

MINUTES OF BOARD MEETING # 437

April 12, 2005 12:00PM

Members Present:

Daniel W. Varin, Chairman
William Penn, V. Chairman
Timothy Brown
Robert Griffith
William Parsons
Frank Perry
Jon Schock
William Stamp, III
Doris Aschman*
Alicia Good*

Members Absent:

*Member designee

Staff Present:

Kathleen Crawley
Elaine Maguire
Brian Riggs
Tracy Shields
William Rivero
Thomas Walker

Guests:

James Campbell, USGS
Alison Sobel, Brown University
Meg Kerr, Rivers Council
William Falcone, CEI
Pasquale DeLise, BCWA
Mary Murphy, Bureau of Audits

1. CALL TO ORDER

With a quorum present, Chairman Varin called the meeting to order at 12:09 PM.

2. APPROVAL OF MINUTES:

On a motion by Mr. Perry, noting a correction on page 4 to change the Public Drinking Water Protection Committee to the Property Committee, seconded by Mr. Stamp, the Board unanimously approved the minutes of the March 2005 Board meeting.

3. CHIEF BUSINESS OFFICER'S REPORT

Mr. Penn stated that the Finance Committee reviewed the report and recommended approval. He advised that the .0166 water surcharges revenues were below last year and that the Committee is unsure why although it appears that there is less water being pumped through the systems. He noted that it does not appear that the surcharge revenues would meet the budgeted target of \$5.1 million dollars this year. Mr. Schock felt that things were expected to return to normal. On a motion by Mr. Penn, seconded by Mr. Schock, the Board unanimously approved the Chief Business Officer's Report dated March 2005.

4. CHAIRMAN'S REMARKS

Mr. Varin reported that he and Ms. Crawley met with representatives of the Department of Administration and the Department of Environmental Management to view available space at the Department of Environmental Management Offices on Promenade Street. After viewing and consulting with the prior DEM Acting Director, it was decided that the space was inadequate. He noted that he, Ms. Crawley and Ms. O'Keefe had attended a

thesis presentation by a Brown University graduate student on March 22. The Chair and Ms. Crawley and Ms. Maguire testified on March 29 at the House Committee on Finance on the bill regarding, "A study committee to identify surplus property at the Big River Management Area." The Chair also testified at the House Committee on Environment and Natural Resources on April 6 on the bill that the Board had previously reviewed concerning water systems supply management plans. He noted that the hearing did not seem to favor the objections of the water suppliers. Various groups commented that they needed to review the full plans and not just the executive summaries. The Chair noted that the companion Senate bill would be heard on April 13 by the Environment and Agriculture Committee. This concluded Chairman Varin's report.

5. GENERAL MANAGER'S REPORT

Ms. Crawley, Acting General Manager, noted that Big River projects including the AMGEN parking lot grass reseeded, the land use update, fair market appraisal, lead assessment, annual clean-up, and Phase VI selective cutting were well underway. The land use purchase order had been issued and the contract had been awarded. The BRMA team has met three times, twice with RIDEM to determine what data exists and to begin to define the follow up scope of work for the Big River ecological assessment moving forward to develop groundwater supply. Ms. Maguire worked with Colonel Gareau to organize two helicopter tours providing an aerial view of the state's water resources. The first flight was last week. Board members Jon Shock and Bob Griffith joined us along with members of the Senate and House fiscal staff, DEM and our Budget Analyst, Liz Leach. The next flight will be on April 20. Thanks to hard work by Ms. Maguire and White Appraisal, the fair market appraisal is proceeding rapidly. Over the weekend, Ms. Maguire worked with the appraisers and together they have completed 29 of the 39 site visits required. Ms. Crawley and Ms. Maguire also attended the State Properties Committee meeting for the approval of the Coventry Girls Softball Field. Ms. Crawley noted that *The Coventry Courier* had written some excellent articles about Big River thanks to Ms. Maguire's hard work, and the thoughtful insights and knowledge of Chairman Varin. (Copies were provided.)

Mr. Riverso's Groundwater Protection Acquisition negotiations are moving forward. Mr. Riverso and Ms. Crawley met with Mary Kay and Lisa Primiano to review all sites and move forward on those with willing sellers. Mr. Walker prepared an excellent analysis of the sites using various parameters to further assist in setting priorities. Mr. Riverso is also following up with suppliers on their land acquisitions and attending the monthly Rivers Council meetings. Mr. Riverso also finalized, with input from the suppliers, a summary of the rates survey, comparing rates statewide. It was well received.

Ms. O'Keefe has prepared a final draft of the implementation report for the water management effort and anticipates distributing the draft for review within the next few weeks. She organized and prepared minutes from a first meeting with the Water Suppliers, which were distributed to all suppliers and made available to Board members. Ms. Crawley had received positive feedback from some suppliers that were unable to attend. Ms. O'Keefe had also participated in several team meetings designed to coordinate water allocation, supplemental water, water reporting and data projects. Ms. O'Keefe and Ms. Crawley also participated in the Land and Water Conservation Summit at URI.

Mr. Walker's emergency interconnection program is progressing with the North Tiverton and South Kingstown projects. Mr. Walker reviewed the Bristol County Water Authority RFP and is currently reviewing the latest Supplemental Water Supply Study progress report. Maguire Group met with Mr. Walker, Ms. O'Keefe and Ms. Crawley to present the progress report.

Ms. Crawley stated work with the Rivers Council continues with Meg Kerr making a presentation to the Board today. The Board also continues to work closely with Brown University's Environmental Policy Program, the State Planning Council's Technical Committee and the Governor's Bay Coordinating Team. Rich Ribb has been announced as the new Chair. This month Chairman Varin, Mr. Riggs and Ms. Crawley attended the budget hearing. The Chairman, Ms. Maguire and Ms. Crawley also attended the Moffit hearing regarding a Resolution to Create a Commission to study giving all or a portion of the Big River property back to the original owners. In preparation for today's meeting, all staff worked hard to prepare the program budget designed to inform the upcoming capital and operating budget planning process.

As you may be aware, Ms. McGreavy resigned her position to accept employment in the private sector. Her last day was March 30. We have received approval to post the position. The advertisement ran in the *Providence Sunday Journal* on Sunday (April 10) and the job is posted on the state's website. Closing date for applications is April 22 and several applications have been received.

6. COMMITTEE REPORTS AND ACTION ITEMS RESULTING

A. Public Drinking Water Protection Committee—Chair, Robert Griffith

(1) Supplemental Water Supply Study Phase II:

- (a) Maguire Group Invoice #8—Payment Requested: \$17,297.00; Recommended payment: \$17,297.00. Request for Approval

Mr. Griffith stated that this request was for Phase II of the Supplemental Water Supply study. It is a continuation of the first phase of the study, which dealt with supplemental water supply needs in the Providence Water Supply Board's service area. This second phase of the project complements the first phase and is exactly 17.4 percent complete. Mr. Griffith moved to approve the amount requested with Mr. Stamp seconding. Chairman Varin called for a vote to approve the payment, which was unanimous.

(2) Water Supply Systems Management Plans (WSSMP)

- (a) North Kingstown—WSSMP—30-Month Interim Report, Amended—Request for Approval

Mr. Griffith stated that this request was for approval of an amended interim report. Mr. Griffith noted that staff had circulated the report for comment. One agency response was received and there was some question as to reducing non-account water and issues regarding definition of non-metered water use. Mr. Griffith made a motion that the plan, as amended, be approved, with a second by Mr. Perry. The motion carried unanimously.

- (b) City of Newport—WSSMP—30-Month Interim Report, Amended—Request for Approval

Mr. Griffith noted that this request was also for approval of an interim report. One agency review was received and the response was considered adequate and complied with the requirements of the rules and procedures as amended in October 2002. Mr. Griffith moved approval with a second by Mr. Parsons. The motion passed unanimously.

(3) Water Allocation Program

- (a) US Geological Survey Presentation—Long-Term Project Planning, Briefing—Request for Acceptance

Mr. Griffith explained this presentation was pursuant to building the Board's capital budget request for the coming fiscal year as well as out years.

Mr. Campbell, RI Water District Chief, US Geological Survey, explained that this is an annual process with the Water Resources Board. He noted that the funding levels for the fiscal years (federal) 2006 – 2010 were included in the packet he had distributed to members, and that 2011 would be added to the plan. He requested that the members remember this was a conceptual plan done annually and subject to change. It does build on US Geological Survey's (USGS) existing program with the Board, and supports the updated planning for water allocation. He stated he would discuss the existing databases, the existing program and its status and the new, proposed projects for 2006. The Board funds 8 stream gauging stations and all of that data is presented on the Internet. He noted that it gives the citizens of the State of Rhode Island comprehensive data on stream flow and that the site gets 10,000 "hits" daily. The Blackstone HSPF Modeling project is on schedule; the model is currently being calibrated.

However, a technical advisory committee must be established to create scenarios, which are ways to test the model—looking at future build out, projections, etc. This is usually done by committee so differing opinions are considered as to how to use the model to benefit the people in the Blackstone.

The low flow project will give the Board better numbers for flow statistics throughout the state. This project is a little behind schedule because it is actually based on a national hydrography data set, which is being done by the USGS nationwide and that has been behind schedule. They will be building on that data set to get the physical characteristics needed to do the regression equations. This data set will be used by the Environmental Protection Agency (EPA), Department of Environmental Management (DEM) and all the other environmental agencies as the basis to identify stream reaches throughout the entire country. The good news is that they have collected a lot more data for the low flow estimates. It will be quite an enhancement on the other work that was done 12 years ago. They are actually looking at 39 sites in Connecticut, 38 sites in Massachusetts and 135 sites in Rhode Island. This should give good numbers regarding flow statistics or low flow period.

The Big River Ecological Assessment is proceeding. The objective is to evaluate the ecological impacts due to well development in the lower reaches of the Big River Management Area based on the optimization work. Regarding the optimization report, it should be presented to you at the May meeting.

They have also had 3 meetings with DEM, University of Rhode Island (URI) and Brown University in an effort to scope out that work—considering what is required by DEM and all interested parties to evaluate that impact to the environment based on the development of those wells.

The new projects that are scheduled to begin this July are: water use development work; water use atlas and a drought model for the Hunt/Annaquitucket/Pettasquamsett “HAP” area. There is an optimization model developed for the HAP watershed area.

The water systems supply management plans database and the NEWUDS database are both complete and operational. The difference between the two databases are: the water systems supply management plan database houses all your engineering information, your production information, demand and other critical elements are included in that database. The NEWUDS database contains water use component information that has been developed by the USGS and is broken down by the different water use entities—agricultural, industrial, commercial or residential. However, both databases are in Access; they are compatible and information can be transferred between the two with relative ease.

The objective of the summary data is to merge 6 budget databases that were created with evaluation of water use throughout the State of Rhode Island and to get the current (2004) information included so that when we start the new work, the data will be the most current data available when we work with the town planners.

For the summary atlas, we will compile all the various digital data available including water use and water availability information for the different towns across the state. It will be done on a town-by-town basis and is in NEWUDS that way and is also in by watershed. The USGS will produce a CD-ROM for each town for the use of the town planners. Coverages presentations themselves are available in GIS and from the water use work—it builds on the work we have done. Water withdrawal information will be done as a coverage; our water availability from each one of the different flow statistics will be a coverage as well as the ratios and the return flows. It all will be done by sub basin in each of the towns. If you use Cumberland, as an example, important information includes: they import 7.32 mgd; however, they export 11.7 mgd. This is the type of information needed by town planners. This is the goal of this project—to take important withdrawal information from the USGS NEWUDS database, our summer estimated availabilities, our ratios to get at the stress (this will come from an ESRI product—ARC Reader), which is free-ware and will be on the disc provided by USGS so the planners can access real time data for their own town and make decisions regarding future

growth and development. The HAP drought model builds on the optimization model done in the HAP. What will be done differently is that we will examine the statistical analysis of the drought indices and merge this with the drought plan. So the drought indicators will be merged with the optimization model and establish a ground water withdrawal operation plan for each one of the drought phases—statistically based. This will entail reviewing all the statistical drought indices reviews in a drought plan, whether it is the Palmer Drought Index, the ground-moisture index, and precipitation. These different indicators will be evaluated and correlated with our different drought phases. For example, looking at precipitation levels coming into the Fall, you will have some level of confidence that you may have a 50 percent chance of going into a Drought Watch that year. You will have an operational plan for the water supply system in the HAP to pump water differently because of those indicators showing there is a high probability of going into one of these phases that summer, and there will be a different plan for each of the different phases. This is the goal of this project. This will be a predictive tool indicating likelihood of going into drought phases and how operations should be adjusted to accommodate these situations.

Mr. Griffith noted that enclosure 6 containing the memorandum from Ms. Crawley explains the USGS cooperative program and what a “conceptual budget” is; and contains a spreadsheet showing a 5-year budget, including the current and the five out years beginning with Fiscal Year 06, with the sources of funding indicated at the bottom. Mr. Griffith stated that what the Board members were being asked to approve was this conceptual budget for planning purposes. What Mr. Campbell had just discussed is what the Board would be buying with this budget assuming all of it is approved for the next 5 years as conceived. However, he noted that these 5-year plans can take a difficult track. Still both the Board and USGS need to have a basis for planning and this is it. Mr. Griffith moved acceptance of this conceptual budget for capital budgeting purposes with a second by Mr. Perry.

Mr. Penn asked if the Board would be spending \$5.8 million on these projects over the next 10 years; Mr. Griffith noted he was correct. Mr. Penn wanted to know what kind of return the Board was getting for \$5.8 million. Mr. Griffith responded that what the Board was getting was a forecasting and a management tool, which the communities can use to maintain a more accurate understanding of how they are using their water and how changes in the weather affect their ability to continue to manage their water almost in real time. Mr. Griffith noted this has particular application in drought circumstances, but also has application for the water allocation program, which the General Assembly required the Board to develop. It will also enable both the Board and the various water suppliers at the local level to develop better strategies, and merge the water element of their respective comprehensive community plans more effectively as they look at opportunities for development and potential pros and cons of available choices in the out years.

Mr. Penn inquired as to what kind of decisions will or will not be made if the \$5.8 million was not expended this way over the next 5 years. Mr. Griffith explained that the sort of decisions this would enable are: pumping levels in drought situations. It will enable water managers to speak with much more authority when they go to their municipal officials and say that every indication is that there will be reduced levels by the end of August, and we must request/require users to conserve in the following areas for example. Mr. Griffith noted that although \$5.8 million is a lot of money, over the time frame, it averages to about \$1 dollar per year per person in Rhode Island.

Chairman Varin stated that this is essential data that the Board is using and needs more input into the water use and allocation program where, sometime in the foreseeable future, the Board will be able to notify each municipality and each watershed for that municipality of what kind of future development they can support, and in some cases, the news will be negative.

Mr. Stamp noted that the Board had a responsibility through the riparian aspect of water to review good data to enable it to make decisions in allocating water to the right place, and this is the tool for it. Despite his being conservative from a fiscal standpoint, he acknowledged that the right data and the right facts and numbers would enable the Board to defend its uses. He stated that the agricultural

community was interested in protecting its right to use its water within the community. This would serve as a tool to manage water within the municipality, and stated that regardless, it would not be easy.

Mr. Griffith stated that often the public sector bases its decisions on anecdotal evidence, and this tool provides empirical data that the Board could use more effectively in managing water as a resource in conjunction with the local water suppliers. The water officials are more likely to respond positively to hard numbers.

Mr. Schock asked if this would provide safe yield figures. He was concerned about how many new connections could be allowed before the threshold would be exceeded. The Chairman responded that this is the critical information that would be coming out of the water use and allocation plan. This will also enable the Board to give the municipalities coefficients of water use by different activities, residential, and so forth, so that they may estimate how much additional housing, etc., they can afford. The reason this may be bad news for some is that some communities have comprehensive plans and zoning ordinances that will accommodate hundreds of new dwelling units and the available water to those units will be substantially less.

Mr. Schock stated that it was not so much the coefficients for new dwelling units or even industry, which concerned him, but rather what the “magic trigger number” would be. Mr. Griffith noted that there was still healthy debate concerning water allocation regarding development. Currently, a range seemed likely rather than a “bright line,” because the amount of water which comes in on an annual basis will change as the Board saw with the penny money, and the amount of water used will change. However, this provides the Board with a tool to notify the communities that they are approaching the 20 percent or the 10 percent range of total available water in their respective communities or that portion of a community served by this particular sub basin. If the level of development in the comprehensive plan continues in its current manner, you will not have enough water and the alternatives will not be politically palatable. While it is not 100 percent, it is far more effective than any tool we currently have.

Mr. Griffith moved acceptance of this conceptual budget for capital budgeting purposes with a second by Mr. Perry. The motion was approved unanimously.

B. Property Committee—Chair, Frank Perry

Mr. Perry did not have anything to report under this item.

C. Construction, Engineering and Operations Committee—Chair June Swallow

Ms. Swallow had nothing to report under this item.

D. Finance Committee—Chair William Penn

Mr. Penn stated this committee had one item under “new business” that it wanted to present to the full Board.

E. Legislative Committee—Chair Daniel W. Varin

(1) 2005 Legislation

(a) H-6172 **Sub A** Relating to Waters and Navigation (Separation of Powers) Recommendation – For Discussion

Chairman Varin explained that this bill pertains specifically to the Water Resources Board. He noted that the language commenced at the bottom of the second page and that the language expanded the Board to 15 members, it set broad qualifications for some of the members, adds an ex-officio from the Coastal Resources Management Council, and leaves only one general member.

Mr. Perry stated that the definition of a “large public water system” meaning a supplier pumping more than 50,000,000 gallons per year was still relatively small. Ms. Crawley explained that that figure had come from the water systems supply management plans. Mr. Schock asked how many there were, and Ms. Crawley responded that there were 28. When Mr. Perry asked if the “28” were small systems, Ms. Crawley responded that there were over 400 small public water systems. Ms. Crawley asked if Ms. Aschman (DOH) agreed with that figure, and Ms. Aschman explained that the definitions used by the Department of Health were incompatible with those used in the legislation, but agreed that there were over 400 small, including transient systems. Ms. Crawley noted her understanding that the Health Department had offered testimony on this bill as well.

Mr. Perry explained his concern was considering the requirements placed on the membership later in the bill that most of these small systems would not have a representative willing to meet the requirements.

Chairman Varin noted that the Board had not to date offered any recommendation. The Governor has strongly objected to the specifications for the various members. The Chair recommended taking no position, and Mr. Perry explained that he was not recommending objecting—he simply wanted everyone to be informed. Mr. Penn asked if there were specific requirements regarding the “finance” person as “finance” is a broad field.

The membership agreed to take no action on this item at this time.

(b) S-0461 Water System Supply Management Plans—Confidentiality
H-6091
Report on House Environmental Natural Resources Committee

Chairman Varin stated that this item was a bill that the Board as a whole had opposed at its March meeting and confirmed that he had given testimony to that effect at the House hearing, and that the Senate bill would not be heard until 4:00 p.m. or 4:30 p.m. on April 13, 2005.

(c) S-0958 Public Drinking Water Supply – Cross Connection Control Plan
Recommendation – For Discussion

Chairman Varin stated that this was a bill, which he believed the Department of Health had supported previously and asked Ms. Aschman if this statement was still true. Ms. Aschman explained that it was a bill, which the Department had submitted in past years, and did still support. The Chairman called for a motion. Mr. Perry noting that this bill had been introduced at the request of the Kent County Water Authority made a motion to support this bill with a second by Mr. Griffith. The motion carried unanimously.

(d) S-0966 & H-6235 Hydrant Tampering
Recommendation – Support

Mr. Schock noted that the RI Water Works Association had introduced a similar bill approximately two years ago and it had failed. He explained that he believed that committee had been concerned with children opening hydrants being charged with a felony. Mr. Schock explained that in South Kingstown there was a real problem with hydro-seeders hooking up the hydrants. Mr. Perry added that Kent County had had a contamination problem with a hydro-

seeder that had hooked up to a hydrant and pumped mulch into that system. Chairman Varin stated that two or three years back, Lincoln had been concerned with swimming pool water suppliers taking water out of their hydrants without permission. Chairman Varin requested a motion for support. Mr. Griffith so moved with a second by Mr. Schock. The motion was unanimously approved.

(e) S-0978 41 Park Lane, Maple Root, Town of Coventry Recommendation – For Information Only

Chairman Varin explained this item resulted from the last Board meeting. Senator Raptakis introduced this bill as a way to solve the Maple Root matter. Ms. Crawley stated that the Senate had recommended approval and the bill was passed to the House. The Chairman stated that this item was presented for information only. The Board took no action.

(f) Bills received/status updates since distribution of agenda

The Chairman asked if there were any, and Ms. Crawley responded that there had been a bill adding one member to the Joint Committee on Water Resources. Mr. Perry explained further that it changes the membership from seven to eight members, and it changes the appointment of the chair. Rather than electing a chair, there are co-chairs appointed by the Speaker and the Senate President.

F. Strategic Committee—Chair Daniel W. Varin

Chairman Varin did not have anything to report under this item.

G. Personnel Committee—Chair Jon Schock

Mr. Schock did not have anything to report under this item.

7. NEW BUSINESS

(1) Kent County Water Authority: letter regarding conservation

Chairman Varin asked if either Mr. Perry or Mr. Brown would like to address this issue. Mr. Perry stated that the Kent County Water Authority (KCWA) believed that the Water Resources Board needs to take a larger role in water conservation by establishing conservation measures that would apply statewide. Mr. Perry explained that the KCWA was between areas where conservation measures were routine and areas that do not apply conservation measures. Consequently, the Authority is frequently questioned by the public as to why they must follow the restriction, but a neighbor does not. The KCWA's position is that water availability is not a local problem; it manifests itself in local areas, but it's a statewide problem. Simply because there is sufficient water at a particular point in time in a particular part of the state and not in another, the water must be transferred. This Board is working on transporting the water from regions where it is sufficient to those areas where it is needed. The KCWA believes it is time for this Board to establish statewide conservation measures, i.e., odd-even outdoor watering restrictions and so forth.

The Chairman noted that the message was in the last paragraph of the last page of the letter in which Kent County is requesting the Board pursue this course of action. He explained that he and Ms. Crawley had had a brief discussion, but had not determined an approach yet, but assured the members they were working on this issue.

Mr. Schock stated that the state is so small, but the water availability and demand is diverse. He noted that many South Kingstown residents commute to Providence where there is usually not a problem, but when they return on the weekends, they do not want to be denied the opportunity of outdoor watering on the weekends. He continued that even in his town, which is right on the water, he has more of a problem on the weekends than United Water. So, even within a community, there can substantially different demands on the different water systems. He acknowledged that he did not have an answer, however, he realized that the people in Providence where the water is plentiful would probably not be amenable to having restrictions placed on them, while in the areas where the ground water is suffering, the residents are less apt to object.

He believed it is confusing to have some utilities implementing restrictions and others not doing so, and even between the systems imposing restrictions, the restrictions are different. Still, he does not know what the answer is.

Chairman Varin acknowledged that there is a problem. Mr. Perry referred to the differences in the water rates among the suppliers statewide. He explained that the areas in which the rates were highest are in those areas, which implement conservation measures. Conservation is a double-edged sword for a water company—they make money by selling water and yet there are times when they must tell someone they do not have the water to sell, which cuts the revenue to the supplier.

Mr. Stamp asked if the solution was to build a storage facility that could provide adequate water to those areas in need. Chairman Varin stated that this might be part of the solution, but not by itself alone.

Mr. Griffith concurred with Kent County's concern but referred to the last sentence in the last paragraph on the second page in which KCWA states its belief that this Board has the authority to do this and that it is the only agency with the necessary influence to be heard on the issue—this not a concept he accepts. If the Board does have the authority to do this at this time, he believes it is an issue within the water allocation issue and there had been discussions regarding what water allocation was, how it would be accomplished and he did not believe any consensus had been reached to date. Currently, the only way that the State can impose water restrictions across the board is if the Governor declares a drought emergency. Mr. Griffith stated that he did not believe the Board would be well served to try to derive outdoor water demand management authority from that particular power of the Governor. It is something that must be done, however, the tools that the Board will derive from the cooperative program with USGS to support the allocation program will certainly enable it to do so. However, he disagrees that the Board has the influence necessary to evoke that kind of authority even if the Board has this power in statute.

Mr. Penn stated that he believed the Board should take on the public policy issue adding that much of this problem had to do with education—that the average consumer does not realize that there is a limited amount of water. A statewide policy for conservation makes sense to which Mr. Griffith agreed. Mr. Griffith cautioned however that doing something this summer or next would stir controversy. He specified the demand management section of the water supply systems management plans are all over the map. He stated that more than once state agencies having the best intentions have conflicted with local prerogative. He reminded members that this was New England where the cities preceded the states and the states preceded the federal government and the last thing to tamper with is local control.

Ms. Good noted her agreement with Mr. Penn that there is something that this Board can do which may not get to Mr. Perry's issue on the conception side from one supplier to another, but the other thing the Board can do is technical assistance through water audits, etc., to improve conservation.

Mr. Griffith again noted his agreement, but wanted to proceed realistically.

Mr. Stamp stated that conservation measures do have an impact on use, but also the Board has a leadership role in making decisions that would benefit the state in the future and encourage the community to better itself. While conservation may help in some fashion, usually when you get into a control approach it actually takes control out of the Board's hands because when rates are high enough or (conservation) measures are implemented, you will see everyone scrambling to find ways to get water cheaply and there are ways to accomplish this. He would like to see the Board take a leadership role in meeting those needs, which might mean building the reservoir, building storage facilities, etc.

Chairman Varin acknowledged that there was no comprehensive answer, but that today's discussion would help the Board to proceed on this issue. Mr. Perry stated he was pleased to hear today's discussion nevertheless. He added that while KCWA had the problem today, later other suppliers will also face this issue, so the Board must continue to work on this challenge. He also stated that it might be time for local prerogative to step back.

Mr. Schock noted that one thing that the General Manager has done every year is send a letter to the suppliers encouraging conservation. He would like this to be done again this year, and he stated that he believes the larger problem is reaching the consumer. This society has an insatiable appetite for a green lawn and until that attitude changes, this problem will remain. He stated that their production in the winter is approximately 250,000 gallons a day and in the summer it peaks at 1.2 mgd. The question becomes do they build a \$3 million or \$4 million storage tank to satisfy peak demands on a weekend for 8 weeks out of the year—no. The people must go without their outside lawn watering on the weekends.

Mr. Stamp asked about price reflection—peak demand, you must pay this price for peak demand. Mr. Schock advised him that there were people who would pay the price. Mr. Perry agreed and Mr. Griffith pointed out that the water bills are not received until after the fact. Mr. Perry continued that there are many approaches. One approach is to implement seasonal rates, however, this approach is not practical for most suppliers. KCWA is not staffed or equipped to bill monthly—they bill quarterly.

Mr. Griffith noted that the water suppliers were requesting support to go to their users and tell the user to turn off the tap. Mr. Stamp asked if that went back to the issue of riparian rights. Mr. Griffith elaborated that it was not just that, the suppliers were subject to local political pressure far more than the state. He believed one approach the Board should consider was to develop an educational program which might include technical assistance, but would also include on-going education of the public to inform the direct user of why this is necessary and what can be done while attaching a budget to these measures. Mr. Griffith stated that the only time the state has had a successful state water conservation program is during crises. It is not ideal to develop an approach during a crisis. It must be on going.

Ms. Good stated that many ideas came out of the Drought Committee during that emergency, and it might be worth looking at those ideas now. Ms. Crawley added that the work of the Water Allocation program should result in some local ordinances that will support the work of the suppliers, which does not happen now.

Mr. Varin stated that the staff would proceed in accordance with today's comments and will report back as soon as possible.

(2) State Police Barracks Proposal

Chairman Varin informed the Board that a meeting with the State Police had been held last week. The State Police are one of the many users of the Big River Management Area. A question that they raised was referred to both Board and Board Corporate legal counsels. No answers have yet been received, but when the answers are received, the Board will be informed.

(3) Committee Contract Progress and Payment Authority Defined

Chairman Varin stated that this had been discussed at the last meeting. This dealt with delegating responsibility for administering contracts and grants prior to their closure to the appropriate committees. Mr. Penn acknowledged that he had introduced this item and staff had researched the by-laws, which do allow this. However, it will require some changes to procedures. He noted that the last page of the enclosure listed the changes to both the Public Drinking Water Protection Committee and the Finance Committee. The Finance Committee reviewed these changes and there were some edits that they would like to introduce. In the first bullet, they would like clarification: to review and approve invoices *except for final reports and final invoices*. In the second bullet, Board and Board Corporate *for office equipment* (not just the Konica copy machine), and they would like to add a fifth bullet, which states: *All change orders and contract amendments shall be approved by the Board*. This will solve the routine payment requests from consuming so much of the full Board's time. Mr. Penn moved adoption of this policy change with the subject edits; Mr. Stamp seconded. Mr. Griffith asked if all members of the Public Drinking Water Protection Committee had had the opportunity to review this, and whether or not they were

comfortable with it as he would have preferred taking it up at the committee level. Consequently, Mr. Penn withdrew his motion and suggested it be taken up again at the May meeting. Chairman Varin suggested an appropriate motion would be to refer it to all the committees and request that they report back at the next meeting. Mr. Stamp seconded the change. Chairman Varin stated that the committees would approve things that are in progress, but the Board must take action to start any contract or any financial arrangement, and then must take the final action to accept the final product and make the final payment. Again, the delegation of these items is to eliminate routine items from the full Board agendas. The motion with the change to refer back to committees was made by Mr. Penn, seconded by Mr. Stamp and passed unanimously.

(4) Program Budget Review

Chairman Varin stated that this was for Board members to review and would be on the May Board agenda for a vote.

(5) Rivers Council—Presentation/Update, Meg Kerr

The Chairman noted that under legislation passed last year, the Board was currently operating the Rivers Council. The Rivers Council is an “associated function” of the Rhode Island Water Resources Board. Meg Kerr is the Chair and Director of the Rivers Council and she will update the Board regarding what is happening and how the integration of our functions is proceeding.

Ms. Kerr explained that the handouts included the 2004 Rivers Council Annual Report that is being printed and a folder from the Rivers Council conservation summit, which Ms. Crawley had referred to in the General Manager’s report. She thanked the Board for the opportunity to present and stated the Council was pleased to be an “associated function” of the Board, noting that previously the Council was associated with the Department of Administration/Statewide Planning. The initial thrust of the RI Rivers Council was very planning oriented so that worked well. Now the council works more on local empowerment, working with local watershed organizations, which she would elaborate on later. This will work well with the Water Resources Board especially with some of the issues the Board was discussing for instance outreach and communication. She believed that the Council has the network, which could help the Board achieve that part of its mission.

The Rivers Council was established in 1991 by statute 46-28. The Council was created to coordinate state policy around rivers and watersheds, and then to create and empower a local voice to be a partner in implementing the coordinated policy. The first 5 years were spent focusing on the policy piece of the charge: creating the rivers policy and classification plan, which is part of the state guide plan. Once that was finished, the focus shifted toward local empowerment of watershed organizations. The charges of the Rivers Council from the legislature are to create and coordinate state policy, to give official recognition to local watershed councils. to empower them with grants and training and to give them notice of local activities within their watersheds. On page 6 of the annual report, there is a map showing the watersheds and the shaded areas show where local watershed councils exist. The Rivers Council is itself in some ways similar to the Water Resources Board. The members of the Rivers Council include: the director of or their designee of DEM, CRMC, DOA and with the revised statute, the Economic Development Corporation has a seat, the Water Resources Board has a seat, a representative of the League of Cities and Towns, and individuals appointed by the Governor and the Lieutenant Governor. The River Council statute is being looked at, as is the Water Resources Board’s statute with respect to the separation of powers with respect to the makeup of the Council.

The Rivers Council provides support and technical assistance to local watershed councils. The funding received to date from the state has been in the form of a legislative grant in the amount of \$52,500 per year for each of the following fiscal years: 2003, 2004, and 2005. The majority of that money is used as pass-through grants to our local watershed organizations for education and outreach activities to help them support themselves and build their staffing capabilities. These grants have leveraged \$1 million in outside

investment and volunteer efforts for our rivers and watersheds. We provide training workshops to the watershed councils on technical issues and on organizational development issues. This spring, they are implementing a Watershed Stewards Program, in Warwick, co-sponsored by the Bucky Brook Coalition. Bucky Brook is just north of Greenwich Bay. The call was put out to citizens who were interested in watershed management. The Council is teaching a 5-part class in partnership with DEM and URI, so that state experts in river and watershed management are doing some of the training. The students are then asked to do a community service project in partnership with a local watershed organization. This is a way to build the strength of the local watershed organizations, build their membership and build their technical capabilities. We are in the process of writing grants to get additional funding to expand the program. They are also researching developing an interim program to get some university students to do internships with some of the local watershed organizations.

Over the last two years, we have been collaborating with the land trust councils in Rhode Island. As you may be aware, there are some 45 land trusts in Rhode Island. Consequently, as with other things in this state, there is a lot of fragmentation amongst the land trusts. There are a dozen watershed organizations, so there is a lot of overlap and similarities between these organizations and the Rivers Council has been doing a variety of initiatives to bring the different groups together, have them meet, try to foster partnerships among them. One of the main things we do each year is a land and water conservation summit—this is the second year that we have done it. The Program from this year's summit is in your folder—there were sessions on land protection focusing on land trusts, there was a whole series of workshops focused on river protection for the watershed councils, and then a series of workshops focused on organizational development. This year it was held on March 12, which was a snowy, nasty day, and still 220 people attended at URI. There is a lot of grassroots conservation interest in this state; many are involved in grassroots conservation. At the summit, we asked for a show of hands of how many people were involved in multiple organizations and most of the attendees worked with a watershed council and a land trust and they are involved in local conservation efforts.

Through this partnership with the land trust council, we are attempting to explore “back office support” in an effort to create efficiencies among the different organizations by providing administrative support to them that can be shared among them. In addition, through the amended statute, we were asked to develop a rule so that watershed councils were given notice of what activities were going on in their local watershed. Chairman Varin worked hard on that rule, and we will be going to public notice with that rule shortly. What the rule does is allow local watershed councils to request from the municipalities or from state agencies to be put on a list so they receive notice of activities to foster involvement. We are also revising our rivers policy and classification plan to strengthen the policies, incorporate some of the water allocation efforts of the Water Resources Board and initiatives from around the state, and attempt to structure it in a way that helps watershed councils advocate for river and watershed protection with our municipal and comprehensive plans.

There is a local group on Greenwich Bay that formed as an outgrowth of the Special Area Management Plan that CRMC has been doing around Greenwich Bay, and they are interested in being recognized by the Rivers Council.

The Rivers Council has received limited state funding, which has been used almost entirely as pass through grants for our watershed organizations. Looking to the future, for the last two years 2003/2004, the Rhode Island Foundation has funded my time as a staff person for the Rivers Council. Because the RI Foundation invests in grassroots conservation issues, they support a lot of the local watershed organizations and a lot of the local land trusts and they are very interested in trying to strengthen the entire movement and do the sharing and learning together that can happen through a statewide organization. However, the RI Foundation will not fund the Rivers Council forever, and Ms. Kerr testified before the House Finance Committee that the Rivers Council will be looking to the state to step forward and support the work that we do, and Ms. Crawley and I have discussed getting it funded through the Board's budget for FY 2007.

Mr. Penn asked Ms. Kerr a question about the financial statement for 2004 referring to the \$53,915 as “in-kind” contributions, and he wanted to know how that was calculated. Ms. Kerr explained that this calculation was based on volunteer hours given to the Rivers Council—much of it is volunteer time, i.e., the summit—all who spoke were volunteers, her un-reimbursed time, and the time of other volunteers that do work for the Rivers Council. Throughout that financial statement, you have leveraged support—the leverage is both grants, which have been leveraged and volunteer time.

Chairman Varin thanked Ms. Kerr for her presentation, and she thanked the Board for giving her the opportunity.

(6) Brown University—Thesis Presentation, Alison Sobel

Chairman Varin introduced Ms. Sobel as a graduate student from Brown University who would provide a brief presentation to the Board of her thesis.

Ms. Sobel thanked the Board for the opportunity. She explained that she was a Brown graduate student who would graduate in May from Brown’s Center for Environmental Studies. Ms. Sobel’s thesis is entitled, “Balancing Water Supply and Flow in the Hunt River.” The Hunt is located in central Rhode Island and in this presentation, she would discuss the trends in water use as well as the current situation with stream flow in the Hunt while explaining the factors necessary to manage the resource and present recommendations for the future. Her objective is to ensure the health of the river while allowing enough water for human needs.

The Hunt is in central Rhode Island covering East Greenwich, northern North Kingstown and meets at the border of East Greenwich, North Kingstown and the Potowomut section of Warwick. There are three water suppliers with wells along the Hunt River. All three of the Rhode Island Economic Development Corporation wells to Quonset are there which supply about .79 mgd. There are 3 of the 11 North Kingstown Water Department wells, which use 1.2 mgd for the Fall, Winter and Spring and during the summer about 2 mgd. There is also a single Kent County Water Authority well, which uses about .65 mgd. This is roughly 4 mgd used in the summer and 2.5 in the other seasons. She attempted to analyze the stream flow conditions to determine how flows were measuring, and she first looked at the HAP study from USGS from 2001, which looked at the Hunt, Annaquintucket and Pettasquamsett, which are the neighboring basins. This study found the wells in the Hunt have negligible impacts on the stream flows in the Annaquintucket and Pettasquamsett. Therefore, in terms of analyzing cause and effect, she only looked at the Hunt wells. The HAP study found that the Hunt was experiencing significant depletion and infiltration rates and through better management and increased withdrawals from the other two basins, some flow could be restored to the Hunt. She noted that she also conducted a 7Q10 analysis and an RI aquatic based flow analysis. The findings of these analyses were that the Hunt is below average more than half the time in the summer—66 percent as opposed to 50 percent. Under the 7Q10, there is a big difference between the measure, which is 1.66 cubic feet per second, and the potential, which is found from an equation provided by USGS specific for Rhode Island. The difference is roughly equivalent to the amount withdrawn in the Hunt. She also looked at a fish survey conducted by the US Fish and Wildlife and DEM in the summer, which found that the lower reaches of the Hunt were degraded although it cannot be said conclusively that this is a direct result of the withdrawals. There is also disagreement among the local towns. There was Hunt Well Head Protection Committee formed. North Kingstown had submitted legislation to protect the wellhead and had urged East Greenwich and Warwick to do the same. This measure was defeated—East Greenwich Town Council opposed the vote and Warwick never drafted the legislation. The protection committee has not met since 2002. There appears to be some ill will between the towns still.

In North Kingstown, they use almost double in the summer the amount used the rest of the year. These are issues, which this Board discussed earlier today. The increase is due almost entirely to lawn watering. North Kingstown does not have much development, but the summer withdrawals are not only high, they are increasing every summer. This trend has been ongoing for 14 years. Town officials are aware and have tried to establish strategies, which have been ineffective in curbing use.

The RI EDC has Quonset, which is an area of development. They currently use approximately .7 mgd, and their peak projection is estimated at 3.6 mgd. They have used much more than this in the past. When the Navy was there, they pumped 4.8 mgd. However, the flow is now down to 0.1 CSF. for approximately one week in 1943. If Quonset goes to full projection along with the other water users in the Hunt, it would be significantly over 4.8 mgd. Many times, withdrawals have surpassed that level—in July of 1999, it was up to 5 mgd. There was also a report from GrowSmart RI in 2002, which looked at constraints to growth in Quonset, and they determined that the water would not be a constraint if Big River were available as a water supply. Should Big River not become available for use by Quonset, Ms. Sobel concludes that would be a constraint to Quonset's growth.

Most importantly, she discovered there was an error regarding beliefs about water. In 1968, USGS did a report that looked at the sustained yield of Hunt wells. This was done to determine how much the wells could withdraw without the Hunt ever running dry. This study determined that figure to be 8 mgd, and it was stated in the report that in drier years, this would result in no flow for as much as 160 days in large portions of the river. However, in 1995 there was a report commissioned by the towns and the suppliers by GZA Environmental entitled the Hunt Aquifer Well Head Protection Plan, which is more interested in water quality protection but also discusses supply availability. This report states that the safe yield of the Hunt is 8 mgd and it cites the USGS study. This is not simply a difference in terminology; they actually state 8 mgd could be withdrawn without harming stream flow. This 1995 report is used by many of the area's stakeholders. The 8 mgd appears in the Quonset Master Plan and the water supply management plan for RI EDC and for North Kingstown and both water systems supply management plans cite the 1968 USGS report as the source for this citation. The Quonset Master Plan does not have a citation.

Quickly, the Hunt borders three towns, and there is a record of disagreement over the water resource. The aquifer is the supply for three water suppliers. Summer demand is already high and is increasing in North Kingstown. There is much growth projected for Quonset, and there is a mistaken belief that there is more water in the Hunt than there actually is. DEM is expressing concerns regarding the health of the river's lower reaches. The Water Resources Board, USGS and DEM are in the process of developing site-specific flow standards. Based on her calculations with 7Q10 and ABF, Ms. Sobel does not believe the Hunt could meet these standards currently.

Her three-fold recommendations are:

1. RI EDC seek an alternative supply source;
2. North Kingstown develop demand-management strategies to lower use in the summer; and
3. The Water Resources Board help in these efforts.

Ms. Sobel believes that the RI EDC as a state agency should acknowledge that there is insufficient supply in the area. Currently RI EDC works on conservation measures with each new user, however, more can be done. In addition, a graduate student's thesis from last year found that Quonset would be a good candidate for water reuse. Ms. Sobel believed that the Quonset Golf Course would be a good candidate for water reuse and this would free up .15 mgd and could potentially be used in other ways in the future. She mentions that RI EDC mentions the purchase of water from Providence or KCWA as an alternative but

based on today's discussion that does not appear to be realistic. Therefore, she recommends they search for a new well to supplement further development. The USGS HAP study suggests the lower Annaquintucket basin may be a good alternative for that well.

Ms. Sobel continued that North Kingstown is in a unique position because their water department is connected with town government and therefore they have some ability to draft laws, which would influence use. Still she acknowledges the difficulties. She suggests a cap on use, a surcharge or fine for exceeding the limit, and notes that North Kingstown had electric meters and spot checks could be implemented. She also mentioned the healthy landscapes initiative, which is a collaboration between North Kingstown and URI, which discusses low watering for lawns and natural landscapes with more native plants, which require less water. Ms. Sobel would also like to see this program further developed and perhaps adding a certification process and a discount passed to the users who take advantage. She also mentions an inclining rate structure.

Ms. Sobel suggests that the RI Water Resources Board could deny approval to the water systems supply management plans which incorrectly cite safe yield, that withdrawals from the Hunt not be increased and continue with the process of setting watershed specific flow standards. Additionally, she asks the Board to work with RI EDC and North Kingstown to encourage the implementation of conservation measures.

In conclusion, Ms. Sobel states that the state agencies together with the stakeholders can ensure the health of the aquatic community and provide for enough water for human uses. She thanked the Board and asked if there were any questions.

Ms. Aschman asked about the statement that all of North Kingstown's increased outside water use in the summer was due to lawn watering as her personal knowledge of North Kingstown is that it has an extensive coastline which includes a harbor, marinas, yacht clubs, summer camps—all of which are used in the summer, as well as increased lawn watering. Ms. Sobel stated that Ms. Licardi of the North Kingstown Water Department had targeted the lawn watering as the major problem and the implementation of odd/even lawn watering has not been effective to date. Ms. Sobel acknowledged that Ms. Aschman was correct; however, Ms. Licardi had explained that there was such a rash of negative phone calls generated from residents observing others not following the outdoor restrictions that it seemed that was a major problem.

Mr. Schock noted that Ms. Sobel had stated that the 1995 report by GZA was not correct. Ms. Sobel answered that she based that on their incorrect citation of the 1968 USGS report. Mr. Schock asked if it was just a numerical error, and Ms. Sobel responded that their citation states that the USGS report noted 8 mgd as safe yield, which is not what the USGS report actually stated.

Mr. Parsons asked if Ms. Sobel used the figure for Quonset at 4.5 mgd. She explained that for peak, full build out, the number was 3.6, which was listed in the 2006 Master Plan.

Chairman Varin thanked Ms. Sobel for her presentation.

The Chairman commented that he had spoken with the East Greenwich Town Planner a day or two after his wellhead protection ordinance was unanimously defeated with virtually no discussion. The planner had no explanation for the Town Council's action other than everyone knew what the vote would be before the meeting started.

8. OTHER BUSINESS

(a) Shad Factory Briefing—Pasquale DeLise, Executive Director, Bristol County Water Authority

Chairman Varin introduced Mr. DeLise who reported that he had good news. Mr. DeLise stated that proposals are due May 10. The request for proposals had gone out, and there was a pre-bid conference scheduled for Friday, April 15, 2005. Mr. Griffith asked Mr. DeLise how many responses had been received; Mr. DeLise stated, so far, eight (8). Chairman Varin clarified that there was still more time for responses to arrive. Mr. Penn asked Mr. DeLise if this was just for engineering and design or the actual structure, and Mr. DeLise confirmed it was only for engineering and design. BCWA is giving 360 days to complete the engineering and assumes 2.5 years for completion. Mr. Griffith asked if everything goes well and Mr. DeLise responded they expect to have a new pipeline by 2007 or 2008. Mr. DeLise noted his pleasure that the plant is producing very good water—he noted that BCWA had never before met the safe drinking water standards. Chairman Varin thanked Mr. DeLise for his report.

9. RECESS OF BOARD FOR BOARD CORPORATE BUSINESS

With no objection, Chairman Varin recessed the Board for Board Corporate Business at 1:57PM.

10. RETURN FROM BOARD CORPORATE BUSINESS

At 2:05 PM, the Board returned from Board Corporate business.

**11. OPEN CALL FOR EXECUTIVE SESSION IN ACCORDANCE WITH:
R.I.G.L. 42-46-5(a)(1) JOB PERFORMANCE—GENERAL MANAGER POSITION**

Chairman Varin noted that the Chief of Staff returned a telephone call prior to the Board meeting. He requested information on what the Personnel Committee had done, and Ms. Shields relayed the requested information to the Governor's Chief of Staff.

12. ADJOURNMENT

On a motion by Mr. Griffith, seconded by Mr. Stamp, the Board unanimously voted to adjourn at 2:08 PM.

Respectfully Submitted,

Tracy Shields

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