ST. CLAIRE COUNTY ROAD COMMISSION
RAILROAD GRADE SEPARATION

THREATENED AND ENDANGERED SPECIES SURVEY REPORT
ST. CLAIRE COUNTY, MICHIGAN

PREPARED FOR:
ST. CLAIRE COUNTY ROAD COMMISSION
21 AIRPORT DRIVE
ST. CLAIRE, MI 48079

PREPARED BY:
DLZ MICHIGAN, INC.
1425 KEYSTONE AVENUE
LANSING, MI 48911

PROJECT NO.: 0441-5895-00

JULY 2005
St. Clair County Road Commission
Railroad Grade Separation

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INTRODUCTION

The St. Clair County Road Commission (SCCRC) contracted DLZ Michigan, Inc., to perform a threatened and endangered species survey as part of the Feasibility Study and Environmental Assessment being performed for proposed improvements to the railroad crossings at Griswold Road, Range Road, and Michigan Road. The project area is located in Port Huron Township, (Range 17 East, Township 6 North, Sections 7, 8, 17, and 18) St. Clair County, Michigan (Figure 1). The project area specifically includes the Canadian National Railway crossings on Range, Griswold and Michigan Roads.

The Land and Water Management Division (LWMD) of the Michigan Department of Environmental Quality (MDEQ) contacted DLZ to indicate that the project area contained suitable habitat for *Trillium undulatum* (Painted Trillium), a state endangered species. The threatened and endangered species survey was conducted to address this concern and to determine whether the site potentially contained *T. undulatum*.

METHODS

Background Information

*T. undulatum* is a state endangered species that is known to occur in only three counties in Michigan, one being St. Clair County. It prefers a habitat of level, rich mesic, second-growth woodlands dominated by red maple (*Acer rubrum*), paper birch (*Betula papyrifera*), and oaks (*Quercus spp.*). *T. undulatum* is commonly associated with groundcover species such as partridgeberry (*Mitchella repens*), Canada mayflower (*Maianthemum canadense*), wintergreen (*Gaultheria procumbens*), Indian cucumber root (*Medeola virginiana*), jack-in-the-pulpit (*Arisaema triphyllum*), gay-wings (*Polygala paucifloia*), bunchberry (*Cornus canadensis*), wild sarsaparilla (*Aralia nudicaulis*), starflower (*Trientalis borealis*), cinnamon fern (*Osmunda cinnamomea*) and royal fern (*Osmunda regalis*). According to the Michigan Department of Natural Resources Floristic Quality Assessment, *T. undulatum* has a wetland indicator status of facultative upland minus (FACU-). A FACU- plant is found in non-wetland (i.e., upland) conditions 67% to 99% of the time (MDEQ Wetland Identification Manual). The ideal survey period for *T. undulatum* in Michigan is when the plant is in flower between mid-May to mid-June each year.

Field Investigation Methodology

Because *T. undulatum* occurs most often in upland habitat, DLZ focused its search for the species on the upland habitat in and near the project area. DLZ did briefly survey the wetland and buffer areas for *Trillium* as well. DLZ conducted a meandering search for all species of *Trillium*. In addition, DLZ focused on areas with habitat that supported indicator species commonly associated with *T. undulatum*. DLZ did not search developed or residential parcels near the project site.
RESULTS

General Site Conditions

On May 24, 2005, DLZ Michigan, Inc. conducted a site visit at the project site to determine the presence and/or potential habitat for *T. undulatum*. The overall site contains mainly upland with wetlands scattered throughout the area. Weather conditions were partly sunny and dry the day the site visit was conducted. Several species of plants were in full bloom in the area, including gay-wings, wild blue flag (*Iris versicolor*), and common trillium (*Trillium grandiflorum*). A second search for *T. undulatum* was conducted on June 10, 2005. This search took place on a dry day with mostly sunny skies.

Habitat Types Present

Three of the upland forested areas (specifically areas A, B, and C in Figure 2) DLZ searched were dominated by paper birch (*Betula papyrifera*), quaking aspen (*Populus tremuloides*), and red maple in the overstory. The understory was dominated by big blue stem (*Andropogon gerardii*), bunchberry, wild sarsaparilla, and witch-hazel (*Hamamelis virginiana*). DLZ did not find any species of *Trillium* in these complexes. DLZ does not feel that the habitat in these areas is conducive to support *T. undulatum* since the upland areas may be too fragmented by the presence of wetlands in the area.

Area D (Figure 2) was dominated by wild black cherry (*Prunus serotina*), paper birch, quaking aspen, red maple, pin oak (*Quercus palustris*), and silver maple (*Acer saccharinum*) in the overstory. False spikenard (*Smilacina racemosa*), and gay-wings dominated the understory. DLZ did not find *Trillium* of any species within this area. DLZ concludes that this area does not support *T. undulatum*, mainly due to the fact that very few understory associates of the species were located in this area.

Area E (Figure 2, Photo 1) was dominated by an overstory of paper birch, silver maple (*Acer saccharinum*) and red maple. The understory contained tall blue lettuce (*Lactuca biennis*), sensitive fern (*Onoclea sensibilis*), gay-wings, jack-in-the-pulpit, big-leaved aster (*Aster macrophyllus*), false spikenard, and pipsissewa (*Chimaphila umbellate*). In this wooded complex, DLZ found a small population of red trillium (*Trillium erectum*). There were eight (8) plants in the area and three (3) were in bloom. They were near the end of the bloom period and the flowers were wilting, but DLZ was able to identify the species as *T. erectum* because of the absence of wavy margined petals and the dark maroon color of the petals. This area exhibited evidence of disturbance, most notably the tracks of All Terrain Vehicles (ATVs) in the area. Area E also contained wetland pockets, which fragmented the upland areas. Due to these reasons and the fact that *T. undulatum* was not located, DLZ has determined that Area E most likely will not support the endangered species.
Area F (Figure 2, Photo 2) had an overstory dominated by red maple with scattered occurrences of white pine (*Pinus strobus*). The understory was dominated by big-leaved aster, bunchberry, gay-wings, wild sarsaparilla, sensitive fern, royal fern, may apple (*Podophyllum peltatum*), false spikenard, sedge (*Carex pensylvanica*), black haw (*Viburnum prunifolium*), and common buckthorn (*Rhamnus cathartica*). In addition to these dominant species, DLZ also found common trillium. There were two plants at peak bloom in the area. This area also contained several wetland pockets that have fragmented the upland areas. Due to the fragmentation of upland habitat in area F, DLZ believes that the area does not contain the species *T. undulatum*.

Because *T. grandiflorum* was found in full bloom, DLZ was concerned that if *T. undulatum* was located in the area that it may not have been in bloom on May 24th, 2005 since *T. undulatum* generally blooms later in the season than *T. grandiflorum*. To ensure the area was searched at the proper time, a second field inspection was conducted on June 10th, 2005. DLZ conducted a search of the project area for a second time to ensure that *T. undulatum* was not missed. *T. grandiflorum* was again found during the second site visit, this time the flowers were wilted and nearly gone. *T. undulatum* was not found on site during this visit.

**CONCLUSION**

It is the conclusion of DLZ that the habitat in and near the project area does not support the species *Trillium undulatum*. After two separate searches of the property during peak bloom time, DLZ did not find the species in the area. Although the area supports several common associates of *T. undulatum*, the site location may be too wet to support this species. The upland areas that may be dry enough to support *T. undulatum* are considerably fragmented by wetland pockets, making the areas too small to support the species. Lastly, several of the areas are considerably disturbed by human use, including the use of ATVs in the area.
Site Photographs

Photo 1: Near the center of Area E

Photo 2: In the northwest quadrant of Area F
Figure 1
Project Location
Figure 2