



**City of New York
Parks & Recreation**

The Arsenal
Central Park
New York, New York 10021

Adrian Benepe
Commissioner

Natural Resources Group

Arsenal North
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New York, New York 10029

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**Natural Resources Group
Forest Restoration Team Planting Report
Spring 2008**

Spring 2008 proved to be another productive season for the Forest Restoration Team, which consists of 14 full-time employees and 5 seasonal for the season. The team received assistance from other members of the NRG staff along with 13 volunteer and school groups. In addition, numerous Parks staff assisted with the planting of 20,263 trees in a single day as part of the Million Trees initiative. Plantings took place in 20 properties in all 5 boroughs. Below is a summary of the work completed in the Spring of 2008.

- Planted 32,881 containerized trees and shrubs (2007 – 16,749)
- Planted 3,387 bareroot trees and shrubs (2007 – 0)
- Planted 119 balled & burlapped trees (2007 – 0)
- Planted 321 balled & burlapped trees through contractors (2007 – 0)
- Planted 19,057 herbaceous plants (2007 – 18,016)
- Hosted 25 volunteer events with 479 volunteers from 13 different volunteer and school groups (2007 – 19, 647, 11)
- Planted 10 pounds of native groundcover seed (2007 – 39)



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Spring 2008**

I. Tree Plantings

The Natural Resources Group (NRG) Forest Restoration Team planted 36,708 trees and shrubs in total during the Spring 2008 planting season. 12,618 trees were planted as part of NRG's ongoing restoration work in the city's natural areas by NRG staff, and 20,263 trees were planted during the spring event as part of the Million Tree Initiative by volunteers, NRG and Parks staff, and contractors. Plantings of 58 species took place in 20 properties in all 5 boroughs. The majority of the plants were 2-3 foot containerized plants.

A. Containerized Plantings by Park

Pelham Bay Park	Bronx	5,884	containerized trees and shrubs
Canarsie Park	Brooklyn	5,000	containerized trees and shrubs
Kissena Corridor	Queens	4,050	containerized trees and shrubs
Van Cortlandt Park	Bronx	2,524	containerized trees and shrubs
Mount Loretto	Staten Island	2,500	containerized trees and shrubs
Bronx River	Bronx	2,445	containerized trees and shrubs
Riverdale Park	Bronx	2,100	containerized trees and shrubs
Ocean Breeze Park	Staten Island	1,333	containerized trees and shrubs
Alley Pond Park	Queens	1,285	containerized trees and shrubs
Idlewild Park	Queens	1,200	containerized trees and shrubs
Conference House	Staten Island	700	containerized trees and shrubs
Fort Washington	Manhattan	700	containerized trees and shrubs
Forest Park	Queens	650	containerized trees and shrubs
Inwood Hill Park	Manhattan	649	containerized trees and shrubs
University Heights	Bronx	557	containerized trees and shrubs
Chapin Woods	Staten Island	500	containerized trees and shrubs
Prall's Island	Staten Island	432	containerized trees and shrubs

NY Botanic Garden	Bronx	250	containerized trees and shrubs
Highbridge Park	Manhattan	122	containerized trees and shrubs

TOTAL **32,881 Trees and Shrubs**

B. Containerized Plantings by Species

- 2,880 Northern red oak (*Quercus rubra*)
- 2,645 Black gum (*Nyssa sylvatica*)
- 2,582 Pin oak (*Quercus palustris*)
- 2,396 Sweetgum (*Liquidamber styraciflua*)
- 1,767 Arrowwood viburnum (*Viburnum dentatum*)
- 1,699 Black oak (*Quercus velutina*)
- 1,622 Tulip poplar (*Liriodendron tulipifera*)
- 1,271 Red-osier dogwood (*Cornus sericea*)
- 1,240 White oak (*Quercus alba*)
- 1,220 Hackberry (*Celtis occidentalis*)
- 1,089 Red maple (*Acer rubrum*)
- 1,050 Swamp white oak (*Quercus bicolor*)
- 1,000 Eastern white pine (*Pinus strobus*)
- 896 Pitch pine (*Pinus rigida*)
- 800 Smooth alder (*Alnus serrulata*)
- 670 Gray dogwood (*Cornus racemosa*)
- 636 American sycamore (*Platanus occidentalis*)
- 578 Scarlet oak (*Quercus coccinea*)
- 573 Black cherry (*Prunus serotina*)
- 500 Silky dogwood (*Cornus amomum*)
- 454 Black birch (*Betula lenta*)
- 418 Chestnut oak (*Quercus prinus*)
- 401 Flowering dogwood (*Cornus florida*)
- 357 American elm (*Ulmus americana*)
- 346 Green ash (*Fraxinus pennsylvanica*)
- 280 Shadblow (*Amelanchier canadensis*)
- 266 Spicebush (*Lindera benzoin*)
- 251 Winterberry (*Ilex verticillata*)
- 221 Sugar maple (*Acer saccharum*)
- 215 Box elder (*Acer negundo*)
- 201 Mockernut hickory (*Carya tomentosa*)
- 199 Flowering redbud (*Cercis canadensis*)
- 188 Chokeberry (*Aronia arbutifolia*)
- 163 American elder (*Sambucus canadensis*)
- 151 Cottonwood (*Populus deltoides*)
- 150 Sweet pepperbush (*Clethra alnifolia*)
- 150 Persimmon (*Diospyros virginiana*)
- 127 Gray birch (*Betula populifolia*)
- 125 Silver maple (*Acer saccharinum*)
- 113 American hornbeam (*Carpinus caroliniana*)
- 110 Sassafrass (*Sassafrass albidum*)

- 109 Eastern red cedar (*Juniperis virginiana*)
- 108 Strawberry bush (*Euonymus americana*)
- 84 Early low blueberry (*Vaccinium pallidum*)
- 82 Witch hazel (*Hamamelis virginiana*)
- 72 Black walnut (*Juglans nigra*)
- 59 Shagbark hickory (*Carya ovata*)
- 49 Shining sumac (*Rhus copallina*)
- 48 Black raspberry (*Rubus occidentalis*)
- 45 American holly (*Ilex opaca*)
- 39 Pignut hickory (*Carya glabra*)
- 33 Smooth sumac (*Rhus glabra*)
- 30 Pinkster azalea (*Rhododendron periclymenoides*)
- 27 Bitternut hickory (*Carya cordiformis*)
- 25 Blackberry (*Rubus allegheniensis*)
- 25 Blackjack oak (*Quercus marilandica*)
- 20 Black chokeberry (*Aronia melanocarpa*)
- 16 Staghorn sumac (*Rhus typhina*)
- 10 Lowbush blueberry (*Vaccinium angustifolium*)

TOTAL **32,881 containerized trees and shrubs**

C. Bareroot Plantings

Conference House	Staten Island	1,862 Bareroot trees and shrubs
Highbridge Park	Manhattan	725 Bareroot trees and shrubs
Fort Washington Pk.	Manhattan	600 Bareroot trees and shrubs
Alley Pond Park	Queens	200 Bareroot trees and shrubs

TOTAL **3,387 Bareroot Trees and Shrubs**

D. Bareroot Plantings by Species

- 725 Black chokeberry (*Aronia melanocarpa*)
- 690 Eastern star sedge (*Carex radiata*)
- 409 Buttonbush(*Cephalanthus occidentalis*)
- 276 Northern red oak (*Quercus rubra*)
- 200 Sugar maple (*Acer saccharum*)
- 190 Pin oak (*Quercus palustris*)
- 151 Black cherry (*Prunus serotina*)
- 151 Smooth sumac (*Rhus glabra*)
- 150 Shadbush (*Amelanchier canadensis*)
- 130 Sage-leaved willow (*Salix candida*)
- 98 White oak (*Quercus alba*)
- 92 Chestnut oak (*Quercus prinus*)
- 50 Black tupelo (*Nyssa sylvatica*)
- 75 Arrowwood viburnum (*Viburnum dentatum*)

TOTAL **3,387 Bareroot Trees and Shrubs**

E. Balled & Burlapped Plantings

Pelham Bay Park	Bronx	69	Balled & Burlapped trees
Van Cortlandt Park	Bronx	50	Balled & Burlapped trees
TOTAL		119 Balled & Burlapped Trees	

F. Balled and Burlapped Plantings by Species

50	Eastern red cedar (<i>Juniperus virginiana</i>)
49	Northern red oak (<i>Quercus rubra</i>)
20	Pin oak (<i>Quercus palustris</i>)

TOTAL	119 Balled & Burlapped Trees
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G. Contract Plantings

Conduit Blvd.	Brooklyn	321 Contract Trees
TOTAL		321 Contract Trees

H. Contract Plantings by Species

252	Eastern white pine (<i>Pinus strobus</i>)
33	Pin oak (<i>Quercus palustris</i>)
17	Hackberry (<i>Celtis occidentalis</i>)
8	White spruce (<i>Picea glauca</i>)
8	Dawn redwood (<i>metasequoia</i>)
3	Eastern redbud (<i>Cercis canadensis</i>)

TOTAL	321 Contract Trees
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II. Groundcover Plantings

During the Spring 2008 planting season, NRG Forest Restoration staff planted a total of 19,057 herbaceous groundcover plants, representing 31 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 Park	Bronx	9,200	plants
Riverdale Park	Bronx	6,276	plants

Prall's Island	Staten Island	2,173 plants
Inwood Hill Park	Manhattan	1,408 plants
TOTAL		19,057 Groundcover plants

B. Groundcover Plantings Totals by Species

2,700	Virginia creeper (<i>Parthenocissus quinquefolia</i>)
1,900	White snakeroot (<i>Eupatorium rugosum</i>)
1,200	Rosy sedge (<i>Carex rosea</i>)
1,180	Heart-leaved aster (<i>Symphyotrichum cordifolium</i>)
1,128	Blue stemmed goldenrod (<i>Solidago caesia</i>)
1,100	White wood aster (<i>Eurybia divaricata</i>)
1,075	Rose mallow (<i>Hibiscus moscheutos</i>)
1,000	Appalachian sedge (<i>Carex appalachica</i>)
800	Pennsylvania sedge (<i>Carex pennsylvanica</i>)
696	Path rush/ Poverty rush (<i>Juncus tenuis</i>)
600	Flattened oatgrass (<i>Danthonia compressa</i>)
580	Common milkweed (<i>Asclepias syriaca</i>)
550	Black bulrush (<i>Scirpus atrovirens</i>)
500	Avens (<i>Geum canadense</i>)
500	Rough avens (<i>Geum virginianum</i>)
400	Indian hemp (<i>Apocynum cannabinum</i>)
400	Poverty oatgrass (<i>Danthonia spicata</i>)
400	Tall sunflower (<i>Helianthus giganteus</i>)
364	Switchgrass (<i>Panicum virgatum</i>)
300	Spotted joe-pye weed (<i>Eupatorium maculatum</i>)
300	Wild columbine (<i>Aquilegia canadensis</i>)
200	Early goldenrod (<i>Solidago juncea</i>)
200	Hollow-stemmed joe-pye weed (<i>Eupatorium fistulosum</i>)
200	New England aster (<i>Aster novae-belgii</i>)
192	Globe flatsedge (<i>Cyperus echinatus</i>)
156	Gamma grass (<i>Tripsacum dactyloides</i>)
100	Cardinal flower (<i>Lobelia cardinalis</i>)
100	Deer-tongue grass (<i>Pancum clandestinum</i>)
100	Grass-leaved goldenrod (<i>Euthamia graminifolia</i>)
100	Rough-leaved goldenrod (<i>Solidago rugosa</i>)
36	Skunk cabbage (<i>Symplocarpus foetidus</i>)

TOTAL	19,057 Groundcover plants
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III. Acknowledgements

20,263 of the trees reported here were planted on a major event on April 12th, with the generous assistance of other divisions of City of New York Parks & Recreation. Special thanks go to: Van Cortlandt Administrator's office, Pelham Bay Administrator's office, Bronx Operations, Bronx River Alliance, Staten Island Forestry, Staten Island Operations, Greenbelt Native Plant Center, Queens Operations, Queens Garage, Forest Park Administrator's office, Brooklyn Operations, Manhattan Operations, and the North Manhattan Administrator's office.

The following individuals assisted with the planting of these trees:

Holly Brown , Urban Park Rangers (UPR)	Robert Reeves, Parks Enforcement Patrol (PEP)
Jessica Carrero , UPR	R, Mallory, PEP
Mary Pendergrass, UPR	CSA Johnson, PEP
Marc Sanchez, UPR	Darlene Lewis, PEP
Sgt. Anthony Pastaro, UPR	Jenon Major, PEP
Ranger T. Kerr, UPR	Mary Troup, PEP
Ranger A. Reid, UPR	Chris Hanna-Dorsey, PEP
Sunny Carrao, UPR	Darlene Diaz, PEP
Sabine Fischer, UPR	Darlene Canino, PEP
Ricardo Amorocho, UPR	Victoria Romano, PEP
Sgt. Dennis Annunziato, UPR	Andrea Cusumano, PEP
Andrew DiSalvo, UPR	
Jeff Billick, UPR	Shawn Spencer, Green Thumb
John McCoy, UPR	Luis Pasuizaca, Green Thumb
Latesha Campbell, UPR	Samuel Jackson, Green Thumb
Anne-Marie Vaduva, UPR	Diego Pantoja, Green Thumb
Katy Clifford, UPR	Mike Gutierrez, Green Thumb
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J. Billak, UPR	Marianne Anderson, Bronx
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Bonnie McGuire, UPR	Shawn Cargil, Bronx
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Mildred Torres, BRA
Rosa Perez, BRA
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Donovan Goulbourne, BRA
Chris Squire, BRA

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Andrew Rabb, Brooklyn
James Harrit, Brooklyn
Thomas Auing, Brooklyn
Jessica Dicicco, Brooklyn
Adam Doan, Brooklyn
Anthony Sookoo, Brooklyn
John Jordan, Brooklyn

John Matombo, Manhattan
Francisco Davito, Manhattan
Pat Oles, Manhattan
Richard Zeidler, Manhattan
Morgan Monaco, Manhattan
Jennifer Greenfeld, Manhattan
Danny Mercado, Manhattan
John Herrold, Manhattan
Jennifer Hoppa, Manhattan

Philip Sparacio, Queens
Tony Killeen, Queens
Felix Perez, Queens
John Kilkullen, Queens
Barbara Amarantinis, Queens
Frank Caputo, Queens
Al Galvin, Queens
Debby Kuha, Queens
Josephine Scalia, Queens
Eric Goetz, Queens
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Duanne Wilson, Queens
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Kenny Sinclair, Queens
Duane Wilson, Queens
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Lawrence Andrews, NYBG

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Billy Lopez, NYBG
Anthony Saporito, NYBG
Rafael Moricete, NYBG
Brian Kennedy, NYBG
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