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Chris Bartlett
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City of Eastport
16 Deep Cove Road
Eastport, ME 04631

Re: Maine Tidal Inundation (NSGLC-13-04-02)

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Dear Chris,

Please find below our analysis regarding the legal implications of tidal inundation caused by tidal energy projects. As I understand it, there are two tidal energy projects proposed in Maine that may potentially affect the time, duration, and/or level of high tide. Plans for the first project, Half Moon Cove, propose a tidal barrage across the mouth of a bay, which would cause a delay in the tidal cycle by 1.5 hours and would extend the high tide for 1 to 1.5 hours inside the bay. The second project, Pennamaquan Tidal Power (Pennamaquan), entails turbine pumping during a portion of the tidal cycle, which could cause the tide to be higher or lower than what would naturally occur. An employee of the Maine Department of Environmental Protection (DEP) has questioned whether the developers of the tidal projects must obtain an easement from the waterfront property owners for the changes to the tide.

In Maine, property ownership along tidal waters extends to mean low water mark. The public has limited rights in the area between the high and low water mark for the purposes of fishing, fowling, and navigation. An increase in the duration of the tide would reduce the time the landowners may use land between the high tide line and the mean low water line, as well as the time the public is able to use that area for certain purposes. In addition, the changes to the tide could potentially cause damage to the shoreline. Two legal questions raised by these projects include: (1) would the activity be permitted under state law and (2) would the tidal project developers be liable for changes to the tide?

State Law regarding Hydropower

In 2010, the Maine Legislature passed amendments to the Maine Waterway Development and Conservation Act (MWDCA) to implement recommendations from the Governor's Ocean Energy Task Force.¹ The Act encourages the development of tidal and wave power:

*It is the policy of the State to encourage the attraction of appropriately sited development related to tidal and wave energy, including any additional transmission and other energy infrastructure needed to transport such energy to market, consistent with all state environmental standards; the permitting and siting of tidal and wave energy projects; and the siting, permitting, financing and construction of tidal and wave energy research and manufacturing facilities.*²

Prior to beginning construction on a hydropower project, a developer must obtain a permit from the DEP. "Hydropower project" is defined as

*any development that utilizes the flow or other movement of water, **including tidal or wave action**, as a source of electrical or mechanical power or that regulates the flow of water for the purpose of generating electrical or mechanical power. A hydropower project development includes all powerhouses, dams, water conduits, turbines or other in-stream power devices, generators, transmission lines, water impoundments, roads and other appurtenant works and structures that are part of the development."*³

The Act applies to all hydropower projects in state waters, including the Pennamaquan and Half Moon Cove projects. When approving these projects, the DEP must consider economic, environmental, and energy benefits and adverse impacts, including soil stability; fish and wildlife resources; and the public's right of access to and use of the surface water of the state for certain purposes.⁴

The state's "Mill Act" allows riparian landowners operating a dam on a non-navigable waterbody on his or her property to flood land of upstream waterfront landowners.⁵ The Act originated in Massachusetts, which enacted the law to promote the development of

¹ ME. REV. STAT. tit. 38, §§ 630-37.

² ME. REV. STAT. tit. 38, § 631.

³ ME. REV. STAT. tit. 38, § 632. There is also a general permit available for tidal energy demonstration projects. ME. REV. STAT. tit. 38, § 636-A.

⁴ ME. REV. STAT. tit. 38, § 636.

⁵ ME. REV. STAT. tit. 38, § 651-659, 701-728.

mills.⁶ When Maine achieved statehood in 1821, it adopted its own Mill Act, which mirrored the Massachusetts law. The Act essentially establishes a flowage easement benefitting the dam owner. An easement is “a non-possessory interest in the owner of one parcel of land, by reason of such ownership, to use the land of another for a specific purpose.”⁷ The Maine Supreme Court questioned its validity as early as 1855 in *Jordan v. Woodward* and as recently as 1998 in *Dorey v. Estate of Spicer*; however, the court chose not to overturn the law in either case.⁸

The Act would not apply to tidal projects on navigable waters. However, tidal project developers in this instance could be required as a condition of their permits or encouraged to voluntarily obtain similar flowage easements in advance of project implementation to avoid liability for changing the tide. A Maine DEP regulation provides: “Prior to acceptance of an application for processing, an applicant shall demonstrate to the Department’s satisfaction sufficient title, right or interest in all of the property that is proposed for development or use. An applicant must maintain sufficient title, right or interest throughout the entire application processing period.”⁹ The DEP could potentially require the tidal project developers to obtain flowage easements under this regulation. Furthermore, if the tidal projects are located on state-owned submerged land, the tidal project developers must obtain a lease or easement from the state. A Department of Conservation regulation requires applicants for submerged lands leases or easements to provide “when necessary, proof of sufficient right, title or interest in the adjacent upland...”¹⁰

Liability

If the developers do not obtain an easement, they could face liability for flooding private land and for extending the duration of high tide. In assessing liability for the tidal changes, a court would apply applicable statutory or traditional common law (judge-made) rules. In 2005, the Maine Legislature enacted a statute stating that “[u]nreasonable use of land that results in altered flow of surface water that unreasonably injures another’s land or that unreasonably interferes with the reasonable use of another’s land is a nuisance.”¹¹ This statute replaced a common law “modified common enemy” doctrine previously used by Maine courts to determine liability for the discharge of surface water onto adjacent land.¹² Although the statute does not indicate a geographic scope, these types of rules typically

⁶ Mass. Gen. Laws ch. 76 § (1796).

⁷ *Great Cove Boat Club v. Bureau of Pub. Lands*, 672 A.2d 91, 94 (Me. 1996), citing *Davis v. Briggs*, 117 Me. 536, 538, 105 A. 128 (1918).

⁸ 40 Me. 317 (1855); *Dorey v. Estate of Spicer*, 1998 ME 202 (1998).

⁹ 2-06-096 ME. CODE R. § 11

¹⁰ 53-04-059 ME. CODE R. § 1.7.

¹¹ ME. REV. STAT. tit. 17, § 2808.

¹² This doctrine held that a landowner may control the flow of surface water over his property; however, a landowner may be liable for discharging “an artificial collection of water” onto land “where it would not otherwise naturally have fallen.” *Johnson v. Whitten*, 384 A.2d at 700. “Artificial collection of water” was defined as a collection of surface water at a location through unnatural means and for a purpose other than for drainage.

apply to “diffuse surface water,” rather than ocean water.¹³ It is unlikely that this statute would apply to the tidal changes at issue, but if it did, a court would use the reasonable use rule, essentially balancing the harm caused and the utility provided by the water diversion. While the tidal projects would alter the flow of surface water, it would be unlikely that the court would deem it an unreasonable use, given the state’s promotion of tidal energy and the fact that the projects are not injuring the land.

Common Law Trespass/Nuisance

If the surface water rules do not apply, the tidal project developers could be liable under the common law doctrines of trespass and nuisance. A person is liable for common law trespass “irrespective of whether he thereby causes harm to any legally protected interest of the other, if he intentionally enters land in the possession of the other, or causes a thing or a third person to do so.”¹⁴ In this instance, the landowner would have to show that the tidal project developers intentionally caused the tide to enter the property owner’s lands. “The minimum intent necessary for the tort of trespass to land is simply acting for the purpose of being on the land or knowing to a substantial certainty that one’s act will result in physical presence on the land.”¹⁵ If liable for common law trespass, the landowners would be entitled to damages for injury to property rights. Another potential claim by the landowners would be for common law nuisance. “A private nuisance cause of action arises when the injury inflicted either diminishes the value of that property, continually interferes with the power or control of that property, or causes a material disturbance or annoyance to the person in the use or occupation of that property.”

Conclusion

It does not appear that the tidal project developers would be required to obtain an easement for tidal changes under either the Mill Act or the MDWCA. However, the DEP could require the developers to obtain easements as a condition of their permits. Further, the Department of Conservation may require an easement from adjacent upland owners prior to issuing a submerged lands lease. If the developers do not obtain easements and the land is inundated, they would potentially have to defend their actions as “reasonable use” of land or not a trespass or nuisance. I hope you find this information helpful. If you would like additional information, please let us know.

Sincerely,

/s/ Terra Bowling
Research Counsel, National Sea Grant Law Center

¹³ In fact, the legislature’s summary of the amendments notes that “Existing Maine case law applies the ‘common enemy rule’ to define a landowner’s responsibility for altering the flow of surface water, also known as ‘diffuse surface water,’ that affects another’s land...” An Act to Replace the Common Enemy Rule with Regard to Changing the Flow of Surface Water, LD 816, SP 271, 122nd Legislature http://www.mainelegislature.org/legis/bills/bills_122nd/billtexts/1d081602-2.asp.

¹⁴ *Medeika v. Watts*, 2008 ME 163, P5 (Me. 2008), quoting Restatement (Second) of Torts § 158(a) (1965).

¹⁵ *Gibson v. Farm Family Mut. Ins. Co.*, 673 A.2d 1350, 1353 (Me. 1996), *citing* Zillman, Simmons, & Gregory, *Maine Tort Law* § 5.12 at 5-22 (1995).