedback before it extends the same format and style to the remaining KRAs.

USGS PROPOSAL FOR WATER BUDGETS AND WATER AVAILABILITY ASSESSMENTS

David Sayers noted that DRBC has signed the contract with USGS to undertake both these studies. We are underway with both the water budgets and ground water availability assessments which are concurrent two year programs which should offer preliminary results after one year (early 2004).

CROSS-CUTTING ISSUES

A number of cross-cutting (multi-committee) issues have been identified during the development of the Basin Plan. One very important issue is stormwater. It cuts across a number of committees. Originally, it was taken from KRA 1 and put into KRA 3 and that group has been working on it. We have had a hard time getting New York involved and communication with Delaware has only been by memo. The instream flow issue is also one that cross-cuts, the WMAC currently has the lead, but needs to ensure consistency with work being developed by the FMTAC in its flow management efforts. Staff is trying to decide where is the best place to put it for the long term. Recreation is not so much a cross-cutting issue, but it has been difficult to develop strategies. Staff is trying to set up a focus group for recreation just to go through the issues in the plan recognizing that one of the long-term objectives is to develop a recreation plan for the basin.

INSTREAM FLOW REPORT (Leroy Young)

David Sayers noted that a technical group headed up by Leroy Young has been assembled to develop this work. The group has met three times so far and has assembled the document for discussion today. (Colin Apse joined the meeting via phone). David Sayers also noted that it is important for staff and the committee to understand the outputs of the proposed study. It is vital that the finding and outputs can be incorporated into water resources decision making and the development of other tools -- water budgets, etc.

Leroy Young reviewed the scope of work and recognized the input of people involved in its development. It was noted that there are many approaches available to accomplishing this work and one size fits all is not appropriate. Our goal is to establish instream flow protection criteria for all waters of the Delaware River Basin. In order to accomplish this, there first needs to be more stratification of systems. Instream flow requirements will vary among stream types, physiographic region, size of the drainage area, etc. Estuaries would be evaluated in a category by themselves.

An evaluation of total instream flow needs include an understanding of the flows to protect ecological systems and the needs of recreation -- which is an important consideration on several stretches of the rivers in the Basin. The management strategy the group was asked to address did not mention this issue, however it is addressed elsewhere in the Basin Plan. Jessica Sanchez noted that the Waterway Corridors Committee has responsibility for this aspect of the plan but there hasn't been much progress with it, hence the setting up of a focus group.

Leroy Young then discussed Table 1 attached to the Instream Flow Report, which was distributed. The table illustrates the applicable methods for determining instream flows based on several factors including physiographical province, stream type, geology, size etc. The table is to be used as potential methods, not preferred methods.

Leroy Young then went into more detail about how the study could be carried out:

1. Recommend this be initiated as a pilot study on one physiographic province, possibly to include the Upper Delaware. There are differences between an unregulated typical stream and the Upper Del. System, but there's a lot of interest in the Upper Delaware. Leroy recommends that the pilot not only be on the Upper Delaware. Another place the pilot could be done is the Piedmont. NJ is doing work on the Piedmont and there is quite a bit of data already available on it. NJ is also using the RVA approach.
2. Recommend the study use biological and hydrologic data that's already available. Specifically data that can be used as indicators of stream health. Not recommending that additional field work be done. We would look to NJDEP, PADEP, USGS, Academy of Natural Sciences, and Fish & Boat Commission.
3. Classification into stream size, geology, possibly gradient. State of Michigan is doing work along these lines, we could pull in their knowledge and see if we can apply it.
4. Recommend looking at what data are available and what can actually be used as an index of stream health. Similar to #2 above. Decisions need to be made as to the type of data to be used, fish data, etc.
5. Wetlands. Riparian wetlands, what kind of data is available that could be used to express the health of the systems. Is anyone collecting data that could be used to develop some type of an index or measure of the health of the systems?
6. For the streams with biological indicator data of sufficient quality, a record of daily stream flow should be developed. It recommended having at least 20 years of data. If the flow data are not available from a gauge then the flow records should be synthesized using appropriate statistical procedures for those systems.
7. The RVA statistics should be derived for each set of flow data.
8. Recommend a comparison be made between the alteration of these systems and establishing some kind of baseline condition. How that's done will take a lot of thought and discussion as it represents a crucial factor in the study. The goal is to establish indicators of hydrologic alteration. How does the natural

regime compare to the current flow regime in that system.

9. Look at how the variation in the biological scores can be explained by the indicators of hydrologic alteration. Which hydrologic factors best correlate to the biological indicators. The goal would be to develop a relationship between those indicators and the biological scores. These relationships would then be used to build a model for predicting the likely impacts of future, additional changes to stream flow.
10. Ultimately decisions will be needed to develop boundaries for the degree of biological impact that would be acceptable. This is where policy making takes over from the scientific assessment.

By evaluating how the natural flow regime has changed and linking that to how the biological system has changed, we can look at not just one aspect of the ecosystem, but at many aspects of the ecosystem. The question to be asked is: "How much can the natural flow regime be altered?"

Joe Miri noted that this study will enable us to look at what the future might be like and what ideal flow regimes might look like and the effect of altering them. Have we really established the relationship between flow and conditions? What are the real impacts of the existing flow regime? Shouldn't we figure that out first? We need more information about flow management in the basin.

Staff felt that two significant questions that remained were: who should do the study and how much will it cost? The committee felt that even without these things fully resolved they had enough information to recommend to the commissioners that DRBC pursue a pilot instream flow study following the recommendations of the instream flow committee and the proposed scope of work. Mr. Gast requested that the vote wait until after lunch so that it could be reviewed further. However after some further discussion and clarifications the vote was taken and the motion was carried.

LUNCH 12:10 p.m. to 1:10 p.m.

COMMENTS ON DEVELOPMENT OF KRA 3

Chester County Water Resources Authority had sent detailed comments on the Basin Plan to DRBC staff. Jan Bowers gave a short summary of those comments, noting especially issues relating to objectives under the purview of this committee, or issues they are closely aligned with. In efforts to try to change KRA 3 to get away from land use issues, a number of changes, deletions and re-writes have been made by the Land and Water Committee. Consequently, Integrated Resource Planning (IRP) now does not appear in the plan document at all. There is no place that references that as a technique tool or strategy among the objectives. Forest and riparian corridors are not referenced or mentioned in the document at all either. Source water protection is not referenced. Education is probably the most important thing that can be done to build different value systems and different understanding to protect water resources and to use them better. Effort should be made to reinforce this point. Jan Bowers encouraged everyone to look at the education KRA and suggest ideas or strategies. It was also suggested that the committee take the time to go to the website and read over all the documents and the framework document and pay attention to the alterations that have been made by the other committees.

WATERSHED AND INTER-BASIN TRANSFERS

David Sayers noted that although the committee has already spent time discussing this topic there is a need to revisit the issue to develop something more meaningful for the Basin Plan which is supposed to be somewhat of a direction setting document. The WAC originally decided to separate the issue of inter-basin transfers from inter-watershed transfers, creating separate objectives for each. The committee had then merged the two together, avoiding any contentious language, stating that a program to manage transfers was necessary. Two questions that need to be answered are: 1) Is it correct to look at an inter-watershed transfer differently than an inter-basin transfer? 2) What could be salvaged in the way of direction setting language from the initial

wording that may be useful?

Joe Miri thought that preventing further inter-basin transfers of water seems somewhat unjust given the existing situation with NYC exports. If we wish to make changes to the status quo then perhaps other things should be up for grabs.

Bill Gast noted that the changes proposed by the Committee watered down the objectives language, but the management strategies (the fundamental action items) stayed the same. The committee chose to combine the two original objectives because it didn't see fundamental differences between managing the inter-basin and inter-watershed transfers and struggled with some of the terms that were not well defined (e.g., no feasible alternatives).

Bill Gast suggested the following language: Manage future and expanded imports to and exports from the Basin and also its component watersheds. Employ BMPs to ensure environmental benefits to sending and receiving watersheds, minimize negative environmental impacts while giving consideration to the needs of the sending and receiving basins.

Jan Bowers felt there was a need to retain the term "discourage" which exists in DRBC's Water Code language relating to inter-basin transfers. However adding this may cause a conflict as inter-watershed transfers are not currently discouraged and are even encouraged under the regionalization section of the Water Code.

Tom Brand felt there was a need to split the two issues as, in his opinion, intra-basin projects tend to resolve themselves. It is almost inconceivable that a regional supply solution would be proposed with its source in a small or water-stressed watershed. If the withdrawal is completely disproportionate to the source then it will be rejected anyway under normal review criteria.

Jan Bowers noted that we might strive to maintain the water balance for each watershed, on a HUC 11 or HUC 14 basis. Water budget work currently underway will help assess this. Joe Miri noted that dealing with intra-basin transfers was somewhat analogous to reuse -- there really is a need to weigh each decision on a case by case basis and as such it limits the ability to write powerful direction setting language, which also has some flexibility to it.

The committee agreed that the two issues should be dealt with in separate objectives.

Bill Gast observed that we are not pushing the envelope when it comes to inter-basin transfers. In the Great Lakes Basin there has to be a demonstrated environmental improvement in order to divert water out of it. Jessica Sanchez asked the committee if we want to adopt this -- is this closer to what the Watershed Advisory Council wishes to see?

The following possible objectives were proposed and will continue to be discussed at the next WMAC meeting.

KRA 1, Goal 1, Objective D:

> ***Discourage any expanded or future transfers into or out of the Basin that do not result in an environmental improvement to the Basin.***
>
> OR
>
> ***Discourage and manage inter-basin transfers. Employ BMPs to maximize environmental benefits and minimize negative environmental impacts (disbenefits) while giving consideration to the needs of the sending and receiving basins.***

KRA 1, Goal 1, Objective E:

> ***Manage future and expanded transfers of water and wastewater among watersheds to minimize negative environmental impacts and with consideration of the needs of sending and receiving watersheds.***

REVIEW AND APPROVAL OF BASIN PLAN MANAGEMENT STRATEGIES

This agenda item was not discussed.

MEETING ADJOURNED

The meeting concluded at 2:45 p.m. The next meeting date is May 7, 2003. There is also a meeting (tentatively) for April 16, 2003 to discuss development of the KRAs for the Basin Plan.

Questions?

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