



**Testimony of ND Paper before the Joint Standing Committee on Environment and Natural Resources
In Opposition to LD 676 “An Act to Reclassify Part of the Androscoggin River to Class B”
May 3, 2021**

Senator Brenner, Representative Tucker, and members of the Joint Standing Committee on Environment and Natural Resources, my name is Scott Reed. I am the Manager of Environmental and Public Affairs for the ND Paper mills in Rumford and Old Town. My testimony today is in **opposition** to LD 676. This bill will not guarantee that the lower Androscoggin River will meet Class B water quality standards, but it will guarantee significant costs on municipalities, industrial facilities, and hydro facilities throughout the entire watershed.

A few key points regarding LD 676:

- This bill does not only target the lower Androscoggin River, this is a de facto upgrade of the entire river.
- This bill is portrayed as aspirational; however, it has significant consequences without any guarantee of success.
- The Maine Department of Environmental Protection (MEDEP) has concluded that there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River. Based on these studies, the Department does not recommend that this section of the Androscoggin River be upgraded to Class B at this time.
- LD 676 is an upgrade of water quality in name-only; however, there are real regulatory consequences. The Maine DEP concluded that as a consequence of the upgrade to Class B, reductions in discharge limits will be required for both municipal and industrial dischargers. These substantial reductions come at a significant cost – without any guarantee of success.
- This bill proports to improve the river’s water quality and economic growth potential for wealthy, urban and coastal communities on the lower Androscoggin; however, this arguable goal comes at the expense of struggling, rural communities upstream.

ND Paper Background

ND Paper is committed to environmental sustainability as a cornerstone of its 100-year vision. Under ND Paper ownership, the Rumford and Old Town mills are being reconfigured to operate at substantially lower manufacturing costs compared to ND’s predecessor companies. To date, ND Paper has invested more than \$250 million in these mills, and its economic impact in Maine includes:

- Direct employment of 684 hourly and salaried workers earning a combined annual payroll of about \$70 million including benefits
- Further indirect and induced job creation equivalent to 2,189 and 1,341 estimated positions, respectively; indirect jobs are those created in the supply chain, while induced jobs are created as a result of mill employee and vendor employee spending.
- Each year, the Rumford Mill spends approximately \$200 million directly in the State of Maine for materials procurement, payroll, and taxes; the Old Town mill will spend an additional \$70 million. In total, this equals \$270 million of direct spend into the Maine economy annually.

The Committee should be aware that the pulp and paper industry serving the printing and writing markets has not recovered from the historic and devastating crash in most grades of paper that began at the start of the pandemic. In the midst of this dire environment, ND Paper continued to invest in its Maine facilities to greatly improve their long-term sustainability and viability; however, there have also been difficult, but necessary decisions due to the impacts of the pandemic.

MEDEP Findings for the Lower Androscoggin

In an October 2019 letter to Senators Libby and Claxton, sponsors of LD 676, the MEDEP provided a thorough review and analysis of the potential upgrade of the lower Androscoggin River. The MEDEP provided the following summary of their findings:

“The existing models provide sufficient information to support the Department’s previous assessment that there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River. Based on these studies, the Department does not recommend that this section of the Androscoggin River be upgraded to Class B at this time.”

The MEDEP’s letter also states that during critical water quality conditions of low river flow, high water temperature, and maximum licensed discharge from the Publicly Owned Treatment Works, the model predicts dissolved oxygen concentrations will be below the Class B criterion of 7.0 mg/L in eight of the twelve river segments from the confluence with the Little Androscoggin River in Auburn to the Brunswick-Topsham Dam. Predicted dissolved oxygen concentrations were below the Class B criterion of 7.0 mg/L for all segments from the Worumbo Dam to the Brunswick-Topsham Dam. This model run was based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L. When using a modeled dissolved oxygen boundary condition of 7.0 mg/L all twelve segments indicate non-attainment. When using the most appropriate boundary condition of 5.0 mg/L that reflects the current Class C dissolved oxygen criteria of the upper Androscoggin and the Little Androscoggin River that comprise the boundary condition, all twelve segments indicate non-attainment, with five of the segments more than 0.5 mg/L below the Class B criteria. Non-attainment is primarily driven by periphyton respiration during non-daylight hours. (Periphyton are algae that grow attached to submerged objects such as logs, rocks, plants and debris.)

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The MEDEP also evaluated completely removing the discharges from the Lewiston-Auburn Water Pollution Control Authority and the Lisbon Wastewater Treatment Facility. The water quality model predicted dissolved oxygen concentrations would still be below the Class B criterion of 7.0 mg/L in two of the twelve freshwater river segments based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L.

Therefore, an upgrade to Class B will immediately put all licensed facilities on the river into non-compliance. MEDEP will be obligated to open all permits and initiate a watershed-wide permitting process. The outcome of this process is uncertain as MEDEP has stated that there is not a feasible approach to attainment of Class B standards at all times.

MEDEP Findings for the Upper Androscoggin

The current water quality classification for the Androscoggin River upstream of Gulf Island Dam in Lewiston is Class C. The MEDEP has stated that as a result of LD 676, the Class C river water passing through the dam must meet Class B as it enters the boundary of the lower Androscoggin river segment. Therefore, LD 676 becomes de facto upgrade of the entire river to Class B.

What are the consequences this de facto upgrade for upstream facilities? MEDEP's water quality modeling determined that the ND Paper Mill in Rumford will require a 54% reduction in weekly BOD license limits as a result of LD 676. Similar reductions will be required at the Gorham, NH mill and the Jay mill. Alternative license limit reductions could possibly be combined with additional oxygen injection in Gulf Island Pond.

ND Paper Cost and Economic Impacts

A statistical analysis demonstrates that the ND Paper Rumford Mill cannot consistently maintain compliance with a 54% reduction of its weekly BOD discharge limit. As shown in Figure 1, this analysis indicates that ND Paper's confidence margin will decrease from the current level of >99%, to a level of 85%. This equates to 8 weeks of projected non-compliance per year or 2 - 3 weeks of non-compliance during the 12 week summer season.

ND Paper's 34 million gallon per day effluent treatment plant currently operates at an average treatment efficiency of 94%. The activated sludge waste treatment process relies on carefully managed microbiology to metabolize the waste byproducts. This system is robust but also has inherent variation due to the dynamic nature of the process (Figure 2).

Figure 1

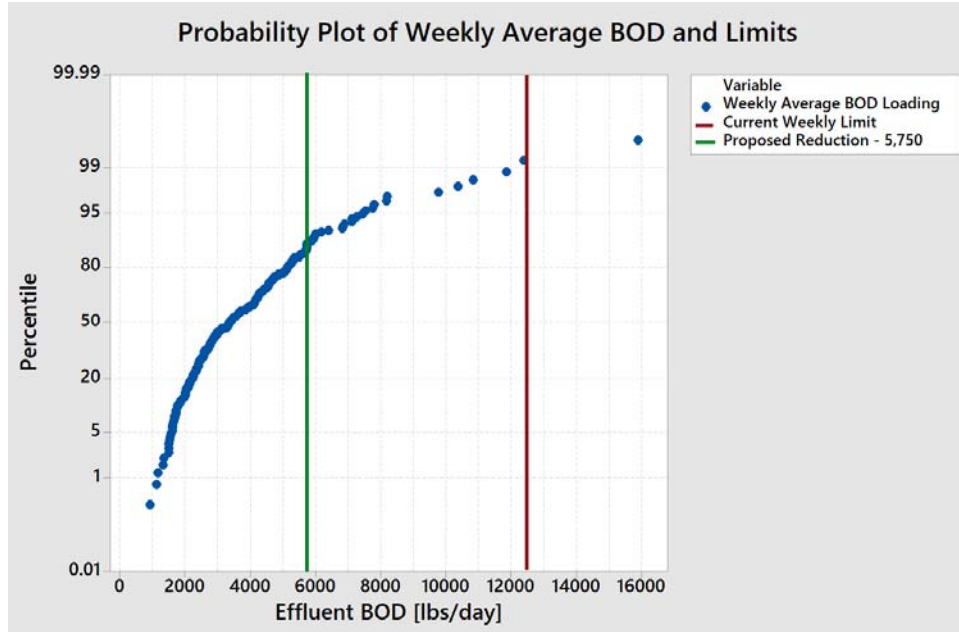
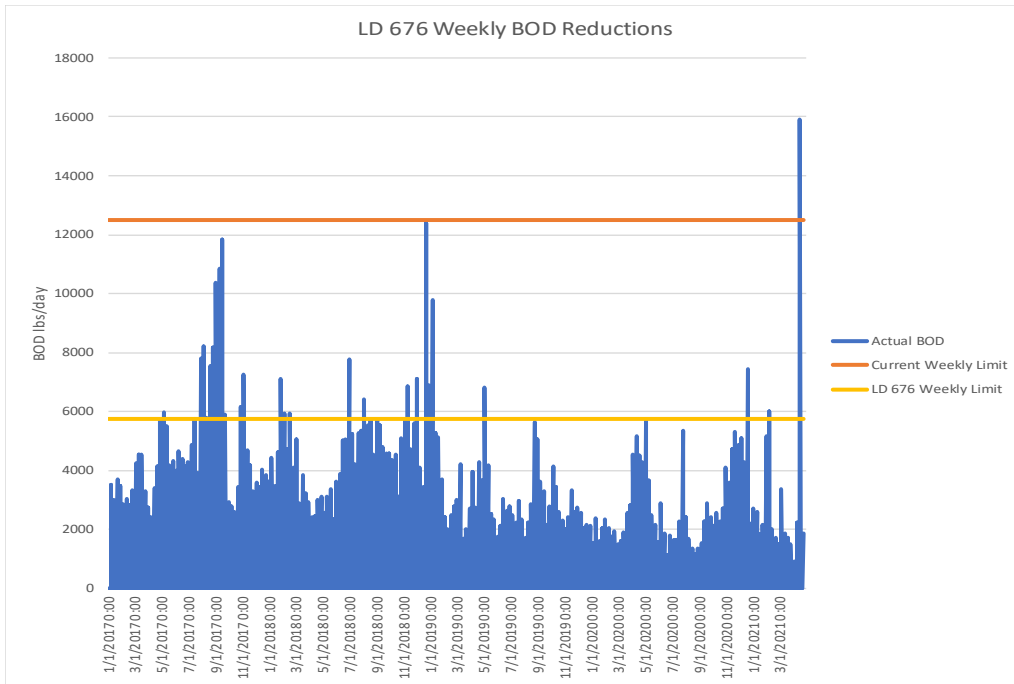


Figure 2



This level of projected non-compliance is not acceptable; therefore, ND Paper would be compelled to take action to ensure sustainable compliance. Given this situation, ND Paper is faced with undesirable options: curtail production or install capital improvements to achieve compliance with lower discharge limits.

Production curtailment to reduce BOD discharge is not a sustainable model for the business. Capital improvements require further study; however, the technology options are expected to require a combination of pre-treatment technology in combination with wastewater treatment plant modifications and/or tertiary treatment. If it is even feasible to achieve a 54% reduction in BOD limits, the capital costs are projected to be in the tens of millions of dollars. These capital options would be further escalated to account for any potential future growth at the mill.

Oxygen Injection at Gulf Island Pond

Upstream of the LD 676 proposed upgrade, the Gulf Island Pond Oxygenation Partnership (GIPOP) currently operates an oxygen injection system. GIPOP is comprised of ND Paper (Rumford), Pixelle (Jay), White Mountain Paper (Gorham, NH), and Brookfield (Gulf Island Dam). The MEDEP also evaluated additional oxygen injection at Gulf Island Pond (GIP), in combination with reduced license limits, as a possible means to increase the dissolved oxygen levels in order to achieve Class B entering the boundary of the lower river segment.

The DEP's initial evaluation calls for an additional 13,000 to 19,000 lbs per day of oxygen injection. This represents an average increase of 35% over current rates. To accomplish this additional injection, the partnership estimates additional capital upgrades of several hundred thousand dollars. There will also be hundreds of thousands of dollars per year in additional operating costs.

The existing injection system was designed for the purpose of increasing the dissolved oxygen levels in the deepest portions of Gulf Island Pond to achieve Class C standards. It was not installed or designed for the purpose of increasing downstream dissolved oxygen levels. In addition to whether this approach would produce the desired dissolved oxygen levels downstream, there are many technical concerns as well. For example, the water column in GIP already reaches maximum dissolved oxygen saturation much of the time, thereby, limiting the ability to physically increase the dissolved oxygen levels in the water, which is expected to meet Class B at the discharge of the dam.

This oxygen injection regime was modeled as a means of meeting Class B standards at the Gulf Island Dam boundary location between Class C and Class B. No level of oxygen injection at this location is expected to achieve Class B standards at all downstream locations.

Oxygen Injection in the Lower Androscoggin

Given the DEP's evaluation that the lower Androscoggin River will not meet Class B water quality standards at all times, and that no level of reduction of discharges will achieve Class B attainment, it stands to reason that oxygen injection could be required at all locations that do not attain the Class B dissolved oxygen standard of 7 mg/L. MEDEP's lower Androscoggin report, indicated that 2 to 12 river

segments will not be in attainment. Compliance with the Clean Water Act could require communities and facilities that cause or contribute to non-attainment in the lower Androscoggin to install oxygen injection systems at each location with low dissolved oxygen.

Conclusion

ND Paper is committed to environmental sustainability as a cornerstone of its 100-year vision. However, this bill will not guarantee that the lower Androscoggin River will meet Class B water quality standards, but it will guarantee significant costs on municipalities, industrial facilities, and hydro facilities throughout the entire watershed.

ND Paper opposes LD 676 and urges the Committee to vote Ought Not to Pass.

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