



ENVIRONMENTAL SERVICES

*Multiuser Confined Disposal Sites
Program Study:*

**Liability Issues Analysis and
Management Plan Outline**

Prepared for

Washington Department of Ecology
Olympia, Washington

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Program Study:**

**LIABILITY ISSUES ANALYSIS
AND MANAGEMENT PLAN OUTLINE**

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For

Washington Department of Ecology
Sediment Management Unit
Olympia, Washington

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ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CWA	Clean Water Act
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
EIS	environmental impact statement
MOU	memorandum of understanding
MTCA	Model Toxics Control Act
PLP	potentially liable party
PSDDA	Puget Sound Dredged Disposal Analysis
PSWQA	Puget Sound Water Quality Authority
SARA	Superfund Amendments and Reauthorization Act
RCRA	Resource Conservation and Recovery Act

INTRODUCTION

The Washington Department of Ecology (Ecology) is conducting a study to determine the utility and viability of establishing a system of multiuser confined disposal sites (multiuser sites) for the disposal of contaminated sediments dredged from Puget Sound. The study is being conducted by Ecology under Element S-6 of the Contaminated Sediments and Dredging Program, within the 1989 Puget Sound Water Quality Management Plan.

THE MULTIUSER CONFINED DISPOSAL SITES PROGRAM

A system of navigable waterways is critical to the continued economic development of the Puget Sound area and Washington state. Free and safe movement of ships through the sound depends on periodic dredging to remove accumulated sediments from navigation waterways. Ports and shipping terminals that require dredging are often located in urban embayments where there may be many sources of contamination. Consequently, dredging and disposing of sediments must take into account the special problems associated with contaminated sediments, including environmental and public health concerns. Ecology is currently drafting comprehensive legislation to address environmental and public health concerns regarding contaminated sediments in Puget Sound. The new legislation will provide guidance for the management of all sediment-related activities. Cleanup dredging of existing sediment contamination is likely to increase in accordance with both the new legislation and the Model Toxics Control Act (MTCA). However, implementation of cleanup dredging will be significantly inhibited, if not suspended entirely, if no suitable sites are available for disposal of the sediments. Given the increasing volumes of dredged material that will be generated by both navigational and cleanup dredging and the dwindling capacities of existing disposal sites, it is clear that additional disposal sites will be required.

A wide range of public and private entities (e.g., marinas, the ports, the U.S. Army Corps of Engineers and the U.S. Navy) require disposal sites for their dredging operations. Although some of these entities have sites available for their own needs, sites are needed for other dredgers who do not have adequate facilities. In any event, independently developed and operated sites may not be in the best environmental interests of Puget Sound. Coordinated and comprehensive oversight of the development, operation, closure, and postclosure of multiuser disposal sites will likely provide the best protection against the incurrence of vast liability by any one entity, as well as greater vigilance to prevent releases that lead to liability in the first place.

Currently there is little coordination of dredging activities in the sound. In general, dredging is conducted on a project-by-project basis by federal, state, local, and private entities, with little regard to coordination or collective need for disposal sites. A multiuser site program may alleviate the lack of comprehensive and protective regulation of dredging of contaminated sediments in Puget Sound. Sediments considered for disposal at a multiuser facility are those deemed unsuitable for open-water unconfined disposal, in accordance with the confined disposal standards currently under development by Ecology.

Interviews by Ecology with potential proponents of a multiuser sites program indicate that the risk of incurring joint and several liability is a major concern. Although entities currently involved in dredging in Puget Sound are no doubt exposed to liability by their activities, they are reluctant to share what they perceive to be the greater risks inherent in a joint enterprise like the multiuser sites program. Dredgers of slightly or moderately contaminated sediments may be unwilling to accept liability for the more highly contaminated sediments of other dredgers. Small-volume dredgers are also concerned about sharing liability with high-volume dredgers. However, it may be possible to address the concerns of all program proponents with an aggressive plan to manage liability. An important factor in favor of program development is the likelihood that liability will be decreased as a natural consequence of the comprehensive regulation of dredging and disposal activities.

This report identifies and evaluates approaches for managing liability within the multiuser sites program. A brief background of liability for environmental damages is provided in the first section of this report, including statutory and common law liability provisions and potentially liable party (PLP) issues. [The term PLP is used throughout this report and is assumed to have the same meaning as potentially responsible party (PRP), which is the term used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).] The second section identifies institutional and operational tools for managing liability that may be applied during site development, operation, closure, and postclosure. The final section provides an outline of a proposed liability management plan. An expanded discussion of all liability issues, including applicable cases, legal commentaries, and statutory language, is provided in Appendix A.

The conclusions set forth in this report are based on state and federal statutes, recent caselaw, law review articles, and other legal treatises. CERCLA (Public Law No. 96-510, also known as Superfund), as amended by the Superfund Amendments and Reauthorization Act (SARA; Public Law No. 99-499, 42 U.S.C. 9601 et seq.) provided guidance on federal liability issues, while MTCA (RCW 70.105D et seq.) provided guidance on state liability issues.

This report is not intended to provide legal advice or opinion, and should not be cited for those purposes. Environmental law continues to evolve rapidly and this report should be considered indicative of the law only as of the date of the report.

BACKGROUND OF LIABILITY FOR ENVIRONMENTAL DAMAGES

Liability issues for releases of materials containing hazardous substances are notoriously unclear, due in part to conflicting court decisions and overlaps in laws. It is important to note that caselaw interpreting CERCLA and other federal environmental legislation varies from jurisdiction to jurisdiction. It may not be possible to predict the limits of liability based on the results of similar cases. Therefore, the primary focus of liability management should always be on prevention of the harm itself, rather than prevention of liability.

CERCLA establishes the federal basis for liability and MTCA establishes the state basis for liability. A primary purpose of both CERCLA and MTCA is to impose liability for releases or threatened releases of certain statutorily designated substances in a broad range of circumstances. Liability may also be based on other state and federal statutes including, for example, the Federal Water Pollution Control Act [also known as the Clean Water Act (CWA)], Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, Safe Drinking Water Act, and Clean Air Act. Because the imposition of liability is a primary goal of both CERCLA and MTCA, however, it is assumed in this report that liability issues will be governed by those statutes.

As discussed later in this report, CERCLA's liability provisions are directly related to liability imposed under CWA and, therefore, a separate discussion of CWA liability is not presented. Actions initiated by the government under RCRA are primarily equitable and the recovery of damages is not permitted in equitable cases; therefore, the most significant liability issue, apportionment, is not reached by courts addressing RCRA actions. It is assumed that the Clean Air Act will have limited or no applicability to the multiuser sites program.

Finally, this report focuses on CERCLA caselaw because the tremendous volume of litigation addressing CERCLA's liability provisions provides reasonable assurance that the most important issues have been addressed by courts.

CERCLA and MTCA focus on the cleanup of wastes that have already been inadequately disposed of or otherwise mismanaged and on sudden releases requiring emergency response. Therefore, CERCLA and MTCA are more likely to address the worst-case scenario liability that arises from relatively uncontrolled activities or in cases requiring emergency response. Because most CERCLA sites existed prior to the adoption of federal or state environmental legislation, it is expected that damages at those sites will be much more severe than damages resulting from releases at sites that have been continuously subject to regulatory

control. It is doubtful that worst-case scenario liability will arise in connection with the multiuser disposal sites program, simply because the sites will be subject to strict regulatory controls during all phases of the program. However, in the interest of adopting a sufficiently protective multiuser disposal sites program, a reasonable worst-case scenario for liability was adopted in this report.

Both CERCLA and MTCA [Section 2(5)(e); RCW 70.105.020(5)((e))] leave open the possibility of designating any substance as hazardous if it is found to present a threat to human health or the environment. Accordingly, any substance disposed of at any facility may be designated hazardous and thereby subject to CERCLA and MTCA. In addition, CERCLA and MTCA provide the broadest range of PLPs subject to cost recovery actions, increasing the likelihood that an enforcement agency will choose to initiate an action based on those statutes.

A brief overview of regulatory and common law aspects of strict, joint and several liability is provided here to preface the substantive management alternatives presented in the following sections.

STRICT LIABILITY

The legal concept of strict liability provides that entities who engage in "dangerous" activities (i.e., activities that cannot be conducted with complete safety), in certain crimes, or in the manufacture of products may be held fully responsible for all harm resulting from these activities, regardless of intentional or negligent malfeasance. Because of the high magnitude of harm that could result from a release of hazardous materials from any type of disposal site, entities involved in the generation, treatment, and disposal of such materials are generally subject to strict liability. In accordance with the tenets of strict liability, participation alone is enough to establish liability. Strict liability is one of the main tools used to encourage participants in dangerous activities to adopt protective measures to prevent harm to the public and the environment.

JOINT AND SEVERAL LIABILITY

Joint and several liability is a legal theory applied by courts in cases involving multiple plaintiffs when no accurate way can be found to determine each defendant's contribution to the total harm. Joint and several liability means, literally, that each defendant is responsible for the full amount of damages awarded the plaintiff both as a member of the group of defendants (joint liability) and an individual (several liability). Although the plaintiff may recover only the amount of damages actually awarded by the court, there are no other restrictions. In effect, the plaintiff may recover 100 percent of his damages from the defendant who is most solvent (i.e., the "deep pocket" defendant), regardless of his true contribution. In pollution cases, this means that an enforcement agency seeking to recover costs of cleanup from a group of PLPs may recover its full costs, in

addition to other statutorily allowed damages, from the PLPs most able to pay. The typical pollution case is a standard joint and several liability situation in that it generally involves multiple PLPs who disposed of wastes at a common site over a period of years.

CERCLA Liability

Although CERCLA does not mandate a particular liability standard, many courts and legal commentators interpret CERCLA as requiring strict, joint and several liability. The Congressional Record [126 Cong. Rec. 30,432 (1980)] indicates that a liability standard was not specified in CERCLA so that courts would be free to apply the most applicable standard on a case-by-case basis. Under traditional common law interpretations, joint and several liability is to be applied only if the damages are not traceable to their respective causes. In practice, however, courts are likely to apply strict, joint and several liability on an almost perfunctory basis because damages in pollution cases are difficult to apportion accurately. SARA did not amend CERCLA's liability provisions, although the failure to designate a standard has resulted in a tremendous number of lawsuits seeking to define the limits of CERCLA liability.

CERCLA Section 101(32) expressly states that liability means the standard of liability established under CWA Section 311 (33 U.S.C. Section 1321). Like CERCLA, CWA Sections 311(f)(1) through 311(f)(3) do not establish a specific standard of liability. Unlike CERCLA, however, courts have uniformly interpreted CWA as requiring joint and several liability [United States v. M/V Big Sam, 681 F.2d 432 (5th Cir. 1982) *cert. denied*, 462 U.S. 1132 (1983)]. The conflicting court results have been attributed to the fact that litigation based on CWA liability provisions typically involves oil spills, which are generally capable of being traced directly to a specific PLP (Anderson et al. 1986). Although the reason for the distinction is not entirely satisfactory, joint and several liability has not been applied by courts in CERCLA cases as rigidly as it has been applied in CWA cases, despite CERCLA's direct reference to the CWA standard of liability.

Under CERCLA Section 107(a), PLPs deemed responsible for a release or threatened release of hazardous substances, as defined by the act, may be liable for some or all of the following:

- All costs of removal or remedial action incurred by a state, the federal government, or an Indian tribe
- Any other necessary costs of response incurred by any person
- Damages for injury to, destruction of, or loss of natural resources

- Costs of any health assessment performed according to CERCLA Section 9604(i).

All costs include interest on the amounts recovered by the government or tribe. PLPs found liable for a release who do not perform remedial action may also be subject to punitive damages equal to three times the amount of costs incurred by Superfund. Although limits have been established for the amount of monetary damages that can be assessed PLPs for accidental releases from nonincineration vessels, the total liability of each PLP for a release from a facility or incineration vessel is the full amount of response costs plus \$50,000,000. Additional civil and criminal penalties may be assessed for failure to comply with U.S. Environmental Protection Agency (EPA) remedial action directives.

CERCLA Statutory Defenses—As a general rule, statutory defenses to CERCLA liability are all narrowly interpreted by courts and available in very limited situations. Court interpretations of CERCLA defenses are discussed in Appendix A. Explicit CERCLA defenses, exemptions, and exceptions to liability, are described below:

- A PLP is not liable for a release that is caused solely by an act of God, an act of war, or an act of a third party not in a contractual relationship with the party seeking to use the defense [CERCLA Section 107(b)]
- A PLP is not liable for a release of pesticides applied in accordance with the Federal Insecticide, Fungicide and Rodenticide Act [CERCLA Section 107 (i)].

In addition, other defenses may be extrapolated from CERCLA Sections 101(20)(A) and 101(35)(A). Section 101(20)(A) exempts state and local governments from PLP liability if they acquire ownership of a contaminated site involuntarily (e.g., through bankruptcy, foreclosure, tax delinquency, or abandonment); in those instances liability passes back to the immediately preceding owner or operator. Section 101(35)(A) extends the protections provided in Section 107(b)(3) to "innocent" purchasers of already contaminated property. Such purchasers may only avoid liability if they made all appropriate inquiries regarding the status of the property prior to the purchase. This section also excludes PLPs who inherit contaminated property from liability under CERCLA. However, PLPs who cause or contribute to a release or threatened release of harmful substances are not entitled to invoke any otherwise applicable defenses provided by CERCLA.

MTCA Liability

In contrast to CERCLA, MTCA mandates the application of joint and several liability in Section 4.2 [RCW 70.105D.040(2)]. The designation of this standard may result in few or no issues involving joint and several liability coming before Washington state courts. Nevertheless, pursuant to common law definitions of joint and several liability, courts are not required to apply the standard if evidence of the possibility of apportionment is strong enough. If the validity of the standard is not successfully challenged in court, it is likely that joint and several liability will be applied rigidly in all cases involving remedial action under MTCA.

Under MTCA Section 4.2, [RCW 70.105D.040(2)], PLPs deemed responsible for a release or threatened release of hazardous substances are liable for all resulting remedial action costs and damages to natural resources. In addition, a PLP who fails to comply with Ecology's remedial action directives may be assessed up to three times the costs incurred by the state in accommodating the noncompliance and \$25,000 per day for each day the noncompliance continues [MTCA Section 5.1(a) and (b); RCW 70.105D.050(a) and (b)].

MTCA Statutory Defenses—MTCA provides the following defenses, exemptions, and exceptions to liability:

- A PLP is exempt from liability arising from a release that is caused solely by an act of God, an act of war, or an act of a third party not in a contractual relationship with the party seeking to use the defense
- A natural person (i.e., not a corporation) who uses a hazardous substance without negligence for personal or domestic purposes is exempt from liability
- A person who uses pesticides or fertilizers without negligence for the purpose of growing food crops is exempt from liability
- A person who holds a security interest only and does not participate in day-to-day management of the property is excused from liability.

In addition to the statutory defenses provided above, the following additional defenses may be extrapolated from MTCA:

- RCW 70.105D.020(6)(ii) excludes entities from PLP status (and, therefore, the liability that accompanies the status) who acquire contaminated property with no knowledge or reason to know of the contamination (i.e., "innocent purchasers")

- RCW 70.105D.020(6)(i) excludes state and local governments from PLP status if ownership of a contaminated site is acquired involuntarily (e.g., through bankruptcy, tax delinquency, or abandonment).

As with CERCLA, PLPs who cause or contribute to a release or threatened release of harmful substances are not entitled to invoke any otherwise applicable defenses provided by MTCA.

MTCA Section 1.3 [RCW 70.105D.01-0(3)] provides legislative authorization to Ecology to provide state funds to farmers and small business owners who suffer economic harm as a result of their nonnegligent or unintentional contribution to pollution, as well as to the victims of such contamination. In accordance with this provision, the liability of certain economically disadvantaged PLPs can be transferred to the state. Ecology's use of state funds for this purpose is limited by MTCA Section 7.2(d) [RCW 70.105D.010 070(2)(d)(xi)] to cases where both enhanced cleanup and prevention or mitigation of economic hardship would result.

CERCLA and MTCA Nonstatutory Defenses

Other limitations on liability may be available, but are not explicitly provided by CERCLA or MTCA. As a general rule, courts have stated that they will not engage in "judicial legislation" that would reshape the liability scheme set forth in CERCLA. Nonstatutory defenses that may limit or preclude liability are the possibility of apportionment, bankruptcy, sovereign immunity (for a state or federal government PLP), equitable defenses, and contractual defenses. The latter two defenses may only be available as defenses to contribution actions. Recent PLP challenges to impositions of liability have been based on constitutional (due process) grounds; the results of those challenges are pending and are likely to be important. The nonstatutory defenses may have only limited applicability to the multiuser sites program because they are generally used to challenge liability in the aftermath of a release. Nonstatutory defenses are more fully described in Appendix A.

Proposed Alternatives to CERCLA/MTCA Liability Provisions

It is generally accepted that the best long-term strategy for managing pollution will be a combination of programs to reduce the amount of materials entering the waste stream; resource recovery (i.e., recycling) programs; and effective treatment, storage, and disposal methods. CERCLA's extended liability scheme is intended to provide the incentive to develop such programs. However, the "polluter pays" rationale that underlies CERCLA's liability scheme has not proven as effective as originally intended by Congress. It has been estimated that up to 60 percent of the money set aside for remedial action under CERCLA is

spent on litigation and administration costs (Greenberg 1989). It has also been estimated that only 14 percent of the money spent on Superfund remediation has been recovered from PLPs (Cheek et al. 1989).

Soon after CERCLA's enactment in 1980, the insurance industry began lobbying for its conversion from a liability-based program to a general revenues-based public works program. The threat of higher taxes made this option unpopular with Congress, the Reagan Administration, and the business community in general. A liability-based program was also highly defensible from a political perspective. However, 10 years of experience with CERCLA's current liability structure has convinced some of the original opponents that additional taxes are preferable to a continuation of joint and several liability. In conjunction with CERCLA's 1991 reauthorization hearings, an industry coalition has launched an effort to impose a no-fault liability scheme that will be funded by a broad-based industrial tax. The no-fault legislation would eliminate the need for PLP searches, except in cases where an enforcement agency (e.g., EPA) has clear and convincing evidence that the PLP was a willful polluter. Although the success of this newest effort cannot be predicted, there is a much greater consensus that changes are required so that funds currently consumed by litigation will be available for remediation. Any changes to CERCLA subsequent to the 1991 reauthorization hearings will probably have corresponding implications for MTCA and liability management efforts in general.

POTENTIALLY LIABLE PARTIES

One of the main objectives of both CERCLA and MTCA was to provide enforcement agencies with the authority to reach all suspected contributors to pollution so that resources for cleanup were maximized. In accordance with this objective, PLP definitions are extremely broad under both CERCLA and MTCA. Liability is not defined by levels of fault, which allows enforcement agencies to recover remediation funds from the PLPs most able to pay.

CERCLA Section 107(a) and MTCA Section 4 (RCW 70.105D.040) impose liability on owners, operators, generators, and transporters of hazardous materials, with no significant differences between the federal and state regulations. MTCA Section 2.8 [RCW 70.105D.020(8)] provides Ecology with additional means to extend PLP status to entities not falling within the definitions provided in MTCA Section 4 (i.e., PLPs who are not owners, operators, generators, and transporters). Under that section, Ecology may name additional PLPs if it has "credible evidence" of their liability. (The limits of Section 2.8 liability are subject to court interpretation. However, Ecology will probably be given much discretion to determine the credibility of the evidence in light of MTCA Section 6, which instructs courts to "uphold [Ecology's] actions unless they are arbitrary or capricious"). Only MTCA is discussed in detail in this section because MTCA is likely to provide the basis for liability in Washington state actions and because MTCA and CERCLA are analogous statutes.

Liability of Owners and Operators

MTCA Sections 4.1(a) [RCW 70.105D.040(1)(a)] and 4.1(b) [RCW 70.105D.040(1)(b)] establish liability for present and past owners or operators of facilities. Under Section 4.1(a), a present owner or operator may be held liable regardless of the time of disposal or release of a substance from the facility. Under Section 4.1(b), a past owner or operator of a facility will also be liable for releases that coincide with the period of ownership or operation. Under MTCA Section 2.6 [RCW 70.105D.020(6)], an owner or operator is a "person with any ownership interest in the facility or who exercises any control over the facility . . ." A "person" is defined in Section 2.7 [RCW 70.105D.020(7)] as any individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, state government agency, unit of local government, federal government agency, or Indian tribe. A "facility" is defined in Section 2.3 [RCW 70.105D.020(3)] and may include almost any site (stationary or mobile) where a hazardous substance (other than a consumer product in consumer use) is found.

CERCLA caselaw is generally consistent regarding ownership liability. Ownership alone has long been held to be sufficient grounds to impose liability, even if the owner did not participate in the management or operation of the business. This is the category most subject to strict liability.

To acquire operator status, the PLP must participate at some level in day-to-day management. In general, the greater the level of involvement with the facility, the more likely that PLP status will be acquired. Courts have failed to designate state agencies as operators of sites when activities were limited to site regulation or permitting; however, providing management plans and operational oversight may be sufficient to acquire PLP status.

CERCLA Section 107(k)(1) provides a release from liability for RCRA-permitted facilities (i.e., hazardous waste disposal facilities) that have been permanently closed in accordance with RCRA's strict closure rules. Under that section, the liability of owners and operators under CERCLA, or any other law, for releases from closed RCRA facilities will be transferred to the Post-Closure Liability Trust Fund (CERCLA Section 232). It is assumed that disposal sites developed under the multiuser program will not be classified as hazardous waste disposal facilities [assuming that dredged materials will not contain hazardous substances, as defined by MTCA Section 2(5); RCW 70.105D.020(5)], and therefore Section 107(k)(1) will not apply. Nevertheless, an investigation of the possibility of providing similar releases for owners and operators of closed multiuser disposal sites may be valuable to provide assurance to PLPs that liability can be limited in association with a strict closure plan.

Liability of Transporters and Dredgers

Transporters may be held liable under MTCA Section 4.1(d) [RCW 70.105D.040(1)(d)], which imposes liability on any person who 1) accepts hazardous substances for transport to a facility from which there is a release, or 2) accepts hazardous substances for delivery to a facility where there are reasonable grounds to believe that the facility is not being operated in accordance with law. Although there is no explicit MTCA section establishing PLP liability for dredgers, they may be found liable under this section or any other applicable section if they operate in multiple capacities (i.e., as owners, operators, or generators).

Liability of Generators

Generators of hazardous materials may be held liable under MTCA Section 4.1(c) [RCW 70.105D.020(1)(c)], which imposes liability on any person who owned or possessed a hazardous substance and who, by contract, agreement, or otherwise, arranged for disposal or treatment of the hazardous substance, or who generated a substance that was disposed of at the facility. Upland industrial contributors to the contamination of sediments dredged from Puget Sound may also be exposed to PLP status by this section. However, entities who manufacture products containing potentially harmful substances (i.e., potential generators under CERCLA and MTCA) may not be held liable for releases of their products after a transfer of ownership of those products (e.g., a sale) has occurred. For example, a manufacturer of a pesticide that is sold from a retail store to a consumer will not be held liable for the consumer's improper disposal of that pesticide. This is one of the few limitations to generator liability.

Generally, establishing a generator as a PLP does not require that the enforcement agency fingerprint wastes (i.e., no extensive analysis of the chemical composition of wastes at the site is needed before joint and several liability can be applied). The government need only show that the generator's wastes were disposed of at a site and that hazardous substances present in the generator's wastes are present at the site.

Contribution Actions

Contribution actions are suits initiated by PLPs against other PLPs for recouping cleanup costs and damages that have been assessed by a governmental enforcement agency in the aftermath of a release. Because of the possibility that every entity involved with the multiuser sites program may acquire PLP status regardless of degree of involvement in the program, issues relating to contribution actions may be of interest to stakeholders. A more detailed discussion of contribution actions is contained in Appendix A.

CERCLA Section 107(a) permits PLPs who have been assessed joint and several liability in a government action to initiate a contribution action against nonsettling PLPs to recoup some of the costs of cleanup. MTCA Section 4.4(d) [RCW 70.105D.040(4)(d)] implicitly permits contribution claims by protecting only PLPs who resolve their liability to the state from claims for recoupment. MTCA Section 4.5 [RCW 70.105D.040(5)] also preserves the right of all parties to sue under other statutory or common law theories for damages resulting from a release.

Contribution actions may present the sole opportunity for a full hearing of the non-statutory defenses discussed above. Although nonstatutory defenses are generally not addressed by a court in the government's cost recovery action, they may be used to rebut or limit liability in a contribution action. Evidence of apportionment, contractual defenses, and other mitigating factors are also only relevant in the contribution action. Recent court decisions indicate that a court may apply joint and several liability in the contribution action as well as in the cost recovery action; however, it is unlikely that courts will apply joint and several liability if the result is a complete foreclosure of the opportunity to assess nonstatutory PLP defenses.

TOOLS FOR MANAGING LIABILITY

This section discusses common institutional and operational tools that may be used to manage liability risks associated with the disposal of contaminated sediments. The best foundation of any liability management program may be the embracement of the tenets expressed in Strelow and Claussen (1988):

The most challenging, and in some ways the most important aspect of minimizing remedial and toxic tort liabilities is doing more than any existing government rules require—navigating the uncharted waters beyond the enormous sea of established mandates. This challenge can only be met with sober good judgment, a willingness to contemplate plausible 'worst case' scenarios, and a 'better safe than sorry' attitude.

Liability management techniques are designed to provide a sufficiently protective program so that the inherent risks of any activity are accommodated. Each of the tools presented in this section will either minimize exposure to liability or provide greater predictability of liability in the event of a release or threatened release. The value of each of the tools presented below will vary, depending on the particular alternatives implemented in the program (e.g., location of site, institutional option, or adopted standards). An adequate evaluation of the protectiveness of any tool may require a careful cause-and-effect analysis of the tool in relation to the program as a whole. These tools are proposed from a liability management standpoint; other factors may exist that will impact the viability of these tools (e.g., results of costs vs. protectiveness analyses). The institutional tools provide the foundation for the program; the effectiveness of the operational tools may be based substantially on the adequacy of the institutional tools.

INSTITUTIONAL TOOLS

Institutional tools provide the foundation for the development of safe and efficient operational tools. In general, the institutional tools establish stakeholder functions, operations and management plans, stakeholder and contractor agreements, financial assurance mechanisms, and a public education and involvement program.

Determination of Stakeholder Suitability

Stakeholders are entities sharing liability for damages in the event of a release or threatened release of materials from the facility (i.e., owners, operators, users, and entities charged with oversight responsibilities). The term does not encompass interest groups in general because they are not ordinarily exposed to liability (in the absence of active roles in day-to-day management or use of the facility). Stakeholders may be federal, state, or local agencies, ports, tribal governments, marinas, boat repair facilities, private enterprises, or other entities with a significant connection with the facility or its operations.

Determination of suitable stakeholder functions is the first priority of the program development phase. Appropriately designated stakeholders will oversee compliance with the program standards. They will also participate in the development of standards that must be in place prior to the selection of the site location and actual construction of the facility.

Institutional options were investigated as part of the program study (PTI 1990) for utility and viability in program implementation. Ultimate liability under either CERCLA or MTCA is not likely to differ substantially for any of the options, given the level of activity contemplated for each stakeholder under the options. Although varying levels of responsibility were proposed for each of the options (i.e., lead, joint, and mixed), this distinction is similarly ineffective for limiting liability under strict, joint and several standards. The options may be best assessed for liability purposes by determining the suitability of the stakeholder for the particular function. Suitability is established by balancing a number of factors including statutory authority, level of expertise, relevant experience, availability of appropriate personnel, and the absence of conflicts of interest.

Statutory Authority—The institutional options presented in PTI (1990) take into account the constraints on the authority of certain entities to own or operate a multiuser facility. In general, the authority of a governmental entity to perform any function is created by statute. If the authority is not explicitly created, it generally does not exist. Ecology provided an analysis of the statutory authority of certain state entities to perform in various capacities for a multiuser sites program. A summary of this analysis is contained in the *Institutional Options* section of PTI (1990). It is important to remember that formal declarations of status may not shield an agency that performs in a *de facto* managerial role from liability.

Level of Expertise—An assessment of the expertise of the stakeholder's personnel should be conducted (e.g., in accordance with criteria setting forth educational and experience levels required for the particular responsibility).

Relevant Experience—Qualifications should be assessed for each stakeholder under consideration for a specific function; if involvement in similar programs is indicated, an assessment of the other programs may be appropriate.

Availability of Appropriate Personnel—Assurances of adequate and appropriate personnel to perform the function should be contractually mandated.

Conflicts of Interest—Potential conflicts of interest should be considered before assigning a particular role to a stakeholder. For example, users (e.g., dredgers) may not be appropriate operators of the facility. Operators may be more appropriately concerned with maintaining a safe operation, while users may generally be concerned with costs and overall logistics. A joint entity composed of representatives from each group of stakeholders may be established under the program [e.g., similar to the Puget Sound Dredged Disposal Analysis (PSDDA)] to provide a system of checks and balances for the program and to protect against conflict of interest problems.

Planning for Liability Risks

As part of the mandate from the Puget Sound Water Quality Authority (PSWQA) to provide sediment management standards for Washington state, Ecology and the Confined Disposal Workgroup (which is composed of experts on sediment and disposal issues from various state entities) formulated recommendations for the multiuser disposal sites program that will be presented to PSWQA. It was the consensus of the workgroup that program development as a whole and liability in particular could best be managed through the use of a series of plans to guide each phase of the project. Development of these plans by program stakeholders will be either required or encouraged in the state sediment management regulations. The issues addressed by the workgroup are described below.

Required Plans—The workgroup determined that it was both possible and necessary to limit risks by providing detailed guidance for certain aspects of the program. It will recommend that program stakeholders be required to develop and submit for approval plans that will address the following issues:

- **Sediment Characterization and Testing**—Test requirements will be established so that the appropriate disposal standards for sediments may be determined; the tests will also be used to determine the most suitable disposal environment
- **Monitoring**—Monitoring procedures and responsibilities will be defined in accordance with regulatory requirements

- Dredging and Disposal Methods—Effective and safe dredging and disposal methods will be mandated in plan specifications
- Closure—Requirements for closure of a disposal facility must be developed and approved; criteria will be established for obtaining final approval of closure by the applicable authority
- Postclosure—Specifications for preparing the site for future use will be established; limitations on future use and postclosure requirements (e.g., monitoring) will be addressed in the postclosure plan
- Contingency Action—Authority for and scope of response actions will be delineated in the event of release or threatened release; methods for funding contingency action plan activities will also be provided in the plan specifications.

Encouraged Plans—The workgroup decided that it may not be possible to fully accommodate the needs of certain aspects of the program through the use of highly specific plan requirements. Therefore, the workgroup will recommend that the sediment management regulations encourage program stakeholders to develop and submit for approval plans that will address the following issues:

- Capacity
- Site location
- Construction
- Public Involvement.

Other Issues—It was determined by the workgroup that other areas of the project could not be adequately addressed by specific, inflexible criteria to be established in plans. Therefore, the workgroup will recommend to PSWQA that the regulations should remain silent on the following issues:

- Disposal site design—Design standards specify the manner in which equipment, structures, and processes are constructed or implemented. Design standards are difficult to predetermine because other factors (e.g., sediment contaminant levels) will affect them. While specifying the use of "overdesign" (i.e., the use of operational methods that are more protective than those currently required by statute) is an option, the workgroup consensus was that such specification may be too broad to be an adequate or effective means of setting program guidelines

- Contractual issues—Contracts and other tools may be used to apportion liability among PLPs, establish expectation levels, and allocate responsibility for the performance of duties. Although essential, contractual tools must be developed on a case-by case basis to be effective, especially when environmental issues are involved.

Approval by appropriate stakeholders of the elements contained in the proposed plans should be required. If a trial multiuser sites program is developed with a test site, each of the proposed plans should be tested in conjunction with the trial program. It is important to use a reasonable worst-case scenario when assessing the effectiveness of the plans.

Development of Standards for Confined Disposal of Contaminated Sediments

The development of confined disposal standards may be the most important institutional tool for managing liability. While sediments dredged from the sound are generally regarded as only mildly contaminated, they may still require special handling to minimize environmental effects. Dredged sediments are currently classified as solid wastes (more specifically, "problem" wastes) under 173-304 WAC. The standards for confined disposal of contaminated sediments that are currently being drafted by Ecology (as required by the Puget Sound Water Quality Management Plans of 1987 and 1989) propose to regulate the disposal of all dredged sediments. An agency equivalent to PSDDA for regulating the disposal of materials at upland sites does not exist; the proposed confined disposal standards will regulate the disposal of dredged sediments at upland sites (Parametrix 1990). Results of sediment characterization tests may be used to determine the appropriate treatment of disposed materials under the proposed confined disposal standards, PSDDA standards, or state dangerous or hazardous waste regulations [e.g., RCW 70.105.010 (5), (6), and (14)]. The proposed standards will also designate requirements for other aspects of dredged material disposal (e.g., dredging and disposal techniques and testing and characterization of sediments).

Financial Assurances

An assessment should be made of the most desirable means of obtaining financial assurances from PLPs of their ability to pay for damages arising from potential releases at a site. The assessment may require an in-depth analysis of the efficacy of the traditional tools of providing financial assurances, as well as an exploration of statutory provisions. This assessment must take place during the program development stage to provide the foundation for the establishment of a remediation fund. Establishment of the fund itself is an operational tool and

may occur during site development and construction, while maintenance of the fund will continue throughout the life of the program.

Public Education and Involvement Programs

A public education and involvement program will be an essential component of the multiuser sites program [see PTI (1990) for a more complete discussion of public involvement and education]. A process to identify affected members of the general public and environmental and other interest groups should begin as soon as the program is approved; this process should complement plans to fulfill statutory public disclosure requirements.

The public education and involvement process will begin with an explanation of the need for a coordinated dredging and disposal plan for Puget Sound. Comparisons with current dredging practices will be used to underscore the inherent protectiveness of providing performance standards. Studies of how water quality is impacted by current dredging practices and volumetric data provided by dredgers may be used to support the need for the program.

A specific plan to encourage public participation may be developed by entities experienced in establishing effective community relations programs. Techniques for involving targeted interest groups should be developed. Ecology has already undertaken a significant portion of the identification and notification task. A survey of successful public contact programs should be made so that the most effective plan is developed for use with the multiuser sites program.

Policy Statements

Policy statements are an important means of addressing specific public safety concerns. Policy statements may help to reassure the general public that stakeholders have a strong commitment to the safe operation of the facility. Important policy statements include overt commitment to regulatory compliance, vigilant oversight and monitoring, and regular upgrading of protective measures used at the facility. For substantive use, the statements should reference specific action plans designed to achieve the goals outlined.

Regulatory Compliance—Although a policy of strict adherence to regulatory compliance should be the cornerstone of any liability management or minimization program, an overtly stated commitment is preferable to a mere understanding or assumption that the commitment exists. Although strict liability theories imply that intent is not relevant for the purpose of diminishing liability, most jurisdictions recognize compliance with relevant regulations as evidence

tending to show nonliability, if not conclusive proof thereof (Strelow and Claussen 1988). More important, juries tend to view evidence of violations as *prima facie* evidence of fault.

Charges of lax and erratic enforcement practices on the part of state and federal enforcement agencies arise periodically. Such implied practices have two results: some PLPs may be lulled into the conclusion that minimal compliance efforts are sufficient to avoid liability, and the general public may lose confidence in the agencies' commitment to the enforcement of environmental protection programs (Strelow and Claussen 1988). Those perceptions should be counteracted forcefully in the interest of public acceptance and the overall success of the program. The statements may also be used substantively to impose contractual duties (set forth in more detail in the section of this report describing contractual tools).

Adherence to Industry Standards—A policy statement may be appropriate that stresses a commitment to the development and implementation of increasingly protective standards throughout the life of the program. Use of the most protective standards available at the time of implementation of the program may be retroactively deemed inadequate in a recovery action if more protective standards are available but not implemented.

In accordance with strict liability, PLPs can be held liable regardless of adherence to the most protective standards available at any particular time. Nevertheless, it is believed that adherence to high or low industry or management standards has a corresponding, albeit unquantifiable, effect on juries (especially when punitive damages are contemplated). Therefore, an overt statement pledging commitment to increasing the safety levels at the facility is recommended. Although it may be difficult to fully integrate technological advancements in the program standards, nonsubstantive integration through a policy statement may be an effective community relations tool.

There is likely to be strong public opinion about the appropriateness of determining the adequacy of industry standards on the basis of costs. The effectiveness of any community relations program is likely to be diminished if protection is not the major focus. It may be extremely important to clarify the decision-making process leading to the designation of adequate standards. For example, if the cost of a particular safety measure far outweighs its potential for protection, the public may require information about the processes used to make that determination.

Contractual Mitigation Techniques

There is a general consensus among courts that contracts between PLPs are enforceable in the absence of conflicting public policy. While joint and several

liability for the government's enforcement action cannot be contracted away, CERCLA (and presumably MTCA) does not preclude or invalidate other lawful means of apportioning liability among PLPs (Boyd et al. 1986). Therefore, while contractual protections may not be used to defend against the imposition of liability in an enforcement action, they may be used to reallocate liability in a subsequent PLP contribution action.

In addition, contracts may be the best tool to bring together all of the objectives, expectations, and requirements established by the various program plans (e.g., the coordinated management plan, disposal standards, and closure plan). Particularly valuable contractual clauses for managing liability include indemnification agreements and agreements to apportion liability. Other contractual provisions that may be used to provide protection in the event of liability include alternative dispute resolution clauses, notice provisions, and agreements to adhere to regulatory and program requirements. For the greatest degree of protection, it is essential that contracts be in place prior to site construction.

Indemnification—An environmental indemnification (or "hold harmless") clause is the most common method of providing protection in disposal agreements. Indemnification clauses generally predetermine the liability of contractual parties for certain activities. Responsibilities for both specific and general damages incurred in association with contract activities are allocated to certain parties in the indemnification section of the contract. Indemnification is a standard contractual tool and may be tailored to provide reasonable protection against the threat of inequitable applications of joint and several liability. The enforceability of indemnification clauses is generally set by state law, which is based on both legislative and judicial determinations that enforcement will not violate important public policies. In general, states permit indemnification for strict liability activities. Typically, indemnification is also permitted by states for damages resulting from negligence. However, indemnification is not usually permitted for intentional wrongdoing (Dore 1988). Courts may also invalidate or modify certain indemnification clauses where they are patently inequitable (e.g., where the parties have grossly uneven bargaining positions so that one party is forced to agree to something it wouldn't otherwise agree to).

General contractual indemnification clauses may be inadequate to effect a cost reallocation based on CERCLA claims. For example, a federal court deemed insufficient a clause that provided for a release from "all claims, demands and causes of action." The court stated that "some clear transfer or release of future 'CERCLA-like' liabilities is required."

Dore (1988) provides some useful guidelines for drafting environmental indemnification clauses. The recommendations are as follows:

- Ascertain the solvency of each PLP to indicate the viability of indemnification.
- Indicate specifically that an indemnification is being given or received for environmental claims; the clauses should be no more narrow or broad than necessary (e.g., a clause releasing a cleanup contractor for "all consequences arising from a remedial activity" may also release him from the duty to pay subcontractor or workers' compensation claims).
- State specifically if indemnification includes legal defense costs.
- Specify each party receiving indemnification benefits. Corporate officers and municipal employees have been held personally and criminally liable for Superfund violations.
- Request an assignment of benefits if the party receiving indemnification has insurance coverage for part or all of the activity covered by the indemnification clause. Insurance policies including a duty to defend may clash with indemnity agreements also imposing a duty to defend; clauses should be drafted to accommodate such conflicts.
- Set time limits and dollar amount caps so that the duty to indemnify ends within a reasonable time.

The permissibility of indemnification for environmental damage varies widely from jurisdiction to jurisdiction. The degree to which they are enforceable in Washington State should be determined prior to their use in a disposal agreement.

Apportionment Agreements—It may be possible to use apportionment agreements to provide for a voluntary allocation of liability among PLPs. While apportionment agreements will not affect liability in a governmental enforcement action, they may be upheld in a contribution action if they are deemed reasonable. More important, a contribution action may not be necessary if all PLPs accept the terms of apportionment. The apportionment may be based on volumetric contributions (i.e., actual use) alone. The results of sediment characterization tests may also be used to establish liability based on the relative risks of the substances contributed for disposal. However, apportionment becomes significantly more complex as additional factors are considered. The success of an apportionment based on percentage of use will depend almost exclusively on the competency of the records maintained by the operators of the facility. Stakeholders may desire a contractual clause permitting them to make reasonable independent audits of such records, or to be provided with copies of audits performed by the entity charged with that responsibility.

Appendix A provides a description of the Gore factors, which set forth a potentially acceptable apportionment scheme. The Gore factors have been cited with approval by a number of courts and may be explored for use with the multiuser sites program.

Alternative Dispute Resolution—A clause mandating a form of alternative dispute resolution (e.g., mediation, arbitration, or minitrial) for the allocation of costs among PLPs may be desirable for all PLP contracts (Cheek et al. 1989). Because of the high likelihood that PLPs will be held responsible on a joint and several basis under either CERCLA or MTCA, significant time and money may be saved by submitting disputes to alternative dispute resolution.

There are a number of benefits to alternative dispute resolution in addition to lower legal fees and prompt court action. The most obvious public benefit is that more funds for remediation are likely to be available because of the lower legal costs. Also, remediation efforts may not be delayed by court requirements because arbitrations are not subject to the same procedural or evidentiary limitations that lead to lengthy court delays. Another major benefit to PLPs is the opportunity to become actively involved in the process by choosing the composition and scope of authority of the arbitrators. An arbitration panel may also be assembled with a higher level of technical expertise than can be generally found among judges and juries (Cohen 1988). Finally, arbitration proceedings are confidential, although an additional contractual clause imposing confidentiality may be desired for additional security.

There are negative perceptions of alternative dispute resolution and some PLPs may be reluctant to enter into an agreement mandating its use. The most common negative perceptions arise from a general lack of knowledge of CERCLA and MTCA liability and of alternative dispute resolution in general. PLPs may believe that liability can be avoided through litigation, which is generally not true under CERCLA or MTCA. Also, attorneys for PLPs are not as likely to recommend alternative dispute resolution, asserting that the PLPs' interests will not be adequately represented in the procedure. However, a factor in that advice may be that costs of arbitration are generally much less than the costs of traditional litigation (Cheek et al. 1989).

Notice—Notice clauses in contracts impose a duty to notify other contractual parties when specified events occur. Notice clauses are particularly important in environmental contracts but are not used as effectively as possible. Often they may only designate appropriate general PLP contacts without setting forth events that trigger the duty to notify. An example of a desirable clause may require notice to all PLPs within a specified time period after any PLP becomes aware of conduct that it reasonably anticipates may lead to a release. The clause will also specify the form of notice (e.g., telephone communication followed by notice in writing). The clause will promote early notice, which is essential when there

is a threatened release of hazardous materials. Penalties may also be levied for failure to notify. For example, a failure to notify can result in either a reduction of indemnification rights or may trigger indemnification, depending on the beneficiary of the clause.

Adherence to Regulatory and Program Requirements — All stakeholders may be required to formally agree to conduct their activities in accordance with law and the overall objectives of the program, as set forth in the development plans. Although lawful activity is generally a prerequisite to enforcement of any contract, it may be desirable to set forth the expectations and objectives of the stakeholders, users, and other interested parties.

Interagency Memoranda of Understanding

Memoranda of understanding (MOUs) are governmental tools used to define the varying scopes of authority of federal and state agencies and local government involved in joint enterprises. MOUs should be in place soon after the stakeholders are designated (i.e., during program development) so that responsibilities are clearly established prior to any threat of release. MOUs can be used to avoid the delays and confusion that result from multijurisdictional ventures.

It is important to note that MOUs may not shield agencies from contribution claims in certain instances. One court invalidated an MOU between EPA and the U.S. Department of Defense that contained a settlement agreement, because there was no provision for a public comment period to ascertain if settlement was in the public interest (settlement agreements generally shield the settling PLPs from future contribution actions). It may be invalid to include settlement agreements in MOUs even if an opportunity for public comment is provided; the same court interpreted CERCLA as not envisioning that type of settlement. (This decision may also indicate a requirement that public comment periods be provided in conjunction with any MOU having potentially adverse effects on the interests of other PLPs.)

Legislative Exemptions and Releases

There may be strong arguments for special legislative exemption of program stakeholders and site users from the liability scheme imposed by MTCA, especially if the use of such facilities becomes mandatory. While CERCLA and MTCA provide some degree of assurance that entities involved in the generation, transport, and disposal of hazardous substances will operate responsibly, neither law was designed to prevent the implementation of publicly beneficial and necessary programs. Although general legislative releases for liability in conjunction with the program may not be palatable to the public (and are not presently permitted by MTCA), the legislature may provide for more liberal use

of covenants not to sue to provide a defined level of protection for certain PLPs involved in initiating the program. It is important to stress that a defined and consistently administered program is likely to be far more protective than current dredging and disposal methods and will benefit the state and the public through more efficient navigational dredging and timely and effective cleanup of contaminated sites. If legislative action is sought for protection from liability, the quest should be initiated soon after program development begins.

OPERATIONAL TOOLS

Operational tools are specific mitigation measures that may be used to establish appropriate criteria for the safe operation of the facility. The appropriateness of each tool may be partially dependent on the alternatives chosen during an earlier phase of program development; they are also dependent on the foundations provided by the institutional tools. Many of the examples of protective operational tools that are discussed in this section were provided by Parametrix (1990).

Determination of Appropriate Site Location

Determination of site location may have one of the most significant impacts on liability. In addition to determining threshold questions involving siting authority, adequately protective performance criteria must be set by assessing a number of factors including those briefly discussed below.

Potential Environmental Impacts—The environment will be impacted in some manner regardless of the chosen site location (e.g., smothering of marine biota during aquatic disposal). It may be possible to locate a facility where impacts will be lowest, or where existing contamination or dredged material disposal has already impacted the habitat. As part of this determination, it is likely that an environmental impact statement (EIS) will be required pursuant to the State Environmental Protection Act. The EIS would evaluate the impacts of each site location alternative on the applicable habitats, fishing, the food web, and humans. The EIS should consider impacts posed by merely locating the facility at a particular site as well as impacts posed by a possible release.

Potential for Interference with Present and Future Site Uses—Each site presents varying degrees of interference with present and future uses of the site. In general, however, aquatic sites (i.e., confined and nearshore) present the least potential for interference because of their relative isolation from the general public, while upland sites present the greatest potential for interference. While

nearshore sites are likely to interfere with present uses to a greater degree than confined aquatic sites, they also provide unique opportunities for beneficial use after closure. These impacts are also likely to be addressed as part of an EIS.

Proximity to Dredging Operations—The risk of release during transport may be lessened by locating the facility closer to dredging sites. The greater the distance to the site, the greater the opportunity for release during transport. Distance may also dictate the use of certain dredging equipment and techniques. In general, the greater the distance and the more modes of transportation required to reach the disposal site, the greater the risk of release.

Cost and Ease of Remediation—Confined aquatic disposal sites are generally the most difficult and expensive to remediate, while upland sites are comparatively less difficult and expensive to remediate. For confined aquatic sites, these factors may be mitigated by establishing limits on the depth of sites (i.e., ≤ 200 feet to decrease loss of contaminants during disposal and ≥ 80 feet so that the site is less vulnerable to wave-induced turbulence and boat scour).

Potential for Site Failure—Each site may present varying probabilities of failure that will affect the ultimate cost of remediating a site. Therefore, this factor must be considered in conjunction with the assessment of cost and ease of remediation. For example, confined aquatic sites are likely to be the most expensive and difficult to remediate. Fail-safe design features may be implemented to significantly lower the probability of failure, which will result in lower remediation costs over time. However, certain techniques designed to lower the chances of site failure may be effective for only a limited time. The program should remain flexible enough to allow consideration and adoption of new technologies as they develop.

Knowledge of Technology for the Site—The level of knowledge of disposal technology varies among sites. For example, a greater body of knowledge regarding contaminant transport and fate may exist for upland sites than for confined aquatic sites. If upland sites are not feasible, it may be necessary to acquire knowledge of aquatic sites, limit certain activities until the impacts are known, or apply the best known technology (i.e., overdesign) in conjunction with continued development of technologically superior disposal methods.

Suitability of Disposal of Materials at the Site—Testing and characterization may be used to provide an appropriate disposal environment for different levels of sediment contamination. Disposing of materials in an inappropriate environment may increase degradation and the potential for release of contaminants into the environment. For example, because mobility of metals may

increase when oxygen is present, upland sites may not be the most appropriate disposal environment for sediments containing high concentrations of metals. Similarly, because mobility of organic compounds may increase when water is present, confined aquatic or nearshore disposal sites may not be the most appropriate environment for sediments with high concentrations of organic chemicals. Accordingly, PSDDA (1986) recommends that sediments contaminated with metals be disposed of in water (or in a saturated nearshore zone), while sediments contaminated with organic compounds be disposed of above water. Disposing of contaminated sediments in a chemical environment as close as possible to their *in situ* state favors contaminant retention, especially among metals (PTI 1990). Industrial contributors (i.e., PLPs) to contaminated sediments dredged from the sound may have legitimate grounds for disputing liability if materials are taken from a relatively safe disposal site to a site posing a greater risk (e.g., materials containing metals are dredged from Puget Sound and moved to an upland site). Although logistically complex, a possible solution to this dilemma is to segregate dredged sediments for disposal at a system of smaller sites located in a variety of environments.

Past Use of the Site—Because MTCA and CERCLA extend joint and several liability to present owners of sites contaminated in the past, an environmental audit of existing contamination should be conducted at all sites. Although it may not be necessary to obtain a pristine site when disposal of contaminated materials is contemplated, it is always preferable to know existing site conditions for liability purposes. Indemnification can be requested of past owners for the existing contamination. MTCA Section 4.2(b) may provide limited protection for an innocent purchaser of contaminated property (discussed in an earlier section of this report). However, the protection is only available to purchasers who actually investigate site conditions, with higher duties imposed on sophisticated purchasers.

Community Opposition—Even if suitable land is found, communities may not be receptive to siting the facility in their "backyards" despite assurances that it will be adequately maintained. This is a formidable problem that will be difficult to resolve even with an extensive public education program. The most persuasive tool is likely to be a history of commitment to environmental protection on the part of program proponents.

Disposal Site Design

The likelihood or effects of releases from a facility may be minimized through design specifications. The specifications may require design features that will increase the protectiveness of the site. Protective specifications may include storage cells, capping techniques (e.g., timing, cap thickness, and quality of materials), detention ponds, infiltration basins, runoff controls, and leak-proof

liners. However, as discussed in Parametrix (1990) disposal site design may depend on a number of variable factors that will preclude the establishment of predetermined or inflexible design standards. From a liability management standpoint alone, several smaller disposal cells may be preferred to one large site so that sediments may be disposed of in the most appropriate manner; it may also be possible to apportion contributions of each dredger more effectively if small storage cells are used. Segregation of sediments posing greater risks may also be possible where small storage cells are used. This alternative may also accommodate more easily the use of functional- and effects-based design alternatives.

If a more protective disposal site is desired by stakeholders to reduce liability risks, or if sediment contamination levels dictate higher disposal standards, it may be preferable to design dedicated sites. Dedicated disposal sites may also be designed to fulfill the requirements of proponents who do not require added protectiveness, or when testing indicates no significant variability of sediments among dredge sites and dredgers. If there is no feasible manner to accommodate the disposal requirements of the contaminants found in the sediments (e.g., there is no effective way of separating contaminants in sediments), this option may not be necessary or economically feasible. Upland disposal of dredged sediments is currently regulated in Washington state by 173-304 WAC. However, 173-304 WAC permits the use of unlined sites (i.e., demolition landfills) with no leachate collection system and minimal siting criteria. The confined disposal standards, when developed, may specify the use of higher, more protective standards.

Remediation Funds

There are a number of methods for financing contingent liability for remedial action. A trust fund may be established with cash contributions from users or by designating a percentage of user fees to be placed in the fund. Pollution liability insurance may be purchased for the facility with user fees. Users may also be required to provide financial assurances of ability to pay for damages. The legislature could be approached about designating the multiuser sites program a public works project with an emphasis on the public interest in providing a controlled environment for the disposal of wastes dredged during cleanup activities. All costs arising from the implementation of the facility could be financed with tax revenues, or through state-administered grant and loan programs. Some methods may be more difficult to implement, in a political sense, than others, especially if liability is specifically earmarked as the funded activity. The public may balk at underwriting what it perceives to be results of negligent or intentional misconduct. Fines collected for failure to adhere to program requirements may also be used to finance appropriate program elements.

A primary difficulty associated with establishing such a fund is related to correctly estimating need while preserving affordability of the program. Insurance is a good alternative to establishing a private fund because insurers are in a better position to estimate the funds necessary to cover the risk.

User Fees—Liability costs do not need to be covered separately from other costs of the program. Incorporating liability risks (i.e., as costs of doing business) into the fee structure may be the most viable and politically acceptable option. If the site is financed by user fees, a contingency fund may be established by earmarking a percentage of the fee to be placed in a trust. Part of the fees may also be used to purchase insurance, which is becoming more widely available.

Pollution Insurance—Predictably, early court decisions disfavoring the insurance industry resulted in the practical unavailability of general liability insurance policies without pollution exclusion clauses (Hoskins 1989). However, more recent decisions indicate a growing understanding of the inability of insurers to shoulder the vast burden of remediation alone. Favorable decisions have convinced insurers to offer pollution coverage again, but at widely varying costs. One factor that may limit the availability of insurance is the reluctance of insurers to be placed into the position of overseeing compliance with their own insurability standards. Insurers fear the prospect of being designated PLPs by performing in what is effectively an oversight role.

Proof of insurance may be required prior to use of the facility, but this may impede overall program development because insurance may still be unaffordable by certain small-volume dredgers. (A proof of insurance requirement is the primary impediment to implementation of federal underground storage tank legislation.) Such a requirement may not be ultimately viable without legislative aid (e.g., low-interest loans) to dredgers who cannot afford insurance.

Finally, it may be relevant to analyze the availability and effect of WSR 90-80-085 et seq. (effective 3 April 1990), which establish procedures for the use of reserve funds for a pollution liability insurance program. Such an analysis was beyond the scope of this study.

Financial Assurances—Users of a facility may provide financial assurances (e.g., surety bonds, letters of credit, qualifications of self-insurance) that guarantee ability to pay for the costs of remediation. These assurances may provide the least secure source of remediation funds for the program because litigation may be necessary to collect on the guarantees. Users providing letters of credit as guarantees of ability to pay may suffer financial downturns that will render the guarantees of negligible worth.

State-Provided Funding—If the multiuser sites program is designated a public works project, the legislature may appropriate funds from the state and local toxics control accounts to promote the program. The toxics control accounts (established under MTCA Section 7) are composed of 1) proceeds from a tax

imposed on the first possession of a hazardous substance within the state of Washington, 2) costs of remedial action recovered from PLPs, 3) penalties, and 4) other funds provided by the legislature. The funds in the accounts may be used for remediation, education, program implementation, training, and monitoring. Other possible resources may be the State Revolving Fund or the Public Works Trust Fund. The Centennial Clean Water Fund does not appear to be available for Puget Sound Water Quality Management programs.

Construction

Some stakeholders support the use of fail-safe structural design features only at sites where remediation may be expensive or difficult (e.g., confined aquatic sites). However, fail-safe structures may be appropriate for all sites because of the extreme risk of liability for damages to natural resources and remediation costs. The cost effectiveness of fail-safe design features should be weighed against the full magnitude of potential damages. This type of assessment is needed to determine the appropriate level of protection required to effectively minimize liability.

Construction oversight is an essential liability management tool and should begin with an evaluation of the suitability of construction and engineering contractors. The factors provided earlier for the designation of stakeholder functions are also appropriate for the evaluation of construction contractors. An oversight committee should provide final approval of construction of the facility. Interim approval of designated phases during construction might also be desirable; however, approval of each phase may also be interpreted as implied acceptance of the structures, including implied acceptance of hidden defects. If an indemnification clause is required by the contractor, the clause may be drafted to specifically exclude undiscovered defects.

Sediment Testing and Characterization

In addition to the use of testing and characterization to determine confinement standards and site locations, the results of the tests may be entered into user databases (or other reliable methods of recordkeeping) to prepare for future attempts at legal apportionments. Although the viability of using sediment testing and characterization for this purpose has not been adequately tested in court, some states (e.g., California) have acknowledged the theoretical practicability of using tests for apportionment of liability (see Appendix A for a discussion of apportionment as a liability management tool). If such a use is contemplated, an independent assessment should be made of tests that will provide the most comprehensive characterization. The phased approach included in the confined disposal standards (Parametrix 1990) may provide the starting point for such an assessment. Those standards will probably require upgrading to increase the likelihood that sediments will be adequately fingerprinted for court-approved

apportionments. Although the government need not fingerprint wastes to prove its case against a PLP, a higher standard (e.g., clear and convincing evidence of contribution of each dredger) is likely to be required to rebut joint and several liability. (Appendix A provides a discussion of the burden of proof issue.)

Sediment Dredging, Transport, and Disposal Techniques

There are a number of dredging, transport, and disposal techniques that will minimize the possibility of release. All entities performing dredging and disposal can be regulated by predetermined standards set forth in an appropriate agreement or plan (although some of the techniques may be site-dependent). Protective dredging and disposal techniques include:

- Linings for trucks to minimize risks of loss of sediments during transport from the dredge site to upland disposal facilities
- Overflow controls and hydraulic checks to limit the risk of accidental release prior to aquatic disposal
- Silt curtains to contain sediments during dredging and aquatic disposal
- Timing of dredging and disposal activities to accommodate the presence of sensitive species (e.g., migratory fish), and to compensate for physical conditions that may encourage dispersal (e.g., strong tidal currents and wave-induced turbulence)
- Selection of dredges that minimize pathways for release (e.g., materials are generally handled more often using a hydraulic dredge, which may create additional opportunities for release)
- Interim capping to limit dispersal between each aquatic disposal episode
- Electronic positioning systems and taut line buoys to ensure accurate placement of sediments during aquatic disposal.

While there is concern over the inevitable release of contaminants during the dredging, transport, and disposal process, Parametrix (1990) concluded that less than 2 percent sediment loss occurred during dredging and transport using either hydraulic or mechanical dredges. This low level of loss may not lead to legal liability, depending on the level of sediment contamination. One court ruled recently that some releases may be too small to merit an assessment of liability if the amount released does not pose a threat to the public or the environment. However, the issue of "how much is enough" is litigated frequently and is a sensitive issue with enforcement agencies. Jurisdictions differ in their interpretation of the issue.

Monitoring of the Disposal Facility

Vigilant monitoring is an important operational tool for managing liability. Standards should be adopted that designate the method, frequency, and responsibility for monitoring. Response triggers, action plans, and notice requirements should also be set forth in the monitoring plan. Monitoring should be required during all phases of the program for all sites (i.e., during site construction, dredging and disposal operations, sediment testing and characterization, interim and final capping, and postclosure). Monitoring requirements should be evaluated during each phase of operation to determine their effectiveness. In general, monitoring designed to minimize the potential for release will also be effective for limiting liability.

Maintenance and Administration

Maintenance inspections of facility operations should be conducted as part of the system of checks and balances. As part of the overall administrative plan, a stringent plan for the maintenance of facility records should be implemented as a means of distinguishing contributions of materials. Auditing of facility records may be requested by any stakeholder and should be allowed on a reasonable basis.

Closure

Site closure should be in accordance with standards analogous to and affording a similar level of protection as those contained in RCRA (40 CFR Sections 264.110-120).

RCRA closure requirements allow owners and operators intending to close or cease the operations of their disposal facilities only two options: disposal closure (i.e., closure with waste in place) and clean closure (i.e., closure by removal). Disposal closure allows an owner or operator to decommission a RCRA hazardous waste disposal facility by capping the unit with contaminated materials in place. The owner or operator must perform certain precautionary acts to ensure no migration of the wastes for an indefinite time period and to protect against the inappropriate future use of the site. Under this option, the liability of the owner or operator remains as long as the facility remains a potential threat. Clean closure requires that the owner or operator remove almost all of the hazardous material, rendering the site virtually as clean as it was before the disposal facility was located at the site. An owner or operator who complies with the strict clean closure requirements may leave the RCRA regulatory system and will not be subject to further liability.

Because the prospective multiuser disposal site facilities are not intended to be repositories for hazardous substances, closure by removal may not be necessary

or desirable; however, closure by removal provides the best insurance against future liability.

The elements of the closure plan should be decided during program development, which is generally far in advance of actual closure. The closure plan should be updated immediately prior to closure to include technological advancements.

One of the most important decisions made at closure is the best method for final capping of the site. Cap design should be thick enough to inhibit contaminant migration and lessen the possibility that biota will penetrate the cap. Cap quality is also a concern, although cap material may be partially dictated by existing site conditions (i.e., it is possible that the cap material will be cleaner than the surrounding areas). Specification of the method of cap placement (i.e., speed and timing) and actual oversight of the placement may be desirable.

Other provisions for preparing the site for future use (e.g., revegetation or drainage of upland and nearshore sites) may be included after an investigation is conducted of the appropriate uses for the site. The investigation should take into account the particular properties of the contaminated material disposed of at the facility (e.g., migration potential of contaminants vs. prospective use).

Postclosure

Issues arising after closure pertain primarily to long-term responsibility for monitoring and maintenance of the site, and methods of ensuring adherence to restrictions on future use of the site. Monitoring and maintenance plans should be designed to provide an adequate level of protectiveness after the site is closed, and should specify the type and timing of monitoring. Land use restrictions may be placed on the site to prevent inappropriate use of the site, or use permits may be sought from the permitting agency. As a practical matter, the site may be virtually unmarketable in a commercial sense because joint and several liability can extend to present landowners of sites contaminated in the past.

LIABILITY MANAGEMENT PLAN OUTLINE

Liability cannot be eliminated without legislative exemptions; however, it can be minimized through implementation of the institutional and operational tools described above. These tools are implemented during all phases of the multiuser sites program, including program development, site development, site operation, and site closure and postclosure. In general, institutional liability management tools minimize liability by carefully defining stakeholder rules and responsibilities and establishing predictable and consistent decision-making procedures. Operational liability management tools minimize liability by providing operational guidelines and criteria that minimize the risk of a release of contaminated sediments (and therefore minimize the risk of impacts to the environment and human health). This section provides an outline for implementing institutional and operational liability management tools by phase of the multiuser site program. The outline is intended to serve as a framework for developing a liability management plan. A liability management plan should be developed via a process of consensus building among stakeholders during the program development phase of the multiuser sites program.

PROGRAM DEVELOPMENT

Institutional Tools

- Establish stakeholder rules and responsibilities for entities that are parties to the institutional option selected for program management.
- Negotiate MOUs between agencies that have responsibility for program development and site ownership, operation, and oversight.
- Identify initial users at sites.
- Negotiate the content of contracts with private stakeholders having ownership, operational, and oversight responsibilities (negotiate complete contracts if possible).
- Evaluate the need for program plans (e.g., those identified by the Confined Disposal Workgroup) and develop appropriate plans.
- Develop required plans and recommended plans if feasible. Evaluate the utility of developing other plans.
- Develop comprehensive program standards in accordance with confined disposal standards and best management practices.

- Develop public involvement and education programs, and implement to the extent needed to ensure adequate participation.
- Research the possibility for legislated exemptions from liability.
- Research financial assurance mechanisms.

Operational Tools

- Execute contracts establishing stakeholder responsibilities for private entities
- Execute MOUs establishing stakeholder responsibilities of agencies.

SITE DEVELOPMENT

Institutional Tools

- Implement next phase of public involvement and education program
- Develop user disposal agreements
- Negotiate construction contracts
- Establish closure plan responsibilities after site location is determined.

Operational Tools

- Assess site location criteria by oversight stakeholders
- Assess site design criteria by oversight stakeholders
- Establish closure plan
- Execute contracts with construction contractors and design engineers.

CONSTRUCTION

Institutional Tools

- Form committee of stakeholders suitable for overseeing construction phases

- Designate construction phases and set approval criteria.

Operational Tools

- Monitor construction phases by oversight committee in accordance with predetermined acceptance criteria and monitoring plan
- Review and amend in accordance with actual condition of site
- Execute initial user disposal agreements.

SITE OPERATION

Institutional Tools

- Establish facility maintenance and inspection plans
- Designate operational oversight stakeholders
- Established monitoring schedule
- Designate response criteria.

Operational Tools

- Conduct sediment testing and characterization in accordance with disposal standards
- Monitor dredging, transport, and disposal techniques in accordance with plan
- Monitor facility's adherence to statutory and program requirements
- Collect penalties for failures to adhere to requirements
- Execute disposal agreements with all new users.

SITE CLOSURE

Institutional Tools

- Amend closure plan as necessary to reflect technological advancements (technology must be generally acceptable by industry)

- Propose use limitations
- Negotiate contracts with entities performing closure.

Operational Tools

- Perform testing and characterization to establish suitable use limitations
- Approach permitting authority for authorization of closure
- Execute contracts with entities performing closure
- Oversee closure to ensure adherence to plan.

SITE POSTCLOSURE

Institutional Tools

- Update postclosure monitoring plan and schedule to reflect results of testing and characterization
- Determine applicable insurance coverage and remedial trust fund amounts.

Operational Tools

- Request application for zoning restriction (or other means of limiting future uses of site) from applicable government entity
- Oversee monitoring schedule
- Maintain remedial fund through insurance and trust account.

CONCLUSIONS

Although strict, joint and several liability as mandated by MTCA will have a significant impact on the viability of the multiuser sites program, liability risks can be accommodated in program plans and should not deter program development. As provided in the foregoing discussion, generally-accepted interpretations of the liability schemes of CERCLA and MTCA indicate there are few legal or regulatory limitations on liability for multiuser site program stakeholders. However, both statutes are designed to promote the development and use of operational and managerial techniques to minimize the risks of participation in inherently dangerous activities.

The best guarantees against liability may be those gained through legislative-sanctioned protections. The possibility of providing statutory bases for exemptions should be examined. A transfer of liability from stakeholders to a pollution liability fund under certain conditions, such as the one provided in CERCLA Section 107(k)(1), may be desirable. The utility and methods of gaining such legislative protection may be one of the most important topics for future investigation, especially if use of the facility is statutorily mandated.

Aside from the possibility of legislative protection, the best liability management plan will adopt appropriately high standards of design, construction, operation, management, and closure of the site; additional provisions for updating those standards in accordance with technological advancements is essential. Optimally, the program will evolve from contemplated reasonable "worst case" scenarios that could result in the adoption of more stringent standards than those currently required under any federal or state law.

Although the effectiveness of some of the tools presented in this report for apportioning or managing liability have not been fully investigated, they represent the most commonly recommended techniques. Some tools may be preferred because they are more easily implemented and court-accepted (e.g., indemnity clauses), while others will be more costly and time-consuming to implement (e.g., legislative protection). Effective liability management begins in the planning stages of a project and continues well beyond closure.

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APPENDIX A

REGULATORY AND COMMON LAW OVERVIEW OF LIABILITY FOR ENVIRONMENTAL DAMAGES

INTRODUCTION

Liability arising from a release of hazardous substances may be based on a number of theories involving tort, contract, and real property law. However, given the inherent difficulty of determining the causes of pollution with accuracy sufficient for legal culpability, strict, joint and several liability is most likely to be applied (either by statutory mandate or court discretion). This appendix focuses on regulatory and common law bases of strict, joint and several liability to supplement the discussion of the issues contained in the main text of the report. This appendix is not intended to provide legal opinion or advice on any subject and should not be cited for those purposes. Environmental law continues to evolve rapidly and the information provided is current only as of the date of the report.

FEDERAL AND WASHINGTON STATE BASES OF LIABILITY

As set forth in the main text of this report, CERCLA Section 107 provides the federal basis for liability for the release of hazardous substances and MTCA Section 4 (RCW 70.105D.040) provides the state basis for liability. MTCA mandates the use of strict, joint and several liability in pollution cases; CERCLA does not specify a particular standard but is generally interpreted as requiring strict, joint and several liability.

Strict Liability

Strict liability generally arises when harm results from participation in an activity that cannot be conducted without an element of risk. While the activities may have a degree of social utility that deters legislatures from banning the activities altogether, voluntary participants may be held fully accountable for any resulting harm without regard to intentional or negligent behavior. Typically, activities subject to strict liability have been narrowly defined and highly regulated by legislatures or courts. For example, people in high-risk occupations (e.g., explosives handlers and keepers of wild animals) have traditionally been held strictly liable for harm resulting from participation in those occupations.

The major impact of strict liability is that precautionary measures used by PLPs to prevent, limit, or mitigate harm will be largely ineffective as a means of avoiding legal responsibility (Murphy and Caron 1988). It is possible, therefore, that adherence to even the most stringent industry standards will have no

significant effect on liability at a site. Preventative measures should nevertheless ultimately impact liability because increased use of care generally results in a reduced risk of harm.

Section 4.2 [RCW 70.105D.040(2)] of MTCA specifically mandates strict liability for entities involved in handling materials containing hazardous substances. A majority of federal courts have interpreted CERCLA as mandating strict liability in hazardous waste cases, although the statute itself is silent on the issue [see New York v. Shore Realty Corp., 759 F.2d 1032 (2d Cir. 1985); Southland Corp. v. Ashland Oil, Inc., 696 F. Supp. 994 (D.N.J. 1988)].

Joint and Several Liability

Unlike strict liability, joint and several liability is not reserved for specifically dangerous activities. Under traditional common law, joint and several liability is applied by courts only when harm has been caused by more than one party and there are no reasonable means to accurately determine each party's contribution to the injury (Prager 1987). As environmental law evolves, however, legislatures are beginning to require joint and several liability for all PLP's falling within statutory definitions, with increasing likelihood that no meaningful inquiry into the possibility of determining each party's contribution will be conducted. Even without a legislative mandate, modern courts are more likely to apply joint and several liability given the complexity of the scientific questions involved in most pollution cases (Prager 1987).

While inequitable judgments may result from the application of joint and several liability, this risk is regarded by many courts as less important than the need to hold polluters to a greater degree of accountability (Prager 1987). Public policy reasons for imposing joint and several liability for environmental harm include beliefs that:

- The government's causation problems will be reduced or eliminated
- The government will recoup more of its cleanup costs
- Early participation among PLPs (guilty or not) in the cleanup effort will be promoted
- PLPs will keep accurate records for use in identifying other PLPs
- PLPs will develop and use more protective means of handling hazardous substances.

Evidentiary Effects of Joint and Several Liability

The two most significant aspects of joint and several liability are the reassignment of burdens of proof and the treatment of damages. Prior to the

formulation of joint and several liability by courts, the plaintiff had a significantly more difficult task proving causation in a case with multiple defendants (Prager 1987). If the plaintiff was able to prove that at least one of the defendants was the cause of his harm but could not fix the blame further, he may have had no remedy.

The plaintiff's burden of proof is lowered under common law interpretations of joint and several liability. To carry his burden of proof, a plaintiff need only prove that each defendant was in the position of causing the harm (not that the defendant actually caused the harm). Once the plaintiff meets this burden of proof, each defendant must either disprove his contribution (to escape liability altogether) or prove that the damages are capable of being apportioned (to escape joint and several liability).

The second significant aspect of joint and several liability is the placement of the burden for full payment of damages on each of the defendants. The plaintiff may choose to collect from the defendant with the most available assets (i.e., a "deep pocket" defendant), regardless of true degree of fault. A solvent defendant accountable for only 10 percent of the damages at a site may be forced to pay for 100 percent of the damages. This aspect of joint and several liability accounts for most of the liability litigation.

Application of Joint and Several Liability in Pollution Cases

While causation can be an obstacle in any litigation, proving a PLP's contribution to a contamination site is especially formidable because the injury may have resulted from activities occurring in the distant past by both known and unknown parties. Conclusive evidence may not be available because of the passage of time since the release, or because of the effects of another PLP's contaminants found at the same site (i.e., commingled wastes). The primary justification for the imposition of joint and several liability by courts has been the presence of commingled wastes at a site (Prager 1987). Commingling of wastes compounds the almost insurmountable difficulties courts face in attempting to apportion damages for environmental harm.

As discussed above, one of the effects of joint and several liability is the reduction of the government's burden of proof. If joint and several liability is applicable, there is no requirement that the government prove a PLP's negligence or fault in conjunction with a release or threatened release. To meet its burden of proof in CERCLA cases, the government must show 1) a release or threatened release 2) of a statutorily defined hazardous material 3) by a PLP 4) resulting in cleanup costs (Babich and Hanson 1988).

Reducing the burden of proof provides the government with greater access to PLPs than would be available under other theories of liability. More PLPs will be subject to enforcement agency action by basing liability on a PLP's status

as a participant in the activity causing the harm, and not on the PLP's wrongful or negligent behavior in connection with the activity (Murphy and Caron 1988).

The assignment of the burden of proof is one of the most significant rulings a court can make; it may determine the entire outcome of a case. Accordingly, PLPs have fought vigorously in court to avoid joint and several liability. Once an enforcement agency meets its minimal burden of proof, the only feasible way to avoid joint and several liability may be to provide the means to trace wastes found at a site to a particular generator or transporter (Prager 1987). However, this possibility for relief may be available only in theory. Disputes increasingly involve sophisticated technical and legal concepts that are very difficult for both judges and juries to assimilate. Because of this, federal courts are increasingly reluctant to take on the task of determining if the harm is apportionable. Joint and several liability provides them with the means of circumventing the task.

Another extremely controversial aspect of joint and several liability is that enforcement agencies may name only a handful of viable PLPs in the initial cost recovery action (Cohen 1988). The targeted PLPs are then left with the substantial burden of identifying and suing the PLPs who did not participate in settlement (i.e., in a contribution action). In general, PLPs who have not been named by an enforcement agency may have little incentive to enter into voluntary settlement. If they choose to enter into settlement on a voluntary basis, they are likely to be burdened with the full cost of the contribution action against nonsettling PLPs. If they choose not to enter into voluntary settlement, their financial outlays might be limited to defending a contribution action (that may never be initiated). It is clear that some PLPs choose the latter option because it appears to be the most cost-effective. PLPs may change this position as enforcement agencies make greater use of their powers to assess treble damages against the PLPs who do not participate in voluntary settlement (under CERCLA Section 107(c)(3), and MTCA Section 5.1(a); [RCW 70.105D.050(1)(a)]).

As a matter of public policy, voluntary participation in settlement proceedings is desirable because the burden of remediation would be more equitably distributed among PLPs, there would be less litigation, and the cleanup could proceed more quickly. Viable methods of encouraging voluntary settlement is one area ripe for review when CERCLA comes up for reauthorization in 1991.

Because MTCA is too new to have been judicially tested, CERCLA cases were reviewed for precedent and to provide interpretation of significant liability issues that have been considered by federal courts.

LIABILITY UNDER CERCLA

One factor that has contributed to the large volume of PLP lawsuits is that no particular standard of liability was mandated in CERCLA (Prager 1987). Several law review articles and cases that were reviewed for this paper did not

discuss this omission; rather, blanket assertions were made stating that CERCLA required the application of joint and several liability (see Murphy and Caron 1988; Cohen 1988). While two preliminary versions of CERCLA contained sections mandating joint and several liability, the version enacted deleted any reference to joint and several liability [see CERCLA Section 107(a), which states that a PLP "shall be *liable* for . . . " with no further standard designated].

Courts acknowledging the omission of a liability standard in CERCLA nevertheless encountered significant problems in determining the standard actually intended by Congress. A number of courts adopted the liability standard set forth in United States v. Chem-Dyne Corp., 572 F. Supp. 802 (S.D. Ohio 1983) for CERCLA cases. In this case, the court stated that CERCLA's legislative history indicated a congressional intent to "avoid a mandatory legislative standard applicable to all situations which might produce inequitable results in some cases." It determined that joint and several liability was "omitted [from CERCLA] in order to have the scope of liability determined under common law principles, where a court performing a case-by-case evaluation of the complex factual scenarios . . . will assess the propriety of applying joint and several liability on an individual basis." However, the court also determined that the act's silence did not reflect a wholesale rejection of joint and several liability; the standard is applicable if the damages cannot be apportioned.

The Chem-Dyne holding was expanded in United States v. A&F Materials, Inc., 578 F. Supp. 1249 (S.D.Ill. 1984), where the court stated that it may reject joint and several liability even when it determines that the harm is indivisible, if the facts of the case point to a more fair apportionment. However, the court also stated:

The characteristics of a typical waste disposal site and the characteristics of the waste disposal industry itself, make the issue of joint and several liability a critical one. Due to commingling and chemical reactions in tanks and lagoons, it will be very difficult if not impossible in some cases for the government to prove which generator is responsible for the leakage. The imposition of joint and several liability will in effect put the burden on defendants. Moreover, with joint and several liability, the government will be able to recover its entire costs, including costs actually caused by unknown or insolvent generators.

As a practical matter, whether CERCLA requires joint and several liability may be relevant only in a semantic sense. Even courts advocating a moderate case-by-case approach (i.e., in accordance with Chem-Dyne and A&F Materials) have rarely been able to find reasonable grounds for apportionment. Although this tempest has been brewing since CERCLA's enactment in 1980, Congress failed to clarify the issue in 1986 in SARA. However, the House commented during SARA hearings that it "fully subscribes to the reasoning of the court in the

seminal case of [Chem-Dyne], which established a uniform federal rule allowing for joint and several liability in *appropriate* (emphasis added) CERCLA cases" (1986 U.S. Code Cong. & Ad. News, 1835).

The intensity of the debate regarding the use of joint and several liability in CERCLA cases may diminish significantly in response to the U.S. Supreme Court's March 1990 refusal to hear a case challenging EPA's use of the standard. In American Cyanamid Co. and Rohm & Haas Co. v. James E. O'Neil, U.S.S.C. 89-843 (cert. denied), the U.S. Supreme Court rejected the PLPs' challenge of an assessment of joint and several liability for their contributions to a waste site, when only 0.5 percent (85 barrels) of the 20,000 barrels found at the site could be indisputably traced to the PLPs. An indication of the effect of this rejection was reported by EPA in April 1990. EPA reported that a pending challenge of joint and several liability against a *de minimis* PLP was dropped in favor of settlement as soon as the Supreme Court's decision to reject American Cyanamid's appeal was made public (Inside EPA—Superfund Report, 11 April 1990). Although it is conceivable that a different set of facts could lead to a different outcome (e.g., where there is a complete lack of indisputable evidence of a PLP's contribution to contamination at a site), it appears that joint and several liability will be the judicially preferred standard in the vast majority of pollution cases.

LIABILITY UNDER THE MODEL TOXICS CONTROL ACT

Unlike CERCLA, MTCA requires mandatory application of joint and several liability by the courts. MTCA Section 1.4 [RCW 70.105D.010(4)] states:

Because it is often difficult or impossible to allocate responsibility among persons liable for hazardous waste sites and because it is essential that sites be cleaned up well and expeditiously, each responsible person should be liable jointly and severally.

MTCA Section 4.2 further states that "each person who is liable under [Section 4] is strictly liable, jointly and severally, for all remedial action costs and for all natural resources damages resulting from the releases or threatened releases of hazardous substances."

Entities subject to joint and several liability may have attempted to argue that the standard is not applicable to a particular case, in accordance with analogous CERCLA challenges. However, the U.S.S.C. rejection of American Cyanamid may result in a significant reduction of challenges to any enforcement agencies' use of joint and several liability.

DEFENSES

There are very few statutory defenses available to PLPs under either MTCA or CERCLA. (Certain PLPs are exempted by statute from liability if their involvement with the contamination site is involuntary. See the following section on PLPs for a discussion of these statutory exemptions.) CERCLA caselaw has consistently disallowed attempts to include other traditional legal and equitable defenses. As stated in Chemical Waste Management v. Armstrong World Industries, 669 F. Supp. 1285 (E.D.Pa. 1987), courts will not "engage in judicial legislation that would reshape CERCLA's liability scheme." Defenses that have been asserted in CERCLA litigation are discussed in this section.

MTCA and CERCLA provide very similar statutory defenses to joint and several liability. As a general rule, the statutory defenses are all strictly construed by courts and may be available in very limited situations.

CERCLA provides the following defenses, exemptions, and exceptions to liability:

- A PLP is not liable for a release that is caused solely by an act of God, an act of war, or an act of a third party not in a contractual relationship with the party seeking to use the defense
- A PLP who purchased a contaminated site may be exempt from liability if there was no actual knowledge of the contamination, or reason to suspect contamination, prior to the purchase (i.e., the "innocent landowner" defense)
- A PLP is not liable for a release of pesticides applied in accordance with the Federal Insecticide, Fungicide and Rodenticide Act
- A state or local government is exempt from PLP liability if it acquires ownership of a contaminated site involuntarily (e.g., through bankruptcy, foreclosure, tax delinquency, or abandonment).

MTCA provides the following defenses, exemptions, and exceptions to liability:

- A PLP is exempt from liability arising from a release that is caused solely by an act of God, an act of war, or an act of a third party not in a contractual relationship with the party seeking to use the defense
- A PLP who purchases a contaminated site is exempt from liability if there was no actual knowledge or reason to suspect contamination prior to the purchase

- A natural person (i.e., not a corporation) who uses a hazardous substance without negligence for personal or domestic purposes is exempt from liability
- A person who uses pesticides or fertilizers without negligence for the purpose of growing food crops is exempt from liability
- A state agency or local government acquiring ownership of a hazardous waste facility involuntarily (i.e., through bankruptcy, tax delinquency, abandonment), is excused from liability
- A person who holds a security interest only and does not participate in day-to-day management of the property is excused from liability.

None of the statutory defenses are available to a PLP who causes or contributes to the harm, even if the PLP otherwise meets the requirements for the defense. For example, even if a release appears to be caused solely by an event outside the control of the PLP, the PLP may still be held liable if the event was reasonably foreseeable.

EPA is currently drafting guidelines for the level of inquiry required before the innocent landowner defense may be invoked by a PLP. SARA currently requires PLPs to make "all appropriate inquiry," with the sufficiency of the inquiry examined by EPA on a case-by-case basis (Inside EPA—Superfund Reports, 25 April 1990).

Apportionment

It is theoretically possible to convince a court that joint and several liability is not applicable with sufficient evidence that an accurate apportionment can be performed. While this approach appears to be increasingly futile (especially in the wake of American Cyanamid), technological advancements and meticulous recordkeeping may yet convince a court that fingerprinting of wastes is possible.

In general, whether an injury is capable of apportionment is a question that can only be answered by the particular facts of the case. Many cases never get to court because the threat of joint and several liability eventually convinces PLPs to settle. Of the cases that reach a judge or jury, there is little indication of the thought processes leading to the apportionment decision. Juries often make decisions on gut instinct because thoughtful consideration of the evidence is not always possible; judges also may rely on the knowledge of experts to help with scientific issues in pollution cases.

However, Chem-Dyne provided some guidance for courts deciding the issue. The ruling in this case suggested that a defendant seeking apportionment must prove all of the following:

- The volume and toxicity of hazardous waste
- The actual and potential migratory patterns of the substance
- The contribution of the defendant's wastes to the hazardous material that has commingled in the storage facility.

Evidence of volumetric contribution alone is clearly not sufficient to prove that apportionment is feasible [United States v. Monsanto Co., 858 F.2d 160 (4th Cir. 1988)]. Citing Chem-Dyne, the court stated that volumetric contribution of wastes alone cannot be used to accurately predict risk because toxicity or migratory potential of a hazardous substance varies independently of volume.

The A&F Materials court provided more specific guidance for the apportionment question in the form of the "Gore factors." The Gore factors base the question of feasibility of apportionment on:

- The ability of the parties to demonstrate that their contribution to a discharge, release, or disposal of a hazardous waste can be distinguished from other wastes found at the site
- The amount of the hazardous waste involved
- The degree of toxicity of the hazardous waste
- The degree of involvement of the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste
- The degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such hazardous waste,
- The degree of cooperation by the parties with federal, state, or local officials to prevent harm to the public health or the environment.

[Rep. Gore, as cited in H.R. 7020, 96th Cong. 2nd Sess. Section 3071(3)(A), 126 Cong. Rec. 26,579 (1980)].

The viability of the Gore factors is not clear. Prager (1987) stated that using the factors "may add another enormously complex phase to an already mind-numbing trial." However, the factors continue to be cited by courts as acceptable criteria for the apportionment determination, and some legislatures have codified

them (e.g., California). Cases were not discovered during the research for this report that indicated successful (i.e., court-approved) implementation of the factors.

The probability that an apportionment will not be attempted by a court is increased when the other contributors to the pollution are insolvent or otherwise not available. Therefore, even if a PLP is able to show a reasonable basis for apportionment, joint and several liability will be imposed if he is the only source of recovery (Prager 1987). Recent cases consistently illustrate this, despite the acknowledgment by some courts that joint and several liability would not be equitable to deep pocket defendants who contributed a comparatively small amount of waste (A&F Materials).

Despite the theoretical availability of apportionment, courts appear to be increasingly reluctant to address the issue on even the most basic level. The Monsanto court stated that it was not necessary to address the question of feasibility of apportionment in the initial cost recovery action; it held that the apportionment determination may be made in a contribution action. Similarly, the court in United States v. Mottolo, 695 F. Supp. 615 (D.N.H. 1988) stated that the liability of the defendants need not be determined before deciding the appropriateness of joint and several liability. The holdings in Monsanto and Mottolo do not seem consistent with Chem-Dyne and A&F Materials, which appear to require an inquiry into the feasibility of apportionment before determining the applicability of joint and several liability. The implications of Monsanto and Mottolo are that the determination of the applicable standard may be made in a summary fashion, and apportionment as a defense may be available only in theory. A distinction may exist, however, in the case of pre-release attempts to establish guidelines for apportionment. While evidence of volumetric contribution is not sufficient to rebut joint and several liability in the government's cost recovery action, an agreement among PLPs to an apportionment based on that standard may be valid in the contribution action. CERCLA does not forbid contractual agreements to apportion liability among PLPs as long as there is no violation of public policy.

Equitable Defenses

Equitable defenses were conceived by courts to supplement legal (statutory) defenses. The defenses usually involve issues of fairness that must be addressed on a case-by-case basis; they are not readily codified. The main equitable defenses are set forth below:

- Estoppel—This doctrine is a "catch-all" category, designed to encompass situations where a party should not be allowed to sue for reasons of fairness.

- Laches—A party who has failed to bring suit within a reasonable amount of time will be prevented from suing by the doctrine of laches. Laches may be invoked in the absence of an applicable statute of limitations.
- Waiver—When a party has indicated by word or deed his assent to the event that forms the subject of the litigation, he may have waived his right to sue.
- Unjust Enrichment—A party with a legal right to sue may nevertheless be foreclosed from doing so if the award of damages would result in a benefit that was undeserved (i.e., where a technicality is invoked).
- Unclean Hands—A party with a legal basis for recovery but who is guilty of some wrongdoing in connection with the suit is said to have unclean hands. All or a portion of his damages may be denied by a court under this doctrine.

Because environmental liability is based almost wholly on a PLP's status and not on behavior (in accordance with standards of strict liability), traditional equitable defenses are generally not allowed in CERCLA cases. They are presumably not available by analogy under MTCA because of the similar underlying public policies. However, the Southland court held that "equitable considerations are applicable in allocating the amount of contribution between parties under CERCLA" While equitable considerations may not be important in a cost recovery action, they may be available to effect an apportionment in contribution actions.

Sovereign Immunity

Historically, sovereign immunity was used to provide vital protection for state and federal government agencies seeking to avoid prosecution for statutory violations. That protection has been eroded considerably by legislatures and courts in all areas of the law.

Citizen Suits Against Governmental Agencies—In 1988, a federal court dismissed a private party's claims against a state on the grounds that the state was entitled to rely on its Eleventh Amendment (sovereign) immunity to avoid prosecution in federal court. Although the court acknowledged that CERCLA evidenced an intent to remove state immunity by making "any party" subject to suit [CERCLA Section 107(a)], the court stated that Congress could not unilaterally limit a state's Eleventh Amendment rights [United States v. Freeman, 680 F. Supp. 73 (1988)]. However, on 15 June 1989 the U.S. Supreme Court held that the commerce clause of the U.S. Constitution authorizes Congress to

limit a state's immunity from citizen suits when a state law unduly interferes with Congress' ability to direct the flow of interstate commerce (Pennsylvania v. Union Gas Co., 57 U.S.L.W. 4662). A case is pending before the Supreme Court to decide the issue of citizen suits against the federal government (Manuel Lujan, Jr., Secretary of the Interior, et al. v. National Wildlife Federation, et al., U.S.S.C. 89-640).

State Suits against the Federal Government—In accordance with the decision reached in Maine v. Department of the Navy (No. 86-0211-P, D.Me. 11/23/88), federal governmental agencies are vulnerable to suit by a state for violations of state environmental laws, if the state laws are sufficiently objective, quantifiable, and subject to uniform application. The Maine court held that the federal government waived its immunity from prosecution for violations of state law under Section 6001 of the Resource Conservation and Recovery Act. However, there are still restrictions on the ability of either a state or federal enforcement agency to assess penalties against the federal government for violations that occur on federal property. A bill (S. 1140) designed to limit the government's immunity from such penalties has passed the House and is pending in the Senate.

Bankruptcy

There are significant conflicts and overlaps between the Bankruptcy Act and environmental laws, with no clear indication of a pending reconciliation. Environmental claims are not currently included in the debts that are nondischargeable in bankruptcy. As a result, courts have adopted increasingly creative decision-making to wrestle with the conflicting public policies involved in pollution/bankruptcy cases. An overview of the most significant cases is provided below.

In 1985, the U.S. Supreme Court suggested that it would allow a trustee in bankruptcy to abandon property requiring cleanup if the costs of cleanup would burden the estate. The abandonment would shift responsibility for the cleanup to the prior owner [Ohio v. Kovacs, 469 U.S. 274 (1985)]. However, in 1986 it ruled that trustees could not abandon such property if the abandonment would violate state law [Midlantic National Bank v. New Jersey Department of Environmental Protection, 474 U.S. 494 (1986)].

Some lower courts have attempted to circumvent the ruling set forth in Midlantic. For example, a bankruptcy court recently permitted a trustee to abandon contaminated property without a closure plan, in violation of state law and over the objections of state agencies [In Re Oklahoma Refining Co., 63 Bankr. 562 (1986)]. The court stated that Midlantic only required that state environmental laws be "taken into consideration" by the court before deciding the abandonment issue. Similarly, a bankruptcy court permitted a trustee to abandon

drums of hazardous waste over the objections of state agencies, stating that Midlantic only required that precautionary measures be adopted to ensure that there is no imminent danger to the public [In Re Franklin Signal Corp., 65 Bankr. 268 (1986)].

The Supreme Court in Midlantic also noted that it was not ruling on whether state laws would be upheld if they imposed conditions on abandonment that would interfere to an unacceptable degree with the bankruptcy adjudication itself. MTCA Section 2.6(b) [RCW 70.105D.020(6)(b)] specifically imposes owner or operator status (and accompanying liability) on "any person who had owned, or operated, or exercised control over the facility any time before its abandonment." Compare this with MTCA Section 4.1(b) [RCW 70.1050(1)(b)], which holds past owners and operators liable *only* if they owned or operated the site at the time of release. It appears that there is no such limitation on the liability of PLPs of abandoned facilities. It may be possible, therefore, for a PLP to be held liable for a release that did not occur during its association with the facility in the aftermath of any type of abandonment (including bankruptcy). While this may not constitute a burden on bankruptcy proceedings, it poses a substantial burden to past owners and operators who have a prior association with an abandoned site.

This provision is probably designed to induce past PLPs to perform voluntary remedial action at the abandoned site. However, PLPs undertaking voluntary cleanup on behalf of bankrupt PLPs may find their claims against the estate denied or relegated to a lower priority for repayment. The 9th Circuit held that the landlord of property contaminated by a bankrupt tenant was not entitled to reimbursement of cleanup costs as an administrative expense [In Re Dant & Russell, Inc., 853 F.2d 700 (9th Cir. 1988)]. Further, the 11th Circuit held that PLPs may be protected under the bankruptcy laws from other PLPs seeking reimbursement of cleanup costs in a contribution action based on joint and several liability. The court stated that the joint and several liability claims were not permitted under the Bankruptcy Act because they were not for a specific amount and were contingent [In re Charter Co., 1/11/89 1036 (11th Cir.)]. These decisions may do much to dissuade PLPs from taking voluntary remedial action.

The most recent case is U.S. v. Chateaugay Corp., Reomar, Inc. and LTV Corp., et al., State of New York v. LTV Steel Co., Inc., 87 Civ. 8144 (JES), 88 Civ. 0834 (JES), D.C.NY. The court based its ruling on the issue of timing of the release or threatened release leading to the claim. The court stated that if the event occurred prior to filing for bankruptcy, the claim could be discharged. The LTV Steel court affirmed earlier decisions holding that environmental claims in general are dischargeable under the Bankruptcy Act.

Constitutional Challenges

Arguments that CERCLA's liability scheme is a violation of the due process clause of the U.S. Constitution have been raised recently by PLPs in district

court. There are indications that PLPs are meeting with a degree of success in courts by asserting that their due process rights were violated. Overzealous enforcement agency action may have deprived PLPs of the opportunity or ability to perform voluntary remedial actions, in contravention of their right to be notified and respond to allegations of wrongdoing. See United States v. Atlantic Richfield Co., CV-89-39-BU, D.C.Mt. (1990) for an explanation of one challenge based on due process.

POTENTIALLY LIABLE PARTIES

Liability is not likely to differ substantially among PLPs under either CERCLA or MTCA. This reflects the general intent of Congress and state legislatures to increase an enforcement agency's authority to reach as many PLPs as possible so that resources for remediation are maximized. As stated by the Chemical Waste Management court, "two of CERCLA's primary objectives are the prompt cleanup of hazardous waste sites and the provision of effective incentives for the careful handling of hazardous wastes in the future. One means of achieving those objectives is to 'spread the risks' of liability among *all* parties involved in hazardous waste disposal." Therefore, the essential determinant for PLP liability will be the degree to which an entity may participate in activities at a disposal facility before PLP status will be acquired.

DEFINITIONS

Both MTCA and CERCLA have broadly-defined categories of PLPs. CERCLA Section 107(a) and MTCA Section 4 impose liability on four categories of PLPs (i.e., owners, operators, generators, and transporters), with no significant differences between the federal and state categories.

In addition, under MTCA Section 2.8 [RCW 70.105D.020(8)], entities who do not fall neatly within the categories of PLPs specifically defined in MTCA Section 4 may nevertheless be found liable if Ecology has credible evidence of liability. Therefore, PLP liability may be expanded indefinitely, depending on the interpretation of Section 2.8. It is likely that Ecology will be given much discretion to determine the credibility of the evidence in light of MTCA Section 6 (RCW 70.105D.060), which instructs courts to "uphold [Ecology's] actions unless they are arbitrary or capricious."

Owners and Operators of a Facility

Under MTCA Section 2.6 [RCW 70.105D.020(6)], an owner or operator is a "person with any ownership interest in the facility or who exercises any control over the facility" A "person" is defined in Section 2.7 [RCW 70.105D.020(7)] as any individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, state government agency, unit of local government, federal government agency, or Indian tribe. A "facility" is

very broadly defined in MTCA Section 2.3 [RCW 70.105D.020(3)]; almost any site (stationary or mobile) where a hazardous substance (other than a consumer product in consumer use) is found may be a "facility" under MTCA.

MTCA Section 4.1(a) [RCW 70.105D.040(1)(a)] imposes liability on the present owner or operator of a facility, regardless of the time of disposal or release of a substance. Thus, a present owner or operator is held to the highest accountability and may be held liable for releases occurring before he had any connection with the facility. Courts have long held that ownership alone is sufficient to impose liability, even without participation in the management or operation of a business found liable for response costs. As decided in United States v. Argent Corp., 21 Env't. Rep. Cas. (BNA) 1354 (D.N.M. 1984), a landowner who merely leased a warehouse to a company operating a silver recovery business was held liable for costs incurred by the government in responding to a spill of sodium cyanide. Ownership appears to be the category most subject to strict liability.

Under Section 4.1(b) [RCW 70.105D.040(1)(6)], a past owner or operator of a facility will also be liable if he owned or operated the facility at the time of disposal or release of the substance. This limited liability of past owners and operators may not be as limited as it seems; proving the timing of disposal or release of a particular substance may be a formidable task.

CERCLA Section 107(k)(1) provides that the liability of owners and operators for releases from closed facilities that were permitted under subtitle C of the Solid Waste Disposal Act may be transferred to the postclosure liability fund (CERCLA Section 232). Although MTCA does not appear to contain an analogous provision, CERCLA Section 107(k)(1) also states that it applies to liability imposed by CERCLA or by *any other law* (including, perhaps, MTCA).

Whether a state agency is vulnerable to PLP status is likely to depend on the degree of involvement it maintains in any hazardous substance treatment and disposal program. Recent decisions may indicate that states are protected from PLP status if they strictly limit their roles to regulatory activity. One court exempted a state agency from liability when it merely regulated a site and did not participate in hands-on management [see, e.g., United States v. Dart Industries, Inc., 847 F.2d 144 (4th Cir. 1988)]. In New York v. City of Johnstown, Nos. 87-CV-636, -637 (N.D.N.Y. 12/13/88), the court held that a state was not a PLP merely because it permitted the disposal of a hazardous substance, in the absence of any actual direction to dispose of wastes at a facility.

Transporters

Transporters may also be held liable under MTCA Section 4.1(d) [RCW 70.105D.040(1)(d)], which imposes liability on any person who:

- Accepts hazardous substances for transport to a facility from which there is a release requiring remedial action, unless the facility could legally receive the substance at the time of the release; or
- Accepts a hazardous substance for transport to a facility where there are reasonable grounds to believe that the facility is not operated in accordance with RCW 70.105.

Obviously, there are two significant questions of fact that could be sources of transporter litigation. It may be difficult to fix the time of release with sufficient accuracy to impose liability on a transporter under the first provision. In addition, proving that a transporter had "reasonable grounds to believe that the facility was not operated in accordance with [law]" may be difficult, depending on whether a subjective or objective standard is used. Neither of these concerns may be of great importance, given the fact that the burden of proof is on the transporter.

A recent court decision indicated that some releases (including, perhaps, minimal amounts of substances released during transport) may be too small to merit an assessment of liability (Amoco Oil Co. v. Borden, Inc., No. 88-2860 (S.D.Tx.)). The court rejected EPA's view that no minimum amount of pollution was needed to establish liability. It stated that CERCLA's statutory purposes would be exceeded if it found a party liable for releases that did not pose a threat to the public or the environment. (This case may also be useful for limiting the liability of PLPs who can show that they were *de minimis* contributors to wastes at a site.)

Generators

Generators may be held liable under Section 4.1(c) [RCW 70.105D.040(1)(c)], which imposes liability on "any person who owned or possessed a hazardous substance and who, by contract, agreement, or otherwise arranged for disposal or treatment of the hazardous substance at a facility . . . or who otherwise generated a substance that was disposed of at the facility."

CERCLA's generator liability test was established by the court in United States v. Wade, 577 F. Supp. 1326 (E.D.Pa. 1983) and United States v. South Carolina Recycling and Disposal, Inc., 20 Env't. Rep. Cas. (BNA) 1753 (D.S.C. 1984). In Wade, the court held that the government need not fingerprint wastes before designating a generator as a PLP under CERCLA. The government need only show that the generator's wastes were disposed of at a site and that hazardous substances present in the generator's wastes are present at the site. The South Carolina Recycling court agreed with Wade, holding that the government need not show a direct connection between a generator and hazardous substances at a site, or that the generator was more than a *de minimis* contributor to the contamination.

LEGAL METHODS OF APPORTIONING LIABILITY

This section provides an extended discussion of the court-authorized methods of apportioning liability, and provides legal citations for the information contained in the main report.

CONTRIBUTION ACTIONS

Contribution actions are suits initiated by PLPs against other PLPs for recoupment of cleanup costs and damages that have been assessed by a governmental enforcement agency in the aftermath of a release. CERCLA Section 107(a) permits PLPs who have been assessed joint and several liability in a government action to initiate a contribution action against nonsettling PLPs to recoup some of the costs of cleanup. MTCA Section 4.4(d) [RCW 70.105D.040(4)(d)] implicitly permits contribution claims by protecting only PLPs who resolve their liability to the state from claims for recoupment. MTCA Section 4.5 [RCW 70.105D.040(5)] also preserves the right of all parties to sue under other statutory or common law theories for damages resulting from a release.

There is a great deal of precedent that permits a court in the government cost recovery action to relegate the issue of apportionment to the contribution action (see Monsanto and Mottolo, discussed earlier in this paper). The rationale for severing the apportionment issue is that it results in a simplified cost recovery action but does not eliminate the opportunity for a full hearing in the subsequent contribution action.

However, a court held recently that joint and several liability may also be applied in appropriate contribution cases (Allied Corp.). The Allied PLPs disputed the applicability of joint and several liability under CERCLA Section 107(a), because claims permitted under that section were for "contribution." The PLPs argued that use of the term "contribution" in the act implies that a determination of each defendant's individual, or several, liability must be made. The court rejected this reasoning, stating that Section 107(a) provides that claims for recoupment among PLPs *may* be in the nature of a contribution action. The permissiveness of the language led the court to conclude that it was free to apply joint and several liability in appropriate contribution actions. As the rationale for its decision, the court stated:

. . . a [PLP] which is otherwise amenable to cleaning up may be discouraged from doing so if it knows that, where the harm is

indivisible, its only recourse for reimbursement is contribution from the solvent [PLPs]. A prohibition against joint and several liability would leave the willing [PLP] holding the bag for the insolvent companies. On the other hand a willing [PLP] would be encouraged to clean up where the law leaves open the possibility that the [PLP] could recover all costs as against nonwilling, solvent [PLPs] under a theory of joint and several liability.

Although the court sought to encourage early PLP remedial action by holding out the promise of full recovery of costs under joint and several liability, this goal may be accomplished at the expense of increased PLP litigation as each PLP seeks to recoup more of its costs.

Given the inherent difficulty of determining apportionment in pollution cases, other courts may use the joint and several liability option set forth in Allied to circumvent the process altogether. This result may not fulfill the intent of Congress to "avoid a mandatory legislative standard applicable to all situations which might produce inequitable results in some cases" (Chem-Dyne). The only certain way to avoid an assessment of joint and several liability under Allied will be to participate in voluntary settlement (one of the goals of environmental legislation); however, it does nothing to preserve a PLP's right to a full and fair hearing of the issues.

According to pre-Allied court rulings, evidence of apportionment, nonstatutory defenses, and mitigating factors may be used to rebut or limit liability in a contribution action. Contractual defenses, such as indemnity, are also available only in the contribution action. However, post-Allied courts may apply joint and several liability without a meaningful inquiry into any of the evidence showing degrees of culpability or the existence of contractual clauses designed to allocate liability among PLPs. The Allied decision may have far reaching effects, rendering contractual (and other) protections virtually meaningless.

CONTRACTS

There is a general consensus among courts that contracts between PLPs are enforceable in the absence of conflicting public policy. As stated by the court in Chemical Waste Management, CERCLA does not abrogate the parties' contractual rights [relying on Section 107(e)(1) to support this determination]. While joint and several liability for the government's cost recovery action cannot be contracted away, CERCLA does not preclude or invalidate other liability apportionment agreements among PLPs (Boyd et al. 1986). A brief discussion of some of the contractual methods for managing liability is set forth below.

Indemnification Agreements

The enforceability of indemnification clauses is determined by state law, which is based on both legislative and judicial decisions regarding whether the agreements are contrary to public policy. In general, states permit indemnification for strict liability activities. Typically, indemnification is also permitted by states for damages resulting from negligence. However, indemnification is not usually permitted for intentional wrongdoing (Dore 1988).

Under CERCLA, a PLP will not be able to use an indemnification agreement to shift its responsibility for damages in the government's cost recovery action. However, a court may order a cost reallocation in accordance with a valid indemnification clause in a subsequent PLP contribution action, depending on the facts of the case (Southland).

General contractual indemnification clauses may not be adequate to effect a cost reallocation based on CERCLA claims. In Southland, a seller was not released from liability for disposals that occurred prior to a sale when the sales contract did not specifically include an indemnification clause for such releases. The clause in Southland was drafted prior to CERCLA's enactment and provided for a release from "all claims, demands and causes of action." The court stated that although the company was not "expected to have presciently referred to CERCLA in an agreement which was executed two years prior to the statute's enactment . . . some clear transfer or release of future 'CERCLA-like' liabilities is required."

Courts have expanded general contract law for purposes of CERCLA litigation in at least one important way. As a general rule, contract law does not permit one party to extract a second fee for services that were required but not performed properly under the first fee. However, courts have interpreted CERCLA Section 107(e)(1) to permit all parties to seek contribution, regardless of the true cause of the damage. For example, an operator who accepts a hazardous substance for disposal and then negligently causes a release may still seek contribution from the party contributing the substance to the facility (Chemical Waste Management). Therefore, even when damages are wholly attributable to the acts of one PLP, other PLPs with any connection to the substances may be assessed a portion (or all) of the remediation costs and damages to natural resources. The Chemical Waste Management court stated that "if owner/operators and generators wish to redistribute the risks distributed by Congress, they must do so clearly and unequivocally." This is the type of liability that may be eliminated with a carefully drafted indemnification clause.

MTCA and CERCLA both provide enforcement agencies with broad powers to indemnify contractors providing remedial action [see MTCA Section 3.1(c)]. There would be few contractors willing to undertake cleanup action without such protection. However, the U.S. General Accounting Office asked EPA to place

a dollar limit on contractor indemnification agreements; the office stated that excessive use of blanket indemnification agreements by EPA violates SARA (U.S. EPA 1989).

INTERAGENCY MEMORANDA OF UNDERSTANDING

MOUs are governmental tools used to define the varying scopes of authority of federal and state agencies and local governments involved in a joint enterprise. Jurisdictional problems are beginning to arise between state and federal enforcement agencies as states become more able to take on the burden of remediating sites within state borders. Buchholz (1989) describes such clashes between EPA and the states of Colorado, Maryland and Montana, where litigation over what are described as "turf issues" significantly impeded remedial efforts undertaken by states. MOUs may be used to settle jurisdictional questions before they become troublesome issues.

MOUs may not shield agencies from contribution claims in certain instances, however. In United States v. Moore, 28 Env't. Rep. Cas. (BNA) 1150 (E.D. Va. 1988), the court permitted contribution counterclaims against the Department of Defense even though an MOU containing a settlement agreement had been entered into with EPA, and despite CERCLA clauses protecting settling PLPs from future contribution actions. The court disallowed the settlement set forth in the MOU because there were no applicable procedures for a public comment period to ascertain if the settlement was in the public interest, and because the court interpreted CERCLA as not envisioning that type of settlement.

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