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219-A-031

Reforestation Plan

Shoreland Zone Infraction

for Art and Karen Giroux

City of Portland Tax Map 219 Lot #31

North end of Penrith Road

May 18, 1999

Rich Baker  
with Dep  
Shoreland  
Zoning  
DAVID C. TOM WATSON  
notarize

911 address change to 74 Montsweag Road

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Woolwich, Maine 04579

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This plan is to address the Shoreland Zone infraction for the Giroux lot, City of Portland Tax Map 219 Lot #31 on the north end of Penrith Road.

This parcel is a houselot split off from an old farm. The land was still open field or brush and orchard in the ±1940's and possibly reverting to forest in the ±1950's & 1960's. The surrounding land still has a major component of apple trees on the slopes.

There was a narrow swath of trees cut, this year, by the land owner, within the 250' (horizontal) Shoreland Zone of the Stroudwater Saltmarsh. The first 75' of this Shoreland Zone is probably a Resource Protection Area. The infraction is luckily fairly minor. The opening in the forest canopy for the first 175' is only ±30-50' between the tree branches, and there was no ground disturbance by machinery.

My first site visit with the land owners was April 28, 1999. My only immediate concern was several hundred square feet of almost bare soil, where pre-existing tree branches had blocked all light from reaching the ground. I recommended to the Giroux's that they seed (various grasses) and hay this area. The seed and hay was in place the next day. The grass was just germinating as of my site visit with CEO Tom Reinsborough on May 11, 1999.

There were only 3 major (±10", 12", & 17" DBH) live trees removed, and 8 smaller (±4"-6" DBH) live trees removed. There were 4 dead trees 4"+ DBH removed from 75' back to 250'. The two planted ornamental Blue spruce (±6.5" & ±10-12" DBH) that were cut, were on the edge of the slope and the lawn and depending on measurement accuracy, just on the 250' line. There were two dead trees removed from the first 75' and removal of two apple tree clump sprouts (the main clumps still are standing and live). All (95%+) the pre-existing ground vegetation that was cut off, is resprouting. The majority of the ground vegetation is: Rubus species (blackberry and raspberry), Crataegus species (hawthornes), small Acer rubrum (Red maple) and Acer platanoides (non-native Norway maple), small Prunus species (Pin and Choke cherry), two rose species (?), Sambucus canadensis (elderberry), Lonicera tatarica (bush honeysuckle), and several ferns (probably sensitive and bracken fern).

Several of the trees that were removed were probably ice damaged by the storm in 1998, but I can not verify with the trees removed. There are some trees in the surrounding area that are damaged. The cherry trees in the area are stressed or declining due to boring insects and web worms. Almost all the elms in the area have died, no doubt from the Dutch Elm Disease. The White pine are heavily weevil damaged (generally does not cause mortality) and seriously misshapen.

Since the land owner did not know about the Shoreland Zone Ordinance, too many trees were removed in a "swath" cut to the water. Within the 75' to 250' zone (normally allowable 40% basal area volume removal), I inventoried the the standing timber and estimated the removed volume. The original volume was  $\pm 21.27$  square feet of basal area; the allowable removal would have been  $\pm 8.7$  square feet; and the actual removal was  $\pm 4.02$  square feet. The removal was within the allowable 40% but was not "well distributed". If you use, as an example of "well distributed", the City's point system that only applies to the first 75' zone in non-Resource Protection from the Ordinance, there must be 8 points remaining in each 625 square foot of ground surface. This would have disallowed removal of many of the upper slope apples and cherries, a cherry midslope, and one or two of the lower slope large trees, depending on layout of the 25' grid. This strict a standard for "well distributed" in not normally used for the 75'-250' zone. Within the first 75' zone, only two dead trees and two stump sprouts were removed. In this 75' zone the dead trees should be replaced according to the Ordinance, removal of safety hazards is allowed, but must be replace with native species.

The Maine Department of Environmental Protection Recommended Ordinance only recommends a Resource Protection Zone around certain Great Ponds. The City of Portland may have designated the Stroudwater Saltmarsh a Resource Protection Zone. The City's Ordinance also deleted part of the first sentence and part the following sentence from the DEP's RP section. Because of this, I have recommended replanting of more trees than I would usually specify. The City could choose not to require all the trees to be replanted depending on their interpretation of the RP section.

Included with this plan is a map of the Shoreland Zone area, which documents the live trees removed, the dead trees removed, and the approximate planting sites for recommended re-vegetation. There are referals from the map to this text for specifics.

### Reforestation

Consideration has been given to Hardiness Zone, aspect and terrain relating to potential windthrow and erosion, slope, depth of soil relating to tree root systems, wetness, insects, disease, use of native species (as required), and suburban location.

It might be beneficial to take advantage of the situation and plant several native but rare (threatened or endangered)

species. I think this site would be good for *Quercus bicolor* (Swamp White oak - a tree), *Prunus maritima* (Beach plum - shrub to tree), *Chimaphila maculata* (Spotted wintergreen - a groundcover), and *Asarum canadense* (Wild ginger - a ground cover). O'Donals and Skillins have most of these species available.

### Planting Recommendations

The planting work should be done only by hand. If, while planting, any small surface erosion areas are found, these could have "cross ties" (3-4" tree trunks or 4x4's) placed across the slope and stakes pounded in to the soil to hold them from sliding downhill. The neighbors pool drain should be moved, and the bank slump have 2 or 3 "cross ties" installed, plus enough 5-8" stone riprap to cover the bare soil surface.

The map site locations for planting are approximate. The best soil site closest to the designated spot should be chosen by the nursery or landscaper. The tree species should not be planted under an existing tree canopy. The ground covers can be planted any where the soil surface is open, and planted dense enough for soil surface coverage within a few years. The shrubs can be scattered, with  $\pm 6$  feet apart, where needed. The shrubs, and existing *Rubus* will provide wildlife food and edible fruit for the family. The existing *Crataegus* (hathorne) should probably be replaced due to the suburban location, since they have dangerously long woody thorns. Many of the recommended species have aesthetically attractive spring flowers. Fertilizer should be used sparingly due to the proximity to the marsh and the steepness of the slope. There is a pile of composting grass clippings on the lawn edge that could be used during the planting.

The tree species ball and burlap size should be in the 1.5 - 2" caliper size. The shrubs in the 2-3 gallon container size, and the groundcover any size of healthy material. The recommended plantings have a variety of choice in most cases. This will enable the landscaper a range of species in case one or two are not available to purchase locally.

Once the large tree species are planted and growing, they are not allowed to be top pruned, except for natural damage.

The family will no doubt want to walk to the marsh. The path should not run straight down the slope, or erosion may result. If the path were to start on the north side and zig-zag down the slope until where it starts to level out, the drainage seep could be crossed and the path continue to the old dam berm on the south side of the lot.

Planting Key

- P 1, P 6 ; *Betula allegheniensis* (Yellow birch) a medium size tree
- P 2, P 7 ; *Viburnum trilobum* (a viburnum called Highbush cranberry), *Vaccinium corymbosum* (Highbush blueberry) *Asarum canadense* (Wild ginger), *Chimaphila maculata* (Spotted wintergreen or Striped pipsissewa), all to be used as ground covers/shrubs on the bare soil areas
- P 3, P 4, P 5, P 8; *Malus* sp. (apples, preferably mid-size not dwarf), *Prunus maritima* (Beach plum), *Amelanchier laevis* (Serviceberry or shadbush), all small trees/large shrubs
- P 9; P 12 *Sorbus americana* (Mountain ash), *Hamamelis virginiana* (witchhazel), *Carpinus caroliniana* (American hornbeam or musclewood), small trees/large shrubs
- P 10, P 11, P 13, P 14; *Quercus bicolor* (Swamp White oak), *Ulmus americana* (American elm-homestead or liberty blight resistant) large trees
- P 15, P 16 *Carpinus caroliniana* (American hornbeam or musclewood), *Betula alleghaniensis* (Yellow birch), *Sorbus americana* (Mountain ash), small/medium trees



Scale - 1" = ±33'

Property of; Art and Karen Giroux  
City of Portland Tax Map 219 Lot #31  
North end of Penrith Road

Based on site plan of Nadeau Surveyors  
and on site visit with the Giroux.

This map has no other purpose than  
to document Shoreland Zone vegetation  
removal and replanting recommendations.

- Ap = apple 4-8"
- BC = Black cherry
- BSp = Blue spruce
- RM = Red maple
- WP = White pine

- O = existing tree
- XX = cut previously live 4"+ DBH tree
- X = cut (dead) tree
- P<sub>i</sub> = recommended planting  
refer to text by #

Tree diameters given in DBH,  
diameter at 4.5' above ground

Please refer to the attached text.

Prepared by; Walter R. Armstrong  
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74 Montsweag Road, Woolwich, Me.  
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5/18/1999

Shoreland Zone

±250' horizontal

