

LEGAL ISSUES IN DAM REMOVAL: A GUIDE FOR MASSACHUSETTS DAM OWNERS



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This guide is not intended to operate as a substitute for legal representation and does not create an attorney-client relationship. Because many of the legal issues addressed in this guide do not have definitive answers in the statutes, regulations, or judicial decisions of the Commonwealth, our conclusions and recommendations are necessarily tentative. Moreover, each dam removal presents its own unique challenges and circumstances. Dam owners should therefore consult with an attorney when deciding whether to move forward with a dam removal project. Neither the Clinic nor any of the authors assumes any liability for the actions taken (or not taken) by any party in reliance on this guide.

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Image Source: High Street Dam on the Town River in Bridgewater, Massachusetts Division of Ecological Restoration, available at <https://www.mass.gov/news/high-street-dam-removal-feasibility-study-bridgewater>

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INTRODUCTION

There are more than 3,000 dams on rivers and streams in Massachusetts. Most of these dams were built decades or even centuries ago, for purposes such as milling grain, generating electricity, and flood control. Some of these dams are owned by towns, cities, the state, or the federal government. More than half of them, however, are privately owned.

Many private owners in Massachusetts are considering whether to remove their dams. There are a variety of reasons why an owner might choose to remove an existing dam. Frequently, these dams no longer serve their original purposes and have long outlasted their designed lifespans. In addition, some have fallen into disrepair.¹ As a result, they can present a safety hazard to downstream residents and a liability risk to owners. The need for continued maintenance and repairs means that removing a dam may save an owner money in the long term.²

Moreover, a dam's continued existence as a blockage on a waterway can have harmful ecological effects. For example, dams impede fish passage, making it impossible for many native and migratory fish such as salmon, shad, and alewives to return to their historic spawning grounds. Moreover, the impoundments behind a dam can have elevated water temperatures and reduced dissolved oxygen levels, making the impoundment uninhabitable for native fish such as eastern brook trout. Recent scientific research also suggests that the impoundments behind these dams can generate significant emissions of methane, a powerful greenhouse gas.³

For all of these reasons, there is a strong case for removing many of the dams in Massachusetts. Accordingly, in recent years many private owners and municipalities, working in collaboration with state and federal agencies, as well as nonprofit organizations such as American Rivers, the Nature Conservancy, and Trout Unlimited, have chosen to remove dams. DER, for example, has

1 A two-year investigation by the Associated Press identified 39 dams in Massachusetts (out of 1,688 nationwide) that were rated in poor or unsatisfactory condition. See Michael Casey, *Nearly 40 Dams In Mass. Considered High Risk, Investigation Finds*, WBUR (Nov. 10, 2019), <https://www.wbur.org/earthwhile/2019/11/10/40-dams-in-mass-high-risk>; David A. Lieb, Michael Casey & Michelle Minkoff, *AP: At Least 1,680 Dams Across the US Pose Potential Risk*, Associated Press (Nov. 11, 2019), <https://apnews.com/f5f09a300d394900a1a88362238dbf77>.

2 For example, a report prepared for Massachusetts Division of Ecological Restoration (“DER”), a division of the Massachusetts Department of Fish and Game, reviewed three dam removal projects and found that “[r]emoving the dams was less expensive than repairing and maintaining them.” Industrial Economics, Inc., *Community Benefits of Stream Barrier Removal Projects in Massachusetts: Costs and Benefits at Six Sites*, at ES-2 (2015), <https://www.mass.gov/doc/phase-3-economic-community-benefits-from-stream-barrier-removal-projects-in-massachusetts/download>.

3 Bridget R. Deemer et al, *Greenhouse Gas Emissions from Reservoir Water Surfaces: A New Global Synthesis*, 66 *BioScience* 949 (2016), <https://doi.org/10.1093/biosci/biw117>.

helped to remove more than 40 dams over the past fifteen years.⁴

Yet some dam owners are reluctant to move forward with a dam removal project because of legal questions. They are uncertain about the type and scope of liability they may currently face if something goes wrong with the dam. They do not know whether neighboring property owners can block the dam removal or whether they will owe other property owners compensation if harm arises from the removal of the dam. They may be worried that the impoundment behind the dam might contain contaminated sediment and that they will be liable for its remediation or removal.

Students and staff of the Emmett Environmental Law and Policy Clinic at Harvard Law School have prepared this guide to provide information on some common legal questions for dam owners in Massachusetts and their attorneys. ***This guide is not intended to operate as a substitute for legal representation and does not create an attorney-client relationship. Because many of the legal issues addressed in this guide do not have definitive answers in the statutes, regulations, or judicial decisions of the Commonwealth, our conclusions and recommendations are necessarily tentative. Moreover, each dam removal presents its own unique challenges and circumstances. Dam owners should therefore consult with an attorney when deciding whether to move forward with a dam removal project.*** Please also note that, while this guide covers some issues related to permitting, such as sediment removal, it does not address the actual regulatory approval process for removing a dam.⁵

This guide focuses on the following questions:

1. What liability risk does a dam owner face for harms, such as flooding from dam failure, that might occur while the dam remains in place?
2. Does a dam owner have the legal right to remove the dam, even if others affected by the removal do not agree with that decision?
3. Does a dam owner have a legal responsibility to mitigate harm to existing uses of the river that would be affected by removal of the dam? For example, what responsibility or liability does a dam owner have to adjacent infrastructure owned by others that could be harmed by removal of the dam?

⁴ *River Restoration: Dam Removal*, DER, <https://www.mass.gov/river-restoration-dam-removal> (last visited July 7, 2020).

⁵ There are other resources available that address those issues, including the Executive Office of Energy and Environmental Affairs' guide, *Dam Removal in Massachusetts* (2007), <https://www.mass.gov/files/documents/2016/08/ql/damremoval-guidance.pdf>.

4. When a dam is removed, who owns the land exposed in the former impoundment?
5. Is the dam owner liable for harm arising from or clean-up costs associated with contaminants found in sediment trapped by the dam? If sediment testing reveals contamination, is the owner required to clean it up?
6. How is liability allocated among a dam removal project engineer, construction contractor, and dam owner for harms that might arise from a dam removal project?
7. If the right side of the dam has one owner and the left side of the dam has a separate owner, can the owner of one portion of the dam remove his/her portion without the consent of the owner of the other portion? What responsibilities and liabilities does the partial owner have in doing so?

QUESTIONS AND ANSWERS

I. WHAT LIABILITY RISK DOES A DAM OWNER FACE FOR HARMS, SUCH AS FLOODING FROM DAM FAILURE, THAT MIGHT OCCUR WHILE THE DAM REMAINS IN PLACE?

There are several potential sources of liability that a dam owner might face, particularly if something goes wrong with the dam. These include penalties for violating the statutory duty to regularly inspect and maintain the dam; statutory and common law liability in the case of a dam failure; and common-law liability for harms suffered by visitors to the property, such as under the doctrine of an attractive nuisance. The risk of liability if something goes wrong with the dam is a strong reason for dam owners to consider dam removal.

A. A Dam Owner Has the Duty to Regularly Inspect and Maintain the Dam

Under the Massachusetts Dam Safety Act, M.G.L. c. 253, §§ 44-50, dam owners must monitor the condition of their dams and complete required maintenance on a regular basis. If they fail to fulfill these duties, they can be fined by the Office of Dam Safety (part of the State Department of Conservation and Recreation), which also has the power to take corrective actions when needed and charge the dam owner for the costs.

Specifically, the dam owner must periodically have a registered professional engineer inspect the dam and then file the inspection report with the Office of Dam Safety.⁶ The required frequency of the inspections depends on the hazard potential and condition of the dam.⁷ After the completion of these inspections, the owner of any dam must file a dam inspection report with the Office. An owner who misses a deadline to file an inspection report is subject to a fine of up to \$5,000.⁸ Personnel from the Office of Dam Safety may also enter the property of the owner to perform their own inspection and assess the cost of inspection plus interest against the owner.⁹

⁶ M.G.L. c. 253, § 46; 302 C.M.R. 10.07.

⁷ Specifically, high hazard potential dams must be inspected every two years, significant hazard potential dams every five years, and low hazard potential dams every ten years. 302 C.M.R. 10.07. High or significant hazard potential dams that are determined to be in poor condition must be inspected every three months. *Id.* The hazard potential of a dam does not refer to its condition but rather to the “potential for loss of life and damage to property that failure of that dam could cause downstream of the dam.” 302 C.M.R. 10.03.

⁸ 302 C.M.R. 10.15.

⁹ 302 C.M.R. 10.07(1).

The Office of Dam Safety will review the inspection report submitted by the dam owner. If it finds that the dam is “structurally deficient and in either poor or unsafe condition,” it can order the dam owner to take corrective action.¹⁰ Failure to comply with such an order exposes the dam owner to a fine of up to \$5,000 per day.¹¹ If the Office of Dam Safety has to step in to perform emergency repairs itself, then a lien is automatically created against the property where the dam is located to secure payment for the Office’s costs plus interest.¹² In addition, if a dam owner does not comply with orders from the Office of Dam Safety, the Massachusetts Attorney General can file suit in Superior Court to enforce those orders.¹³

B. A Dam Owner Can Be Liable for Damage Caused by Dam Failure

If a dam is breached or fails, the escaping water can cause significant damage to nearby and downstream properties. A dam owner faces two general types of potential liability in this situation. First, the Dam Safety Act makes a dam owner strictly liable “for damage to property of others or injury to persons, including but not limited to loss of life, resulting from the operation, failure of or misoperation of a dam.”¹⁴ Second, a dam owner may face common-law claims¹⁵ from harmed downstream property owners or others under theories including negligence, strict liability, private nuisance, and trespass.

1. Statutory Liability under M.G.L. c. 253, § 48B

Someone harmed by a dam failure may assert a strict liability claim under M.G.L. c. 253, § 48B, which provides that the dam owner “shall be responsible for liability for damage to property of others or injury to persons, including but not limited to loss of life, resulting from the operation, failure of or misoperation of a dam.”¹⁶ **“Strict liability” means that the dam owner will be liable for harm regardless of the degree of care he or she exercised;** a plaintiff does not need to prove negligence to prevail. This provision was added to the Dam Safety Act in 2002.¹⁷

Before the enactment of this provision, the Supreme Judicial Court decided whether dam owners would be strictly liable on a case-by-case basis, depending on whether maintaining the dam

¹⁰ 302 C.M.R. 10.08.

¹¹ M.G.L. c. 253, § 47.

¹² M.G.L. c. 253, §§ 47-48.

¹³ M.G.L. c. 253, § 47(c).

¹⁴ M.G.L. c. 253, § 48B.

¹⁵ A common-law doctrine is one whose standards are developed by courts rather than the legislature.

¹⁶ *Id.*; see also 302 C.M.R. 10.09.

¹⁷ Mass. Acts 2002, ch. 330, § 2.

would qualify as “an unusual undertaking or one of such an extremely dangerous nature that it must be performed at the sole risk of the one therein engaged.”¹⁸ Now, as a result of the statutory amendment, a dam owner can be strictly liable for damage caused by dam failure without the court making a separate finding that the maintenance of the dam was an abnormally dangerous activity.¹⁹

2. Common Law Claims

In addition to statutory claims, a dam owner might also face common-law claims of negligence, strict liability, nuisance, or trespass.

a. Negligence

The first potential common law claim that a dam owner might face is negligence. For a plaintiff to prevail on a claim of negligence against the dam owner, she has to prove “(1) a legal duty owed by the dam owner; (2) a breach of that duty; (3) proximate or legal cause; and (4) actual damage or injury.”²⁰ Courts will find that a dam owner has breached her duty to downstream property owners if she has not exercised “**the care of an ordinarily prudent dam owner under the circumstances.**”²¹ The degree of care that a dam owner should exercise must be “in proportion to the extent of the injury which will be likely to result to third persons.”²² For example, if the dam is located somewhere prone to heavy floods, the dam should be capable of withstanding not just ordinary floods, but also heavy ones.²³

In Massachusetts, a defendant’s violation of a safety standard or regulation is not negligence *per se*, but can be used as evidence to prove a defendant’s negligence.²⁴ Thus a dam owner’s failure to comply with the Dam Safety Act or the orders or regulations of the Office of Dam Safety would be evidence, but not complete proof, of the owner’s negligence. For example, the sorts of actions required under the Dam Safety Act, such as the active maintenance and monitoring of the dam, or

18 *Clark-Aiken Co. v. Cromwell-Wright Co.*, 367 Mass. 70, 88 (1975) (quoting *United Elec. Light Co. v. Deliso Constr. Co., Inc.*, 315 Mass. 313, 322 (1943)).

19 We have been unable to find any court decisions that interpret the strict liability standard in M.G.L. c. 253, § 48B. The plaintiffs in *Bentley v. Lynn Water & Sewer Comm’n*, 83 Mass. App. Ct. 1129, 987 N.E.2d 617 (2013) raised a strict liability claim in a case involving flooding caused by the failure of the emergency release system of the Walden Pond dam during an intense rainstorm, but the jury ruled in plaintiffs’ favor on the basis of negligence rather than strict liability.

20 *Jupin v. Kask*, 447 Mass. 141, 146 (2006).

21 *Hoosac Tunnel & W. R. Co. v. New England Power Co.*, 311 Mass. 667, 672 (1942).

22 *Gray v. Harris*, 107 Mass. 492, 492 (1871).

23 *See id.*

24 *St. Germaine v. Pendergast*, 411 Mass. 615, 620 (1992).

the lack thereof, are the types of evidence that courts consider relevant in deciding whether a dam owner has been negligent. For example, in one nineteenth-century case the dam owner was held liable for damages resulting from a dam breach because the owner had not adequately monitored the water level behind the dam and failed to take reasonable measures, such as opening the flashboards and gates, to relieve the pressure on the dam.²⁵

b. Strict Liability

Second, a plaintiff might bring a common-law strict liability claim. As mentioned above, *see* text accompanying note 18, *supra*, the Massachusetts courts recognize a common-law strict liability claim for abnormally dangerous activities. Because it is easier for plaintiffs to prevail under the statutory strict liability claim than a common-law one, however, we do not separately discuss the common-law claim here.

c. Private Nuisance

A third type of claim that an affected land owner might assert against a dam owner is private nuisance. The general rule is that someone is subject to liability for a private nuisance if, but only if, he creates, permits, or maintains a condition or activity on his property that causes a **substantial and unreasonable interference with the use and enjoyment of the property of another**.²⁶ Furthermore, the interference with others must have been “substantially detrimental to the reasonable use . . . or value of the property” to create an actionable offense.²⁷

As explained by the Supreme Judicial Court, the outcome in a private nuisance case depends on “whether the landowner is making a reasonable use of his land.”²⁸ Reasonableness is a question of fact, and ultimately hinges on whether the gravity of harm caused outweighs the utility of the landowner’s conduct. “A trier of fact may also find a landowner’s conduct to be unreasonable if the harm to a neighbor is substantial and ‘it would be practicable for the actor to avoid the harm in whole or part without undue hardship.’”²⁹ Other factors to be considered include the foreseeability of the harm and the purpose or motive with which the dam owner acted.³⁰

As a result, it is possible in some cases that a dam owner would be found negligent but not be

25 *Bryant v. Bigelow Carpet Co.*, 131 Mass. 491, 502 (1881).

26 *Doe v. New Bedford Hous. Auth.*, 417 Mass. 273, 288 (1994) (quoting *Asiala v. Fitchburg*, 24 Mass. App. Ct. 13, 17 (1987)).

27 *Rattigan v. Wile*, 445 Mass. 850, 856 (2006) (quoting *Metropoulos v. MacPherson*, 241 Mass. 491, 502 (1922)).

28 *DeSanctis v. Lynn Water & Sewer Comm’n*, 423 Mass. 112, 116 (1996).

29 *Rattigan*, 445 Mass. at 857 (quoting Restatement (Second) Torts, § 830).

30 *DeSanctis*, 423 Mass. at 116.

separately liable for creating a private nuisance. In *DeSanctis*, for instance, the jury found the defendant Water and Sewer Commission negligent and 20% responsible for letting surface water flow onto the plaintiff's land. However, the defendant's operation of utilities like wellholes, water pipes, and culverts served a significant public purpose. Also, the defendant did not act intentionally, and given the nature of its operations, the plaintiff should have known that some amount of water would likely escape from the water utility system to plaintiff's land. After considering various relevant factors, the jury did not find that the defendant's use of the land was unreasonable, and therefore the plaintiff's private nuisance claim failed.³¹

d. Trespass

Fourth, the affected landowner might assert a trespass claim against the dam owner. To prevail on a claim of trespass, the affected land owner must demonstrate ***“a physical entry by the defendant or an instrumentality within the defendant's control, such as water.”***³² There are two types of trespass claims: intentional and negligent.³³ To succeed in an intentional trespass claim, the plaintiff does not need to show that the defendant “purposefully cause[d] the specific harm, so long as the act in question is done with knowledge to a degree of substantial certainty that an entry onto the land of another will occur.”³⁴ Causing water to flow onto someone else's property is a trespass. For example, in one case, a dam owner was liable for intentional trespass when he placed flash boards on his dam to back up a pond and knew “to a substantial certainty” that it would result in the flooding of adjacent property.³⁵

However, when a dam breaches from an accident or due to poor maintenance, a dam owner is more likely to be held responsible for negligently causing water to enter others' land than intentionally so. The rule for negligent trespass, stated by the Supreme Judicial Court, is that a plaintiff may recover damages if the jury determines “that the defendant was negligent and that the defendant's negligent entry onto the plaintiff's land caused the plaintiff harm.”³⁶ Therefore, the negligent trespass claim can be considered ultimately as a claim of negligence.

31 *Id.* at 116-18.

32 *Woods v. Brimm*, No. 2007018, 2010 WL 4071052, at *14 (Mass. Super. Ct. Aug. 2, 2010) (citing *Trenz v. Town of Norwell*, 68 Mass. App. Ct. 271, 271-72 (2007)).

33 *Dilbert v. Hanover Ins. Co.*, 63 Mass. App. Ct. 327, 334-35 (2005)

34 *Fease v. Vandenakker*, No. 2012-0390E, 2015 WL 9312052, at *5 (Mass. Super. Ct. Apr. 27, 2015) (citing *Waters v. Blackshear*, 412 Mass. 589, 590-91 (1992)).

35 *Fease*, 2015 WL 9312052, at *6.

36 *DeSanctis*, 423 Mass. at 118 (quoting Restatement (Second) Torts, §165).

e. Act of God Defense

One doctrine that can limit a dam owner's potential liability is the "Act of God" doctrine.³⁷ A dam owner will typically raise this defense when a dam fails during extreme storms or flooding. The Supreme Judicial Court has explained that the "Act of God" defense applies in "instances where human diligence and sagacity were powerless in reason to avert the consequences."³⁸ As the Court summarized it in *Bratton v. Rudnick*, "a landowner in constructing a reservoir is bound to provide against the ordinary operations of nature, but not against her miracles."³⁹ In other words, when downstream property is damaged by such extraordinary flooding that a dam, no matter how carefully built and maintained, would not have prevented the damage, the property owner is not entitled to recover from the upstream dam owner merely because of the existence of a dam. In the most extreme cases, even if the dam owner is indeed negligent in maintaining the dam, the Court might not find him or her liable because the causal link between the negligence and the property damage has been broken and superseded by the "Act of God."⁴⁰

Whether the "Act of God" defense will succeed depends upon several factors. It is not a sufficient defense to claim only that the weather event is much greater than ordinary ones; the event has to be truly unexpected and unforeseeable in light of local conditions. For example, if it can be assumed that a dam is designed to stand for decades, in a region where heavy floods occur once a decade, the owner might not be able to use the "Act of God" defense when such a 10-year flood causes a dam breach.⁴¹ Another important factor is whether the dam owner has any feasible means of preventing harm. For example, if the damage to someone else's property can be prevented by a simple improvement to the existing structure, such as increasing its height, the "Act of God" defense might fail.⁴² Typically, whether the damage was more substantially caused by the

37 "We should note at this point that in cases where the doctrine of strict liability would otherwise be applicable on the facts, the defendant can avoid liability by showing that the 'escape' was caused by an act of God, or intervening unlawful act of a third person." *Clark-Aiken Co. v. Cromwell-Wright Co.*, 367 Mass. 70, 90 n.21 (1975).

38 *Hecht v. Boston Wharf Co.*, 220 Mass. 397, 406 (1915).

39 *Bratton v. Rudnick*, 283 Mass. 556, 562 (1933) (quoting *Greenock Corp. v. Caledonian Railway*, [1917] A. C. 556, 572).

40 *Id.* at 559.

41 *Gray*, 107 Mass. at 494.

42 *Hecht*, 220 Mass. at 406. An additional question, as yet unaddressed by the Massachusetts courts, is what effect a changing climate will have on the "Act of God" defense, both in terms of what is the baseline of "normal" events and whether extreme weather events are truly "Acts of God" or the result of human influence on the climate. See generally Myanna Dellinger, *An "Act of God"? Rethinking Contractual Impracticability in an Era of Anthropogenic Climate Change*, 67 *Hastings L.J.* 1551 (2016); Jill M. Fraley, *Re-examining Acts of God*, 27 *Pace Env'tl. L. Rev.* 669 (2010); Kenneth T. Kristl, *Diminishing the Divine: Climate Change and the Act of God Defense*, 15 *Widener L. Rev.* 325, 344 (2010).

“Act of God” or the dam owner is a question of fact that will need to be resolved by a jury.⁴³

Another wrinkle on the “Act of God” defense is the situation—for example during a major storm or flood event—when a dam owner must choose between allowing water to back up behind the dam, thus flooding upstream properties, or allowing additional water to pass through the dam, thus flooding downstream properties.⁴⁴ While we have been unable to identify any cases that discuss precisely this situation, it seems likely that any storm or flood severe enough to place a dam owner in this dilemma would at least raise the possibility that the owner could successfully argue for the “Act of God” defense.

C. Liability for Injuries Suffered by Visitors to the Property

Under M.G.L. c. 231, § 85Q, the “attractive nuisance” or the “child trespasser” statute, a dam owner might be liable for physical injury sustained by a child who trespasses onto the property and, for example, falls into the impoundment, if:

- (a) the place where the condition exists is one upon which the land owner knows or has reason to know that children are likely to trespass;
- (b) the condition is one of which the land owner knows or has reason to know and which he realizes or should realize will involve an unreasonable risk of death or serious bodily harm to such children;
- (c) the children because of their youth do not discover the condition or realize the risk involved in intermeddling with it or in coming within the area made dangerous by it;
- (d) the utility to the land owner of maintaining the condition and the burden of eliminating the danger are slight as compared with the risk to children involved; and
- (e) the land owner fails to exercise reasonable care to eliminate the danger or otherwise to protect the children.⁴⁵

43 It is also not clear whether the courts would apply the Act of God defense to a statutory strict liability claim under M.G.L. c. 253, § 48B. Although the rationale for applying the defense would be the same in this context as for common law claims, no court has yet construed that provision. The parties made arguments for and against its applicability in this situation in *Bentley v. Lynn Water & Sewer Comm’n*, 83 Mass. App. Ct. 1129, 987 N.E.2d 617 (2013), but the Court of Appeals did not rule on the issue.

44 Not all dams will present a dam owner with this dilemma. Many dams in Massachusetts do not perform any flood control function and are not equipped to regulate the flow of water through the dam.

45 M.G.L. c. 231, § 85Q.

A dam owner will be liable for harms suffered by a foreseeable child trespasser “only if the five conditions of the statute are satisfied.”⁴⁶ Under this test, a court might rule against a dam owner when the property is poorly maintained, does not satisfy safety standards, or if the dam owner knows about nearby children and fails to take preventive measures such as erecting a fence.⁴⁷

For adults harmed on the dam owner’s property, the standard for liability will depend upon whether they are trespassers or are on the property with the owner’s consent. In *Schofield v. Merrill*, the Supreme Judicial Court upheld the traditional rule that a land owner does not owe an adult trespasser a duty of care greater than “that he refrain[s] from willful, wanton or reckless disregard for the trespasser’s safety.”⁴⁸ By contrast, if a lawful visitor⁴⁹ suffers injury on a property, he or she need only show that the property owner has breached a duty of care.⁵⁰

46 *Mathis v. Massachusetts Elec. Co.*, 409 Mass. 256, 262 (1991).

47 In *Soule v. Massachusetts Elec. Co.*, the Supreme Judicial Court did not directly apply M.G.L. c. 231, § 85Q, as the conduct that led to the lawsuit occurred before the enactment of the statute. Nonetheless, under the common law the Court adopted the same test for identifying an attractive nuisance. 378 Mass. 177, 186-87 (1979).

48 *Schofield v. Merrill*, 386 Mass. 244, 245-46 (1982).

49 In *Mounsey v. Ellard*, 363 Mass. 693, 706 (1973), the Supreme Judicial Court abolished the common-law distinction between licensee and invitee because of the confusion that this distinction created. Before *Mounsey*, Massachusetts courts held that:

If the plaintiff was an invitee, defined as a person invited onto the property by the property owner for the property owner’s benefit, the property owner owed a duty to use reasonable care to keep the premises in a reasonably safe condition in view of all the circumstances, including the likelihood of injury to others, the seriousness of the injury, and the burden of avoiding the risk. . . . If the plaintiff was a licensee, defined as a person who entered onto the landowner’s property for the licensee’s own convenience and pleasure, the property owner owed a duty only to forbear from inflicting wilful or wanton injury on him.

Papadopoulos v. Target Corp., 457 Mass. 368, 371-372 (2010) (quotations and citations omitted).

50 *Schofield*, 386 Mass. at 246.

II. DOES A DAM OWNER HAVE THE LEGAL RIGHT TO REMOVE THE DAM, EVEN IF OTHERS AFFECTED BY THE REMOVAL DO NOT AGREE WITH THAT DECISION?

The Massachusetts courts have held that riparian property owners “ha[ve] no right to compel [a dam owner] to maintain its dam for their benefit. [A dam owner] ha[s] a right at any time to take down its dam or to cease to impound the water for any reason which seem[s] to it sufficient.”⁵¹ Although the foundational Massachusetts cases on this issue are about a century old, the Supreme Judicial Court of Massachusetts reaffirmed this approach in 1957.⁵² No cases in Massachusetts have since then indicated a shift in the law.

Because the Massachusetts cases on this question are so old, we also looked at the case law in other states to determine whether there has been a trend away from the approach embodied in the Massachusetts cases. There has not; most other states that have considered this question have adopted the reasoning of the Massachusetts cases, which is now referred to as the “majority rule.”⁵³ For example, the Supreme Court of Rhode Island has held that “the owner of a dam is not obliged to maintain it for the benefit of other riparian owners who benefit from the formation of an artificial pond by the erection of the dam.”⁵⁴ The Supreme Court of Nebraska adopted the same position, in the process expressly rejecting the principal theories upon which courts in “minority rule” states have sustained riparian owners’ rights.⁵⁵ These minority rule theories include:

1. **Transformation of artificial condition into new natural condition:** “Some courts take the position that the originally artificial condition has become the natural permanent condition which cannot be affirmatively diverted or altered to the damage of other riparian owners.”⁵⁶ However, under the majority rule, “the very fact that a manmade dam is

51 *Taft v. Bridgeton Worsted Co.*, 237 Mass. 385, 389 (1921); see also *Lakeside Mfg. Co. v. City of Worcester*, 186 Mass. 552, 556 (1904); *Flagg v. Town of Concord*, 222 Mass. 569, 573 (1916). A riparian property owner is someone who owns the land bordering a lake, pond, river, or stream.

52 *Davenport v. Town of Danvers*, 336 Mass. 106, 113 n.3 (1957).

53 See, e.g., *Franklin v. Johnston*, 899 N.W.2d 741 (Iowa Ct. App. 2017); *Logan County Conservation District v. Pleasant Oaks Homeowners Association*, 374 P.3d 755, 765–66 (Okla. 2016); *Green v. City of Williamstown*, 848 F. Supp. 102, 106–07 (E.D. Ky. 1994); *Kiwanis Club Found., Inc. v. Yost*, 139 N.W.2d 359, 361 (Neb. 1966); *Labbadia v. Bailey*, 205 A.2d 377, 381 (Conn. 1964); *Hood v. Sleskin*, 143 A.2d 683, 687 (R.I. 1958); *Goodrich v. McMillan*, 187 N.W. 368, 369 (Mich. 1922).

54 *Hood*, 143 A.2d at 687.

55 *Yost*, 139 N.W.2d at 361.

56 *Id.*

obviously present . . . is sufficient to charge [upper landowners] with notice that the water level above the dam is artificial as distinguished from natural, and that its level may be lowered or returned to the natural state at any time.”⁵⁷ There is no reason to think that the Massachusetts courts would consider the dam to have created a new natural condition, especially given that the Office of Dam Safety maintains a registry of all dams in the Commonwealth.

2. **Reciprocal prescriptive right:** Other courts “proceed on the theory that the upper owner acquires a reciprocal prescriptive right to enjoy the benefit of the improvement.”⁵⁸ In other words, like the doctrine of adverse possession, under which someone acquires rights to a property merely by occupying it for a sufficiently long time, under this theory, the mere existence of the dam and impoundment eventually create legal rights to the changed condition. As a result, “the owner of the dominant estate [the property with the dam] becomes obligated to maintain the improvement for the benefit of the servient estates [the other affected properties] or at least to avoid any action which will effect the destruction of the improvement.”⁵⁹ This theory, however, has been directly rejected by the Massachusetts Supreme Judicial Court, which held that a riparian proprietor “had acquired and could acquire no prescriptive rights to have the reservoirs maintained.”⁶⁰
3. **Estoppel:** Finally, some courts “proceed upon the theory of estoppel, or upon the theory that the establishment of the artificial condition constitutes a dedication.”⁶¹ Here again, majority rule courts emphasize that dams are artificial, temporary conditions, and that the abutting property owners gain no reciprocal prescriptive right in the dam’s maintenance. “[T]he mere fact that a property owner has used or improved his property with reference to an artificial lake . . . does not confer the property owner with property rights in the continued water level of the lake.”⁶²

Therefore, in Massachusetts, other affected property owners do not appear to have any general legal right to block a dam owner from removing the dam. It is important to note, however, that **this is just the legal baseline in the relationship between a dam owner and riparian land-**

57 *Id.*

58 *Id.*

59 *Hood*, 143 A.2d at 686.

60 *Lakeside Mfg. Co. v. City of Worcester*, 186 Mass. 552, 556 (1904).

61 *Yost*, 139 N.W.2d at 361.

62 *Green v. City of Williamstown*, 848 F. Supp. 102, 106 (E.D. Ky. 1994).

owners. It can be changed by contract or deed.⁶³ For example, riparian owners may hold easements and other property rights in a dam by deed. Therefore, a dam owner should always investigate the rights of property owners around his or her dam before proceeding with its removal.

⁶³ See, e.g., *Labbadia v. Bailey*, 205 A.2d 377, 380 (Conn. 1964) (holding that a covenant to keep a dam in repair and to maintain the level of the dam preventing the dam owner from destroying the dam).

III. DOES A DAM OWNER HAVE A LEGAL RESPONSIBILITY TO MITIGATE HARM TO EXISTING USES OF THE RIVER THAT WOULD BE AFFECTED BY REMOVAL OF THE DAM? FOR EXAMPLE, WHAT RESPONSIBILITY OR LIABILITY DOES A DAM OWNER HAVE TO ADJACENT INFRASTRUCTURE OWNED BY OTHERS THAT COULD BE HARMED BY REMOVAL OF THE DAM?

A. Impact of Dam Removal on Existing Uses

As outlined above, Massachusetts law likely allows a dam owner to remove his or her dam at any time and for any reason (unless that legal baseline has been modified by deed or contract). This section of the guide, however, addresses a distinct question: even when you have a legal right to do something, you may still be liable for harm that arises from carrying out that action.⁶⁴ Additionally, such a right does not absolve dam owners of their obligation to comply with local, state, and federal permitting requirements for dam removals. Nevertheless, there is no indication in the decisions of the Massachusetts courts that the right to remove a dam is subject to a duty to mitigate or provide compensation for harms to existing uses of the river.

For example, the plaintiffs in a 1921 case, who sought to preserve the impoundment behind a dam, had been engaged in “the business of harvesting and selling the ice naturally forming on this pond” for many years.⁶⁵ Even so, the Massachusetts Supreme Judicial Court recognized that “the plaintiffs had no right to compel the defendant to maintain its dam for their benefit. The defendant had a right at any time to take down its dam or cease to impound the water for any reason which seem[ed] to it sufficient.”⁶⁶ Another Massachusetts case involved a downstream mill, which derived power from reservoirs that upstream mills had constructed.⁶⁷ The downstream mill owner argued that it had “a legal right to have these reservoirs continued and used as they had been used.”⁶⁸ The Supreme Judicial Court disagreed, however, ruling that the mill “had acquired and could acquire no prescriptive rights to have the reservoirs maintained.”⁶⁹ It is important to

64 For example, when removing his dam, a dam owner may flood downstream properties, potentially exposing him or her to liability for—among other things—trespass.

65 *Taft v. Bridgeton Worsted Co.*, 237 Mass. 385, 386 (1921).

66 *Id.* at 389.

67 *Lakeside Mfg. Co. v. City of Worcester*, 186 Mass. 552, 556 (1904).

68 *Id.*

69 *Id.*

note that the court here is referring to an *automatic* prescriptive right; this does not affect a dam owner’s ability to assign easements by contract or deed.

Other majority-rule states have similarly declined to require mitigation or compensation for other riparian uses. For example, in a Nebraska case, the Kiwanis Club Foundation sought an injunction to restrain a dam owner from damaging and destroying his dam.⁷⁰ The Foundation had developed its property around the impoundment as a camp and recreation area, benefiting from the favorable water flow and level.⁷¹ Nevertheless, the Supreme Court of Nebraska held that the dam owner was “not required to maintain and operate it for the benefit of an upper riparian proprietor who obtains advantages from its existence.”⁷²

In short, we have found no indication that dam owners have a general responsibility to compensate others for harm that arises from the removal of the dam, as long as the removal complies with all federal, state, and local permitting requirements and is not performed negligently. In specific cases, however, previous owners of the dam may have sold or granted easements or other rights to other property owners either upstream or downstream of the dam. It is therefore important to perform a thorough title search before moving forward with a dam removal project.

B. Impact of Dam Removal on Existing Infrastructure

In addition to affecting existing *uses*—such as the enjoyment of the pond formed behind the dam—dam removal may also affect upstream or downstream *infrastructure*. For example, removing a dam may raise water levels downstream and increase scour, thereby eroding the foundation of a home adjacent to the river. No Massachusetts court has yet ruled on whether, upon removing a dam and thereby altering a stream or river, a dam owner may be liable for adversely impacting infrastructure. We therefore examined potential causes of action under which a property owner could seek damages and/or an injunction against the dam owner and attempted to determine whether the case law in other contexts would support a claim by harmed property owners after a dam removal. In particular, there are two primary claims that aggrieved property owners would likely invoke: private nuisance and trespass.

1. Private Nuisance

As indicated in section I.B.2.c above, a private nuisance occurs when “a property owner creates, permits, or maintains a condition or activity on his property that causes a substantial and un-

70 *Kiwanis Club Found., Inc. v. Yost*, 139 N.W.2d 359, 360 (Neb. 1966).

71 *Id.*

72 *Id.*

reasonable interference with the use and enjoyment of the property of another.”⁷³ The Supreme Judicial Court has analyzed private nuisance in a wide variety of contexts, but this guide will focus on surface water diversion cases.⁷⁴ These cases are instructive because they analyze actions that alter water flow in a way that damages someone else’s property, which is analogous to the situation that could arise after dam removal.

The **reasonable use doctrine** governs in such cases.⁷⁵ Under this doctrine, the court analyzes factors such as “the amount of harm caused, the foreseeability of the harm which results, [and] the purpose or motive with which the possessor acted.”⁷⁶ Other relevant considerations include whether “the gravity of the harm caused . . . outweighs the utility of the actor’s conduct,” and whether “it would be practicable for the actor to avoid the harm in whole or part without undue hardship.”⁷⁷

Under this standard, it is likely that in most cases a jury would find dam removal to be a reasonable land use and therefore hold that the removal is not a nuisance. First, in many—if not all—instances, it will be more reasonable for a dam owner to remove the dam, which poses a public safety risk, than to leave it in place. Proactive dam removal under the guidance of a qualified professional such as a licensed engineer is more reasonable than taking a chance on potential failure. Second, to avoid any harms caused by dam removal, the dam owner would likely need to repair the dam at a large cost or complete costly mitigation projects along the watercourse; a jury could determine that this would place undue hardship on the dam owner. Third, the social utility of dam removal is significant: these projects restore ecological habitats and remove public safety hazards. Finally, assuming that the dam owner receives and complies with all local, state, and federal permits, this also counts in the owner’s favor, although no license “is conclusive on the issue

73 *Asiala v. City of Fitchburg*, 24 Mass. App. Ct. 13, 17 (1987).

74 “Surface waters are waters from rain, melting snow, springs, or seepage, or floods that lie or flow on the surface of the earth and naturally spread over the ground but do not form a part of a natural watercourse or lake.” *DeSanctis v. Lynn Water and Sewer Comm’n*, 423 Mass. 112, 115 n.6 (1996).

75 *DeSanctis*, 423 Mass. at 116 (emphasis added). The reasonable use doctrine in the surface water context is more applicable to dam removals than the reasonable use doctrine in the riparian context. The reasonable use inquiry in surface water nuisance cases asks whether the land use that diverted the water—and consequently damaged other property—was reasonable. Meanwhile, reasonable use in the riparian context refers to a landowner’s right to make “a reasonable and just use of the water,” subject to other landowners’ like rights. *Stratton v. Mt. Hermon Boys’ School*, 216 Mass. 83, 85 (1913) (emphasis added). In removing a dam, the dam owner does not appropriate flowing water so as to affect another riparian owner’s use, as contemplated by the riparian reasonable use doctrine. See *id.* Instead, he alters the watercourse’s flow by altering his own real property, as in surface water diversion cases. For a review of the reasonable use doctrine in Massachusetts, see *Lummis v. Lilly*, 385 Mass. 41, 43–45 (1982).

76 *Id.*

77 *Rattigan v. Wile*, 445 Mass. 850, 856–57 (2006) (internal quotation marks omitted).

of reasonable use.”⁷⁸

2. Trespass

As summarized in section I.B.2.d, trespass involves “a physical entry by the defendant or an instrumentality within the defendant’s control, such as water.”⁷⁹ A trespass cause of action would remain open to property owners even if a jury found a dam owner’s actions reasonable under private nuisance.⁸⁰ Because it is not clear under which theory a Massachusetts court might analyze dam removal, this guide considers both intentional and negligent trespass.

a. Intentional Trespass

As mentioned above, to qualify as an intentional trespass, a defendant “need not purposefully cause the specific harm, so long as the act in question is done with knowledge to a degree of substantial certainty that an entry onto the land of another will occur.”⁸¹ For example, constructing a surface water drainage system to discharge water onto neighboring property constitutes intentional trespass.⁸² Similarly, a dam owner is guilty of intentional trespass when he places boards on his dam to back up a pond and flood adjacent property.⁸³

We have not found any cases where a dam owner was liable for intentional trespass due to altered water flow after a dam removal. However, as one commentator has observed, dam removal resembles an intentional act “since the owner makes a deliberate decision to allow the contents of the reservoir to flow downstream.”⁸⁴ In addition, dam removal projects often involve engineering studies to determine the potential impacts to adjacent infrastructure. If an engineering report predicts a certain harm that then comes to pass, the dam owner would likely have had “knowledge to a degree of substantial certainty” that the trespass would occur, thereby evincing intent.⁸⁵

Nevertheless, in most cases a dam owner likely does not need to fear liability for intentional

78 *Lummis*, 385 Mass. at 46–47.

79 *Woods v. Brimm*, No. 2007018, 2010 WL 4071052, at *14 (Mass. Super. Ct. Aug. 2, 2010) (citing *Trenz v. Town of Norwell*, 68 Mass. App. Ct. 271, 271–72 (2007)).

80 *DeSanctis*, 423 Mass. at 118.

81 *Fease v. Vandenakker*, No. 2012-0390E, 2015 WL 9312052, at *5 (Mass. Super. Ct. Apr. 27, 2015) (citing *Waters v. Blackshear*, 412 Mass. 589, 590–91 (1992)).

82 *Chesarone v. Pinewood Builders, Inc.*, 345 Mass. 236, 238–40 (1962).

83 *Fease*, 2015 WL 9312052 at *6.

84 Catherine C. Engberg, *The Dam Owner’s Guide to Retirement Planning: Assessing Owner Liability for Downstream Sediment Flow from Obsolete Dams*, 21 Stan. Envtl. L.J. 177, 190 (2002).

85 *Fease*, 2015 WL 9312052, at *5.

trespass. First, the permitting process—and the engineering studies that are required as part of it—will usually result in a removal that should not negatively affect improvements built on other properties. Second, even if damage does occur, if the studies had predicted no damage, then the dam owner would not have demonstrated the necessary intent to be held liable.⁸⁶ (In this situation, the court would still need to analyze negligent trespass.) Third, if damage did occur, it is not clear that courts would hold that the removal was the legal cause of the harm. A court might instead hold that harm was caused by the natural flow of the river, which the dam had only temporarily impeded.

b. Negligent Trespass

If the dam removal is performed negligently and results in the flowing of water onto someone else's property, then the dam owner may be liable for negligent trespass. "A plaintiff may recover under the theory of negligent trespass if the jurors determine that the defendant was negligent and that the defendant's negligent entry onto the plaintiff's land caused the plaintiff harm."⁸⁷

As with intentional trespass, however, there are several reasons to think that a dam owner will rarely face this form of liability. First, compliance with the rigorous permitting processes for dam removal makes it unlikely that the dam removal will be carried out in a negligent fashion. Second, under standard dam removal contracts, engineers and contractors indemnify dam owners for liability arising from their negligence.⁸⁸ Therefore, if the trespass arises from the engineer's or the contractor's negligence, the dam owner will not need to pay anything to compensate for the harm.

Third, a dam owner may defend a negligent trespass claim by invoking comparative negligence.⁸⁹ If the plaintiff bears more than 50 percent of the responsibility for his harm, then the comparative negligence statute bars him from recovering damages.⁹⁰ Otherwise, the court will reduce any damages for the plaintiff in proportion to his own negligence.⁹¹ For example, in *DeSanctis*, the

86 For example, in one Massachusetts case, coastal landowners constructed revetments on their properties, which blocked sand from depositing on the plaintiffs' property. See *Woods v. Brimm*, No. 2007018, 2010 WL 4071052, at *2 (Mass. Super. Ct. Aug. 2, 2010). Over time, the sand along the plaintiffs' property eroded away, exposing their land to direct erosion from currents and waves. See *id.* According to the court, "[t]he mere decision to build a revetment does not demonstrate the intent required to support an intentional trespass class," although the plaintiffs could proceed on a claim of negligent trespass. *Id.* at *14–15.

87 *DeSanctis*, 423 Mass. at 118.

88 See Part VI, below, for a discussion of typical contractual arrangements.

89 *DeSanctis*, 423 Mass. at 118–19.

90 M.G.L. c. 231, § 85.

91 *Id.*

plaintiff had filled his land, which violated a criminal statute protecting wetlands and blocked natural surface water drainage.⁹² The jury found that he was responsible for eighty percent of the flooding damage to his property and denied him recovery accordingly.⁹³

In the dam removal context, a dam owner could argue that affected property owners were negligent in relying on the continued existence of an artificial condition.⁹⁴ The fact that Massachusetts maintains a dam registry with hazard potential classifications bolsters this argument.

92 423 Mass. at 119.

93 *Id.*

94 Engberg, *supra* note 84, at 206–07.

IV. WHEN A DAM IS REMOVED, WHO OWNS THE LAND EXPOSED IN THE FORMER IMPOUNDMENT?

In Massachusetts, the land under a river, stream, or pond may be either publicly or privately owned, depending on the characteristics of the waterbody. The land under a navigable river or a “Great Pond” is considered to be the property of the Commonwealth. It is unlikely, however, that the land under the impoundment created by a privately-owned dam would be considered the public property of the state. Massachusetts regulations define “Great Ponds” as follows:

Great Pond means any pond which contained *more than ten acres in its natural state*, as calculated based on the surface area of lands lying below the natural high water mark. The title to land below the natural low water mark is held by the Commonwealth in trust for the public, subject to any rights which the applicant demonstrates have been granted by the Commonwealth. The Department shall presume that any pond presently larger than ten acres is a Great Pond, unless the applicant presents topographic, historic, or other *information demonstrating that the original size of the pond was less than ten acres*, prior to any alteration by damming or other human activity.⁹⁵

Under this definition, a dam impoundment is not a Great Pond. For one thing, it would not contain more than ten acres “in its natural state,” because its natural state is that of a free-flowing stream. For another, even if the impoundment is over ten acres in size, any presumption created by this size would be overcome by the public availability of information indicating its artificial nature, such as the dam registry maintained by the Office of Dam Safety.

As a result, the title to the land under an impoundment will most likely be decided on a case-by-case basis, depending on the deeds or other title documents. Decisions of the Supreme Judicial Court confirm that in cases involving disputes about the rights to impoundments or the land under impoundments, the court will look to the deeds to resolve the dispute. For example, in one case, the plaintiff prevailed after producing a deed demonstrating title to the land that was later overflowed after the defendant established a dam and raised the water level.⁹⁶ In another case, the Supreme Judicial Court held that the plaintiff had no right to erect and maintain a dam and dikes on the land of the defendant for the purpose of making an ice pond.⁹⁷ Here too, the court looked

95 310 CMR 9.02 (emphasis added).

96 See *Paine v. Woods*, 108 Mass. 160, 160 (1871).

97 See also *Washburn v. Campbell*, 267 Mass. 285, 287 (1929) (holding that the plaintiff had no right to erect and maintain a

to the deeds to determine that the plaintiff owned a portion of the land under the seasonal impoundments.

If there is ambiguity in the deeds, then the “derelict fee statute” creates a presumption that any grant of land abutting a watercourse includes “any fee interest of the grantor in such . . . watercourse.”⁹⁸ Generally speaking, this means that if the owner of land on one side of an impoundment originally owned the land to the midpoint of the stream or impoundment, then subsequent transfers of that person’s ownership interest will continue to extend to the midpoint of the underlying stream or impoundment.⁹⁹ Thus in a 1996 Land Court case, the court held that a deed granting land bounded “northerly . . . partly by . . . the Baker Pond” included a conveyance of land the grantor owned under the pond.¹⁰⁰

For a concrete example of how ownership may be divided, consider the following hypothetical situation. A river runs in a north-south direction. A pond behind a dam on this river sits right on the boundary between two towns, with the town boundary line dividing the land underneath approximately into two equal halves. The properties on either side of the pond have deeds that assign the land underneath the pond differently. Land owners of the parcels on the west side of the pond, in Town A, have deeds describing their ownership as extending to the town line. However, the deeds of the owners on the east side of the pond in Town B describe the parcels as extending only “to the Pond” or being bounded “by the Pond.”

Under the derelict fee statute described above, it is possible that a court would interpret the deeds in Town B as also including the land under the pond to the town line. If instead a court interpreted these deeds as not including the land under the pond, then it might conclude that the land under the pond is orphaned or abandoned property. If, in addition, no property tax had been

dam and dikes on the land of the defendant, as confirmed by the deed, for the purpose of making an ice pond).

98 M.G.L. c. 183, § 58. The only exceptions to this presumption are when:

- (a) the grantor retains other real estate abutting such way, watercourse or monument, in which case, (i) if the retained real estate is on the same side, the division line between the land granted and the land retained shall be continued into such way, watercourse or monument as far as the grantor owns, or (ii) if the retained real estate is on the other side of such way, watercourse or monument between the division lines extended, the title conveyed shall be to the center line of such way, watercourse or monument as far as the grantor owns, or (b) the instrument evidences a different intent by an express exception or reservation and not alone by bounding by a side line.

Id.

99 This statutory rule is consistent with prior decisions of the Massachusetts courts. *See Paine*, 108 Mass. at 169 (“The general rule of construction of all grants of land bounded by water of any kind is now well established, that, unless qualified by restrictive words, they pass the soil towards the center of the water, as far as the grantor owns.”).

100 *Santos v. Olsen*, No. 137034, 1996 Mass. LCR LEXIS 6, at **8 (Mass. Land Ct. Jan. 17, 1996).

paid on the land under the pond, then it is possible that Massachusetts law on unpaid property tax would be applicable, resulting in the town taking ownership of the land pursuant to the statute. The town collector may, after adequate notice, take the land for the town,¹⁰¹ and the town treasurer may subsequently sell the land at public auction.¹⁰² If there are no adequate bids, the town becomes the purchaser of the land.¹⁰³

101 See M.G.L. c. 60, § 53.

102 M.G.L. c. 60, § 79.

103 M.G.L. c. 60, § 80.

V. IS THE DAM OWNER LIABLE FOR HARM ARISING FROM OR CLEAN-UP COSTS ASSOCIATED WITH CONTAMINANTS FOUND IN SEDIMENT TRAPPED BY THE DAM? IF SEDIMENT TESTING REVEALS CONTAMINATION, IS THE OWNER REQUIRED TO CLEAN IT UP?

The removal of a dam will change a river or stream's sediment dynamic. Typically, sediment has accumulated behind the dam over decades or centuries and may extend well upstream into the impoundment. After removal, large amounts of sediment, if not mechanically dredged out as part of the dam removal work, can be transported downstream.

While the natural movement of sediment and material by rivers is an important ecological function, the sudden release of this accumulated sediment may have harmful consequences. For example, fine-grained sediments can “smother eggs and fill in interstitial spaces in the streambed that are important for benthic (bottom-dwelling) aquatic organisms.”¹⁰⁴ The sediment may also contain contaminants from past industrial activity or from upstream stormwater runoff.

As a result, sediment management is a key component of the dam removal permitting and planning process.¹⁰⁵ Sediment management during the dam removal process can take many forms, including allowing natural river erosion to occur, stabilizing the sediment in place, and removing it for lawful disposal elsewhere.

Dam owners understandably have concerns about their responsibility for dealing with contaminated sediment, either during the dam removal process or if they are not immediately able to move forward with dam removal after contamination is detected during the planning process. ***This is an issue that has not been addressed by the courts, and therefore presents many legal uncertainties. We sketch out some preliminary considerations in this section, but do not purport to have definitive answers to the legal questions raised by this issue. As with all issues addressed in this guide, dam owners should therefore consult with an attorney when deciding whether to move forward with a dam removal project.***

As an initial matter, dam owners should be aware that they are responsible for ensuring that sediment management during the removal process complies with all relevant state, federal, and local regulations. In addition, depending on the nature and volume of the contaminants, sediment

104 Mass. Dep't of Fisheries, Wildlife & Envtl. L. Enforcement, *Impounded Sediment and Dam Removal in Massachusetts: A Decision-Making Framework Regarding Dam Removal and Sediment Management Options* 9 (2003).

105 For general information, see Mass. DEP, *Dam Removal and the Wetland Regulations* (2007), but note that the wetlands regulations have been amended since the issuance of that guide.

management can be quite expensive. There are, however, funding opportunities available that can help defray at least part of the costs of dam removal.¹⁰⁶ Federal and state agencies and nongovernmental organizations can also provide technical assistance to dam owners during the removal process.

If dam owners learn of contaminated sediment but do not go through the removal process, there are at least two reasons to conclude that it is unlikely they would be held liable or responsible for the contamination. First, we are not aware of any case in which Massachusetts agencies have attempted to hold a dam owner liable for contaminated sediment discovered behind a dam.

Second, DEP has not established regulatory reporting and cleanup standards for sediment (as opposed to soil or groundwater) under the Massachusetts General Law, Chapter 21E, the state Superfund law.¹⁰⁷ This law governs waste site cleanup programs in the Commonwealth. DEP has adopted regulations to implement Chapter 21E, which are known as the Massachusetts Contingency Plan (“MCP”).¹⁰⁸ The MCP classifies the places where contamination may accumulate as either soil, groundwater, or sediment. It defines “sediment” as “detrital and inorganic or organic matter situated on the bottom of lakes, ponds, streams, rivers, the ocean, or other surface water bodies.”¹⁰⁹ For contaminated sediment to become a regulated site under the MCP, that sediment must be “associated with a release for which notification is required by 310 CMR 40.0300 and 40.1600.”¹¹⁰ The MCP establishes contamination levels for soil and groundwater that it classifies as a “release.” However, there is no such testing threshold for sediment alone.¹¹¹ Thus, if contaminated sediment behind a dam is not associated with a previously identified release—which will often be the case—then the MCP appears not to apply.

106 *Funding Opportunities for Dam Removal*, Mass. DER, <https://www.mass.gov/guides/deciding-to-remove-your-dam#funding-opportunities-for-dam-removal> (last visited July 8, 2020).

107 M.G.L. c. 21E.

108 310 C.M.R. § 40.0000.

109 310 C.M.R. § 40.0006.

110 *Id.*

111 310 C.M.R. § 40.0315.

VI. HOW IS LIABILITY ALLOCATED AMONG A DAM REMOVAL PROJECT ENGINEER, CONSTRUCTION CONTRACTOR, AND DAM OWNER FOR HARMS THAT MIGHT ARISE FROM A DAM REMOVAL PROJECT?

The allocation of liability in a dam removal project generally involves three components: standard indemnification conditions in contracts, professional liability insurance, and any other liability allocation agreements negotiated by the legal representatives of the dam owner, project engineer, and contractor.

First, absent further negotiations, contracts among the parties will usually contain a standard set of indemnification conditions. These conditions ensure that if an injury occurs due to a someone's negligent conduct, that individual or legal entity assumes full responsibility and will indemnify, i.e. hold harmless, all others involved in the project. Thus, for example, if an accident occurs as a result of the contractor's negligence, the contractor will be responsible for any damages resulting from legal claims against the engineer or dam owner. The Engineers Joint Contract Documents Committee, together with the American Association of Civil Engineers, and the National Society of Professional Engineers, has prepared a document listing the standard general conditions of construction contracts, and contracts in a dam removal project likely will be fully or partly based on this standard document.¹¹²

Under this document, the owner is responsible only for harms arising from "Hazardous Environmental Conditions" that he or she did not disclose to the contractor and engineer.¹¹³ By contrast, the contractor is responsible for "[a]ll damage, injury, or loss to any property . . . caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individ-

112 Am. Soc'y of Civil Engineers, *C-700: Standard General Conditions of the Construction Contract* (2018). This standard contract was updated most recently in 2018, and must be purchased from the American Society of Civil Engineers. A copy of the 2013 version is available to download for free from <https://plymouthgov.com/wp-content/uploads/2019/08/EJCDC-Standard-General-Conditions.pdf>.

113 A Hazardous Environmental Condition is defined as "the presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto." *Id.* at Art. 1.01(A)(22). Constituents of Concern, in turn, is defined as substances listed under several specific federal statutes, as well as "any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material." *Id.* at Art. 1.01(A)(11). Under one of the named federal statutes, the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., material that has been dredged pursuant to a permit issued under Section 404 of the Clean Water Act is not considered hazardous waste. 40 C.F.R. § 261.4(g). Obtaining a Section 404 permit is one of the regulatory requirements for a dam removal project. *See* Executive Office of Energy and Environmental Affairs, *supra* note 5, at 17.

ual or entity directly or indirectly employed by any of them to perform any of the Work.”¹¹⁴ The engineer, in turn is responsible for harm attributable to faults in the drawings or specifications for the project.¹¹⁵

Second, all parties in a dam removal project are generally required to purchase property and/or liability insurance. Standards for property and liability insurance are also specified in the standard general conditions.¹¹⁶ Insurance can cover the costs of harm that occurs as a result of accidents during the removal process.

Third, because dam removal projects often involve multiple parties, including owners, contractors, supervising engineers, government agencies, and non-profit organizations, it is likely that each party will have legal representatives negotiating detailed terms pertaining to liability allocation or other potential liability issues. These terms can be more tailored to the nature of a dam removal project than the standard general conditions. Dam owners should seek help from legal professionals in the contracting process.

114 *Id.* at Art. 7.12(E).

115 *Id.*

116 *Id.* at Art. 6.

VII. IF THE RIGHT SIDE OF THE DAM HAS ONE OWNER AND THE LEFT SIDE OF THE DAM HAS A SEPARATE OWNER, CAN THE OWNER OF ONE PORTION OF THE DAM REMOVE HIS/HER PORTION WITHOUT THE CONSENT OF THE OWNER OF THE OTHER PORTION? WHAT RESPONSIBILITIES AND LIABILITIES DOES THE PARTIAL OWNER HAVE IN DOING SO?

In some cases, the ownership of the dam is split, such that one person or entity owns the left side of the dam and another owns the right side of the dam. In this situation, the question arises whether the owner of one half of the dam is free to breach it, thus draining the entire reservoir, without the consent of the other owner.

As an initial matter, as with all questions of property law, the dam owner who desires to breach the dam should first investigate the property deeds, as they may contain easements requiring that the other half of the dam be preserved. If such provisions in the deeds exist, then they settle the question.

If the deeds are silent, however, there remains the question whether a court would imply such an easement or hold that each owner had acquired a prescriptive right in the entire dam's maintenance. A 1929 case from the Supreme Judicial Court suggests that the Massachusetts courts would not imply such a prescriptive right. The case, *Washburn v. Campbell*,¹¹⁷ involved a dam across a stream in Brockton that was closed each winter to create a pond from which ice could be harvested. The plaintiff owned half of the dam as well as a portion of the land flooded when the dam was closed. He had originally received oral permission from the previous owner of the other half of the land to construct and operate the dam. When the defendant acquired that half of the land, she denied the plaintiff permission to operate the dam and announced her intention to breach it. The plaintiff sued to stop her from breaching the dam, but the court held that:

The contention of the plaintiff that he has a right in the nature of an easement to maintain the dam and dikes on the defendant's land cannot be sustained. He holds no grant of such an interest from any legal owner of the land adjacent to and north of the brook. . . . The permission given [by the previous owner] created a mere license which was terminable and revocable at [her] pleasure . . . and of those who took title to the property by, through, or under her.¹¹⁸

¹¹⁷ 267 Mass. 285 (1929).

¹¹⁸ *Id.* at 289.

This case is consistent with the other cases, discussed above, in which the Massachusetts Supreme Judicial Court has denied that riparian property owners have prescriptive right in a dam. It therefore appears that the Massachusetts courts would allow the owner of one side of a dam to breach it without the other owner's consent, if the owner did not have an easement in writing.

Because the *Washburn* case is almost a century old, however, we also looked for cases from other states as well as cases addressing analogous situations in Massachusetts. As to the former, the only case we were able to locate was decided by the Supreme Judicial Court of Maine in 1895. In that case, the court concluded that “the owner of each end of the . . . dam may have acquired a prescriptive right in the continued maintenance of the other end.”¹¹⁹

As to the latter, there are analogous property arrangements that would support recognizing such a right. For instance, in Massachusetts a landowner owes a duty of lateral support to adjoining properties.¹²⁰ Based on the lateral support doctrine, a court may compel a landowner to rebuild or repair a retaining wall that provides support to an adjoining property.¹²¹ Because removing one half of a dam could undermine the structural integrity of the other half, a court may find such a scenario analogous to the lateral support cases.

The party wall doctrine, which bears some resemblance to the lateral support doctrine, also may be relevant to a jointly owned dam. A party wall “is defined as a wall common to two adjoining buildings, in which the owners of the two buildings that share the wall have mutual easements of support.”¹²² The “easement of support afforded by a wall of this nature” permits either owner to repair or rebuild the wall, although “he may have no right to contribution for any part of the expense.”¹²³ Massachusetts courts look to the deeds to determine if proprietors hold a right in the whole wall, either by explicit or implied easement; however, there is apparent flexibility in this inquiry.¹²⁴ In one case with inconclusive deeds, the Massachusetts Supreme Judicial Court found that several factors supported an easement in the entire wall:

From the length of time the wall has existed, the nature of the use to which it has been put, the fact that the estates meet in its center, the uniform acquiescence of those holding title to the land in existing and permanent condition, all afford, in

119 *Warren v. Westbrook Mfg. Co.*, 33 A. 665, 668 (Me. 1895).

120 *See, e.g., New York Cent. R. Co. v. Marinucci Bros. & Co.*, 337 Mass. 469, 472 (1958).

121 *See Gorton v. Schofield*, 311 Mass. 352, 359 (1942).

122 *Chicago Title Ins. Co. v. City of Cambridge*, 24 Mass. App. Ct. 285, 287 (1987).

123 *Id.* at 328.

124 *See Fleming v. Cohen*, 186 Mass. 323, 325–26 (1904).

the absence of evidence to control it, a presumption, without further proof, that the whole wall was intended to be used in common, rather than a mere mass of bricks and mortar owned in severalty, with the usual incidents that may attach to such a tenure.¹²⁵

This presumption is even stronger where a single individual originally owned both estates on which the wall sits and subsequently sold one or both estates to different owners.¹²⁶ Many cases of joint dam ownership will follow this pattern.

In sum, while there is no direct authority in Massachusetts requiring that the owner of one half of a dam maintain it if the owner of the other half wants to keep it in place, the Massachusetts courts recognize analogous doctrines that could potentially be expanded to this context.

¹²⁵ *Id.* at 328.

¹²⁶ *Id.* at 326.



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