

**Water Resources Planning Committee
Annual Report
to the
Land and Water Resources Council**

**September 2008
Robert G. Marvinney, State Geologist
Maine Geological Survey**

Introduction

The Maine Water Resources Planning Committee (WRPC) was established by the 123rd Legislature, 1st Session in May 2007. This step came after many years of referenda on water issues, a 1½ -year-long stakeholder process to review regulations governing groundwater withdrawals, and several controversial groundwater bills in the 1st Session. The establishment and responsibilities of this Committee were part of comprehensive legislative actions to address specific water issues in Maine negotiated with members of the Legislature's Natural Resources Committee and a stakeholder group. (See Appendix A for the specific legislation.)

The WRPC draws its membership from state agency groundwater professionals, water utilities, agricultural water users, the bottled water industry, other commercial water users, private well drillers, and a water advocacy organization. (See Appendix B for membership list.)

The overarching charge to the WRPC is to plan for sustainable use of water resources, through three phases of work. The first phase of this effort is to gather and otherwise improve water resource data and to use these data in an analysis of "watersheds at-risk." Prior to establishment of the WRPC, the Maine Geological Survey conducted a preliminary analysis of "watersheds at-risk" using available data as part of a comprehensive review of groundwater withdrawal regulations. The map produced through this process (Figure 1) identifies a number of watersheds in which cumulative withdrawals in combination with in-stream flow requirements might be a large percentage of available water resources. Improving water information in a select few of these watersheds is the focus of WRPC work during 2008.

The second phase of work for the WRPC will be to convene planning groups in watersheds where additional data gathering and analysis indicate that cumulative water use, including demands for in-stream flow, approach unsustainable conditions.

The WRPC hopes that the third phase of work will not be necessary, involving a return to the Legislature with recommendations to address oversubscribed watersheds where the planning efforts of the second phase have failed.

The Legislature provided no additional resources for this new work. The Maine Geological Survey (MGS) has redirected 1½ Hydrogeologists to this effort. Adequate funding has been secured from the Drinking Water Program in cooperation with the water utilities, the Maine Department of Environmental Protection, and from Poland Spring for the field investigations necessary to characterize groundwater in select watersheds. Funding is currently secured for two years only.

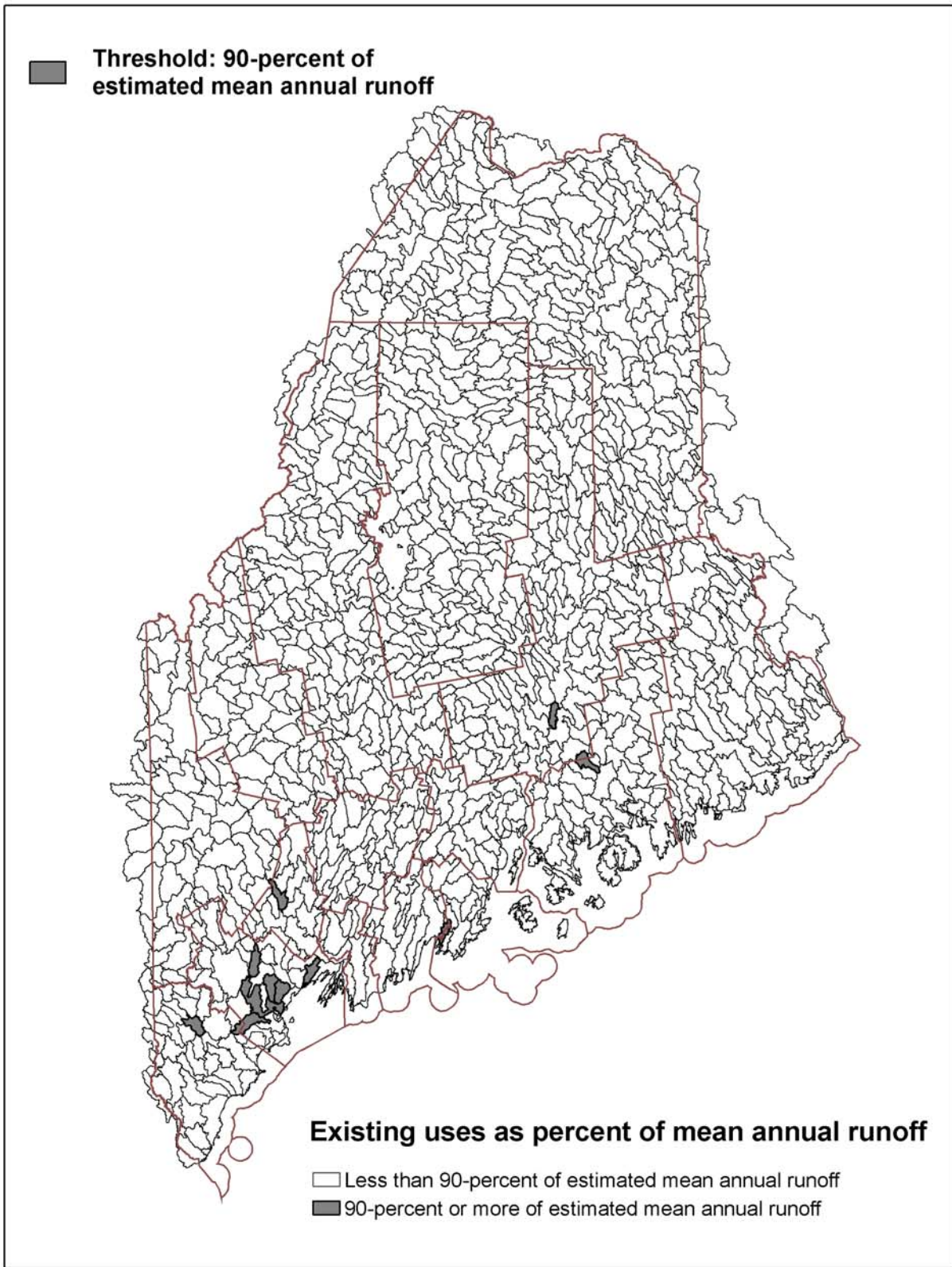


Figure 1. Watershed at-risk analysis conducted in 2006.

2007-2008 activities

Committee meetings

The WRPC met on three occasions – January 15, March 26, and July 22, 2008. The full meeting notes for each meeting are provided in Appendix C. Brief summaries of each meeting are provided here.

January 15, 2008: This inaugural meeting focused on reviewing the legislative process that resulted in establishment of the WRPC, committee membership, charge to the committee and current funding status. We briefly reviewed the watersheds at-risk analysis done previously and some changes to this analysis, which ultimately had minimal impact on the outcome of the analysis. MGS staff discussed potential climate-change impacts to the analysis and activities MGS might undertake in select watersheds to better understand water resources in each.

March 26, 2008: Marvinney noted that budgetary forecasts required cuts in all agencies, and the MGS was forced to place one-half Hydrogeologist on the funding for the WRPC activities provided by other agencies. MGS staff presented detailed maps of several candidate watersheds for additional investigations, including the Greater Portland area, Lake Auburn, Freeport, Friendship, Floods Pond, and Prestile Stream. After discussion, the WRPC decided to focus efforts in 2008 in the Freeport watersheds (see Figure 2). We further discussed the hiring of interns to assist with investigations, and preliminary thoughts on improving discharge measurements.

July 22, 2008: This meeting focused on the potential agreement between the Kennebunk-Kennebunkport-Wells Water District (KKWWD) and Poland Spring for water withdrawal in the Branch Brook watershed. Staff from KKWWD presented an overview of the issue and their current position to table further consideration of an agreement indefinitely. KKWWD will first pursue the certification that is required of them under the state's in-stream flow rules (Chapter 587). Staff from Poland Spring presented an overview of their interests in the area, and the recent hydrogeologic studies by them. The WRPC further discussed the regulatory process that would be triggered by potential water withdrawals by Poland Spring, noting that they would need a permit under the Natural Resources Protection Act for this activity. MGS staff updated the WRPC on current activities. We also briefly discussed the need for better water resource information in eastern Maine and for improved educational efforts. The WRPC sent the KKWWD a letter (Appendix D) endorsing their decision to pursue its certification under the Chapter 587 flow rules before considering any agreements for water withdrawal. The WRPC further offered to work collaboratively with KKWWD to improve water information in their watershed.

Investigations

The Maine Geological Survey began water resource investigations in the Freeport watersheds that host the water supply wells for the Freeport Division of Aqua Maine (FDAM). Aqua Maine, Inc., a subsidiary of Aqua America, Inc., is a public utility that owns or manages 15 water systems in Maine. FDAM's primary source wells are in a large sand and gravel aquifer, first mapped by the Maine Geological Survey in the 1980s. Daniel Locke, MGS Hydrogeologist, is conducting and managing the data collection efforts. Mr. Locke and two summer interns have been working on the following tasks:

- 1) Data collection from available sources. Mr. Locke met with Rick Knowlton of Aqua Maine to discuss the project and review all available documentation on the hydrogeology of wells sites and surrounding areas. Mr. Locke and Dr. Marvinney also discussed this project with Freeport's town manager. Two summer interns worked with DEP personnel to review and copy appropriate records from DEP files on the hydrogeology of various sites in the watershed in which DEP has done work. Pulling these data together will provide more detail on the characteristics of the aquifer systems in the watershed, as well as identify areas in which the ground water may be compromised by contamination. Where appropriate, data from these datasets will be compiled onto summary maps of aquifer characteristics.
- 2) Aquifer investigations. Mr. Locke and our summer interns spent the majority of their time in Freeport collecting additional data on the sand and gravel aquifers. They collected more than 40 seismic refraction lines across key areas of the aquifers. The seismic refraction technique allows investigators to examine the thickness of unconsolidated materials about the solid bedrock, and to determine the portion of those materials that are saturated with water (i.e. establish the local water table). Once processed and interpreted, the seismic data will help improve our understanding of the three-dimensional nature of the sand and gravel bodies and our understanding of water table dynamics.
- 3) Discharge measurements. A meaningful water budget for a watershed requires accurate information on cumulative water uses and stream flow. Through the Water-Use Reporting Program and other sources, we have good information on water use. However, there are no stream gages within the Freeport watersheds, requiring that stream flow currently be estimated from neighboring gaged basins of similar characteristics, or through calculations. The formulas developed by the U.S. Geological Survey (Dudley, 2004) do not work that well for small watersheds such as these, the largest of which is less than 20 square miles in area, and the smallest less than 2. Rather than rely on these formulas, which have large inaccuracies at this basin size, MGS staff will collect direct discharge measurements from strategically selected streams in the watersheds. To this end, Mr. Locke met with scientists at the U.S. Geological Survey to discuss appropriate stream gaging methods, purchased appropriate equipment and scouted suitable locations in the watersheds. At this time, several sites have been identified and data collection tests have been conducted. In order to get the most reliable measurements of base flow (flow derived from ground water discharge into surface water) extended dry periods are necessary. Unfortunately, the precipitation during much of the 2008 summer did not provide these conditions. Measurements will continue into Fall 2008.

References

Dudley, Robert W., 2004, Estimating monthly, annual, and 7-day, 10-year streamflows for ungaged rivers in Maine, U. S. Geological Survey, Scientific Investigations Report SIR 2004-5026, 22 p.

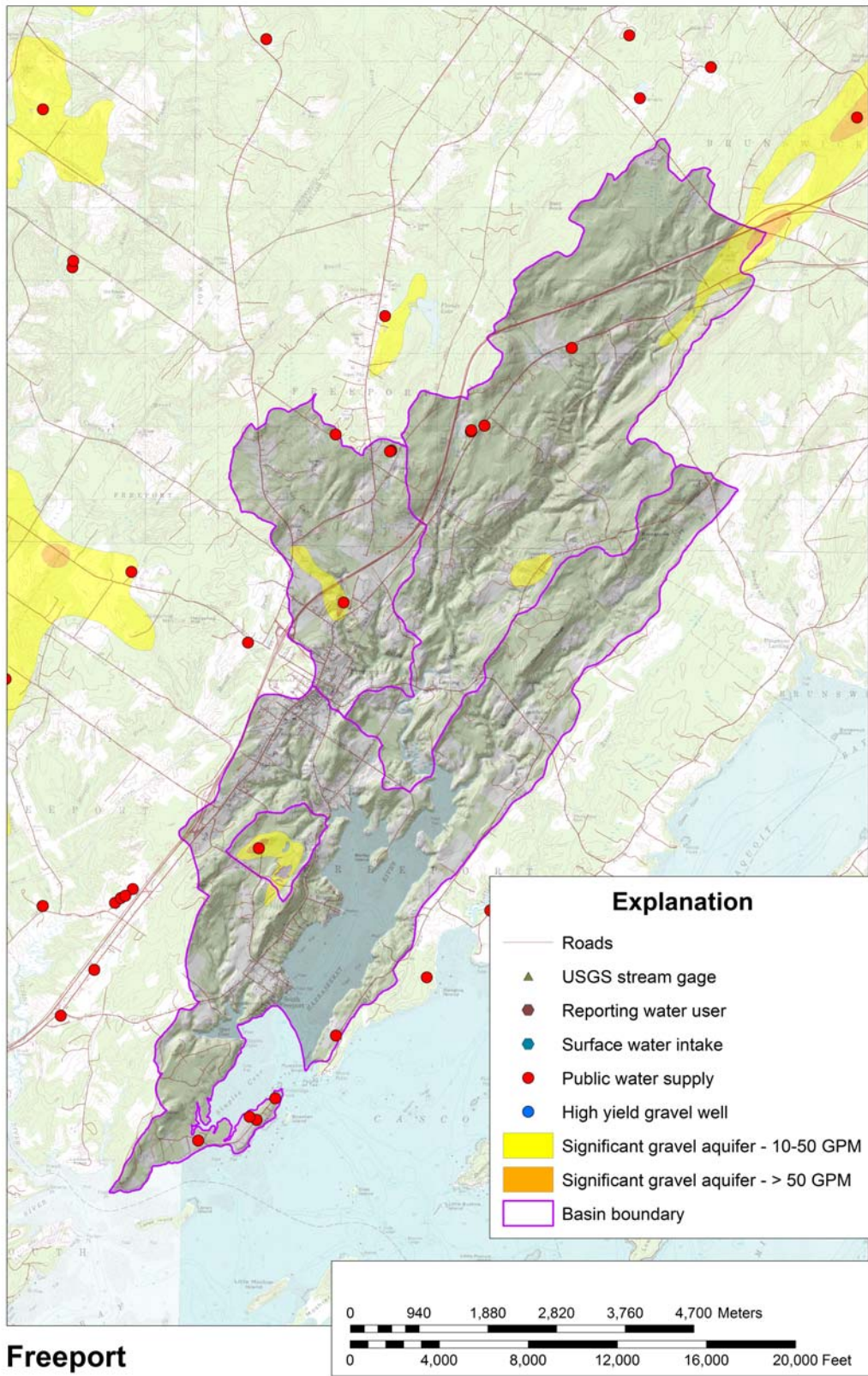


Figure 2. Groundwater resources will be further characterized in these Freeport watersheds.

Appendix A. Portion of Public Law 2007 Chapter 399 that establishes the Water Resources Planning Committee

An Act Concerning the Sustainable Use of and Planning for Water Resources

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 5 MRSA §3331, sub-§8 is enacted to read:

8. Water Resources Planning Committee. The council shall convene the Water Resources Planning Committee, referred to in this subsection as “the committee.”

A. The committee’s membership must include, at a minimum:

(1) Personnel from:

(a) The Department of Conservation, Maine Geological Survey;

(b) The Department of Agriculture, Food and Rural Resources;

(c) The Department of Environmental Protection;

(d) The Maine Land Use Regulation Commission;

(e) The drinking water program of the Department of Health and Human Services;
and

(f) The Executive Department, State Planning Office; and

(2) Members of the public with expertise in:

(a) Agriculture;

(b) Public water utilities;

(c) Water bottling and the sale of bottled water;

(d) The use of water by private domestic well owners;

(e) The environment and conservation; and

(f) The use of water by commercial entities.

B. The committee shall meet at least quarterly and report annually to the council, beginning in August 2008. The committee shall plan for the sustainable use of water resources focusing on the following three phases.

(1) In the first phase, the committee shall focus on:

(a) Collecting and reviewing information regarding water withdrawal activities;

(b) Coordinating state water resources information; and

(c) Identifying watersheds at risk by refining the watersheds-at-risk analysis previously performed by the Maine Geological Survey, including:

(i) Conducting appropriate water resource investigations in watersheds at risk;

(ii) Considering projected increased water use by population, agricultural irrigation, commercial users, industrial users and other users in refining the watersheds-at-risk analysis;

(iii) Considering seasonal use in refining the watersheds-at-risk analysis;

(iv) Considering potential effects of climate change when refining the watersheds-at-risk analysis;

(v) Considering the effects of anticipated future water quality classification changes on the availability of water for withdrawal when refining the watersheds-at-risk analysis;

(vi) In establishing priorities for such investigations, seeking input from the user community, from towns dealing with multimunicipal aquifers and from towns with significant local aquifers; and

(vii) Developing guidelines for consistency in investigations.

(2) In the 2nd phase, the committee shall focus on convening planning groups in watersheds at risk or regions encompassing multiple watersheds at risk to develop water use management plans for water withdrawals. Based on the needs of the individual watershed or region, planning group participants must be drawn from:

(a) Personnel from:

(i) The Department of Conservation, Maine Geological Survey;

(ii) The Department of Agriculture, Food and Rural Resources;

(iii) The Department of Environmental Protection;

(iv) The Maine Land Use Regulation Commission;

(v) The drinking water program of the Department of Health and Human Services;

(vi) The Executive Department, State Planning Office; and

(vii) The Department of Inland Fisheries and Wildlife; and

(b) Members of the public with expertise in:

(i) Agriculture;

(ii) Public water utilities;

(iii) Water bottling and the sale of bottled water;

(iv) The environment and conservation;

(v) Aquaculture;

(vi) Business and commerce;

(vii) Industrial water use; and

(viii) Municipal government.

(3) In the 3rd phase, if oversubscription of water use remains after the analysis conducted in the 2nd phase, the committee shall recommend a process to resolve issues.

C. The committee shall conduct annual reviews of state policy with regard to:

(1) Conservation of water resources;

(2) The development of regional sources and solutions to water use issues;

(3) Incentives for stewardship of water resources; and

(4) Impacts of surface water quality improvements on water withdrawal opportunities.

D. The committee shall provide guidance to municipalities and develop and disseminate educational materials on water resources and the regulatory regime.

Appendix B. Water Resources Planning Committee Membership

Public Members

Mr. Jeffrey McNelly
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Representing water utilities

Mr. Barry Sanford, President
Maine Groundwater Association

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State Agencies

Robert Marvinney
Maine Geological Survey

Marc Loiselle
Maine Geological Survey

John Harker
Department of Agriculture

Andrew Fisk
Department of Environmental Protection

John Hopeck
Department of Environmental Protection

Andrews Tolman
Maine Drinking Water Program

Nancy Beardsley
Maine Drinking Water Program

Marcia Spencer-Famous
Maine Land Use Regulation Commission

Steve Timpano
Department of Inland Fisheries and Wildlife

Appendix C. Meeting notes

**Water Resources Planning Committee
Organizational meeting
January 15, 2008
1:30-3:30 PM**

**DEP Response Building, 4 Blossom Lane
Training Room
Augusta, Maine**

Meeting Notes

- 1) Marvinney gave an overview of the charge to this group as set forth by the Legislature. Some key points are that the legislation:
 - a. Defines the participating groups in the Committee.
 - b. Establishes a 3-phase process, which begins with identifying and further researching watersheds at risk in the first phase, convenes local planning groups to address problems in the second phase, and recommends further actions to the Legislature in the third phase, only in the event the previous two phases fail to resolve issues.
- 2) We briefly discussed funding for this program. The Legislature did not provide any new funding, but the Maine Geological Survey will be contributing at least 1½ staff to this effort. Several state agencies will provide some funds. Some funds will come from the private sector. It will be beneficial to consider work in watersheds that might provide a linkage to other sources of funding, e.g. issues related to irrigation, to augment the available funds.
- 3) Marc Loiselle reviewed his analysis of watersheds at risk. This process used available information from many sources to compare water uses, including in-stream flows, and the amount of water available in each basin (fully described in the final report of the regulatory review committee, available at:
<http://www.maine.gov/doc/nrimc/mgs/explore/water/regs/final.htm>)
The goal of the watersheds-at-risk exercise was to determine the magnitude of a potential problem with all manner of water uses in Maine. Through this analysis we determined that a process to address water issues should be focused on specific watersheds rather than being applied statewide.
An important point to keep in mind is that this analysis was constrained to a particular medium size of watersheds. If the analysis were done on the smallest watersheds available digitally, perhaps a greater number of watersheds would be identified as having potential issues, but their aggregate area would be less than those watersheds identified in this analysis.
- 4) We further discussed enhancements to the analysis. Marc had made some changes to how water volumes for in-stream flows were determined in the process, to better reflect the nature of natural hydrographs in Maine, but found that this did not significantly change the results. One important point that we need to consider when looking at

individual watersheds in more detail is the need to consider seasonality – both in water use and water availability. We might also consider less than average precipitation conditions.

- 5) We briefly discussed the impact of climate change on the outcome of supply/demand type analyses. It would be fairly direct to consider changes in the analysis under drier or wetter conditions, but we will not be doing any specific climate analysis in this work.
- 6) Activities that we might pursue in selected watersheds to further illuminate water issues include the following:
 - a. Refine a quantitative water budget.
 - b. Develop quantitative estimates of sustainable yield from aquifers.
 - c. Improve measurement of surface water flow.
 - d. Refine characteristics of sand and gravel aquifer resources.
 - e. Predict impacts of additional consumption.
- 7) Jim Wilfong briefly reviewed the legislative process that established this group. There has been a focus on water issues for several years, brought on partly by local concerns about water withdrawals and their impacts on other resources and other uses and rapid population growth (Fryeburg at 10⁺%). Two bills were introduced in the first session of the 123rd Legislature, one to establish a more encompassing Water Resources Board along with other changes to statute, and the other bill advanced the agricultural and water utilities communities addressed broad-scale water planning. Through intense negotiations among all parties, the final bill established this committee and made some significant changes to the regulatory framework governing large ground water withdrawals. In particular, under the former regulations, it has been very difficult to consider the cumulative impacts of water withdrawals in a watershed. Our process begins to move us in a direction to consider those cumulative impacts.
- 8) Barry Sanford introduced a discussion of the economics of what we do – what will it cost water users? At one level, the Legislature has already considered the economic impacts of additional regulation by establishing the Committee’s process, which is non-regulatory and has no direct economic impact on users, at least in the first phase (selecting watersheds, improving information). In the second phase, we will convene local planning groups in a watershed, and at that level, economics will be part of the discussion.
- 9) We discussed a strategy for identifying particular watersheds for further study. Ideally, they should include multiple users of different types. There may be some watersheds where there is anecdotal information about potential issues that do not show up on our map due to their small size. Participants are encouraged to bring those forward for discussion. It would be good to focus a fair amount of the effort on watersheds the Maine Geological Survey identified in its analysis in order to validate that analysis.

Next meeting in late March – date and place TBD.

Action items for next meeting:

- 1) MGS will review information in the watersheds-at-risk analysis and recommend watersheds for further work.
- 2) Others should bring forward candidate watersheds based on other information.
- 3) MGS will outline tasks and timeframes for additional work in selected watersheds.

Meeting attendees:

R. Marvinney, Maine Geological Survey
M. Loiselle, Maine Geological Survey
T. Weddle, Maine Geological Survey
B. Sanford, Maine Groundwater Association
J. Wilfong, H₂O for ME
A. Wong, Maine Rural Water Association
S. Belyea, Maine Dept. Agriculture
T. Hobbs, Maine Potato Board
S. Timpano, Maine Dept. Inland Fisheries & Wildlife
D. Bell, Wild Blueberry Commission
A. Tolman, Maine Drinking Water Program
T. Brennan, Poland Spring
M. Spencer-Famous, Maine Land Use Regulation Commission
J. McNelly, Maine Water Utilities Association
J. Hopeck, Maine Dept. Environmental Protection

Water Resources Planning Committee
March 26, 2008
9:00 – 11:30 AM

Maine Geological Survey
Augusta, Maine

Meeting Notes

- 10) Marvinney gave an overview of budgetary issues affecting the work of this committee:
 - a. When the original legislation for this committee was discussed before and approved by the Joint Standing Committee on Natural Resources in May 2007, Marvinney indicated to the Committee that the Maine Geological Survey (MGS) would need \$100,000 in additional resources to conduct the work required of the committee. Marvinney would also commit existing resources at the MGS (1.5 FTE hydrogeologists) to this effort. Several participants in the process committed to funding this effort including the Maine Drinking Water Program, Poland Spring, and the Maine DEP. The Legislature provided no additional resources.
 - b. Dire economic forecasts for 2008 have led to budget cuts in every agency. As part of budget cuts at the MGS, Marvinney moved ½ Hydrogeologist position from the General Fund to the MGS dedicated account, to be funded through contributions to this committee's work.
 - c. Andy Fisk restated the commitment of the DEP to also contribute funding to this effort, at an as-yet unspecified level.

- 11) Watersheds-at-risk analysis. Marvinney presented a very brief overview of our watersheds-at-risk analysis, followed by a review of criteria for selecting potential basins for further study. (See full analysis at: <http://www.maine.gov/doc/nrinc/mgs/explore/water/regs/final.htm>). These criteria included selecting watersheds from those identified in our earlier analysis with multiple users, with a variety of user types, and those with opportunities to improve the groundwater science. Headwater basins that do not require factoring in flow through from upper watersheds would greatly simplify our efforts. While developing procedures in the first year of this effort, we wish to avoid complicated watersheds.

- 12) Marc Loiselle presented a series of detailed maps of several of the watersheds identified in the analysis he conducted in 2006. These were basins in the Greater Portland area, Lake Auburn, Freeport, Friendship, Floods Pond, and Prestile Stream. The group discussed the merits of each of these watersheds, and support centered on Freeport as one candidate. The group felt that Lake Auburn had been studied recently by USGS, so additional analysis there was not warranted. We discussed the merits of work in Prestile Stream, which was not one of the basins identified in the preliminary basins-at-risk analysis (watershed size and generalization of agricultural usage may have contributed to this), but in which we know there are issues of agricultural and public water system use. We discussed preliminary work that might be done there in a future year.

13) Investigations:

- a. Student interns – two interns hired with funding for this project will review all available files for additional groundwater information, water use information, etc.
- b. Discharge measurements – the mean annual flow and monthly median equations used in the MGS watershed analysis come with large uncertainties. The only approach to reasonably reduce those uncertainties is to directly measure stream discharge in the project areas, thereby providing much better information on water supply and in-stream flow requirements.
- c. MGS will discuss with USGS assistance with discharge measurements in select watersheds.

14) Collaborations: As we begin work in watersheds, potential groups we will reach out to are:

- a. Public water systems
- b. Other users
- c. Town government
- d. Possibly with schools and “stream teams” if we can find appropriate roles.
- e. Alex Wong offered some assistance in data collection from his agency.

7) Next meeting date to be determined.

Meeting attendees:

D. Bell, Wild Blueberry Commission
T. Brennan, Poland Spring
A. Fisk, Maine Dept. Environmental Protection
J. Harker, Maine Dept. Agriculture
T. Hobbs, Maine Potato Board
J. Hopeck, Maine Dept. Environmental Protection
D. Locke, Maine Geological Survey
M. Loiselle, Maine Geological Survey
R. Marvinney, Maine Geological Survey
B. Sanford, Maine Groundwater Association
M. Spencer-Famous, Maine Land Use Regulation Commission
G. Sweetser, Ski Maine Association
S. Timpano, Maine Dept. Inland Fisheries & Wildlife
A. Tolman, Maine Drinking Water Program
T. Weddle, Maine Geological Survey
A. Wong, Maine Rural Water Association

Water Resources Planning Committee
July 22, 2008
2:00 – 4:00 PM

Maine Geological Survey
Augusta, Maine

Meeting Notes

- 1) Kennebunk-Kennebunkport-Wells Water District and Poland Spring/Nestle
 - a. Overview by Scott Minor, Assistant Manager, KKWWD. The KKWWD together with The Nature Conservancy bought about 550 acres in August 2007 in the watershed, including the former Wells Blueberry Inc. water-bottling site, to protect the Branch Brook watershed. While KKWWD considered the possibility of increasing revenue with ground water sales, that was not the primary reason to purchase the property. Poland Spring (PS) approached WD shortly after purchase, since they had a long-standing interest in the source. Recent reconsideration of Chapter 587 rules on in-stream flows prompted the KKWWD to indefinitely table consideration of an agreement with Poland Spring. KKWWD will first pursue the Chapter 587 requirements and has no timetable for reconsidering the PS agreement.

KKWWD Trustees are elected by each town in the district and make decisions on behalf of ratepayers.

Branch Brook has an annual flow of 11 million gallons per day. KKWWD is working toward a withdrawal certification for 6 million gallons per day.

In the long run, KKWWD would like to consider increasing the size of their impoundment. This would help them store more spring runoff water to meet peak June-July demands, and allow additional water for spillage below the dam to meet Chapter 587 flow requirements.

(Note: Wells Blueberry, Inc. had an agreement with KKWWD to pump up to 165 gallons per minute.)

- b. Tom Brennan, Poland Spring: Company has had a concentrated effort to search for additional supplies – the Kennebunk plain has been a long-term interest. A property owner adjacent to KKWWD lands approach PS with an offer to sell, which rejuvenated PS interest in the area. Over the past year PS has been engaged in additional hydrogeologic investigations of that property, including pump tests of approximately 150 gpm. Production was proposed to be mostly from this parcel.
 - c. Discussion of regulations that would govern KKWWD activities and potential PS withdrawals.
 - i. Brennan: PS is not trying to avoid Chapter 587 regulations or Natural Resource Protection Act regulations. With production from a borehole on PS land, the withdrawals would require a permit under NRPA. They are also required to address Chapter 587 rules. An agreement would put PS

third in line for water: first to rate-payers, second to in-stream flows. When KKWWD needs more water, PS would be restricted first.

- ii. Tolman: the new law on significant ground water wells did not anticipate a water district as a partner. However, there remains sufficient regulatory framework for oversight, through Bulk Water Transport law.
 - iii. Chapter 587 overview (Margerum): These rules are intended to protect in-stream flows that are necessary to maintain aquatic habitats. Water districts have five years to come into compliance with the rules. KKWWD has already submitted preliminary information on design capacity, which is required in the first phase of compliance with the rules. The DEP expects that KKWWD will come in below the required flows for Branch Brook downstream of their dam. KKWWD would then work through the certification process established in the rules.
 - d. Meeting outcome: Marvinney will write a letter to KKWWD on behalf of the Committee, endorsing their decision to pursue Chp. 587 certification first, before reconsidering any agreement to sell water to other entities. The letter will offer the further assistance of this Committee in terms of assessing water resources in the watershed. This Committee can also provide assistance in educating constituents about Maine's water resources.
- 2) Update by Marvinney on the Maine Geological Survey's activities.
- a. Work in several Freeport watersheds around the sources used by Freeport Water District/Aqua Maine. We have gathered additional information related to groundwater resources from Aqua Maine and the DEP. Two interns are working with staff Hydrogeologist Dan Locke to further characterize important sand and gravel aquifers of the area, and to establish base flows in some of the small streams. This will provide better information for a water budget for these watersheds.
 - b. The Maine Geological Survey will begin scoping what kind of information is needed to better characterize water resources in some eastern Maine watersheds.
- 3) Discussion of irrigation permits in eastern Maine:
- a. Marcia Spencer-Famous noted that LURC recently issued a permit to Cherryfield Foods for additional irrigation wells after much debate with state and federal agencies, particularly regarding impact on endangered Atlantic Salmon. The National Marine Fisheries Service and the US Fish and Wildlife Service have repeatedly requested cumulative impact analyses of withdrawals in salmon rivers before additional permitting moves forward. Marvinney noted that these federal agencies view this study as a detailed groundwater/surface water model in which potential impacts from wells placed anywhere may be modeled. Such a study would be massive in scope, prohibitively expensive, and likely would not resolve the impacts of withdrawals to the level they seek. The Maine Geological Survey has been advocating a water budget approach to the cumulative impact issue.
 - b. Discussion of "far-field" wells: The Water Use Management Plan for the eastern Maine salmon rivers urges the discontinuance of direct river withdrawals in favor of replacement by "far-field" wells. In theory, such wells would be far enough from water bodies that their impact on flows would be reduced, would be spread over a larger area, and the reduced impact might extend over more time. In

practice, it is very difficult to assess ahead of pumping which wells might have immediate impacts (“near-field”) and which might be “far-field”. The geology is too complex to make such predictions.

- c. Bob Lent discussed USGS studies that are underway in eastern Maine. This is part of a \$10 million program nationally to research climate-change impacts on groundwater flow and stream temperatures. See <http://pubs.usgs.gov/fs/2008/3044/>
- 4) Groundwater education: The group noted that there is considerable misinformation and/or ignorance among the public on the nature of Maine’s groundwater, its renewal cycle, sustainability, etc. We discussed several avenues to improve education. Jim Wilfong suggested that Maine’s congressional delegation might be receptive to a request for additional resources for both research and education, and offered to follow-up on this. John Hopeck noted that DEP has an effort to understand and counter public misperceptions in many areas and offered to look into what assistance they might provide with groundwater issues.

Meeting attendees:

- N. Beardsley, Maine CDC
- T. Brennan, Poland Spring
- J. Harker, Maine Dept. Agriculture
- K. Hebert, Maine Rural Water Association
- T. Hobbs, Maine Potato Board
- J. Hopeck, Maine Dept. Environmental Protection
- R. Lent, U.S. Geological Survey
- M. Loiselle, Maine Geological Survey
- M. Margerum, Maine Dept. Environmental Protection
- R. Marvinney, Maine Geological Survey
- J. McNelly, Maine Water Utilities Association
- S. Minor, Kennebunk-Kennebunkport-Wells Water District
- B. Sanford, Maine Groundwater Association
- M. Spencer-Famous, Maine Land Use Regulation Commission
- G. Sweetser, Ski Maine Association
- S. Timpano, Maine Dept. Inland Fisheries & Wildlife
- A. Tolman, Maine Drinking Water Program
- T. Weddle, Maine Geological Survey
- J. Wilfong, H₂O for ME
- A. Wong, Maine Rural Water Association

Appendix D.



JOHN ELIAS BALDACCI
GOVERNOR

STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

PATRICK K. MCGOWAN
COMMISSIONER

8 August 2008

Mr. Norm Labbe
Kennebunk-Kennebunkport-Wells Water District
P.O. Box 88
Kennebunk, ME 04043

Dear Mr. Labbe,

The Water Resources Planning Committee met on July 22, 2008 for the purpose of discussing the issues related to a possible agreement between Kennebunk-Kennebunkport-Wells Water District (KKWWD) and Poland Spring/Nestle for groundwater withdrawals. Scott Minor attended this meeting on behalf of KKWWD. Mr. Minor provided an overview of events up to the date of the meeting, and the current decision by KKWWD to table any agreement indefinitely while other concerns are addressed. Specifically, Mr. Minor outlined KKWWD's plans to address the Chapter 587 flow rules through the certification process outlined in those rules, and noted that the water district has already taken the first steps toward that certification. The Water Resources Planning Committee endorses your approach of addressing the Chapter 587 requirements first, before considering agreements with other parties for use of water resources of the Branch Brook watershed.

The Water Resources Planning Committee was established by the Legislature in 2007 to consider water resource issues on a watershed basis. The committee is a stakeholder group with members from state agency groundwater professionals, water utilities, commercial water users, bottled water industry, private well drillers, and environmental organizations. The Committee is charged with conducting appropriate resource investigations in watersheds where cumulative water uses approach a high percentage of available water. Although our original analysis was too broad to identify potential water issues in your watershed, there clearly is a need for additional water resources information in the Branch Brook watershed. As you move forward with Chapter 587 certification and possible additional groundwater utilization in the watershed, we would like to continue discussing your need to improve water resources information in the watershed and how the Committee might assist you in doing so.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert G. Marvinney'.

Robert G. Marvinney, Ph.D.
State Geologist and Director

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