

Lake Auburn Watershed Protection Commission

Special Meeting

Wednesday, September 13, 2023

Location: Androscoggin Valley Council of Governments (AVCOG), Auburn, Maine

Time: Meeting began at 3:00 PM

Recording: The meeting was video recorded. A link to the video is on the Commission website.

Commissioners Present: Alan Holbrook, Amy Landry, Heather Hunter, Marry Ann Brenchick, Evan Cyr, Rick LaChapelle, Glen Holmes and Camille Parrish

Commissioners Absent: Dan Bilodeau

Others Present: Michael Broadbent Commission Secretary, Erica Kidd Watershed Manager, Tracy Roy Commission Treasurer, Dylan Hertzberg Education and Outreach Coordinator.

Dylan Hertzberg was hired as the new Education and Outreach Coordinator. He started with the Commission in July.

Agenda Item 1. Minutes

Vote 1 **On a motion by Commissioner LaChapelle and seconded by Commissioner Landry to accept the minutes of the Regular Commission Meeting of June 14, 2023 as presented.**

Passed **8-0**

Vote 2 **On a motion by Commissioner LaChapelle and seconded by Commissioner Brenchick to accept the minutes of the Special Commission Meeting of July 12, 2023 as presented.**

Passed **8-0**

Agenda Item 2. Consent Agenda, Financial Report

Commissioner Hunter requested that the financial report be moved out of consent agenda for discussion.

Commissioner Hunter then pointed out that there were considerable overages on staff time that was billed to the Commission. In the past the Commission would fund deficits from retained earnings or a budget transfer. Watershed Manager Kidd explained that there was unforeseen labor to repair storm damage. There was also a boundary dispute that resulted in the Commission needing to survey a parcel of property. This experience was initially placed in forestry but it was agreed to charge that to the sinking fund. There was a discussion to

determine how to fund this at the November meeting and how to prevent overages in the future.

Vote 3 On a motion by Commissioner Hunter and seconded by Commissioner LaChapelle to accept the financial report as presented.

Passed 8-0

Agenda Item 3. Public Comment

Stephen Beale, 575 Johnson Road, Auburn Maine. Mr. Beale spoke about the Planning Board reviewing the watershed boundary as approved by the Drinking Water Program. He urged the Commissioners to approve this boundary and to notify the City as appropriate. Mr. Beale also pointed out a couple of clerical errors with the final CDM Smith report. Page 8 indicates a culvert drains away from the lake which is in-correct.

Agenda Item 4. Water Quality & Watershed Report

Watershed Manager Kidd reported that biomass, temperature and clarity are down from this time last year. There has been consistent precipitation that has raised concerns with the nutrient levels in the lake. Staff continues to work with Ken Wagner to understand the levels of phosphorus in the lake and watershed and to best determine a long-range mitigation plan. The Watershed Management plan is complete and Mrs. Kidd will work on a presentation for the Commissioners. Tighe & Bond is working on a mitigation plan for Blanchard Pond. They will develop plans for 2024.

Agenda Item 5. Staff Report

Mr. Broadbent reported that the Auburn Water District was hosting its annual event, Measuring of the Lake. This event has been canceled the last couple of years because of Covid but it is back on for 2023. Mike also reported that the Auburn Water District is discussing how best to adopt a new watershed boundary and what language in the by-laws will need adjustment to accommodate a new boundary.

Mrs. Kidd wanted to clarify appointment terms of the Commissioners; it would appear that Auburn representative Evan Cyr's term has expired. Mike will bring this up to the AWD board at the next meeting.

Agenda Item 6. Old Business

Ad-Hoc Committee Trails- Commissioner Holbrook reported that the Committee has not met in the last month. There are some hurdles that we will have to overcome with deed restrictions on Commission properties. Commissioner Bilodeau had texted proper signage is essential along with the funding for the trail.

Agenda Item 7. New Business

- A) Watershed Manager Kidd reported on the correspondence received most recently from the Maine Drinking Water Program. The DWP has accepted and agreed to the CDM Smith findings that allow for adoption of a new watershed boundary within the Gracelawn Pit.

Vote 4 On a motion by Commissioner Parrish and seconded by Commissioner LaChapelle to affirm the previous actions of the Commission and to recommend that the Auburn Water District approve the watershed boundary as agreed upon by the Maine Drinking Water Program.

Passed 8-0

Commissioner Cyr left the meeting at 3:55pm

- B) Commission Treasurer Tracy Roy provided the Commissioners with correspondence from Key Bank regarding fraudulent action on Commission accounts. On July 10, 2023 we were notified of attempts to withdraw Commission funds from our accounts. Mrs. Roy met with bank representatives and confirmed that no money had been taken and they froze the accounts. A week later we were notified that money had been taken and that around \$29,000 was withdrawn and the bank has not yet been able to recover the funds. Mrs. Roy has been in touch with the insurance company and has been trying to get in touch with Key Bank executives regarding this matter. Consideration will be given to filing complaints with other State agencies regarding the theft.
- C) Draft Purchase Policy, Mrs. Roy presented the Commissioners with a draft Purchasing Policy. The Commissioners discussed the policy and suggested a few small edits.

Vote 5 On a motion by Commissioner Hunter and seconded by Commissioner LaChapelle to approve the policy as presented.

Passed 7-0

- D) New legal representation- Secretary Broadbent reported that the Commission had received correspondence that the Commission's attorney Jim Pross was leaving Skelton Taintor and Abbott. Skelton is recommending transferring legal business to Grady Burns, a new attorney who has been training under Jim for the last couple of months.

Vote 6 On a motion by Commissioner LaChapelle and seconded by Commissioner Brenchick to authorize the secretary to respond to Skelton Taintor and Abbott and confirm the Commissions commitment to transfer files to Mr. Burns.

Passed 7-0

- E) Water Quality Ad-Hoc Committee, Mr. Broadbent reported that the Committee has been meeting regularly and that progress has been made.

F) Town of Turner update, Commissioner Holbrook reported that the monitoring of Mud Pond and Little Wilson are going well with no concerns. He also reported that there were several issues found with the retention pond at Wilson Bluffs. Erica has been working with the owners, the contractor and the Town of Turner to address the issues.

Vote 7 On a motion by Commissioner Brenchick and seconded by Commissioner Hunter to go into executive session in accordance with 1 M.R.S.A. 405 6 C to discuss a potential land transaction.

Passed 7-0

Executive Session ended at 5:06pm

Vote 8 On a motion by Commissioner Brenchick and seconded by Commissioner LaChapelle to adjourn the meeting.

Passed 7-0

A true record, attest;



Michael Broadbent
LAWPC Secretary



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April 11, 2023 (revised June 12, 2023)

Erica Kidd
Watershed Manager
Auburn Water District/Lewiston Water Division
P.O. Box 414
Auburn, ME 04212

Subject: Lake Auburn Watershed Plan Update
Amendment 2 - Watershed Line Rezoning Additional Evaluation with
Hydrogeologic Investigations Allowance
Lake Auburn Watershed Protection Commission

Dear Ms. Kidd:

CDM Smith Inc. (CDM Smith) is pleased to provide this proposal to the Lake Auburn Watershed Protection Commission (LAWPC) District to provide additional evaluation to assist in determining the limit of the watershed in the “area of uncertainty” from CDM Smith’s October 5, 2022 memorandum “Watershed Delineation Review – Gravel Pit Parcel.” The requested scope of work was detailed in the document provided March 27, 2022 and included three subtasks detailed in the scope below.

In addition, LAWPC has requested an allowance for hydrogeologic investigations to follow the completion of the technical memorandum. The technical memorandum will provide a summary of the visualization model, and the need for and focus of additional field data collection and/or groundwater flow modeling can be assessed and more precisely estimated. The allowance will allow more efficient implementation of the investigations. The budget for the hydrogeologic investigations will be adjusted after the completion of the technical memorandum, based on review and agreement of both LAWPC and CDM Smith.

Scope of Work

Task 7 - Watershed Line Rezoning Additional Evaluation

Task 7.1 – 3-D Geometric Visualization Model and GIS

In this task, CDM Smith will complete the scope as requested in Item 1 in the Request for Proposal. The Maine Drinking Water Program requested in their March 20, 2023 letter: “*The additional work recommended by CDM Smith on page 2 of the 10/5/22 Watershed Delineation Rezoning Review- Gravel Pit Parcel to evaluate the ‘area of uncertainty’.*”



Erica Kidd

April 11, 2023 (revised June 12, 2023)

Page 2

To determine the limit of the watershed in this “area of uncertainty”, the following steps would be recommended:

- Create a 3-D geometric visualization model and associated geographic information system (GIS). The scope of effort would include:
 - Incorporation and integration all of the relevant geologic, well construction, water level and water quality data included in the reports that were reviewed.
 - *Hydrogeologic Investigation (EC Jordan, 1990)*
 - *Georeference Site Plan map and digitize Well, piezometer, Test Pit, and Driven Point locations (Fig 1-1)*
 - *Digitize well survey data (Table 3-4)*
 - *Digitize groundwater elevation data (Table 3-1)*
 - *Georeference and digitize bedrock contour map (Fig 4-1)*
 - *Georeference groundwater contour map (Fig 5-1)*
 - *Georeference seismic survey map (Appendix A map)*
 - *Digitize summary of seismograph survey data (Appendix A table)*
 - *Georeference seismic survey profiles (Appendix A)*
 - *Supplemental Hydrogeologic Study (Woodard & Curran, 1995)*
 - *Georeference and digitize contours and well locations from Inferred Bedrock Surface Map*
 - *Digitize well survey data (Table 1)*
 - *Georeference and digitize four seismic lines (Appendix B)*
 - *Georeference four seismic profiles (Appendix B)*
 - *Digitize seismic result tables 1-4*
 - *Groundwater Assessment (Summit, 2007)*
 - *Digitize groundwater elevation data (Table 1)*
 - *Maps – Site Map, Contour Map, Quadrangle Map*
 - Incorporate additional data including topography, land parcels and other geographic features.
 - *Import topography, parcels, waterbodies, and aerial photography from Maine GeoLibrary.*



Erica Kidd

April 11, 2023 (revised June 12, 2023)

Page 3

- Research to identify if there are other hydrogeologic data available not included in the reports reviewed for this memo. These might include additional seismic survey results and boring logs.
- Based on the visualization model, the need for and focus of additional field data collection and/or groundwater flow modeling can be assessed. While it is likely that additional field exploration, including installation of new monitoring wells, will be required to more precisely delineate the watershed, preliminary visualization and modeling analysis can make this investigation more efficient.
- The results of the modeling and recommended additional field investigations will be summarized in a draft and final technical memorandum.
- Assume one virtual progress meeting with LAWPC, and to summarize results and make recommendations.

Task 7.2 – Stratigraphy/Groundwater Flow and Discharge

As requested by the Maine Drinking Water Program in 3/20/23 letter: *“Confirm stratigraphy and groundwater flow directions in the various strata in the area encircled in orange on Figure 1 in the letter. Evaluate groundwater discharge to the lake throughout the study area.”*

The 3-D visualization model developed for Task 7.1 will be extended to include the encircled area of interest noted in the RFP (**Figure 1** above). The bedrock surface will be mapped or estimated to the extent that can be supported by available data. The model will illustrate the relationship of the groundwater table to the bedrock, ground and lake surfaces. The extent of the area will be estimated where the groundwater table is below lake level, with a gradient away from the lake, so that surface or subsurface discharges will not be transported to the lake via groundwater flow. Other parts of the encircled area of interest where groundwater flow direction is uncertain or likely towards the lake will be identified.

The extent of the visualization model will also include the lake shore throughout the study area. Of particular significance to assessing groundwater discharge to the lake will be delineation of where the bedrock surface rises and outcrops near the lake shore, inhibiting overburden groundwater flow to or from the lake. Portions of the study area where surface recharge to groundwater potentially reaches the lake, and the associated average groundwater flow rate, will be estimated.



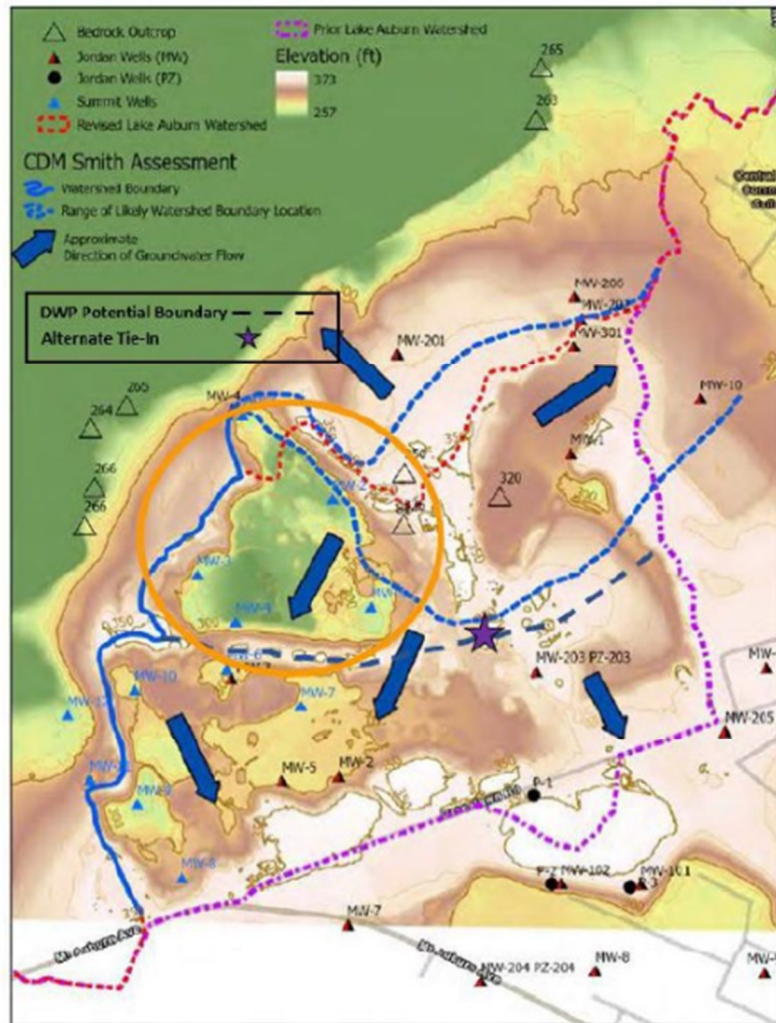


Figure 1. Adapted by DWP from October 5, 2022, CDM Smith report

Task 7.3 – Groundwater Flow for Southwestern Gravel Pit

The RFP requested; *“Determine the direction of groundwater flow in the southwestern most point of the gravel pit that abuts the Berry Farm and that is currently in the watershed.”*

Any available data that can help determine groundwater flow direction in this area will be compiled and incorporated into the 3-D visualization model. If groundwater and bedrock surface data are insufficient to determine groundwater flow direction, alternative interpolations of bedrock surface and water table across the area of interest will be applied in the model to illustrate a range of reasonably likely flow conditions.



Erica Kidd

April 11, 2023 (revised June 12, 2023)

Page 5

Task 7.4 – Project Management

This task covers all project management tasks, including written progress reports, invoicing, and contract management.

Task 7.5 – Hydrogeology Investigation (Allowance)

This task is included as an allowance, with the budget based on the following scope and assumptions:

- Hydrogeologic Field Investigations:
 - Install up to eight (8) monitoring wells by professional drilling subcontractor with oversight by CDM Smith:
 - *One (1) shallow water table well*
 - *Three (3) deep overburden wells*
 - *Four (4) bedrock wells*
 - Fracture trace analysis and outcrop mapping by professional geophysical subcontractor. Outcrop fracture mapping to occur at up to ten (10) outcrop locations.
 - Slug testing at up to eight (8) newly installed monitoring wells, falling and rising head tests at each well location.
 - Two (2) rounds of groundwater gauging including newly installed wells and existing wells.
 - Aerial mapping survey and preparation of an As-Built topographic CAD drawing by professional survey subcontractor. The field survey will also include a well location and elevation survey of the newly installed monitoring wells. .
- Hydrogeologic Investigation Technical Memorandum and 3-D Geometric Visualization Model Update
 - Prepare draft and final hydrogeologic memo including background information, summary of investigations, results, analysis, and conclusions.
 - The technical memorandum will include boring logs, slug testing analysis, groundwater contour maps, and vertical gradient calculations.
 - The 3-D Visualization Model will be updated with the investigation data.





Erica Kidd
April 11, 2023 (revised June 12, 2023)
Page 6

- Task 7.5 scope of work also includes all associated project management tasks.

Schedule and Budget

CDM Smith will provide the draft results and recommendations from Task 7.1 to Task 7.4 to LAWPC by June 30, 2023 and final within 2 weeks of LAWPC's comments.

CDM Smith is proposing to execute Task 7.1 to Task 7.4 for a lump sum cost of \$19,800.

The estimated schedule for Task 7.5 is as follows (to be revised after determination of detailed scope): Complete field investigations by August 31, 2023 and the draft technical memorandum by October 27, 2023 and final within 2 weeks of LAWPC's comments.

Task 7.5 is an allowance based on the presented scope of work of \$140,000 to be billed as lump sum. The breakdown of the costs are provided in the following table.

Task	Budget
Task 7.1 to 7.4 - Watershed Line Rezoning Additional Evaluation	\$19,800
Task 7.5 – Hydrogeologic Investigations (Total Allowance)	\$140,000
<i>CDM Smith Labor and Direct Costs Allowance</i>	<i>\$64,000</i>
<i>Drilling Subcontractor Allowance</i>	<i>\$40,000</i>
<i>Geophysical Subcontractor Allowance</i>	<i>\$5,000</i>
<i>Survey Subcontractor Allowance</i>	<i>\$31,000</i>

We trust that this proposal outlines services consistent with the action plan agreed upon in previous discussions. We are available to speak with you to answer any questions or clarify this proposal as may be needed. Please do not hesitate to contact us with any questions.

Sincerely,

Anne Malenfant, P.E., PMP
Project Manager
CDM Smith Inc.

cc: Bob Fitzgerald, Laurie Locke, Tarun Gill, Nick Castonguay, Ernest Ashley, CDM Smith

