

CHAPTER 11: RESTORATION OPPORTUNITIES

Gaps in the green infrastructure network, where vital, could be targeted by land conservation programs and government agencies, like the Ecosystem Enhancement Program, to fill in the missing pieces to strengthen the viability of the network.

Although composed primarily of natural ecosystems, the land area covered by the CPT assessments contains a variety of environmental conditions, including some areas that are heavily degraded. Land cover "gaps" - which are mined, cleared or developed lands within an area that could add value to the network if returned to a natural state - can be targeted for restoration: conversion to wetlands or forests with composition, functions and processes resembling native natural conditions. These human-generated gaps are logical starting points when attempting to identify opportunities for landscape restoration actions. Non-vegetated gaps in the green infrastructure offer a chance to extend or improve the network while at the same time providing water quality or specific habitat improvements.

A methodology will be developed to assess gaps and prioritize them for restoration, based on the ecological functions restored or enhanced. This assessment may also address methodologies for assessing and targeting impaired wetlands and streams, acid mine drainage, fish blockages, potential road and railroad underpasses, ditch removal, forest condition and management, invasive exotic species and other ecological stressors in the network. The methodologies will use a combination of GIS and field work, and build on the assessment protocols for conservation.

A restoration assessment should first evaluate the gaps based on the type of disturbance (e.g., roads and powerlines, hydrologic modifications, vegetation alteration, microtopography alterations, pollution or invasive species); the types of ecological effects these disturbances may result in; and evaluation of the restoration difficulty based on the magnitude of the disturbance, and the type of restoration that would best fit the particular situation to enhance the ecological functioning of the local natural resources.

Human-induced gaps should not be confused with gaps created in tree canopies or other vegetation by natural disturbances like storms, fire or tree falls. Natural gaps are a vital part of healthy ecosystems, as they maintain a suite of species able to respond quickly to disturbances. Natural gaps, unlike human-created gaps, should rarely be targeted for restoration (Weber, 2003).