

Chris Vondrasek  
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## Final Project / Field Checklist

Preface. The SER Survey Form we have been using this quarter focuses on various "on the site" actions of humans laboring to change the specific restoration location. It also records observations of the states of, and the interactions of the plants, animals, soil, water, sun, and topography. Generally, this is environmental outcome criteria. It neglects the other human inputs that are essential to evaluating the success, or potential for success in a restoration effort. My field checklist will include much of the essential "on the site" criteria from the SER Surveys, but will add some important off site considerations, process criteria and socio-economic outcome criteria.

"Evaluation approaches will vary with the evaluation's intent." (Conley and Moot, 371) The field checklist "product" is a tool, hopefully used to broadly share knowledge and to help develop new resources for further restoration efforts. These further efforts include future work at the particular site that is evaluated, and possibly work on new future projects in other locations.

Another reason to include additional evaluation criteria that might be considered to be outside the observable field criteria is to be better able to include the development of goals and indicators. "Environmental outcomes are often moving targets." (O'Leary and Bingham, 291) Additional criteria might make the assessment methods better able to develop over time.

Were a policy maker, grant reviewer, legislative aid, or other public stakeholders looking at a project evaluation, the criteria they might judge a project's success could include the answers to questions such as;

Who initiated the project?,

Who did the work?,

Did the project use community volunteers? or did it create jobs?

Who funded the work?

How was community support developed or used?

How long a time line does the work require? and

How much follow up or resources will the project continue to require in the future?

They might consider these kinds of questions in addition to observations on the site about how well certain species of native plants survived, or whether the soil was quick or compacted, for examples.

This checklist tries to include some of these issues, or additional methods of looking at a project's success, in its "toolkit".

Conley, Alexander, Margaret Moote, "Evaluating Collaborative Natural Resource Management." Society and Natural Resources. London: Taylor and Francis, 2003

O'Leary, Rosemary, Lisa Bingham, eds. The Promise and Performance of Environmental Conflict Resolution. RFF Press, 2003

Final Project / Field Checklist

**1. Describe the project.**

When was it begun? What are the main tasks underway at the site? What tasks are still being done? What work has ceased, or been completed?

**2. A project site has a history. The decision to restore a site is a decision to plot a new trajectory for future at the project location.**

Describe the site and its history. What were the main causes of the degraded or compromised state of the landscape there? What are the legacy effects of this history (pollution, removed soils, dumping)?

What are the purposes of the project? How were these purposes developed? Does the project have clear and feasible goals?

Who in the community has initiated the restoration? For example, is it a grassroots community driven effort? Does the project have diverse participation? And wide support?

Is the project driven by an obligation to comply with new or existing laws? Which governmental agencies are involved?

What is the decision-making process for continuing to move forward on the project?

**3. The project will succeed partly due to the increase of knowledge among the project's participants. This knowledge includes scientific and ecological knowledge about the site, but also includes knowledge about how to best use shared human and capital resources.**

How is knowledge and understanding shared among the participants?

What are the working relationships of the various stakeholders involved in the restoration? Is there a volunteer component to the restoration efforts?

What do public agencies contribute? Funding? Scientific expertise?

If the restoration has an governmental or institutional involvement, how is the public involved or informed?

Has the restoration effort changed existing institutions?

Has the restoration effort created new jobs at the site? How, and are these permanent or seasonal positions?

**4. A reference ecosystem for this restoration project has structures for the plant and animal communities there, and an unique web of specific species. The restoration will move the site from an initial compromised state toward the reference natural ecosystem.**

What is the reference ecosystem type for this project? Is this ecosystem type appropriate for the site?

What are the key plant structures of this reference ecosystem? Are there trees? Shrubs? What is seen at the project site today?

What animals might live in a the reference ecosystem that might be seen in the future restored site? Is there an evidence of these animals yet?

Consider the place along the trajectory between the initial and compromised site and a possible, complete and restored site. What native plants were present from the initial site, and can be seen today?

What planted natives can be identified? Is there evidence of mortality among the native plantings?

From the initial state of the project site, what invasive plants persist? What percent of the coverage of the site do they maintain? Are they inhibiting the native plants, either the existing or newly planted natives, from spreading across the site?

Where and why do the invasives that are on the site persist?

#### **5. Considering the trajectory of the project site, look at where the project site is today. The plant structures will be a composite of existing and new plantings.**

How are the vertical structures and canopy conditions developing? How old are the new plantings that are making up the newest layers of vertical structure?

Moving horizontally across the site, how are the existing and new plantings developing and filling in across the site landscape.

Is there evidence of volunteers among the newer plants? Are there nearby locations for new seeds, new plants, or animals to enter the site? Is the site part of a larger natural landscape or an island in a more fragmented one?

Is there evidence of a possible change in the species make up in the canopy as the site matures, due to what is coming up? (such as less big leaf maple and more conifers)

How well are the plants doing? How is health, and mortality?

Is shade being produced? Are new plant structures limiting new weeds?

#### **6. Supporting the plant structures are the topography and soil of the site. The weather, especially sun, wind, seasonal fluctuations in precipitation and ground moisture are also important.**

What is the topography of the site? How are the soils, relative to those found in the reference ecosystem? What is the organic content, quickness, compactness?

How exposed is the site to sun and wind? Is salt, from sea breezes or tides an issue at the site?

How much of the site is wet? Is there standing water? Is there moving water and riparian areas at the site?

What are the annual moisture fluctuations there?

#### **7. As the project develops the normal ecosystem functions will begin to return. Persistent challenges to the project becoming self-sustaining should lessen. Ecosystem function goals for the restoration will begin to be realized.**

Are important ecosystem functions such as more diverse and better animal habitats or water quality beginning to show improvement? What are the signs of habitats?

Has the presence of new planting begun to create leaf litter, or that other soil ameliorating is occurring (such as earthworms, nutrient pooling)?

Are the habitat creating ecosystem functions being supplemented with artificial habitat structures? Do they work?

Are there persist challenges to the improvements in ecosystem function that might reappear, or problems from off-site that may gain a foothold at the site?

**8. The project has relationships with the surrounding landscape and the surrounding human communities. Success for the project will continue to be influenced by these relationships.**

What is the surrounding landscape like? Is the site near to, or part of an area of the reference ecosystem? Is the site isolated from other native communities?

Are there connections or corridors to other nearby native communities? Are there pathways for native plants or animals to gain access to the restoration?

Is there interest in the restoration from the neighboring human community? Does this community participate in the restoration or take an interest in its success?

Is the surrounding human community an obstacle, or challenge to the restoration project success?

Is the surrounding landscape a source for invasive plants or animals? Does the surrounding human community participate in minimizing the threats from weeds or invasives?

**9. As the restoration moves toward self-sustainability it will require less outside care.**

At what stage of development is this restoration project? Where is it on its successional trajectory?

How much care do the plants still require, such as watering, replanting, weeding, soil additions?

Are the plants becoming established and able to be left without special care? Are they achieving a multi-layer canopy, or diversity of structure?

If the site endures regular natural stresses on the ecosystem, how close is the restoration to being resilient enough to survive those stresses without aid or without the project suffering a major setback?

**10. The restoration project is on its trajectory toward being self-sustaining, or achieving the goals of the project.**

If they are unknown, hypothesis the goals of the project. Where is the project on the path toward attaining those goals? Is becoming self-sustaining the main criteria of success? How else is success defined here?

What is the successional stage of the project today?

What are the obstacles toward becoming self-sustaining?

Assess the community's ongoing interest in the restoration and the potential for continued community involvement and resources in the future.

Has this project used evaluation a tool to judge progress, or to justify or seek resources in the past? How does this evaluation compare with past ones?