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Admitted in: MA, ME, NH

March 29, 2021

The Honorable Kimberly Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Room 1A, East
Washington, DC 20426

Re: Shawmut Hydroelectric Project, P-2322-069
Comments on License Application

Dear Secretary Bose:

Please accept these comments on behalf of Sappi North America, Inc. ("Sappi") in the above-captioned docket. As you may know, the Maine Department of Marine Resources (MDMR) is considering whether to amend its 1993 Kennebec River Resource Management Plan (the Kennebec Management Plan) to, among other changes, include a recommendation that removal of the Shawmut Dam is necessary to provide adequate fish passage. The purpose of this comment letter is to inform the Commission of the potentially devastating impact removal of the Shawmut Dam would have on Sappi's Somerset Mill in Skowhegan, Maine, and to ask that the Commission reject any such recommendation.

As background, I enclose copies of the testimony I and Sappi's Environmental Manager provided to MDMR at its March 15, 2021 hearing on the proposed amendment to the Kennebec Management Plan, as well as the March 11, 2021 letter report from TRC Environmental Corporation (TRC) summarizing TRC's conceptual study of potential alterations to the Sappi Somerset Mill that would be required if the Kennebec River levels were to drop as a result of the removal of the Shawmut Dam. As explained in more detail in the enclosed testimony, removal of the Shawmut Dam would have potentially devastating economic effects on Sappi's Somerset Mill, its employees, and its suppliers.

In addition to the points outlined in the attached testimony, we also note that a similar project was undertaken on the Penobscot River at ND Paper when the Great Works Dam was removed as part of the Penobscot River Restoration Project. In 2020 ND Paper applied to Maine Department of Environmental Protection (MDEP) for a permit to modify the mill's water intake structure. In the project description ND Paper stated as follows: "Since the installation of the new water intake the applicant has experienced significant issues with sediment, debris, and ice blocking the intake and negatively impacting mill operations." Withdrawing millions of gallons of water every day from a free-flowing river that may be only three or four feet deep presents significant technological and engineering issues, and

may not be possible, notwithstanding TRC's attached report addressing cost considerations. We are investigating this issue, but if in fact it is not possible, the result could be closure of Sappi's Somerset mill and loss of the thousands of associated jobs.

For the reasons outlined in the attached testimony, we strongly urge the Commission to reject dam removal as an option, in recognition of the significant adverse economic burdens such removal would have on other Kennebec River landowners, users, and businesses.

By copy of this letter to the MDEP, we are asking MDEP, in connection with its consideration of Brookfield's application for water quality certification, to conclude that the adverse impacts of removal of Shawmut Dam would greatly outweigh any potential benefit to fish habitat, and that requiring Brookfield to construct effective fish passage facilities would ensure compliance with state water quality standards, to the extent such water quality standards can be interpreted to require fish passage at the Shawmut Dam.

Thank you for your consideration of these comments.

Sincerely,

Matthew D Manahan

Enclosures
cc: FERC Service List (certificate of service attached)
Matt Cutlip, matt.cutlip@ferc.gov
Kathy Howatt, Maine DEP

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Portland, Maine this day: March 29, 2021

Matthew D. Manahan
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mmanahan@pierceatwood.com
Counsel for Sappi North America, Inc.

Testimony of Sappi North America, Inc.
Regarding Legal Issues Presented by the
Proposed Amendments to DMR Chapter 60.10
Kennebec River Fish Restoration Management Plan

Presented by Matt Manahan
at the Department of Marine Resources
Hearing on March 15, 2021

Good afternoon, I'm Matt Manahan, legal counsel for Sappi North America's Somerset Mill in Skowhegan. I'm pleased to have the opportunity to speak to you this afternoon on behalf of Sappi regarding certain legal issues presented by the proposal to adopt the December 2020 Kennebec River Management Plan Diadromous Resources Amendment, which would amend the 1993 Kennebec River Resource Management Plan. As I'll explain, Sappi has significant legal concerns with the language in the proposed amendment that advocates for removal of the Shawmut Dam, and we believe DMR should slow down this process and take a much closer look at the potential costs of that course of action.

Our primary concern is the "Supporting Narrative" language on page 34, which states that "MDMR recommends that the Shawmut Project and the Lockwood Project be decommissioned, and the dams removed." This recommendation is extreme and unnecessary, and will have significant economic impacts that have not been fully considered. As Jim Brooks has testified, removal of the Shawmut Dam would have devastating economic effects, and would significantly increase the cost of doing business. We believe DMR needs to fully consider these costs, as well as other costs of dam removal, before proceeding any further with this rulemaking.

The Maine APA requires DMR to consider all relevant information, including economic, fiscal, and social impact analyses and arguments, before adopting any rule. And DMR's own statutes relating to adoption of management plans require that such plans must seek to provide the greatest overall benefit to the State, including economic and social considerations. The adverse consequences to Sappi's Somerset mill are just those kinds of important considerations, and DMR has not yet considered them.

The lack of complete analysis to support this proposed amendment is demonstrated by DMR's Rulemaking Fact Sheet, which asserts that the Kennebec River Management Plan Diadromous Resources Amendment will have no fiscal impact. That's just plain wrong. The proposed amendment could well result in removal of the Shawmut Dam – which is its stated intent – and that would have significant adverse economic impacts. It's not sufficient to assert that this is only a recommendation or guidance document, because as a river management plan it will have real legal consequences in future regulatory proceedings, and those consequences need to be considered now.

It also is troubling that DMR is classifying the proposed amendment as routine technical rather than major substantive, requiring legislative approval. There can be no doubt that the proposed amendment doesn't just establish standards of practice or procedure before DMR, but in fact would require the exercise of significant agency discretion or interpretation in drafting, and would reasonably be expected to result in a significant increase in the cost of doing business, as I have discussed. It also would result in

a significant reduction in property values along the Kennebec River. That makes it a major substantive rule, by definition. Therefore, DMR should re-categorize the proposed amendment as a major substantive rule.

In summary, we urge DMR not to adopt the proposed amendment, and to delete the recommendation to decommission and remove the Shawmut Dam. On behalf of Sappi, I thank you for the opportunity to present these comments to you.

Testimony of Sappi North America, Inc.
Regarding Economic Impact Issues Presented by the
Proposed Amendments to DMR Chapter 60.10
Kennebec River Fish Restoration Management Plan

Presented by James Brooks
at the Department of Marine Resources
Hearing on March 15, 2021

Good afternoon, I'm James Brooks, Environmental Manager at Sappi North America's Somerset Mill in Skowhegan. I'm pleased to have the opportunity to speak to you this afternoon on behalf of Sappi regarding the proposal to adopt the December 2020 Kennebec River Management Plan Diadromous Resources Amendment, which would amend the 1993 Kennebec River Resource Management Plan. As I'll explain, Sappi has significant concerns with the language in the proposed amendment that advocates for removal of the Shawmut Dam, and we believe DMR should slow down this process and take a much closer look at the potential costs of that course of action.

First, let me briefly describe Sappi's Somerset mill for those of you who may not be familiar with it. The Sappi Somerset Mill is located on 2,500 acres along the banks of the Kennebec River. Originally built in 1976 to supply pulp, it is now home to three world class paper machines. It is an integrated pulp and paper making operation where we manufacture coated free sheet papers, packaging and specialty papers, and bleached Kraft pulp. The mill is capable of producing 1,700 tons of pulp and 2,800 tons of paper products per day, and receives over 200 truckloads of wood products per day. The mill directly employs roughly 735 people from many of the surrounding communities, contributing millions of dollars to the local economy. In addition, for every job at Somerset we estimate that there are eight jobs that we support both locally and around the state. Sustainability remains Sappi's priority and is critical to our strategy. At the Somerset Mill, we strive to challenge industry standards and ourselves to create innovative methods to better our environment. Just recently the Sappi Somerset Mill was named a recipient of the Leadership in Sustainability – Water Award from the American Forest & Paper Association as part of its *Better Practices, Better Planet 2020* Sustainability Awards program.

I'll turn now to the proposed amendment and, more specifically, the "Supporting Narrative" on page 34, which states that "MDMR recommends that the Shawmut Project and the Lockwood Project be decommissioned, and the dams removed." This recommendation is extreme and unnecessary, and will have significant economic impacts that have not been fully considered. Most important for Sappi, removal of the Shawmut Dam would have devastating economic effects, and would significantly increase the cost of doing business. The Kennebec River is the only water source for the mill, and we use an average of 28 million gallons per day for processing, cooling, and fire protection at the facility.

To get a clearer idea of the impacts on our Somerset mill, we engaged TRC Consulting to analyze the water intake structure and wastewater discharge outfall and diffuser with the removal of the Shawmut Dam. Although TRC did not have much time to complete this review, given the fast track of this rulemaking process, TRC has concluded that removal of the Shawmut Dam would lower the

impoundment by 15-20 feet, so that the water level would be well below Sappi's water intake structure and would require significant modifications to the mill's water intake system and wastewater discharge outfall and diffuser. TRC estimates that it would cost in excess of $50 million to remediate these impacts. In addition to these costs, such remediation likely would take two or more years to design, permit, and construct, and therefore may result in significant downtime at the facility. We will submit the TRC report with our written comments before the close of the comment period on March 27.

Thus, dam removal would have a devastating impact on the company, its employees, and suppliers. In addition, lowering of the impoundment's water levels will significantly reduce property values along the Kennebec River in those locations and negatively impact other recreational uses of the impoundment by landowners and others, such as boating interests. We ask that you also take those additional impacts into consideration before moving ahead with this proposed amendment.

Sappi believes these economic impacts greatly outweigh any potential environmental or economic benefit that might be achieved by removal of the Shawmut Dam, which benefits we believe can be achieved through installation of fish passage facilities, without causing the economic harm that would be caused by dam removal. A good example of this is the Milford Fish Lift on the Penobscot River which passes thousands of salmon, alewife, and shad each year based on DMR's own trap count.

In summary, we urge DMR not to adopt the proposed amendment, and to delete the recommendation to decommission and remove the Shawmut Dam, for the reasons I have discussed. We strongly urge you to work with Brookfield to find a compromise solution for fish passage that will satisfy the needs and goals of both Brookfield and DMR without imposing significant adverse economic burdens on other Kennebec River landowners, users, and businesses, such as Sappi.

On behalf of Sappi, I thank you for the opportunity to present these comments to you and am happy to answer any questions that you may have.

14 Gabriel Dr.
Augusta, ME 04330

T 207.620.3800
TRCcompanies.com

March 11, 2021

Mr. James Brooks
Environmental Manager
Sappi Somerset Mill
1329 Waterville Road
Skowhegan, ME 04976

Sent Via Email: james.brooks@sappi.com

Subject: Kennebec River Study at Sappi Somerset Mill
TRC Project No. 429681

Dear Jim:

TRC Environmental Corporation (TRC) is pleased to submit this conceptual study of potential alterations to the Sappi Somerset Mill in Skowhegan that would be required if the Kennebec River levels were to drop as a result of the removal of the Shawmut hydropower dam. We have listed potential modifications required to address impacts to the mill's water intake system, outfall diffuser, and foam tank system, and associated conceptual costs for design, permitting, and construction.

If you have any questions regarding this information, please do not hesitate to contact me at 207-313-3675 or mbergeron@trccompanies.com.

Sincerely,

Mark Bergeron, P.E.
Environmental Operations Leader - Maine

Attachments:
Attachment 1: Site Location Map
Attachment 2: Environmental Permitting Matrix

cc: Ray Topazio, TRC

AUN/429681

Introduction

Sappi retained TRC to provide high-level, conceptual cost estimates for mill infrastructure improvements that would be required if the Kennebec River levels were lowered as a result of the removal of the downstream Shawmut hydropower dam. In consultation with Sappi, TRC has determined that significant alterations to the mill's water intake system and wastewater discharge outfall and diffuser would be required, as described below.

TRC had very limited time to review site information and prepare these recommended modifications to the intake/discharge systems, so they should be considered conceptual in nature, and subject to change pending full design, permitting, and construction considerations. Additional surveys, data, and engineering design are required to further refine these costs. However, these cost estimates are instructional as to the order of magnitude of potential modifications that would be required to maintain the operations of the Somerset mill. The recommended modifications herein would only to maintain the existing operations at the mill and would not increase capacity or otherwise upgrade the system in any way.

See Attachment 1 for a site location map of the mill and associated facilities.

Potential Infrastructure Modifications

1. MDMR dam removal recommendations

   i. The Maine Department of Marine Resources (MDMR) released a recent report entitled "Kennebec River Management Plan, Diadromous Resources Amendment", dated December 2020. In that report, MDMR recommends that the Shawmut dam and Lockwood dam be decommissioned and removed and that the Hydro-Kennebec and the Weston projects also be considered for decommissioning and removal as MDMR's preferred method to provide upstream fish passage.

   ii. The Shawmut dam is downstream of the Sappi Somerset Mill and removal of that dam is estimated to drop the Kennebec River levels in front of the mill by approximately 15 to 20 feet.

2. Existing mill operations

   i. The Somerset mill currently draws an average of 28 million gallons per day (mgd) of water from the Kennebec River as part of its pulp and paper making operations. The Kennebec River is the mill's only water supply.

   ii. There is an existing pump house on the west bank of the Kennebec River with four vertical turbine pumps that draws river water from a submerged vault that feeds a 36-inch diameter intake water supply line that supplies the mill. The current normal river elevation is approximately 112 feet and the bottom of the existing pump house is at an elevation of 102 feet. The riverbed elevation is approximately 90 feet at this location.

   iii. The mill is licensed to discharge up to 46.5 mgd of wastewater and process water to the impounded Kennebec River upstream of the Shawmut dam. There is an existing buried 40-inch diameter outfall pipe from the mill extending to the middle of the Kennebec River. There are

approximately 69 vertical diffuser pipes protruding up from the top of 40-inch diameter outfall pipe to disperse flow to the river. The current outfall pipe and vertical diffusers are approximately 21 feet below the normal high-water elevation of 112 feet.

iv. The mill cannot operate without intake water to supply its operations, and it must regularly discharge wastewater and process water to the Kennebec River.

3. Potential Impacts to Water Intake and Outfall Systems

i. If the Kennebec River water levels in this area were to drop 15 to 20 feet, the existing pump house vault would be above the new normal water level of the river and would be non-functional. If the mill could not obtain water to supply its operations, the mill would have to shut down.

ii. Upon dam removal, the normal pool water surface elevation of the river near the outfall pipe is expected to be approximately elevation 88 feet. The top of the diffuser pipes varies from approximately elevation 87 feet to 90 feet. Therefore, the lower water levels would result in the diffuser pipes being just above or just below the river's surface, which is unsafe and insufficient for proper discharge of the mill's process waters.

iii. A drop in Kennebec River levels of 15 to 20 feet will require structural modifications to the mill's water intake and water discharge outfall systems because the intake and outfall pipes would be located above the new river level. The proposed changes to the intake and outfall pipes are described below.

4. Potential Modifications to Pump House and Water Intake System

a. Because the mill cannot operate without intake water to supply its operations, and because it must regularly discharge wastewater and process water to the Kennebec River, any proposed modifications to the intake and outfall systems must be constructed before the Kennebec River water levels are lowered. Because of the downtime involved with modifying the existing pump house, financially and operationally it would make more sense to build a new pump house downstream of the existing one. Simply extending a new intake pipe into the river would not be an option because there would be insufficient depth of water in the river following dam removal. Similarly, the existing pump house vault would need to be replaced with a different water intake system (described in Option 2 below) due to the lower water levels.

b. Cofferdams will be needed in the river for construction of the new water intake system options listed below. The water intake system modifications will need to be constructed prior to dam removal to avoid interruption of the mill's operations. It is assumed the cofferdam will consist of braced sheet piling. Because the available geotechnical information is limited, it is assumed bedrock is at a relatively shallow depth and will require the sheet piles to be pinned to the bedrock. If bedrock depths are very deep, the sheet piling lengths will be longer, and the cofferdam cost estimates may be on the low side. Upon installation of the sheet piles the interior of the cofferdam will be dredged, sealed, and dewatered to facilitate construction.

c. TRC has identified two options for modifications to the water intake system, more fully described below:

Option 1 – In-River Basin

i. Construct a new pump house adjacent to the downstream side of the existing pump house.

ii. Construct a new water intake piping system into the middle of the river that would generally include:

   a) Install a new coffer dam around the proposed in-river basin.

   b) Due to the expected low water level of approximately 4 feet at operating conditions and distance from the existing riverbank (too low for in-stream water withdrawal), install an engineered in-river basin consisting of approximately 16,000 linear feet of perforated pipe below a bed of engineered fill. The assumed footprint of this basin in the river would be 500 feet by 500 feet, to provide a sufficient volume of water to supply the mill.

iii. Connect the new pump house piping to the existing water intake line approximately 200 feet west of the Kennebec River.

iv. Demolish the old pump house once the new pump house is operational and remove the cofferdam from the river.

Option 2 - Vertical Well Caissons

i. Construct a new water intake piping system that would generally include:

   a) Due to the expected low water level of approximately 4 feet at operating conditions and distance from the existing riverbank (too low for in-stream water withdrawal), construct vertical well shafts to serve as the water intake system. These vertical wells would minimize environmental impacts and could simplify operation and maintenance activities.

   b) Central shaft “caissons” 8 to 10-feet in diameter would be excavated 60 to 80 feet deep on the existing riverbank at five to six locations. These five to six new wells would contain the necessary pump equipment and controls so that a new pump house would not be needed.

   c) Lateral pipes would be micro-tunneled horizontally out below the riverbed through the radial collector to install perforated pipe below the surface of the riverbed.

   d) During pumping, water would be induced to flow through the riverbed into the perforated piping laterals to the vertical shafts. Riverbank filtration is the process where water can be induced to infiltrate into local groundwater aquifers from a surface water source where favorable hydrogeologic conditions exist near rivers and streams.

ii. Connect the five to six new wells’ discharge pipes to the existing water intake line.

iii. Demolish the old pump house once the new wells are operational and remove the cofferdam from the river.

5. Potential modifications to the mill's outfall pipe, diffuser, and foam tank (Note: The conceptual design presented here for the outfall pipe, diffuser, and foam tank is the same for both water intake options discussed above.)

    a. The following modifications to the outfall pipe system would be required to allow continued operation of the mill:

        i. Installation of a cofferdam to allow for installation of a new outfall pipe. The new outfall pipe would be constructed prior to dam removal to avoid interruption of the mill's operations. The current normal river elevation is approximately 112 feet and the riverbed elevation is expected to be about elevation 88 feet at the proposed outfall pipe. It is expected the cofferdam will consist of braced sheet piling. Because the available geotechnical information is limited, it is assumed bedrock is at a relatively shallow depth and will require the sheet piles to be pinned to the bedrock. If bedrock depths are very deep, the sheet piling lengths will be longer, and the cofferdam cost estimates may be on the low side. Upon installation of the sheet piles, the interior of the cofferdam will be dredged, sealed, and dewatered to facilitate construction of the proposed outfall pipe.

        ii. Construction of a new outfall pipe near the existing outfall pipe, with a new diffuser system consisting of an outfall pipe with vertical diffuser pipes. The new outfall pipe would need to be installed at a lower elevation to accommodate the lower river levels. The new vertical diffusers would be surrounded with large riprap that would protect the pipes and facilitate diffusion of the mill's process water. Cleanouts would be incorporated along the length and at the end of the outfall pipe for maintenance.

        iii. Removal of the existing outfall pipe once the new outfall pipe is operational, and removal of the cofferdam from the river.

    b. Further, there is a 'foam tank' at the southeast corner of the mill site that helps to prevent foam from discharging into the Kennebec River. Since the outfall pipe will need to be lowered, the foam tank likely will need to be replaced to assure proper operation of the discharge process.

    c. Consequently, the following conceptual modifications to the foam tank would be required to allow continued operation of the mill:

        i. Construct a new foam tank near the existing foam tank. The new foam tank is assumed to be a new vault with a weir protruding from the ceiling to capture floating foam.

        ii. Install 1,400 feet of new 42-inch diameter outfall pipe from the new foam tank to the river. This new outfall pipe will be installed parallel to the existing pipe, and approximately 700 feet of the pipe will be directionally drilled under the Pan Am railroad tracks and the Route 201 roadway to avoid interruptions in railroad and vehicular traffic, respectively.

        iii. Connect the new foam tank to the existing discharge pipe.

        iv. Demolish the existing foam tank once the new tank is operational.

6. Potential environmental permits needed

There are a number of federal, state, and local environmental permits and approvals that would be needed for the pump house, outfall piping, and foam tank alterations described above. Since no agencies or permitting authorities have been contacted regarding this proposal, these approvals should be considered the preliminary list and subject to change, and other approvals may also be required. Further, permitting requirements by these authorities having jurisdiction may alter the conceptual design modifications presented here, which could lead to additional cost impacts.

TRC has assembled a conceptual environmental permitting matrix describing the assumed level of permitting required for the proposed project alterations. See the Attachment 2 for the environmental permitting matrix. A brief summary of the permits is described below.

i. Federal permits: TRC assumes that a new Pre-Construction Notice (PCN) permit from the US Army Corps of Engineers (ACOE) will be required for river and wetland impacts. The PCN will trigger consultation with the US Fish and Wildlife Service for possible effects on endangered species, and consultation with the Maine Historic Preservation Commission for impacts to cultural resources.

ii. State permits: The following new or amended permits are assumed to be required from state agencies:

   i. The Somerset mill has an existing Site Location of Development (Site Law) permit (#L-902-20-A-X, last updated September 26, 2019 #L-902-20-Z-M) from the Maine Department of Environmental Protection (MDEP). TRC assumes a major amendment of the Site Law permit will be required for the proposed alterations.

   ii. For impacts to the Kennebec River and wetlands, TRC assumes a new Tier 2 Natural Resources Protection Act permit will be required from MDEP. TRC has included an estimated In-Lieu Fee payment for potential mitigation costs for temporary and permanent river bottom impacts. This final mitigation costs will be determined by the MDEP and ACOE.

   iii. The Somerset Mill has an existing MDEP Maine Pollutant Discharge Elimination System (MEPDES) permit (#W000385-5N-L-R, last dated December 2, 2015) for wastewater discharges that will need to be amended based on the new river characteristics.

   iv. For the new outfall pipe installed under the Maine Department of Transportation (MDOT) Route 201 right-of-way, a Utility Location Permit will be required, along with a Private Facility Exception License.

iii. Local permits: Two sets of town approvals will be needed since the pump house is located in the Town of Skowhegan, and the outfall pipe and foam tank are in the Town of Fairfield. Both towns are anticipated to require Site Plan approval from their respective Planning Boards. Also, since work would occur in or near the floodplain and shoreland zone of the Kennebec River, additional approvals will be required to demonstrate compliance with those ordinances for both towns.

iv. Estimated Environmental Permitting Costs: TRC has estimated potential costs to obtain the necessary environmental permits and approvals listed above. The estimated permitting costs listed in Tables 1 and 2 also include the following survey and data gathering needed for the design and permitting of these project alterations:

i. Topographic and bathymetric survey

ii. Wetlands and natural resources surveys

iii. Cultural and archaeological surveys

iv. High Intensity Soil Survey

v. Groundwater impact study

vi. Tribal consultation

The environmental permitting costs are estimated to be the same for both design options listed above. However, the two conceptual water intake design options have significantly different environmental footprints in the Kennebec River. Option 1 with the in-river basin is estimated to impact approximately 6.4 acres of the bottom of the Kennebec River, while Option 2 with the vertical well caissons is estimated to impact approximately 0.88 acre of river bottom. The estimated environmental mitigation costs are assumed to utilize the In-Lieu Fee compensation fees administered by the MDEP and the ACOE.

Assumptions

Given the high level, conceptual nature of this analysis, TRC notes the following important assumptions:

1. This analysis was conducted as a desktop review of information provided by Sappi and other publicly available data. No site surveys or site visits have been conducted. The conceptual design and cost estimates provided herein are based on TRC's professional judgment based on the information provided within the allotted time constraints.

2. All the conceptual design, construction, and permitting costs are non-binding and subject to change based on further surveys, information gathering, full design and engineering, permitting agency coordination, and construction cost estimation.

3. The conceptual alterations to the pump house, water intake system, outfall pipe and diffusers, and foam tank have not been fully vetted through a full design and engineering process and are subject to change.

4. Conceptual cost estimates have been assumed based on common site conditions and construction practices. If differing site conditions are discovered later during design, these conceptual cost estimates will change.

5. If the Shawmut dam is removed, the area in the vicinity of the mill will change from an impoundment to a free-flowing riverine system. TRC assumes that this change in river condition

will not negatively impact the mill from being able to discharge existing flows at the same rates as current conditions, and the mill will still be able to meet state and federal water quality requirements with just a new outfall pipe system. Additional examination of this topic is needed to determine if any additional costs may be needed to meet state and federal water quality requirements. This analysis was beyond the scope of this report.

6. All costs included were calculated in 2021 dollars with no markups for inflation.

7. TRC assumes that the existing main electrical power feed to the project location is sufficient and no changes are needed for the proposed alterations.

8. The wastewater outfall pipe is assumed to remain a gravity feed system.

9. TRC assumes that the existing outfall pipe is not located in the Town of Clinton, so no local approvals will be needed from the Town of Clinton.

10. Due to the expected low operating water depth of approximately 4 feet, surface water only intake methods in the river will become unsuitable. The two below riverbed options listed above were considered to eliminate sucking air into the pumps and to reduce silt accumulation.

11. TRC concluded that extending a public water supply line to the site as an alternate to a river water intake is not a feasible option. The daily water use requirements of the mill are much greater than the nearby water districts in Fairfield and Skowhegan, so modifying those infrastructure systems would be cost prohibitive.

12. The dam removal would be completed in a phased approach by 'notching' the dam structure such that the rate of lowering the water level will not create rapid drawdown or unstable conditions of the riverbank, or cause excessive settlement of nearby structure, utilities, or other infrastructure.

Conclusion

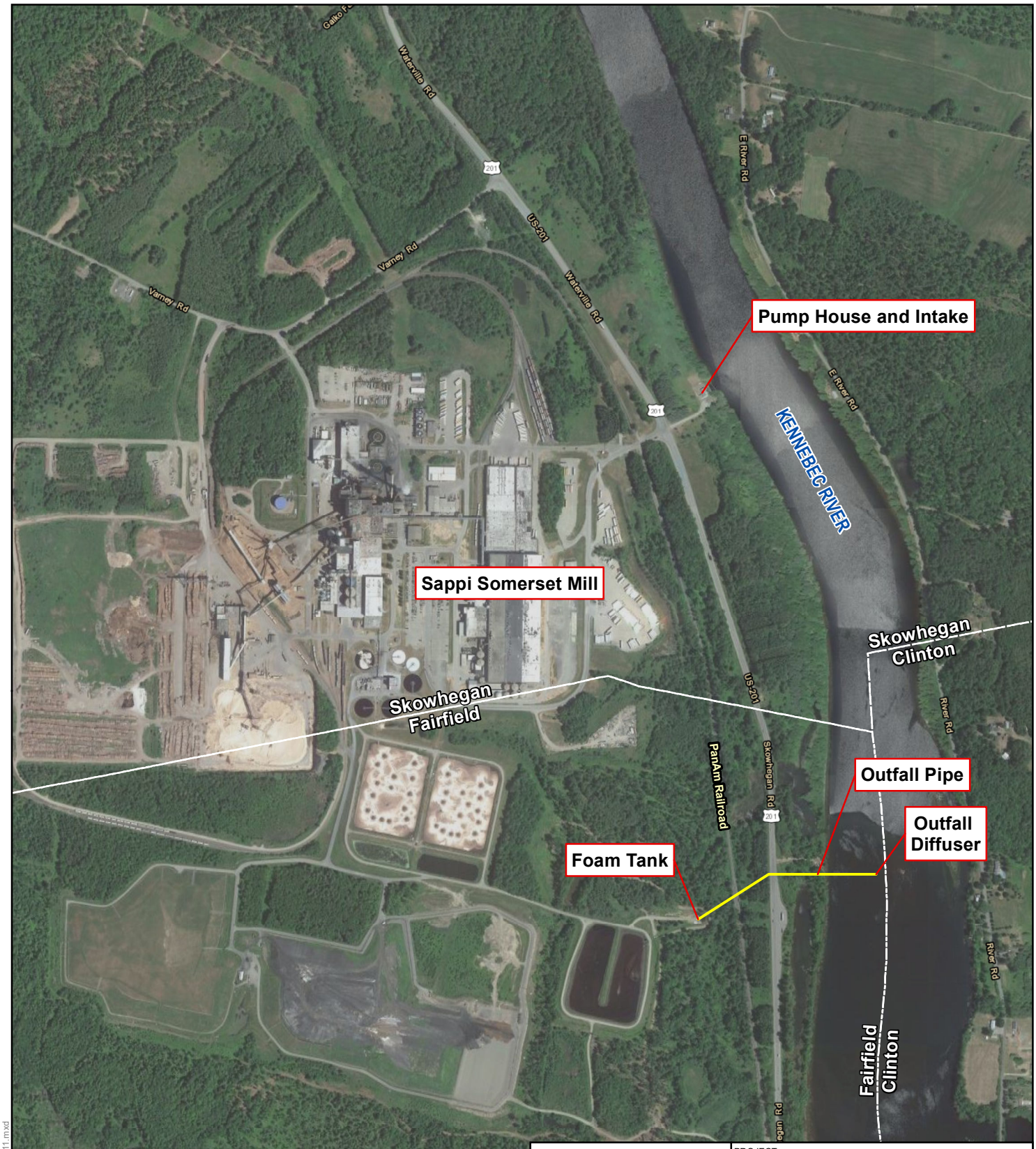
Removal of the Shawmut dam would have significant impacts to the mill's water intake and outfall system and substantial, costly modifications to those systems would be required. As noted in Table 1 below, a new pump house and water intake system, and a new foam tank with outfall pipe and diffuser system, likely would cost in the range of $52 to $55 million.

Table 1: Conceptual Costs for Option 1 – In-River Basin for Water Intake			
	Design/Engineering	**Construction**	**Total**
Water Intake Cofferdam	$2,000,000	$13,400,000	$15,400,000
Pump House and Intake System	$206,000	$19,400,000	$19,606,000
Outfall Cofferdam and Diffuser	$1,600,000	$10,800,000	$12,400,000*
Outfall Pipe and Foam Tank	$110,000	$1,200,000	$1,310,000*
Environmental Permitting Costs			$750,000
Environmental Mitigation Costs			$2,800,000
Estimated Option 1 Total Cost			**$52,266,000**

Table 2: Conceptual Costs for Option 2 – Vertical Well Caissons for Water Intake			
	Design/Engineering	**Construction**	**Total**
Water Intake Cofferdam	$325,000	$2,200,000	$2,525,000
Pump House and Intake System	$206,000	$37,700,000	$37,906,000
Outfall Cofferdam and Diffuser	$1,600,000	$10,800,000	$12,400,000*
Outfall Pipe and Foam Tank	$110,000	$1,200,000	$1,310,000*
Environmental Permitting Costs			$750,000
Environmental Mitigation Costs			$384,000
Estimated Option 2 Total Cost			**$55,275,000**

* The outfall modifications are the same in both Options 1 and 2.

Attachment 1: Site Location Map



0 500 1,000
Feet
1:12,000
1 " = 1,000 '

N

ME
VT
NH

PROJECT:
SAPPI SOMERSET MILL
Skowhegan, Maine

TITLE:
SITE LOCATION MAP

DRAWN BY:	M. STEVENSON	PROJ. NO.:	429681
CHECKED BY:	R. JORDAN		
APPROVED BY:	M. BERGERON		**FIGURE 1**
DATE:	February 2021		

TRC
14 Gabriel Drive
Augusta, ME 04330

Data Sources: ESRI, MEGIS, SAPPI Base Map: GOOGLE

Path: S:\1-PROJECTS\SAPPI\SappiLocationFigure_8x11.mxd

Attachment 2: Environmental Permitting Matrix

Conceptual Environmental Permitting Matrix for Sappi Somerset Mill, Skowhegan, Maine

Agency	Permit/Approval	Reason For Requirement	Comments
FEDERAL			
US Army Corps of Engineers (USACE)	Section 404 Maine General Permit	Construction of intake and outfall facilities that involve dredge or fill to Waters of the US.	Pre-Construction Notice (PCN) permit thresholds are: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts • Temporary and/or permanent fill or excavation in Submerged Aquatic Vegetation <1,000 square feet (SF) • Permanent fill or excavation in other Special Aquatic Sites <4,300 SF
US Fish and Wildlife Service (USFWS)	Consultation under Section 7 of Endangered Species Act (ESA)	Any federal action will trigger requirement for endangered species consultation.	Preliminary screening of the Project through USFWS's Information, Planning and Conservation System (IPAC). Evaluates if the Project is likely to jeopardize the continued existence of a listed species or adversely modify its designated critical habitat.
USFWS	Migratory Bird Treaty Act (MBTA) Consultation	Any federal action will trigger consultation.	MBTA prohibits harm, possession, or take of migratory bird species, nests, and eggs. Review under MBTA conducted concurrently with Section 7 ESA consultation.
USFWS	Bald and Golden Eagle Protection Act (BGEPA)	Any federal action will trigger consultation.	BGEPA prohibits harm, possession, or take of Bald or Golden Eagles. Review under MBTA conducted concurrently with Section 7 ESA consultation.
Maine Historic Preservation Commission (MHPC)	Consultation under Section 106 of the National Historic Preservation Act	The USACE is required to evaluate the impact of projects requiring federal permits on cultural resources.	Consultation is initiated by the applicant and completed during the USACE permitting process.
STATE			
Maine Department of Environmental Protection (MDEP)	Site Location of Development Act (Site Law)	The Somerset Mill has an existing Site Law license (#L-902-20-A-X, last updated 9/26?19, #L-902-20-Z-M)	Includes review of over 20 variables including stormwater management, cultural resources, wildlife, erosion controls, water quality, and groundwater resources. Public notice and public informational meeting are required.
MDEP	NRPA Chapter 310	Impacts to protected natural resources, like rivers and wetlands	Tier 2 permit limits: 15,000 SF to 1-acre of non-wetlands of special significance impact; Tier 3 permit limits: >1-acre impact. Multiple resource impacts are referred to as an "Individual Permit."
MDEP	Maine Pollutant Discharge Elimination System (MEPDES) and Maine Waste Discharge License (WDL)	The Somerset Mill has an existing MEPDES license (#ME0021521) and an existing WDL (#W000385-5N-L-R)	These permits regulate the authorized discharge of process and waste waters to the Kennebec River.
Maine Department of Transportation (MDOT)	Utility Location Permit	For constructing utilities under the MDOT Route 201 Right-of-Way	Would also need a Private Facility Exception License approval from MDOT.
MUNICIPALITY - Skowhegan			
Shoreland Zone	Planning Board (PB)	Impacts within 250-foot Shoreland Zone	Town Shoreland Zoning standards need to be met along the Kennebec River.
Zoning/Land Use Ordinance	PB	Major Development Site Plan Review	Review of development standards and zoning criteria such as water quality, flooding, and erosion control.
Flood Hazard Development Permit	PB	Impacts in the Flood Plain	Will need to show proposed improvements are in compliance with the Floodplain Management Ordinance
Building Permit	Code Enforcement Officer (CEO)	Needed for general construction	Usually obtained by contractor
MUNICIPALITY – Fairfield			
Shoreland Zone	Planning Board (PB)	Impacts within 250-foot Shoreland Zone	Town Shoreland Zoning standards need to be met along the Kennebec River.
Zoning/Land Use Ordinance	PB	Major Development Site Plan Review	Review of development standards and zoning criteria such as water quality, flooding, and erosion control.
Flood Hazard Development Permit	PB	Impacts in the Flood Plain	Will need to show proposed improvements are in compliance with the Floodplain Management Ordinance
Building Permit	CEO	Needed for general construction	Usually obtained by contractor