

National Park Service CD Workbook for Planning, and Specifications for Ecological Restoration

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Introduction

This is an introduction to a new restoration workbook. It is a guide for writing specifications for ecological restoration in the National Park Service (NPS). The NPS has unique policies, guidelines, and procedures that govern ecological restoration of parklands. The policy guidance in this restoration workbook is taken from those management documents. Standards and specifications must be modified frequently.

The purpose of this workbook is to assist NPS staff in planning, designing, writing scopes of services and construction specifications for ecological restoration. It is based on engineering standards and specifications, and past experiences from actual park projects.

Many NPS restoration projects require that certain genetic and environmental protection standards be met. Standard specifications such as those published by the American Institute of Architects (AIA), the Construction Standards Institute (CSI), and the Federal Highway Administration (FHWA) are frequently modified for park projects.

Below is a summary of the eight sections included in the workbook. This document, which is over 550 pages, uses “object links” for ease of navigation and locating specific subjects. These examples will help improve the efficiency of specification writing and better ecological restoration. This workbook provides planning document outlines and organizes planning guidance processes. It will give sample scopes of services and construction specifications. NPS restoration manuals are also provided; the workbook includes two manuals which interpret restoration guidelines. The restoration manuals have been used previously in many different types of NPS revegetation and restoration projects.

Workbook contents

Section I, “Planning Process,” summarizes the ecological restoration, planning, and design processes as described in the disturbed lands section of draft Reference Manual #77. The information is appropriate for projects focused on removal of exotic species, removal of contaminants and non-historic structures or facilities, restoration of abandoned mineral lands, abandoned or unauthorized roads, areas over-grazed by domestic animals, disrupted natural waterways and/or shoreline processes, restoration of areas disturbed by NPS administrative, management, or development activities (hazard tree removal, construction, or sand and gravel extraction) or by public use, restoration of natural sounds capes, and restoration of native plants and animals.

Section II, “Construction Standards and Specifications,” contains 26 specifications for land restoration. They include, but are not limited to, “Clearing and Grubbing,” “Excavating and Embankment,” “Topsoil,” “Mulching,” “Seeding,” “Sodding,” “Planting,”

“Landscaping,” and “Mined Land Revegetation.” These specifications were generally adapted from the AIA and CSI for NPS use. These specifications are written to direct the performance of particular tasks. A list of other references is also included at the end of each specification for additional information. Because a number of different materials can be used, the most common material specifications have been removed and placed in Section V, “Specifications for Materials.”

Section III, “NPS Specifications Organized by Parks,” contains 24 park packages with specifications associated with past land restoration projects. These projects have been organized according to format (NPS best management practices, CSI, and FHWA). Part I is entitled “Park Restoration/Revegetation Best Management Practices.” Part II covers “NPS Specifications in CSI format.” Part III describes “NPS Specifications in FHWA format.” Part IV lists “Miscellaneous Scopes and Specifications.”

The “National Park(s) Special Contract Requirements” (SCRs) is an informal guide. It is intended to help NPS staff in preparing specifications for SCRs by discussing issues frequently confronted and by providing examples of specifications that have been modified.

It also gives examples for inspection of materials imported into the park, crimping straw, mulching, erosion control materials, time, and rental equipment specifications. This allows for special finishing techniques, restoration of desert pavement, log and plant salvage, and installation. Section V also contains forms that have been useful in connection with planning, restoration and monitoring projects.

Section IV, “Federal Lands Highway Project,” contains the guide entitled “Library of Commonly Used Supplemental Specifications for National Park Service Projects in the Pacific Northwest.” This is the result of a cooperative effort of the FHWA Federal Lands Highway Western Division, the NPS Denver Service Center, and park staff. This is used for the development of a request for proposals (RFP) for the construction of roads and bridges in the Pacific Northwest.

Section V, “Specifications for Materials,” provides specifications for commonly used materials (fertilizers, erosion control blankets, soil amendments, etc.) and notes NPS preferences.

Section VI, “Watershed Restoration, RFP Contract,” is an example of an RFP for contracting for a watershed-scale restoration with heavy equipment. Redwood National and State Parks used this document to contract for removal of roads, skid roads, reduction of erosion, and restoration of natural landforms. It includes technical specifications for road out-sloping and cost estimation guidance.

Section VII, “Watershed Restoration Manual, Redwood National Park, 1992,” is a publication which provides information on establishing a restoration program that addresses erosion problems related to roads in steep forest terrain. Watershed restoration work involves a long-term commitment to improving the conditions of ecosystems. This publication goes through the thought processes and actions necessary to set program goals and identify and evaluate erosion problems. It prioritizes areas for treatment and investigates the causes of the problem through geomorphic mapping and design treatments.

Section VIII, “Internet References,” discusses the Internet as another beneficial source for standards and specifications and technical information on ecological restoration.

Section VIII contains specific website descriptions, the steps required for accessing selected technical information, and examples. Websites described include the Natural Resources Conservation Service and Federal Highways project FP-96, plus miscellaneous references.

The workbook is a Microsoft Word file. Standard procedures for copying, saving, merging, etc., are used for standardization and convenience.

Each section of the workbook, I through VIII, is listed in the master table of contents (TOC). The TOC gives a brief description of the tasks and topics described in each section. Sections I, II, III, and V also have subtopic TOCs. Subtopic TOCs can be located by double clicking on the respective icons as described below.

Click on the icon in the TOC of the respective project or subtopic TOC you wish to locate. Repeat this operation from the subtopic TOC to open the respective project file you want to visit. To return to the beginning of the main TOC or a subtopic TOC, simply close the project file and/or subtopic TOC file you are presently using.

Using and modifying file contents

Individual files and examples contained within the workbook are Microsoft Word files. A specific document can be revised and saved. When you have a project file open, you can save it to a named target document by using the “save as” command. This target document can then be changed or modified to fit the specific situation or need. “Blocking” and “copying” to a new file can also extract portions of individual forms and documents.

This document brings together a large number of references and examples for writing restoration specifications. It is a helpful guide for writing specifications and accessing associated information for ecological restoration. For more information or a copy of the CD, contact Wendell Hassell at wghassell@msn.com or telephone 1-303-431-6405.