



Designation: E2893 – 16<sup>ε1</sup>

## Standard Guide for Greener Cleanups<sup>1</sup>

This standard is issued under the fixed designation E2893; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

<sup>ε1</sup> NOTE—The adjunct order number for the X2. Technical Summary Form in Writable PDF format was editorially corrected (see 2.4) in January 2017.

### 1. Scope

1.1 Cleaning up *sites* improves environmental and public health conditions and as such can be viewed as “green.” However, *cleanup* activities use energy, water, and natural resources. The process of *cleanup* therefore creates its own *environmental footprint*. This *guide* describes a process for evaluating and implementing activities to reduce the *environmental footprint* of a *cleanup* project in the United States while working within the applicable regulatory framework and satisfying all applicable legal requirements.

1.2 This *guide* may also be used as a process for *sites* that are not located in the United States; however, the specific legal references are not applicable.

1.3 This *guide* describes a process for identifying, evaluating, and incorporating *best management practices* (BMPs) and, when deemed appropriate, for integrating a *quantitative evaluation* into a *cleanup* to reduce its *environmental footprint*.

1.4 This *guide* is designed to be implemented in conjunction with any *cleanup* framework and should be used with other technical tools, guidance, policy, laws, and regulations to integrate *greener cleanup* practices, processes, and technologies into *cleanup* projects.

1.5 This *guide* provides a process for evaluating and implementing activities to reduce the *environmental footprint* of a *cleanup* and is not designed to instruct *users* on how to clean up contaminated *sites*.

1.6 ASTM also has a *guide* on Integrating Sustainable Objectives into *Cleanup* (E2876). That *guide* provides a broad framework for integrating elements of environmental, economic, and social aspects into *cleanups*. This *guide* may

provide assistance with implementing E2876 and other sustainable remediation guidance, such as Holland, et al. (2011)(1).

1.7 This *guide* specifically applies to the *cleanup*, not the redevelopment, of a *site*. However, the reasonably anticipated use of a *site*, if known, may influence the *cleanup* goals and scope.

1.8 This *guide* should not be used as a justification to avoid, minimize, or delay implementation of specific *cleanup* activities. Nor should this *guide* be used as a justification for selecting *cleanup* activities that compromise *stakeholder* interests or goals for the *site*.

1.9 This *guide* does not supersede federal, state, or local regulations relating to protection of human health and the environment. No action taken in connection with implementing this *guide* should generate unacceptable risks to human health or the environment.

1.10 This *guide* may be integrated into complementary standards, *site*-specific regulatory documents, guidelines, or contractual agreements relating to sustainable or greener *cleanups*.

1.10.1 If the *cleanup* is governed by a regulatory program, the *user* should discuss with the regulator responsible for the *site* how this *guide* could be incorporated into the *cleanup* and whether the regulator deems it appropriate for the *user* to report the process and results to the regulatory program.

1.10.2 The contractual relationship or legal obligations existing between and among the parties associated with a *site* or *site cleanup* are beyond the scope of this *guide*.

1.11 This *guide* is composed of the following sections: Referenced Documents (Section 2); Terminology (Section 3); Significance and Use (Section 4); Planning and Scoping (Section 5); *BMP Process* (Section 6); *Quantitative Evaluation* (Section 7); Documentation and Reporting (Section 8); and Keywords (Section 9).

1.12 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the

<sup>1</sup> This guide is under the jurisdiction of ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action and is the direct responsibility of Subcommittee E50.04 on Corrective Action.

Current edition approved April 1, 2016. Published May 2016. Originally published in 2013. Last previous edition approved in 2013 as E2893–13<sup>ε1</sup>. DOI: 10.1520/E2893-16E01