

Sites vs. Management Areas

An Introduction to Habitat Areas in the Rights-of-Way as Habitat Geospatial Database

Key Database Terms

Sites are land areas (e.g., parcels or groups of parcels) where *Conservation Measures* are tracked on an individual basis with location-specific measures.

Management Areas are land areas managed programmatically (as a group) with similar *Conservation Measures* across several locations.

Pollinator Scorecard points are locations where an assessment has been performed at one of three monitoring levels (tier 1, 2, or 3) to assess pollinator habitat quality.

Conservation Measures are the specific conservation actions that are taken (e.g., conservation mowing, selective herbicide treatments, native seeding, etc.) on a land area.

Programs (for Management Areas) are used to apply one or more *Conservation Measure(s)* across *Management Areas*. This is the only way to specify *Conservation Measures* on *Management Areas*. Multiple *Management Areas* can be designated under one program if they share the same management properties (e.g., type, frequency, etc. of conservation actions). These *Programs* also serve as “sampling groups,” so that *Pollinator Scorecard* points across similar *Management Areas* in a *Program* can be evaluated together.

Programs (for Sites) are used solely to define “sampling groups.” In this case, *Programs* do not allow for information on *Conservation Measures*, since this is already defined uniquely for each *Site*. A *Program* can be assigned to a single *Site* (unique) or assigned to a group of *Sites* (shared) if an organization wishes to evaluate *Pollinator Scorecard* points across a set of similarly managed *Sites*.

Programs (for Pollinator Scorecard points) are used to cluster *Pollinator Scorecard* points into “sampling groups” so that habitat assessment results can be examined at a single location or across multiple land areas that share the same or similar *Conservation Measures*.

Sites vs. Management Areas

An important determination your organization will need to make is whether conservation land areas should be entered as “Sites,” as “Management Areas,” or a combination of each. *Sites* are managed individually, which allows for the most detailed data tracking of what conservation actions have been applied to which land areas (i.e., a granular tracking approach). In this case, *Conservation Measures* are recorded for each location individually and include details such as the type of measure applied, implementation organization, implementation status, implementation frequency, and date of last activity. Organizations can also record the percentage of the *Site* on which a *Conservation Measure* was implemented (e.g., conservation mowing occurred on 30% of the *Site*).

Alternatively, *Management Areas* track conservation actions at a programmatic scale across many land areas and thus does not allow for detailed, site-specific information. Organizations first develop a “Program,” which is a set of *Conservation Measures* that can be applied to multiple locations that are similarly managed. The table below illustrates which *Conservation Measure* attributes can be identified for *Sites* and *Management Area Programs*.

Table 1. Comparison of Conservation Measure Attributes by Sites and Management Area Programs

Conservation Measure Attribute	Can be Identified for Sites?	Can be Identified for Management Areas through Programs?
Conservation measure (e.g., seeding and planting, conservation mowing, targeted herbicide, etc.)	✓	✓
Implementation organization (i.e., organization responsible for implementing the conservation measure)	✓	✓
Implementation status (dropdown options: implemented, not yet implemented)	✓	✓
Implementation frequency (dropdown options: one-time occurrence, more than once a year, annually, once every 2 years, once every 3-5 years, once every 6-10 years)	✓	✓
Percent of Site in which measure was applied (e.g., conservation mowing occurred on 65% of the Site)	✓	
Activity start date	✓	✓
Activity end date	✓	✓
Notes	✓	✓

It is important to note that for both approaches, *Pollinator Scorecard* points (i.e., habitat assessments) are tied to a *Program*. For *Management Areas*, the *Program* is used both to (1) identify *Conservation Measures* and (2) group *Pollinator Scorecard Points* across multiple land areas. For *Sites*, the *Program* is used solely for grouping *Pollinator Scorecard* points across related land areas (note: it is also possible to identify a unique *Program* for a single *Site* if an organization wishes to manage its habitat assessments separately).

Sites vs. Management Areas

Guide for determining how to designate habitat areas on your system

Management Area



Management Areas identify land areas that have similar management practices. Used alone, they do not allow for the identification of specific conservation measures, but this information can be defined through corresponding *Programs* (see below). *Management Areas* should be used when:

1. Many land areas are generally managed in the same way (e.g. programmatic mowing policy), and
2. Sampling across a *Management Area* may be used to generally determine habitat quality of other similarly managed lands in the *Program*.



Est. HERE, Camr, © OpenStreetMap

Site



Sites define specific *Conservation Measures* on an individual land area basis. They are managed individually, which allows for detailed tracking. *Sites* should be used when:

1. *Site-specific Conservation Measures* are tracked for each land area, and
2. Individual tracking of when management activity occurs is desired for each land area.

Pollinator Scorecard

Pollinator Scorecard points are locations where pollinator habitat quality has been assessed at one of three monitoring levels (Tier 1, 2, or 3). Scores are used to characterize individual *Sites*, groups of *Sites*, or *Management Areas* under a *Program*.

Program

Programs allow users to associate *Pollinator Scorecard* points with a particular land area or group of land areas. *Programs* allow users to group *Management Areas* or *Sites* for ease of tracking habitat quality, conservation strategies, or special projects.

In addition, *Programs* are used to define *Conservation Measures* for *Management Areas*. One or more *Conservation Measure* may be used to define a single *Program*.



Program A
e.g. "Living Snow Fence"
• Reduced mowing practices



Program B
e.g. "New Habitat"
• Native re-seeding
• Targeted herbicide application



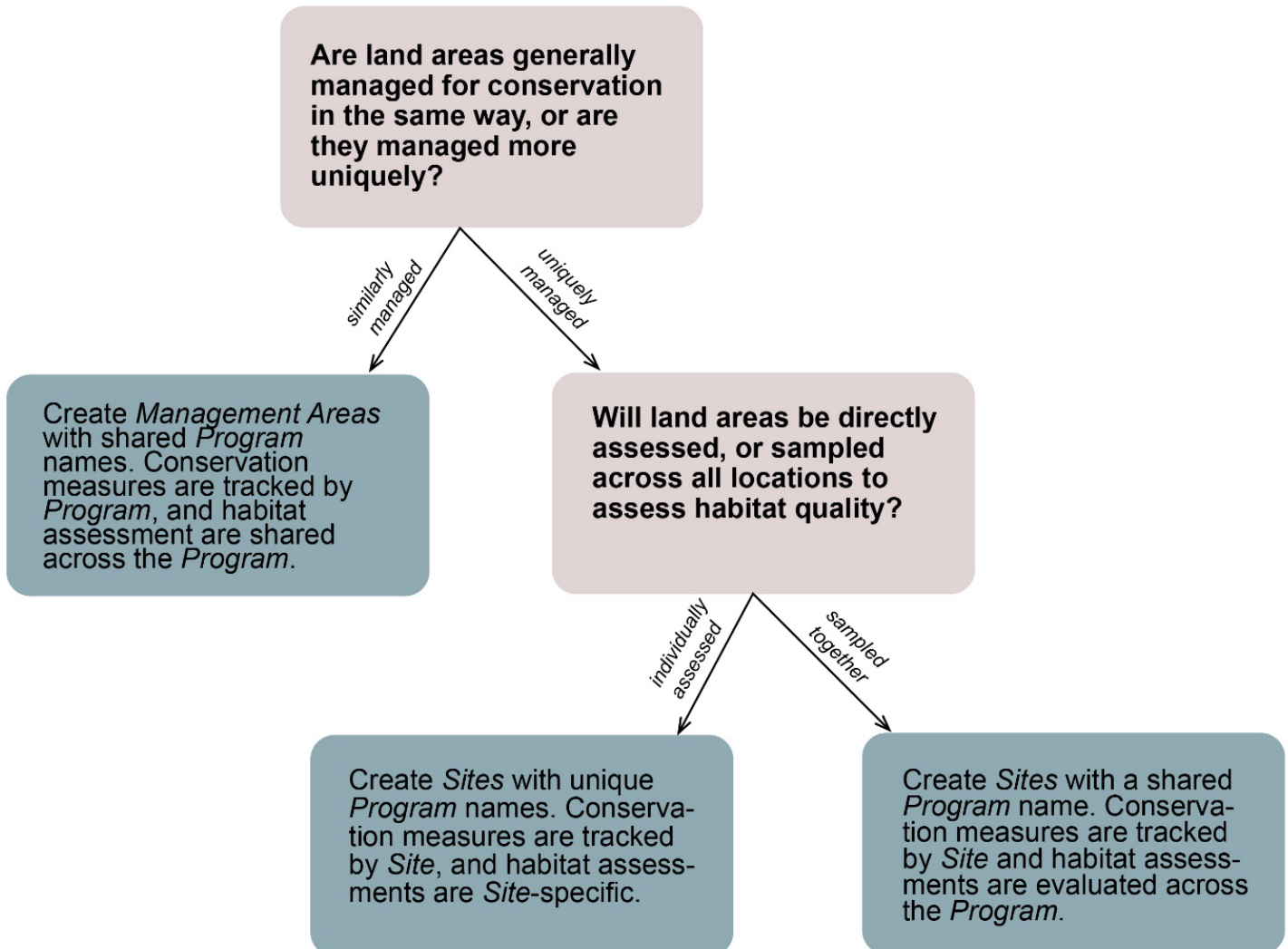
Program C
e.g. "Intensive Restoration Project"
• Controlled burning
• Native re-seeding
• Targeted herbicide application



Program D
e.g. "Habitat maintenance"
• Controlled burning

Decision Tree

This decision tree helps identify if your organization's land areas should be recorded as *Management Areas* or *Sites*, which affects how *Conservation Measures* are specified. It also helps determine if *Programs* should be defined as shared or unique, which affects how habitat assessments are evaluated across land areas.



Example Scenarios

Org-A has multiple corridors that they manage for habitat conservation. They use several different *Conservation Measures* that are applied generally across the corridors. They assess habitat areas systematically across their corridors. Over the years, from one field season to the next, Org-A wants to generally know how their management program is doing in terms of providing habitat. **Recommendation:** Use *Management Areas* with one or more *Programs*.

Organization A

Priority: How is our *Program* doing overall in terms of providing habitat?



Solution: Create *Management Areas* with shared *Program* names. *Conservation Measures* are tracked by *Program*, and habitat assessments are evaluated across the *Program*.



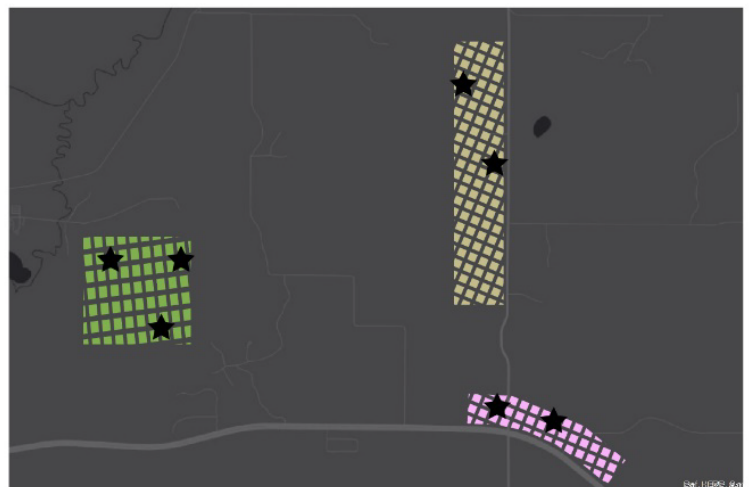
Org-B has special focus areas where conservation actions are “site-specific” (i.e., uniquely tailored for each location), and each is independently assessed. From year to year, Org-B wants to be able to pull statistics from all of their sites to compare how well each individual site is performing relative to other sites, and how their results may be correlated to the specific applied *Conservation Measures*. **Recommendation:** Use *Sites* with unique *Programs* for each *Site*.

Organization B

Priority: How well are individual *Sites* performing relative to other *Sites*, and how can their results be correlated to their applied *Conservation Measures*?



Solution: Create *Sites* with unique *Program* names. *Conservation Measures* are tracked by *Site*, and habitat assessments are site-specific.



Org-C has large corridors with an overarching conservation management plan. Despite similarities along corridors, they would like to track specific details about the implementation of *Conservation Measures*. Org-C might also like to track the percentage of a land area where *Conservation Measures* were applied each year. When it comes to habitat assessments, it would be too time consuming to sample each and every location. Instead, Org-C would like to group several land areas together, so they can then randomly sample from a subset of these locations as a general indicator of habitat conditions across the group. Over the years, Org-C would like to know how habitat in each group compares relative to other groups, and they would like to be able to view site-specific management activities. **Recommendation:** Use *Sites* with one or more shared *Program(s)* for conducting habitat assessments across a subset of *Sites* and record the percentage of the *Site* where a *Conservation Measure* is implemented.

Organization C

Priority: How is each group doing relative to other groups, and what are their site-specific management activities?



Solution: Create *Sites* with a shared *Program* name. *Conservation Measures* are tracked by *Site*, and habitat assessments are evaluated across the *Program*.

