

OUT OF BASIN TRANSFER COMMITTEE

MEETING PROCEEDINGS

Wednesday, March 12, 2003

Members Present

Julia Forgue
Kevin Cute
Herb Johnston
Henry Meyer
Alisa Richardson
Jeff Hershberger

Members Absent

Denise Burgess
Paul Corina
Pam Marchand
Katherine Wallace
Ken Burke
Mike Covellone
John Dubois
Stan Knox
Ed Szymanski
John Torgan

Water Resources Board Staff

Kathy Crawley

I. CALL TO ORDER

Chair Julia Forgue called the meeting together at 1:50PM.

II. APPROVAL OF MINUTES

Hershberger agreed to take the minutes. Meeting notes from the February 25, 2003 meeting were distributed and reviewed. Minutes of the February 25, 2003 meeting were approved (motion – Richardson; second – Cute).

III. ITEMS FOR ACTION

Cute and Forgue distributed a copy of a Progress Report that they prepared for the WAPAC committee.

Interim discussion ensued regarding the definition of basin and interbasin transfer developed during the previous meeting. Johnston recommended a more general definition in line with the definition of basin in the Riparian Water Code. Members brought up issues of scale in evaluating transfers and the need to look at the issue from the perspective of the regulator and the regulated public. Forgue brought up the issue of using “transfer” within the definition of interbasin transfer developed at the previous meeting. Crawley stated that she is supportive of a non-geographic definition that is more tied to impacts. Based on discussions there are numerous technical and regulatory issues that force you to define basin and transfer. Johnston stated that technical issues can be addressed with flow models to assess conditions and impacts. Models are in the development process for various areas within RI. Johnston agreed to develop definitions of “basin” and “interbasin transfer” and will email to the committee for consideration.

A. Update of “Pawcatuck River Estuary and Little Narragansett Bay: An Interstate Agreement” – Cute

Cute distributed excerpts from the CRMC Pawcatuck Estuary SAMP. Cute stated that the SAMP regulates according to activities rather than to geographic areas.

B. CT and MA contacts for interstate agreements – Furgue, Cute

Kevin spoke with Chris Duhamel (Town Council Member – Westerly and DePrete Engineering) and John Torgan (Save the Bay). ***Chris Duhamel will be attending the next meeting to talk about interstate transfer issues in Westerly.***

Save the Bay is concerned about a desalination plant proposed for the mouth of the Taunton River. Withdrawal of between 5 and 10 MGD is proposed (with potential for additional withdrawal to dilute effluent to simulate conditions in receiving water). Withdrawals would be timed to collect predominantly fresh/brackish water. Save the Bay is concerned over impacts to Mount Hope Bay and Narragansett Bay.

Crawley stated that our goal was to look at other, hopefully nearby, states with overarching regulations regarding interstate transfers of water. Cute will contact regulators in CT and MA to inquire about interstate agreements.

C. Chipuxet Subbasin : GIS Overlay – Meyer, Hershberger

Hershberger provided preliminary map of Chipuxet subbasin with available RIGIS overlays and Richardson’s “flow health” designations. Meyer provided overview map of Kingston Water District map. Meyer proceeded to provide the following information regarding water use and water transfers in the Chipuxet.

URI and Kingston Water District (KWD) supply wells are located within 0.7 mile stretch of aquifer

URI domestic discharge to pump station via sewers then goes out of basin

East Farm – agricultural facility fed by KWD system – out of basin transfer of water (approximately 0.125 MGD) to Saugatucket

“Return Flows” within Chipuxet from KWD is approximately 0.096 MGD via individual sewage disposal systems (ISDS)

Total Sewered flow from KWD to South Kingstown Sewer District is approximately 0.149 MGD

URI water usage is approximately 0.8 MGD when school is in session and approximately 0.4 MGD during the summer based on evaluations performed by KWD. Meyer also stated that annual production from URI is similar to KWD and that peak usage for URI is during school year and peak usage for KWD is summer.

Average discharge from sewer transfer station from URI is approximately 0.5 MGD

Therefore the total estimated OOBT is approximately 0.7 to 0.8 MGD (0.125 – East Farm; 0.149 KWD to South Kingstown WWTF; and 0.5 MGD URI domestic sewer)

Meyer to provide group with updated spreadsheet information.

Richardson also mentioned steam loss and water loss thru URI heating system. Meyer stated that he could not quantify this loss

Richardson distributed a copy of the Infiltration/Inflow Report for this area including URI. Noted that infiltration loss at URI (0.295 MGD) is not much less than the estimated summer water usage at URI (0.4 MGD). Principle source of water for URI is Well #4 (metered). Two other URI wells are not metered. Dave Lamb is contact for URI and they do have a Water Management Plan

Meyer discussed significant irrigation water usage (primarily for turf farms) within the Chipuxet subbasin and emphasized the need for regulation of water use thru one entity.

Meyer also stated that AWWA showed less than 2% elasticity (reduction in water use) for only about one year after rate increase.

Discussion turned to ISDSs and return flows. Cute stated that 70 – 80% of water use is returned thru ISDSs. Richardson stated that with the promulgation of Title 5 in MA many towns opted to install sewers. Johnston mentioned MA regulation of volume of wastewater discharge per acre (Russ Charboneau). Hershberger stated that the regulation is most likely Title 5 although towns often use local bylaws and regulations also. Johnston mentioned that OOBT committee may want to advocate the use of ISDSs and perhaps density of discharges (something like 600 gpm per acre). Forgue stated that this approach may not work for urban areas such as Newport. Hershberger stated that many MA towns have installed sewers within their highly developed areas. Cute stated that a study may be appropriate to determine density applicable to different hydrologic settings. Cute also mentioned that CRMC requires nitrogen-reducing technology near certain

coastal features and that they would like this technology throughout coastal basins. Johnston mentioned USGS study of Cape Cod regarding density of ISDSs and protective levels for groundwater.

Johnston also mentioned USGS study of streamflows by Kernal Reis regarding low flow duration looking at August Median Flows. AMF within western MA significantly higher than in eastern MA

Meyer stated that we will be looking at future OOBTs and history has already happened and impacts have already occurred.

Johnston mentioned USGS study that 8 MGD could be developed within the Chipuxet but that there would be no streamflow. Johnston also stated that the concept of reasonable use needs to come into play with regards to agricultural water use.

Johnston stated that the OOBT committee mission statement tied closely to issues within other committees. Crawley stated that this was true and that each committee does have a role that will hopefully fit together and that the role of the facilitators is to direct each committee.

Cute mentioned that he would like to “sit in” on the Impacts committee and that this information could be very useful for our evaluations. Crawley stated that Impacts committee is generating maps with overlays of sensitive areas (RIGIS, Natural Heritage, Nature Conservancy).

D. Coordinate Mid-Month Committee Contact – Forgue, Cute

Cute asked how do we proceed with focused evaluations of water issues. Crawley stated that USGS “Water Use and Availability” report for the Pawcatuck was going through peer review and would hopefully be issued with two weeks. RIWRB to provide copy of updated report when available. Hershberger offered to re-evaluate spreadsheets based on the revised report. Cute asked who else would be appropriate to review and potentially add to that information. Committee members should be considering who (regulators, water suppliers, etc.) should “ground truth” these numbers for discussion at next meeting.

Cute stated that good discussion at meeting regarding thresholds related to aquifer protection, ISDSs, and SAMP plans. OOBT committee will need to investigate thresholds.

Action Items:

- Johnston agreed to develop definitions of “basin” and “interbasin transfer” and will email to the committee for consideration.

- Cute will contact regulators in CT and MA to inquire about interstate agreements.
- Meyer to provide group with updated spreadsheet information for Chipuxet.
- RIWRB to provide copy of updated “Water Use and Availability” report for Pawcatuck when available.
- Hershberger offered to re-evaluate spreadsheets based on the revised report.
- Committee members should be considering who (regulators, water suppliers, etc.) should “ground truth” these numbers for discussion at next meeting.