1. Introduction

HEP is a method which can be used to document the quality and quantity of available habitat for selected wildlife species. HEP provides information for two general types of wildlife habitat comparisons: 1) the relative value of different areas at the same point in time; and 2) the relative value of the same area at future points in time. By combining the two types of comparisons, the impact of proposed or anticipated land and water use changes on wildlife habitat can be quantified. This document describes HEP, discusses some probable applications, and provides guidance in applying HEP in the field.

The HEP is based on the assumption that habitat for selected wildlife species can be described by a Habitat Suitability Index (HSI). This index value (from 0.0 to 1.0) is multiplied by the area of available habitat to obtain Habitat Units (HU's), which are used in the comparisons described above. The reliability of HEP and the significance of HU's are directly dependent on the ability of the user to assign a well defined and accurate HSI to the selected evaluation species. Reliability is greatly increased when documented criteria for determining HSI's are available. Guidance for the development of criteria is found in the "Standards for the Development of Habitat Suitability Index Models for Use with the Habitat Evaluation Procedures" (103 ESM).

The user must determine the applicability of HEP to a particular study (Chapter 2). Figure 1-1 shows the steps to be followed if HEP is applicable to the study. The first step generally involves defining the study limits, including delineating the study area, determining cover types, and selecting evaluation species. The next step is to describe baseline conditions in terms of Habitat Units. The third step of HEP is the projection of future habitat conditions in terms of Habitat Units. These steps provide the basic approaches for habitat assessments and are described in greater detail in Chapters 3-5. Chapter 6 describes a methodology for including value judgments in evaluating alternative actions. Chapter 7 discusses the concepts of the application of HEP to compensation studies. Finally, Chapter 8 provides a detailed example of an application of HEP using the Forms in Appendix A. Appendix B provides guidelines for the development of sampling.

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[1]The term "wildlife" is used in this document to refer to both aquatic and terrestrial animal species.

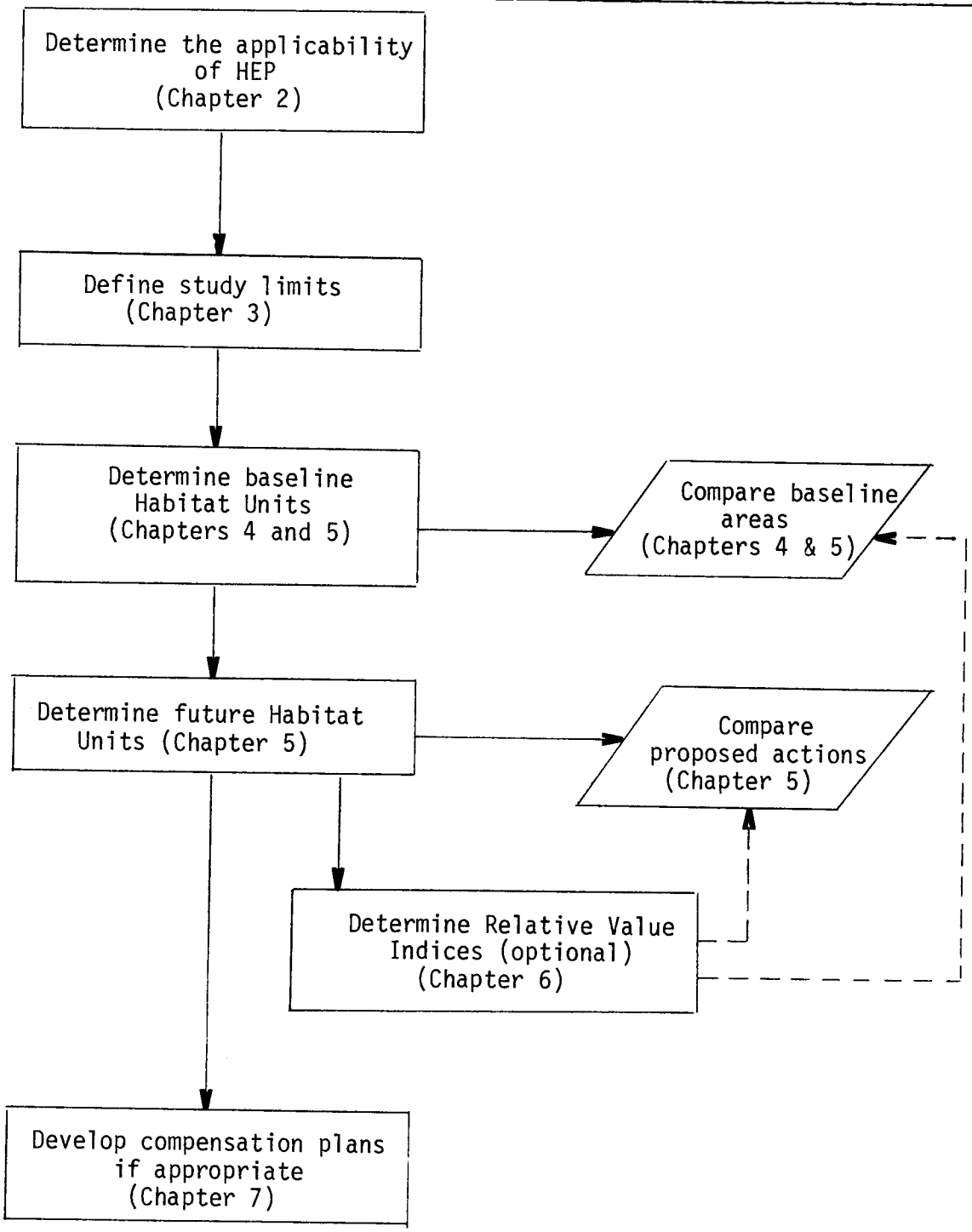

Figure 1-1. Generalized evaluation process using HEP