



## **Natural Resources Group Forest Restoration Team Spring 2002 Summary**

This spring was a productive season for the Natural Resources Group (NRG) Forest Restoration Team. For the season, the team consisted of 8 full time foresters. Assistance was provided by Americorps staff, and 5 volunteer groups. Plantings took place in 5 parks in Queens, Manhattan, Brooklyn, and the Bronx. The following is a summary of the work completed in the Spring of 2002.

- Planted 9,428 2-3' containerized trees and shrubs
- Planted 5,484 1-3" bareroot trees in the field
- Potted 7,922 1-2 ft seedlings for use in the fall
- Planted 15,230 herbaceous groundcover plants
- Installed 15,450 2-foot live stakes
- Planted 135 6-8 ft balled and burlap trees and shrubs
- Planted 95 pounds of native groundcover seed
- Hosted 12 volunteer events with 5 different volunteer groups



## Natural Resources Group Forest Restoration Team Planting Report Spring 2002

### I. Tree Plantings

During the Spring 2002 planting season, the Natural Resources Group (NRG) Forest Restoration Team planted a total of 9,428 containerized and balled and burlap trees and shrubs. These plantings, comprising 40 species, took place throughout 5 different parks in 4 boroughs. The majority were 2-3 foot containerized plants. In addition, 5,484 bareroot trees, consisting of 15 species were planted in 4 parks in 4 boroughs. All were 1-3 ft tall.

#### A. Containerized Plantings by Park

Alley Pond Park – Queens	2,160 containerized trees and shrubs
Bronx River – Bronx	2,250 containerized trees and shrubs
Seton Falls Park – Bronx	636 containerized trees and shrubs
Inwood Hill Park – Manhattan	4,139 containerized trees and shrubs
Four Sparrow Marsh – Brooklyn	243 containerized trees and shrubs
<b>TOTAL</b>	<b>9,428 Trees and Shrubs</b>

#### B. Containerized Plantings by Species

822	Arrowwood viburnum ( <i>Viburnum dentatum</i> )
816	Northern red oak ( <i>Quercus rubra</i> )
566	Tulip poplar ( <i>Liriodendron tulipifera</i> )
505	Lowbush blueberry ( <i>Vaccinium angustifolium</i> )
490	Red maple ( <i>Acer rubrum</i> )
477	Black birch ( <i>Betula lenta</i> )
380	White ash ( <i>Fraxinus americana</i> )
333	Black oak ( <i>Quercus velutina</i> )

333	Silky dogwood ( <i>Cornus amomum</i> )
331	Sycamore ( <i>Platanus occidentalis</i> )
324	White oak ( <i>Quercus alba</i> )
329	Red-osier dogwood ( <i>Cornus sericea</i> )
278	Chestnut oak ( <i>Quercus prinus</i> )
278	Sweetgum ( <i>Liquidamber styraciflua</i> )
274	Chokeberry ( <i>Aronia arbutifolia</i> )
238	Grey-twig dogwood ( <i>Cornus racemosa</i> )
237	Green ash ( <i>Fraxinus pensylvanica</i> )
236	Elderberry ( <i>Sambucus canadensis</i> )
210	Sweet pepperbush ( <i>Clethra alnifolia</i> )
192	Winterberry ( <i>Ilex verticillata</i> )
190	Eastern hornbeam ( <i>Carpinus caroliniana</i> )
173	Spicebush ( <i>Lindera benzoin</i> )
173	Hackberry ( <i>Celtis occidentalis</i> )
171	Pin oak ( <i>Quercus palustris</i> )
151	Black gum ( <i>Nyssa sylvatica</i> )
149	Sugar maple ( <i>Acer saccharum</i> )
127	Gray birch ( <i>Betula populifolia</i> )
97	River birch ( <i>Betula nigra</i> )
77	Maple-leaf viburnum ( <i>Viburnum acerfolium</i> )
76	Black chokeberry ( <i>Aronia melanocarpa</i> )
73	Swamp white oak ( <i>Quercus bicolor</i> )
64	Flowering dogwood ( <i>Cornus florida</i> )
55	Persimmon ( <i>Diospyros virginiana</i> )
50	Cottonwood ( <i>Populus deltoides</i> )
49	Silver maple ( <i>Acer saccharinum</i> )
35	Pinkster azelea ( <i>Rhododendron peryclymoides</i> )
25	Sassafras ( <i>Sassafras albidum</i> )
21	Black walnut ( <i>Juglans nigra</i> )
21	Hophornbeam ( <i>Ostrya virginiana</i> )
1	Black willow ( <i>Salix nigra</i> )

**TOTAL 9,428 Containerized Trees and Shrubs**

**C. Bareroot Plantings by Park**

Alley Pond Park – Queens	1,480
Inwood Hill Park - Manhattan	825
Seton Falls Park – Bronx	500
Bronx River – Bronx	2,379
Four Sparrow Marsh – Brooklyn	300

**TOTAL 5,484 Bareroot Trees**

#### **D. Bareroot Plantings by Species**

1825	Northern red oak ( <i>Quercus rubra</i> )
700	Eastern Hornbeam ( <i>Carpinus caroliniana</i> )
525	Silver maple ( <i>Acer saccharinum</i> )
350	Green ash ( <i>Fraxinus pensylvanica</i> )
300	Staghorn sumac ( <i>Rhus typhina</i> )
294	Grey dogwood ( <i>Cornus racemosa</i> )
260	Arrowwood viburnum ( <i>Viburnum dentatum</i> )
250	Silky dogwood ( <i>Cornus amomum</i> )
200	Elderberry ( <i>Sambucus canadensis</i> )
200	Hackberry ( <i>Celtis occidentalis</i> )
180	Sugar maple ( <i>Acer saccharum</i> )
100	Swamp white oak ( <i>Quercus bicolor</i> )
100	Shagbark hickory ( <i>Carya ovata</i> )
100	Pignut hickory ( <i>Carya glabra</i> )
100	Gray birch ( <i>Betula populifolia</i> )

**TOTAL** **5,484 Bareroot Trees**

## II. Herbaceous Plantings

During the Spring 2002 planting season, NRG Forest Restoration staff planted a total of 15,230 herbaceous groundcover plants. Groundcover root systems reduce sedimentation and non-point source pollution by stabilizing steep, eroded slopes. Cribbing and jute mat temporarily stabilize the slope and groundcover vegetation is planted through the mat. The jute and cribbing eventually biodegrade as the root systems become established.

### A. Groundcover Planting Totals by Park

Inwood Hill Park – Manhattan	5,345 plants
Alley Pond Park - Queens	4,394 plants
Seton Falls Park – Bronx	2,133 plants
Bronx River – Bronx	3,358 plants

**TOTAL** **15,230 Herbaceous Plants**

### B. Groundcover Planting Totals by Species

1792	Pennsylvania sedge ( <i>Carex pensylvanica</i> )
1500	Fox sedge ( <i>Carex vulpinoides</i> )
1324	Path rush ( <i>Juncus tenuis</i> )
1276	Blue stemmed goldenrod ( <i>Solidago caesia</i> )
1192	Heart leaf aster ( <i>Aster cordifolia</i> )
1116	White wood aster ( <i>Aster divaricatus</i> )
1017	White snakeroot ( <i>Eupatorium rugosum</i> )
744	Virginia creeper ( <i>Parthenocissus quinquefolia</i> )
643	Junegrass ( <i>Danthonia spicata</i> )
636	Marginal wood fern ( <i>Dryopteris marginalis</i> )
549	Canada rush ( <i>Juncus canadensis</i> )
528	Tussock sedge ( <i>Carex stricta</i> )
437	White avens ( <i>Geum virginiana</i> )
342	Woodland sunflower ( <i>Helianthus decapetalis</i> )
285	Hay-scented fern ( <i>Dennstaedtia punctilobula</i> )
240	Virginia wild rye ( <i>Elymus virginicus</i> )
340	Lady fern ( <i>Athyrium filix-femina</i> )
206	Dutchman's breeches ( <i>Dicentra culineria</i> )
192	Appalachian sedge ( <i>Carex appalachica</i> )
185	Common threesquare bulrush ( <i>Scirpus pungens</i> )
164	Broad leaf sedge ( <i>Carex plataphylla</i> )
152	Wild bergamont ( <i>Monarda fistulosa</i> )

- 100 Riverbank wild rye (*Elumus riparius*)
- 100 Royal fern (*Osmunda regalis*)
- 50 Sensitive fern (*Onoclea sensibilis*)
- 30 Canada anemone (*Anemone canadensis*)
- 30 Wild columbine (*Aquilegia canadensis*)
- 30 Rue anemone (*Anemonella thalictroides*)
- 20 Christmas fern (*Polystichum acrostichoides*)
- 10 Great blue lobelia (*Lobelia syphilitica*)

**TOTAL**

**15,230 Herbaceous Plants**

### III. Live Stakes

When performing erosion control on a streambank or wetland, live stakes are commonly used. Live stakes are dormant cuttings taken from the branches of certain trees or shrubs. These stakes are driven into the ground until only the top few inches are exposed. The lower portion will develop new roots and the top portion will grow new shoots during the course of the growing season. The stakes used in this are approximately ½ to 1 1/2 inches in diameter and 2 feet in length. This type of treatment can be done only with a limited number of tree and shrub species, and typically works best in wetland or streambank sites.

#### A. Live Stake Plantings by Park

Shoelace Park – Bronx	13,150 stakes
Alley Pond park – Queens	2,300 stakes
<b>TOTAL</b>	<b>15,450 stakes</b>

#### B. Live Stake Plantings by Species

Red-osier dogwood ( <i>Cornus sericea</i> )	3,100
Grey dogwood ( <i>Cornus racemosa</i> )	2,650
Silky dogwood ( <i>Cornus amomum</i> )	2,475
Silky willow ( <i>Salix sericea</i> )	2,100
Pussywillow ( <i>Salix discolor</i> )	1,775
Sandbar willow ( <i>Salix exigua</i> )	1,675
Cottonwood ( <i>Populus deltoides</i> )	1,675
<b>TOTAL</b>	<b>15,450 stakes</b>