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Statement No. 49 of the
Governmental Accounting
Standards Board

**Accounting and Financial Reporting for
Pollution Remediation Obligations**



Governmental Accounting Standards Board
of the Financial Accounting Foundation

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Summary

This Statement addresses accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of *existing* pollution by participating in pollution remediation activities such as site assessments and cleanups. The scope of the document excludes pollution *prevention* or *control* obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and postclosure care and nuclear power plant decommissioning.

As illustrated in the flowchart in paragraph 106, once any one of five specified obligating events occurs, a government is required to estimate the components of expected pollution remediation outlays and determine whether outlays for those components should be accrued as a liability or, if appropriate, capitalized when goods and services are acquired. Obligating events include the following:

- The government is compelled to take pollution remediation action because of an imminent endangerment.
- The government violates a pollution prevention–related permit or license.
- The government is named, or evidence indicates that it will be named, by a regulator as a responsible party or potentially responsible party (PRP) for remediation, or as a government responsible for sharing costs.
- The government is named, or evidence indicates that it will be named, in a lawsuit to compel participation in pollution remediation.
- The government commences or legally obligates itself to commence pollution remediation.

Pollution remediation outlays should be capitalized in government-wide and proprietary fund financial statements, subject to certain limitations, only if the outlays are incurred (1) to prepare property for sale in anticipation of a sale, (2) to prepare property for use when the property was acquired with known or suspected pollution that was expected to be remediated, (3) to perform pollution remediation that restores a pollution-

caused decline in service utility that was recognized as an asset impairment, or (4) to acquire property, plant, and equipment that have a future alternative use other than remediation efforts.

Most pollution remediation outlays do not qualify for capitalization and should be accrued as a liability (subject to modified accrual provisions in governmental funds) and expense when a range of expected outlays is reasonably estimable or as an expenditure upon receipt of goods and services. If a government cannot reasonably estimate the range of all components of the liability, it should recognize the liability as the range of each *component* (for example, legal services, site investigation, and required postremediation monitoring) becomes reasonably estimable. In government-wide and proprietary fund financial statements, the liability should be recorded at the current value of the costs the government expects to incur to perform the work. This amount should be estimated using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average.

For pollution remediation obligations that are not common or similar to situations at other sites with which the government has experience, this Statement includes a series of recognition benchmarks—steps in the remediation process—that governments should consider in determining when components of pollution remediation liabilities are reasonably estimable. Thus, the measurable transactions and events that result in a pollution remediation liability may be relatively limited at initial recognition but would increase over time as more components become reasonably estimable. This Statement

also requires remeasurement of the liability (and its components) when new information indicates increases or decreases in estimated outlays.

The measurement of a government's pollution remediation liability should include remediation work that the government expects to perform for other parties; however, expected recoveries from those other parties, and insurance recoveries, reduce the measurement of the government's pollution remediation expense when reasonably estimable (and reduce associated expenditures when the recoveries are measurable and available). If the expected recoveries are not yet realized or realizable, they also would reduce the measurement of the government's pollution remediation liability. If the expected recoveries are realized or realizable, they should be reported as recovery assets (for example, cash or receivables).

For recognized pollution remediation liabilities and recoveries, this Statement requires governments to disclose the nature and source of pollution remediation obligations, the amount of the estimated liability (if not apparent from the financial statements), the methods and assumptions used for the estimate, the potential for changes in estimates, and estimated recoveries that reduce the measurement of the liability. Governments are required to disclose a general description of the nature of pollution remediation activities for liabilities (or components thereof) that are not reasonably estimable.

The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2007, with measurement of pollution remediation liabilities required at the beginning of that period so that beginning net assets can be restated. However, governments that have sufficient objective and verifiable information to apply

the expected cash flow technique to measurements in prior periods are required to apply the provisions retroactively for all such prior periods presented.

How This Statement Will Improve Financial Reporting

This Statement will enhance comparability of financial statements among governments by requiring all governments to account for pollution remediation obligations in the same manner, including required reporting of pollution remediation obligations that previously may not have been reported. This Statement also will enhance users' ability to assess governments' obligations by requiring more timely and complete reporting of obligations as their components become reasonably estimable. Current standards (NCGA Statement 4, *Accounting and Financial Reporting Principles for Claims and Judgments and Compensated Absences*, and Financial Accounting Standards Board (FASB) Statement No. 5, *Accounting for Contingencies*) do not require recognition of pollution remediation liabilities until after they are judged to be probable of occurrence. This causes a number of expected liabilities not to be reported. Additionally, current standards require the liability to be reported as a single-point estimate, which may not consider all potential outcomes. For example, FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss*, requires recognition of the low end of a range of estimated pollution remediation outlays when no amount within a range is a better estimate than any other amount. This causes reporting of liabilities at amounts that may differ significantly from the expected amounts (the amounts that, on average, will be

incurred). This Statement will improve financial reporting by requiring consideration of recognition once an obligating event occurs and by requiring reporting of liabilities using the expected cash flow measurement technique.

Unless otherwise specified, pronouncements of the GASB apply to financial reports of all state and local governmental entities, including general purpose governments; public benefit corporations and authorities; public employee retirement systems; and public utilities, hospitals and other healthcare providers, and colleges and universities. Paragraph 2 discusses the applicability of this Statement.

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Standards Board

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November 2006



Governmental Accounting Standards Board
of the Financial Accounting Foundation
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INTRODUCTION

1. The objective of this Statement is to enhance the usefulness and comparability of **pollution remediation obligation**¹ information reported by state and local governments by setting uniform standards requiring more timely and complete reporting of those obligations and by requiring all governments to account for pollution remediation obligations in the same manner, including required reporting of pollution remediation obligations that previously may not have been reported.

STANDARDS OF GOVERNMENTAL ACCOUNTING AND FINANCIAL REPORTING

Scope and Applicability

2. This Statement establishes standards for accounting and financial reporting for pollution remediation obligations, as discussed in paragraphs 5 and 6. This Statement applies to all state and local governments.²

¹Terms in the Glossary are shown in **boldface type** the first time they appear in this Statement.

²This Statement applies to business-type activities and enterprise funds that apply Financial Accounting Standards Board (FASB) Statement No. 71, *Accounting for the Effects of Certain Types of Regulation*. Those business-type activities and enterprise funds should report a regulatory asset related to a pollution remediation loss when appropriate in accordance with the provisions of FASB Statement 71.

3. This Statement amends paragraphs 42 and 43 of NCGA Statement 1, *Governmental Accounting and Financial Reporting Principles*, paragraph 14 of NCGA Statement 4, *Accounting and Financial Reporting Principles for Claims and Judgments and Compensated Absences*, paragraph 5 of NCGA Interpretation 6, *Notes to the Financial Statements Disclosure*, paragraph 1 of GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, as amended, and paragraphs 9, 11, and 14 and footnote 7 of GASB Interpretation No. 6, *Recognition and Measurement of Certain Liabilities and Expenditures in Governmental Fund Financial Statements*, to provide specific reporting guidance for pollution remediation obligations, including disclosure requirements.

4. This Statement does not apply to the following:

- a. Landfill closure and postclosure care obligations within the scope of GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*.
- b. Other future pollution remediation activities that are required upon retirement of an asset (asset retirement obligations, such as nuclear power plant decommissioning) during the periods preceding the retirement.³ However, this Statement applies to those activities *at the time of the retirement* if obligating events are met and a liability has not been recorded previously.
- c. Recognition of asset impairments⁴ or liability recognition for unpaid claims by insurance activities.⁵
- d. Pollution prevention or control obligations with respect to current operations as discussed in paragraph 6, or to fines, penalties, and other nonremediation outlays discussed in paragraph 7.

³The government's policy for accounting for asset retirement obligations may need to be disclosed in the summary of significant accounting policies as discussed in paragraph 158 of NCGA Statement 1.

⁴Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*, provides guidance for asset impairments within its scope.

⁵Governments that retain risk for pollution remediation liability contingencies should apply the provisions of this Statement for recognition of such liabilities. Statement 10, as amended, provides guidance for liability recognition by insurance-related activities within its scope.

- e. Accounting for nonexchange transactions, such as brownfield redevelopment grants.⁶

Pollution Remediation Obligations

5. A pollution remediation obligation is an obligation to address the current or potential detrimental effects of existing **pollution** by participating in pollution remediation activities. For example, obligations to clean up spills of **hazardous wastes** or **hazardous substances** and obligations to remove contamination such as asbestos are pollution remediation obligations. Pollution remediation activities include the following:

- a. Pre-cleanup activities, such as the performance of a **site assessment**, site investigation, and corrective measures feasibility study, and the design of a remediation plan
- b. Cleanup activities, such as neutralization, containment, or removal and disposal of pollutants, and site restoration
- c. External government oversight and enforcement-related activities, such as work performed by an environmental regulatory authority dealing with the site and chargeable to the government
- d. Operation and maintenance of the remedy, including required monitoring of the remediation effort (postremediation monitoring).

Not all pollution remediation obligations will involve all of the above activities. For example, asbestos removal typically will not involve postremediation monitoring.

6. Pollution remediation obligations do not include pollution prevention or control obligations with respect to current operations, such as obligations to install smokestack scrubbers, treat effluent, or use environment-friendly products—for example, low-sodium road salts.

⁶Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, provides guidance for nonexchange transactions within its scope.

Outlays for Pollution Remediation Activities

7. Pollution remediation **outlays** include all direct outlays attributable to pollution remediation activities (for example, payroll and benefits, equipment and facilities, materials, and legal and other professional services) and may include estimated indirect outlays (including general overhead). Outlays related to natural resource damage (for example, revegetation outlays) are included only if incurred as part of a pollution remediation effort. The following outlays are not part of performing pollution remediation and should not be included: fines, penalties, toxic torts⁷ (civil wrongs arising from exposure to a toxic substance), product and process (workplace) safety outlays, litigation support involved with potential recoveries, and outlays borne by society at large rather than by a specific government.

8. Outlays for operation and maintenance of a remedial action, including postremediation monitoring required by a remedial action plan, are part of pollution remediation rather than a separate future service obligation. Postremediation monitoring estimates should take into account that such outlays are not likely to extend indefinitely. As discussed in paragraph 18, estimates should be reassessed periodically.

Pollution Remediation Obligations Generally Reported as Liabilities

9. Pollution remediation obligations generally will result in recognition and reporting of pollution remediation liabilities, as discussed in paragraphs 10–21. In certain instances, an obligation to participate in pollution remediation activities will result in recognition

⁷Accrual of contingent liabilities for fines, penalties, and toxic torts is discussed in FASB Statement No. 5, *Accounting for Contingencies*.

and reporting of capital asset transactions at the time those assets are acquired, as discussed in paragraph 22.

Recognition and Measurement of Pollution Remediation Liabilities

Recognition and Measurement Framework

10. This Statement establishes a framework for the recognition and measurement of pollution remediation liabilities that incorporates the following interrelated features:

- a. *Obligating Events:* Once an obligating event occurs, a government should determine whether one or more components of a pollution remediation obligation are recognizable as a liability. (See paragraph 11.)
- b. *Components and Benchmarks:* Components of a liability (for example, legal services, site investigation, or required postremediation monitoring) should be recognized as they become reasonably estimable. This Statement provides *benchmarks* for evaluating when various components become reasonably estimable. (See paragraphs 12 and 13.)
- c. *Measurement, Including the Expected Cash Flow Technique:* Measurement is based on the **current value** of outlays expected to be incurred. (See paragraphs 14 and 15.) The components of the liability should be measured using the **expected cash flow technique**, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. (See paragraphs 16 and 17.)

Obligating Events

11. When a government knows or reasonably believes that a site is polluted, the government should determine whether one or more components of a pollution remediation obligation are recognizable as a liability⁸ when any of the following events occurs:

- a. The government is compelled to take remediation action because pollution creates an imminent endangerment to public health or welfare or the environment, leaving it little or no discretion to avoid remediation action.⁹

⁸Additional requirements for recognition in governmental funds are discussed in paragraph 24.

⁹This criterion applies to events that compel a government to take remediation action even if no law requires such action. It is not limited to, for example, the **Superfund** law or the **Resource Conservation and Recovery Act (RCRA)**, which provide the federal government with authority to enforce remediation actions when pollution causes an *imminent and substantial endangerment*.

- b. The government is in violation of a pollution prevention–related permit or license, such as a **Resource Conservation and Recovery Act (RCRA)** permit or similar permits under state law.
- c. The government is named, or evidence indicates that it will be named, by a regulator as a responsible party or **potentially responsible party (PRP)** for remediation, or as a government responsible for sharing costs.¹⁰
- d. The government is named, or evidence indicates that it will be named, in a lawsuit to compel the government to participate in remediation.¹¹
- e. The government commences, or legally obligates itself to commence,¹² cleanup activities or monitoring or operation and maintenance of the remediation effort.¹³ If these activities are voluntarily commenced and none of the other obligating events have occurred relative to the entire site, the amount recognized should be based on the portion of the remediation project that the government has initiated and is legally required to complete.

Recognition Benchmarks

12. Pollution remediation liabilities should be recognized as the ranges of their components become reasonably estimable (subject to the provisions in paragraph 24 for governmental funds). In some cases, the government may have insufficient information to reasonably estimate the ranges of all components of its liability. In these cases, the government should recognize pollution remediation liabilities as the range of each component of the liability (for example, legal services, site investigation, or required postremediation monitoring) becomes reasonably estimable. In other cases, a government will be able to reasonably estimate a range of all components of its liability early in the process because the site situation is common (for example, the remediation involves only

¹⁰For example, section 104(c)(3) of the Superfund law, as amended [42 U.S.C. 9604(c)(3)], requires in part that states pay or ensure payment of 10 percent of the cost of remedial action, and 100 percent of the cost of operations and maintenance, at sites that were privately owned or operated and for which no financially viable PRP can be found.

¹¹There is a presumption that a lawsuit can be excluded from consideration if it is substantially the same as a lawsuit previously determined to be without merit in relevant judicial determinations.

¹²For example, a government that sells polluted land may obligate itself to perform remediation activities as part of the agreement of sale. Also, a government may voluntarily sign a consent decree making itself a responsible party for cleanup activities.

¹³If a government legally obligates itself to commence pre-cleanup work, such as a **remedial investigation and feasibility study (RI/FS)**, it should include that work in the amount that it is legally required to complete.

the routine removal of underground storage tanks [USTs] in accordance with a UST program for fuel storage tanks) or is similar to situations at other sites with which the government has experience.¹⁴ In such cases, the entire estimated liability should be recognized at this stage.

13. The range of an estimated remediation liability often will be defined and periodically refined, as necessary, as different stages in the remediation process occur. Certain stages of a remediation effort or process and of responsible party or PRP involvement provide benchmarks that should be considered when evaluating the extent to which a range of potential outlays for a remediation effort or process is reasonably estimable. Benchmarks should not, however, be applied in a manner that would delay recognition beyond the point at which a reasonable estimate of the range of a component of a liability can be made. The recognition benchmarks that follow typically apply to pollution remediation obligations that are not common or similar to situations at other sites with which the government has experience. At a minimum, the estimate of a pollution remediation liability should be evaluated as each of these benchmarks occurs.

- a. *Receipt of an administrative order.* A government may receive an administrative order compelling it to take a response action at a site or risk penalties. Such response actions may be relatively limited, such as the performance of a **remedial investigation and feasibility study (RI/FS)** at a Superfund site or performance of a removal action, or they may be broad, such as remediation of a site.

The ability to estimate outlays resulting from administrative orders varies with factors such as site complexity and the nature and extent of the work to be performed. The benchmarks that follow should be considered in evaluating the ability to estimate such outlays insofar as the actions required by the administrative order involve these benchmarks. (For example, asbestos removal typically would not involve completion of an RI/FS.) The outlays associated with performing the

¹⁴If a government estimates remediation outlays using, for example, state-wide averages developed by a state environmental regulator, the averages should be evaluated to ensure that they are applicable to the polluted site. Such averages may not be applicable if the site situation is not common or has unique characteristics.

requisite work generally are estimable within a range, and recognition of a remediation liability for this work generally should not be delayed beyond this point.

- b. *Participation, as a responsible party or a PRP, in the site assessment or investigation.* At this stage, the government (and possibly others) has been identified as a responsible party or a PRP and has agreed to pay all or part of a study that will investigate the extent of the environmental impact of the release or threatened release of pollutants and to identify site-remediation alternatives. Further, the total outlay associated with the site assessment or investigation generally is estimable within a reasonable range. In addition, the identification of other PRPs and their agreement to participate in funding the site assessment or investigation typically provide a reasonable basis for determining the government's allocable share of the site assessment or investigation. At this stage, additional information may be available regarding the extent of environmental impact and possible remediation alternatives. This additional information, however, may or may not be sufficient to provide a basis for reasonable estimation of the total remediation liability. At a minimum, the government should recognize its share of the estimated total outlays associated with the site assessment or investigation.

As the site investigation proceeds, the government's estimate of its share of the site investigation can be refined. Further, additional information may become available based on which the government can refine its estimates of other components of the liability or begin to estimate other components. For example, a government may be able to estimate the extent of environmental impact at a site and to identify existing alternative remediation technologies. A government also may be able to better identify the extent of its involvement at the site relative to other PRPs, the universe of PRPs may be identified, negotiations among PRPs and with federal and state Environmental Protection Agency (EPA) representatives may occur, and information may be obtained that significantly affects the agreed-upon method of remediation.

- c. *Completion of a corrective measures feasibility study.* At substantial completion of the corrective measures feasibility study, both a range of the remediation outlays and the government's allocated share generally will be reasonably estimable.

The corrective measures feasibility study should be considered substantially complete no later than the point at which the responsible party or PRPs recommend a proposed course of action to the regulatory authority (for example, the U.S. EPA). If the government had not previously concluded that it could reasonably estimate all components of the remediation liability, recognition should not be delayed beyond this point, even if uncertainties remain (for example, allocations to individual PRPs and potential recoveries from third parties can be estimated; however, they have not been finalized). Uncertainties about the degree and probabilities of participation by other PRPs should be factored into the measurement of the liability as discussed in paragraphs 19–21.

- d. *Issuance of an authorization to proceed.* At this point, the regulatory authority has issued its determination (for example, an EPA record of decision) specifying a preferred remedy. Normally, the government and other PRPs have begun, or perhaps completed, negotiations, litigation, or both for their allocated share of the remediation liability. Accordingly, the government's estimate normally can be

refined based on the specified preferred remedy and a preliminary allocation of the total remediation outlays.

- e. *Remediation design and implementation, through and including operation and maintenance, and postremediation monitoring.* During the design phase of the remediation, the government develops a better understanding of the work to be done and is able to provide more precise estimates of the total remediation outlays. Further information likely will become available at various points until site remediation work is completed, subject only to postremediation monitoring. The government should continue to refine its estimate of its liability as this additional information becomes available.

Measurement Based on Expected Outlays

14. Pollution remediation liabilities should be measured based on the pollution remediation outlays expected to be incurred to settle those liabilities. Profits and risk premiums that another party would demand to perform pollution remediation work should be included in the measurement of the government's liability only if the government expects to utilize another party to perform the work.

Measurement at Current Value

15. Pollution remediation liabilities should be measured at their current value. Because settlement of a pollution remediation liability is not always possible in the current period, settlement can involve future events. The current value of a pollution remediation liability should be based on *reasonable and supportable* assumptions about future events that may affect the eventual settlement of the liability. For example, the current value of a pollution remediation liability should be based on applicable federal, state, or local laws or regulations that have been *approved*, regardless of their effective date, and the existing technology *expected to be used* for the cleanup. The probabilities of these various expectations affect the probability-weighted measurement of the liability under the expected cash flow technique discussed in paragraphs 16 and 17.

Measurement of the Expected Cash Flow

16. Pollution remediation liabilities should be measured using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. This technique uses all expectations about possible cash flows.

17. Some reasonable estimates of ranges of possible cash flows will be limited to a few discrete scenarios or a single scenario, such as an amount specified in a contract for pollution remediation services. Other reasonable estimates of ranges of possible cash flows will have many nondiscrete scenarios (a continuous distribution). In such cases, a government may have access to considerable data and may be able to develop many cash flow scenarios. However, even in cases in which a government has access to only limited data about the possible cash flows within a range, a limited number of discrete scenarios and probabilities should be developed that capture the array of possible cash flows. In developing those scenarios, a government could use actual cash flows for other pollution remediation projects,¹⁵ if available, adjusted for changes in circumstances. Each application of the expected cash flow technique will differ based on the facts and circumstances of each measurement situation, available information, and judgments applied. Such judgments include determining whether to apply a continuous or discrete probability distribution and, if a discrete probability distribution is applied, the number of discrete scenarios.¹⁶

¹⁵For example, state-wide averages developed by a state environmental regulator. See footnote 14.

¹⁶For example, an estimated cash flow might be represented by discrete scenarios of \$100, \$200, or \$300 with probabilities of 10 percent, 60 percent, and 30 percent, respectively. The expected cash flow (and resulting liability) is \$220, calculated as follows: $(\$100 \times 0.1) + (\$200 \times 0.6) + (\$300 \times 0.3)$. A continuous distribution would average *all* scenarios in the range.

Remeasurement

18. As discussed in paragraph 13, estimates of a pollution remediation liability should be adjusted when benchmarks are met or when new information indicates changes in estimated outlays due to, for example, changes in the remediation plan or operating conditions. These changes may include the type of equipment, facilities, and services that will be used, price increases or reductions for specific outlay elements such as ongoing monitoring requirements discussed in paragraph 8, changes in technology, and changes in legal or regulatory requirements.

Accounting for Recoveries

19. Under the expected cash flow technique, the measurement of a government's pollution remediation liability should include all remediation work that the government expects to perform, including work expected to be performed for other responsible parties or PRPs, whether or not the government is required to do that work. Expected recoveries from those other parties, and expected insurance recoveries from policies that indemnify the government for its pollution remediation obligations, also should be included in the measurement by reducing¹⁷ the expense¹⁸ and affecting the liability as follows:¹⁹

- a. If the expected recoveries are *not yet* realized or realizable, they should reduce the measurement of the government's pollution remediation liability.²⁰

¹⁷The requirement to reduce the measurement of remediation expenses and liabilities, respectively, by the amount of expected payments or insurance recoveries addresses issues specific to pollution remediation obligations.

¹⁸Additional requirements for governmental funds are discussed in paragraph 24.

¹⁹Paragraph 13 notes that the degree and probabilities of participation by other parties affect the measurement of the liability.

²⁰Expected recoveries, or portions thereof, that are expected to result in capital assets, as discussed in paragraph 22, should not reduce the measurement of the government's pollution remediation expense or liability. Those recoveries should be reported as capital contributions (revenue).

b. If the expected recoveries *are* realized or realizable, they should be recognized separately from the liability as recovery assets (for example, cash or receivables).²¹

20. Expected recoveries from other responsible parties, PRPs, and insurers should be measured consistently with the related pollution remediation outlays (based on their current value and using the expected cash flow technique). Paragraphs 21 and 22 of Statement 42 provide guidance for determining when an insurance recovery is realized or realizable. An insurance recovery generally is realizable when the insurer admits or acknowledges coverage, potentially before covered outlays take place.

21. If recoveries become expected in periods following the completion of all remediation work, such that a pollution remediation liability no longer exists, those transactions should be recorded, for example, as revenue and cash or accounts receivable, when they are realized or realizable. Display requirements for recoveries are provided in paragraphs 23 and 24.

Capitalization of Pollution Remediation Outlays

22. Except as provided below, pollution remediation outlays, including outlays for property, plant, and equipment, should be reported as an expense when a liability is recognized as discussed in paragraphs 12–21.²² For example, a pump-and-treat system to

²¹For example, if expected outlays are \$10,000 and expected recoveries of \$3,000 are realized or realizable, the pollution remediation expense would be \$7,000, the recovery asset would be \$3,000, and the pollution remediation liability would be \$10,000. If the pollution remediation liability had previously been recorded at a net amount of \$7,000 because the recovery was not yet realized or realizable, the liability would be increased by \$3,000 when the \$3,000 recovery asset is recorded because it becomes realized or realizable.

²²Additional requirements for recognition in governmental funds are discussed in paragraph 24.

be installed for pollution remediation generally would be reported as an expense at the time a liability is recognized. Some projects (for example, land improvements, remodeling, and periodic dredging of a waterway for shipping), for which the primary objective is other than pollution remediation, may include pollution remediation activities. Except as provided below, incremental outlays attributable to pollution remediation activities (outlays that would not be incurred absent pollution) should be reported as an expense when a pollution remediation liability is recognized. Pollution remediation outlays should be capitalized in the government-wide and proprietary fund statements when goods and services are acquired if acquired for any of the following circumstances:

- a. To prepare property in anticipation of a sale. In this circumstance, governments should capitalize only amounts that would result in the carrying amount of the property not exceeding its estimated fair value upon completion of the remediation.
- b. To prepare property for use when the property was acquired with known or suspected pollution that was expected to be remediated. In this circumstance, governments should capitalize only those pollution remediation outlays expected to be necessary to place the asset into its intended location and condition for use, as discussed in paragraph 18 of Statement No. 34, *Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments*, as amended.²³
- c. To perform pollution remediation that restores a pollution-caused decline in service utility that was recognized as an asset impairment.²⁴ In this circumstance, governments should capitalize only those pollution remediation outlays expected to be necessary to place the asset into its intended location and condition for use, as discussed in paragraph 18 of Statement 34, as amended.²⁵

²³In determining outlays expected to be necessary to place an asset into its intended location and condition for use, governments should consider that not all increases in expected outlays are appropriately considered to be necessary. For example, if a pollution remediation project would not have been initiated had anticipated outlays been as high as those actually incurred, a government generally should not capitalize all of the outlays. In certain circumstances, the outlays originally expected to be incurred may be indicative of the amount necessary to place the asset into its intended location and condition for use.

²⁴In some instances, such as remediation of oil contamination in land, pollution removal or containment outlays also may restore lost service utility. In other instances, such as removal of asbestos insulation preparatory to replacing it with nontoxic insulation, pollution removal outlays may not restore lost service utility.

²⁵In the case of restoration of an impaired asset, the outlays necessary to obtain a similar unimpaired asset, less the book value of the impaired asset, may be indicative of the amount necessary to place the asset into its intended location and condition for use. See also footnote 23.

- d. To acquire property, plant, and equipment that have a future alternative use. In this circumstance, outlays should be capitalized only to the extent of the estimated service utility that will exist after pollution remediation activities uses have ceased.²⁶

For outlays under criteria a and b, capitalization is appropriate only if the outlays take place within a reasonable period prior to the expected sale or following acquisition of the property, respectively, or are delayed, but the delay is beyond the government's control.

Display in Government-wide and Proprietary Fund Financial Statements

23. Pollution remediation costs (or revenue, in circumstances discussed in paragraph 21) should be reported in the statement of activities and statement of revenues, expenses, and changes in fund net assets, if appropriate, as a program or operating expense²⁷ (or revenue), special item, or extraordinary item in accordance with the guidance in paragraphs 41–46, 55, 56, 101, and 102 of Statement 34.

Display in Governmental Fund Financial Statements

24. For goods and services used for pollution remediation activities, amounts that are normally expected to be liquidated with expendable available financial resources should be recognized as liabilities upon receipt of those goods and services. The accumulation of resources in a governmental fund for eventual payment of unmatured general long-term indebtedness, including pollution remediation liabilities, does not constitute an outflow of current financial resources and should not result in the recognition of an additional governmental fund liability or expenditure. In the statement of revenues, expenditures, and changes in fund balances, any facilities and equipment acquisitions for pollution remediation activities should be reported as expenditures. Estimated recoveries of

²⁶For example, outlays for unpolluted land generally would be fully capitalized.

²⁷See footnote 2.

pollution remediation outlays from insurers and other responsible parties or PRPs for which the government is performing remediation activities should reduce any associated pollution remediation expenditures when the recoveries are measurable and available.

Disclosures

25. For recognized pollution remediation liabilities and recoveries of pollution remediation outlays, governments should disclose the following:

- a. The nature and source of pollution remediation obligations (for example, federal, state, or local laws or regulations)
- b. The amount of the estimated liability (if not apparent from the financial statements), the methods and assumptions used for the estimate, and the potential for changes due to, for example, price increases or reductions, technology, or applicable laws or regulations
- c. Estimated recoveries reducing the liability.

26. For pollution remediation liabilities, or portions thereof, that are not yet recognized because they are not reasonably estimable, governments should disclose a general description of the nature of the pollution remediation activities.

EFFECTIVE DATE AND TRANSITION

27. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2007. Governments that have sufficient objective and verifiable information to apply the expected cash flow technique to measurements in prior periods should apply the provisions of this Statement retroactively for all such prior periods presented. Governments that do not have that information should apply the provisions of this Statement as of the effective date. In that case, pollution remediation liabilities should be measured at the beginning of that period so that beginning net assets can be restated. In the period this Statement is first applied, the financial statements should disclose the nature of any restatement and its effect. Also, the reason for not

restating prior periods presented should be explained. Early application of this Statement is encouraged.

**The provisions of this Statement need
not be applied to immaterial items.**

*This Statement was issued by unanimous vote of the seven members of the
Governmental Accounting Standards Board:*

Robert H. Attmore, *Chairman*
Cynthia B. Green
William W. Holder
Edward J. Mazur
Marcia L. Taylor
Richard C. Tracy
James M. Williams

GLOSSARY

28. This paragraph contains definitions of certain terms *as they are used in this Statement*; the terms may have different meanings in other contexts.

Current value

The amount that would be paid if all equipment, facilities, and services included in the estimate were acquired during the current period.

Expected cash flow technique

A technique that measures a liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. This technique uses all expectations about possible cash flows.

Hazardous wastes; Hazardous substances

Wastes and substances that are toxic, corrosive, ignitable, explosive, or chemically reactive, or appear on special U.S. Environmental Protection Agency lists. This includes wastes and substances listed in 33 U.S.C. §2701(23), and 42 U.S.C. §6903(5) and §9601(14). The definition of hazardous *substance* under the Superfund law is broader than the definition of hazardous *wastes* under RCRA. As used in this Statement, the terms *hazardous waste* and *hazardous substance* also include materials designated by state environmental regulators.

Outlays

Expenses, expenditures, and capital acquisitions, as appropriate.

Pollution

The U.S. Environmental Protection Agency provides the following discussion of the term *pollution* on its website: “Generally, the presence of a substance in the environment that because of its chemical composition or quantity prevents the functioning of natural processes and produces undesirable environmental and health effects. Under the Clean Water Act, for example, the term has been defined as the man-made or man-induced alteration of the physical, biological, chemical, and radiological integrity of water and other media.”

Pollution remediation obligation

An obligation to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities. For example, obligations to clean up spills of hazardous wastes or hazardous substances and obligations to remove contamination such as asbestos are pollution remediation obligations.

Potentially responsible party (PRP)

An individual or entity—including owners, operators, transporters, or generators—that is held potentially responsible for pollution at a site. As used in this Statement, the term refers to a party that is held by law as potentially responsible for pollution at any site. It is not limited to parties associated with Superfund sites.

Remedial investigation and feasibility study (RI/FS)

Extensive technical studies to investigate the scope of site impacts (RI) and determine the remedial alternatives (FS) that, consistent with the National Contingency Plan provisions of the federal Superfund law or similar state laws, may be implemented at a polluted site. An RI/FS may include a variety of on- and off-site activities, such as monitoring, sampling, and analysis.

Resource Conservation and Recovery Act (RCRA)

A federal law that provides comprehensive regulation of hazardous wastes from point of generation to final disposal. All generators of hazardous waste, transporters of hazardous waste, and owners and operators of hazardous waste treatment, storage, or disposal facilities must comply with the applicable requirements of the statute.

Site assessment

A site-specific baseline risk assessment that identifies hazards, assesses exposure to the hazards and their toxicity, and characterizes and quantifies the potential risks posed by the site. A site assessment may be noninvasive, involving inquiry into previous uses of a site, site reconnaissance, and interviews (a Phase I site assessment), or may involve invasive testing for pollution (a Phase II site assessment).

Superfund

A federal law (the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], as amended by the Superfund Amendments and Reauthorization Act of 1986 [SARA], which together are referred to as Superfund) that provides the U.S. Environmental Protection Agency with broad authority to order liable parties to remediate polluted sites or use Superfund money to remediate them and then seek to recover its costs and additional damages.

Appendix A

BACKGROUND INFORMATION

29. In response to concerns about the impact of pollution on health, welfare, and the environment, Congress passed a series of laws regulating the release of pollutants into the environment—for example, the Clean Air Act in 1970, the Resource Conservation and Recovery Act (RCRA) in 1976, and the Clean Water Act in 1977. These laws generally regulate releases of pollutants into the air, ground, and water, respectively. Many states have enacted analogous statutes. Congress also passed the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, generally referred to as Superfund), which provides broad federal authority to clean up abandoned or uncontrolled hazardous waste sites that may endanger public health or the environment.

30. Superfund places responsibility for pollution remediation upon current and previous owners or operators of polluted sites, including some owners who may not have been aware that their property is polluted. Superfund also places remediation responsibilities upon parties that arranged for disposal of hazardous substances at a polluted site and parties that transported those substances to the site.

31. Legal liability under Superfund is strict, meaning that a party is responsible without regard to the party's fault, whether or not the party complied with all then-current requirements, having exercised "due care" or having disposed of waste at an approved facility. Legal liability under Superfund also is joint and several, meaning that any party deemed responsible for any of the pollution can be held responsible for the entire cleanup effort, regardless of how little pollution that party had contributed. The U.S.

Environmental Protection Agency (EPA) may order a responsible party or parties to perform pollution remediation or may perform remediation itself using Superfund money and then seek to recover outlays and additional damages. Parties that perform more than their share of remediation work may seek to recover outlays from other parties that are responsible for pollution at the site.

32. Superfund also calls for coordinated cleanup efforts between federal and state agencies to address pollution remediation at sites placed on the EPA's National Priorities List (NPL), the list of sites with the highest priorities for long-term remediation. Among other things, once the EPA determines that a site included on the NPL warrants remedial action, states are required to pay or assure payment of 10 percent of the cost of remedial action and 100 percent of the cost of operations and maintenance for sites that were privately owned or operated and for which no financially viable potentially responsible party can be found.

33. Although Superfund sites can pose significant obligations on state and local governments, studies of state cleanup programs have found that states spend substantially more money on their non-Superfund site cleanups than they spend on Superfund site cleanups.²⁸ These studies also show that the substantial number of cleanups completed has yet to cause a significant reduction in the inventory of sites needing some type of cleanup.

34. In 1991, in response to requests to address accounting and reporting for the effects of federal regulations on landfill closure, the GASB established a landfill closure costs project. At that time, the GASB recognized that many governments would be facing

²⁸*An Analysis of State Superfund Programs: 50-State Study, 2001 Update*, Environmental Law Institute®, Washington, DC, ELI Project #981621.

significant liabilities arising from other environmental laws and regulations and that a more comprehensive project should be considered at a future date.

35. In 1996, in response to a need to clarify the application of Financial Accounting Standards Board (FASB) Statement No. 5, *Accounting for Contingencies*, and related pronouncements to liabilities resulting from pollution remediation obligations, the American Institute of Certified Public Accountants (AICPA) issued Statement of Position (SOP) 96-1, *Environmental Remediation Liabilities*. However, the SOP was not made applicable to governments, and GASB research indicated that not many governments were applying its guidance.

36. A survey of the members of the Governmental Accounting Standards Advisory Council conducted in 2001 indicated that a project on environmental liabilities was important and should be added to the GASB's agenda. The project came onto the active agenda in June 2002 with a comprehensive examination of environmental liabilities of governments and the extent to which they are or are not reported. That examination found that some governments have significant obligations for site cleanups and that many governments faced issues in applying NCGA Statement 4, *Accounting and Financial Reporting Principles for Claims and Judgments and Compensated Absences*, which requires application of FASB Statement 5, to their cleanup obligations. Based on the results of the research, the GASB decided to move forward with a project to provide specific accounting and reporting guidance.

37. The project, as originally envisioned, was intended to comprehensively examine environmental liabilities including those related to *past, current, and future* activity,

including environment-related asset retirement obligations and including a reexamination of the requirements of Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*. In November 2002, based on the results of research, the GASB narrowed the scope of the project to focus on the issues most in need of guidance: issues specific to pollution (including contamination) remediation obligations. The GASB may, in the future, address other environmental issues such as pollution prevention obligations and asset retirement obligations.

38. In January 2003, the GASB assembled an advisory group eventually comprising 12 members broadly representative of the GASB's constituency and of pollution remediation professionals. Advisory group members reviewed and commented on papers prepared for the Board's deliberations and on drafts of this Statement.

39. The GASB originally anticipated that this project initially would result in the issuance of an Exposure Draft of a proposed Statement of Governmental Accounting and Financial Reporting Standards. However, due to concerns about the proposed use of the expected cash flow technique and the impact that technique could have on other aspects of governmental accounting, in November 2003 the GASB approved a change in the project technical plan calling for the issuance of a Preliminary Views document prior to an Exposure Draft. The Preliminary Views was issued in March 2005. Thirty-nine respondents commented on the proposals in the Preliminary Views, either in writing or at a public hearing held in June 2005.

40. After consideration of respondent comments and testimony on the proposals in the Preliminary Views, the Board issued an Exposure Draft in January 2006. Following

consideration of the 45 respondent comment letters on the proposals in the Exposure Draft, the GASB issued this Statement.

41. In arriving at the conclusions presented in this Statement, the GASB considered its own standards and those of the International Public Sector Accounting Standards Board, FASB, AICPA, Federal Accounting Standards Advisory Board, United Nations Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting, and ASTM International.

Appendix B

BASIS FOR CONCLUSIONS

42. This appendix summarizes factors considered significant by the Board members in reaching the conclusions in this Statement. It includes discussion of alternatives considered and the Board's reasons for accepting some and rejecting others. Individual Board members may have given greater weight to some factors than to others.

Scope and Applicability

43. As noted in Appendix A, prior to adding pollution liability issues to the current agenda, the GASB conducted a comprehensive examination of environmental liabilities of governments and the extent to which they are or are not reported. The results of that research indicated that accounting and financial reporting issues associated with pollution *remediation* obligations were the area most in need of guidance. In setting the scope of this Statement, the Board also considered what other standards setters and organizations have considered in their environmental accounting projects and guidance. Some of that guidance is broader than the scope of this Statement, in part because others have focused on *environmental* liabilities and the term *environment* comprehends more than just pollution (for example, natural resource restoration and recycling). However, this Statement addresses only pollution remediation obligations, such as obligations of responsible parties and potentially responsible parties (PRPs) at Superfund and non-Superfund sites; Superfund state cost-matching obligations; obligations to clean "orphaned" sites; brownfield redevelopment efforts; cleanups of leaking underground storage tanks; and asbestos removal obligations.

44. The Board concluded that some issues that could involve pollution should be excluded from the scope because existing guidance sufficiently addresses those issues. For example, the Board decided that this Statement, like Statement of Position (SOP) 96-1, *Environmental Remediation Liabilities*, should not include liability recognition for unpaid claims by insurance activities or recognition of asset impairments. Recognition of unpaid claims generally is covered by Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, which applies to programs that insure external parties for, for example, storage tank cleanup costs. Recognition of asset impairments is addressed in Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*. The Board also concluded that asset retirement obligations that involve pollution, such as obligations to decommission and decontaminate nuclear power plants, represent a different set of accounting issues than present obligations to address existing pollution and, therefore, has excluded those obligations from the scope of the Statement. Footnote 3 notes that the government's policy for accounting for asset retirement obligations may need to be disclosed in the summary of significant accounting policies.

45. Because this Statement addresses only pollution remediation obligations, it also excludes pollution prevention and control activities, fines, penalties, toxic torts, product safety outlays, and so forth.

Impact on Remediation Efforts, Including Brownfields

46. The Board notes that this Statement does not require governments to do any additional remediation efforts at polluted sites than they otherwise would be required to do.

47. The Board also does not believe that this Statement will have a major impact on brownfields redevelopment efforts. In instances in which governments acquire brownfields for development and use, or clean up brownfields to prepare them for sale, the provisions of this Statement require capitalization of the cleanup costs when they are incurred rather than recording of expenses and related liabilities potentially in earlier periods. Only those outlays that are expected to exceed the capitalization limit would be accrued as a liability. (See Example 1 in Appendix C.) If a government already owns brownfield property and voluntarily commences cleanup activities, not to prepare the property for sale but to prepare it for use by the government, then the provisions of this Statement require accrual of a liability only for the portion that the government has initiated and is legally required to complete.

Pollution Remediation Obligations

48. Paragraph 5 states that a pollution remediation obligation is “an obligation to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities,” including pre-cleanup activities, cleanup activities, government oversight and enforcement-related activities, and operation and maintenance including postremediation monitoring. These activities are derived primarily from those found in SOP 96-1, with amendments to provide an example of the meaning of government oversight and enforcement-related activities and to clarify that site cleanup activities can include measures that do not *remove* pollution, such as neutralization or containment measures. The GASB’s research indicates that this list is appropriate but may not be exhaustive. In-kind services that a regulator may require a government to provide in lieu of monetary payments, such as construction of an access road to a polluted site,

could be included. However, the Board identified accounting for in-kind contributions as a potential project and chose not to address that topic at this time.

49. This Statement excludes pollution prevention and control activities (such as obligations to install smokestack scrubbers, treat effluent, or use environment-friendly products), unless they are part of a pollution remediation activity, because those obligations are not *remediation* obligations. Like asset retirement obligations that involve pollution, pollution prevention and control obligations represent a different set of accounting issues than do pollution remediation obligations. For the same reason, this Statement excludes drinking water filtration systems and other systems whose primary purpose is to prepare resources for use rather than to conduct pollution remediation.

Pollution Remediation Outlays

50. As discussed in paragraph 14, this Statement uses a cost-accumulation approach to measuring pollution remediation obligations. Therefore, this Statement also addresses which costs should be included in the measurement. (This Statement refers to *outlays*, rather than *costs*—an accrual-based notion—as a way of addressing accounting in both government-wide and proprietary fund financial statements, and in governmental fund financial statements.)

51. This Statement considers operation, maintenance, and required monitoring of a pollution remediation effort to be part of pollution remediation obligations, rather than separate future service obligations, because the same events (pollution) give rise to all of those obligations. Further, those activities are a continuation of the remediation effort.

52. The Board notes that fines, penalties, toxic torts, product safety outlays (such as safety equipment), and so forth, are excluded from the measurement provisions of various other environmental standards. Likewise, the Board believes that those items should not be included in the measurement of pollution remediation outlays because they are not attributed primarily to pollution *remediation* activities.

Allocations

Overhead

53. Paragraph 7 states that “pollution remediation outlays include all direct outlays attributable to pollution remediation activities . . . and may include estimated indirect outlays. . . .” The Board considered inclusion of only incremental outlays, as does SOP 96-1; however, the Board believes that, conceptually, a pollution remediation liability should include all outlays that will be incurred to settle it, not just incremental outlays. Nevertheless, this Statement provides that professional judgment be used to determine how to account for indirect outlays (including overhead) as long as allocations, if any, are reasonable. The Board is aware that differing judgments about inclusion of indirect outlays will affect comparability between governments; however, the Board believes that prescribing allocation methods is beyond the scope of this Statement.

Payroll and Benefits

54. This Statement requires governments to accrue direct payroll and benefits when a pollution remediation liability is recognized rather than when services are rendered. This is consistent with the requirements of Statement 18, which requires closure and postclosure care costs to be accrued as a landfill is filled rather than in the future periods when services are rendered.

55. Just as under Statement 18 for landfill liabilities, the Board believes that including pension and other postemployment benefits (OPEB) in pollution remediation liabilities will impact subsequent accruals under Statements No. 27, *Accounting for Pensions by State and Local Governmental Employers*, and No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. The Board considered addressing methodologies for allocating pension and OPEB outlays to pollution remediation liabilities and reducing subsequent accruals under Statements 27 and 45; however, as discussed in paragraph 53, the Board believes that prescribing allocation methods is beyond the scope of this Statement.

Obligating Events

56. The Board considered requiring recognition of *all* legal liabilities or moral obligations to perform pollution remediation but, instead, believes that recognition should not occur until an obligating event occurs. Pollution remediation generally is not required unless a site is known to be polluted, and governments often are not required to determine whether a site is polluted unless there is an indicator of pollution at levels that would require remediation. State or local governments may be legally responsible for cleaning some or all orphaned sites (sites for which no financially viable responsible party can be found), but those sites generally are prioritized and remediation of lower priority sites may not occur for many years. The speed with which governments commence some remediation actions may be dependent on the availability of resources to carry out that work.

57. The Board believes that the obligating events in paragraph 11 are evidence that a government has a reasonable expectation that an outflow or sacrifice will occur, and

recognition of the components of a liability would then be required if the outflows or sacrifices can be measured. That is, once an obligating event occurs, a government often will incur some outlays, even if only for legal outlays to defend itself in a lawsuit. This obligating-events approach has similarities to the approach in SOP 96-1, which includes a presumption that if an entity is associated with a site and litigation to require participation in remediation has commenced, the outcome will be unfavorable. The Board acknowledges that recognition based on the obligating events could result in governments' not accruing some *legal* obligations (for example, legal obligations that may not be enforced or enforceable). However, the Board believes that the obligating-events approach is a practical solution to specifying when governments determine whether components of pollution remediation obligations should be recognized in the financial statements.

Compelled by Imminent and Substantial Endangerment

58. The Superfund law provides the federal government with broad authority to enforce remediation actions at sites where pollution causes an imminent and substantial endangerment. However, this Statement does not limit obligating events to those for which a government is *legally* required to take action. Governments inherently have a responsibility to provide for the safety of citizens (as with police services, fire services, and emergency medical services). Thus, governments also have obligations to address imminent and substantial endangerments even if no law requires remediation action. This Statement requires governments to evaluate those obligations for recognition as liabilities when the government has little or no discretion to avoid responding. For example, a government may not be legally obligated to respond to a train derailment involving toxic chemicals, but its obligation to protect the public may leave it little or no discretion to avoid responding, even at substantial expense. The fact that a government commences

cleanup work in response to an imminent and substantial endangerment generally is evidence that an obligating event has occurred, but evidence also may exist prior to the commencement of cleanup work. If a government expects to recover response outlays from the responsible parties, those recoveries would affect the measurement of the government's liability as discussed in paragraphs 19–21.

Violations of Pollution Prevention–Related Permits or Licenses

59. Governments may obtain pollution prevention–related permits or licenses, such as a permit to store and use chemicals in the chemistry department of a university. These typically are RCRA permits. Violation of an RCRA permit requires the permit holder to take corrective action. Many states have implemented regulations that are as strict as, or stricter than, the RCRA statute. If evidence supports the conclusion that a violation of a pollution prevention–related permit or license has occurred, an obligating event has occurred. Notification of a violation need not be received from an external party. However, evidence may include consultations with an environmental regulator.

Named as PRP

60. When a government is named, or evidence indicates that it will be named, by an environmental regulator as a responsible party or PRP for remediation, or as a government responsible for sharing remediation outlays, an obligating event has occurred. This is similar to the guidance in paragraph 5.6 of SOP 96-1, which interprets FASB Statement 5 and states that “there is a presumption that, (a) if litigation has commenced or a claim or an assessment has been asserted or if commencement of litigation or assertion of a claim or assessment is probable and (b) if the reporting entity is associated with the site—that is, if it in fact arranged for the disposal of hazardous substances found at a site or transported

hazardous substances to the site or is the current or previous owner or operator of the site—the outcome of such litigation, claim, or assessment will be unfavorable.”

61. The meaning of the phrase *evidence indicates* is based on professional judgment, but it does not require governments to search for evidence of which they are not aware. In addition, the nature of evidence indicating that a government *will be named* also is based on professional judgment but, similar to the guidance in SOP 96-1, need not be limited to situations in which a regulator already is aware of a government’s potential involvement in a site under investigation.

Named in Lawsuit

62. An obligating event occurs when a government is named, or evidence indicates that it will be named, in a lawsuit to compel the government to participate in remediation. Participation can include both injunctive relief and cost recovery. This obligating event also is similar to the guidance in paragraph 5.6 of SOP 96-1, quoted in paragraph 60. However, the Board noted that some lawsuits have no merit and was concerned that requiring evaluation of such lawsuits could add an unmerited burden. Therefore, guidance was added to this obligating event to clarify that a lawsuit can be excluded from consideration if it is substantially the same as a lawsuit previously determined to be without merit in relevant judicial determinations.

63. As discussed in paragraphs 12 and 13, this Statement requires recognition of pollution remediation liabilities on a component basis. That is, a liability is accrued as the range of each component of the liability becomes reasonably estimable. Governments often will not have sufficient information to reasonably estimate *all* components of a pollution remediation liability at the time a lawsuit is filed. In some instances,

governments may be able to estimate only legal service outlays. As a case progresses and more information becomes available, additional components of the liability would be accrued. This generally will result in not accruing components before there is a reasonable expectation of a loss.

64. Some respondents to the Preliminary Views and the Exposure Draft expressed concern that requiring determination of recognition when a lawsuit is filed could be construed as an admission of responsibility. The Board notes that FASB Statement 5 already requires governments to accrue probable liabilities even in instances in which the government does not believe it has any responsibility associated with the event. The Board believes that recognition of a liability under the provisions of this Statement is not an admission of responsibility. Rather, it is an assertion that, based on professional experience with similar claims, some of which are higher and some of which are lower, the probability-weighted average of the range is the amount that is reported or, in the case where no amount in the range is a better estimate than any other, the midpoint of the range is the amount that is reported.

Voluntary Commencement

65. An obligating event occurs when a government commences, or legally obligates itself to commence, cleanup activities, or monitoring or operation and maintenance of the remediation effort. This obligating event is different from the others in that a government voluntarily assumes a pollution remediation obligation rather than having the obligation imposed on it. The Board believes this qualifies for different accounting treatment than the other obligating events. Specifically, when a government voluntarily assumes a remediation obligation, it may not need to record a liability for the entire cleanup effort.

For example, if a government sells land and voluntarily obligates itself to clean part of the site in the sales agreement, the government would be required to recognize a liability for only that work that the government had legally obligated itself to do. This could be significantly less than the outlays the government would expect to incur to clean the entire site.

66. This obligating event normally does not include pre-cleanup activities, such as site assessments, that may be undertaken voluntarily by governments. However, the Board believes that if a government *legally* obligates itself to commence pre-cleanup activities, those activities also should be included in the measurement of a pollution remediation liability.

Recognition Benchmarks

67. For situations in which a government cannot reasonably estimate a range of all components of a pollution remediation liability, this Statement lists a series of steps, or benchmarks, in the remediation process that governments should consider in determining when components of pollution remediation liabilities become reasonably estimable. The benchmarks typically apply to site situations that are not common or are not similar to other sites with which the government has experience and require evaluation of recognition of certain liability components no later than when the benchmarks occur. The recognition benchmarks acknowledge the practical difficulties of estimating more complex pollution remediation obligations.

68. Recognition benchmarks include participation in a site assessment, completion of a corrective measures feasibility study, issuance of an authorization to proceed, and so forth.

These are essentially the same recognition benchmarks found in SOP 96-1, modified to make them more broadly applicable.

Measurement Based on Expected Outlays

69. This Statement uses a cost-accumulation approach to measuring pollution remediation obligations. It requires governments to measure a pollution remediation liability at its *current value*; however, only in situations when the government intends to hire another party to perform the work should the current value incorporate profit and risk premiums that are expected to be charged by the other party. The Board acknowledges that this measurement is affected by a government's *intent*. However, governmental financial statements generally focus on provision of services rather than profit, and the Board believes that pollution remediation liabilities should be recorded at the amounts expected to be incurred to provide the service.

Measurement at Current Value

70. This Statement requires measurement of pollution remediation liabilities at their current value—the amount that would be paid if all equipment, facilities, and services included in the estimate were acquired during the current period—rather than their present value. Measurement at current value is consistent with the requirement in Statement 18 to estimate landfill closure and postclosure care costs at their “current cost.” Further, the Board believes that projecting uncertain remediation cash flows to specific future periods, and then discounting those cash flows, will add more subjectivity than relevance to the measurement. The definition of current value and the requirement to base the measurement on applicable federal, state, or local laws or regulations that have been *approved* also are consistent with Statement 18.

71. Paragraph 15 states that current value should be based on “*reasonable and supportable* assumptions about future events that may affect the eventual settlement of the liability.” The meaning of *reasonable and supportable assumptions* is subject to professional judgment; however, it is not limited to a virtually-certain-to-occur belief and is not necessarily related to the *degree* to which evidence can be verified objectively.

The Expected Cash Flow Technique

72. The ASTM International *Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters*²⁹ calls for measurement of environmental liabilities using an expected value technique when an environmental professional has access to sufficient information to use that technique. It states that outcomes’ probabilities should be based, “to the extent practicable, on statistical data drawn from comparable events.” Similarly, once obligating events occur, this Statement requires pollution remediation liabilities to be estimated using the expected cash flow technique. A form of this technique already is applied by governments: Allowances for uncollectible amounts and taxpayer refunds typically are estimated based on averages applied to sets of similar transactions.

73. Because pollution remediation is a well-known process, the Board believes that governments often will have access to considerable data about ranges of potential outcomes. However, for practical reasons, governments may choose to use only a limited number of potential outcomes (data points) for calculating the expected cash flow. For

²⁹Extracted with permission from E2137-01, *Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters*, © ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428.

example, some governments may choose to use only best case, worst case, and most likely potential cash flows. If a government does not have a reasonable basis for specifying the probability and amount of a most likely potential cash flow, it may use only two data points. For example, if potential pollution remediation outlays range from \$1 million to \$3 million and no amount within the range is considered to be a better estimate than any other amount, a liability of \$2 million would be reported, calculated as follows: $(\$1 \text{ million} \times 50\%) + (\$3 \text{ million} \times 50\%)$.

74. Recognition and measurement using obligating events and the expected cash flow technique amends the guidance in NCGA Statement 4 only as it relates to pollution remediation obligations of state and local governments. NCGA Statement 4 requires the application of FASB Statement 5, which, in turn, requires recognition only when a loss is *probable*. Measurement using the expected cash flow technique also would supersede the required application of FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss*, as it relates to pollution remediation obligations for state and local governments. FASB Interpretation 14 requires accrual of the low end of the range when no best estimate is available.

75. The Board considered that the expected cash flow technique can result in a measurement of a liability at an amount that is not among the potential outcomes. For example, if potential pollution remediation outlays for a site were *limited* to either \$1 million or \$3 million, the expected cash flow of \$2 million would not be among the potential outcomes. However, the Board believes that potential cash flows for pollution remediation obligations generally will not be limited to a few discrete outcomes. Generally, the outcome points selected for use in the expected cash flow technique will

represent a continuous range of potential outcomes. The Board believes that this expectation-weighted approach often would be helpful in ensuring that the amount recorded in the financial statements is representative of the amount that actually will be incurred. That is, the expected cash flow technique calculates the expected value of the obligation.

76. Some respondents to the due process documents were concerned about potential subjectivity of measurements made using the expected cash flow technique. The Board does not believe that the expected cash flow technique is inherently more subjective than a single best estimate, which does not inherently consider other potential outcomes. Further, the Board believes that an estimate that approximates the eventual liability is preferable to not accruing any liability. One goal of financial reporting is to report the value of obligations. Reporting claims at their expected value achieves that goal. In addition, subjectivity is mitigated by the experience of those making the estimates. Based on research conducted during the project leading to this Statement, the Board believes that governments, including smaller governments, generally do not attempt pollution remediation without first obtaining the help of remediation professionals who have experience assessing pollution remediation and developing outcome probabilities. Subjectivity also is mitigated by the fact that obligating events first occur and by the fact that only those ranges of components that can be reasonably estimated are subject to accrual.

77. Based on discussions with remediation professionals, the Board is not persuaded by the assertion of some respondents that the expected cash flow technique will result in more volatility than a single best estimate. Further, recognition under the technique in

many cases is less volatile than recognition under FASB Statement 5. For example, under FASB Statement 5, no liability is reported on the statement of net assets if the occurrence of an obligation is slightly less than *probable*, but a slight increase in the chance of occurrence results in reporting a liability.

78. Although FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, does not apply to state and local governments, it does provide a conceptual foundation for using expected cash flows for measurement. The Board notes that expected present value, a technique that measures the present value of expected cash flows, already is in use in private-sector accounting standards. For example, FASB Statement No. 143, *Accounting for Asset Retirement Obligations*, FASB Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, and FASB Interpretation No. 46 (revised December 2003), *Consolidation of Variable Interest Entities*, all apply expected cash flows for measurement.

79. The obligating events and expected cash flow approaches to recognition and measurement required by this Statement result in more timely and complete recognition of many pollution remediation liabilities. However, for some contingencies considered probable under FASB Statement 5, lesser amounts would be recognized.

Remeasurement

80. Just as Statement 18 requires landfill closure and postclosure care liabilities to be adjusted each year, this Statement requires that governments remeasure their pollution remediation liabilities as new information becomes available. Application of this requirement generally will require pollution remediation liabilities to be adjusted each

period. Adjustments that result in net increases or decreases in the amounts of previously reported liabilities should be reported in the change statement as a change (for example, expense) of the period.

Accounting for Recoveries

81. In determining the approach for recording recoveries, the Board considered whether *expected outlays* for pollution remediation should include *all* outlays that a government expects to incur, including those that will be paid in advance or reimbursed by other responsible parties, or just the outlays expected to be incurred to clean up the government's *share* of pollution (the approach used in SOP 96-1). The Board also considered whether expected outlays should be based on a government's *legal* obligation to perform pollution remediation, which could amount to all remediation outlays under a *joint and several* legal liability notion.

82. In the majority of states, the liability standard is the same as under Superfund—that is, *joint and several*. Under this liability standard, *each* responsible party is legally liable for the entire remediation effort. If any of the other responsible parties fails to perform its share of remediation work, the governmental party could be forced to pay for the entire remediation. Some argue that if a government is legally liable for all remediation work, the government should recognize a liability for all remediation work. However, not all states use this liability standard. Nevertheless, this may be a valid argument even in some situations for which *joint and several* is not the legal liability standard. For example, if pollution causes an imminent endangerment to health, safety, or the environment, a government may be *compelled* to complete the remediation in the most expeditious manner. Whether or not the government was legally liable for the cleanup would not

matter. Regardless of whether another party has accepted responsibility for the remediation and is capable of paying, some argue that the government has an obligation for the entire remediation effort and should record a liability for it.

83. Another consideration is that, when dealing with pollution remediation, it often is not practical to divide the site into *geographic* areas of responsibility. A government that digs up and treats polluted soil generally will be digging up and treating not just its own pollution but pollution caused by the other responsible parties as well. One of the obligating events is that the government commences pollution remediation activities. Thus, due to the general inseparability of polluted sites into geographic areas of responsibility, a government that starts remediation work could be viewed as having commenced remediation of the other responsible parties' pollution as well.

84. The Board believes that recording an accounting liability based on a *joint and several* liability notion, which would include *all* remediation work attributable to *each* responsible party, often would overstate a government's actual obligation. Other responsible parties may be expected to perform their share of the work themselves, or the government may perform that work on their behalf and seek reimbursement. In the case of a government's performing work on behalf of others, the Board believes that the measurement of the government's pollution remediation expense and liability should include all of the pollution remediation outlays that the government expects to incur, *reduced* by amounts expected to be recovered from other responsible parties. However, at the time a recovery is realized or realizable, the government has a recovery asset, such as cash or a receivable, that would be reported, and the pollution remediation liability would be increased by that same amount. The Board also believes that insurance recoveries

should be reported in the same manner as recoveries from other responsible parties. For these reasons, the Board decided not to require that an insurance recovery (realized or realizable) and loss occur in the same year in order to reduce the amount, as is required by paragraph 21 of Statement 42.

85. The Board also believes that pollution remediation recoveries should be measured symmetrically with the related liability. Therefore, this Statement requires that expected recoveries be measured using the expected cash flow technique.

86. The recognition point for separate insurance recovery assets is set in paragraph 21 of Statement 42, which states that “insurance recoveries should be recognized only when realized or realizable.” That guidance applies to *all* insurance recoveries. This Statement refers readers to the guidance in Statement 42 for recognition of insurance recoveries. However, this Statement clarifies that “an insurance recovery generally is realizable when the insurer admits or acknowledges coverage, potentially before covered outlays take place” (paragraph 20). The Board further notes that, in that case, the amount of the recovery would need to be estimated. Estimation (measurement) of the insurance recovery would be consistent with the measurement of the pollution remediation outlays that are expected to be reimbursed, which are estimated using the expected cash flow technique.

87. If the responsible parties to the remediation have negotiated their respective shares of the remediation outlays, and there is a reasonable belief that the parties are financially capable of paying their shares, the responsible parties have essentially “admitted or acknowledged coverage,” similar to an insurer. Therefore, the recovery may be realizable at the time of the agreement. However, the realizability assessment may depend on a

requirement that the government perform the remediation activities before recovery is considered realizable. Recoveries should not be recognized as assets before they become realizable. As with insurance recoveries, realizable amounts are measured using the expected cash flow technique. If a responsible party or parties have not accepted responsibility or have not agreed to their share of the remediation efforts, it is analogous to an insurer's denying coverage, and any related expected recovery would reduce the pollution remediation liability until the recovery becomes realized or realizable and is, therefore, recognized.

88. In some instances, recoveries may exceed outlays. For example, a government could charge amounts in excess of actual outlays for work done for others. In that case, the government's expenses would not be reduced below zero to reflect revenue before that revenue is realized or realizable.

89. The Board notes, in footnote 18, that the requirement to reduce the measurement of remediation liabilities and expense, respectively, addresses issues specific to pollution remediation obligations. Therefore, this guidance should not be applied to other transactions.

90. This Statement does not address accounting for grant recoveries and other nonexchange transactions. Accounting guidance for those transactions is provided in Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*.

Capitalization of Pollution Remediation Outlays

91. The Board believes that for pollution remediation obligations covered by this Statement, an obligation to acquire or construct a capital asset is not a liability. Rather, it is an obligation to convert one asset, normally cash, into another asset. The Board also believes that pollution remediation outlays should be capitalized only when one of the four capitalization criteria is met because pollution remediation generally does not result in capital assets. That is, the Board believes that pollution remediation generally results in the extinguishment of an obligation rather than the creation of a future benefit.

92. The Board considered referring to existing private-sector guidance, such as FASB Emerging Issues Task Force (EITF) Issues No. 89-13, “Accounting for the Cost of Asbestos Removal,” and No. 90-8, “Capitalization of Costs to Treat Environmental Contamination.” Some of the capitalization provisions in this Statement are derived from those standards. However, much of the guidance in those standards often would result in capitalization of outlays that the Board believes extinguish obligations rather than create future benefits.

93. The Board considered whether dual-use assets should be capitalized. For example, a cover on a waste pile could both contain pollution and be used as a parking lot. The Board believes that, because the primary purpose of such systems often is pollution remediation, they should be recognized as liabilities when reasonably estimable rather than as assets when outlays are incurred, unless a capitalization criterion is met. If the primary purpose is other than pollution remediation, the *incremental* outlays attributable to pollution remediation also should be recognized as liabilities, unless a capitalization criterion is met. As further discussed in paragraph 96, professional judgment will be needed to

determine whether outlays for movable equipment that has alternative uses, such as a bulldozer, should be fully or partially expensed or capitalized.

94. In the case of preparing property for sale, the Board believes that the amount capitalized should not exceed the fair value of the property, after pollution remediation, because that is the amount that will be realized from the sale. In the case of preparing purchased polluted property for use and restoring pollution-impaired property, the Board considered and rejected a strict fair value cap because governments may, as a matter of public policy, invest more into land and facilities than their fair value. Further, in these instances the Board believes that setting limits on capitalization more specific than those discussed in paragraph 18 of Statement No. 34, *Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments*, is beyond the scope of this Statement. The Board believes that footnotes 23 and 25 provide sufficient guidance on the application of paragraph 18 of Statement 34 for the purposes of this Statement.

95. Paragraph 22c states that outlays “to perform pollution remediation that restores a pollution-caused decline in service utility that was recognized as an asset impairment” qualify for capitalization (footnote reference omitted). The Board notes that capitalization of restoration outlays is not a reversal of an impairment. Rather, as discussed in footnote 24 to that paragraph, it is a recognition that “pollution removal or containment outlays also may restore lost service utility.” That is, an addition has been made to the impaired capital asset, which in turn increases the service utility of the asset. Such additions may be tangible—such as nontoxic insulation installed where asbestos was removed—or intangible—such as an enhancement to the market value of land resulting from the

removal of polluted soil. Professional judgment will be required to determine whether pollution remediation actually restores the service utility of an impaired asset or simply puts the impaired asset into a condition at which restoration work can be commenced.

96. Although the Board believes that property, plant, and equipment acquired as part of a pollution remediation project generally will be expensed, the Board acknowledges that some assets may continue to be used after all pollution remediation uses (including postremediation monitoring uses) have ceased. In those instances, the Board believes that a government has a capital asset that should be valued at the amount of remaining service utility expected to exist and be used for purposes other than pollution remediation. For example, the Board believes that land is a capital asset and generally should be reported as such when acquired, even if it is acquired as part of a pollution remediation project, because land generally has or will have uses beyond pollution remediation, such as green space. Most postremediation monitoring requirements occur over a finite period, after which time the primary purpose of the retained land no longer will be pollution remediation.

Display in Government-wide and Proprietary Fund Financial Statements

97. The Board considered the guidance in Statement 42 for reporting in government-wide and proprietary fund financial statements and believes it is appropriate for pollution remediation obligations. Therefore, this Statement provides the same reporting guidance as that found in paragraph 17 of Statement 42.

98. SOP 96-1 states that an environmental remediation obligation is not an event that is unusual in nature and, as such, does not meet the criteria for classification as extraordinary. Nevertheless, the Board is not convinced that pollution remediation will

never meet the criteria for reporting as an extraordinary item and, accordingly, has made that reporting alternative available in this Statement. Paragraph 55 of Statement 34 defines extraordinary items as “transactions or other events that are *both* unusual in nature *and* infrequent in occurrence” and adds that “APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*, as amended and interpreted, defines the terms *unusual in nature* and *infrequency of occurrence*.”

Display in Governmental Fund Financial Statements

99. For governmental funds, this Statement provides essentially the same guidance for reporting liabilities related to performing pollution remediation work as for landfill closure and postclosure care liabilities. In addition, this Statement provides reporting guidance for recoveries in governmental funds that mirrors the guidance for government-wide and proprietary fund financial statements, subject to the measurable and available criterion. The Board notes that the governmental fund liabilities for pollution remediation activities discussed in paragraph 24 are not pollution *remediation* liabilities. Rather, they are liabilities for goods and services used in the remediation process.

Disclosures

100. In addition to the disclosures for pollution remediation obligations required by this Statement, the Board notes that current requirements provide for disclosures that may be applicable, including the policy for capitalizing assets, significant effects of subsequent events, significant violations of finance-related legal or contractual provisions and actions taken to address such violations, and construction and other significant commitments.

101. Because this Statement amends NCGA Statement 4 by providing guidance specifically for pollution remediation obligations, it also amends the disclosures required by that Statement by providing disclosure guidance for pollution remediation contingencies.

102. In addition to note disclosures, governments may be required to discuss the effects of pollution remediation obligations in management's discussion and analysis, including important economic factors, whether commitments significantly affect the availability of fund resources for future years, and significant capital asset and long-term debt activity during the year.

Effective Date and Transition

103. The Board believes that, conceptually, this Statement should be applied retroactively. However, application of the expected cash flow technique to prior periods may not be practicable. Determination of probabilities for use in the expected cash flow technique is based on information available to management. Also, paragraph 15 requires liabilities to be based on "*reasonable and supportable* assumptions about future events that may affect the eventual settlement of the liability," including "laws or regulations that have been *approved*, regardless of their effective date, and the existing technology *expected to be used* for the cleanup." For purposes of retroactive application, it may not be possible for governments to determine what information was available in earlier periods, at the time a liability would have been incurred. Accordingly, the Board concluded that governments that have *sufficient objective and verifiable information* to apply the expected cash flow technique to measurements in prior periods should apply the provisions of the Statement retroactively for all such prior periods. Governments that do

not have that information should apply the provisions of this Statement as of the effective date, but pollution remediation liabilities should be measured (using the expected cash flow technique) at the *beginning* of that period to ensure that beginning net assets can be restated.

Appendix C

ILLUSTRATIVE EXAMPLES

104. The following examples illustrate the application of the recognition, measurement, and disclosure provisions in this Statement; they do not illustrate *all* disclosures that may be required by generally accepted accounting principles. To avoid biasing application of the disclosure requirements, the examples are intended to provide general descriptions of disclosures rather than specific disclosure language. The examples illustrate the application of the provisions using the accrual basis of accounting. Reporting using the modified accrual basis of accounting would be in accordance with the provisions in paragraph 24.

105. The facts assumed in these examples are illustrative only and are not intended to modify or limit the requirements of this Statement or to indicate the Board's endorsement of the situations or methods illustrated. Application of the provisions of this Statement may require assessing facts and circumstances other than those illustrated here. Additionally, these illustrative examples are not intended to provide guidance on determining the application of materiality.

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Example 1—Brownfield Remediation

Assumptions

In an effort to revitalize its downtown area, Nullibi City purchases vacant buildings and properties, performs pollution remediation, and resells the buildings and property. State law holds that the owner of polluted property is responsible for pollution remediation.

In 2004, the city completed a site assessment for a parcel of land with a building and concluded that the property could be cleaned for between \$100,000 and \$130,000. No amounts within the range were considered to be better estimates than any other amounts. In late 2004, the city entered into an agreement with the owner of the building and a prospective buyer wherein the city would purchase the property for \$80,000, perform pollution remediation, and sell the property to the buyer for \$175,000. The city purchased the property that year and placed the remediation work out for bid. Bids were received in early 2005. The lowest acceptable bid was \$125,000. The city accepted the bid and remediation work commenced and was completed in 2005.

State regulations required the city to notify the state environmental protection department of the results of the site assessment and of the transfer of ownership of the property to the city. Based on the results of the site assessment, the city was aware that the level of pollution was such that the state environmental protection department would require remediation of the pollution.

Reporting

2004

This example illustrates two obligating events. Nullibi City voluntarily obligated itself to commence remediation by purchasing the property in 2004. Additionally, at the time the city purchased the property it became aware that it will be named as a responsible party for pollution remediation. The pollution remediation obligation is measured at its expected outlay of \$115,000, which is the weighted average of the estimate of the range of cleanup outlays $((\$100,000 + \$130,000)/2)$. The purchase price and expected remediation outlays for the property $(\$80,000 + \$115,000)$ exceed the fair value $(\$175,000)$ by \$20,000. Because amounts in excess of fair value do not qualify for capitalization, the city should record a pollution remediation liability and expense of \$20,000 in 2004. No accounting entry should be made for the amount of expected pollution remediation outlays that would be capitalized because those outlays do not meet the criteria for recognition until incurred.

The city would provide a general description of its brownfield remediation program and would disclose, for example, the fact that, “based on the level of pollution present, state law requires the city to perform pollution remediation because the property was acquired.” The city also may need to disclose, for example, that “the city measured the

liability by estimating a reasonable range of potential outlays and multiplying those outlays by their probability of occurring.” The city would separately disclose the amount of the estimated liability or liabilities (if not apparent from the financial statements).

2005

The city’s expected outlays rise to \$125,000 (the bid for the remediation work). This \$10,000 increase is in excess of the fair value of the property and, therefore, is recorded as an increase in the remediation liability and expense. Depending on the city’s policy, the first progress billings from the contractor reduce the remediation liability, create a capital asset, or are ratably applied to both.

The city would update its disclosure for current information. For example, the city could disclose that “the liability is measured at the cost of the construction contract” and that “the amount assumes no unexpected change orders.”

Example 2—Leaking Underground Storage Tanks Acquired in Road Expansion Project—Primary Purpose Is Not Remediation

Assumptions

The Town of Falk acquires a truck stop fuel service station through eminent domain as part of a road expansion project. The town is aware of six underground fuel storage tanks on the property and, based on the age of the business, suspects that several other undocumented tanks may exist. The town presumes that pollution is present and pays a lower price for the property than it would for property without pollution risks and, as part of the sale agreement, assumes all remediation obligations. The road expansion project is expected to result in incremental outlays attributable to remediation activities. The service station is razed and the underground fuel tanks are removed. Several leaks are discovered

during removal of the tanks. By state law, such leaks are required to be reported to the state environmental regulator. Town officials are aware that the state environmental regulator will require the town to commence cleanup action. However, the town does not wait for notification but commences cleanup operations to keep the road project on schedule. Based on experience with similar sites, town engineers believe a reasonable estimate of the range and probabilities of current incremental cleanup outlays is as follows: Best case \$150,000, 25 percent likely. Most likely \$320,000, 60 percent likely. Worst case \$450,000, 15 percent likely. The remediation outlay, together with the other outlays of that part of the roadway expansion project, will not exceed the amount originally expected to be necessary to complete that part of the road expansion.

Reporting

An obligating event occurs when the leaks are discovered. At that time the town is aware that it will be named as a responsible party for pollution remediation. The incremental expected outlay for the remediation effort is \$297,000 ($(\$150,000 \times 0.25) + (\$320,000 \times 0.6) + (\$450,000 \times 0.15)$). However, the outlay is capitalizable as outlays to prepare for use property acquired with suspected pollution that was expected to be remediated. Accordingly, the town capitalizes remediation outlays as incurred and does not record a pollution remediation liability or expense.

Example 3—Water Pollution from Abandoned Waste Dump

Assumptions

In 2005, routine testing of well water in a rural neighborhood uncovers the presence of certain toxic substances. The state department of water quality searches for the source of the pollution and discovers an abandoned waste dump on land owned by Ruby County.

The state notifies the county of its responsibility to perform pollution remediation at the waste dump. In the interim, based on the advice of legal counsel, the county starts supplying bottled water to residents of the neighborhood. The county also commences construction work to install water pipes to connect the neighborhood to a municipal water system.

The county does not intend to challenge the state's determination that it is responsible for the entire remediation effort. Further, the county does not believe that it will be able to recover remediation outlays from any other parties. Therefore, the county does not believe that it will incur significant outlays for legal services in connection with the remediation effort. Based on limited information provided by the state, the county cannot reasonably estimate remediation outlays but speculates that outlays to eventually clean the site could range from \$200,000 to several million dollars. The county's environmental engineering department estimates that outlays to conduct a site assessment and to complete a corrective measures feasibility study will range from \$80,000 to \$120,000. Either end of this range was considered to be equally likely, although actual outlays were considered 40 percent likely to be close to \$95,000.

In 2006, the county performs the site assessment and corrective measures feasibility study for actual outlays of \$90,000. The county recommends, and the state accepts, a corrective measures plan calling for removal of the waste to a hazardous materials landfill and installation of a pump-and-treat system to be operated and monitored for 10 years. The county estimates that outlays to remove the waste will range from \$160,000 to \$185,000. No amounts within this range were considered to be better estimates than any other amounts. The most likely outlay to purchase and install fixed equipment for pumping and treating groundwater is estimated to be \$223,000, at 70 percent likelihood,

but could be as high as \$235,000 or as low as \$210,000. These high and low amounts were considered to be equally likely. The current value of outlays for operating and monitoring the pump-and-treat system for 10 years is estimated to range between \$180,000 to \$200,000, including labor, overhead, and electricity. No amounts within this range were considered to be better estimates than any other amounts.

In 2007, the waste was removed and the pump-and-treat system installed for outlays of \$175,000 and \$220,000, respectively. Outlays for operating and monitoring the completed system for the last quarter of 2007 were \$5,000.

Reporting

2005

Notification by the state that the county is responsible for pollution remediation is an obligating event. At that time the county should commence recognition of those components of the remediation obligation that are reasonably estimable. The county should recognize \$98,000 as the expected outlay for the site assessment and the corrective measures feasibility study ($(\$80,000 \times 0.3) + (\$95,000 \times 0.4) + (\$120,000 \times 0.3)$). Although the county speculated that outlays to eventually clean the site could range from \$200,000 to several million dollars, the county could not reasonably estimate the range of cleanup outlays because it had not yet completed a site assessment.

The county is required to disclose the nature of the outlays that are not reasonably estimable. For example, the county could disclose that “the pollution remediation liability does not include outlays for site cleanup because those outlays were not yet reasonably estimable.” The county also would disclose, for example, that “the county has been named by the state as the party responsible for remediation of an abandoned waste dump on

county property,” that “the liability was measured using the expected cash flow technique,” and that “the county does not anticipate recovering reimbursements from the parties who caused the pollution.” If not apparent from the financial statements and if needed for understanding, the amount of the estimated liability or liabilities would be disclosed.

2006

The county would reduce the liability by \$90,000 as services are acquired for the site assessment and corrective measures feasibility study. The liability and remediation expense also would be reduced by \$8,000 to reflect the change in estimate. The completion of the corrective measures plan is a measurement benchmark requiring the county to accrue additional components of the remediation liability no later than when the state accepts the plan. The remediation liability and expense would include the fixed equipment for the pump-and-treat system because it does not meet any of the criteria for capitalization. Supplying bottled water and installing water pipes are not pollution remediation activities and are not included in the pollution remediation liability or expense. The county also would recognize additions to the remediation liability and expense of \$585,350, calculated as follows:

Expected outlay for removal of waste: (((\$160,000 + \$185,000)/2)	\$172,500
Expected outlay for pump-and-treat system: (((\$210,000 × 0.15) + (\$223,000 × 0.7) + (\$235,000 × 0.15))	222,850
Expected outlay for operating and monitoring system: (((\$180,000 + \$200,000)/2)	<u>190,000</u>
Total additions to remediation liability	<u>\$585,350</u>

2007

The county would reduce the liability by \$400,000 ($\$175,000 + \$220,000 + \$5,000$) for remediation goods and services acquired in 2007. The liability and remediation expense would be reduced by an additional \$350 to reflect that the accrual of estimated outlays for waste removal and the pump-and-treat system ($\$172,500 + \$222,850 = \$395,350$) exceeded actual outlays ($\$175,000 + \$220,000 = \$395,000$). The county also would recognize additions to the liability and remediation expense for increases in the current value of the remaining operation and monitoring services. In future years, the liability would be adjusted as operation and monitoring services were provided.

In addition to other disclosures, the county may need to disclose, for example, that it “anticipates that outlays for providing monitoring services will increase each year and will affect the amount of the liability.” Further, the county may disclose that those outlays include estimated overhead.

Example 4—Superfund Off-Site Scenario

Assumptions

Prior to 1980, Tabiona–Wilcken County contracted with a state-licensed waste-hauling contractor to remove specified, nonhazardous solid and liquid industrial waste from its public works shops for disposal off-site at a state-licensed disposal facility. The contractor complied with all applicable laws and regulations, and monthly reports were filed with appropriate state environmental agencies.

2006

In 2006, the county received an information request from the U.S. Environmental Protection Agency (EPA) pursuant to section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The information request stated that the EPA believed that hazardous substances at a site, now listed by the EPA on its National Priorities List (NPL), were generated at the county's public works shops. The county was named as a potentially responsible party (PRP) and was directed by the EPA, under penalty of law, to search its records exhaustively and answer a series of questions possibly implicating it directly to the site, or indirectly by its having used one or more transporters the EPA said it was also investigating.

The county searched its records as directed and late in 2006 determined that it had, in fact, contributed hazardous substances to the site. The county could not, however, determine how significant the hazardous substances it had sent to the site were in relation to the total population of hazardous substances at the site. Although the county could not reasonably estimate a range of all legal outlays, it estimated that the current value of outlays for legal services to prepare for preliminary negotiations ranged from \$50,000 to \$80,000. No amounts within this range were considered to be better estimates than any other amounts.

Reporting

Receipt in 2006 of an information request, per se, was not an obligating event. Notwithstanding the EPA's interest in the county's connection, if any, to the site, it had not been established that the county was, in fact, associated with the site. However, receipt of the notification that the county was a PRP is an obligating event, compelling the county

to examine its records. Accordingly, the county would accrue a liability and expense for the expected outlays of that search. No liability related to the search was reported at year-end because the search was conducted in the same year, reducing the liability to zero.

When the county determined late in 2006 that it had in fact contributed hazardous substances to the site, the measurement of the liability would be refined. The county would accrue a liability and expense of \$65,000 $((\$50,000 + \$80,000)/2)$ for legal services to prepare for preliminary negotiations. The county could choose to report pollution remediation activities as a separate program on the statement of activities.

The county would disclose, for example, that “under the federal Superfund law, the federal EPA named the county and other parties as potentially responsible for remediation” of the site and that, accordingly, “the county recorded a pollution remediation liability, measured at its expected amount, using the expected cash flow technique.”

Because the county did not have sufficient information to reasonably estimate the ranges of the other components of its liability, it should disclose, for example, that “the liability does not include outlays for remediation or for legal services after the preliminary negotiation stage.” If the pollution remediation liability (or liabilities) was not separately disclosed on the face of the financial statements, it would be disclosed in the notes.

2007

Assumptions

The EPA identified a number of waste generators, transporters, and site owner/operators as likely PRPs. The identified PRPs were invited to a meeting at which federal government lawyers requested that one or more of the PRPs voluntarily perform a

remedial investigation/feasibility study (RI/FS) to evaluate existing site conditions (including a public health and ecological risk assessment) and to develop a proposed array of remedial alternatives from which the EPA would select a remedy and demand that it be implemented. Standardized EPA terms and conditions, stipulated penalty provisions, and indeterminate scope of work elements inhibited voluntary agreement among the PRPs, and so a consent decree was not achieved.

Reporting

During 2007, little additional information that would aid the county in making an estimate of the range of loss became available. Therefore, the accounting and disclosure for the contingent loss related to the remediation liability remained the same. However, because the liability is required to be revalued annually, the liability was increased and remediation expense recorded to reflect an increase in the estimated outlays for legal services. Further, the liability was reduced as legal services were acquired.

2008

Assumptions

The EPA asserted the existence of “imminent and substantial endangerment” at the site early in 2008 under section 106 of CERCLA, and it issued a unilateral administrative order to the PRP with the most resources—the county—to undertake the RI/FS.

Because treble damages are authorized under section 106 of CERCLA, the county agreed to conduct the RI/FS specified in the order and demanded that other identified PRPs participate in the effort by reimbursing the county for their shares of the outlay. The county initially estimated the outlay that would be incurred to perform the RI/FS to be between \$1 million and \$2 million in current dollars. Based on the limited information

that was available about the site, information that the county had about its contribution to the site, and the number and financial condition of other PRPs, the county initially estimated that its ultimate share of this outlay would prove to be in the range of 20 percent to 50 percent. Stated another way, the county initially estimated that other PRPs would ultimately reimburse 50 to 80 percent of this outlay. The county also estimated that it would incur outlays for legal services related to the remediation effort ranging from \$200,000 to \$2 million in current dollars, in addition to any legal service outlays that might be incurred by any PRP group that might be formed. No amounts within any of these ranges were considered to be better estimates than any other amounts. Because of a lack of information about the type and extent of the remediation effort that could be required, no range of outlays for the overall remediation effort could be developed at this time.

Under threat of a contribution lawsuit by the county, a PRP group was formed late in 2008. The PRP group had three objectives: (1) to implement the requirements of the unilateral administrative order in the most cost-effective and scientifically valid way, (2) to raise money and allocate outlays among the PRPs willing to perform the work based on the types and relative quantities of wastes shipped to the site or another agreed-upon formula, and (3) to recover outlays from nonparticipating PRPs, if possible. The county gained some understanding of the other PRPs' financial condition and had a reasonable basis to believe that some of them would be able to pay their full share of the outlays for the RI/FS.

Reporting

In 2008, when the county agreed to perform an RI/FS in accordance with the EPA's unilateral administrative order and the PRP group was formed, the county should have recorded a net remediation expense of \$1,625,000, computed as follows:

Expected outlays for RI/FS: (((\$1,000,000 + \$2,000,000)/2)	\$1,500,000
Expected recoveries from other parties: ((50% + 80%)/2 × \$1,500,000)	<u>(975,000)</u>
Net expected outlays for RI/FS	525,000
Expected outlays for additional separate legal services: (((\$200,000 + \$2,000,000)/2)	<u>1,100,000</u>
Remediation expense	<u>\$1,625,000</u>

Neither the fact that the unilateral administrative order named only the county nor the fact that a preliminary cost-sharing formula had not yet been determined by the arbitrator should have required the county to accrue more than the net expected remediation expense. However, the remediation liability would be reported at a greater amount because recoveries that are realizable would be reported as, for example, a recovery receivable rather than reducing the remediation liability.

In addition to other disclosures, the county may need to disclose, for example, that “the liability could change over time due to changes in costs of goods and services, changes in remediation technology, or changes in laws and regulations governing the remediation effort.”

2009

Assumptions

Because of the lack of a good database of factual information upon which to make sound allocation decisions agreeable to all, outside arbitration was utilized in 2009 to

allocate “fair share” outlays among participating PRPs. The arbitrator preliminarily apportioned 65 percent of the outlays for the site to the four participating PRPs, as follows:

County	20%
PRP No. 2	20
PRP No. 3	15
PRP No. 4	<u>10</u>
	65
Orphan share	25
Recalcitrant share	<u>10</u>
	<u>100%</u>

Twenty-five percent of the site was determined to be the “orphan share,” for which no PRP could be identified. Ten percent was attributed to two recalcitrant (nonparticipating) PRPs. There was insufficient information to determine whether the recalcitrant PRPs would eventually pay their share. Thus, the county’s share of the RI/FS outlay ranged from 27.7 percent ($0.2 + 0.2/0.65 \times 0.25$) to 30.8 percent ($0.2 + 0.2/0.65 \times (0.25 + 0.1)$). Stated another way, other PRPs would ultimately reimburse the county for 69.2 to 72.3 percent of the outlays. No amounts within this range were considered to be better estimates than any other amounts.

Although the county had a reasonable basis to believe that each of the participating PRPs would pay its full share of the outlays for the RI/FS, the county was concerned about the ability of PRP No. 3 to pay its full share of the outlays for the cleanup effort.

The county had previously accrued \$1,165,000 (\$65,000 + \$1,100,000) as the expected outlay for its separate legal services. However, based on the amount already spent on legal services and the results of PRP organization efforts, the county now determined that its separate legal outlays (and probabilities of incurring those outlays)

could range from \$225,000 (30 percent likely) to \$600,000 (20 percent likely) in current dollars, with \$325,000 considered to be the most likely amount (50 percent likely). The estimate of the outlays that will be incurred to perform the RI/FS, currently including group administration outlays, now stood at \$1.2 million to \$2.2 million. No amounts within this range were considered to be better estimates than any other amounts.

Reporting

Although no recognition benchmarks were achieved in 2009 (or 2010), the county should have refined its estimate of its liability as additional significant information became available. For example, in 2009, when the preliminary cost-sharing formula was developed by the arbitrator and the estimate of the outlay for the RI/FS was revised, the county should have refined its estimate of its share of the outlay for the RI/FS and adjusted its pollution remediation liability to \$847,250, less any amounts for goods and services already acquired, *plus* any recoveries received or considered realizable. (The county also should record cash or a receivable to recognize any recoveries received or considered realizable.) The \$847,250 is computed as follows:

Expected outlay for RI/FS: (((\$1,200,000 + \$2,200,000)/2)	\$1,700,000
Expected recoveries from other parties: ((69.2% + 72.3%)/2 × \$1,700,000)	<u>(1,202,750)</u>
Net expected outlay for RI/FS	497,250
Expected outlay for additional legal services: ((\$225,000 × 0.3) + (\$325,000 × 0.5) + (\$600,000 × 0.2))	<u>350,000</u>
	<u>\$847,250</u>

The fact that there was insufficient information to determine whether the recalcitrant PRPs would eventually pay their share of outlays should not require the county to accrue

more expense than the net expected outlay. Rather, the potential for payment or nonpayment was factored into the estimate of the range of participation by other PRPs.

2011

Assumptions

The RI/FS was substantially completed in 2011. No changes were made to the PRP allocation percentages as a result of the RI/FS completion. The PRP group's initial estimate of the current value of outlays for implementing the remedy expected to be required by the EPA was \$25 million to \$30 million. No amounts within this range were considered to be better estimates than any other amounts. This estimate incorporated all elements of the remediation effort, including common legal, engineering, construction, monitoring, and operation and maintenance outlays (including postremediation monitoring for a period of 30 years).

The county had a reasonable basis to believe that PRP No. 2 and PRP No. 4 could and would pay their full shares of the outlay for the remediation effort. PRP No. 3, however, indicated that, because of its deteriorating financial position, it would likely be unable to pay more than two-thirds of its 15 percent share and none of its allocated amount attributed to the orphan and recalcitrant shares. The county shared PRP No. 3's views about PRP No. 3's ability to pay. Thus, the county's share of the cleanup outlay ranged from 32 to 40 percent. No amounts within this range were considered to be better estimates than any other amounts. The range of the share of outlay is computed as follows:

	<u>Original Allocation</u>	<u>Best-Case Allocation</u>	<u>Worst-Case Allocation</u>
County	20%	20%	20%
PRP No. 2	20	20	20
PRP No. 4	10	10	10
Subtotal		<u>50</u>	<u>50</u>
PRP No. 3	<u>15</u>	10	0
Subtotal	65		
Orphan share	25	30	40
Recalcitrant share	<u>10</u>	<u>10</u>	<u>10</u>
	<u>100%</u>	<u>100%</u>	<u>100%</u>

$0.32 = 0.2 + 0.2/0.5 \times 0.3$
 $0.40 = 0.2 + 0.2/0.5 \times (0.4 + 0.1)$

Reporting

The substantial completion of the feasibility study in 2011 is a measurement benchmark requiring the county to accrue all components of the pollution remediation liability. Accordingly, the county should have adjusted its liability to reflect its estimated share of the expected amount of the overall *cleanup* outlay. Based on the facts presented, this amount should be \$9,900,000, computed as follows:

Expected outlay for cleanup:

$$((\$25,000,000 + \$30,000,000)/2) \times ((0.32 + 0.40)/2) = \$9,900,000$$

The county would add the expected cleanup outlay of \$9,900,000 to its annually revalued liability components for the RI/FS and for its separate legal services. The gross amount would be reduced for goods and services acquired and increased for recoveries received or considered realizable.

2012

Assumptions

Three years after site studies began, the EPA and its outside contractors evaluated the reports submitted under the terms of the unilateral administrative order. A record of decision (ROD) was issued by the EPA on September 30, 2012, in which remedial actions based on the RI/FS were selected and outlay estimates were presented. The PRPs were requested to voluntarily implement the ROD and again sign up to the terms demanded by the EPA. No pre-enforcement federal court review is permitted, even if the remedy specified in the ROD is scientifically flawed; is unattainable by available, proven technology; is non-cost-effective; or is open-ended. The PRPs had the following choices: perform the remedy specified in the ROD voluntarily, or refuse to do the work, in which case the EPA would either issue another unilateral administrative order or perform the work using its contractor procurement systems and sue the PRPs for recovery of remediation outlays. The PRPs agreed to perform the remedy specified in the ROD and entered into a consent judgment.

Note: The law requires the EPA to review the ROD and the remedy within five years of its implementation by the PRPs. If the objectives of the ROD have not been attained, the EPA may make additional demands on the PRPs. If one or more PRPs believe they have paid a disproportionate share of the outlays, they may identify other PRPs and sue them in

a contribution action. Although requests for reimbursement from Superfund can also be made for allocations attributed to unidentified or unknown parties (the orphan share) under certain conditions, this is not usually allowed by terms and conditions of consent order settlements with the EPA.

Reporting

The estimate of the pollution remediation liability should be further refined when the ROD is issued (a recognition benchmark) in 2012 and at various other points when additional information becomes available.

Example 5—Asbestos Removal—Voluntary Commencement

Assumptions

In 2004, Mica School District decided to remodel an elementary school. The remodeling plan called for work, including removal of asbestos ceiling and floor tiles, to be completed in two phases over two summers. Environmental laws require asbestos to be removed when it becomes friable. The asbestos at the school had not reached that point of deterioration. The architect provided a detailed estimate of remodeling outlays, including an estimate of asbestos remediation outlays ranging from \$190,000 to \$220,000.

In 2005, the remodeling contract was let for bid and the winning bid included an itemized amount for asbestos remediation of \$198,000. One-half of the tiles were removed in 2005 and the other half were removed in 2006.

Reporting

2004

In 2004, there is no obligating event that would require commencement of recognition of a remediation liability. No disclosures specific to the asbestos remediation are required.

2005

The removal of the tiles causes the asbestos to become friable. Thus, the commencement of asbestos removal in 2005 invoked an obligating event, and the district should record a liability for the expected outlay of completing removal work that had been initiated. The district does not have a legal obligation to remove the rest of the tile.

The expected outlay for the remediation effort was \$99,000 in 2005 and the same in 2006 (\$198,000/2). The district need not record a liability because all remediation work commenced is completed in the same year. Because no liability existed at year-end, the district had no remediation obligation to disclose.

Example 6—Asbestos Removal—Imminent Threat

Assumptions

Assume the same facts as in Example 5, except that the district decided after signing the contract for the asbestos removal in 2005 that the presence of asbestos tiles presented an imminent threat to the health of the students and temporarily closed the school to remove all asbestos tiles. Asbestos removal commenced in late 2005 and was completed in early 2006.

Reporting

The determination that the asbestos created an imminent threat to public health, as manifested by the closing of the school, is an obligating event. At that time, the district should record a pollution remediation liability and expense for the expected outlay for the entire remediation project (\$198,000). The liability would be reduced as remediation services were provided and any amounts remaining at year-end would be reported in the financial statements.

The district would disclose, for example, that it was “compelled to remove the asbestos because it presented an imminent threat to the health of the students,” that “the amount of the liability is derived from a construction contract,” and that “the amount assumes no unexpected change orders.” Additionally, the district may need to disclose the amount of its estimated liability or liabilities (if not apparent from the financial statements).

Example 7—Lawsuit

Assumptions

In 2004, ABC Corporation commenced pollution remediation activities on land that it owns. Upon completion of the work, ABC claimed that the pollution had migrated from land owned by the Borough of Duchesne and that the borough should reimburse remediation outlays totaling \$550,000. The borough entered into discussions with ABC to determine if the situation could be amicably resolved. However, discussions did not result in a settlement, and by the end of 2004 the borough was aware that it would not agree to ABC’s claims and that ABC would sue the borough to recover the remediation outlays.

The borough believed that pollution was present on its property but was unsure whether that pollution had migrated to ABC's land. The borough concluded that, in order to successfully defend itself, it would first have to perform a site assessment to determine the volume and types of pollution present on its property, whether pollution had migrated from the site, and the potential for any future migration. Based on the advice of environmental engineers, the borough estimated that the current value of outlays for the site assessment would reasonably range from \$64,000 to \$88,000. However, actual outlays were expected to be much closer to a range of \$72,000 to \$78,000. Although no amounts within this latter range were considered to be better estimates than any other amounts, the range itself was estimated to comprise 80 percent of the reasonably expected potential outlays. The best case and worst case outlays of \$64,000 and \$88,000 were considered to be equally likely.

Although the borough could not reasonably estimate a range of all legal services outlays, it estimated that the current value of outlays for legal services to prepare for trial ranged from \$8,000 to \$12,000. No amounts within this range were considered to be better estimates than any other amounts.

Reporting

An obligating event occurred when the borough became aware that it would not agree to ABC's demands and that ABC would sue the borough to recover the remediation outlays. At that time, the borough should commence recognition of those components of the pollution remediation liability that are reasonably estimable: the site assessment and outlays to prepare for trial. Prior to the completion of the site assessment, the borough did not have sufficient information to reasonably estimate the outcome of the lawsuit. The

borough should record a pollution remediation liability and expense of \$85,200, calculated as follows:

Expected outlays for site assessment: (((\$64,000 × 0.1) + (\$72,000 × 0.4) + (\$78,000 × 0.4) + (\$88,000 × 0.1))	\$75,200
Expected outlays to prepare for trial: (((\$8,000 + \$12,000)/2)	<u>10,000</u>
	<u>\$85,200</u>

For the pollution remediation outlays that are not reasonably estimable, the borough would disclose, for example, that “the estimate of the liability does not include cost components that are not yet reasonably measurable, such as legal costs to defend the borough once the lawsuit goes to trial and recoveries that the court could eventually award the plaintiff.” The borough also would disclose the nature and source of the pollution remediation obligation, and methods and assumptions used for the estimate, by disclosing, for example, that “discussions with the plaintiff regarding who will pay for pollution remediation on the plaintiff’s land are not expected to result in an out-of-court settlement,” and that “the borough has accrued a liability based on the probability-weighted average of the reasonably expected potential outlays for performing a site assessment and preparing for trial.” Regarding the accrual, the borough could disclose that it “has not admitted responsibility and intends to vigorously challenge the claim.” The borough also may need to disclose the potential for changes in the liability due to price changes, technology, or applicable laws and regulations—for example, “the borough anticipates that the amount of the liability will increase slightly next year due to inflation.” Additionally, the borough may need to separately disclose the amount of the estimated liability or liabilities (if not apparent from the financial statements).

2005

Assumptions

In 2005, the business filed a lawsuit to force the borough to reimburse the remediation outlays. The borough completed the site assessment for an actual outlay of \$77,000 and discovered that one pollutant had migrated to the business's land. The borough's attorney uncovered evidence that the business owner was aware of the problem for many years and failed to notify the borough so that preventative measures could have been taken. The borough's attorney estimated that the borough's probability of winning the case and not being required to reimburse remediation outlays reasonably ranged from 40 percent to 100 percent. Therefore, the probability of losing the case and having to reimburse remediation outlays ranged from zero percent to approaching 60 percent. No percentages within this range were considered to be better estimates than any other percentages. The borough estimated that only \$110,000 to \$220,000 of ABC's remediation outlays could reasonably be attributed to removing the pollutant that migrated from the borough's property and that actual removal outlays would reasonably be expected to approximate \$187,000. The borough's attorney further estimated that, if the court found for ABC, there would be a 50 percent chance that the borough would have to pay approximately \$187,000 and a 50 percent chance that the borough would have to pay another amount in the range.

Borough officials were aware that the state environmental regulator would require the borough to commence containment action to prevent further migration of the pollutant. However, the borough did not wait for notification but immediately commenced containment actions. Based on the advice of environmental engineers, the borough

estimated that the current value of the outlay to complete the containment work reasonably ranged from \$325,000 to \$475,000. However, actual outlays were expected to be much closer to a range of \$375,000 to \$405,000. Although no amounts within this latter range were considered to be better estimates than any other amounts, the range itself was estimated to comprise 60 percent of the reasonably expected potential outlays. The best-case and worst-case outlays of \$325,000 and \$475,000 were considered to be equally likely. Based on evidence obtained and legal outlays already incurred, the borough estimated that the total outlay to defend against the lawsuit would range from \$35,000 to \$55,000. No amounts within this range were considered to be better estimates than any other amounts.

Reporting

The estimate of the site assessment component of the liability would be increased as more information became available and the liability would be reduced as services were acquired. The borough also would increase the legal services component of the liability to \$45,000, less outlays for services already acquired, calculated as follows: $(\$35,000 + \$55,000)/2$. In addition, the liability would be increased by \$446,800, less outlays for services already acquired, for the expected outlay for containment work and for potential payments to ABC, calculated as follows:

Expected outlays for pollution containment:	
$((\$325,000 \times 0.2) + (\$375,000 \times 0.3) + (\$405,000 \times 0.3) + (\$475,000 \times 0.2))$	\$394,000
Weighted average potential payment to ABC:	
$((\$110,000 \times 0.25) + (\$187,000 \times 0.5) + (\$220,000 \times 0.25))$	\$ 176,000
Probability of being required to pay ABC:	
$((0 + 0.6)/2)$	_____ 30%
Expected payment to ABC	<u>52,800</u>
	<u>\$446,800</u>

The borough would update its disclosures to include the additional information. Also, the borough could disclose that “the measurement of the liability represents a probability-weighted average of possible outcomes and is based on professional experience with similar claims, some of which are higher and some of which are lower,” and that “the borough has not admitted responsibility and intends to vigorously challenge the claim.”

2006

Assumptions

In 2006, the court ruled in favor of the borough, freeing the borough from any liability to ABC, and ABC gave no indication that it would appeal. The borough completed pollution containment work for approximately the same amount as the expected outlay. Actual legal service outlays also were approximately the same as expected.

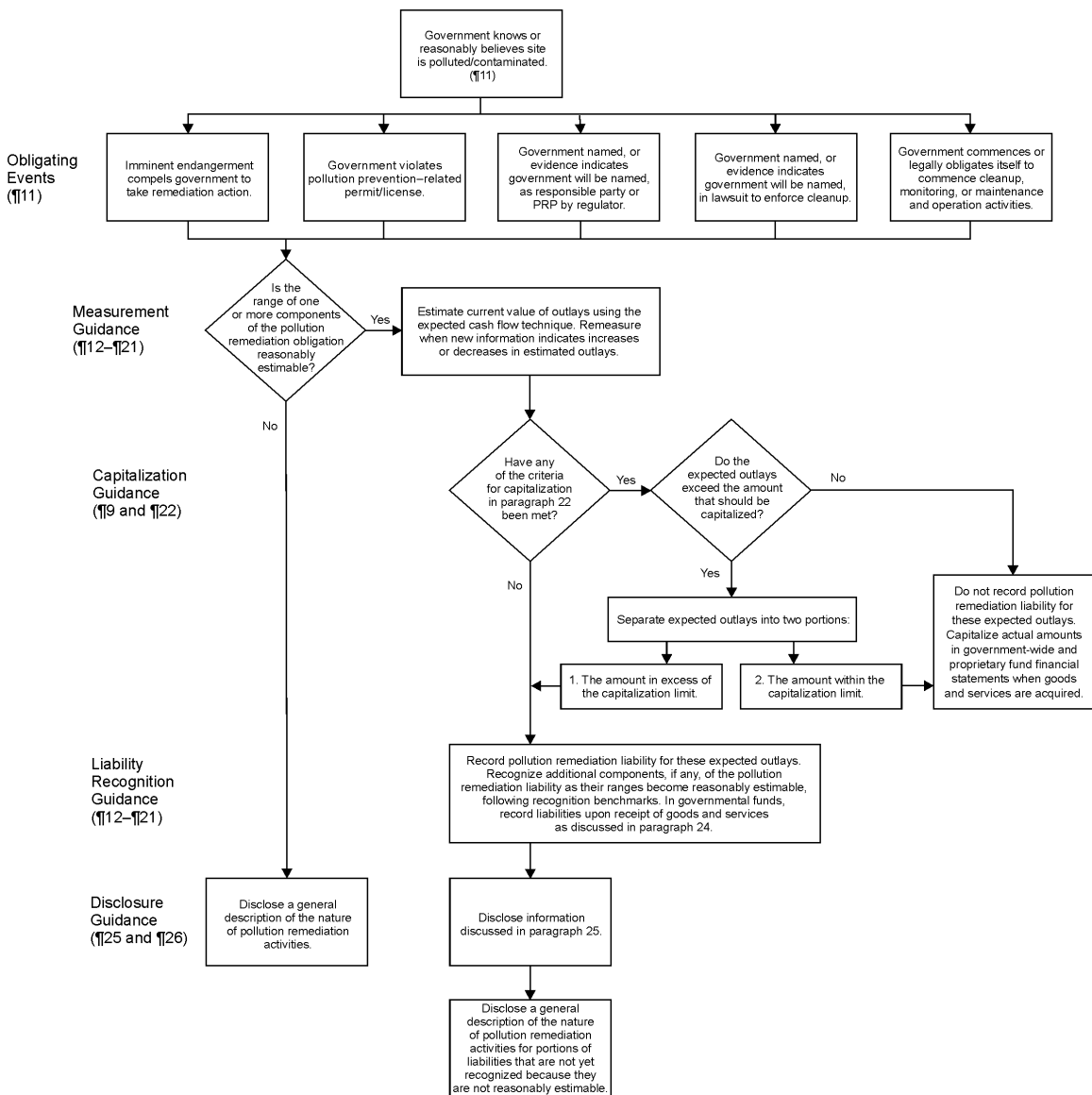
Reporting

The pollution remediation liability would be reduced as goods and services for pollution containment and legal services were acquired. Because the court released the borough from liability to ABC, the borough would recognize a gain on the settlement of the liability in the statement of activities.

Appendix D

FLOWCHART FOR EVALUATING AND RECORDING POLLUTION REMEDIATION OBLIGATIONS

106. The following flowchart is intended to aid in the application of the provisions of this Statement. The flowchart is nonauthoritative and does not cover all aspects of the Statement, such as accounting for recoveries. It should not be used in place of the Statement itself.



Appendix E

CODIFICATION INSTRUCTIONS

107. The sections that follow update the June 30, 2006, *Codification of Governmental Accounting and Financial Reporting Standards* for the effects of this Statement. Only the paragraph number of this Statement is listed if the paragraph will be cited in full in the Codification.

* * *

REPORTING CAPITAL ASSETS

SECTION 1400

See also: [Add the following:] Section P90, “Pollution Remediation Obligations”

* * *

REPORTING LIABILITIES

SECTION 1500

Sources: [Add the following:] GASB Statement 49

See also: [Add the following:] Section P90, “Pollution Remediation Obligations”

.102 [Insert *pollution remediation obligations*, before *and similar commitments* in the parenthetical phrase in the first sentence.] [Add GASBS 49, ¶9, to the list of amending paragraphs for NCGAS 1, ¶42, in the sources.]

.103 [Insert *pollution remediation obligations*, before *and other commitments* in the last sentence.] [Add GASBS 49, ¶9 and ¶24, to the list of amending paragraphs for NCGAS 1, ¶43, in the sources.]

.106 [Insert *pollution remediation obligations*, before and “*other commitments . . .*” in the last sentence.] [GASBI 6, ¶9, as amended by GASBS 47, ¶3, and GASBS 49, ¶9 and ¶24]

.108 [Revise the second bullet as follows:]

- Compensated absences, claims and judgments, termination benefits, landfill closure and postclosure care costs, and receipts of goods and services for pollution remediation should be recognized as governmental fund liabilities and expenditures to the extent the liabilities are “normally expected to be liquidated with expendable available financial resources,” as interpreted in Section 1600, paragraph .122.

[GASBI 6, ¶11, as amended by GASBS 47, ¶3, and GASBS 49, ¶24]

.114 [Add new footnote 4 at the end of the first sentence:] Disclosures of pollution remediation obligations are required only if an obligating event has occurred as discussed in Section P90, paragraph .109. [GASBS 49, ¶11]

* * *

BASIS OF ACCOUNTING

SECTION 1600

See also: [Add the following:] Section P90, “Pollution Remediation Obligations”

.118 [Insert *pollution remediation obligations*, before and “*other commitments . . .*” in the last sentence.] [GASBI 6, ¶9, as amended by GASBS 47, ¶3, and GASBS 49, ¶9 and ¶24]

.122 [Revise first sentence as follows:] Governmental fund liabilities and expenditures for claims and judgments, compensated absences, termination benefits, landfill closure and postclosure care costs, and receipts of goods and services for pollution remediation

should be recognized to the extent the liabilities are “normally expected to be liquidated with expendable available financial resources.”¹⁰ [GASBI 6, ¶14, as amended by GASBS 47, ¶16, and GASBS 49, ¶24]

¹⁰[Insert current footnote 10.]

.124 [Modify third sentence of footnote 11 as follows:] As discussed in paragraph .103, the financial reporting model requires accrual-basis recognition of liabilities and expenses—including compensated absences, claims and judgments, termination benefits, landfill closure and postclosure care costs, and pollution remediation obligations—in government-wide financial statements. [GASBI 6, fn7, as amended by GASBS 47, ¶3 and ¶12–¶14, and GASBS 49, ¶9]

* * *

NOTES TO FINANCIAL STATEMENTS

SECTION 2300

.107 [Add the following subparagraph x; renumber subsequent subparagraphs:] Pollution remediation obligations. (See Section P90, “Pollution Remediation Obligations,” paragraphs .123 and .124.)

* * *

CLAIMS AND JUDGMENTS

SECTION C50

.101 [Add the following sentence to the end of the paragraph:] This section does not apply to pollution remediation obligations, which are covered in Section P90, “Pollution Remediation Obligations.”

* * *

[Create new section as follows:]

POLLUTION REMEDIATION OBLIGATIONS

SECTION P90

Source: GASB Statement 49

Scope and Applicability of This Section

.101 [GASBS 49, ¶2, including footnote] [Change *Statement* to *section*; update cross-references.]

.102 [GASBS 49, ¶4, including footnotes] [Change *Statement* to *section*; update cross-references.]

.103–.124 [GASBS 49, ¶5–¶26, including headings and footnotes] [Change *Statement* to *section*; update cross-references.]

DEFINITIONS

.501 The following paragraphs contain definitions of certain terms as they are used in this section; the terms may have different meanings in other contexts. [GASBS 49, ¶28]

.502–.512 [Insert entries from GASBS 49, ¶28.]