

EXIT 9

PROFESSIONAL OFFICE BUILDING

Pale Green Orchid
(Platanthera flava var. herbiola)

Members Way, Indian Brook Drive and
Sixth Street
Dover, New Hampshire

April 20, 2009

Prepared for: Summit Land Development
340 Central Avenue
Dover, New Hampshire 03820

Prepared by: Trittech Engineering Corporation
755 Central Avenue
Dover, New Hampshire 03820

Introduction

The purpose of this maintenance plan is to supplement the Pale Green Orchid Maintenance Plan prepared by Carex Ecosciences and dated February 11, 2007, attached.

Schedule

In an effort to re-establish the Pale Green Orchid on the existing Exit 9 – Professional Office building site, Tritech Engineering has developed the following maintenance schedule for cutting and inspections:

Hand Pruning:

Woody vegetation shall be cut by hand within 25' of the existing Pale Green Orchid (PGO) clusters as identified by a botanist familiar with the PGO. Hand pruning shall occur early spring, 2009 and be completed by July 31, 2009. Hand pruning will be required again prior to machine cutting. A botanist familiar with the PGO shall be on-site during the pruning to locate any additional clusters and prevent damage to located clusters.

Machine Mowing:

Wet meadow and early succession areas outside the 25' PGO buffer area shall be machine mowed during late summer/early fall of 2009. Machine mowing shall be completed again during the same season of 2010. A botanist shall be on-site during the machine mowing to prevent damage to the PGO and to locate any new clusters.

Continued Maintenance:

Wet meadow maintenance shall continue every 1 to 3 years following the 2010 fall cutting. Exact timing of the cutting shall be determined by a botanist familiar with the PGO and shall be designated during the 2010 fall cutting.

Reporting:

The enclosed inspection form documenting the hand pruning and the machine mowing of the former wet meadow shall be completed by the botanist monitoring the pruning/mowing event and provided to the City of Dover Environmental Projects Manager and the City of Dover Conservation Commission Chairman no later than December 15th of 2009 and 2010. A plan depicting the locations of the Pale Green Orchid shall accompany the inspection form.

Pale Green Orchid Maintenance Plan

Inspection & Maintenance Checklist

Exit 9 Professional Office Building

Action	Date Complete	Inspecting Botanist	Comments/Recommendations
Hand Pruning of 25' Buffer Area July 2009			
Machine Mowing of wet meadow Early succession area, 2009			
Hand Pruning of 25' Buffer Area 2010			
Machine Mowing of Wet Meadow Early Succession Areas, 2010			



CAREX ECOSCIENCES, LLC
42 SIXTH STREET
DOVER, NH 03820

603-742-6665 PHONE
603-742-6668 FAX
CAREXECOSCIENCES.COM

PALE GREEN ORCHID
(Platanthera flava var. herbiola)
MANAGEMENT PLAN

EXIT 9 PROFESSIONAL OFFICE BUILDING
Sixth Street & Indian Brook Drive
Dover, NH

Prepared For:

Tritech Engineering Corporation
755 Central Avenue
Dover, New Hampshire 03820

February 11, 2007
FF05



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DOVER, NH 03820

603-742-6665 PHONE
603-742-6668 FAX
CAREXECOSCIENCES.COM

INTRODUCTION

The Exit 9 Professional Office Building is proposed to be located in a predominantly wooded portion of a parcel located at the northwestern corner of the intersection of Sixth Street and Indian Brook Drive in Dover, NH. On that parcel, to the south and southwest of the proposed project is a formerly mown wet meadow that has not been maintained in recent years. This lack of mowing has resulted in the significant colonization by shrubs and tree saplings, particularly those of speckled alder (*Alnus incana* ssp. *rugosa*), glossy buckthorn (*Frangula alnus*), red maple (*Acer rubrum*), and gray birch (*Betula populifolia*). If left to continue this successional progression, this area will eventually become a forested wetland.

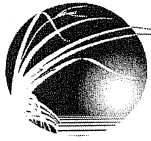
At some point in the distant past, the wet meadow was ditched to provide better drainage for growing hay. It is along these ditches in the southern and southeastern portion of the site that a population of the pale green orchid (*Platanthera flava* var. *herbiola*) has been documented. The pale green orchid is tracked by the NH Natural Heritage Bureau as a state imperiled (S2) species. In 1987 there were 51-100 plants documented in the meadow. By 2003, the population had been reduced to 16 plants. This reduction in the population is probably due to the dense colonization of shrubs and saplings, which would shade out the orchids.

The following management plan was prepared for the developers of the Exit 9 Professional Building as a voluntary means of providing conditions in the former wet meadow that would enhance the potential return of the pale green orchid.

MANAGEMENT

The first part of the management plan will be to locate and protect any existing pale green orchid individuals or clusters of individuals. The site will be visited during the blooming period of the orchids in early and mid-July 2007 to locate these plants. If located, the plants will be marked in the field with wooden stakes to avoid direct disturbance.

After the growing season has ended in late fall or early winter of 2007, the wet meadow area will be cut with a brush hog, being careful to avoid damaging the soils in any areas where the orchids have been located. The exact timing of the cutting will depend on soil moisture and danger of rutting. Special machinery with tracks or extra wide tires may be required to minimize soil damage during the cutting. It is expected that this cutting may stimulate rapid re-growth of shrubs and saplings during 2008, requiring a second cutting in the fall or early winter of 2008. From then on the wet meadow should be maintained by cutting every 1-3 years to maintain keep the woody species in check.



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Even if no orchids are located during the growing season of 2007, it is still recommended that the management plan be implemented for at least two years as there may be a seed bank of the orchid that could be stimulated by appropriate growing conditions. It is recommended that the orchids be re-counted during July of 2009 to evaluate the effectiveness of the management plan and to determine if it should be continued.

Leonard A. Lord, Ph.D
NH Certified Wetland Scientist #14
NH Certified Soil Scientist #19