

4.0 CERP Success Points of Reference

To determine CERP’s success in restoring the quality, quantity, timing and distribution of water to the natural system and associated ecological characteristics, RECOVER considers six “points of reference”. Each of these points is tied to a specific planning purpose and represents a different aspect of measuring CERP progress. **Figure 4-1** depicts each of these points, which are discussed in more detail below.

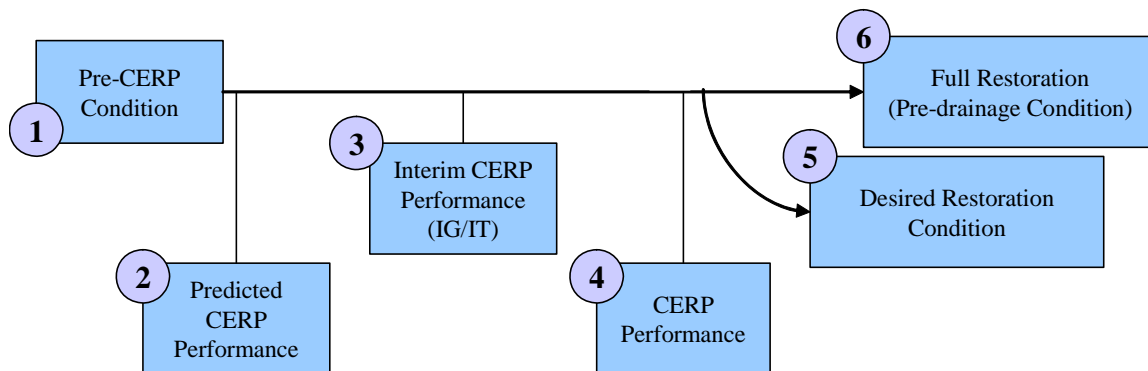


Figure 4-1. Six points of reference for CERP planning activities

1. Pre-CERP Condition (condition prior to CERP implementation)

The first point of reference, pre-CERP condition, can be viewed as the starting point for each indicator and describes the indicator’s condition prior to CERP implementation. Some state and federal monitoring programs in place prior to CERP’s inception have already supplied this information for some performance measures. For other performance measures, this information is being obtained through implementation of a monitoring program developed specifically for the CERP. This program is laid out in the *CERP Monitoring and Assessment Plan: Part 1, Monitoring and Supporting Research* (RECOVER 2004). Information about an indicator’s “pre-CERP condition” is provided under the Justification section on each performance measure documentation sheet.

2. Expected CERP Performance (evaluation of performance measures)

The second point of reference anticipates the system’s performance following full CERP implementation. This point of reference is currently determined during the planning process through use of hydrologic models, other evaluation tools, best available science, and best professional judgment. Performance measure indicators and targets are evaluated by comparing expected performance following full CERP implementation to the future without project scenario. This evaluation of performance is used in the federal planning process to outline ecological benefits expected from implementation of an individual project or a suite of projects. When applied to the CERP as a whole, evaluation of CERP alternatives provides valuable information regarding CERP’s expected performance in meeting restoration goals. It should be emphasized that expected CERP performance, even at full project implementation, is, in most cases, not equivalent to the

desired restoration condition (fifth point of reference). It is widely recognized that CERP alone will not achieve desired restoration condition. CERP is not the sole restoration effort taking place in South Florida. The CERP evaluation target for each measure is provided under the Predictive Metric and Target heading on the performance measure documentation sheets.

3. Interim CERP Performance (assessment of interim goals and interim targets)

The third point of reference is actual measured condition of indicators in the field during CERP implementation to determine CERP's incremental success toward reaching restoration goals. Currently, interim goals and interim targets (referred to as IG/IT in **Figure 4-1**), a subset of CERP performance measures, reflect expected performance of the plan through its implementation. Monitoring of interim goal and interim target indicators throughout CERP implementation will determine status and trends in hydrological and ecological characteristics of natural areas that are being restored. Interim goals and targets are described in more detail in Section 5 of this document and in *The RECOVER Team's Recommendations for Interim Goals and Interim Targets for the Comprehensive Everglades Restoration Plan* (RECOVER 2005). If a performance measure is part of this subset it will be indicated under the Monitoring and Assessment Approach heading on performance measure documentation sheets.

The subset of performance measures that are being used as interim goals and targets are not the only measures being monitored during implementation; the full set of performance measures are being monitored. All will be assessed and reported on every two years in a Systems Status Report to provide a broad overview of CERP progress. Interim goals and targets differ from the full set of performance measures in that most performance measures have only an end (restoration completed) goal, not an interim goal or target.

4. CERP Performance (assessment of performance measures)

The fourth point of reference is actual CERP performance measured in the field following during and following full CERP implementation to determine success of the overall restoration effort. While similar to assessment of interim goals and interim targets, this point of reference refers to CERP performance as they relate to the cause-and-effect hypotheses presented in the final draft of the *Monitoring and Assessment Plan (MAP), Part 2, 2006 Assessment Strategy for the MAP* (RECOVER 2006). While assessment of all performance measures will be reported every two years in a System Status Report, this point of reference corresponds to assessment of indicators following full implementation. Also, assessment of interim goals and targets involves comparing performance measured in the field to CERP's expected performance, while assessment following full implementation will compare CERP's performance measured in the field to the desired restoration condition (fifth point of reference). Another difference between the two types of assessments is that the full set of performance measures will be used for this assessment, while interim goals and targets were developed for only a subset of performance measure indicators. The CERP assessment target for each measure is

provided under the Assessment Parameter and Target heading on performance measure documentation sheets.

5. Desired Restoration Condition

Desired restoration condition represents the condition necessary to provide a healthy and sustainable South Florida ecosystem. In many cases, desired restoration condition for an indicator is the same as pre-drainage, historical condition (or full restoration, sixth point of reference); however, it is not always possible to achieve restoration to pre-drainage conditions for some indicators because our human civilization is now a permanent part of the South Florida ecosystem. In these cases, desired restoration condition is something different than historical condition. For example, 50 percent of the historic pre-drainage Everglades have been lost to urban and agricultural development, so increasing the Everglades' spatial extent back to 100 percent of its historic size is not possible. The desired restoration condition for overall spatial extent is, therefore, substantially lower than the historic condition, yet it is believed to be large enough to provide for a sustainable ecosystem.

Desired restoration condition for each performance measure is outlined under the Restoration Expectation heading on performance measure documentation sheets. Setting performance measure targets based on desired restoration condition as opposed to expected performance (second point of reference) is intended to provide incentive for improving upon the plan through adaptive management. For some performance measures, desired restoration condition has not yet been clearly defined. Therefore, targets for these performance measures indicate a desired direction of change (increase or decrease) as opposed to a quantitative target. Desired restoration conditions will be revised as more information becomes available.

The concept of desired restoration condition is currently being reexamined by the RECOVER Leadership Group (RLG). This section will be updated if necessary upon instruction from the RLG.

6. Full Restoration

The sixth point of reference is full restoration. A fully restored South Florida ecosystem would be one that had returned to the pre-drainage condition. As discussed above, it is not always possible to achieve restoration to pre-drainage conditions for some indicators. Given that few or no pristine pre-drainage areas exist, historical condition is often described using historical accounts or computer models of the ecosystem without water management structures in place (e.g., Natural System Model [NSM] simulations). This point of reference is not usually required on documentation sheets, but sometimes it is provided within Justification, Relationship to Conceptual Ecological Models, or Adaptive Assessment Hypothesis Clusters sections.

4.1 References

- RECOVER. 2004. CERP Monitoring and Assessment Plan: Part 1 Monitoring and Supporting Research. Restoration Coordination and Verification Program, c/o United States Army Corps of Engineers, Jacksonville District, Jacksonville, FL, and South Florida Water Management District, West Palm Beach, FL. www.evergladesplan.org/pm/recover/recover_map.aspx
- RECOVER. 2005. The RECOVER Team's Recommendations for Interim Goals and Interim Targets for the Comprehensive Everglades Restoration Plan. Restoration Coordination and Verification Program, c/o United States Army Corps of Engineers, Jacksonville District, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, FL. www.evergladesplan.org/pm/recover/igit_subteam.aspx
- RECOVER. 2006. Monitoring and Assessment Plan (MAP), Part 2, 2006 Assessment Strategy for the MAP, Final Draft. Restoration Coordination and Verification Program, c/o United States Army Corps of Engineers, Jacksonville District, Jacksonville, FL, and South Florida Water Management District, West Palm Beach, FL. December 2006. www.evergladesplan.org/pm/recover/recover_map.aspx