

MAKING THE CASE FOR ECOLOGICAL ENHANCEMENTS

1.0 INTRODUCTION

The Wildlife Habitat Council (WHC) has entered into a cooperative agreement with the U.S. Environmental Protection Agency (EPA) Office of Solid Waste and Emergency Response (OSWER) and the Office of Underground Storage Tanks (OUST). Under the agreement, WHC will present the latest technologies for applying ecological enhancements to site remediation. An ecological enhancement modifies a site to increase/improve habitat for plants and animals while protecting human health and the environment. An ecological enhancement can include natural remediation technologies and/or also represent an end use which restores/increases the ecological value of the land. WHC's goal is to demonstrate how federal, state, and local governments, industry and community groups can use ecological enhancements to facilitate the restoration of private and public (state, tribal, local) lands for a variety of reuses that include wildlife habitat.

WHC will address the objectives specified in the *Objectives and Action Agenda for Implementing Ecological Enhancements* generated during WHC's 2002 Conference, "Restoring Green Space: Using Ecological Enhancements at Superfund, RCRA and Brownfield Sites." These objectives are to (1) achieve greater regulatory flexibility and support for use of ecological enhancements, (2) develop a strategy for obtaining constructive and meaningful stakeholder involvements, (3) ensure sound scientific and technical support for ecological enhancement practices and (4) promote the value of ecological enhancements through a broad array of communication tools.

The purpose of this paper is to present natural alternatives to traditional remediation processes, thus allowing the incorporation of ecological enhancements as integral components of the remediation process, as well as the incorporation of ecological enhancements in the reuse of environmentally impacted sites. By presenting such alternatives, the white paper can be used to facilitate expeditious site reuse based on successful projects, such as those illustrated in the case studies (Appendix D). To achieve this goal, WHC assembled a technical committee of recognized national experts (Appendix A), with experience and expertise in remediation projects and techniques, in particular those including ecological enhancements. This technical committee includes a cross section of stakeholders, including the regulated community, government regulatory agencies, nongovernmental organizations, and other government agencies.

This paper seeks to accomplish the following goals:

- Identify benefits, incentives, and limitations for implementing ecological enhancements at environmentally impacted sites.
- Present case studies where the implementation of ecological enhancements as a component of the remedial design and/or end use has been successful or unsuccessful or is currently being tested.

- Make recommendations for the successful use of ecological enhancements at environmentally impacted properties. These recommendations include a matrix that will help users identify which sites are the best candidates for ecological enhancements and that will identify demonstration projects that hold the best potential for the successful incorporation of ecological enhancements.
- Make recommendations for regulatory improvements to foster greater acceptance and flexibility for the incorporation of ecological enhancements as a component of remedial actions and end use.
- Identify areas where additional scientific research is still needed.