

City of New York Parks & Recreation

The Arsenal Central Park New York, New York 10021

Adrian Benepe Commissioner

Natural Resources Group

Arsenal North 1234 Fifth Avenue New York, New York 10029

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Natural Resources Group - Forest Restoration Team Fall 2007 Summary

This fall was a productive season for the Natural Resources Group (NRG) Forest Restoration Team. For the season, the team consisted of 12 (2006 - 10) full time foresters. Assistance was provided by other NRG staff, and 18 volunteer and school groups. Plantings took place in 14 parks in five boroughs. The following is a summary of the work completed in the Fall of 2007.

- Planted $26,164\ 2-3$ ' containerized trees and shrubs (2006-9,730).
- Planted 13,399 herbaceous plants (2006 –8,690).
- Hosted 18 volunteer events with 1,273 volunteers from 14 different volunteer and school groups (2006 7, 95, 5).
- Planted 11 pounds of native groundcover seed (2005 10).



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Natural Resources Group Forest Restoration Team Planting Report Fall 2007

I. Tree Plantings

During the Fall 2007 planting season, the Natural Resources Group (NRG) Forest Restoration Team planted a total of 26,164 trees and shrubs. These plantings, containing 60 species, took place throughout 14 different parks in three boroughs. The majority were 2-3 foot containerized plants.

A. Containerized Plantings by Park

| Bronx River – Bronx | 3,763 | containerized trees and shrubs |
|-------------------------------------|-------|--------------------------------|
| Kissena Park – Queens | 2,900 | containerized trees and shrubs |
| Van Cortlandt Park – Bronx | 2,247 | containerized trees and shrubs |
| Alley Pond Park – Queens | 2,107 | containerized trees and shrubs |
| Greenbelt/Bloodroot – Staten Island | 2,100 | containerized trees and shrubs |
| Ferry Point Park – Bronx | 2,054 | containerized trees and shrubs |
| Riverdale Park – Bronx | 2,040 | containerized trees and shrubs |
| Pelham Bay Park – Bronx | 2,007 | containerized trees and shrubs |
| Four Sparrow Marsh – Brooklyn | 2,000 | containerized trees and shrubs |
| Inwood Hill Park – Manhattan | 1,887 | containerized trees and shrubs |
| Randall's Island – Manhattan | 1,100 | containerized trees and shrubs |
| Fort Washington – Manhattan | 923 | containerized trees and shrubs |
| University Heights Woods – Bronx | 691 | containerized trees and shrubs |
| Fort Tryon Park – Manhattan | 345 | containerized trees and shrubs |

TOTAL

26,164 Trees and Shrubs

B. Containerized Plantings by Species

- 3,772 Northern red oak (*Quercus rubra*)
- 1,748 Arrowwood viburnum (Viburnum dentatum)
- 1,488 Tulip poplar (*Liriodendron tulipifera*)
- 1,318 Pin oak (Quercus palustris)
- 1,272 Black gum (*Nyssa sylvatica*)
- 1,160 Chestnut oak (*Quercus prinus*)
- 1,097 Sweetgum (*Liquidambar styraciflua*)
 - 999 Black oak (Quercus velutina)
 - 896 Black chokeberry (*Aronia melanocarpa*)
 - 891 Red maple (*Acer rubrum*)
 - 857 White oak (*Quercus alba*)
 - 817 Silky dogwood (Cornus amomum)
 - 812 Swamp white oak (*Quercus bicolor*)
 - 792 Hackberry (Celtis occidentalis)
 - 788 Red chokeberry (Aronia arbutifolia)
 - 722 Serviceberry (Amelanchier canadensis)
 - 624 Eastern redbud (Cercis canadensis)
 - 624 Red-osier dogwood (Cornus sericea)
 - 610 Silver maple (*Acer saccharinum*)
 - 449 American sycamore (*Plantanus occidentalis*)
 - 372 Black walnut (Juglans nigra)
 - 364 Winterberry (*Ilex verticillata*)
 - 350 Gray birch (Betula populifolia)
 - 300 Spicebush (*Lindera benzoin*)
 - 295 Sassafras (Sassafras albidum)
 - 236 Gray-twig dogwood (Cornus racemosa)
 - 186 Black birch (*Betula lenta*)
 - 186 American hornbeam (*Carpinus caroliniana*)
 - 180 Green ash (Fraxinus pensylvanica)
 - 154 Highbush blueberry (*Vaccinum corymbosum*)
 - 152 Witch hazel (Hamamelis virginiana)
 - 136 Scarlet oak (Quercus coccinea)
 - 120 Northern red cedar (Thuja occidentalis)
 - 112 Sweetpepper bush (*Clethra alnifolia*)
 - 98 Mockernut hickory (Carya tomentosa)
 - 83 Shagbark hickory (*Carya ovata*)
 - 80 American holly (*Ilex opaca*)
 - 79 Elderberry (Sambucus canadensis)
 - 75 Sugar maple (Acer saccharam)
 - 70 River birch (Betula nigra)
 - 65 Persimmion (*Diospyros virginiana*)
 - 61 Flowering dogwood (*Cornus florida*)
 - 57 Strawberry bush (*Euonymous americana*)
 - 57 American elm (*Ulmus americana*)

- 48 Upland low blueberry (Vaccinium palladium)
- 48 Boxelder (*Acer negundo*)
- 40 Black haw (Viburnum prunifolium)
- 39 White ash (Fraxinus americana)
- 37 Heart-shaped willow (Salix eriocephala)
- 31 Hophornbeam (Ostrya virginiana)
- 28 Winged sumac (*Rhus copallinum*)
- 25 Cottonwood (*Populous deltoidies*)
- 20 Smooth sumac (Rhus glabra)
- 13 Lowbush Blueberry (Vaccinium angustifolium)
- 13 Blackberry (Rubus allegheniensis)
- 9 Staghorn sumac (Rhus typhina)
- 7 Eastern white pine (*Pinus strobus*)
- 7 Pignut hickory (*Carya glabra*)
- 2 Eastern red cedar (Juniperis virginiana)

TOTAL

26,164 Containerized Trees and Shrubs

II. Groundcover Plantings

During the Fall 2007 planting season, NRG Forest Restoration staff planted a total of 13,399 herbaceous groundcover plants, representing 16 species. Groundcover root systems reduce sedimentation and non-point source pollution by stabilizing steep, eroded slopes and streambanks. Cribbing and jute or coir mats temporarily stabilize the slope and groundcover vegetation is planted through the mat. The mats and cribbing eventually biodegrade as the root systems become established. The majority of these plants were 2 ½" by 2 ½" plugs.

A. Groundcover Planting Totals by Park

| Pelham Bay (Hunter Island) - Bronx | 6,155 | plants |
|------------------------------------|-------|--------|
| Riverdale Park – Bronx | 3,048 | plants |
| University Heights Woods – Bronx | 2,378 | plants |
| Van Cortlandt Park – Bronx | 1,818 | plants |

TOTAL

13,399 Groundcover Plants

B. Groundcover Planting Totals by Species

| 1,801 | Blue wood aster (Symphyotrichum cordifolius) |
|-------|--|
| 1,623 | White wood aster (Eurybia divaricata) |
| 1,536 | Rosy sedge (Carex rosea) |
| 1,505 | Path rush (Juncus tenuis) |
| 1,503 | Virginia creeper (Parthenocissus quinquefolia) |
| 1,466 | White snake root (Eupatorium rugosum) |
| 1,176 | Pennsylvannia sedge (Carex pennsylvanica) |
| 1,060 | Blue stemmed goldenrod (Solidago caesia) |
| 912 | Appalachian sedge (Carex appalachica) |
| 264 | White avens (Geum canadenses) |
| 192 | Rough avens (Geum virginiana) |
| 96 | Giant sunflower (Helianthus giganteus) |
| 96 | Seaside goldenrod (Solidago sempervirens) |

Thin-leafed sunflower (*Helianthus decapetalus*)

Woodland sunflower (Helianthus divaricatus)

Swamp sunflower (Helianthus angustifolius)

TOTAL

73

64 32

13,399 Groundcover Plants