

No Net Loss Act in a Nutshell

- What forested lands are affected by this State law?

This law covers forests:

Where one-half acre or more of forested land is affected

Owned or maintained by a State entity. No counties or municipalities are required to comply

It is always good to think; it is not always good to tell people what you think.

Unknown

Robbinsville Township

- 20.49 square mile community in Mercer County
- 13,642 residents
- Was a farming Community 25 years ago
- There was 1 Elementary School until the 1990's.
- Now Robbinsville is a suburban bedroom community with 2 Elementary, 1 Middle School and a High School

Robbinsville's NNL Windfall

- The NJ Turnpike (NJT) removed 200 acres of trees in Robbinsville as part of the 6 to 9 *Widening Project*.
- NJT agreed to provide the funding to Robbinsville to "plant their own trees".
- 200 acres of trees removed translated into 15,000 planted trees, (2-2 ½" caliper)
- Robbinsville would receive 3 payments totaling \$4.5 million to plant these trees.

Robbinsville's NNL Dilemma

- Wanted to plant trees to screen and protect the residents.
- Budget pressures, staff, technical limitations.
- How do they plant 15,000+ trees in 3 years?
- Accept or reject the NNL funds?
- What do we need to do this job?



Determine Assets and Limitations

■ Assets

- Dedicated Mayor and support staff
- Supportive Professional Engineer
- DPW with motivated, supportive Director
- Ability to be flexible and make decisions

■ Limitations

- Time
- "Green" Technical staff
- Tree expertise

How to Address the Limitations?

- Inter-governmental Shared Services Agreement with the local Soil Conservation District
 - NJ Approved Forester
 - Certified Tree Expert
- Contract writing
- Planting Design
- Installation Inspection
- Payment approval

Needs Assessment

- #1 priority was to screen adjacent residents to increased Turnpike impacts
- Inventoried every vacant tree planting spot along every township street
- New Schools- No landscaping
- Parks had reduced tree canopy
- Open spaces were high maintenance - reduce maintenance, create habitat
- Sidewalk replacement program
- Cross-country trail

Robbinsville Township Mercer County, NJ

An aerial photograph of a large, irregularly shaped pond in Robbinsville Township, Mercer County, NJ. The pond is surrounded by residential areas with houses and parking lots. A green arrow points to a specific spot in the center of the pond. The text "Robbinsville Township Mercer County, NJ" is overlaid in large yellow letters at the top. At the bottom right, the text "Phase 1 - Spring 2011 No Net Loss Tree Planting Project" is overlaid in yellow. A scale bar at the bottom left indicates 114 meters. The Google logo and copyright information are visible at the bottom right.

Phase 1 - Spring 2011
No Net Loss
Tree Planting Project

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Phase I Spring 2011 Planting

- 2228 trees were planted under this initial contract in a period of 6 weeks.
- 10 different nurseries provided plant material, 7 from NJ, 2 from PA
- 44 Different species were planted and of those, 35 1/2 are natives
 - London plane-tree - (1/2 American sycamore)

What Kind of Tree Planting Projects?

Blakely Park Forest Fragmentation Restoration

Evergreen Screen
(150) White spruce

Assunpink Creek
Creek-side Planting

Forest Connection
Planting and shading
of Assunpink Creek
(795 trees)

Reforestation (254 trees)

263 m

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Tree Selection

Forest Fragmentation Restoration

- Wetland species: Canopy
 - American sycamore along Assunpink Creek
 - River birch
 - American elm (Princeton/Valley Forge)
 - Black gum
 - Sweetgum
 - Swamp white oak
 - Pin oak
 - Green ash
 - Red maple
- Understory trees/shrubs
 - Sweetbay magnolia
 - Serviceberry

- Upland Species: Canopy
 - White, Bur, Yellow, Red oaks
 - Tulip
 - Basswood
 - White ash
 - White spruce (in stands)
- Understory trees/shrubs
 - American hornbeam
 - Redbud
 - Hawthorn

Blakely Park Reforestation



- Robbinsville sought to reduce grass cutting requirements.
- The upland forest fragmentation plantings included "clusters" of evergreens for habitat creation.
- Sycamores were planted along the banks of Assunpink Creek to cool water temperatures. The Creek is stocked with trout.

Plantings Were Installed as Noise and Light Barriers for Neighbors

- Robbinsville Township wanted to ensure some trees would come from local nurseries so the Contract stated evergreen plantings had to come from Robbinsville growers.

- 382 evergreens,..... all came from Robbinsville growers.

White/Norway spruces, White pine



School Plantings

- All 4 Schools in Robbinsville had trees planted in this contract for a total of 478 trees.
 - Robbinsville HS - 257 trees. The *Raven's* team color is red/black and a red theme was utilized throughout the planting plan.
 - Ruby Horsechestnut (15)
 - Blackgum (red fall color) (2)
 - Dogwoods (red bracts) (15)
 - Red maples (Red sunset, October glory, Armstrong (36)
 - Flowering plum (red foliage) (2)
 - 75 London Planetrees were planted to line the connecting road between the HS and the Middle School

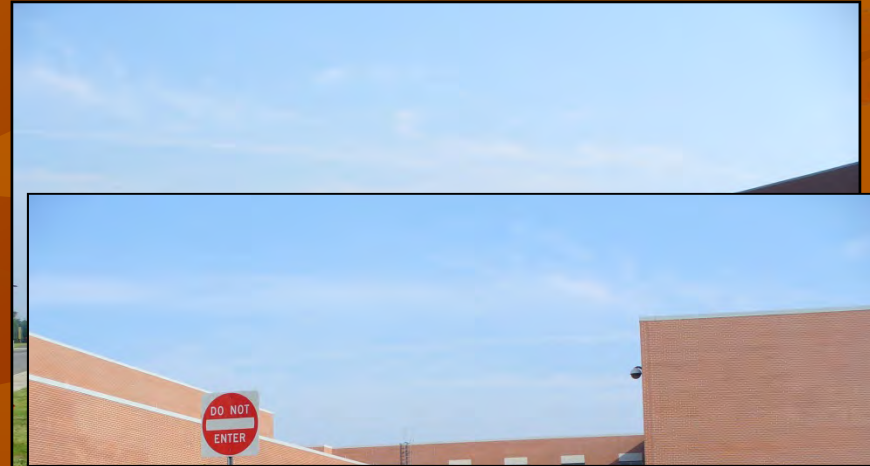


Robbinsville High School

Robbinsville HS

Pond Road Middle School

Before and After



Sharon School

An aerial photograph of Sharon School, a large, dark-roofed building with multiple wings. The school is surrounded by a parking lot filled with cars, several trees, and two baseball fields. A road curves around the top and right sides of the school. The image is a Google Earth-style view with a compass in the top right corner and a scale bar in the bottom left.

The Sharon School's mascot is "Boomer" the Blue jay so the planting objective's were twofold:

1. Plant trees that will attract and provide habitat for Blue jays.
2. Shade the parking lots to reduce the "heat island" effect and the older sections of the building that have no A/C.

78 m

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Sharon School Planting



- Plantings were placed to provide shade to the older classrooms and the parking lots

West Lake Cherry Blossom Planting



Band shell

Walking path

114 m

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West Lake Cherry Blossom Planting

- The 4 prominent Cherries planted in Washington DC were selected for planting at West Lake. (167 trees)
- The ratio's of the four selected trees are identical to the ratio of cherries in DC.

■ Yoshino	50%	83 trees
■ Kwanzan	30%	50 trees
■ Okame	10%	17 trees
■ Higon	10%	17 trees



Phase I-Fall 2011 Tree Planting

- 1718 trees on the 2nd original contract
- 16 different locations for plantings
- Park plantings
- Street tree plantings
- Reforestation of open space areas
- Historic Village street tree planting
- School plantings
- Residential screen plantings*

DPW Reforestation



- 4.13 acre field of mowed grass
- 500 trees planted
- 11 different species
 - Sugar maple
 - Horsechestnut
 - Ruby horsechestnut
 - Tuliptree
 - Hackberry
 - River birch
 - Flowering dogwood
 - Smooth-leaf elm
 - Okame cherry
 - Prospector elm
 - Serviceberry (tree form)
- No mowing required

DPW Reforestation

- Robbinsville wanted to reduce maintenance costs for 4.13 acre field
 - High mowing costs
 - Little habitat

Planted trees: 125/acre with understory trees for structure. Left open area along path for security reasons

Much reduced mowing and habitat for Goldfinches and butterflies



Windsor Village

- Small street tree planting between curb and brick sidewalk
- 2 species - 100 trees
 - Japanese tree-lilac
 - Redbud "Forest Pansy"

Utility conflicts and tight spaces were overcome with species selection.



Robbinsville NNL Phase II Proposal

- Regional cross country course for HS and Middle School runners.
- Screen plantings as wind-blocks around the HS tennis courts.
- Screen plantings along the NJ Turnpike construction for residents.
- Town Center street tree replacement plantings.
- Windsor Village street tree plantings.
- Robbins House reforestation plantings*

Proposed Regional Cross Country Course

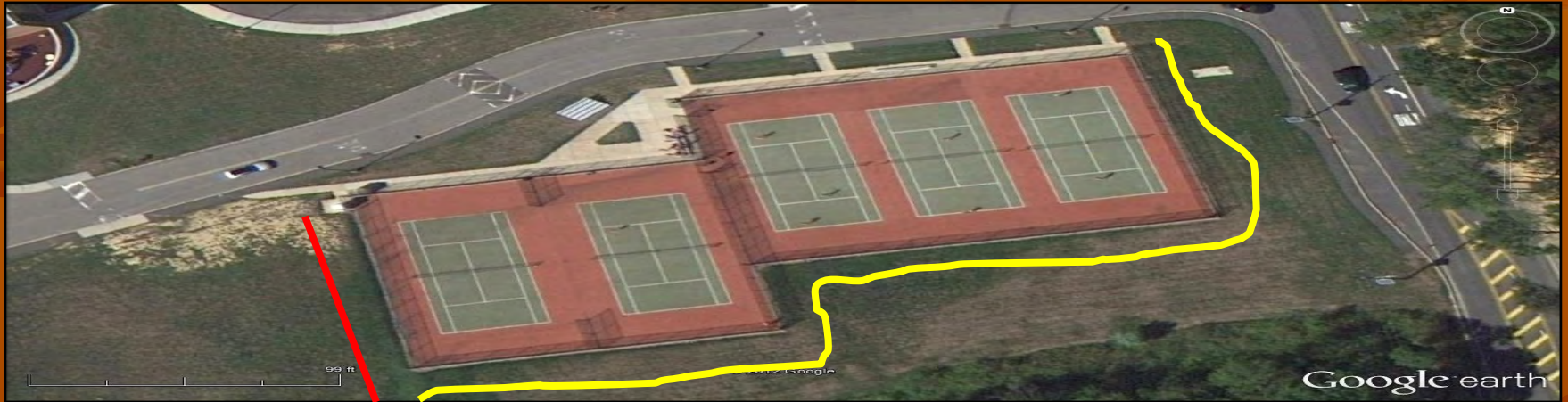
- 3.3 mile HS x-country course ———
- 2.1 mile Middle School Course ———
- NNL allows for varying size trees to create a *finished appearance*



Virtual Course Run!



What Does a Planting Plan Look Like?



Bill's Incredibly Effective - Tennis Court Windbreak Planting Plan

Quantity	Species Scientific Name	Species Common Name	Size	Map Symbols	Notes
70	<i>Picea pungens</i>	Colorado spruce	7-8' BXB	CS	Yellow line 10' OC, 15' off fence-line
40	<i>Thuja occidentalis</i> "Green Giant"	Narrow upright "Green Giant" Arborvitae	7-8' BXB	A	Red line Plant 6' off fence line 6' OC
Total	110				

Phase 3 Plantings



- Sidewalk replacement program*
- Additional cross country course plantings
- Creation of an Arboretum with walking path
- Street tree replacements
- Street tree replacement Bank
- Additional School and Park Plantings

Suggestions from Experience

- Assess the Town's tree planting needs and address them through NNL.
- Share the resource. Plant trees along streets, as screens or buffers, on school grounds and in the parks.
- Be creative and inspired in your designs and your expectations.
- Seek assistance when needed. There are funds and agencies available to help.
- Hire (award) to a competent contractor.

