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***NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION:
KEY PRINCIPLES AND GENERAL STANDARDS GUIDING PRACTICE IN THE UNITED
STATES***

PREFACE

The purpose of the natural resource damage assessment and restoration process is to compensate the public for losses incurred as a result of releases of oil or hazardous substances caused by one or more responsible parties. This document presents a set of well-established principles reflected in actual natural resource damage assessment and restoration practice in the United States. The principles are aimed at fostering achievement of timely and cost-effective restoration of natural resources at federal and state sites nationwide.

These principles are part of a larger Natural Resource Damage Assessment and Restoration “Best Practices Document”, which was prepared by the Ad-Hoc Industry Natural Resource Management Group (Group) and published in the Bloomberg BNA Daily Environment Report (“Beyond the Headlines: Best Practices to Restore Natural Resources Injured by Long-Term Hazardous Waste Releases, Oil Spills and Transport and Other Accidents”, August 18, 2014). The Group is working in consultation with other stakeholders, including federal, state and tribal trustees. The principles here were initially developed from the Group’s October 2011 Natural Resources Symposium, held at The George Washington University in Washington, DC in cooperation with GW’s Regulatory Studies Center in the Trachtenberg School of Public Policy and Public, and were updated in 2016 and thereafter.

PRACTICE PRINCIPLES

The following principles reflect the collective experience of diverse Symposium participants in both private and public sector roles over a forty-year time frame (i.e., since the 1980 passage of Comprehensive Environmental Response, Compensation, and Liability Act, CERCLA) and are consistent with statutory and regulatory goals. Implicit in the following principles is the overarching need to establish front-end visions of the desired restoration endpoint, as well as have the NRDA process proceed in a manner that includes timeline and cost expectations and limits.

Guiding Principle 1: The overall objective of natural resource damage assessment (NRDA) and restoration is to achieve timely and cost-effective restoration of natural resource services to their baseline. “Services” includes services provided by one natural resource to another natural resource resulting from their ecological functions and services provided by natural resources to humans. “Baseline” is the level of natural resource services that would have existed but for the release at

issue.

Guiding Principle 2: Focus the assessment process on the earliest possible evaluation of restoration options.

Guiding Principle 3: Conduct NRDA's that follow the basic scientific and economic principles on which the federal NRDA regulations¹ are based for the pertinent type of release -- whether or not the parties are engaged in a process that specifically follows those regulations.

Guiding Principle 4: Consider that existence of injury does not always result in a loss of natural resource services to the ecosystem or to people. A loss of services must be established and measured in order to scale restoration projects or determine damages. If a restoration-based settlement can be achieved by the parties, a rigorous quantification of lost services may not be necessary.

Guiding Principle 5: Quantify lost natural resource services as reductions in services compared to the baseline (i.e., the level of services that would have existed but for the release in question), taking into account the resource recovery period and recovery rate and omitting speculative services. To the extent possible, baseline considers and adjusts for all external contributing factors, including those unrelated to the release, naturally occurring or otherwise.

Guiding Principle 6: Select and use assessment methods that are cost-effective, given the circumstances of the site, using available data where feasible, and focusing new studies on the gathering of information needed to determine injuries, quantify service losses and/or scale restoration projects.

Guiding Principle 7: Facilitate a collaborative, transparent and efficient NRDA process that offers opportunities for meaningful involvement of potentially responsible parties throughout the process.

Note: This document was prepared by the Ad-Hoc Industry Natural Resource Management Group in cooperation with Federal, State and Tribal Trustee representatives participating in the Group's Industry/Trustee NRD Standing Committee. The document was originally prepared in 2016 and re-issued in Fall 2024. For further information, see <https://www.nrdonline.org/USActivities.php4>.

¹ See 43 *CFR* Part 11 for the US Department of the Interior regulations implementing CERCLA natural resource damage assessment and restoration activities conducted for releases of hazardous substances. See 15 *CFR* Part 990 for the US Department of Commerce/National Oceanic & Atmospheric Administration regulations implementing the Oil Pollution Act natural resource damage assessment restoration activities conducted for discharges of oil.