



A Statement of Stewardship Principles and Practices

Prepared for the Oak Ridges Moraine Land Trust
Land and Stewardship Committee

By Bill McMartin
Stewardship Manager

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Stewardship Principles - Background & Overview

Background to ORMLT Stewardship Principles

As a long standing member of the Ontario Land Trust Alliance, ORMLT is committed to Canadian Land Trust Standards and Practices. These management tools are based on business integrity, perpetual responsibility, best practices & good governance. Land trusts are respected partners in the conservation work across Canada. With this recognition comes responsibility, fiduciary duties for stewardship care and accountability.

Canadian Land Trust Standard #12

Many land trusts hold title to land other than through conservation agreements for a variety of conservation purposes. Trust owned lands must be cared for responsibly to ensure that the values and features for which the property was acquired or donated are maintained and improved where appropriate. Failure to manage and monitor properties could lead to loss or damage to their approved conservation values. A land trust that does not take care of its holdings will lose its professional credibility & integrity.

Canadian Land Trust Practice #12C

Land trusts are encouraged to develop general stewardship policies or principles to guide the management and use of their properties. These policies or principles are adapted in individual management plans to address the specific needs for a particular property. The stewardship principles are useful in guiding board decisions and can help the land trust explain its decisions to the public. Stewardship principles should be clearly stated in management plans and can be very effectively used in public relations.

Stewardship Principles - Internal ORMLT Benefits

- Provides a framework for stewardship activity
- Demonstrates high standards and best practice
- Board principles govern the program direction
- Staff are guided by science based benchmarks
- Properties are well protected over the long term

Stewardship Principles – External ORMLT Benefits

- Like-minded donors respect the Trust principles
- Funders see good value in our Trust protection
- Promotes support for continued land securement
- Demonstrates our capacity to sustain protection
- Provides a foundation for community support.

ORMLT Vision (extract from Strategic Plan – Dec. 07, 2011)

The Trust Vision looks to the future ecological health of the Moraine and the many cooperative efforts that must be in place to achieve long term sustainability:

“The Oak Ridges Moraine is a vibrant, healthy, sustainable ecosystem within which the Land Trust and partners including private landowners are actively cooperating in conservation and protection of the Moraine and connected areas”

ORMLT Mission (extract from Strategic Plan – Dec. 07, 2011)

The Trust Mission identifies the role of the Trust in contributing to achieving the Vision by focusing its strategic work on land securement and stewardship activities:

“The Land Trust will ensure that significant Moraine properties are protected for future generations through agreements with landowners, acquisition of lands and ongoing stewardship”

ORMLT Stewardship Goal (extract from Strategic Plan – Dec. 07, 2011)

The Trust Goal for stewardship is based on accepted science and standards:

“The Land Trust will ensure that ecological integrity and other key values for all protected properties are maintained and enhanced according to accepted standards of stewardship care”

ORMLT Conservation Values (Land Trusts – General)

Land Trust integrity and success in the protection and stewardship of natural areas is based on two fundamental interests – science based stewardship and donor based partnership. These prime interests are expressed as our conservation values and are reflected in all of our stewardship planning, principles and practices. All Trust interests are concerned with ecological health and natural sustainability.

1. We are guided by the best available conservation science to make site based management decisions that make a lasting difference. (science based interest)
2. We work in a non confrontational manner that focuses on donor collaboration, sensitive negotiation & consensus to reach mutual goals. (donor based interest)
3. We manage protected lands & waters with donors to ensure long term viability of their significant natural features and their ecological health. (combined interests)
4. We respect and promote nature’s processes of growth and succession with only minimal disturbance, protect the unique character of each property & support the conservation goals of our land donors and moraine partners. (combined interests)
5. We actively pursue opportunities with partners and private landowners in finding new ways to live productively and sustainably on the moraine landscape while conserving and improving biological health & diversity. (combined interests)

Overview of ORMLT Stewardship Principles

ORMLT manages its properties with sound principles based on conservation science. We are creative, flexible and practical in adapting these principles to the unique features, site ecology and donor conditions for each property entrusted in the care of the Trust. There are four stewardship principles in support of our ongoing practices:

Nature First

Lands and waters will be managed for nature conservation, based on significant natural features and ecological considerations that influence each site, consistent with the Land Trust mission to establish and protect nature reserves on the Moraine.

Community Stewardship

Protected natural areas are widely appreciated within the community where they occur. Stewardship involves land donors, neighbours and communities engaged in site support. To the best of its ability, the Land Trust will involve donors, neighbours and communities in our site planning, stewardship activity and conservation benefits.

Restoration & Rehabilitation

Portions of nature reserves may be managed to enhance biodiversity targets, and some deliberate interventions may be taken to restore specific features and to remediate past disturbance. It is desirable to maintain and re-establish where necessary, the natural processes or ecological functions that can support native ecosystems.

Ecology & Succession

Principles of ecology and natural succession will guide our science based and long term stewardship. Natural ecological processes are encouraged to proceed without interference but may also be managed to conserve particular species and habitats.

In accord with CLT Standard #12, the ORMLT will apply the following principles and practices (as stated in more detail on pages 6 to 17) in the management and stewardship of Trust owned lands including properties held in joint or partial ownership. Where it is appropriate and useful to support CLT Standard #11, the ORMLT will also thoroughly consider these guiding principles and practices in negotiating and developing the content of restrictive covenants for conservation easements.

1. Principle – Nature First

Lands and waters will be managed primarily for nature conservation, based on their significant natural features and the ecological considerations that influence each site, consistent with the Land Trust mission to protect natural spaces on the Oak Ridges Moraine. The natural processes of growth, succession and species interaction are generally permitted to proceed without interference. However, some sites may be deliberately managed for the maintenance of particular features of conservation concern such as particular species or habitats. The stewardship of individual sites will be based on an understanding of the particular character of each site and its role in the surrounding landscape. The most important consideration for the site will be its natural features and their long-term maintenance and enhancement. The ecological integrity of a protected area is the defining consideration in site stewardship because that ecological integrity is a defining principal determinant of stewardship mission success.

1 a. Principle – Existing and Proposed Development

Artificial structures including roads, buildings, parking or picnicking areas, trails, fences, bridges, dams, docks, and sanitation or other facilities may reduce or interfere with the natural values on Nature Reserves and are therefore not encouraged. When structures exist on a reserve, they must be adequately maintained or in some cases removed, and all buildings of substantial value must be covered by appropriate insurance. Access roads should be, in general, for administrative or stewardship use only, and should only be maintained to minimum standards of need and safety.

Building or maintaining fences on a Nature Reserve is to be considered in the context of neighbour and community expectations, and biodiversity protection. It should meet local fencing standards and in agricultural areas should comply with any provincial fencing regulations, which deal with shared fencing responsibilities with neighbours.

Practices

The following actions are generally discouraged but may be considered if no loss of natural values results:

- ❑ Construct, erect, or allow the construction or erection of any building or structure in Nature Reserves except for approved land use such as Education and Research, and as approved by Environment Canada's EcoGifts program where relevant;
- ❑ Construct, improve or allow the construction or improvement of any dock, diving board, helicopter pads, aircraft landing strip or other such facility anywhere within the Nature Reserve without specific written approvals and conditions;

- ❑ Construct, improve or allow the construction or improvement of any trail, road, snowmobile trail or parking lot within the Nature Reserves, except for foot trails required for viewing the property, fire and farm lanes, accesses for maintaining forested areas or hiking trails that are approved in writing by the Land Trust and the Environment Canada EcoGifts Program.

1 b. Principle – Access and Land Use

The character of most of the Land Trust’s Nature Reserves is such that public access and visitation is not generally permitted. While some of the protected lands provide unique recreational, aesthetic and spiritual experiences to visitors, others may be able to provide economic benefits by hosting tours and hikes. The use of a Nature Reserve for approved educational or recreational events, or for research may be considered a reasonable exception to this principle as these uses do not interfere with our primary stewardship goal. Should the Land Trust decide that any development is needed, changes should be designed to have the minimum possible impact on the reserve, and comply with municipal and provincial regulations. The precautionary principle should be in play – only through careful site planning and approvals should benefits be pursued.

Practices

The following actions are generally discouraged but may be considered if no detriment to wildlife habitat or loss of natural values results:

- ❑ Use or allow the use of Nature Reserves for camping, except for the occasional use by property stewards to ensure the land is being used as intended;
- ❑ Use or allow Nature Reserves to be used as a trailer or mobile home park, parking area or storage area;
- ❑ Use or allow the use of Nature Reserves for commercial purposes not allowed in current municipal bylaws;
- ❑ Allow yard lights or other exterior lighting;
- ❑ Play or allow to be played games which may damage Nature Reserves, including but not limited to paintball, golf and other refuse making or trampling activities;
- ❑ Permit visitors to knowingly walk off existing paths;
- ❑ Grant any easement in, over, on, under or through the Lands;
- ❑ Sever or subdivide the Property.

Permitted and encouraged uses include:

- ❑ Post-secondary research (contingent on successful completion of an “Application to Conduct Research in Land Trust Nature Reserves”), moraine monitoring, land use demonstration sites, outdoor environmental education and public awareness events;
- ❑ Access by Land Trust monitoring and stewardship staff and volunteers, and restricted public access for educational or recreational purposes;

- ❑ Rental or lease of buildings or lands for commercial or institutional uses that are consistent with the over-riding interest of conservation;
- ❑ Short term visits by Oak Ridges Trail Association and other hikers.

1 c. Principle – Species-at-Risk

Environment Canada has established criteria that need to be met for the donation of land or a conservation easement to qualify as an EcoGift. The first of these criteria is:

A1. Significant portions of the habitat of species determined to be endangered, threatened or vulnerable in Ontario, as specified in a recovery plan or other biological study;

All Species-at-Risk identified by either the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or the Species-at-Risk Ontario (SARO) registry have recovery plans, or are mandated to have recovery plans prepared. In preparing Ecological Sensitivity Evaluations to show that a gift qualifies as an EcoGift, historical records or recent reports and observations of species-at-risk are generally accepted as confirmation that a property meets criteria A1 (above). The continued presence of suitable habitat for species-at-risk is a crucial requirement for the Stewardship of Nature Reserves. Actions that jeopardize the lives or reproductive success of species-at-risk, or degrade their habitats are contrary to this Principle and to the efforts by governments to maintain biodiversity in Ontario. Loss of individuals, reductions in breeding success and destruction of habitat all accentuate long term population declines that are generally the basis for identifying a species that is at-risk.

Practices

The Land Trust will:

- ❑ Ensure that no action is taken that might reasonably be expected to jeopardize the lives of Species-at-Risk adults, nesting activity or young;
- ❑ Ensure that there is no interference in the reproductive cycle of Species-at-Risk;
- ❑ Maintain the quality and quantity of habitat for Species-at-Risk;
- ❑ Periodically confirm the continued presence of Species-at-Risk;
- ❑ Offer educational opportunities where appropriate in co-operation with landowners and other interested parties on the population trends, life cycles, foraging and reproductive behaviour and habitat needs of Species-at-Risk.

1 d. Principle – Agricultural Use

Farmlands and agriculture are part of the history and picturesque rural landscape of the Oak Ridges Moraine along with its green valleys, forests, rivers, wetlands and rolling hills. Many of the Trust protected properties under long term stewardship care (both conservation easements and Trust owned nature reserves) include farmland holdings. Livestock pastures, farm buildings, cultivated fields and agricultural operations are often adjacent to or part of significant natural areas and habitat for species at risk.

A wide range of agricultural practices e.g. grassed waterways, riparian corridors, wide shrubby fence margins, harvest remnants for wildlife food, farm ponds, predator control, woodlot protection, erosion control and stream conservation are beneficial to biological diversity and moraine ecology. The Land Trust will encourage agricultural activities that protect natural values and encourage best practices to sustain nature reserves.

Where agricultural uses existed before Trust protection, it is fair and reasonable that those uses continue to the extent that they can reasonably contribute to managing the reserve or at least do not impair or reduce protected natural values. Each property has its unique features and where appropriate the Land Trust may promote grassland habitat, modify cultivation, enhance wetlands, plant native trees & shrubs, remove invasive species, increase riparian connections, reduce soil erosion or control livestock access.

The Land Trust also actively pursues its “good neighbour” policy with all the adjacent properties to ensure mutual stewardship goals are met through consultation. Boundary fencing, natural buffer strips, livestock access corridors and watering stations are typical stewardship tools used to ensure compatibility of ongoing agricultural activity.

Practices

- ❑ Cultivation of agricultural crops is permitted if these existed prior to land securement and if this continued farming activity does not undermine the values of the remaining lands within the Nature Reserve or adjacent protected Natural Areas.
- ❑ Agricultural activities may be modified and pasture lands or grassland habitats may be managed to enhance, sustain or restore the habitat for species at risk.
- ❑ Natural regeneration, vegetative buffers, erosion control and native plantings will be encouraged to protect farm wetlands, ponds, streams, woodlots, riparian corridors & edge ecology as well as restore natural species habitat and enhance diversity.
- ❑ The Land Trust will permit agricultural livestock to enter and use Nature Reserves if their access is controlled by boundary fencing, designated corridors, stream crossings & drinking stations to prevent any undesirable access to the Natural Areas.
- ❑ Equestrian trails and farm machinery will be confined to the cultivated fields, pasture lands and designated trails or farm lanes in or adjacent to Natural Areas.
- ❑ Neighbours adjacent to or near Trust owned lands will be consulted on adaptive and compatible agricultural practices, control of stray animals, predation by domestic pets and other conservation efforts to safeguard protected lands & waters.

1 e. Principle – Motorized Vehicles and Other Conveyances

Most Nature Reserves are located on or near public roads making them readily accessible to visitors. Most motorized vehicles including snowmobiles, motorcycles and all-terrain vehicles in particular do not belong on Nature Reserves because of their destructive effects on the natural features the Land Trust protects. The negative effects of all terrain vehicles and snowmobiles arise from snow and soil compaction or erosion and interference with wildlife. Damage caused by other vehicles is usually self-evident through soil compaction, changes to natural succession, land erosion and loss of ground covering vegetation. The presence of signage will assist in seeking the assistance of local neighbours, volunteer stewards and security personnel if required.

Practices

- ❑ The Land Trust will operate or allow the operation of motorcars, trucks, tractors, dune buggies, snowmobiles, all-terrain vehicles, motorcycles, motorboats, dirt bikes, personal watercraft or any other types of motorized vehicles within Nature Reserves only when necessary for trail or forest management purposes, or to support other activities authorized by a Management Plan, such as invasive species management;
- ❑ The Land Trust will allow horse-riding or bicycles on Nature Reserves only outside of sensitive natural areas such as protected forests and wetlands.

1 f. Principle – Landform Conservation and Water Taking

The geology, topography and hydrology of the Oak Ridges Moraine are the first order determinants of the Moraine conservation values that the Land Trust protects. Interfering with geology, topography or hydrology affects habitats for wildlife, the presence and abundance of species, water recharge and discharge, above ground and underground stream flow and a host of other values that make the Moraine worthy of conserving. Some effects may not be apparent to the untrained eye, but are nevertheless meaningfully negative over the long term. Changes to geology, topography or hydrology are acceptable only if a science-based evaluation determines that they are minimally damaging.

Practices

- ❑ The Land Trust will not change or allow any changes in the general appearance or topography of the Nature Reserve, including the removal of any soil, loam, rock, gravel, earth, sand or other such material from the Nature Reserve, or transfer within the Nature Reserve without a scientific assessment of values improvement, minimal impact or no effective damage to natural values;
- ❑ The Land Trust will not remove, or allow the commercial removal of water or aggregate resources from Nature Reserves.

1 g. Principle – Hazardous Materials and Garbage

The use of chemical herbicides or pesticides is normally inconsistent with our natural conservation goals. The Land Trust allows nature to take its course and does not normally accept or condone the use of chemicals. Occasionally it may be required that landowners control mosquitoes or noxious weeds. If a proven health hazard exists, or if herbicide use is a requirement of controlling a particular non-indigenous species, and if there is no feasible alternative, the Land Trust may be required to use chemicals to control the invasive problem. In no case should aerial application of pesticides or herbicides be used as overspray onto non-target areas is unavoidable. Application should only be by hand and confined only to problem areas. Weed Control by physical removal is strongly preferred when practical. When possible, chemicals that are readily biodegradable and species-specific should be used. Biological control vectors are usually specific to target species, and subject to quick degradation into safe by-products, and therefore preferred to the use of chemical products. Experienced staff should be consulted in any case.

The deposition and accumulation of trash of any kind is unnatural and detrimental to the natural values of a Nature Reserve. Dumping of any solid, liquid or gas waste should be prohibited, and the site should be remediated if it has occurred.

Practices

The Land Trust will:

- ❑ Use or allow the use of chemical pesticides, insecticides, herbicides, other chemicals or toxic materials within Nature Reserves only when required by law, to protect the life of native species or control the spread of non-native species. Where the use of pesticides is deemed acceptable, biological control agents (such as *Bacillus thuringiensis*, *B.t.*) are strongly preferred;
- ❑ If deemed necessary, arrange for the removal of soil, rubbish, ashes, garbage, cat litter, hazardous waste, petroleum products or other unsightly, toxic or offensive materials discovered on its lands;
- ❑ Alert the local municipality to the presence of any such materials deposited within the road allowance for which the municipality is responsible.
- ❑ Provide rubbish containers and signs to reduce litter on sites where public use is permitted on or near protected lands;

The Land Trust will not:

- ❑ Dump or allow the dumping of soil, rubbish, ashes, garbage, compost, cat litter, waste, petroleum products or other incompatible, toxic or offensive materials on Nature Reserves.
- ❑ Burn plastic, coal, rubber, or any other materials producing toxic fumes.

2. Principle – Community Stewardship

Natural areas provide critical environmental services to their communities in the form of water protection, storage and conveyance, erosion control, gas exchange, wildlife refuge, gene-pool protection and others. Protected natural areas are best cared for within the community where they occur. Stewardship involves neighbours and communities directly engaged in site support. Protected natural areas are also outdoor classrooms and living museums, and can benefit communities beyond what their green infrastructure provides. To the best of its ability, the Land Trust should involve neighbours and communities in site planning and stewardship and, where possible, site conservation benefits.

Practices

The Land Trust will:

- ❑ Monitor properties on a regular basis with the assistance of local Volunteer Property Stewards where possible to certify that key natural features remain protected;
- ❑ Actively solicit the cooperation of neighbouring landowners in land management and property improvements;
- ❑ Engage communities, volunteers, local media and politicians to help the Land Trust take care of the land;
- ❑ Invite neighbours to educational, recreational and public awareness events;
- ❑ Respond to unforeseen threats or issues as they may arise with consultation and input from the local community.

3. Principle – Restoration and Rehabilitation

In general, it is the Land Trust approach to let nature take its course in natural areas, in line with the Nature First principle, but there are valid reasons for manipulating natural areas to restore functioning ecosystems. Restoration includes efforts to rehabilitate, repair or re-establish functioning ecosystems – to emulate the structure, function, diversity and dynamics of a defined, native, historic ecosystem. Restoration of this type requires inventory, documentation, action and monitoring. Past disturbances may have converted lands or introduced species that are likely to resist efforts at restoration to pre-disturbance condition. Portions of sites may be managed to enhance particular biodiversity targets, and deliberate interventions may be taken to restore such features and to remediate past disturbance. It is desirable to maintain, and re-establish where necessary, the natural processes or ecological functions that drive native ecosystems, such as fire or grazing, which can be valuable tool in maintaining some grasslands and forests. Alteration of natural growth or other site features for the purpose of enhancing the beauty, or amenities of an area is inappropriate. Use of unnatural processes must be considered carefully.

3 a. Principle – Reforestation

Planting or replanting is ordinarily not appropriate in a natural area. Past disturbances may have left a site in a deteriorating condition that is unlikely to be self-healing. In a substantially natural area, however, there should be no manipulation just to improve appearances or enhance some particular value such as tree growth. Our goal is the preservation of natural ecosystems. Where permitted, activities that control plant succession or habitat should be justified on the basis of maintaining a particular successional phase, such as a regenerating field, a forest plantation or an open wetland. Such activities may be important in meeting the habitat needs of a rare species or rare community type. This may require manipulation such as mowing, grazing, planting of native stock, retaining dead stumps, removal of trees, or controlled burning. Consultations on such manipulations should include reliable experts.

Practices

- When planning reforestation, consider:
 - Connectivity and restoration priorities identified in conjunction with the goals and policies of the Oak Ridges Moraine Conservation Plan
 - Consistency with regional or municipal management plans or targets
 - Effects of planned planting on local Species-at-Risk or rare plant community
 - Reduction of the potential for flooding and erosion
 - Provision of shelter and winter food resources (berries, nuts) for wildlife;
 - Monitoring needs to assess the success of reforestation;
- Where reforestation is deemed appropriate, plant only native species suitable for the soil, moisture and conditions at the site;
- In most cases, refrain from reforesting old fields so that breeding and foraging habitat can be retained for declining grassland bird species.

3 b. Principle – Riparian Corridors and Wetlands

Many riparian corridors within the Oak Ridges Moraine have been degraded by the loss of trees and shrubs through clearing for agricultural purposes and natural regeneration has been prevented by cultivation or by grazing of seedlings, herbaceous materials and saplings by domestic animals. Action to remedy the loss of natural values in riparian corridors is consistent with our goals, and therefore strongly recommended.

Many Moraine properties contain natural or engineered wetlands or dug ponds that serve in part as replacements for lost wetlands. Natural services provided by wetlands include: habitat for wetland related species, filtering and removal of contaminants, retention of water during dry seasons, reducing erosion from high water flow during runoff events, and acting as sources for many headwater streams rising on the Moraine. Wetlands are precious resources that need to be retained, maintained if man-made, and improved where appropriate to contribute to a healthy Moraine landscape.

Practices

The Land Trust:

- ❑ Considers the restoration of riparian corridors to be a high priority. The planting of suitable trees and shrubs will in time create a narrow linear habitat that is valuable in itself, but also serves to connect other natural spaces and forest areas adjacent to a watercourse, and to control flooding and erosion;
- ❑ Encourages the protection and restoration of natural stream channels, especially where channels have been unnaturally incised by accident or unfortunate design, to allow freer flow and to drain surrounding naturally wet areas;
- ❑ Encourages the cleaning of stream beds and banks. The presence of garbage degrades the hydrological, habitat and aesthetic values of watercourses;
- ❑ Permits and encourages wetland maintenance and improvement. Engineered wetlands may periodically need attention to dams and water flow control structures in order to maintain water levels; dug ponds may need to be deepened due to a build up of sediment, or to act as habitat for additional plant or wildlife species;
- ❑ Supports the construction of new ponds contingent on net improvement to local ecological values and on regulatory approvals that may be necessary.

3 c. Principle – Forest Management

Laissez-faire management of forests is generally preferred in the interests of allowing natural processes to prevail, but there are exceptions. A plantation that is never thinned will become a dense stand of thin stems, most of which will never attain the size and shape of a mature tree. Diseased trees that are allowed to remain can act as a source of disease for other trees nearby. The growth of trees can close off access trails for forest management or recreation. Cosmetic removal of dead trees, windfalls, or the results of ice storms is undesirable, except to ensure safe trails and visitor conditions.

Practices

The following actions may be considered if there are minimal or no net losses of natural values based on a scientific evaluation of the consequences of such actions:

- ❑ Remove, destroy, burn, cut or allow the removal, destruction, burning or cutting of trees, shrubs or other vegetation only as may be necessary for:
 - the maintenance of foot trails, fire lanes or access lanes for forest maintenance or for educational or recreational uses;
 - the prevention or treatment of disease; or
 - the removal of invasive plant species
 - other stand improvement practices under a plan approved by a Registered Professional Forester;
- ❑ Permit selective commercial logging only if:

- Damage to remaining trees and shrubs is minimized either by the use of horses rather than heavy equipment, or by logging in winter when many plants are dormant, and
- Approved as part of a Forest Management Plan, or designed by a Registered Professional Forester, and
- No Species-at-Risk are jeopardized, and
- No watercourses or wetlands are damaged;
- Remove dead limbs or trees only for safety reasons;
- Permit the removal of firewood only in amounts that might reasonably be needed for personal use of a tenant as approved through agreements in writing ;
- Discourage the removal of wildflowers, ferns, herbs, mushrooms or other native plants and shrubs.

3 d. Principle – Other Stewardship

While natural processes of growth, succession and species interaction are generally permitted to proceed without interference in accord with our conservation goals, protected lands may also be deliberately managed for the maintenance of particular features of conservation concern such as particular species or habitats. These include: native grassland remnants, retired agricultural fields or grazing lands for grassland birds, nesting resources for cavity-nesting birds and shelter for small mammals.

Practices

- The Land Trust will conduct species-at-risk surveys and monitor their habitats to ensure best practices for agricultural and other uses on Trust-owned lands.
- Controlled burning may be necessary, and permitted in theory for the restoration and maintenance of native grasslands, but must be done according to best practices, with community input and agreement, and consistent with municipal regulations for outdoor fires;
- Leaving old fields in their current condition can be beneficial for grassland birds. In some cases, it may be best not to restore or reforest old fields. Annual mowing prevents natural succession from eventually converting old fields into shrubby fields and forest, thereby retaining grassland bird habitat;
- Bird nesting boxes are encouraged as the provision of breeding habitats to replace those resources lost through historical forest clearing;
- Creating brush piles from forest or invasive species management efforts is encouraged as it benefits small mammals by providing shelter from predators and from harsh environmental conditions.

4. Principle – Ecology and Succession

Principles of ecology and natural succession should guide ORMLT stewardship. In large natural areas, the particular associations of plants, animals and landforms usually achieve a dynamic balance. When these associations have acted for a long time without interference, living communities develop that are relatively stable and permanent, but

have particular successional tendencies. For example, fires can destroy some natural communities or they can lead to the re-establishment of other communities that are adapted to burns and are relatively stable within the cycle of periodic fires. When communities are disturbed, they are replaced by communities frequently dominated by different species of plants and animals. These temporary communities can change in character from year to year or decade to decade, and there may be a slow succession of communities that replace one another, and eventually approximate the assemblage of plants and animals that defined the community when it was disturbed. Different ecosystems take different routes and different periods of time to absorb disturbance in this way. Succession may thus be thought of as nature's way of healing itself and of returning to a more stable state, even if only on a temporary basis.

4 a. Principle – Native Species

Natural ecological processes are encouraged to proceed without interference but may be managed to conserve particular species, habitats and ecosystems. It is desirable that sites protected by the Land Trust support the species that are native to the eco-region and to the communities represented. The introduction of non-native species is prohibited and the occurrence of introduced or alien species should normally be considered an undesirable disturbance that deserves intervention to protect target native species or communities. Non-native species are those that are not native to the eco-region, but have been introduced and have established themselves there. In some cases, eradication or control is possible and it may be necessary to take steps to remove these species. In others there is little that can be done. The possibility that control measures may have negative influences on ecological communities than the introduced species must be considered.

Feral or uncontrolled dogs and cats are destructive influences for native birds, mammals and herpetofauna simply through unnatural predation, and are vectors for the distribution of non-native plant propagation. It may prove necessary to remove animals that are detrimental to the local ecology. This should be left to local police, municipal animal control or Humane Society employees to carry out wherever possible.

Practices

- ❑ The Land Trust will not plant, introduce or allow the planting or other introduction of non-native plant species or hybrid seed in Nature Reserves;
- ❑ Invasive and non-native species including common buckthorn, dog strangling vine, garlic mustard, *Phragmites*, wild grape, purple loosestrife, giant hogweed and many others will be controlled and managed where feasible;
- ❑ The Land Trust will prohibit dog-walking off leash, and refer feral or domestic animal problems to qualified agencies.

4 b. Principle –Hunting, Fishing, Trapping

Hunting and trapping are contrary to basic policy for Nature Reserves, as these practices introduce a significant human influence into the natural communities we protect. Hunting

may also subject the Land Trust to uninsured liability risks. However, abnormal growth of a population in an area due to elimination of predators may make population reduction appropriate. In such cases, the Land Trust may decide that a program of controlled hunting or wildlife removal is necessary. Participants must be insured. Trapping is considered in a similar manner. When collecting is necessary for research, live traps should be used where possible, and the animal released after desired data is obtained. Snap or leg-hold trapping is inhumane and prohibited. All such activities must be through conditional agreements in writing and in full compliance with all regulations.

Fishing is contrary to the basic principle of letting natural processes proceed unimpeded. Exceptions may be made by written agreement because of special circumstances or for domestic purposes. If fishing is approved, no live bait should be used, to prevent the chance introduction of species not indigenous to the site.

Practices

The following actions are generally discouraged but may be considered under certain circumstances and if no loss of natural values results:

- ❑ Use or allow the Lands to be used for hunting, fishing, trapping, removal, killing or harming animals or insects for sport or pleasure except that within Nature Reserves hunting or trapping shall be permitted for the control of nuisance animals including coyotes, raccoons, opossums, rats, mice, moles, mosquitoes, flies or other commonly understood nuisance species that conflict with site management;
- ❑ Use or allow the use of firearms on the Lands except for the control of abnormally high populations, usually as the result of historical removal of natural predators;
- ❑ Permit visitors to approach, disturb, or touch nesting or breeding areas during the nesting season or knowingly allow injury to birds, fish, reptiles, amphibians, mammals, insects or other animals or their habitat except for nuisance species that affect the comfort, safety, inspection or livelihood of natural areas;
- ❑ Stock fish, using native or non-native species, except as part of a Species-at-Risk recovery program in cooperation with Recovery Teams authorized by Environment Canada or the Ontario Ministry of Natural Resources;
- ❑ Permit the feeding of wildlife, thereby creating an artificial condition that is not considered desirable in protected natural areas; or
- ❑ Remove dead birds, fish or mammals except where they are near public use areas, if any, and unless required by relevant authorities;