

MANAGEMENT OF INVASIVE PLANTS Community Wide Management to Protect Open Space, Wetlands and Watercourses

Editor's Note: This is the second installment to Open Space Management of Invasive Plants (see the Winter 2003 issue of The Habitat). In this article the role of commissions and town staff is highlighted.

Municipal land use boards and town staff now have access to the necessary tools to take the lead in local campaigns against invasive plants, preventing spread from off-site infestations into open space preserves. Excellent technical resources and outreach materials have been developed by the Connecticut Invasive Plant Working Group (CIPWG), the **Natural Resources Conservation Service (NRCS)** and others, downloadable or linked to the CIPWG web site at www.hort.uconn.edu/cipwg. (A few individuals) **Commissioners or other community volunteers** with a particular interest in plants can develop the expertise to screen landscaping plant lists for non-native invasive plant species¹ such as Norway maple and burning bush (winged Euonymus); and check applicants' and municipal invasive species management plans for consistency with published guidelines. They can also provide further guidance to their town: printing out or ordering the most relevant fact sheets, setting up an in-house slide-show/training field trip, or even hosting a larger forum, perhaps planned jointly with a local conservation group. Posters, display boards, and a slide show may be borrowed from CIPWG. The NRCS (860 871 4066) state office in Tolland can provide an expert speaker. Local perspective **is also available from resident experts such as master gardeners and staff in (local) University of Connecticut Cooperative Extension System offices** (<http://www.canr.uconn.edu>), and training workshops are held on a regular basis by The Nature Conservancy (860-344-0716) and others.

Town Staff Procedures

The 1998 Connecticut Department of Environmental Protection's (DEP) Policy Statement on Invasive Plant Species underscores the double danger of exposed bare soil - the close link between sedimentation and erosion and colonization by invasive plant species. Strict enforcement by town staff or third party inspectors of the **2002 Connecticut Guidelines For Erosion and Sediment Control (DEP Bulletin 34)** will in itself *minimize availability of preferred seedbeds* for invasive species. A knowledgeable town staff person **or knowledgeable commissioner** can also direct and train public works and parks department crews to eliminate beginning infestations of certain key species, as a low-cost extension of *routine maintenance and inspection procedures*.

¹ Species on the January 2003 Connecticut List of Non-native Invasive and Potentially Invasive Vascular Plant Species, (L. Mehrhoff, K. Metzler, and E. Corrigan, Center for Conservation and Biodiversity, University of Connecticut, Storrs).

Wetland Permitting Recommendations

Because invasive plants often significantly impair wetland functions, wetlands permitting is in itself a powerful, appropriate tool for invasive plant management on privately owned land. An open space subdivision or commercial development can be *designed* so that concentrated development – or an unavoidable wetlands crossing - occupies the portion of the site with a severe infestation, *not* a more pristine portion that is to become protected open space. However, the applicant’s baseline environmental survey work must include a vegetation *survey* showing invasive plant distribution.

Project applications may include *enhancement of wetland setback areas* by removal of an infestation of invasive plant species and replacement with native species. wetlands commissions **can and often do** ask for buffer enhancement as mitigation for the *indirect impacts* of a development project on wetland functions (*e.g.* loss of complementary upland habitat and disturbance screening). Invasive removal in buffer areas was part of permit applications recently considered in Milford, Westport, and Cromwell to name just a few. Sites should be monitored for three to five years, including screening/removal of any invasive plant seedlings by a qualified professional.

Another useful permit stipulation is *preventive plantings, prompt soil stabilization, and weeding* invasive seedlings *along newly created forest edges*, to minimize colonization by invasive plants, many of which (*e.g.* facultative wetland species like multiflora rose) are likely to spread further into wetlands on the site. Bare soil or thin new grass (*e.g.* along a recently widened road) is an ideal seedbed for invasive species. However, few seeds germinate and few seedlings survive along an established forest edge with dense established vegetation, thick litter, and lower light levels. Occasional all-native hedgerows are encountered, but review of historic aerial photos has shown they were established *prior* to the burgeoning of the seed rain of invasive species in the latter half of the twentieth century. Species effective at “armoring” forest edges include clonal shrubs such as gray dogwood, arrowwood, maleberry, bayberry, and sumac, and dense, clonal perennial wildflowers like goldenrod, ironweed, and Joe-Pye weed. Use of bare root woody stock and a meadow seed mix with shrub seeds will keep costs down, but more follow-up weeding will be needed until shrubs and perennials are well-established. Town & citizen comment letters to CTDEP may also request preventive edge treatment of the **Connecticut Department of Transportation (DOT)**, whenever work along state highways will require edge disturbance near wetlands. In Middlefield, (CT) DOT’s wetlands permit from (CT)DEP to widen Route 66 stipulates preventive edge plantings. They were also required along all fairway edges in a recently permitted golf course in South Windsor.

Removal of invasive plant species *within wetlands* seems like an obvious mitigation choice, consistent with regulatory guidance principles for planning mitigation: “avoid, minimize, restore, replace - in that order.” For example, a plan to remove a severe, spreading infestation of barberry (relatively easy to control), with five years of follow-up weeding along the stream corridor, may be functionally preferable to excavating a new mitigation wetland in intact forested habitat. Unfortunately, applicants are usually *reluctant to propose any additional regulated activity within a regulated wetland area, to minimize the total area of project disturbance*, especially to keep below some real or pre-conceived threshold for regulatory review by wetlands commissions and

by the US Army Corps of Engineers. In fact proposed restorative activities in wetlands should certainly not be weighed negatively as commissioners evaluate a wetlands permit application. Proposed wetland restoration activities do need careful review, for example to make sure heavy equipment is used only when the ground is dry or frozen to avoid compacting saturated soil. An additional routine permit from (CT)DEP Pesticide Division is needed if herbicides are to be used. But restorative activities *enhance* wetland functions, and should fall in a separate category, provided the area is not to be otherwise disturbed. Connecticut needs an official (CT)DEP policy statement supplement clarifying that wetland mitigation involving vegetation restoration is entirely consistent with the 1998 DEP Invasive Plant Policy.

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