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THE FUTURE OF THE PUBLIC TRUST: THE
MUDDIED WATERS OF ROCKWEED
MANAGEMENT IN MAINE

Sarah M. Reiter, Dillon Post, Lisa Wedding, Aaron L. Strong

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THE FUTURE OF THE PUBLIC TRUST: THE
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MANAGEMENT IN MAINE

*Sarah M. Reiter*¹, *Dillon Post*², *Lisa Wedding*³, *Aaron L. Strong*⁴

Abstract

Seaweeds, or more properly, intertidal macroalgae have never been easy to classify—by law or by science: they are not part of the animal kingdom, nor part of the plant kingdom (and scientific controversies about their phylogenetic placement abound), they are not completely on terra firma, nor completely submerged in ocean water. One such organism that exists at the space in between land and sea—the brown alga commonly known as Rockweed (*Ascophyllum nodosum*) presents an intriguing legal question with implications that extend far beyond the shoreline. Recently, in *Ross v. Acadian Seaplants Ltd.*, the Supreme Judicial Court of Maine (Court) ruled that Rockweed located within the intertidal zone is the property of the adjacent upland property owner, and therefore the public cannot enter intertidal lands to harvest Rockweed as a matter of right—a right that has been preserved for the harvest of shellfish species, fish species, and bird species. The legal status of Rockweed is important to the scientists that study its ecological benefits, the harvesters that collect it for commercial purposes, the state agency concerned with its sustainable management as a marine resource, and the coastal landowners that assert that seaweed is their private property. This article explores the legal justification for—and practical resource management issues associated with—the Court’s decision to treat a marine organism such as Rockweed that derives its nutrients from ocean water and not through a root system as private property.

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I. INTRODUCTION

Along the rocky shores of Maine, in that dynamic place where land meets sea and the tides ebb and flow, no one knew who owned the seaweed until recently. The legal status of Rockweed—the harvest of which is a growing industry in Maine—is important to the scientists that study its ecological benefits, the harvesters that collect it for commercial purposes, the state agency concerned with its sustainable management as a marine resource, and the coastal landowners that assert it as their private property. Algae have never been easy to classify—by law or by science—they are not quite part of the animal kingdom, nor the plant kingdom, not completely on terra firma, nor completely submerged under water. However, in Spring 2019, in *Ross v. Acadian Seaplants Ltd.*, 206 A. 3d 283, 283-296 (2019), the Supreme Judicial Court of Maine (Court) ruled that Rockweed located within the intertidal zone is the property of the adjacent upland owner, and therefore the public cannot harvest Rockweed as a matter of right—a right that has been preserved for the harvest of shellfish species, fish species, and bird species.⁵ This ruling strays from that norm, where states predominantly consider access to marine organisms as part of the public trust.⁶ For example, clams, mussels, fish, and the activities associated with their harvest (e.g., fishing, digging) are held in trust by the state of Maine for the people.⁷

With seaweed now private property, harvesters and scientists will look to coastal landowners to grant permission to access Rockweed, not the state. Landowners will decide if and how the

⁵ *Ross v. Acadian Seaplants Ltd.*, 2019 ME 45, ¶ 33, 206 A. 3d 283, 294.

⁶ See John Duff & Cheryl Daigle, *Public Shoreline Access in Maine: A Citizen's Guide to Ocean and Coastal Law*, 4 (2004) (discussing Maine's public trust doctrine and how it protects the rights to harvest fish, shellfish, and other marine organisms); see also The Wildlife Society et al., *The Public Trust Doctrine: Implicating for Wildlife Management and Conservation in the United States and Canada*, TECH. REV. 10-01, 22 (2010) (discussing the application of the Public Trust Doctrine to wildlife, and providing North Carolina's Public Trust protection of marine organisms as an example).

⁷ *State v. Lemar*, 87 A.2d 886, 888 (Me. 1952); *State v. Leavitt*, 72 A. 875, 879 (Me. 1909); see also Duff & Daigle, *supra* note 1.

Rockweed can be accessed based on their own individual interests (e.g., aesthetic, financial, and ecological). The management of Rockweed as a resource has shifted from a resource management policy, established at the state level and informed by scientific information, to a system of rights and access or denial based on individual property owner incentives. This marine organism that exists at the space in between land and sea presents an intriguing legal question with implications that go far beyond the shoreline. In Part II of this article, we provide a background on the Public Trust Doctrine. In Part III, we provide a background on Rockweed and its role in Maine's coastal social-ecological ecosystem. In Parts IV and V, we consider the legal treatment of Rockweed under Maine law. In Part VI, we explore the practical implications of the Court's decision for Rockweed's future in Maine. Finally, in Part VII, we address the broader implications of the privatization of Rockweed.

II. THE PUBLIC TRUST DOCTRINE AND DETERMINATIONS REGARDING COMMON POOL RESOURCES AND PRIVATE GOODS IN THE MARINE ENVIRONMENT

The Public Trust Doctrine – a state level common law doctrine – holds that state-owned lands are held in public trust to the benefit of all citizens subject to certain usage rights. Under the doctrine, states have a trust responsibility to manage such lands for the public benefit. In particular, the Public Trust Doctrine undergirds states' responsibility to manage publicly accessible common pool resources for the public good.⁸ A strong Public Trust Doctrine in a state indicates a greater degree of legal recognition of a state's responsibility to pursue sustainable resource use and provides a legal prong available for members of the public with an interest in sustainability to argue in lawsuits. For example, the expanded state Public Trust Doctrine was used in New Jersey to justify citizen suits blocking construction of a coastal high rise that would block an aesthetic viewshed, arguing that the state must

⁸Raphael D. Sagarin & Mary Turnipseed, *The Public Trust Doctrine: Where Ecology Meets Natural Resources Management*, 37 ANNUAL REVIEW OF ENV'T & RES. 473, 481 (2012).

manage coastal areas for the benefit of the public.⁹ Notably, the expanded Public Trust Doctrine has been featured prominently in recent legal scholarship focused on state responsibility to address climate change.¹⁰ As increasingly complex questions of state responsibility to mitigate to and adapt to climate change in coastal areas arise, whether state Public Trust Doctrines continue to expand is a salient and critical legal question.

Submerged and intertidal lands are a significant focus of the Public Trust Doctrine in coastal states in the United States. In much of the coastal United States, the intertidal zone between the low water line and the high tide line is also state property, held in trust by the state and regulated and managed for use by the public under the authority of that state's Public Trust Doctrine. In the Commonwealth of Massachusetts and in the State of Maine (which was part of Massachusetts prior to 1820), however, the intertidal zone remains the private property of the upland property owner, with statutory bundles of rights reserved for the public to access these private lands for the purposes of fishing, fowling, and navigation.¹¹ Thus, on its face, the case of *Ross v. Acadian Seaplants Ltd.* presented a question of whether access to the intertidal for the harvest of Rockweed is protected for the public under the state's Public Trust Doctrine.

At issue in the case of Rockweed management, however, is not simply who is assigned the right of access to a space. It is about how a state regulates the right to use of a resource in that space. In the natural resource management texts and economics more broadly, resources are frequently categorized into four bins: public goods

⁹ Hope Babcock, *Is Using the Public Trust Doctrine to Protect Public Parkland from Visual Pollution Justifiable Doctrinal Creep?*, 42 *ECOLOGY L.Q.* 1, 7 (2015).

¹⁰ See e.g., Tim Eichenberg, Sean Bothwell & Darcy Vaughn, *Climate Change and the Public Trust Doctrine: Using an Ancient Doctrine to Adapt to Rising Sea Levels in San Francisco Bay*, 3 *GOLDEN GATE UNIV. ENVTL. L.J.* 243, 245 (2009); Margaret E. Peloso & Margaret R. Caldwell, *Dynamic Property Rights: The Public Trust Doctrine and Takings in a Changing Climate*, 30 *STAN. ENVTL. L.J.* 59, 66, 75, 89 (2011).

¹¹ *Shively v. Bowlby*, 152 U.S. 1, 18 (1894) (citing Massachusetts Colonial Ordinance of 1641); see also *Bell v. Town of Wells*, 557 A.2d 168, 172 (Me. 1989) [hereinafter *Bell II*] (discussing how the Massachusetts Colonial Ordinance of 1641 applies to Maine, and the ordinance's grant of rights for fishing, fowling, and navigation).

(low excludability, low rivalry of consumption), club goods (high excludability, low rivalry of consumption), common pool resources (low excludability, high rivalry of consumption) and private goods (high excludability, high rivalry of consumption). By deciding the case in one direction or another, the Court was in effect determining if a resource was a common pool resource or a private good. The Court's decision not only decided the question in favor of securing the right to use Rockweed to the upland property owner, but also by determining that Rockweed is a private good in effect curtailed the state of Maine's interest in determining the best course of management of a natural resource. At a time when many natural resource management agencies around the world and around the United States are implementing management pathways that include privatizing access to fisheries in an effort to ensure fishery sustainability,¹² the Court's decision presents a notable case of sudden privatization of all Rockweed fishery access in a state. How this decision affects the future of the fishery in Maine will present a dramatic case study of rapid privatization.

Also at issue in this case is a larger question of how complex scientific questions about sustainability and ecological impact should be adjudicated. Courts regularly draw on the long-established common law usage of legal analogy to answer complex scientific questions. Yet, in this case, there were detailed scientific studies that could have been drawn upon to address the analogy-based question of "is Rockweed more like a fish (and therefore the right to the resource should be held for the public), or more like a crop growing in soil (and therefore the private property of the landowner)?" However, the Court made determinations as a matter of law, and in doing so, failed to address the issue of Rockweed management and ownership as a matter of science.

III. ROCKWEED AND ITS ROLE IN MAINE'S COASTAL SOCIAL- ECOLOGICAL ECOSYSTEM

In North America, seaweeds have been used by indigenous peoples for millennia and by settler colonists for centuries. The

¹² Courtney Carothers & Catherine Chambers, *Fisheries Privatization and the Remaking of Fishery Systems*, 3 ENVIRONMENT AND SOCIETY 39, 44 (2012).

intertidal brown alga *Ascophyllum nodosum*—commonly called Knotted Wrack, or simply Rockweed—grows along northeastern coastlines of the United States and in maritime Canada, as well as the coastlines of northwestern Europe and Ireland. While *Ascophyllum nodosum* is not consumed directly as food by humans, its value as a fertilizer has long been recognized. Dead and dried *Ascophyllum nodosum* that is collected above the high water line has long been used as “sea manure” due to its high concentrations of macro- and micro-nutrients. More recently, a commercial harvest of living *Ascophyllum nodosum* has emerged. Uses of commercially harvested Rockweed include as fertilizer, but also, after processing, as a dietary supplement for livestock.¹³ The shipping industry uses Rockweed as a packing material to keep seafood moist for shipping, most notably, Maine’s \$600 million lobster industry.

Because of its multiple commercial uses and due to the ease of locating it along the coastline, the commercial Rockweed fishery has rapidly increased. An established industry in Western Europe and maritime Canada, the first commercial harvest of Rockweed in Maine began in the 1970s.¹⁴ In 2003, Rockweed harvest in Maine eclipsed 3.27 million pounds.¹⁵ Ten years later, in 2012, Rockweed landings had quadrupled, surpassing 14.6 million pounds.¹⁶ Economically, Rockweed harvest brings around \$20 million into the Maine coastal economy annually.¹⁷

Importantly for disputes about access to Rockweed as a resource, these meteoric increases in landings were driven largely by the entry into the fishery of a Canadian company – Acadian Seaplants, whose harvesters have taken more than 90% of the Rockweed harvest annually, primarily in areas on the Cobscook Bay region of far eastern Maine.¹⁸

¹³ Harinder Makkar et al., *Seaweeds for Livestock Diets: a Review*, 212 ANIMAL FEED SCIENCE AND TECHNOLOGY 1, 12 (2016).

¹⁴ Maine Dept. of Marine Resources, FISHERY MANAGEMENT PLAN FOR ROCKWEED (*ASCOPHYLLUM NODOSUM*), 1 (2014).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Maine Sea Grant and Maine Dept. of Marine Resources, *Rockweed Ecology, Industry and Management Fact Sheet* (2013).

¹⁸ Maine Dept. of Marine Resources, FISHERY MANAGEMENT PLAN FOR ROCKWEED (*ASCOPHYLLUM NODOSUM*), 1 (2014).

Also due to the rapid increase in landings, the Maine Department of Natural Resources decided to develop a Fishery Management Plan (Management Plan) to develop rules and guidelines for managing the fishery.¹⁹ The Management Plan was developed by a Plan Development Team including University of Maine scientists, state agency staff, conservation organization representatives, and Rockweed industry members. Part of the impetus for the development of the Management Plan came from the rise in landings, but part also came from high profile concerns in the academic literature about the ecological implications of unregulated harvest of Rockweed for the Maine coastline. In 2012, two scientists writing an article in *Annals of the New York Academy of Sciences* concluded, inter alia, “Rockweed has critical value as habitat, as food, and as a nutrient source supporting a community of over 150 other organisms...Cutting Rockweed has documented impacts on the alga itself and on the Rockweed community as a whole.”²⁰ These authors reasoned that the Rockweed harvest merits a precautionary approach and that no commercial harvest should be permitted until further studies of the ecological impact of harvest had been completed, stating: “A metric for an ecologically sustainable harvest must be based on the data from large-scale, long-term studies of postharvest recovery of Rockweed morphology, of Rockweed community structure and function, and of ecosystem impacts. Until this metric is developed and enforceable regulations based on it are developed, commercial-scale Rockweed cutting should not be permitted.”²¹ Likening Rockweed beds to “old growth forests,” one of the authors of that 2012 paper, Robin Hadlock Seeley has also led active activist groups focused on the conservation of habitat forming seaweeds.²² Notably, prominent algal phycologists have publicly disputed Seeley’s conclusions about the sustainability of Rockweed harvest, arguing that cutting

¹⁹ *Id.*

²⁰ Robin H. Seeley & William H. Schlesinger, *Sustainable seaweed cutting? The Rockweed (*Ascophyllum nodosum*) industry of Maine and the Maritime Provinces*, ANNALS OF THE N.Y.C. ACAD. OF SCI., Feb. 2012, at 98.

²¹ *Id.*

²² Clare Leschin-Hoar, *Help for Kelp – Seaweed Slashers See Harvesting Cuts Coming*, SCIENTIFIC AMERICAN, May 14, 2014.

Rockweed in Maine is sustainable,²³ and presenting concerns about Rockweed incorrectly being labeled a plant.²⁴ Some studies have suggested that cutting Rockweed fronds while leaving sixteen inches has only short term effects on local community ecology and that there is an increase in medium-sized fronds after cutting creating bushier rockweeds post-harvest.²⁵

Scientifically, *Ascophyllum nodosum* is not a plant, but a brown alga in the Kingdom Chromista. While it is photosynthetic using sunlight, carbon dioxide and water to create biomass and grow, it does not create a rooting structure and derives all of its nutrients from marine sources rather than from soils. Rockweed fixes itself in the intertidal zone through the use of a holdfast, which it uses to attach to rocks or other substrates. It maintains buoyancy and thus access to sunlight for growth through the use of small air bladders. Rockweed reproduces in spring and early summer once water temperatures are warm enough. Rockweed produces receptacles that subsequently release eggs and sperm into the water for external fertilization. While it is scientifically challenging to identify a single Rockweed “individual”²⁶ a single Rockweed frond growing out of a holdfast can remain in place for decades.²⁷

IV. TREATMENT OF ROCKWEED UNDER MAINE LAW

²³ Susan Brawley, *Look at the Science – Maine harvesting of Rockweed is sustainable*, BANGOR DAILY NEWS, (Jun. 3, 2014), <https://bangordailynews.com/2014/06/03/opinion/contributors/look-at-the-science-maine-harvesting-of-rockweed-is-sustainable/>.

²⁴ Jessica Muhlin & Susan Brawley, *Science should be heeded – Rockweed is not a plant*, BANGOR DAILY NEWS, (Apr. 28, 2019), <https://bangordailynews.com/2019/04/28/opinion/contributors/science-should-be-heeded-rockweed-is-not-a-plant/>.

²⁵ Jill C. Fegley, *Ecological implications of Rockweed Ascophyllum Nodosum L. le jolis, harvesting*" (2001) (Ph.D. Dissertation, University of Maine).

²⁶ Per Åberg, *Distinguishing Between Genetic Individuals in Ascophyllum nodosum Populations on the Swedish west Coast.*" 24 BRITISH PHYCOLOGICAL JOURNAL, June 1989 at: 183.

²⁷ Steve Dudgeon, & Peter S. Petraitis, *First year demography of the foundation species, Ascophyllum nodosum, and its community implications*, 109 OIKOS, no. 2, 2005 at 405.

The property rights of riparian owners in the state of Maine vary based upon the high and low tide marks.²⁸ The state of Maine holds the rights of the coastal waters and the submerged land below the low tide mark in public trust.²⁹ The upland landowner owns the coastal waters and submerged land between the high tide mark and the low tide mark, known as the intertidal zone.³⁰ However, there are reserved public rights to “fish, fowl and navigate.”³¹ The land above the high tide mark is private, but landowners are allowed to grant rights to the public.³² In Maine, private landowners own an overwhelming majority of the 3,500 mile coastline.³³

Unlike other marine resources such as shellfish, Rockweed’s life cycle functions similarly to plants (Rockweeds are sessile and photosynthetic) and to fish (they derive nutrition from the ocean and are exclusively marine).³⁴ Rockweed attaches to rocky substrates along the seabed, but does not harvest any nutrients from the soil.³⁵ This unusual intersection posed many challenges for the legal system of rights. Specifically, the Court in *Ross v. Acadian Seaplants Ltd.* had to articulate whether the public trust doctrine that covers shellfish covered this macroalga as well. In this case, the Court investigated the right to harvest Rockweed under two different legal doctrines.³⁶ First, the Court explored whether there

²⁸ John Duff et al., PUBLIC SHORELINE ACCESS IN MAINE: A CITIZEN’S GUIDE TO OCEAN AND COASTAL LAW 2 (Catherine Schmidt, 3rd ed. 2006); *Public Trust Doctrine*, BLACK’S LAW DICTIONARY (10th ed. 1014) (defining the public trust doctrine as the principle that navigable waters are preserved for the public use, and that the state is responsible for protecting the public’s right to the use).

²⁹ John Duff et al., *Supra* note 23 at 2.

³⁰ Bell, 557 A. 2d at 172 (1989); John Duff et al., *supra* note 23 at 2. Maine’s approach to rights in the intertidal zone is somewhat unique; in several states, the intertidal zone is held in trust by the state see *The Wildlife Soc’y*, *supra* note 1 (discussing the application of the public trust doctrine to the marine environment in different states).

³¹ John Duff et al., *supra* note 23 at 2.

³² *Id.*

³³ *Id.* This is in contrast to other states, such as Oregon, where the state owns from the water up to the line of vegetation. Erin Pitts, *The Public Trust Doctrine*, 22 ENVTL. L. 731, 736 (1992).

³⁴ Allison L. Schmidt et al., *Ecosystem structure and services in eelgrass *Zostera marina* and Rockweed *Ascophyllum nodosum* habitats*, 437 MARINE ECOLOGY PROGRESS SERIES 51, 52 (2011).

³⁵ *Ross v. Acadian Seaplants, Ltd.*, No. SC-CV-15-022, 2017 WL1247566, *2 (Me. Super. 2017); Schmidt et al., *supra* note 29 at 52. *ROCKWEED*

³⁶ *Ross*, No. SC-CV-15-022, 2017 WL1247566, at *1-4.

are public rights to Rockweed within the intertidal zone, under the doctrine of *profit a pendre*.³⁷ Second, the Court addressed whether or not the harvest of Rockweed was a protected public right under the public trust doctrine.³⁸ This section will explore the history of the two doctrines, and their legal application to Rockweed.

A. Profit a Pendre

The right to profit from the taking of a part of the soil or product of the land of another is known as a *profit a prendre*.³⁹ However, Maine law considers aquatic access rights held by those who do not own the soil to be easements.⁴⁰ In the 1861 case of *Hill v. Lord*,⁴¹ the Court addressed the issue of whether or not the public had a right to harvest dried seaweed as “sea manure” from the intertidal zone.⁴² The Court focused on whether or not the right to harvest seaweed from a privately held intertidal zone was an easement or a *profit a prendre*.⁴³ The importance in the distinction was that the inhabitants of the town would be able to claim an easement by custom only if the harvest of seaweed was considered an easement, and not a *profit a prendre*, because a right to the land cannot be acquired by custom if the landowner holds a *profit a prendre*.⁴⁴

In *Hill v. Lord*, the Court identified that the owner of the intertidal zone holds title to the seaweed on the flats, so long as the owner has not severed that right.⁴⁵ The Court determined that the right to harvest seaweed was a *profit a prendre* and not an

³⁷ A profit a prendre right grants the landowners the rights to profit from the bounty of their lands. Further discussion of profits a prendre is provided in the next section. Ross, No. SC-CV-15-022, 2017 WL1247566, at *2.

³⁸ Ross, No. SC-CV-15-022, 2017 WL1247566, at *2-4.

³⁹ 28A C.J.S. Easements § 14 (2017) (explaining that a “profit a prendre “right” gives the profit holder the right to sever and remove from the land of another a physical substance.” For example the right to hunt and fish on another’s land is a profit a prendre.)

⁴⁰ *Hill v. Lord*, 48 Me. 83, 96 (1861)

⁴¹ *Id.* at 83-101.

⁴² *Id.* at 96.

⁴³ *Id.* at 98.

⁴⁴ *Id.* at 97-99.

⁴⁵ *Id.* at 96.

easement.⁴⁶ To reach this conclusion, the Court compared the harvest of seaweed to the (1) cutting of grass and hay; (2) grazing of livestock; (3) hunting; and (4) fishing from an un-navigable stream.⁴⁷ Acknowledging that aquatic rights are generally easements, the Court still determined that the harvest of dried seaweed washed upon the seashore was a right to take profit in the soil.⁴⁸ Therefore, the inhabitants of Kennebunkport were barred from harvesting such seaweed on the private property, because the landowner had not deeded away the right to harvest.⁴⁹

In the present case that serves as the focal point of this article, the lower court used both *profit a prendre* and the public trust doctrine analysis to determine who holds the right to harvest Rockweed.⁵⁰ Under the *profit a prendre* analysis, the lower court relied on the *Hill v. Lord* holding, finding that the right to harvest is a *profit a prendre*.⁵¹ The trial court determined that the landowner holds the profit right of Rockweed in fee simple, and has complete control over the right to harvest Rockweed.⁵² And in this case, the landowner had not deeded that right to the public or Acadian Seaplants.⁵³ In making this decision, the court had to circumvent the Acadian Seaplants' argument that *Hill v. Lord* applies only to seaweed once washed upon the shore, citing *Anthony v. Gifford*.⁵⁴ In *Gifford*, the Massachusetts court⁵⁵ held that once seaweed and other marine plants detach from the intertidal floor and wash onto the seashore, the rights vest in the landowner.⁵⁶ In short, until the seaweed washes onto the seashore, the upland owner has no rights

⁴⁶*Id.* at 101.

⁴⁷*Id.* at 99-100.

⁴⁸*Id.* at 83, 98-101.

⁴⁹*Id.* at 100-101.

⁵⁰Ross, No. SC-CV-15-022, 2017 WL1247566, at *2.

⁵¹*Id.*

⁵²*Id.* at 3.

⁵³*Id.* at 3-4.

⁵⁴*Id.* at 4.

⁵⁵*Storer v. Freeman*, 6 Mass. 435, 438 (1810); *Bell*, 557 A. 2d at 172 (the "rule of law governing titles to intertidal land had its origin in the Colonial Ordinance of 1641-47 of the Massachusetts Bay Colony and long before the separation of Maine was received into the common law of Massachusetts by long usage and practice throughout the jurisdiction of the Commonwealth.").

⁵⁶*Anthony v. Gifford*, 84 Mass. 549, 549 (1861).

to the seaweed.⁵⁷ The defendant argued that private rights of Rockweed attach, only after Rockweed detaches from the rockbed.⁵⁸ The court, however, found that *Gifford* does not apply, because *Gifford* failed to speak directly to the harvest of seaweed that is still attached to the intertidal rock floor, and not floating with the tide.⁵⁹ To conclude, the lower court held that the landowner owns the rights to the Rockweed in the intertidal zone, because the landowner had not deeded this right to the public or to the defendant.⁶⁰ This conclusion destroyed the claim that Rockweed harvesters gleaned rights to the Rockweed by custom—an argument afforded only if the landowner does not hold a *profit a prendre* right.⁶¹

B. The Public Trust Doctrine

States have the authority to assert regulatory power over the coastal zone via either the police power, or the public trust doctrine.⁶² Under the police power, the state has legislative power to protect public health, safety, and welfare.⁶³ However, the police power is subject to limitations on its power to create coherent coastal management programs.⁶⁴ The police power is specialized enough to deal with conflicting legitimate coastal uses.⁶⁵ Further, states traditionally use the police power to restrict harmful activities, and the use of the police power is infantile in creating affirmative proactive management plans.⁶⁶ Finally, the police power can result

⁵⁷ *Id.*

⁵⁸ See Ross, No. SC-CV-15-022, 2017 WL1247566, at *2-4 (arguing that the landowner's rights to seaweed does not attach until it washes ashore).

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ See *Hill*, 48 Me.at 99 (explaining that the public cannot glean rights via custom if landowners hold a *profit a prendre*).

⁶² JACK A. CAREY ET AL., *THE PUBLIC TRUST DOCTRINE AND THE MANAGEMENT OF AMERICA'S COASTS*, 3 (1994); U.S. CONST. amend. X.

⁶³ *Brown v. Maryland*, 25 U.S. 419, 422, 456 (1827); JACK A. CAREY ET AL., *supra* note 57, at 3.

⁶⁴ JACK A. CAREY ET AL., *supra* note 62, at 3.

⁶⁵ *Id.*

⁶⁶ *Id.*

in a regulatory taking if the result of the regulation goes “too far.”⁶⁷ Therefore, states often rely on the use of the public trust doctrine in conjunction with the police power.⁶⁸

The Public Trust Doctrine is an ancient property law principle, originating from the English common law.⁶⁹ The public trust doctrine, as a principle, exists in every state.⁷⁰ The general rule is that (a) all tidelands and navigable waters owned by the thirteen colonies transferred title to the existing states via succession; (b) the states own the tidelands and navigable waters subject to a “public trust” to benefit all citizens with certain usage rights related to maritime commerce, navigation and fishing; and (c) all land granted from the state to private landowners is subject to the public trust.⁷¹

In the United States, the use of coastal lands and the natural resources located over such lands and waters out to 3 nautical miles is a matter of state law—with few exceptions.⁷² The scope of the

⁶⁷ *Pennsylvania Coal v. Mahon*, 260 U.S. 393, 415 (1922); *Penn Central Transportation Company v. City of New York*, 483 U.S. 104, 123 (1978) (finding three factors in regulatory takings analysis: economic impact; character of government action; and interference with investment backed expectations); *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 451 (1982) (holding that a permanent physical invasion of private property is a taking per se); JACK A. CAREY ET AL., *supra* note 62, at 3..

⁶⁸ JACK H. ARCHER CAREY ET AL., *supra* note 62, at 3.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.* at 3-4.

⁷² JACK H. ARCHER ET AL., *supra* note 57, at 7. For a thorough discussion on the “the complex mosaic of authorities” governing coastal law *see generally* U.S. COMM’N ON OCEAN POLICY, REVIEW OF U.S. OCEAN AND COASTAL LAW, THE EVOLUTION OF OCEAN GOVERNANCE OVER THREE DECADES, APPENDIX 6 TO AN OCEAN BLUEPRINT FOR THE 21ST CENTURY, 2 (2004) (Discussing the various statutes that govern the coast and noting that “U.S. law divides authority and responsibility between federal and state governments” and then explaining Pursuant to the Submerged Lands Act (SLA), states hold title to the submerged lands and the natural resources in such lands and waters out to 3 nautical miles. . . subject to certain reservations.”); *see Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 474 (1988) (“the individual States have the authority to define the limits of the lands held in the public trust and to recognize private rights in such lands as they see fit”); *see also* Bell II 557 A.2d at 182 (Wathen, J., dissenting) (stating “it is...beyond a doubt that the determination of public and private rights in the intertidal land is fundamentally a matter of state law,” and providing an extensive list of support).

state power to regulate public trust lands “is directly related to the public interests that the doctrine is intended to protect.”⁷³ In *Shivley v. Bowlby*, the Supreme Court held that the purpose of the public trust doctrine is to guarantee that tidelands are put to the best uses for the public interest.⁷⁴

In Maine, the public trust doctrine is rooted in the Massachusetts Bay Colony Ordinances of 1641 and 1647.⁷⁵ To encourage private landowners to invest in structures that ventured below the high water mark, the General Court of the Massachusetts Bay Colony enacted the 1647 ordinance granting, “upland owners property rights down to the low water mark,” and the public the rights to the intertidal zone for “fishing, fowling, and navigation.”⁷⁶ Massachusetts incorporated the concepts of the Ordinance into common law.⁷⁷ Later, when Maine achieved statehood, “the principles of the Ordinance were said to be adopted into Maine’s common law under Article X of the Maine Constitution.”⁷⁸ However, Maine did not explicitly adopt the language of the Ordinance.⁷⁹ The Maine judiciary sustained the custom of private ownership of the intertidal zone that originated with the Ordinance.⁸⁰

The Maine Judiciary has always accepted that the public “at large” has the rights to “fish, fowl and navigate” within the intertidal zone.⁸¹ However, the interpretation of the scope of the right

⁷³ JACK H. ARCHER ET AL., *supra* note 57, at 10.

⁷⁴ *Shivley v. Bowlby*, 152 U.S. 1, 12 (1894).

⁷⁵ Hill, 48 Me. at 94 (1861); *Bell v. Town of Wells*, 510 A.2d 509, 511-13 (Me. 1986) [hereinafter *Bell I*]; *Town of Wellfleet v. Glaze*, 525 N.E.2d 1298, 1300 (Mass. 1988).

⁷⁶ Benjamin Donaghue, *McGarvey v. Whittredge: Continued Uncertainty in Maine’s Intertidal Zone*, 64 MAINE L. REV. , no. 2, 2012, at 597 citing THE BOOK OF THE GENERAL LAUUS AND LIBERTYES CONCERNING THE INHABITANTS OF MASSACHUSETTS 5, *reprinted in* THE GENERAL LAUES AND LIBERTYES CONCERNING THE INHABITANTS OF THE MASSACHUSETTS, 35 (Thomas G. Barnes ed., 1975).

⁷⁷ *Storer v. Freeman*, 6 Mass. 435, 438 (1810); Donaghue, *supra* note 73, at 597.

⁷⁸ *Id.*; ME. CONST. art. X §§ 3, 5; *Lapish v. Bangor Bank*, 8 Me. 85, 93 (1831).

⁷⁹ *Bell II*, 557 A. 2d at 184.

⁸⁰ *Id.*; *see also* Donahue, *supra* note 73, at 597 (discussing how the Ordinance transitioned into Maine common law).

⁸¹ *Bell I*, 510 A.2d at 510 (stating that the traditional uses enumerated in the ordinance are protected under the Public Trust Doctrine and noting that the

enumerated in the ordinance has varied over time. Under one approach, the public rights to “fish,” “fowl,” and “navigate” can only extend to a “natural derivative” of one of the enumerative rights.⁸² The other approach finds that the court is not bound to the literal uses enumerated in the ordinance.⁸³

Strict interpretation of the Ordinance derives from the *Bell* cases. In *Bell v. Town of Wells*, 510 A.2d 509 (Me. 1986) (*Bell I*), the issue in the lower court was whether the public had a right to access to Moody Beach for recreational purposes.⁸⁴ In *Bell I*, the Maine Supreme Court addressed (1) whether the lower court properly dismissed the case because the state was the trustee of public rights in the beach, and (2) whether the state interest made the state an indispensable party, and therefore barred the plaintiff's quiet title actions under the doctrine of sovereign immunity.⁸⁵ The court vacated the dismissal, holding that the plaintiffs (owners of property adjacent to the coast) hold fee in title to the intertidal land under the Ordinance. Therefore, in *Bell I* the Court did not address whether the public trust doctrine grants the public an easement to access the intertidal zone for recreation, and therefore did not reach analysis regarding the scope of the public trust doctrine.⁸⁶

Three years later in *Bell II*, *Bell v. Town of Wells*, 557 A.2d 168 (Me. 1989), the Court did assess the scope of the public trust doctrine relating to recreation.⁸⁷ The Majority started by stating that oceanfront owners hold a fee simple interest in the intertidal zone subject only to the easements stated in the Ordinance. Next, the Majority stated the public easement in the intertidal zone does not extend beyond that “reserved” in the colonial ordinance “broadly

Court is forced to help decipher the nature and scope of the three rights under the Maine Public Trust Doctrine).

⁸² Opinion of the Justices, 313 N.E.2d 561, 566 (1974).

⁸³ Donahue, *supra* note 73, at 597. Cases that demonstrate this interpretation include: *French V. Camp*, 18 Me. 433, 434 (1841) (finding that the public has the right to use the intertidal zone as a public highway when covered in ice); *Smart v. Aroostook Lumber Co.*, 103 Me. 37, 48 (1907) (holding that the public has a right to land and offload a vessel within the intertidal zone).

⁸⁴ *Bell I*, 510 A.2d at 510 (Me. 1986).

⁸⁵ *Id.* at 515-518.

⁸⁶ *Id.* at 518; *See also* *Bell II*, 557 A.2d at 171, n. 8 (providing a concise summary of the holding in *Bell I*).

⁸⁷ *Bell II*, 557 A.2d at 173.

construed.” Citing *Barrows v. McDermott*⁸⁸, the Majority observed that the public holds the rights to “fish,” “fowl,” and “navigate” for pleasure, as well as for business or sustenance.⁸⁹ Next, the Majority stated that the Court has generally given a “sympathetically generous interpretation of what is encompassed within the three terms “fishing,” “fowling,” and “navigation,” or reasonably incidental or related thereto.”⁹⁰ Next, the Court held that the plaintiff’s claim that the public has a general recreation easement to use Moody Beach, “cannot be justified as encompassed in, or reasonably related to ‘fishing,’ ‘fowling’ or ‘navigation.’”⁹¹ Reaching this conclusion, the Majority stated that to expand the ordinance to recreation would equate to the Court legislating from the bench, because there is no basis in finding a general recreation easement embodied in the ordinance.⁹² As well, the Majority explained that adding an easement for recreation would make the aggregate easement more burdensome on the landowners.⁹³ In short, the Majority in *Bell II* acknowledged that the interpretation of the ordinance is reserved to a broad construction of the terms enumerated, and held that the Ordinance does not grant the public an easement for general recreation.⁹⁴ This remarks a stark change in the court’s approach to the public trust doctrine. Before *Bell II*, the Court’s recognized that public rights to the intertidal zone were not static, and that the rights could evolve over time.⁹⁵ *Bell II* marks a dramatic change from the dynamic approach to interpreting the Ordinance, and instead applied a strict textual interpretation.⁹⁶

⁸⁸ *Barrows v. McDermott*, 73 Me. 441, 449 (1882).

⁸⁹ *Bell II*, 557 A.2d at 173.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.* at 176.

⁹³ *Id.* at 175.

⁹⁴ *Id.* at 176.

⁹⁵ Donahue, *supra* note 74, at 604 (stating that prior to *Bell II* the Maine Supreme Court precedent acknowledged that “the *jus publicum*” represents public rights that are not static, but that evolve and change with time...Only in *Bell II* did [the Court] interpret the Ordinance to constrain the public’s rights to those uses enumerated”) *citing* French, 18 Me.at 434; and *Marshall v. Walker*, 93 Me. 532, 536 (1900) as examples of the dynamic approach to public rights to the intertidal zone.

⁹⁶ Donahue, *supra* note 74, at 604.

The three justice Dissent in *Bell II* disagreed.⁹⁷ Led by Justice Wathen, the dissent stated that public recreational rights are “not confined strictly to ‘fishing,’ ‘fowling,’ and ‘navigation’ however ‘sympathetically generous’ the interpretation of those terms might be.”⁹⁸ The dissent emphasized that the Ordinance was not the “exclusive and preeminent” source of *all* public rights in Maine.⁹⁹ Instead, the dissent highlighted that public rights to the intertidal zone existed at common law before the Ordinance, and that the Ordinance did not “displace” those rights.¹⁰⁰ Moreover, the policy forwarded by the Majority leads to exclusion—a result at odds with the function and history of the public trust doctrine in the intertidal zone.¹⁰¹ Next, the Dissent focused on the large body of precedent that strayed away from reasonable interpretation of the terms “fishing,” “fowling,” and “navigation.”¹⁰² Finally, the Dissent concluded that the case “does not require that we delineate the outer limits of public rights,” but did argue that the public’s rights are “at a minimum broad enough to include such recreational activities as bathing, sunbathing, and walking.”¹⁰³ Moreover, the Dissent struck at the Majority’s policy argument, and stated that recreation does not place an additional burden on shoreowners.¹⁰⁴ Finally, the Dissent argued that “any further refinement [of the public’s rights under the Ordinance] should await common law development or legislative action.”¹⁰⁵ All in all, the *Bell II* dissent found the public’s rights under the ordinance and common law were broad enough to include recreation.¹⁰⁶ And, unlike the Majority, the Dissent maintained the dynamic approach to interpreting the Ordinance—permitting uses besides those included in the Ordinance.¹⁰⁷ The dichotomy between the Majority and dissent illustrates the sharp dissimilarity between the two approaches to analyzing public rights

⁹⁷ *Bell II*, 557 A.2d at 180.

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.* at 185-190.

¹⁰³ *Id.* at 189.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 187-89.

to the intertidal zone. However, both the Majority and Dissent noted that further refinement of the public rights in the intertidal zone should be addressed by the legislature.¹⁰⁸

In 2011, *McGarvey v. Whittredge* strayed from the strict analysis in *Bell II*, and highlights the more liberal approach to interpretation of the Ordinance.¹⁰⁹ The Court indicated that prior to *Bell II*, a more expansive and holistic approach to interpreting the colonial ordinance's access rights was the standard.¹¹⁰ Using the dissent in *Bell II*, the Court articulated a two-part test.¹¹¹ First, the Court determines if the intended activity in the intertidal falls "readily" within "fishing," "fowling," or "navigation."¹¹² If the answer is yes, the activity is a public right.¹¹³ If not, the second question is applied: should the court read the common law to incorporate the activity as protected under the public trust doctrine?¹¹⁴ The *McGarvey* Court then applied the test to determine whether or not the public right extends to allow the public to walk across the intertidal lands to SCUBA dive.¹¹⁵ The Court held the access to the private lands of the intertidal zone for SCUBA diving was a public right.¹¹⁶

The *McGarvey* decision left the three enumerated terms in the ordinance open to further interpretation beyond the text of "fishing," "fowling," or "navigation."¹¹⁷ In effect, the decision cracked the door for modern expansion of the traditional easements—extending public access to the intertidal zone to SCUBA divers.¹¹⁸ Of the three enumerated rights, the harvest of Rockweed is most similar to fishing. As such, the majority of the next section will discuss precedent under the fishing easement, and how the Court in *Ross v. Acadian Seaplants Ltd.* applied the *McGarvey* test. The harvest of Rockweed, however, may also

¹⁰⁸ *Id.* at 176, 189.

¹⁰⁹ *McGarvey*, 28 A. 3d at 620.

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ Compare *McGarvey v.*, 28 A. 3d 620 at 622, with *Bell*, 557 A. 2d at 173.

¹¹⁸ *McGarvey*, 28 A. 3d at 622.

require “navigation.” Under “navigation,” the activity must involve some mode of transportation.¹¹⁹ The Court has found that the act of mooring vessels and loading cargo has been protected under the public trust doctrine.¹²⁰ The underlying rationale behind the “navigation” element of the Maine public trust doctrine is that “state owned waters are of a common right, a public highway, for the use of all the citizens.”¹²¹ The Court has also found that travel on intertidal land to get to and from land or houses also fell under “navigation.”¹²² All-in-all, the Maine Public Trust Doctrine serves to maintain public access and use of the intertidal zone for “fishing, fowling, and navigation” based activities. Maine and Massachusetts courts have often been required to identify the extent of the public right to “fish” within the intertidal zone.¹²³ In *Town of Wellfleet v. Glaze*, the Court addressed whether the state had the authority to grant permits to plant, grow, and harvest shellfish within the intertidal zone.¹²⁴ The court first acknowledged that the public right to fish included the right to dig for shellfish.¹²⁵ Generally, the right to fish expands to both moving fish in the water, and those embedded in the mud, including the digging of worms.¹²⁶ While *Town of Wellfleet* was decided on jurisdictional grounds,¹²⁷ a two-justice concurrence explored the merits of the case, including the distinction between naturally occurring shellfish and farmed shellfish.¹²⁸ The O’Connor concurrence found that “Aquaculture is not fishing, nor can it be considered a natural derivative of the right to fish.”¹²⁹ The concurrence further highlighted that the right to fish

¹¹⁹ French v. Camp, 18 Me.433, 434-35 (1841).

¹²⁰ Deering v. Proprietors of Long Wharf 25 Me. 51, 65 (1845).

¹²¹ French, 18 Me. at 34.

¹²² Deering, 25 Me. at 65.

¹²³ See *Town of Wellfleet v. Glaze*, 525 N.E. 2d 1298, 1300 (Mass. 1988) (exploring the scope of fishing under the Maine public trust doctrine).

¹²⁴ *Id.* at 1299. .

¹²⁵ *Town of Wellfleet*, 525 N.E. at 1301 *citing* *Commonwealth v. Howes*, 169 N.E 806, 808 (1930).

¹²⁶ *Proctor v. Wells*, 102 Mass. 216, 217 (1869); *State v. Lemar*, 87 A. 2d 886, 886 (1952).

¹²⁷ *Town of Wellfleet*, 525 N.E. 2d at 1302.

¹²⁸ *Id.* at 1302-04.

¹²⁹ *Id.* at 1303.

cannot be construed to include rights to plant, cultivate or harvest fish within the intertidal zone.¹³⁰

In *Ross v. Acadian Seaplants Ltd.*, the trial court applied the *McGarvey* test.¹³¹ Under the first prong of *McGarvey*, the court found no similarity or reasonable correlation between fishing and the harvest of Rockweed—despite the court’s acknowledgement that there is an easement to harvest shellfish and dig for worms.¹³² The trial court found that harvesting a terrestrial plant was no more similar to fishing than cutting down a tree and emphasized that Rockweed is a terrestrial plant.¹³³ Classifying Rockweed as a terrestrial plant is taxonomically incorrect—it is a brown alga that is as closely related to vascular plants as it is to multicellular animals. It also does not acknowledge Rockweed’s full life cycle—unlike terrestrial plants, Rockweed derives no nutrients from the land and reproduces through external fertilization in ocean water¹³⁴ Furthermore, because waves break Rockweed loose from the substrate, which then floats in the intertidal zone, defining Rockweed as a plant presents a challenge. Rockweed “has an enchanted double life” as both a kind-of plantlike organism and a kind-of fish or shellfish-like organism.¹³⁵ As a result, classifying Rockweed under the public trust doctrine requires the court to fabricate a general definition, which does not properly represent what the published scientific literature understands.

Moving to the second prong of the test, the trial court did not interpret the common law to protect the harvest of Rockweed.¹³⁶ The court looked to similar public easements protected under the public trust doctrine to differentiate the harvest of Rockweed.¹³⁷ The court acknowledged the public holds an easement to harvest shellfish or

¹³⁰ *Id.*

¹³¹ *Ross*, No. SC-CV-15-022, 2017 WL1247566 at *4.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ See UNIV. PUGET SOUND, *Rockweed*, <https://www.pugetsound.edu/academics/academic-resources/slater-museum/exhibits/marine-panel/rockweed/> (last visited Dec. 9, 2018) (explaining that waves and current break the holdfast from the substrate, causing the Rockweed to remain floating in the intertidal zone),

¹³⁵ Ben Goldfarb, *A Fish Called Rockweed*, HAKAI, May 28, 2019.

¹³⁶ *Ross*, No. SC-CV-15-022, 2017 WL1247566, at *4.

¹³⁷ *Id.*

to dig for clams, but not to harvest the mussel bed or to take ice.¹³⁸ The Court then looked to *Hill v. Lord*, to determine if there is a public easement related to the harvest of seaweed.¹³⁹ The court found *Hill* dissimilar because in that case the Court upheld a public right to harvest of seaweed under the theory *profit a prendre* and not an easement.¹⁴⁰ As a result, the court did not find *Hill* persuasive in supporting that there was a public easement to harvest Rockweed. Therefore, the court did not find that the common law “should be understood” to include the harvest of rockweed, so the court did not find an easement under the second prong of the *McGarvey* test.¹⁴¹ Unable to meet either element of the *McGarvey* test, the court did not find a public right to harvest Rockweed in the intertidal zone.¹⁴²

V. THE SUPREME JUDICIAL COURT OF MAINE DECISION

In *Ross v. Acadian Seaplants, Ltd.*,¹⁴³ the Court reviewed the lower court decision, and explained the limited issue before the court as “whether living Rockweed, growing on and attached to intertidal land is—as Ross asserts—the private property of the adjoining upland owner who owns the intertidal zone in fee, or—as Acadian counters—a public resource held in trust by the state.”¹⁴⁴ The Court acknowledged that the case “draws [the court] into the confluence of public and private property rights within the intertidal zone,”¹⁴⁵ and concluded, “the public may not harvest living Rockweed growing in and attached to the privately-owned intertidal zone.”¹⁴⁶

The Court began by accepting that the nature and extent of the public’s interest in the intertidal zone is subject to “much debate, litigation, and judicial writing,” and admitting that the precedent does not clearly establish a delineation between the public and

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 7.

¹⁴² *Id.*

¹⁴³ 2019 ME 45, 206 A. 3d 283.

¹⁴⁴ *Id.* ¶ 8.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* ¶ 14.

private rights in and to the intertidal zone.¹⁴⁷ The Court then focused on the analytical frameworks articulated in the *McGarvey* majority and concurrence.¹⁴⁸ Chief Justice Saufley's approach in *McGarvey* explained that the three terms fishing, fowling, and navigation should be broadly understood.¹⁴⁹ While Justice Levy's concurrence in *McGarvey* analyzed the terms based "on the limiting principle that the enumerated rights of 'fishing,' 'fowling,' and 'navigation' were 'never understood ...to merely establish a context for some broader right or rights.'"¹⁵⁰

The Court started its analysis with the final term of the trilogy - "navigation." The Court acknowledged that there is a navigational component of harvesting Rockweed because harvesters operate skiffs in the intertidal waters to harvest the Rockweed.¹⁵¹ However, the Court found that no matter how broadly the term "navigation" is construed,¹⁵² the harvesting of Rockweed involves the use of the intertidal land itself, because "living Rockweed is attached to the intertidal substrate even if it does not draw nutrients from the land."¹⁵³ Acknowledging that Rockweed harvesting does include the use of boats, the Court highlighted that the use of boats are a secondary activity to the harvest of Rockweed.¹⁵⁴ Rockweed harvesters enter the intertidal zone with their primary purpose being to cut and take rockweed.¹⁵⁵ The Court concluded that the term "navigation" does not encompass harvesting living Rockweed from the intertidal zone, because Acadian Seaplants' primary use of the intertidal waters is not for crossing water or land, but is to gain access to the attached Rockweed.¹⁵⁶

The Court then turned to "fishing." Despite the shape shifting nature of this algae, that belongs neither in the animal or plant kingdom,¹⁵⁷ the Court started by stating that Rockweed is a

¹⁴⁷ *Id.* ¶ 13.

¹⁴⁸ *Id.* ¶ 15.

¹⁴⁹ *Id.* ¶¶ 15-16 (citing *McGarvey v. Whittredge*, 2011 ME 97, ¶ 56)

¹⁵⁰ *Id.* ¶ 18; *McGarvey*, 2011 ME 97, ¶ 62.

¹⁵¹ *Id.* ¶ 22.

¹⁵² *Id.*

¹⁵³ *Id.* ¶ 22.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ Ben Goldfarb, *A Fish Called Rockweed*, HAKAI, May 28, 2019.

plant.¹⁵⁸ As well, the Court highlighted that Rockweed is biologically dissimilar from fish, lobster, clams, oysters, and bloodworms because “[rockweed] draws nutrients from the air and seawater using a photosynthetic process and, once attached to the intertidal substrate, [do not] move.”¹⁵⁹ The Court then concluded that even an overly generous interpretation of the public’s rights “cannot transform the harvesting of a marine plant into ‘fishing.’”¹⁶⁰

Having determined that the harvesting of Rockweed does not fall within the public right to use the intertidal zone for “fishing” or “navigation,” the Court analyzed the harvesting of Rockweed under Justice Levy’s concurrence in *McGarvey*: whether “the common law approach permits the public to harvest Rockweed as an activity that constitutes a ‘reasonable balance’ between the public’s rights within the intertidal zone and the private property interest held by the upland property owner.”¹⁶¹ The Court found that the burden of cutting and removing plants with specialized equipment is not a reasonable burden the landowner should bear.¹⁶² Acadian and other harvesters use specialized equipment and skiffs with multi-ton capacity.¹⁶³ Moreover, “Acadian’s activity is qualitatively similar to other uses of the intertidal zone that [the Court has] held are outside of the public trust doctrine.”¹⁶⁴ Therefore, the right to harvest Rockweed does not strike a reasonable balance between public rights and the burden imposed on private landowners. Unable to find the harvest of Rockweed as a public right under “fishing” or “navigation” the Court held that the harvest of Rockweed is not a public right.

Chief Justice Saufley filed a concurring opinion in which Justice Mead and Gorman joined.¹⁶⁵ The concurrence joined the result, but stated that the three justices wanted to explicitly overrule the *Bell II* decision. Chief Justice Saufley stated that the *Bell II* decision required the Judiciary to force an activity in question into the definition of “fishing, fowling, or navigation,” and as a result,

¹⁵⁸ Ross, 2019 ME 45, ¶ 22.

¹⁵⁹ *Id.* ¶ 27.

¹⁶⁰ *Id.* ¶ 26.

¹⁶¹ *Id.* (citing *McGarvey*, 28 A. 3d 620).

¹⁶² *Id.*

¹⁶³ *Id.* ¶ 31.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.* ¶ 34.

“significant and expensive” litigation has plagued the state.¹⁶⁶ Moreover, the *Bell II* decision has required the court to dodge or rearticulate *Bell II*: “That decision—*Bell II*—has been questioned, pretzeled, and avoided,” Justice Saufley wrote.¹⁶⁷ The concurrence wanted to adopt Justice Wathen’s dissent in *Bell II*, allowing the common law to continue to develop, and emphasized “the public deserves [this] correction.”¹⁶⁸

VI. WHAT THE ROCKWEED DECISION MEANS FOR MAINE

The recent Maine Supreme Court decision in *Ross v. Acadian Seaplants Ltd.* will force change across all sectors now that private landowners hold the title to Rockweed in the intertidal zone. Industry, local communities, the Maine Government, landowners and the public must adjust.

A. Acadian Seaplants: Withdrawing from Maine?

Acadian Seaplants may cease their harvest of Rockweed within the state of Maine. Acadian Seaplants Limited (Acadian) was founded in 1981, and is located in Vancouver, Canada.¹⁶⁹ Acadian harvests seaweed along Atlantic North America, Ireland, and Scotland.¹⁷⁰ Acadian’s Environmental Policy explicitly highlights that the Acadian team is committed to follow Canadian federal, municipal and provincial law.¹⁷¹ Further, Acadian is dedicated to maintaining strong international relationships.¹⁷²

To avoid private trespass claims, Acadian must now obtain a license or easement from landowners if they wish to continue the

¹⁶⁶*Id.* ¶42.

¹⁶⁷*Id.* ¶40.

¹⁶⁸*Id.* ¶42.

¹⁶⁹ See Acadian Seaplants Limited, About Us, <http://www.acadianseaplants.com/marine-plant-seaweed-manufacturers> (last visited 3/27/2018) (describing Acadian Seaplants Limited’s mission statement, history, and location).

¹⁷⁰ *Id.* (stating the locations Acadian Seaplants harvests sea products).

¹⁷¹ Jean-Paul Deveau, Environmental Policy, Acadian Seaplants Ltd. 1 (2008), http://www.acadianseaplants.com/_mm_files/ckfiles/images/files/ABOUT%20US%20-%20Home%20Page%20Environmental%20Policy%20PDF.pdf

¹⁷² *Id.*

harvest of Rockweed within privately owned intertidal zones.¹⁷³ A *profit a prendre* encompasses the right of the public to come in and harvest an item “from the soil.”¹⁷⁴ A license subverts private trespass actions by providing the licensee with permission to do something on the land of another.¹⁷⁵ Therefore, in order to avoid trespass claims, Acadian must draft agreements with intertidal landowners, to continue the harvest of Rockweed. In consideration of these agreements, Acadian will likely have to pay for access to Rockweed. Simple payment systems could be based on (1) the length of the lease; (2) the amount of Rockweed harvested from the property; and/or (3) the predicted productivity of the site. It is important to note that the landowner can always revoke the agreement.¹⁷⁶ The ability to revoke *profits a prendre* may serve as a check on Rockweed harvest in some respect; landowners, who do not approve of how Acadian operates, or treats the intertidal zone, can revoke the *profit a prendre*. However, with the landowner holding the rights, the landowner’s interests will always dominate. Acadian can no longer harvest Rockweed solely under Maine regulation, but must contract separately with individual private landowners.

Profits a prendre are not Acadian’s only option. In lieu of the privatization of the intertidal zone, Acadian can elect to cease harvest of Rockweed from Maine. The habitat range of Rockweed extends from Canadian intertidal zones, and from the shores of Norway down to Portugal. Therefore, Acadian can elect to only harvest from Labrador, Nova Scotia, Newfoundland, and in Europe.

B. Maine’s Rockweed Employees: Out of a Job, or a New Opportunity?

The Maine Seafood industry is at a crossroads. The harvest of staple Maine seafood products such as groundfish, clams and

¹⁷³ See *Profits a prendre and Licenses Distinguished*, §8 Maine Practice Series: Real Estate Law and Practice (stating that a profit a prendre is a right of the common, whereas a license applies only to the user).

¹⁷⁴ *Id.*; *Beckwith v. Rossi*, 175 A. 2d 732, 734 (1961); *Fiske v. Small*, 25 Me. 453, 457 (1845);

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

shrimp have reduced drastically in past years.¹⁷⁷ However, seaweed harvest has been on the incline.¹⁷⁸ Harvest of seaweed in Maine has increased 250% in less than seven years.¹⁷⁹ In 2013, Rockweed harvesters accounted for 10 million dollars of the Maine economy.¹⁸⁰ Further, over half of Maine towns experience beneficial secondary economic impact from Rockweed harvest.¹⁸¹

The four major Rockweed companies employ on average 110 harvesters, and another 115 dock and plant employees.¹⁸² In the event that large Rockweed harvesters leave Maine, employees and small local harvesters will be impacted based on how private landowners act in light of their new right to Rockweed.

Privatization of the intertidal zone may actually benefit local harvesting outfits. Similar to Acadian, local harvesters are forced to cooperate with local landowners to gain access to harvest Rockweed, via *profit a prendre* or license.¹⁸³ Unlike Acadian, local harvesters may have better ability to contract with local landowners for access. First, local landowners are more likely to know local harvesters, easing the discussion over access, and may encourage the landowners to grant *profit a prendre* rights to the local harvesters. Second, local landowners can stress the impact on the local economy from local harvest of Rockweed, further incentivizing landowners to contract with local harvesters. However, large harvesting operations, like Acadian likely have more access to capital, which can be a powerful tool in the bargaining process. Therefore, if pure economic gain is the motive of the landowner, large harvesting companies may be able to prevail in sealing *profit a prendre* rights. In the event that large harvesting

¹⁷⁷ MAINE SEAWEED COUNCIL. *Working Waterfront*, <http://www.seaweedcouncil.org/working-waterfront/> (last visited Jun. 26, 2020).

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.* For example, the purchasing of fuel and supplies for Rockweed harvest can help support local Maine businesses.

¹⁸² PETE THAYER & KATHERINE SCHMIDT, ROCKWEED ECOLOGY, INDUSTRY AND MANAGEMENT *Rockweed Ecology, Industry and Management*, 2 (2014).

¹⁸³ *Profits a prendre and Licenses Distinguished; Beckwith*, 175 Me at 743; *Fiske*, 25 Me. at 457. 1 MAINE PRACTICE SERIES, REAL ESTATE LAW & PRACTICE § 8:2 (2d ed.); *Beckwith v. Rossi*, 175 A.2d 732, 738 (1961); *Fiske v. Small*, 25 Me. 453, 457 (1845).

operations elect to cease the harvest of Rockweed in Maine, local Rockweed harvesters can benefit from reduced competition. Under this trend, the local harvesters will be able to contract with landowners to harvest rockweed.

C. Maine Department of Marine Resources: Managing Rockweed, Rockweed Harvest, and Public Access to Rockweed Harvest

In 2014, the Maine Department of Marine Resources (Department) published a *Fishery Management Plan for Rockweed*.¹⁸⁴ The plan outlined the current management measures in place in Maine as well as policy recommendations for the future.¹⁸⁵ One recommendation in the Plan was to implement coast-wide sector management.¹⁸⁶ The rationale behind sectoring the coastline was for monitoring purposes.¹⁸⁷ The policy recommended that the Department allocate each sector to a private entity for harvest over a predetermined number of years.¹⁸⁸ A re-evaluation of the sectors and their ecological status occurs at the end of the contract for harvest.¹⁸⁹

Privatization of the intertidal zone for Rockweed changes the Department's strategy. The Department has said publicly that it retains the general power to regulate the harvest of Rockweed, despite the Court ruling.¹⁹⁰ The Department can open and close areas

¹⁸⁴ Maine Dept. of Marine Resources, FISHERY MANAGEMENT PLAN FOR ROCKWEED (*ASCOPHYLLUM NODOSUM*), 1 (2014). *Fishery Management Plan for Rockweed (Ascophyllum nodosum)*, MAINE DEPT. OF MARINE RESOURCES, January 2014 at 1.

¹⁸⁵ *Id.* at 27, 33-38.

¹⁸⁶ *Id.* at 33.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ See ME. REV. STAT. ANN. tit. 12 § 6807 (2001) ("The commissioner may adopt rules regulating the harvest of seaweed on a species specific basis, including, but not limited to, the total number of licenses that may be issued, the designation of a harvesting season or seasons, the quantity of the resource that may be harvested in a season, areas that may be open or closed to harvest and gear and techniques that may be used in harvesting. Rules adopted under this section are routine technical rules pursuant to Title 5, chapter 375,

of the coast for Rockweed harvest.¹⁹¹ However, allocating harvest areas is no longer the Department's sole discretion, and as of October 2019, Maine Marine Patrol has begun to respond to landowner complaints of possible Rockweed theft from intertidal shorelines.¹⁹² In short, while the Department cannot now solely grant a harvester permission to harvest, they can always prevent the harvest. Thus, the ability to harvest Rockweed requires two permissions: landowner and agency. Likely, the Department can still address the goals provided in the Fishery Management Plan, but the approach will have to change. The Department may have to require landowner recording of *profits a prendre* rights, and then regulate the opening of private intertidal zones, based on the fishery.¹⁹³

D. Private Landowners: A New Right Added to the Bundle of Sticks

Landowners may now choose what happens to the Rockweed located in the intertidal zone, subject to the Department's approval.¹⁹⁴ Landowners can prevent all harvesters from entering the intertidal zone, and take trespass actions against harvesters who enter their intertidal zone to harvest Rockweed.¹⁹⁵ Or, landowners who may be unaware of their rights, can, in effect, allow the harvest of Rockweed in their intertidal zone, by failing to take action against the harvesters. Further, the landowner can strike a deal with select

subchapter II-A."); *see also* Peter McGuire, *Rockweed Industry Adrift After Ruling Allows Landowners to Restrict Access*, PORTLAND PRESS HERALD, Oct. 28, 2019, at 1 ("Spokesman Jeff Nichols said the Marine Resources commissioner still has regulatory power over rockweed, despite the court ruling").

¹⁹¹ *See id.* (finding that the right to regulate wildlife applies to wildlife on private land).

¹⁹² McGuire, *supra* note 196.

¹⁹³ The opening of private areas for harvest will likely alter the amount of Rockweed harvested, and therefore the viability of the fishery. As a result, State knowledge of private licenses to harvest will be beneficial.

¹⁹⁴ *Maine v. Taylor*, 477 U.S. 131 (1986) (holding "the state retains broad regulatory authority to protect the health and safety of its citizens and the integrity of its natural resources"); *see e.g.*, *McCready v. Virginia*, 94 U.S. 391, 5 (1876) (acknowledging the state's right to limit access to marine organisms).

¹⁹⁵ *See* ME. STAT. tit. 12 § 10657 (outlining the Maine civil trespass law).

harvesters, giving them a *profit a prendre* right to harvest Rockweed.¹⁹⁶

The public has lost another right to shoreline access in Maine. On its face, the decision distinguishes one public right: ability to harvest Rockweed. However, precedent set by the decision, may extinguish rights in the future. The Massachusetts Bay Ordinance only grants public trust rights to fish, fowl, and navigate the intertidal zone.¹⁹⁷ But, many additional rights have been granted to the public because they are a natural derivative of the enumerated public trust rights.¹⁹⁸ When public access is in question, courts are now less likely to find the right within the Massachusetts Bay Ordinance as a result of the decision. The privatization of the intertidal zone may expand because of the privatization of Rockweed.

VII. BROADER IMPLICATIONS FOR MARINE RESOURCE MANAGEMENT

The privatization of one more resource of the intertidal zone in Maine has implications for marine resource management that extend far beyond the issue of seaweed. First, the privatization decision takes a clearly narrow view of the state's Public Trust Doctrine. By deciding not to extend the doctrine to a broad interpretation of the public's interest in the intertidal, the Court highlighted the Public Trust Doctrine's limits as a tool of extending the state's interests in managing resources for sustainability. Of course, in this particular case, many advocates for environmental conservation were actually on the side of property owners, but the implication is that private property interests are to be given more weight than the interests of public's trust when put in conflict. For upcoming legal cases on climate change mitigation and adaptation,

¹⁹⁶ *Profits a prendre and Licenses Distinguished*, *supra* note 173 (defining profit a prendre rights in light of landowners and easement holders).

¹⁹⁷ Bell, 510 A. 2d at 509.

¹⁹⁸ Opinion of the Justices, 313 N.E. 2d 561, 566 (1974); *see e.g.* McGarvey, 28 A. 3d at 622 (expanding public access to the intertidal zone for scuba diving under the public trust doctrine).

a narrower Public Trust Doctrine may make it harder for States to prepare for the impacts of climate change in coastal zones.¹⁹⁹

Secondly, while the Court's decision in *Ross v. Acadian Seaplants Ltd.* rests on a clear legal foundation the decision lacks a scientific foundation. The Court's treatment of Rockweed as a terrestrial plant fails to consider taxonomic, phylogenetic, biological, or ecological data. Scientifically, Rockweed is not a plant. As increasingly complex scientific questions face courts adjudicating environmental disputes about sustainability, the Court's decision demonstrates the disconnect that may occur between a matter of law, and a matter of science. Here, the Court made the best of the legal arguments encompassing the science, but failed to accurately consider the best available science. By deciding the legal question at issue through a relatively simple legal analogy rather than through an examination of extensive scientific literature that demonstrates that Rockweed is not in fact a plant, the Court made clear that the Court will determine whether an organism is a plant or an animal based on legal representation of what the organism is, as opposed to careful consideration of scientific evidence.

The literature on common-pool resource management suggests that complete privatization of a common pool resource would not ensure that the most vulnerable resources would be protected.²⁰⁰ Yet, without privatization, there is no incentive for a private owner to invest because they cannot exclude others from benefitting from their investment. The best solution for sustainable

¹⁹⁹ For example, the debate over public access to the shoreline has resurfaced in Rhode Island after a citizen was arrested for harvesting seaweed from the shore see Brian Amaral, *Seaweed Collector's arrest in Rhode Island revives age old debate on Beach access: Massachusetts laws date to Mayflower Days*, Providence Journal, June 15, 2009, <https://www.southcoasttoday.com/news/20190615/seaweed-collectors-arrest-in-rhode-island-revives-age-old-debate-on-beach-access-massachusetts-laws-date-to-mayflower-days> ("He is considering challenging not just his arrest but the way that coastal rights are enforced in Rhode Island at a time when beach erosion, climate change and the increasingly aggressive tactics of private landowners, like hiring private security guards, are chipping away at Rhode Islanders' rights to access the beach.")

²⁰⁰ Elinor Ostrom, *The Challenge of Common-Pool Resources*, 50 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 8 (2008).

regulation may be somewhere in between.²⁰¹ The Court waded meaningfully into the discussions about effective management of the commons in the face of over-exploitation. The Court's decision provides a legal interpretation that looks expansively on private property rights and regards public access rights as being more narrowly and explicitly defined. In general, governance approaches that seek to privatize common pool fisheries in order to ensure sustainability of the resource are managed by state agencies and assign private rights to fishers for the use of the resource. As increasing numbers of marine resource managers adopt the usage of individual transferable fishing quotas that privatize quantitative fishery access,²⁰² and territorial use rights for fisheries (TURFs) that privatize fisheries spatially, one effect of the Court's decision was to allocate all fishery rights to coastal landowners. In this case, the private goods are unlikely to be used by the newfound property right holders, whose interests are largely in preventing use of the intertidal resources all together. While this may allay fears of over-exploitation for some, most privatization schemes are also directly and heavily managed by marine resource management agencies. Unusually, the Court, in making this decision for an already-established commercial fishery that treated Rockweed as a common pool resource with state management, has removed much of the authority of the relevant management agency. Without a management framework, it is hard to maximize the sustainable use of a resource while preventing overuse.

What makes this an intriguing case is that coastal Maine is one of the most extensively studied locations for community based common pool resource management.²⁰³ Maine's lobster fishery is managed through a co-management system in which social norms and preservation of a group's reputation are said to motivate them

²⁰¹ Barbara A. Vestal, *Dueling with Boat Oars, Dragging Through Mooring Lines: Time for More Formal Resolution of Use Conflicts in States' Coastal Waters?*, 4 OCEAN & COASTAL L.J. 1, 9 (1999).

²⁰² Seth Macinko, *Public or private: United States commercial fisheries management and the public trust doctrine, reciprocal challenges*, 33 NAT. RESOURCES J 919, 921(1993); Courtney Carothers & Catherine Chambers, *Fisheries privatization and the remaking of fishery systems*, 3 ENVIRONMENT AND SOCIETY 41 (2012).

²⁰³ JAMES M. ACHESON, *THE LOBSTER GANGS OF MAINE* (1988).

to comply.²⁰⁴ This kind of regulation is more effective when the groups depend on the resource.²⁰⁵ Though the Court had no legal mandate to seek effective resource management as a primary goal, by effectively limiting the users of the resource (the harvesters) from the management of the resource (through the state agency), the Court's decision goes against our best empirical understanding of effective common pool resource management.²⁰⁶

VIII. CONCLUSION

The much-awaited Court decision settled as a matter of law the rights to seaweed in Maine. It remains to be seen whether institutional mechanisms will be developed for granting harvesting companies private access rights for harvesting in the state or if the larger harvesters decide to leave the state of Maine and focus on Canadian and European Rockweed fisheries. Much of the trajectory of Maine's Rockweed management post-decision will rest on what private parties decide to do, but also on whether the Maine Department of Marine Resources decides to continue to develop regulatory approaches to managing Rockweed as a fishery, despite its newfound legal status as private property. A salient question is whether a community-based management system will emerge.

However, regardless of the trajectory of Maine's Rockweed management, the wrangling over public coastal access rights, the limits of intertidal navigation rights in Maine and Massachusetts, and the State's interests in managing resources for sustainability are just beginning. In 2019, several Maine state legislators introduced a bill that would make all intertidal lands state property—and in doing so, align Maine with other states—thus effectively assigning the full bundle of rights in the intertidal zone to the public and legislating a stronger state Public Trust Doctrine.²⁰⁷ The bill did not pass, but

²⁰⁴ *Id.* at 8-9 (“[A] management scheme developed and accepted by the user group may enhance compliance.”).

²⁰⁵ Pamela Quinn Saunders, *A Sea Change Off the Coast of Maine: Common Pool Resources As Cultural Property*, 60 EMORY L.J. 1323, 1349 (2011).

²⁰⁶ Elinor Ostrom and Michael Cox., *Moving beyond panaceas: a multi-tiered diagnostic approach for social-ecological analysis*, 37 ENVIRONMENTAL CONSERVATION 1 (2010).

²⁰⁷ An Act to Revise the Laws Regarding The Public Trust in Intertidal Lands. 129th Maine Legislature. LD 1323 2019.

indicates clearly that the disputes over the area where the land meets the sea are not likely to disappear. Fundamentally, the question of new technologies and products emerging in coastal and oceanic spaces, and whether the Courts see the possibility of a robust framework of rights held in public trust, will contribute to whether these new technologies are transformative and serve public, private and community-interests, or if the privatization of resources continues to expand into the water.