

# TERRESTRIAL NATURAL HERITAGE SYSTEM STRATEGY

## APPENDIX H: NATURAL HERITAGE COMPENSATION PLAN GUIDELINES







## **NATURAL HERITAGE COMPENSATION PLAN GUIDELINES**

These guidelines are for use in instances where expansion of existing structures or ancillary structures has been proposed within portions of the target terrestrial natural heritage system. Compensation is required for any removal of natural self-sustaining vegetation, or site alteration in previously unaltered areas within the natural heritage system in accordance with Policy 4(h) in the Model Policies. For definitions of technical wording, please refer to this section. It is recommended that the proponent enlist ecological expertise to assist with the planning and execution of the Natural Heritage Compensation Plan. The final product should consist of a short document outlining how the following requirements have been met and drawings indicating details of the proposed restoration measures. These items should be submitted to the TRCA for review and approval upon completion.

- A. Identify all new structures and/or uses proposed within the terrestrial natural heritage system and the associated areas to be removed from the terrestrial natural heritage system on aerial photos and plans. Compensation is required for these areas.
- B. Indicate which of the following restoration conditions will be met in order to achieve no net loss of natural cover within the terrestrial natural heritage system according to Policy eight. All conditions should be met on the same site, and within or abutting the terrestrial natural heritage system, if possible. These conditions are given in order of priority, with the first condition met, if possible, and so on:
  - (a) compensating with lands on the same *site* that are at least equal in area, so that the lands added abut other portions of the system.
  - (b) compensating with lands not on the same *site* but are in the same *TNHSS Planning Area* and the same watershed as the *site* and are at least 1.5 times the size of the area removed, so that the lands added abut other portions of the system.
  - (c) compensating with lands not on the same *site* but are in the same *TNHSS Planning Area* as the *site* and are at least twice the size of the area removed, so that the lands added abut other portions of the system.

- (d) compensating with lands not on the same *site* and are not in the same *TNHSS Planning Area* as the *site* but are at least three times the size of the area removed, so that the lands added about other portions of the system.
- C. In instances where conditions B(a) or (b) as above are to be met, follow the guidelines outlined for Restoring Forest Communities under Step 3 of the *Natural Heritage Restoration Plan Guidelines* in Appendix G. These are also provided below. Otherwise continue to D.
1. Restored areas should contain a characteristic assemblage of the species that occur in the abutting existing natural areas and should provide the potential for an appropriate community structure with both vertical and horizontal stratification and spatial diversity. This will be promoted by planting a variety of groupings of various tree, shrub and herbaceous species in assemblages found naturally.
  2. Ensure that all plantings are native species and are suitable given the soil, moisture, and light conditions of the site. Non-native species and cultivars of native species should be avoided.
  3. Every attempt should be made to obtain plant material derived from locally adapted sources within the bioregion.
  4. In areas that are highly disturbed or at risk of being heavily colonized by invasive alien species, consider restoring the site to an interim native conifer plantation. While the dense canopy and acidic soils found in plantations are unfavourable to aggressive aliens, native deciduous species will be recruited in several decades. This is a good low-cost technique to establish deciduous or mixed woodland that may also provide habitat for some rarer species such as pinesap.
  5. Determine whether any site preparation is required. Some measures may include removal of hardened surfaces, grading, addition of topsoil, compaction of soil, removal of invasive alien species prior to planting, etc.
  6. If a seed mix is used to establish a ground cover on bare soil, follow the TRCA Seed Mix Guidelines.
  7. In general, installing about 50% woody plant coverage should be the objective and woody plantings should follow the standard densities of 1 metre on centre for shrubs and 5 metres on centre for trees.
  8. If the area is very grassy, mulch and rodent guards may be needed to protect young tree stems. Larger planting stock may be required in these areas to due to competing herbaceous vegetation.
  9. Other than on sites with competing herbaceous vegetation, generally there are no size requirements for vegetation to be planted. Typically, it is preferable to have greater numbers of smaller-sized vegetation over fewer numbers of larger-sized vegetation; however a mix of caliper, seedling and seed plant material is also desirable.
  10. Plant material condition will ultimately dictate the season when restoration can be done.
  11. Bareroot stock should only be installed while dormant in spring or after leaf fall in autumn. Planting of balled and burlapped and container-grown stock can be installed at any time during the growing season if adequate water is supplied.

12. Incorporate critical habitat structures such as nest boxes, raptor perches, snake hibernacula and fallen trees within the restoration site to assist in accelerating habitat productivity. Ensure that these structures are appropriate given the site conditions.
- D. Improvements to the quality of natural cover can be achieved through application of one or more of the following activities within the adjacent terrestrial natural heritage system:
- i. removal of exotic species that have invaded the terrestrial natural heritage system, where removal of the species would be ecologically beneficial. Removal techniques to be applied must be indicated. Examples of invasive alien species known to threaten native biodiversity include, but are not limited to:
    - European buckthorn (*Rhamnus cathartica*)
    - Dog strangling vine (*Cynanchum rossicum*)
    - Garlic mustard (*Alliaria officinalis*)
    - Norway maple (*Acer platanoides*);
  - ii. plantings of native species in open or unvegetated areas within the terrestrial natural heritage system;
  - iii. supplemental plantings of native species to bolster edges or sparse forest understories, or to hasten the conversion of plantations to native forest;
  - iv. inclusion of habitat structures to provide critical habitat for sensitive species or species groups;
  - v. elimination of anthropogenic disturbances, such as removal of debris, restoration of old tracks or trails and/or the cessation of grazing by livestock within the terrestrial natural heritage system. Specific commitments on how these measures will be achieved should be provided.

