



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

BEVERLY EAVES PERDUE
 GOVERNOR

EUGENE A. CONTI, JR.
 SECRETARY

November 1, 2011

Mara L. Alexander, Ph.D.
 U.S. Fish and Wildlife Service
 160 Zillicoa Street
 Asheville, NC 28801

Subject: Cane Creek Park – *Helianthus schweinitzii* 2011 Fall Monitoring

Dear Dr. Alexander,

The purpose of this letter is to provide you with some background on the Cane Creek Park *Helianthus schweinitzii* preserve (the preserve) as well as the results of monitoring that have taken place at this site since 2007.

The preserve is a 5 acre site located within Cane Creek Park in Union County, North Carolina. The initial site preparation began in 2005 and, in October of 2006, the preserve was populated with garden maintained plants that had been removed from various sites impacted by development in previous years. The plants were labeled as to the site of origin in the garden setting. Four distinct populations were transplanted and recorded with a handheld sub-meter GPS unit (see attached aerial map for locations):

The site was monitored in 2007, 2009 and 2011. Monitoring was not possible in 2008 due to the site having been mown by park staff in the late summer/early fall time frame. A plant count in 2010 was not possible due to an early frost and difficulty in locating specimens.

Monitoring in 2009 was limited to flowering stems and the following comparison was provided in the fall monitoring report that was prepared by Dr. Jim Matthews:

<u>Population</u>	<u>Initial Planting</u>	<u>2007 Count</u>	<u>2009 Count</u>
Waxhaw-Marvin Road	1,169	867	2,812
Jackson Station	347	256	835
Secret Shortcut Road	418	247	2,320
Bonds Grove Church Road	90	45	26
TOTAL:	2,024	1,415	5,993



Cane Creek Monitoring Report - 2011

A prescribed burn was conducted at the preserve in the spring of 2011 and a flowering stem count was conducted at the site on October 18th. The monitoring was performed by staff from the North Carolina Department of Transportation (NCDOT) and the Mecklenburg County Park and Recreation Department. A total of 31 man hours were required to survey the site.

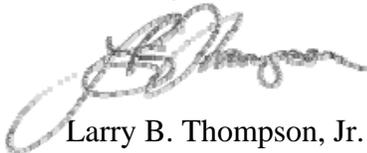
A total of 15,327 flowering stems were counted and thousands of seedlings were noted during the monitoring activity. The seedlings varied from 2-3 inches up to 8-10 inches in height. The individual populations have become less discernible due to the huge increase in plant numbers and, therefore, no attempt was made to count flowering stems according to the original population areas.

As noted in previous reports, the Bonds Grove Church Road population has experienced a steady decline in numbers due to competition from *Sericea lespedeza* (*Lespedeza cuneata*) and Goldenrods (*Solidago spp.*). In 2011 no *H. schweinitzii* were evident in the area where the Bonds Grove Church Road population was originally transplanted, and it is our opinion that this population has gone dormant or perished. The NCDOT would like to treat the *Sericea lespedeza* with a selective herbicide this fall and, following the chemical application, mow the preserve. A visual survey of the area will be conducted in the spring of 2012 to determine whether the sunflowers are able to re-sprout.

The NCDOT would also like to request that future monitoring activities be limited to an annual visual survey due to current plant density and the difficulty that an individual flowering stem count presents. Long-term maintenance of the site, i.e. annual mowing, prescribed burns and select herbicide applications will continue as per the Management Plan.

Please feel free to contact me should you have any questions regarding this report or the Cane Creek Piedmont Prairie project in general. I can be reached at (704) 301-4881. We will be happy to provide a tour of the site at your convenience.

Sincerely,



Larry B. Thompson, Jr.
Environmental Supervisor

Attachment (1)

cc: Sharon Wilson - Catawba Lands Conservancy
Bill Whitley – Union County Parks and Recreation
Mary Frazer – NCDOT Natural Environment Unit
File



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Miles

2005 Aerial Photography

Helianthus schweinitzii Cane Creek Park, Union County NC

For more information, contact Don Seriff at 704-432-1391



Map by Christa Rogers
Date: August 9, 2007