



Assessment of Target Viability¹ Worksheet: Conservation Project Management Workbook Versions 3 (CAP) and 4

The “Viability” worksheet in version 3 and higher of the Excel workbook for conservation project (area) planning has been improved to increase the precision of our assessment of ecological status, often referred to as “Biodiversity Health.” Because of the complexity and importance of this section for defining and measuring success, complete and clear documentation is a necessity. The experts or references that helped identify Key Ecological Attributes, indicators, and quantified indicator ratings should be recorded. Note that records in this worksheet are directly linked to records in the monitoring worksheet.

Table 1 shows an example of a completed spreadsheet for reference throughout this document. More complete development of the concepts and application of Assessment of Target Viability is found in a report by Parrish et al. (2003)¹. While the full Assessment may not be completed in early iterations of Conservation Plans, completing this page should be a goal of all planning teams.

Why has TNC changed the method for assessing target viability?

The Nature Conservancy’s “Five-S” framework² directs us to assess the “biodiversity health” of each conservation area and the status of each conservation target. This is done by 1) rating three categories of ecological status (condition, landscape context, and size) for each conservation target on a four-part scale (Poor-Fair-Good-Very Good), and 2) using these ratings to assess the overall status (“viability”) of an area’s conservation targets.

The Framework does not provide detailed information on how to address four issues critical to this work: (1) How to assess condition, landscape context, or size; (2) What criteria should be used to consistently distinguish Poor, Fair, Good, and Very Good ratings from each other; (3) What methods would ensure consistency between the assessment of targets and the assessment of threat severity and scope; and (4) How to identify the right field measurements and indicators to monitor in order to establish objective information for assessing target and threat status? The “Assessment of Target Viability” tool has been developed to help address these issues. The methodology for this tool is described in this document.

Viability Assessment: A revised approach for conservation practitioners

There are three core elements of the *Viability Assessment* that apply to *all focal conservation targets* in a conservation area of any scale – whether these are individual populations or species, assemblages of species, ecological communities, or ecological systems. These elements and their function are as follows:

- 1) **Key Ecological Attributes** – structure, composition, interactions and abiotic and biotic processes that enable the target to persist through influence on the target’s size, condition, and landscape context.
- 2) **Indicator** – measurable entity that is used to assess the status and trend of a Key Ecological Attribute.
- 3) **Indicator rating** – the ranges of variation in an Indicator that define and distinguish Very Good, Good, Fair, and Poor rating categories to provide a consistent and objective basis for assessing the status of each Indicator.

These three elements are applied in the Viability Assessment framework and Excel spreadsheet in five explicit steps:

Step 1: Identify Key Ecological Attributes (see Box 1, Fig. 1)

Consider the primary ecological processes and features that must be maintained to ensure the long-term viability of the conservation targets. A **Key Ecological Attribute** is a critical component of a conservation target’s life history, physical processes, community interaction, habitat, or interaction with other species. To help identify these Key Attributes, consider

¹ Parrish, J.D., D.P. Braun, and R.S. Unnasch. 2003. Are we conserving what we say we are? Measuring ecological integrity within protected areas. *Bioscience*. In press.

² The Nature Conservancy. 2000. *Five-S Framework for Site Conservation: A practitioner’s handbook for site conservation planning and measuring conservation success*. Vol. I, Second Ed. These guidelines represent an update to Sections B and C of Chapter IV (Strategies). They are designed to be used with the Excel-based Conservation Area Planning/Measures of Success Workbook, Version 3d (released March 2003).