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SEDIMENT MANAGEMENT WORKING GROUP
POSITION PAPER

LEGAL CHALLENGES AND POTENTIAL SOLUTIONS FOR BENEFICIAL USE OF CONTAMINATED SEDIMENT

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TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

Executive Summary

This Position Paper (Paper) offers potential solutions to the legal challenges currently associated with beneficial use of dredged sediment. Beneficial use is the practice of using sediment as a valued resource to provide measurable social, economic, and/or environmental benefits—for example, in habitat development, beach nourishment, land reclamation, construction, recreation, or environmental remediation projects.

Beneficial use of dredged sediment should be supported because it: reduces costs and impacts associated with transport of dredged material, decreases the amount of excess soil going to disposal facilities with limited capacity, and decreases costs associated with managing excess soil in a disposal facility. In many cases, beneficial use also has net positive impacts to the environment by providing important ecological services, such as habitat creation, and by providing additional recreational opportunities for citizens residing in the area.

Existing statutory and regulatory structure—particularly under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and various state programs—creates significant hurdles to employing beneficial use of contaminated sediments in the United States. Each of these laws has specific requirements for the handling, treatment, and disposal of contaminated sediment and are structured in a way that often creates residual liability issues that discourages beneficial use.

There are opportunities for regulators to work collaboratively with potentially responsible parties to improve existing environmental laws to facilitate beneficial use projects in the United States. Potential approaches to overcoming legal challenges to beneficial use are discussed in this Paper and are summarized in **Table A**.

Overcoming legal challenges to facilitate beneficial use of dredged sediment is critical given the increasing number of large dredging projects anticipated in the coming years. Creative thought, open collaboration between regulators and PRPs, defensible risk assessment that will be accepted by environmental agencies, and early and full risk communication are key to gaining acceptance for beneficial use projects.

TABLE A
Summary of Legal Solutions to Facilitate Beneficial Use

Legal Solution	Explanation
Expand CERCLA Liability Exemptions & Approval Processes	
Federally permitted release exemption	Expand "federally permitted release" exemption to provide a liability exemption where a beneficial use project is approved and permitted through state regulatory authorities.
Improve remedy approval criteria	Make it easier for beneficial use projects to satisfy Applicable or Relevant and Appropriate Requirements (ARARs) through flexibility and/or a streamlined waiver process.
Response action contractor exemption	Expand to provide statutory liability relief for response action contractors who accept ownership of dredged sediment in a beneficial use project to allow liability transfer where certain requirements are met.
Combined response action	Allow use of combined response action provision to treat a dredging location and disposal location as a single site to extend CERCLA's permit exemption to both locations.
Presumptive remedy approval	Gain EPA approval of beneficial use as a presumptive remedy for contaminated sediment sites to streamline the remedy approval process.
Expand RCRA Liability Exemptions	
Dredged material exclusion	Expand exclusion to apply to dredged sediments other than those disposed at confined disposal facilities within waterways subject to federal authority, including to beneficial use of sediment on upland sites.
Point source discharges	Excludes from RCRA liability sediment if the source of the contamination is a point-source discharge regulated under the Clean Water Act.
Exclude beneficially used sediment from the RCRA definition of solid waste	Clarify that beneficial use of sediment is not a solid waste and doesn't constitute disposal, as those terms are defined under RCRA.
Issue Supportive Agency Documents	
Modify CERCLA Model Consent Decree	Eliminate reopeners where EPA has approved of beneficial use as part of a remedy and where the beneficial use project is undertaken in accordance with technical guidance to provide PRPs closure.

Legal Solution	Explanation
Modify Model RCRA Administrative Agreement on Consent	Provide protection against a RCRA citizen's suit by adopting a judicially-approved consent decree similar to that used under CERCLA or otherwise include a bar on RCRA citizen suits in the model agreement to provide PRPs legal protection from potential toxic torts associated with beneficial use of contaminated sediment.
Issue Memoranda of Understanding (MOUs)	Issue MOUs to provide frameworks for collaboration among decisionmakers where there are multiple regulatory agencies with authority over a site and a beneficial use project.
Remedy Documents and Guidance	Issue agency guidance and approval of beneficial use in remedial decision documents to facilitate beneficial use by providing technical details on when beneficial use is appropriate and under what circumstances EPA is likely to approve beneficial use as part of a remedial plan.
Comfort/Status Letters	Develop comfort/status letters to be used in connection with properties where dredged sediments have been beneficially used.
Enforcement Discretion	Offer enforcement discretion in the context of beneficial use projects similar to the liability protection offered to a bona fide prospective purchaser under CERCLA.
Private Solutions	
Insurance	Consider pollution legal liability insurance riders covering beneficial use of sediments or remediation cost cap insurance to provide a cap for the expected cost of remediation should the policyholder be responsible for remediation and cover both the owner of the property and the PRP.
Private Contractual Options	Craft indemnification clauses, liability limitations, or liability buy-outs that allow entities to assume liability of another in exchange for a one-time payment.

Introduction[1]

Overcoming legal challenges to facilitate beneficial use of dredged sediment is critical given the increasing number of large dredging projects anticipated in the coming years. Beneficial use is the practice of using sediment as a valued resource to provide measurable social, economic, and/or environmental benefits—for example, in habitat development, beach nourishment, land reclamation, construction, recreation, or environmental remediation projects.[2]

Large volume dredging projects are undertaken by both (a) the U.S. Army Corps of Engineers (USACE) to facilitate navigation and control flooding, and (b) potentially responsible parties (PRPs) who are managing Superfund and other contaminated site remediation projects where contamination has impacted waterways. Navigational dredging by the USACE alone generates over 200 million cubic yards of material annually. Up to 70% of the navigational dredge and contaminated site dredge material is currently disposed of as waste.[3] While both navigational and contaminated site dredging volume is forecasted to increase in the coming years, at the same time, management options for dredged sediments are becoming increasingly limited. The presence of emerging contaminants, such as per- and polyfluoroalkyl substances (PFAS), is also a limitation to disposal facility acceptance of dredged sediment. Even if a suitable disposal facility can be identified, the cost of hauling dredged sediment —sometimes across several states—and disposal facility tipping fees leave PRPs in a challenging position when a remediation project involves dredging.

To address these issues, the USACE and PRPs have increased their focus on beneficial use of dredged sediment. The USACE has historically beneficially utilized approximately 30-40% of the sediments derived from navigation dredging projects but has set a goal of beneficially using 70% of dredged sediments by 2030. According to the USACE, only about 10-15% of its dredged material requires special handling due to contamination, leaving 85% of the dredged sediment available for beneficial use. Dredging associated with remedial projects generally involves sediment that is more heavily contaminated, presenting additional challenges in mitigating risk to human health and the environment, as well as in terms of legal liability.

Given the quantity of sediment that will be dredged in coming years, the lack of sufficient available management options and longer term considerations, beneficial use of contaminated sediment must be considered a feasible alternative to, or applied in tandem with, management options.[4] However, the existing statutory and regulatory structure—particularly under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and various state programs—creates significant hurdles

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[1] The authors are grateful for input and support from members of the Sediment Management Working Group: Stephanie Barczyk; James Schaeffer; Cynthia Gulde; David Tsao; Stacy Hopkins; Daniel Grapski; Michale Ritorto; and commenters David Moore and J. Stanton Curry.

[2] While this Position Paper (Paper) refers to this practice as "beneficial use," it can also be referred to as "beneficial reuse."

[3] *See* USACE, Beneficial Uses of Dredged Sediment (last accessed Jan. 11, 2025).

[4] This Paper refers to "contaminated sediment" as sediments exceeding regulatory requirements for beneficial use and therefore requiring additional treatment or management to meet applicable requirements prior to reuse.

to employing beneficial use of contaminated sediments. Each of these laws has specific requirements for the handling, treatment, and disposal of contaminated sediment and are structured in a way that often creates residual liability issues. For example, under CERCLA, PRPs that generate or transport hazardous substances can be held liable for additional future cleanup costs if the beneficial use project results in additional releases or threatened releases of hazardous substances.

The purpose of this Position Paper (Paper) is to suggest a legal and regulatory path forward to facilitate beneficial use of contaminated dredged sediment in the future, including suggesting areas for possible advocacy and regulatory amendments. This Paper also provides several examples of successful, large-scale beneficial use projects that demonstrate how legal hurdles can be addressed and summarizes beneficial use programs in Canada and Europe. Due to legal liability risks and inflexible regulatory requirements, advancing beneficial use requires creative regulatory approaches as well as cooperative regulators.

This Paper has five parts. Part I provides an overview of the legal liability risks associated with beneficial use. Part II discusses state approaches to beneficial use, including examples of beneficial use projects in several states. Part III outlines selected foreign jurisdictional approaches to beneficial use to show that laws are structured to enable beneficial use elsewhere. Part IV outlines existing Federal statutory and regulatory exclusions from liability and potential liability protections, including offering ideas for expanding these protections in some cases. Finally, Part V discusses other potential private solutions to managing the legal liability risks associated with beneficial use.

I. Overview of Legal Liability Risks

Beneficial use of contaminated sediment poses liability risks under numerous statutory and regulatory schemes, including CERCLA, RCRA, the Toxic Substances Control Act (TSCA), and state law equivalents. Contaminated sediment may also present risk in toxic tort litigation under common law theories of liability. The following is a summary of the liability risks presented under each of these statutory schemes.

a. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA imposes strict, joint and several liability for cleanup costs on four classes of PRPs: (1) current owners or operators of a facility; (2) former owners or operators at the time the pollution occurred; (3) persons who arranged for disposal of a hazardous substance at a facility; and (4) transporters that selected the facility where the hazardous substances were brought. 42 U.S.C. § 9607(a). The government can hold PRPs liable for response costs or compel PRPs to perform cleanup through either administrative or judicial proceedings. 42 U.S.C. §§ 9606(a), 9607(a). PRPs may also be liable for cleanup costs in a cost recovery action by the government, 42 U.S.C. § 9607, or a contribution action, 42 U.S.C. § 9613(f), brought by a private party.

PRPs can be liable for natural resource damages under CERCLA. 42 U.S.C. § 9607(f). CERCLA defines "natural resources" broadly to include "land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources . . . ." 42 U.S.C. § 101(16). Natural resource

trustees—*i.e.*, Federal or State Government or Indian Tribes—may seek damages for injury to, destruction of, or loss of natural resources. 42 U.S.C. § 9607(f)(1). The amount of damages can include the cost of restoring injured resources to their baseline condition, compensation for the interim loss of injured resources pending their restoration, and the reasonable costs of a natural resource damage assessment. *See generally* 42 C.F.R. Part 11 (detailing the methodology for assessing natural resource damages).

CERCLA also includes a citizen suit provision that enables citizens to file a civil action against any person, including a Federal agency, that is alleged to be in violation of any CERCLA standard, regulation, condition, requirement, or order. 42 U.S.C. § 9659(a). Citizen suits are excluded, however, if the government has commenced and is diligently prosecuting an action under CERCLA or RCRA to require compliance. 42 U.S.C. § 9659(d).

PRPs face liability risks under CERCLA for beneficial use of contaminated sediment under a number of fact scenarios. Current owners or operators of facilities from where contaminated sediment is either derived or where it is ultimately placed (*e.g.*, used beneficially as a cap or other fill material) could face liability under CERCLA if that sediment contains a "hazardous substance" as defined by CERCLA. Former owners or operators of facilities at the time when hazardous substances were disposed at the facility, and from which contaminated sediment is derived, also face CERCLA liability.[5]

PRPs who disposed of or arranged for disposal of contaminated sediment also may face CERCLA liability. "Disposal" is defined broadly to include "placing any solid waste or hazardous waste into or on any land or water." 42 U.S.C. § 9601(29); § 6903(3). "Solid waste" includes any "discarded material." 42 U.S.C. § 9601(29); § 6903(27). There is an argument that sediment destined for beneficial use is not "disposed," but there is still significant liability risk given how broadly these terms are defined.

Finally, any person who accepts or has accepted contaminated sediment for transport to a disposal or treatment facility and who was involved in selecting the site at which the material is placed also faces liability under CERCLA. Courts generally interpret "selection" to mean "substantial input" or "active participation" in the decision of where to place the contaminated sediment. *See B.F. Goodrich v. Betoski*, 99 F.3d 505, 520–21 (2d Cir. 1996); *Tippins Inc. v. USX Corp.*, 37 F.3d 87 (3d Cir. 1994).

b. Resource Conservation and Recovery Act (RCRA)

RCRA authorizes the Environmental Protection Agency (EPA) to control hazardous and solid waste from "cradle to grave," including generation, transportation, treatment, storage and disposal.

[5] Sediments containing hazardous substances that are beneficially used on-site can trigger the five-year review requirement under CERCLA Section 121(c). Five-year reviews are required by CERCLA or program policy when hazardous substances remain on site above levels that permit unrestricted use. Five-year reviews evaluate the implementation and performance of a remedy to determine whether it remains protective of human health and the environment.

Both EPA and citizens may also sue under RCRA provisions that authorize lawsuits to abate an imminent and substantial endangerment posed by any hazardous or solid waste.

i. RCRA Solid and Hazardous Waste Regulation

RCRA is the framework under which the EPA regulates solid waste. "Solid waste" is defined broadly to mean any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material "resulting from industrial, commercial, mining, and agricultural operations, and from community activities." 42 U.S.C. § 6903(27).

Discarded material includes material that is abandoned or recycled. 40 C.F.R. § 261.2. A material is abandoned if it disposed of or if it is "[a]ccumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated." 40 C.F.R. § 261.2(b)(3). "Disposal" is "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters." 40 C.F.R. § 260.10. There is an argument that beneficial use of dredged sediment, whether on land or in the water, is considered "disposal" of a "solid waste" and is regulated under RCRA given the broad definition of "disposal" encompassing any deposition of solid or hazardous waste into or on any land or water. Conversely, there is an argument that because the sediment, which is not a waste when in place in the water body, is being put to productive use, it would not be waste when beneficially used so the use would not be disposal.

RCRA also regulates "hazardous wastes," which are a subset of "solid wastes." A solid waste is "hazardous" if it exhibits a characteristic of a hazardous waste—*i.e.*, ignitability, corrosivity, reactivity, and toxicity—or if it is a listed waste. *See* 40 C.F.R. §§ 261.3; 261.20-24. A mixture of a solid waste and one or more hazardous wastes may be hazardous if the resulting mixture exhibits a characteristic or if the mixture contains a listed waste. 40 C.F.R. § 261.3(b). Accordingly, if dredged sediment is a "solid waste," it may be a "hazardous waste," depending on the nature and amount of contaminated material within it. EPA has concluded, however, that with respect to listed wastes, the mixture rule does not dispositively subject sediments in rivers that have been contaminated by listed hazardous wastes discharged directly into surface waters to RCRA regulation under the mixture rule. RCRA Online 11125. According to EPA, "[t]he major question to answer is whether the discharge resulted from illegal discharges or from point source discharges subject to regulation under the Clean Water Act." *Id*. This is the operative question because 40 C.F.R. § 261.4(a)(2) exempts industrial wastewater discharges subject to regulation under Section 402 of the Clean Water Act (CWA). This CWA exemption also covers the addition of any pollutant to waters of the United States from any discernible, confined, and discrete conveyance, except discharges of dredged and fill material regulated under CWA Section 404. *Id.*

Solid waste is regulated under RCRA Subtitle D. Regulations established under Subtitle D ban open dumping of waste and set minimum federal criteria for the operation of municipal and industrial waste disposal facilities, including design criteria, location restrictions, financial assurance, corrective action (cleanup), and closure requirements. *See generally* 40 C.F.R. parts 239 through 259.

Hazardous waste is regulated under RCRA Subtitle C. Subtitle C establishes a comprehensive program to ensure that hazardous waste is regulated from cradle to grave. It establishes criteria for hazardous waste generators, transporters, and treatment, storage and disposal facilities, including permitting requirements, enforcement, and corrective action (cleanup). *See generally* 40 C.F.R. parts 260 through 273.

Any dredged sediment that contains a listed hazardous waste or exhibits hazardous waste characteristics would have to meet RCRA hazardous waste requirements in Subtitle C from generation through treatment, storage, and disposal. Because contamination in dredged sediment is generally highly diluted in the environment, however, there is a good chance that it will not exhibit hazardous waste characteristics, thereby not triggering hazardous waste regulation under Subtitle C. Similarly, because many sources generally contribute to contamination in sediment and the contamination often cannot be fingerprinted to a specific source, it is generally unlikely that contaminated sediment will be a listed hazardous waste, particularly if those sources were Clean Water Act regulated discharges, which would be exempt from RCRA regulation under 40 C.F.R. § 261.4(a)(2), as noted above.

RCRA also lists "hazardous constituents" in Appendix VIII in 40 C.F.R. Part 261. Hazardous constituents listed in Appendix VIII must be identified and, where necessary, investigated and remediated through the RCRA corrective action process. The list of RCRA hazardous constituents includes approximately 500 chemicals or classes of chemicals that have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms. EPA recently proposed the addition of nine PFAS compounds and their salts and structural isomers to the RCRA list of hazardous constituents. *See Listing of Specific PFAS as Hazardous Constituents*, 89 Fed. Reg. 8606 (Feb. 8, 2024). EPA also proposed an amendment to the definition of hazardous waste to clarify that EPA has authority to order corrective action at RCRA-permitted transportation, storage, and disposal facilities to address releases of hazardous wastes, hazardous constituents, and any other substance that meets the definition of a hazardous waste. *See Definition of Hazardous Waste Applicable to Corrective Action for Releases from Solid Waste Management Units*, 89 Fed. Reg. 8598 (Feb. 8, 2024). Assuming these two proposed rules become final (which is projected for 2025), EPA will have authority to regulate emerging contaminants, such as PFAS, under RCRA corrective action. The regulation of PFAS under RCRA corrective action is a potentially significant legal liability hurdle given the persistent and pervasive presence of PFAS in the environment (including in dredged sediment), particularly in urban areas and at sites impacted by runoff from municipal disposal facilities.

ii. Imminent and Substantial Endangerment (ISE) Suits

RCRA creates a right to a civil action if a hazardous material presents an imminent and substantial endangerment to human health or the environment. Any person may commence a civil suit "against any . . . past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment." 42 U.S.C. § 6972(a)(1)(B). Prior to commencing a suit under this provision, a plaintiff must give notice to the Administrator of the EPA, the State in which the alleged endangerment will occur, and to any person alleged to have contributed to the endangerment. 42

U.S.C. § 6972(b)(2). Increasingly, plaintiffs' lawyers are bringing RCRA citizens' suits against companies in tandem with toxic tort actions in an effort to leverage large settlements, thereby raising the stakes and seeking remediation above and beyond response or corrective actions sought by EPA and state agencies.

EPA may commence an imminent and substantial endangerment action "upon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment." 42 U.S.C. § 6973(a). RCRA gives EPA broad authority to take any action necessary to protect public health and the environment, including issuing administrative orders. *Id*.

RCRA imminent and substantial endangerment suits are powerful enforcement tools. "Imminent and substantial endangerment" has been broadly interpreted by courts to include any activity presenting a "reasonable prospect of future harm," as long as the harm is potentially serious and likely to occur in the near-term. *See, e.g., Maine People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277 (1st Cir. 2006). The First Circuit allowed a citizen's suit to go forward in *Maine People's Alliance* even though the EPA had already launched an enforcement action against potentially responsible parties for cleanup of methylmercury in the Penobscot River in Maine. The court in that case concluded that RCRA's citizen suit provision meant that EPA's "determinations of environmental liability are [not] exclusive." *Id*. at 296. The factual record demonstrated that "methylmercury is a highly toxic substance" that can injure an aquatic system for decades, and the court found that mercury was present in the waterway and the risk posed was serious. *Id*.

Furthermore, the types of waste covered under the statute's imminent and substantial endangerment provisions are not limited to "hazardous waste" but rather includes *any* "solid waste." 42 U.S.C. § 6803(27);. RCRA imminent and substantial endangerment suits therefore pose a risk for parties undertaking projects involving beneficial use of sediment where the sediment is considered a solid waste and, following the use, the sediment poses an imminent and substantial risk to human health to the environment. Parties could face liability if they participated in or contributed to handling, storage, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment.[6]

[6] RCRA precludes imminent and substantial endangerment suits in limited circumstances. Imminent and substantial endangerment claims may not be brought by private citizens if the EPA "has commenced and is diligently prosecuting an action" under § 6973(a); is engaging in a removal action under CERCLA, 42 U.S.C. § 9604; has incurred costs to initiate a Remedial Investigation and Feasibility Study ("RI/FS") and is diligently proceeding with a remedial action under CERCLA; or has entered into a judicially-approved settlement or issued an administrative order under CERCLA, 42 U.S.C. § 9606, pursuant to which a responsible party is diligently conducting a removal action or proceeding with a remedial action. 42 U.S.C. § 6972(b)(2)(B). There would likely be added protection against citizen suits if beneficial use of contaminated sediment on-site is part of the Record of Decision (ROD) for the Remedial Action. Certain enforcement actions by a state may also preclude imminent and substantial endangerment suits. No imminent and substantial endangerment suit may be brought where a state is diligently prosecuting an action

Of course, the plaintiff in any citizen suit would, however, have the burden of proving that the conditions actually present an imminent and substantial endangerment. While some courts have been liberal in finding an imminent hazard, the Supreme Court in *Meghrig v. KFC Western, Inc.*, 516 U.S. 479 (1996), held that there must be a finding that there is a present threat from the waste (although the impact may not be felt until the future). An imminent hazard finding is also less likely where there is ongoing remediation under government oversight. *See Santa Clarita Valley Water Agency v. Whittaker Corp.*, 99 F.4th 458 (9th Cir. 2024) (dismissing a RCRA citizens' suit seeking injunctive relief to require additional remediation above and beyond what was required by the government agencies overseeing the cleanup). Given that beneficial use projects would follow a regulatory process where the residual risks are determined to be acceptable, liability risk under the imminent hazard provisions should be low.

c. Toxic Substances Control Act (TSCA)

Detections of polychlorinated biphenyls (PCBs) in dredged sediments may further complicate beneficial use by triggering TSCA requirements. TSCA controls management of PCBs and items containing PCBs in connection with response actions. TSCA regulations include provisions for managing PCB wastes both prior to and during disposal, including remediation waste—*e.g.*, soil, sediment, and sludge that contains PCBs. 40 C.F.R. § 761.61. TSCA regulations apply to characterization, remediation, and disposal activities. TSCA specifically regulates any material contaminated with PCBs at concentrations of 50 parts per million (ppm) or greater. *See* EPA, *Guidance on Remedial Actions for Superfund Sites with PCB Contamination*, at 9 (August 1990) and PCB Facility Approval Streamlining Toolbox (FAST): A Framework for Streamlining PCB Site Cleanup Approvals.

TSCA's requirements will be directly applicable if the material contains sufficient levels of PCBs and will be considered an Applicable or Relevant and Appropriate Requirement (ARAR) even if the levels of PCB contamination do not trigger the TSCA requirements. For example, TSCA's PCB requirements were considered an ARAR in the Record of Decision (ROD) for the Lower Eight Miles of the Lower Passaic River. *See* ROD for the Lower Eight Miles of the Lower Passaic River, at Table 29. Because the remedy on the Lower Eight Miles of the Lower Passaic River required removal of sediment to specific depths and maximum PCB concentrations detected in areas of the river to be dredged did not exceed 50 ppm, TSCA's substantive requirements were not triggered in that instance. EPA made clear, however, that if additional testing identified sediments with PCB concentrations exceeding the 50 ppm threshold, then TSCA regulations would be applicable for managing dredged material for off-site disposal. *Id.*

TSCA PCB regulations provide for risk-based remediation that allows for a site-specific approval to sample, extract, analyze, cleanup, or dispose of PCB remediation waste. *See, e.g.*, *Risk-Based Disposal of PCB Remediation Waste Allied Paper/Kalamazoo River—Operable Unit 1 Technical Memorandum* (Oct. 26, 2012) (providing risk-based clean up and disposal analysis for PCB-contaminated material at the Allied Paper/Portage Creek/Kalamazoo River Superfund Site). These

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under RCRA, is engaging in a removal action under CERCLA, or has incurred costs to initiate an RI/FS under CERCLA and is proceeding with a remedial action. 42 U.S.C. § 6972(b)(2)(C).

provisions provide some flexibility from the requirements discussed above and could allow for beneficial use complying with the TSCA regulations to proceed following regulatory approval.

d. State Law Equivalents

Most states have their own "State Superfund" laws that impose similar liability schemes to those under federal law. Certain states are more active in enforcing their state statutory schemes. For example, some states, including New York and New Jersey, have been particularly active in bringing claims seeking natural resource damages from responsible parties under state law. EPA has also delegated authority to most states to implement and enforce RCRA. States may have more stringent requirements than under the federal solid and hazardous waste regulatory scheme. Some states have specific beneficial use regulations and guidance, and it is often not clear whether State or Federal authority is the ultimate decisionmaker on beneficial use approvals and liability transfer provisions. Therefore, state laws often present additional liability risks and uncertainties with respect to beneficial use of dredged sediment.

e. Toxic Torts

Tort actions can arise whenever there is an injury to a plaintiff. Common environmental torts include negligence, nuisance, trespass, and strict liability for abnormally dangerous activity. Because toxic torts in the environmental context may affect a large number of people, such suits often are brought as a mass tort action by numerous plaintiffs or as a class action.

Certain contaminants, such as dioxin and PFAS, in dredged sediment create particular liability risk given their persistence in the environment and tendency towards bioaccumulation. For example, in a toxic tort class action pending in Maine, plaintiffs allege harms from land application of wastewater treatment sludge containing PFAS that was derived from nearby paper mills. *See Higgins v. Huhtamaki, Inc.*, No. 1:21-cv-00369-JCN (D. Me. Oct. 5, 2023).

Beneficial use of contaminated dredged sediment may similarly give rise to a mass tort or class action if plaintiffs are allegedly exposed to, and injured by, hazardous substances in dredged sediment that has been beneficially used in a manner where exposure pathways exist.

II. State Approaches to Beneficial Use

On the state level, beneficial use programs are a patchwork of laws and regulations. As discussed in Section I, beneficial use of contaminated sediment poses liability risks under numerous statutory and regulatory schemes on the federal and state level. The specific statutes and regulations that apply and how and on whom those statutes and regulations impose liability vary from state to state.

Not all states even recognize beneficial use of clean sediment. Of the states that do, not all provide the regulatory flexibility that would facilitate beneficial use of contaminated sediment. States that do allow beneficial use often impose stringent use regulations. For example, many states that allow beneficial use of clean sediment restrict its use as daily cover at disposal facilities. Not all states authorize in-water uses: for example, states such as Mississippi, Illinois, and Minnesota

authorize in-water uses on a case-by-case basis only,[7] while others restrict the types of in-water uses available for beneficial use projects. Fewer states consider use of contaminated sediments in addition to clean sediment. Of the states that do consider use of contaminated sediments, the majority consider such uses case-by-case, based on risk management (*e.g.*, New Jersey, New York).[8]

a. Potential Liabilities

Generally, potential liability associated with beneficial use of contaminated sediment on the state level arises from each state's statutory and regulatory scheme surrounding hazardous waste and solid waste disposal—*i.e.*, each state's CERCLA and RCRA analogues—as well as water quality control regulations. While a full survey of potential sources of state-level liability for all 50 states is beyond the scope of this Paper, at a high level, the primary mechanisms through which a state may seek to impose liability on a party that is beneficially using contaminated sediments are similar to the mechanisms for imposing federal liability—*i.e.*, imposing liability on parties who own contaminated sites or are responsible for site contamination.[9]

In the absence of a federal permit under CWA Section 404, beneficially used contaminated sediments are not routinely exempted from regulation as hazardous substances, hazardous waste, or solid waste under state CERCLA and RCRA analogues or other beneficial use regulations. While some states, such as New York and New Jersey, provide for beneficial use determinations that, if granted, exempt the beneficially used material from regulation as a solid waste, the uses covered by preexisting beneficial use determinations are limited, and case-specific petitions seeking approval for non-listed beneficial use projects, including projects involving contaminated sediments, must demonstrate (among other factors) that there will be no risk to human health or the environment. *See, e.g.*, 6 NYCRR 360.12(c); N.J.A.C. 7:26-1.7(g).[10]

b. Examples of Beneficial Use Projects

Nationwide, there are a number of ongoing beneficial use projects utilizing contaminated sediment. For the purposes of this Paper, we reviewed publicly available documentation

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[7] *See, e.g.*, Mississippi Department of Environmental Quality, *Mississippi Beneficial Use Program* (providing links to Mississippi beneficial use regulations and beneficial use determination request forms, which neither explicitly preauthorize nor outright ban in-water beneficial uses); Illinois Environmental Protection Act Section 22.54 (describing process for case-by-case beneficial use determination approvals while not explicitly barring in-water uses); Minnesota Pollution Control Agency, *Beneficial Use of Solid Wastes* (providing links to standing beneficial use determinations, all of which are upland uses, as well as relevant regulations that do not bar consideration of in-water beneficial uses and forms for beneficial use determinations).

[8] *See, e.g.*, New Jersey Department of Environmental Protection, *Guidance Document for the Beneficial Use Project (BUD) Approval Process*, Feb. 3, 2021; New York State Department of Environmental Conservation, *Beneficial Use Determinations (BUDs)*.

[9] *See* Barr Engineering Co., Deltares, and Windward Environmetal LLC, *Beneficial Use of Contaminated Sediments* for a survey of environmental regulations pertaining to contaminated sediment.

[10] *See also* NYSDEC, *Beneficial Use Determinations (BUDs)*.

associated with contaminated sediment beneficial use projects and selected illustrative examples. While publicly available information regarding liability allocation for these beneficial use projects is limited, these projects provide some insight into the types of contamination risk mitigation measures that regulatory agencies and project proponents have determined pose a low enough risk of future contamination and associated liability to be worth pursuing.

i. San Francisco Bay Estuary Montezuma Wetland Restoration Project

The California Water Board acknowledges beneficial use of dredged material as "an integral and necessary part of the dredged material management process." *See* California Water Boards, San Francisco Bay, *Beneficial Reuse and Sea Level Rise Adaption*. The San Francisco Bay Regional Water Quality Control Board has adopted a long-term management strategy that provides for increased beneficial use of dredged sediment. 23 Ca. Admin. Code § 3919.2; USACE *et al.*, Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, 2001. For dredged material to be approved for placement in a beneficial use environment, such as wetland creation and restoration, levee maintenance, construction fill, or daily cover at sanitary disposal facilities, the benefits of the project must outweigh adverse impacts. Any impacts must also be fully mitigated, and the sediment in question must satisfy relevant testing guidelines. USACE, *Long-Term Management Strategy (LTMS) for the Placement of Dredged Sediment in the San Francisco Bay Region: Beneficial Reuse Fact Sheet* (May 2018).

The San Francisco Bay Estuary Montezuma Wetland Restoration Project, a private habitat restoration project utilizing contaminated sediments,[11] provides an example of an ongoing dredging and beneficial use project. California's Bay Area faces major concerns over loss of critical salt marsh habitat and major subsidence of former marsh lands and upland areas, as well as pressure to reduce open water dredged sediment disposal. A consortium of governmental and non-governmental entities recognized an opportunity to beneficially use dredged sediment for habitat restoration in the estuary, which is the largest on the Pacific Coast and includes a major harbor. Through 2019, this project has utilized approximately 8 million cubic yards of dredged material. California Water Boards, San Francisco Bay, *Beneficial Reuse and Sea Level Rise Adaption*. Up to 20% of the dredged material utilized in this project may be "chemically challenged" sediment that can be used as foundation material, which the project permit issued by USACE requires to be covered by a minimum of three feet of clean sediment and isolated from surface-water bodies and constructed channels by at least 200 lateral feet of clean sediment. USACE, Permit No. 19405N (Sept. 24, 2001).

During our review of background documents associated with this project, we did not identify any publicly available information on the allocation of potential liability associated with potential future contamination arising from the use of contaminated sediments for this specific project. Nor have we been able to identify any regulatory liability allocation within the broader California beneficial use program. Rather, the primary sources of potential liability for beneficial use of contaminated sediment, in addition to CERCLA and RCRA, are the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), Cal. Health & Safety Code §§ 78000 et seq.,

[11] This is a private project led by Montezuma Wetlands LLC, in partnership with USACE, the Port of Oakland, and the San Francisco Estuary Institute. USACE, *Beneficial Uses of Dredged Sediment: Montezuma Wetlands Restoration*.

California's CERCLA analogue; the California Hazardous Waste Control Act (HWCA), Cal. Health & Safety Code §§ 25100 et seq., California's analogue to RCRA; and the Porter-Cologne Water Quality Control Act, Cal. Water Code §§ 13000 et seq., which uses National Pollutant Discharge Elimination System (NPDES) permits for point source discharges issued under Section 402 of the Clean Water Act and waste discharge requirements (WDRs) to maintain water quality, and imposes liability on parties responsible for violating their NPDES permits or WDRs by discharging hazardous substances into regulated waters in excess of permitted or authorized amounts.

ii. Lower Fox River

Although Wisconsin's beneficial use program focuses primarily on industrial materials, which are defined to exclude dredged material, the Wisconsin Department of Natural Resources (WDNR) has a "policy to encourage reuse of dredged material." Wis. Admin. Code § NR 347.01(1). Dredged sediments may be used or managed as either a solid waste, a hazardous waste, or "other solid waste," depending on the level of contamination present. WDNR, *Upland Disposal and Management of Dredged Material, Including Sediment* (2017); Wis. Admin. Code §§ NR 500, NR 600, NR 718. While we have not identified any regulations or backing documents that specifically address management of liability for beneficial use projects, potential liability associated with beneficial use projects arises generally from CERCLA, RCRA, and the Wisconsin Spills Law.

A major example of a beneficial use project in Wisconsin involving contaminated sediment is the Lower Fox River Superfund Site. At that site, PCBs had accumulated and persisted in river sediments and migrated into the food chain in the Fox River, the principal tributary of Green Bay in Lake Michigan. During the course of the cleanup, which was completed in 2020 and officially certified by EPA and the WDNR in 2022 and early 2023, respectively, more than 6 million cubic yards of PCB-contaminated sediment were addressed. *See* EPA, Fox River NRDA/PCB Releases Green Bay, WI. The use of solids separation technology effectively separated out clean sandy sediment, enabling beneficial use of tons of the clean, reclaimed sandy sediment in local construction projects.The remaining PCB-contaminated sediment was then dewatered into filter cakes and transported to disposal facilities. Between 2004 and 2020, approximately 6.5 million cubic yards of sediment were hydraulically pumped to a nearby facility for further processing, and an estimated 600,000 cubic yards of sand were beneficially used after processing.[12]

While the Lower Fox River Superfund Site project did not result in beneficial use of all contaminated sediment dredged during the project, it did utilize treatment technology to dramatically reduce the volume of contaminated sediment transported to disposal facilities and allowed for the beneficial use of the cleaned sediment in local road construction projects. Although we have not identified any publicly available materials that address or provide further context for discussions surrounding potential future liability, the treatment or processing of contaminated sediment to remove contaminants prior to beneficial use could dramatically reduce the risk of

[12] *See* USACE, *Lower Fox River PCB Sediment Remediation Project*; Wisconsin Public Radio, *$1B Cleanup of Lower Fox River Complete* (Sept. 2, 2020); EPA, *Fourth Five-Year Review Report for Fox River NRDA/PCB Releases Superfund Site A.K.A. Lower Fox River and Green Bay Superfund Site, Brown, Door, Marinette, Oconto, Outagamie, Kewaunee, and Winnebago Counties, Wisconsin* (Nov. 6, 2024).

potential future liability under CERCLA, RCRA, or the Wisconsin Spills Law. We have not identified any publicly available documents that explicitly allocate, waive, or discuss potential future liabilities associated with this project's beneficial use aspects. Rather, documents such as the 2017 and 2019 consent decrees (CDs) between the United States, the State of Wisconsin, and PRPs use EPA's model language which, as discussed below, includes a number of reservations, including reservation of the right to issue an administrative order or to institute proceedings to compel the settling PRPs to perform further response actions at the Site or to pay for additional response costs if previously unknown conditions are discovered. *See, e.g.*, Consent Decree with P.H. Glatfelter Company and Georgia-Pacific Consumer Products, L.P. (March 14, 2019).

iii. New York/New Jersey Harbor Estuary

New York's beneficial use program provides that the New York State Department of Environmental Conservation (NYSDEC) may issue a beneficial use determination exempting beneficially used material from regulation as a solid waste. *See* 6 NYCRR 360.12-13. While the state regulations provide a list of predetermined beneficial uses (*e.g.*, fill material generated outside New York City with no evidence of historical impacts), NYSDEC may also issue case-specific beneficial use determinations in instances where all regulatory requirements, including acceptable concentrations of heavy metals or pollutants, no significant adverse effect for public health and the environment, and no need for decontamination or other processing at the point of beneficial use, are satisfied. *Id.*; NYSDEC, *Beneficial Use Determinations (BUDs)*.

In New Jersey, soil or fill generated from dredging activities that contains no debris (*e.g.*, trash, lumber, metals, etc.) but has concentrations of one or more contaminants in excess of the New Jersey Department of Environmental Protection (NJDEP) Residential Soil Remediation Standards is considered solid waste but may be approved for beneficial use at certain remediation sites; to close terminated disposal facilities; as alternative daily cover material at operating disposal facilities; or in other uses for which NJDEP issues beneficial use determinations on a case-by-case basis.[13] In order to obtain NJDEP approval for beneficial use, the generator of the material in question must show that the proposed beneficial use project is designed and managed consistent with applicable environmental statutes, permits and approvals, and that the proposed project will not pose a threat to public health or the environment. N.J.A.C. 7:26-1.7(c), (g). NJDEP has no specific prohibitions regarding types of projects that may be approved as beneficial use projects, making New Jersey's beneficial use program quite discretionary. If NJDEP evaluates the application for a beneficial use determination and determines that the proposed project would be designed and managed appropriately and poses no threat to public health or the environment, NJDEP will then issue an Acceptable Use Determination. NJDEP, *Understanding Regulatory Requirements for Soil and Fill Recyclable Materials* (May 8, 2024).

An example of a beneficial use project utilizing contaminated sediment is the New York/New Jersey Harbor project.[14] The 1991 issuance of new acceptance criteria for ocean disposal sites by

[13] NJDEP, *Understanding Regulatory Requirements for Soil and Fill Recyclable Materials*, at 2 (May 8, 2024).

[14] *See, e.g.*, USACE, *New York and New Jersey Harbor Deepening Channel Improvements Navigation Study: Final Integrated Feasibility Report and Environmental Assessment* (April 2022).

EPA and USACE disqualified a majority of the dredged materials generated from maintenance dredging from disposal in the ocean, requiring new methods for managing contaminated sediments. One of the methods implemented for management of contaminated sediment was solidification and stabilization of contaminated sediment with either Portland cement or pozzolanic compounds, allowing those contaminated sediments to be beneficially used for upland fill, geotechnical-amended fill, disposal facility capping, and mine/quarry reclamation.[15]

As with the projects discussed above, we have not identified any publicly available materials that provide a project-specific discussion on allocation of liability associated with the beneficial use of sediments from the New York/New Jersey harbor project, nor have we been able to identify relevant discussion of liability allocation within the broader New Jersey beneficial use program. Rather, the primary sources of potential liability for beneficial use of contaminated sediment, in addition to CERCLA and RCRA, would be New Jersey's Spill Compensation and Control Act (Spill Act), which imposes liability on property owners and any person that discharges a hazardous substance or is in any way responsible for the discharge of a hazardous substance, *see* N.J.S.A. 58:10-23.11, and the Site Remediation Reform Act, which imposes an affirmative obligation to remediate discharges for which parties would be liable under the Spill Act, ending the voluntary cleanup program; allowing the NJDEP to establish presumptive remedies for certain sites; and requiring any remediation conducted in New Jersey to follow the Technical Requirements for Site Remediation under the supervision of a Licensed Site Remediation Professional (LSRP). Additional obligations could also be imposed under the Industrial Site Recovery Act (ISRA), which requires owners of facilities with specific industrial classifications to investigate and remediate prior to property transfers when the business ceases operations or is sold.

iv. Lower 8 Miles of the Passaic River

One of the largest beneficial use projects in the country, the cleanup of the lower 8 miles of the Passaic River in New Jersey, is an ongoing CERCLA response action. This site was listed on the National Priorities List in 1984 following identification of dioxin, PCBs, metals, pesticides, and polycyclic aromatic hydrocarbons (PAHs) in sediment, as well as hazardous substances in soil and groundwater nearby. *See* EPA, Diamond Alkali Co. Newark, NJ. The Pre-Design Investigation ("PDI") conducted under the 2016 ROD indicated that a lower volume of highly contaminated material was present at the site than originally thought, and accordingly, a larger portion of the sediment dredged from the Passaic could be beneficially used (as compared to what was originally planned). While approval from NJDEP will need to be obtained prior to shipment of material for beneficial use, a facility in Pennsylvania has been identified as the selected facility to receive beneficial use material. *See* Basis of Design Report, Final 100% Remedial Design for the Diamond Alkali Superfund Site Lower 8.3 Miles of the Lower Passaic River (Operable Unit 2) (May 2024).

Unfortunately, we have not identified any publicly available materials that address potential future liability associated with beneficial use of dredged material from the Passaic River site, nor have we identified documentation that speaks to the rationale behind dramatically increasing the volume of material to be beneficially used beyond sampling data indicating that contamination was less

[15] USACE, *New York and New Jersey Harbor Deepening Channel Improvements Navigation Study: Final Integrated Feasibility Report and Environmental Assessment: Appendix A13, Beneficial Use of Dredged Navigation Material Strategy* (April 2022).

widespread than initially thought, and cost data indicating a significant savings associated with increasing the volume of material to be beneficially used, thereby decreasing the volume of material to be shipped to a RCRA Subtitle C facility for disposal. The dredging work on the Passaic River is being completed as part of a EPA-approved beneficial use plan, which may ultimately provide liability protection from toxic tort or state enforcement actions if a court agrees that federal regulatory activity preempts challenges to an approved use under the EPA administrative order. *See, e.g.*, *Lafferty v. Sherwin-Williams Co.*, No. 17-06321-RBK/AMD, 2018 U.S. Dist. LEXIS 141549, at *10 (D.N.J. Aug. 21, 2018) (dismissing plaintiffs' claims that defendant did not diligently investigate and remediate as preempted by the EPA-ordered remedial action).

III. Foreign Approaches to Beneficial Use

Beneficial use is encouraged in legal regimes elsewhere in the world, particularly in Canada and in the European Union (EU). The following short discussion provides an overview of how laws in Canada and in the EU facilitate and promote beneficial use.

a. Ontario, Canada

In Canada, the Province of Ontario adopted Regulation 406/19 under the Environmental Protection Act for On-Site and Excess Soil Management. *See* Ontario Environment Industry Association, *Excess Soils Best Practices*. The regulation aims to promote beneficial use of clean soil and addresses concerns about soil dumping by increasing transparency and accountability in the movement and management of soil. Local reuse and management of excess soil is viewed as beneficial in Ontario because it: reduces greenhouse gases from the transport of excess soil, reduces illegal dumping, decreases road damage, decreases the amount of excess soil going to landfill, and saves costs associated with transporting and managing excess soil in a disposal facility.

Ontario's excess soil regulation establishes risk-based standards to determine how contaminated sediment can be reused. Where contaminated soil presents a low-risk, the regulation provides streamlined regulatory rules that govern reuse rather than requiring waste-related approvals and permits. The regulation also establishes restrictions on landfilling clean soil that is suitable for use for sensitive land uses, such as schools and agricultural sites. *See* Ontario, *Handling excess soil*.

For contaminated soil that presents a greater risk to human health or the environment, the regulation applies testing, tracking, and registration requirements on project leaders, owners and operators, as well as transporters of excess soil from sites. Prior to any project involving excavation or reuse of excess soil, a Qualified Person (QP) must prepare or supervise an assessment of past uses of the project area, a sampling and analysis plan, a soil characterization report, and an excess soil destination assessment report. Before any removal or deposit of excess soil, a notice must be filed with the Resource Productivity and Recovery Authority's Excess Soil Registry. The Registry is a public online tracking system that ensures that soil movement is monitored, and that contaminated soil is properly handled. Once excavation begins, each load of excess soil from the site must be tracked.

The regulation encourages reuse of excess soil by exempting excavated soil or crushed rock that will be reused within the project area from the reuse rules in the regulation. Similarly, the regulation allows low-risk types of processing within a project area to facilitate beneficial use without triggering additional regulatory requirements, including: passive aeration and passive dewatering, mechanical dewatering, mixing of soil of similar quality, soil turning, size-based sorting and sorting to remove debris, and mixing with another substance to dewater or solidify the soil or crushed rock.

Additional exemptions from the excess soil planning and notice requirements are available for: small quantities of excess soil (less than 100 m^3), emergencies or in response to a spill, infrastructure maintenance, topsoil excavation and reuse, and infrastructure construction projects.

b. European Union[16]

Beneficial use of sediment has a long tradition in Europe. In areas where dry land is scare, sediments were nourished as a resource. And now, in the 21st century the practise of harvesting sediments to improve both the water quality and to have more clay soil for reinforcing dikes and raising farmland is continued.

The EU takes a pragmatic view on using sediments as a resource, which has helped to anchor beneficial use of sediments within EU legislation. While there are practical and legal restraints and barriers, the overall goal is to use sediments as a resource in the EU. As an example, in the Netherlands the current percentage of sediments that are beneficially used is 95%.

There are two main legislative frameworks in the EU that are relevant to beneficial use: the EU Water Framework Directive and the EU Waste Framework Directive. The Waste Framework Directive dictates the "end of waste criteria," including sediments, dictating when contaminated sediments can become a resource (*i.e.*, beneficially used) again. The Water Framework Directive sets targets for water quality to achieve a good chemical and ecological status of a water body. With respect to water, the European Commission provides technical guidance documents such as the Common Implementation Strategy (CIS) *Integrated Sediment Management Guidelines and Good Practices in the Context of the Water Framework Directive*. Since many ecosystems have a need of a robust sediment balance, reallocation of sediments is often beneficial.

The frameworks are implemented by each individual member state by transposing these directives into national law to comply with the EU directives. If citizens are of the opinion that implementation on a national level is not in accordance with the framework in question, then they can challenge the national implementation in the Court of Justice of the European Union (CURIA). If member states do not meet the provisions set out in the Framework, the European Commission can also open an infringement proceeding or set fines for member states.

[16] Drafted with contributions from Arjan Wijdeveld, Deltares, chair of the SedNet working group on Sediments in Circular Economy. For additional information about beneficial use in the EU, *see* Wijdeveld, et al., *Beneficial use of sediments, tools, pilot sites and measuring techniques developed and used within seven European Union INTERREG projects*, Journal of Soils and Sediments (May 27, 2024).

Generally, there are hard limits to the level of contamination of sediment that can be beneficially used in the EU. Any sediment above a specified threshold level are either cleaned, landfilled or placed in an underwater confined disposal facility.

In addition to the Frameworks, the EU set goals to be fully circular in 2050, which is further defined for different sectors in the EU Green Deal. The EU Soil Strategy for 2030 on healthy soils and sediments, which focuses on sustainable food production, biodiversity and climate resilience, further supports the EU's fully circular goal. Because of the emphasis on reuse in the EU, only a small percentage of contaminated sediment are disposed rather than reused.

In the EU, water and sediment management is in most cases the task of the local, regional or national government. There are exceptions where there is a clear polluter that can be held responsible for the cost of sediment management, but because the EU has a system of discharge permits, the polluter can only be held responsible if it is proven that the discharge did not meet the permit. Accordingly, beneficial use of sediment is a public benefit because reusing sediments is cheaper than handling sediment as a waste. And since sediment management is mostly a government-financed activity, this limits the taxation of citizens.

Paying a low tax is a strong incentive, but the EU recognizes that there are also other social economic benefits to beneficial use. For example, natural resource restoration can attract tourism, use of sediment for dikes makes the land safer against flooding, and subsidence of farmland can be compensated by fertile sediments. The EU promotes projects that generate less waste, decrease the use of primary resources (substitution of sand for sediments) and stimulate social-economic growth. There are multiple examples of beneficial use of sediments projects in Europe that contribute to those goals. *See* CEDA, *Beneficial use of sediments: Case Studies*.

IV. Federal Statutory and Regulatory Exclusions from Liability and Potential Liability Protections

Liability risks associated with beneficial use can be managed through technical expertise and careful project design—*e.g.*, selective use of dredged sediment and thoughtful projects that take risks to the environment and human health into account when considering how and where to use dredged sediment. Furthermore, it is important to note that the nature of the risk presented is a continuum dependent on the specific contaminants at issue—*e.g.*, sediments containing contaminants that are bioaccumulative and persistent present different risks than those that are more easily managed through treatment of sediment prior to its use. Accordingly, the degree and extent of the risk associated with the liability may differ, and it is important to evaluate fully the nature of the risk presented on a case-by-case basis when assessing the viability of a beneficial use project.

The legal liability risks outlined above present significant hurdles to beneficial use of dredged sediment. There are, however, a number of statutory and regulatory provisions that can provide some protection. Some of these provisions would benefit from legislative or regulatory changes to facilitate and encourage beneficial use. This section provides an overview of potential legal protections available and gives examples of how these protections can be made even stronger through legislative or regulatory changes.

a. CERCLA

i. Federally Permitted Releases

CERCLA exempts "federally permitted releases" from CERCLA cleanup and liability requirements, 42 U.S.C. § 9607(j), and from the statute's requirement to report releases of hazardous substances of certain reportable quantities to the National Response Center, 42 U.S.C. § 9603(a). CERCLA defines "federally permitted release" to include "discharges in compliance with a permit" under the Clean Water Act, "releases in compliance with a legally enforceable final permit" under RCRA, "any injection of fluids authorized under" the Safe Drinking Water Act, "any release . . . in compliance with a legally enforceable license, permit, regulation, or order" under the Atomic Energy Act, or "any emission into the air subject to a permit or control regulation under" the Clean Air Act. 42 U.S.C. § 9601(10). Releases in compliance with permits issued by state authorities under federally-delegated programs also qualify for this exemption.

The federally permitted release exemption may apply to certain beneficial use projects. Dredging may be completed under a Clean Water Act Section 404 permit authorizing the discharge of dredged or fill material into navigable waterways, which is obtained from the USACE. *See* 42 U.S.C. § 1344; *see generally* USEPA and USACE, *Identifying, Planning, and Financing Beneficial Use Projects Using Dredged Material*, at 6-8 (Oct. 2007) (discussing federal permitting requirements for beneficial use projects). Where dredged sediment is beneficially used within waterways (such as in habitat reconstruction or beach nourishment), or on land under a RCRA solid waste permit, then the federally permitted release exemption in CERCLA Section 107(j) would apply (provided the party remains in compliance with the permit).[17]

Importantly for dredging projects, the CERCLA federally permitted release exemption provides protection against natural resource damage liability. CERCLA regulations pertaining to Natural Resource Damage Assessments require Trustees to determine, as a threshold matter, whether natural resource damages are barred by specific defenses or exclusions from CERCLA liability, including damages resulting from a federally permitted release. 43 C.F.R. § 11.24. Given that remedial dredging projects have the potential to impact waterways, including through habitat disruption, the CERCLA federally permitted release liability exclusion provides valuable protection against potential natural resource damage claims. *See In re Acushnet River & New Bedford Harbor*, 722 F. Supp. 893, 897 (D. Mass. 1989) (noting that some PCB's impacting sediment in the Harbor came from federally permitted releases and that defendants would not face liability for natural resource damages associated with such permitted releases); EPA, *Explanation of Significant Differences for the Portland Harbor Superfund Site*, at 10 n.43 (Dec. 2019) (adjusting the remedy due to the fact that EPA ignored the impact of upland discharges of PCBs pursuant to federal CWA NPDES permits, which improperly inflated remedial requirements that should have been exempt under the CERCLA federally permitted release exemption).

[17] *See* National Research Council, *Contaminated Sediments in Ports and Waterways: Cleanup Strategies and Technologies*, Appendix B (1997) (noting that the federally permitted release exemption applies with respect to use of sediments to construct berms, containment facilities, or islands in navigable or ocean waters unless the material is contaminated and results in an uncontrolled release not specifically addressed in a federal permit).

To facilitate beneficial use of contaminated sediments, the federally permitted release exemption could be expanded to provide an exemption from liability for cleanup costs where dredged sediment is used in a project that has been approved and permitted through federal ***and*** state regulatory authorities. As discussed above, state regulations (including New York and New Jersey, among others) provide permitting regimes for beneficial use determinations.[18] Expansion of the federally permitted release exemption to encompass state-permitted beneficial use determination projects would provide important protection from CERCLA liability at a greater number of beneficial use projects, including for upland uses that are permitted by state authorities. While this expansion would require an amendment to CERCLA, expanding the federally permitted release exemption to encompass state-permitted beneficial use projects would greatly incentivize and enable beneficial use of dredged sediment.

ii. CERCLA Remedy Approval Criteria

CERCLA's remedy approval criteria present another challenge to beneficial use projects. A number of criteria are considered when selecting a remedy at a Superfund site, including protection of human health and the environment; compliance with all Applicable or Relevant and Appropriate Requirements (ARARs); long-term effectiveness; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; and state and community acceptance. *See* 42 U.S.C. § 9621; 40 C.F.R. § 300.430.

Beneficial use projects generally meet some of these criteria —*e.g.*, cost effectiveness, given that beneficial use has the potential to reduce disposal costs significantly. Use of net environmental benefit analysis (NEBA) in remedy selection would also encourage beneficial use given that dredged sediments are often used in remedial designs that create ecological services such as habitat. *See, e.g.*, Office of Information and Regulatory Affairs, *Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis* (Feb. 28, 2024) (encouraging the use of NEBA in cost-benefit analyses).

Certain remedy approval criteria may pose a challenge to beneficial use projects, however. In particular, compliance with ARARs and community acceptance may hinder selection of beneficial use projects as part of a selected remedy. There may be a concern that beneficial use merely transfers risks to another site or another population. Emphasizing and incorporating site-specific risk management goals and focusing remedies on meeting those specific goals will facilitate beneficial use. Further, beneficial use projects are more likely to be successful if the community is involved early in the remedy selection process and if risk management efforts that are associated with the beneficial use project are effectively communicated, including discussion of careful screening of contaminated sediment to guarantee that no sediment destined for beneficial use presents a risk to human health or the environment. *See* EPA Guidance, *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites* (OSWER Directive 9285.6-08) (Feb. 12, 2002).

[18] *See, e.g.*, Massachusetts Beneficial Use Determination Regulations, 310 CMR 19.060; Rhode Island General Laws Chapter 23-18.9 and RIDEM Policy Document WM-SW-2007-01; Washington's BUD rules, WAC 173-350-200.

Compliance with ARARs may be a challenge to beneficial use projects, particularly where beneficial use projects involve sediment use in environmentally sensitive areas, such as wetland rehabilitation or beach nourishment, or where specific contaminants are involved, such as PFAS, which have extremely low numerical cleanup criteria and high public awareness. ARARs can be waived under certain circumstances, however. *See generally* 42 U.S.C. § 9621. Certain waivers may be particularly relevant in the context of beneficial use, such as the Equivalent Standard of Performance waiver, which may be used where an ARAR requires a particular remedial design or operating method, but better results could be achieved using an alternative design or method of operation. *See* EPA, *CERCLA Compliance With Other Laws Manual: Overview of ARARS, Focus on ARAR Waivers* (Dec. 1989). There may be a strong argument that beneficial use would achieve better results than the specified management method if there would be significant cost savings associated with beneficial use, or if the material to be beneficially used facilitates a useful project, for example. Another example where beneficial use would achieve better results than the specified management alternative would be where the beneficial use approach provides better risk reduction by immobilizing contaminants.

The Greater Risk to Health and the Environment waiver may also be relevant in beneficial use projects. This waiver is available where compliance with an ARAR will cause greater risk to human health and the environment than noncompliance. *Id*. This waiver may be useful in the context of beneficial use where management options are either nonexistent or would result in greater harm than a beneficial use of the dredged material. This waiver may apply, for example, where the process of transportation of dredged material across multiple states for disposal presents greater risk than reward. The waiver could also potentially be used in the case where beneficial use supports improved coastal resilience arising from the response action being conducted.

ARAR waivers are difficult to obtain, however, and require a significant amount of scientific and technical support and documentation. Willingness to grant ARAR waivers in more circumstances would likely facilitate more beneficial use projects. Development of EPA guidance on the use of these—and potentially other ARAR waivers—for beneficial use projects would assist in facilitating acceptance of a greater number of beneficial use projects.

iii. Response Action Contractor

CERCLA exempts response action contractors from liability for any release or threatened release of a hazardous substances, unless the release is caused by negligence or intentional misconduct of the contractor. 42 U.S.C. § 9619(a). A "response action contractor" is any person who enters into a contract to perform remedial actions, removals, or other services at a facility. 42 U.S.C. § 9619(e)(2). The exemption extends to subcontractors. *Id*. To be eligible for indemnification by EPA, a response action contractor must make diligent efforts to obtain insurance coverage from non-federal sources. 42 U.S.C. § 9619(c).

The response action contractor exemption could provide liability relief for PRPs if the response action contractor accepts ownership of dredged sediment and is responsible for its placement in the beneficial use project. Beneficial use must also be specified as part of the remedy for the Superfund site for the response action contractor exemption to apply, as the scope of the coverage under the response action contractor exemption is limited and extends only to work that is specifically related to a remedy at a Superfund site. *EPA Interim Guidance on Indemnification of*

Superfund Response Action Contractors Under Section 119 of SARA (OSWER Directive 9835.5) at 10 (Oct. 6, 1987).

While use of the response action contractor exemption is a good idea in concept, it is unlikely that it would provide meaningful liability protection as currently drafted. It is unlikely that response action contractors generally would be willing to take on the liability risk associated with placement of dredged sediment in a beneficial use project. Further, the response action contractor's assumption of liability would be contractual, not statutory, leaving PRPs liable under the statute. Some courts have also found that response action contractors can still be liable as an arranger and/or transporter, potentially limiting the power of the response action contractor exemption. *See New Mexico v. EPA*, 310 F. Supp. 3d 1230 (D.N.M. 2018). To enhance the availability of this option as a method of liability protection for beneficial use projects, the response action contractor exemption could be expanded and/or clarified to provide liability relief for the use or disposal of material associated with dredging work at a Superfund site.

iv. Combined Response Action

Treating the dredge site together with the site where the dredged material will ultimately be placed as a combined response action may streamline permits and approvals required for beneficial use projects. Although CERCLA sites are generally addressed on an individual basis, CERCLA allows EPA to treat noncontiguous facilities as one site where the two sites are related based on contaminants at issue at both sides presenting a similar threat or potential threat to human health or the environment. 42 U.S.C. § 9604(d)(4). This provision allows wastes from several CERCLA sites to be managed in a coordinated way, allowing cleanup efforts to proceed in a more timely and cost-effective manner. See EPA, *Selecting a Combined Response Action Approach for Noncontiguous CERCLA Facilities to Expedite Cleanups* (Apr. 1992).

EPA will allow a combined response action based on consideration of a number of factors, including: (1) the nature of the contamination, (2) geographic location of the facilities, (3) nature of the wastes, (4) cost effectiveness of the aggregated response, (5) enforcement considerations, and (6) public acceptance. The most important factor is whether the combined management would be effective and protective of human health and the environment.

The concept of a combined response action could be employed at a site where sediment is dredged in one area and then beneficially used in another. Treating both locations as a combined response action would allow a single decision document and remedial design to govern both sites, thereby streamlining the approval processes. Further, CERCLA's permit waiver provision in Section 121(e) would apply to activities on both sites, allowing for beneficial use under a single permitting scheme rather than having to obtain permits for activities in the waterway and on land. One of the key benefits of the combined response action approach is that a RCRA permit is not required when a combined response action approach is taken.

There are some potential hurdles to using the combined response action provision in the context of beneficial use. The authority to treat noncontiguous sites as one is limited to CERCLA facilities, and the permit waiver is available only for removal and remedial actions under CERCLA. Accordingly, beneficial use activities performed under other authorities (such as state authorities) or voluntarily must secure all necessary permits for on- and off-site actions. Moreover, any remedy

chosen under the combined response action provision must meet applicable ARARs. As discussed above, ARARs can sometimes pose an insurmountable obstacle to gaining approval over remedies incorporating beneficial use projects. Regulatory flexibility in these areas would assist in making the combined response action provision applicable to beneficial use projects.

v. Presumptive Remedy Approval

Approving beneficial use procedures and techniques as a presumptive remedy at contaminated sediment sites would streamline the approval process for beneficial use remedial projects. EPA approves technologies or approaches that it believes will be the most appropriate remedy for a specified type of site as presumptive remedies. *See generally* EPA, *Presumptive Remedies: Policy and Procedures* (Sept. 1993). The identification of a presumptive remedy at a site does not remove the remedy proposal and selection process, but it does assist in streamlining site assessment and remedy selection.

The drawback of relying on a presumptive remedy is that it requires EPA approval, which can be a difficult task, particularly as EPA will only approve a presumptive remedy if it has sufficient data and information to support adopting it for a particular site. In addition, EPA typically adopts particular technologies as presumptive remedies. There are particular technologies associated with beneficial use that can be approved, but taking a more expansive view of presumptive remedies to achieve approval of beneficial use as the desired *approach* at contaminated sediment sites would facilitate beneficial use projects.

b. RCRA

i. Dredged Material Exclusion

RCRA excludes dredged sediments disposed at confined disposal facilities ("CDFs") or otherwise used in waterways from the definition of hazardous waste. Specifically, dredged material subject to the requirements of a permit issued under Section 404 of the CWA or Section 103 of the Marine Protection, Research, and Sanctuaries Act is not a hazardous waste. These permits must be issued by the USACE or, in some cases, by the state. 40 C.F.R. § 261.4(g). The dredged material exclusion is limited, however, as it is an exclusion from the definition of hazardous waste only. Dredged material is still regulated under RCRA as a solid waste, and constituents within the dredged materials may be hazardous substances subject to CERCLA. Furthermore, as mentioned above, this exclusion only applies to material disposed in CDFs or used in waterways (*e.g.*, habitat renewal, beach nourishment, or coastline or wetland rehabilitation where there is a nexus to waters of the United States). Accordingly, projects applying material in upland uses cannot benefit from this exclusion. This exclusion is also limited in that it exempts dredge material covered by CWA Section 404, but dredge projects can be conducted in waterways not subject to CWA authority. Corresponding authority for permits issued by states (other than delegated Section 404 authority) would be helpful to encourage and facilitate beneficial use.

ii. Point Source Discharges

RCRA does not apply to contaminated dredged sediment if the source of the contamination is a point-source discharge regulated under the NPDES program. *See* 40 C.F.R. § 261.4(a)(2) (excluding industrial wastewater discharges from the definition of solid waste); RCRA Online

11125 (applying the wastewater discharge exclusion to contaminated dredged sediment). Where evidence indicates that the source of the contaminated sediment is the direct result of a point-source discharge as opposed to illegal dumping into surface water, then RCRA does not apply.

The utility of the point source discharge exclusion is likely limited, however. Contaminated dredged sediment may include numerous hazardous constituents and be the result of decades of historical discharges from multiple sources, many of which occurred prior to the existence of the NPDES permitting program. Many constituents found in contaminated dredged sediment may also be the result of non-point source discharges (*e.g.*, contamination stemming from rainwater and snowmelt running off paved surfaces and construction sites). Given the historical nature of the releases and the multitude of potential contamination sources in a well-trafficked and well-developed waterway, it will likely be a challenge to trace contamination found in dredged sediment to a particular permitted point source discharge, unless the contaminant at issue is a particularly unique constituent that can be fingerprinted to a particular site.

iii. Exclude Beneficial Use of Contaminated Sediment from the RCRA Definition of Solid Waste

As mentioned above, RCRA defines "solid waste" broadly to include any discarded material. A solid waste is discarded if it is abandoned, inherently waste-like, a discarded military munition, or even recycled in certain ways. *See* 40 C.F.R. § 261.4. As mentioned above, there is an argument that beneficially used sediment is not discarded and, therefore, not a solid waste. The sediment within the water body is an environmental medium not being "used." Following dredging, the sediment is being used beneficially, not discarded, and, thus, may not be not a solid waste. EPA could issue guidance to clarify that contaminated sediment undergoing approved beneficial use is not solid waste because its use is not disposal, recycling, or otherwise considered discarded.

Alternatively, the RCRA statute or regulations could be amended to include a provision excluding dredged sediment that is beneficially used under regulatory oversight (*i.e.*, pursuant to a CD and/or a federal or state permit) from the RCRA definition of solid waste.[19]

Specifically, EPA could expand the applicability of the Bevill amendment to dredged sediment. The Bevill amendment excludes coal combustion residuals (CCR) produced by coal-fired power plants from RCRA regulation if the CCR is beneficially used and meets four criteria: (1) the CCR provides a functional benefit; (2) the CCR is a substitute for the use of a virgin material; (3) the CCR meets product specifications and/or design standards; and (4) when not encapsulated, there is evidence that the risks posed by the CCR use is comparable to or lower than those made from analogous products made without CCR. *See* EPA, *Coal Ash Reuse*. Congress could follow the same approach with respect to dredged sediment, exempting dredged sediment destined for beneficial use from RCRA regulation. This regulatory change would eliminate the threat of RCRA liability for beneficial use projects.

[19] RCRA excludes a number of specific wastes from the definition of solid waste, including domestic sewage, radioactive waste, in in-situ mining, pulping liquors, and excluded scrap metal, among other types of waste. *Id.*; *see also* EPA, *Criteria for the Definition of Solid Waste and Solid and Hazardous Waste Exclusions*.

c. Agency Documents

EPA uses a number of standard documents to facilitate settlements and implement remedies at contaminated sites. Many of these documents already contain language that is helpful for encouraging beneficial use, though this language could be expanded and made stronger to provide greater protections from the legal liability risks posed by federal environmental laws, particularly under CERCLA and RCRA. Other language discourages beneficial use; this language could be revised to incentivize beneficial use.

i. CERCLA Consent Decree

EPA's model RD/RA Consent Decree (Model CD) is used by EPA and Department of Justice staff when negotiating remedial design/remedial action (RD/RA) judicial CDs with PRPs under CERCLA Sections 106, 107, and 122. *See* EPA, *Model CD*. It is designed to be used in conjunction with a Statement of Work (SOW), which outlines the technical details of remedial work to be undertaken at a site. The model RD/RA SOW could be revised to include beneficial use plans for contaminated sediment, which would be incorporated into the judicially enforceable CD upon approval by EPA, and which would provide an additional layer of protection for PRPs from toxic tort suits and state or local enforcement actions. For example, as a judicially enforced agreement, entry of a CD bars RCRA imminent and substantial endangerment citizen suits. *See* 42 U.S.C. § 6972(b)(2)(B).

The Model CD includes a number of reservations. In particular, the United States retains the right to issue an administrative order or to institute proceedings to compel the settling PRPs to perform further response actions at the Site or to pay for additional response costs if "conditions at the Site previously unknown to EPA" are discovered or if "information previously unknown to EPA is received," and EPA determines that the remedial action is not adequately protective of human health or the environment. *See* Model CD ¶ 71.a. This provision has been used to reopen previously closed sites due to the discovery of new information (*e.g.*, the presence of emerging contaminants such as PFAS), unknown site conditions or where EPA has lowered applicable standards (*e.g.*, EPA's recent updates to guidance for lead in residential soil).

The lack of finality associated with this broad reopener provision leaves PRPs without much comfort that they have adequate liability protection, particularly in beneficial use projects, given that sediment will be beneficially used in some way (either on land, in water or in a product) rather than disposed in RCRA-regulated disposal facilities. The reopener language in the Model CD could be tightened to avoid reopeners where EPA has approved of beneficial use as part of a remedy and where the beneficial use project is undertaken in accordance with EPA technical guidance and direction to protect risks to human health and the environment. Language limiting the reopener in cases where a risk assessment demonstrates that the presence of contaminants, whether known at the time of use or discovered later, does not harm human health or the environment could also be added. While such protection would still leave PRPs on the hook for potentially substantial additional testing and characterization of dredged sediment to demonstrate the absence of human health or environmental risks, adding such language to a CD would provide a procedure for PRPs to follow in demonstrating acceptable risk to the EPA or other regulatory decisionmakers. While making language adjustments to the Model CD would provide greater

protections to PRPs, EPA could also be open to adjusting the Model CD and SOW on a site-by-site basis, depending on particular factual circumstances.

ii. RCRA Administrative Agreement on Consent

EPA's model Administrative Agreement on Consent (AOC) is used for negotiating agreements under RCRA Section 3008(h). *See* EPA, *RCRA 3008(h) Interim Status Corrective Action AOC*. Unlike the Model CD, the AOC does not provide protection against a RCRA citizen suit since it does not involve judicial action. *See* 42 U.S.C. § 6972(b)(2)(B). Rather than using an AOC to settle RCRA claims, EPA could adopt a judicially approved CD similar to that used under CERCLA, which would protect settling parties against RCRA citizen suits. Alternatively, EPA could include a covenant not-to-sue or take administrative action under RCRA Section 7003 in the Model CD to bar a RCRA citizen suit. In that case, EPA would also likely have to include RCRA claims in the complaint filed at the time of lodging of the CERCLA CD to bar RCRA citizen suits.

iii. Memoranda of Understanding (MOUs)

One hurdle that often arises to potential beneficial use projects is lack of coordination among various regulatory agencies with decision-making authority over the site. The EPA and USACE may both have authority at a CERCLA site involving contaminated sediment in waterways. State regulatory agencies also participate in remediation decisions at CERCLA sites and also have independent authority under state laws, under which states promulgate their own cleanup standards. Disagreement among these key decisionmakers about applicable cleanup standards and about remedy selection can stymie beneficial use projects.

EPA has issued a Sample CWA/CERCLA Memorandum of Understanding for Regions, States, Tribes, and Other Federal Agencies. This MOU provides a template agreement aimed at facilitating collaboration among EPA, other federal agencies, states, and federally recognized Indian tribes on contaminated sediment sites. The MOU includes terms around communication between the parties and confidentiality of information shared during the collaboration process, among other terms.

While the MOU provides an important framework for encouraging collaboration among various decisionmakers, it can be strengthened to encourage beneficial use. For example, the MOU could explicitly include language reflecting the parties' agreement to prioritize beneficial use of sediment where possible and to encourage flexibility to allow approval of projects involving beneficial use. To the extent there is overlapping authority among the various regulatory agencies, the MOU could clearly delineate the roles and responsibilities of each of the regulatory decisionmakers and even designate a lead agency that has responsibility and increased decision-making authority over the site. These provisions would help to prevent conflicts between the regulatory decisionmakers and allow remedial progress to move forward more efficiently. *See, e.g.*, Letter of Agreement Between the EPA, Region 10, the Oregon Department of Environmental Quality, and the USACE, Portland District, Concerning the Lower Willamette River (clearly stating agency involvement and responsibilities at the site).

iv. Remedy Documents and Guidance

EPA has developed some guidance for use at contaminated sediment sites and has created the Contaminated Sediments Technical Advisory Group (CSTAG), which consults and advises on large, complex, or controversial contaminated sediments sites. *See generally* EPA, *Contaminated Sediments Technical Advisory Group*. CSTAG has developed clear operating procedures at sediment sites to consider sediment management principles in risk management decisions. The operating procedure aims to assist remedial project managers and other decision-makers at sediment sites with issues related to site investigation, remedy selection, and management consistent with the agency guidance, namely the 2005 *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites* and the 2017 *Remediating Contaminated Sediment Sites – Clarification of several key Remedial Investigation/Feasibility Study and Risk Management Recommendations, and Updated Contaminated Sediment Technical Advisory Group Operating Procedures* among other EPA guidance appropriate for sediment sites. These guidance documents provide recommended best practices to be used at sediment sites. EPA can take further steps in the course of remedy decisions and through additional agency guidance to facilitate beneficial use. In particular, additional EPA guidance promoting beneficial use and providing technical details on when beneficial use is appropriate would provide evidence of regulatory approval of beneficial use plans and provide PRPs with important information about under what circumstances EPA is likely to approve beneficial use as part of a remedial plan. Of course, administrative guidance is just that—guidance. It is not strictly enforceable. Thus, while additional guidance documents would support and encourage beneficial use, guidance is not as strong as a statutory or regulatory amendment or a judicially enforceable CD would be.

EPA approval of beneficial use in a ROD for a site would provide regulatory approval of a beneficial use project. Recent RODs mention the possibility of beneficial use and suggest that EPA will consider whether beneficial use is feasible and appropriate at a later date, perhaps because it is difficult to identify a beneficial use project at the ROD stage of the remediation. *See, e.g.*, *Hudson River PCBs Site ROD*; *ROD for OU1 for the Gowanus Canal Site* (discussing treatment and disposal or beneficial-use options that may be utilized subject to EPA oversight and approval). Few RODs specifically call for—and approve—beneficial use as part of the remedy. Clear and strong regulatory approval in a decision document would be a valuable defense against citizen suits and toxic torts alleging damages from exposure to contaminated sediments that were part of a remedy involving a beneficial use project. CDs that require implementation of a ROD that clearly identifies a beneficial use project would also provide some liability protections for PRPs. EPA could also consider ROD amendments to incorporate beneficial use projects within the scope of the remedy at a later stage of the cleanup.

Federal law may bar claims premised upon improper remediation. For example, if beneficial use is prescribed by EPA in a ROD and use projects are developed during a remedial design and remedial action pursuant to a CD, the PRP is complying with and implementing EPA mandated remedies, thereby precluding judicial review under CERCLA Section 113(h) of any EPA-selected remedial action. If a lawsuit calls into question the EPA's remedial response plan, then it constitutes an improper challenge to the cleanup. *See New Mexico v. General Electric Co.*, 467 F.3d 1223 (10th Cir. 2006) (dismissing lawsuit brought under state common law because it called EPA's remedial plan into question); *Lafferty v. Sherwin-Williams*, No. 1:17-06321-RBK/AMD

(D.N.J. Aug. 21, 2018) (dismissing toxic tort suit because it amounted to a challenge to the remedial plan approved by EPA).

v. Comfort/Status Letters

EPA uses comfort/status letters when responding to parties interested in reusing and/or redeveloping contaminated, potentially contaminated, and formerly contaminated brownfields properties. These letters are designed to provide interested parties with information that EPA has about a property and statutory provisions and/or Agency policies or guidance that may apply to the property. The purpose of these letters is to help interested parties make informed decisions regarding acquisition and use of the property. *See generally* EPA Comfort/Status Letters Guidance.

EPA could develop a comfort/status letter to be used with respect to properties where dredged sediments have been beneficially used. The letter could include language about the nature of the risk posed by beneficial use of dredged sediment generally, as well as detail about the nature of the beneficial use project implemented on that particular property. Such correspondence would provide important agency communication about the limited risk posed by the beneficial use project, providing PRPs with yet another tool to employ in defense of claims that beneficial use of dredged sediment poses a risk to human health and the environment. An EPA comfort letter may also be useful for dealing with lenders.

vi. Enforcement Discretion

EPA could offer enforcement discretion in the context of beneficial use projects similar to the liability protection provided to a "bona fide prospective purchaser" (BFPP) under CERCLA. 42 U.S.C. § 9601(40). The BFPP defense provides liability protection to a purchaser who acquires contaminated property if certain criteria are satisfied, including performance of "all appropriate inquiry" and taking "reasonable steps" to manage releases post-acquisition. A similar procedure could be developed for beneficial use so that a PRP that implements a beneficial use project consistent with a ROD and under regulatory oversight has an affirmative defense or is otherwise entitled to enforcement discretion.

V. Other Potential Solutions

In addition to the regulatory approaches to addressing potential liability associated with beneficial use of contaminated sediments discussed above, the legal liability risks discussed above may also be managed through non-regulatory legal solutions that could help facilitate and encourage beneficial use by mitigating liability concerns.

Examples of these types of non-regulatory approaches include obtaining insurance policies adequate to cover possible site remediation obligations; private contractual options either allocating liabilities as deemed appropriate between the contracting parties or implementing "as-is" clauses for the sale of property; or working towards effecting regulatory and/or legislative change to implement exemptions from liability for beneficial use of sediments, some of which are discussed above.

a. Insurance

There are insurance products currently available that cover environmental risks associated with owning and operating facilities or sites. For example, pollution legal liability (PLL) insurance policies generally cover environmental claims associated with releases at, on, under, or migrating from a covered location, including third-party claims for property damage and cleanup costs, while remediation cost cap insurance provides cost overrun protections for owners or contractors faced with long-term environmental remediation projects. A PLL rider covering beneficial use of sediments may be possible to obtain, and remediation cost cap insurance could provide a cap for the expected cost of remediation should the policyholder be liable for a remediation necessitated by a hazardous substance release associated with beneficial use of contaminated sediments. A PLL policy could be written to cover both the owner of the property where the contaminated sediment is used and/or a PRP responsible for contaminated sediment who entered into a CD involving the beneficial use project on the property.

While we have not identified any current policies that explicitly cover beneficial use of sediments or include caps for necessary remediation in connection with the beneficial use of contaminated sediments, our understanding is that such policies could be written, although amounts and periods of coverage available would likely be highly fact-specific, depending on specific needs associated with a particular project. Insurance options would not shift liability or automatically provide full coverage for all costs associated with required remediation measures, and depending on the broker and the specific policy in question PLL policy coverage for beneficial use of contaminated sediments may need to be negotiated. Some insurance carriers may be unwilling to provide coverage for such beneficial use projects; however, the fact that beneficial use of contaminated sediment would involve a certain level of regulatory approval and/or oversight is likely to provide comfort for insurers and make it more likely that they would be willing to provide a bespoke policy to cover risks associated with beneficial use.

b. Potential Private Contractual Options

Another possible option for managing liability associated with beneficial use projects involving contaminated sediments would be the use of contractual provisions assigning liability as the contracting parties see fit. For example, contracts may make use of indemnities explicitly requiring parties to provide reimbursement should liability associated with beneficial use of contaminated sediments arise; liability limitations; or liability buy-outs that allow entities to assume the liability of another entity in exchange for one-time payment. As of the date of this Paper, we have not identified any examples of contracts in which the indemnities, liability limitations, or liability buy-outs address potential future liability associated with beneficial use of sediments. In response to inquiries, Sediment Management Working Group (SMWG) members indicated that they were unaware of any such contractual provisions currently in existence and given the potential scope of liability associated with site cleanup efforts, it may be difficult to reach agreement between parties that incorporates such provisions. We are aware of contractual liability buy-out where an entity takes on legal liability in exchange for a one-time payment which, of course, has some premium and may also include an insurance component. Contractual provisions are one possibility for managing liability associated with beneficial use projects but may not be applicable in all instances and would likely need to be considered in conjunction with other approaches described in this Paper.

c. Potential Legislative Changes

Another possible option for addressing liability concerns is effecting legislative changes that either exempt contaminated sediments from regulation when beneficially used or otherwise limit liability for parties that engage in the beneficial use of contaminated sediments. Legislative changes can require significant investment of time, money, and political capital to achieve, however. Changes in the administration and political climate will have an impact on whether legislative change is feasible at any given time.

Examples of potential legislative changes that could be pursued include: amendment of existing statutes such as CERCLA or RCRA or state-level analogues to more broadly exempt contaminated sediments that meet specific criteria from regulation as a hazardous waste, or introduction of new legislation clarifying that sediments meeting specific criteria when beneficially used are not subject to CERCLA liability or regulated as hazardous or solid waste. While permits issued under Section 404 of the Clean Water Act exempt covered dredged material from being classified as hazardous waste, many dredging projects do not occur in navigable waterways subject to the Clean Water Act's permitting requirements and are instead authorized under state-issued permits. One possible path could be amendment of existing federal statutes to create a broader exemption for dredged material covered under a state-issued dredge permit. Such an exemption would cover more dredge projects than those currently authorized under Section 404 permits and would allow for a unified federal-level legislative effort rather than requiring separate state-specific lobbying efforts.

Efforts to amend legislation are likely to require investment of significant time and resources. Even if those investments are made, there is no guarantee that efforts to affect legislative change will ultimately be successful, especially given the breadth of such legislation, ongoing assessments of emerging contaminants that may weigh into lawmakers' consideration of possible legislative actions, and the current political atmosphere.

Another avenue would be to seek regulatory or legislative changes at the state level. An increased number of states authorizing beneficial use of contaminated sediments, and the anticipated corresponding increase in number of beneficial use projects, would assist in acceptance in other states.

Conclusion

In light of the quantity of dredged sediment that will be produced in coming years and the lack of available management options, beneficial use of contaminated sediment must be considered a feasible alternative to, or in tandem with, management options. However, to make beneficial use projects a feasible option for contaminated sediments, there must be an accepted regulatory and legal structure to facilitate such uses. As discussed in this Paper, there is no certain global legal path for all sites, but there are options that can provide comfort to regulators and PRPs to pursue beneficial use. Creative thought, defensible risk assessment, and early and full risk communication will be key to gaining acceptance.