

OP 4: Ecologically Managed Grounds

Rationale

This credit recognizes institutions that manage their grounds sustainably. Sustainable landscape management integrates ecological and social/cultural/economic considerations to meet human needs and maintain healthy ecosystems.

Applicability

Applicable to institutions with grounds comprising at least one percent of the total campus area.

Points available

A maximum of 5 points are available for this credit.

Criteria

4.1 Organic landscaping/grounds services

An institution earns 2 points when its landscaping/grounds services have eliminated their use of synthetic fertilizers, pesticides, fungicides, and herbicides (only materials **approved for organic use** are used). Partial points are available and earned as outlined in Table I.

Table I. Points earned for indicator 4.1

Criterion	Points available	Points earned
A. Institution's landscaping/grounds services employ a written Integrated Pest Management (IPM) protocol that follows a four-tiered approach: 1) Set action thresholds 2) Monitor and identify pests 3) Prevent or remove conditions that attract pests 4) Control	0.5	
B. Institution's landscaping/grounds services publish, on at least an annual basis, an inventory of the synthetic fertilizers, pesticides, fungicides, and herbicides used on campus grounds.	0.5	
C. Institution's landscaping/grounds services manage	0.5	

one or more sites or pilot projects without the use of synthetic fertilizers, pesticides, fungicides, or herbicides.		
D. Institution's landscaping/grounds services have eliminated their use of synthetic fertilizers, pesticides, fungicides, and herbicides	2	
Total points earned →		Up to 2

Measurement

Report on the current status of the institution's programs and initiatives and inventories completed or updated within the previous year.

Areas that are not routinely maintained or are predominantly maintained by entities other than the institution's in-house and/or contracted landscaping/grounds services are excluded (e.g., natural/semi-natural areas and agricultural land).

Consistent with the NOFA Standards for Organic Land Care, an organic management program may allow rescue treatments using non-organic pesticides to control insect and disease problems that can cause significant harm, provided there are no effective organic alternatives. The procedure for making such a decision must be documented in the institution's organic IPM plan/protocol or equivalent.

Documentation

Report the following information in the online Reporting Tool.

- Do the institution's landscaping/grounds services employ a written Integrated Pest Management (IPM) protocol that follows a four-tiered approach? (required). The protocol may be published by the institution or its primary landscaping/grounds services contractor.

If Yes, at least one of the following two fields is also required:

- Online location of the institution's IPM protocol. Website URL.
- Copy of the institution's IPM protocol. Upload.

- Do the institution's landscaping/grounds services publish, on at least an annual basis, an inventory of the synthetic fertilizers, pesticides, fungicides, and herbicides used on campus grounds? (required). The inventory may be published by the institution or its primary landscaping/grounds services contractor and, as a best practice, should include the volume/weight and/or spend amount for each chemical used.

If Yes, at least one of the following two fields is also required:

- Online location of the institution's chemical inventory. Website URL.

- Copy of the institution’s most recent chemical inventory. Upload.
- Do the institution’s landscaping/grounds services manage one or more sites or pilot projects without the use of synthetic fertilizers, pesticides, fungicides, or herbicides? (required).

If Yes, the following field is also required:

- Narrative and/or website URL providing an overview of the institution’s organic landscaping/grounds policies and practices. Include, for example, information about how compliance is assured and a description of relevant sites or pilot projects.
- Have the institution’s landscaping/grounds services eliminated their use of synthetic fertilizers, pesticides, fungicides, and herbicides? (required). I.e., only materials approved for organic use are used.

If Yes, at least one of the following fields is also required:

- Online resource affirming the organic status of the institution’s landscaping/grounds services. Website URL.
- Document affirming the organic status of the institution’s landscaping/grounds services. Upload.

4.2 Ratio of ecologically managed green space to total managed green space

An institution earns 3 points when the weighted area **protected or restored** or otherwise managed ecologically is equal to or greater than the total area of managed campus **green space**. Incremental points are available and earned as outlined in Table II.

Table II. Points earned for indicator 4.2

Attribute	Area		Total area of managed green space		Factor		Points earned
A. Protected or restored		÷		×	3	=	
B. Tree canopy		÷		×	2	=	
C. Managed organically		÷		×	1	=	
Total points earned →							Up to 3

Measurement

Report on the current status of the institution's grounds. Include the total area of green space actively managed within the institution's STARS reporting boundary, e.g., by the institution's in-house and/or contracted landscaping/grounds service. Vegetated roof surfaces may be included, at the institution's discretion, as long as they are included consistently.

An area may be reported for each attribute that applies to it. For example, a park that is managed organically and overlaid with tree canopy earns points for both attributes.

To qualify as a protected area, the geographical space must be recognized, dedicated, and managed, through legal or other effective means (which may include policies, protocols, and/or plans), to achieve the long term conservation of nature with associated ecosystem services and cultural values.

To qualify as a restored area, the geographical space must have been subject to intentional activities to initiate or accelerate the recovery of the ecosystem from a degraded state, for example, by allowing the natural regeneration of an overexploited ecosystem or by planting native or adapted vegetation.

To complete this indicator, an institution may use [i-Tree Tools](#) or an equivalent resource to define and measure the area of green space actively managed by the institution and, within that area, measure the areas that have each of the attributes listed in Table II. For further guidance, see the [STARS Help Center](#).

Documentation

Report the following information in the online Reporting Tool, with area figures provided in hectares. To convert acres, multiply by 0.404686.

- Total area of managed green space. Hectares.
- Area protected or restored. Hectares. Report habitat areas protected and/or restored as healthy and functioning ecosystems.
- Area of tree canopy. Hectares. Report the total area of tree canopy, irrespective of whether it overlays green space or not. For example, the canopy of street trees may be included.
- Area managed organically. Hectares. Report the total area of green space actively managed (e.g., by in-house and/or contracted landscaping/grounds services) without the use of synthetic fertilizers, pesticides, fungicides, or herbicides.

The Reporting Tool will automatically calculate the following three fields:

- Ratio of areas protected or restored to total managed green space
- Ratio of tree canopy to total managed green space
- Ratio of areas managed organically to total managed green space

Glossary

Approved for organic use – Products and materials may be approved for organic use by a regional or national organic program or organic land management standard. To identify an appropriate standard, see the [IFOAM - Organic International Family of Standards](#). In the US, for example, the national organic program recognizes [OMRI Listed products](#) and [minimum risk pesticides exempted from FIFRA registration](#) as approved for organic use.

Green infrastructure (GI) – Systems and practices that use or mimic natural processes to infiltrate, evapotranspire (the return of water to the atmosphere either through evaporation or by plants), or reuse stormwater or runoff on the site where it is generated. Examples include rainwater harvesting, downspout disconnection, rain gardens, bioswales, permeable pavements, green streets and alleys, green roofs, nature-based wastewater systems, and urban tree canopy. [Adapted from the work of the US Environmental Protection Agency (EPA).]

Green space – Vegetated areas, water bodies, and nature-based features that provide ecosystem services. Examples include:

- Natural/semi-natural areas
- Agroecosystems such as farms and gardens
- Vegetated recreation areas such as parks, lawns, and athletic fields
- Green infrastructure such as bioswales, detention/retention ponds, nature-based wastewater systems, and rain gardens.

Integrated pest management (IPM) – A four-tiered approach to pest management - sometimes referred to as Plant Health Care (PHC) when applied to landscape management - that employs a combination of biological, cultural, physical/mechanical, and chemical management tools to solve pest problems while minimizing risks to people and the environment. IPM is not a single pest control method but, rather, a series of pest management evaluations, decisions, and controls. Although every IPM program is different, successful programs use the same four-tiered approach:

- 1) Set action thresholds
- 2) Monitor and identify pests
- 3) Prevent or remove conditions that attract pests
- 4) Control

[Adapted from the work of the US Environmental Protection Agency (EPA).]

Natural/semi-natural areas – Viable ecological assemblages of plant and/or animal species of largely native origin and/or where human activity has not essentially modified an area's primary ecological functions and species composition (natural areas) and ecological assemblages that have been substantially modified in their composition, balance, or function by human activities (semi-natural areas). [Adapted from the work of the UN Environment World Conservation Monitoring Center (UNEP-WCMC).] Examples include:

- Native woodlands
- Managed forests
- Natural water bodies and wetlands
- Modified water bodies and wetlands
- Transitional woodland/scrub
- Undeveloped open spaces (e.g., dunes, sand, or stone)

- Natural grassland
- Vegetated areas where the majority of plants are native or adapted and provide habitat (e.g., managed meadows).

Protected or restored – Habitat areas that are protected from any harm during operational activities and where the environment remains in its original state with a healthy and functioning ecosystem and habitat areas that were used during or affected by operational activities, but where remediation measures have either restored the environment to its original state, or to a state where it has a healthy and functioning ecosystem. [Adapted from the Global Reporting Initiative (GRI) standard on biodiversity and the work of the International Union for Conservation of Nature (IUCN).]

Tree canopy – The layer of leaves, branches, and stems of trees that cover the ground when viewed from above. [Adapted from the definition used by the US Forest Service.]