ASH CREEK FOREST MANAGEMENT
10270 SW Katherine Street
Tigard, Oregon 97223
(503) 624-0357 (phone)
(503) 620-1701 (fax)
ashcreekgk@aol.com

Pete Hillman
Metro
600 NE Grand Av
Portland, OR 97232

Dear Pete,

Enclosed are our proposals for each of the three sites we have discussed – the Landfill site, the North Portland Road site, and the North Portland Buffer. I have also enclosed an as-built sketch and plant list for the St Johns site as promised.

Significant losses of plants occurred this year on the upper slopes of the North Portland site. As you recall, the initial inspection of the site by the city took place well after the plants had started to grow. It was clear at that time that nearly all of the planted vegetation was healthy and thriving. After that time, however, the weather turned hot and dry, and the Metro area experienced a severely hot and dry spring and early summer. In fact, the NPR site received no significant wetting rainfall from mid April to late August. This combined with the extremely sandy soil and much shallower than planned-for silt dressing resulted in drought conditions too severe for the plants that were installed.

Many of these plants were selected assuming better soil conditions than actually occur, and while we watered the site regularly through the late spring and summer, it became impossible to maintain adequate soil moisture through hand-watering. The NPR proposal will interplant the upper slopes of the site with more of the drought tolerant species that did survive on the site, including snowberry, cascara, and Oregon grape. These species will provide cover and diverse wildlife habitat, and will also tolerate the severe soil conditions that are present.

As we discussed with Elaine Stewart on our last site visit, the NPR Buffer proposal will remove weeds and restore native vegetation in areas surrounding the NPR site itself that are currently infested with blackberry, poison hemlock and other weeds. The buffer proposal essentially expands the NPR management area to maintainable boundaries, such as the roadway on the east and the high water line of Smith Lake on the west. This buffer will protect Metro's investment in the mitigation site and reduce long-term maintenance

problems that would otherwise result from surrounding uncontrolled weed growth and weed seed production.

The St Johns Landfill proposal will simply interplant the site with more suitable species based on performance of plants so far. While survival at this site has been significantly better than at NPR, it is clear that many of the species installed at the site are struggling with drought, animal damage and weed competition. Many of these plants were kept alive solely by artificial watering, and there is evidence both in our planted material as well as in the existing patches of willows that have died back over the past few years that the site simply will not support mesic or hydrophytic vegetation in the long run. However, there were several species planted that showed potential to thrive at the site, including snowberry, Oregon grape, mock orange and thimbleberry. We would plant more of these species throughout the site, and then maintain them along with the rest of the plantings through the rest of the contract period. The proposal does include one additional spray treatment to address the severe and unanticipated weed problem that exists on parts of the site, especially bindweed, hemlock and other weeds that are smothering the planted vegetation.

We are very interested in making these projects a success and have invested much time and effort in trying to make the plantings work. As we all have seen at the sites there are many confounding and unpredictable factors at work that the original plans did not and could not anticipate. Please let me know if Metro is ready to proceed with these additions that we feel will address the changing needs of the sites.

Sincerely,

George Kral
Forester

Cc: Mike Shaw, Elaine Stewart

Ash Creek Forest Management, LLC

North Portland Rd

Interplanting with Drought Tolerant Species

October 14, 2004

Prepared for: Metro

NPR Site

Treatment		No.	Unit	Cost/unit	Extension	
Bare-root trees, shrubs and forbs	02/01/05	1400	ea	1.40	1,960.00	Genetically local drought tolerant bare-root plants
Bare-root planting	02/01/05	1400	ea	0.45	630.00	plant installation
Mulch	02/01/05	1400	ea	0.20	280.00	
Mulching	02/01/05	1400	ea	0.30	420.00	
				TOTAL	3,290.00	

Ash Creek Forest Management, LLC

North Portland Rd

Controlling Weeds and Establishing a Buffer for NPR Mitigation Site

October 14, 2004

Prepared for: Metro

NPR Site Buffer

Treatment		No.	Unit	Cost/unit	Extension	
Site-prep spray	11/01/04	0.75	ac	800.00	600.00	
Site-prep mow	11/15/04	0.75	ac	800.00	600.00	
Bare-root trees, shrubs and forbs	02/01/05	1600	ea	1.80	2,880.00	Genetically local riparian plants
Bare-root planting	02/01/05	1600	ea	0.45	720.00	plant installation
Maintenance spot spray	04/01/05	1	ls	500.00	500.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	07/01/05	1	ls	500.00	500.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	09/01/05	1	ls	500.00	500.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	05/01/06	1	ls	400.00	400.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	08/01/06	1	ls	400.00	400.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	05/01/07	1	ls	400.00	400.00	spot-apply herbicides to re-invading weeds
Maintenance spot spray	08/01/07	1	ls	400.00	400.00	spot-apply herbicides to re-invading weeds
				TOTAL	7,900.00	

Ash Creek Forest Management, LLC

St Johns Landfill Swale Restoration

Interplanting with Drought Tolerant Species

October 14, 2004

Prepared for: Metro

SJL Site

Treatment		No.	Unit	Cost/unit	Extension	
Bare-root trees, shrubs and forbs	02/01/05	2000	ea	1.40	2,800.00	Genetically local drought tolerant bare-root plants
Bare-root planting	02/01/05	2000	ea	0.45	900.00	plant installation
Mulch	02/01/05	2000	ea	0.10	200.00	
Mulching	02/01/05	2000	ea	0.30	600.00	
Maintenance spot spray	03/01/05	1	ls	400.00	400.00	spot-apply herbicides to re-invading weeds
				TOTAL	4,900.00	

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December 10, 2004

Pete Hillman
Metro
600 NE Grand Av
Portland, OR 97232

Dear Pete,

Please find enclosed our proposal for additional plantings at the St Johns Landfill Swale site (attachment A). The proposal outlines our proposed treatments and materials to achieve the goal of creating a native shrub and tree cover on this portion of the landfill, an effort which is being initiated through our existing contract.

The Landfill is a unique environment. The area of the swale tends to become hyper-saturated in the winter and early spring, but transitions rapidly to extremely dry in summer, creating a highly stressful environment for most perrenial plant species. The compacted silt surface and sand underlayment also have unusual characteristics that are injurious to establishing plants. Compounding the difficulty of the site, last spring and early summer were very abnormally hot and dry. We have tabulated data from nearby weather stations illustrating the deviations from normal that occurred during this period, which corresponds to when nearly all of the site mortality occurred (Attachment B).

Other sources of mortality were extreme infestations of weeds and damage by deer and meadow voles. Weeds such as poison hemlock, vetch, and bindweed occur throughout the site. We now have much of the weed problem under control, but the growth of weeds definitely damaged some of the plants. Deer browse and girdling by rodents compromised or killed more plants.

Fortunately, in the initial planting, we included several additional species over and beyond the original contract plan. Between these species and those specified in the contract, there were several species planted that showed potential to thrive at the site, including snowberry, Oregon grape, mock orange, and thimbleberry. These native woody shrubs have extensive root systems that enable the plants to better survive drought. In addition, many native perennials produce chemical deterrents to herbivory (e.g., mock orange) and/or are physically resistant to herbivory (e.g., Oregon grape).

The St Johns Landfill proposal will simply interplant the site with these and other suitable species based on performance of plants so far (see attachment C). Under this proposal we will plant more of these species throughout the site, and then maintain them along with the rest of the plantings through the rest of the contract period. The proposal does include one additional spray treatment to address the severe and unanticipated weed problem that exists on parts of the site, especially bindweed, hemlock and other weeds that are smothering the planted vegetation.

We are very interested in making these projects a success and have invested much time and effort in trying to make the plantings work. As we all have seen at the sites, there are many confounding and unpredictable factors at work that the original plans did not and could not anticipate. Please let me know if Metro is ready to proceed with these additions that we feel will address the changing needs of the site.

Sincerely,

George Kral
Forester

Attachments

cc: Mike Shaw
Elaine Stewart

Ash Creek Forest Management, LLC

St Johns Landfill Swale Restoration

Interplanting with Drought Tolerant Species

December 10, 2004

Prepared for: Metro

SJL Site

Treatment		No.	Unit	Cost/unit	Extension	
Bare-root trees, shrubs and forbs	02/01/05	2000	ea	1.80	3,600.00	Genetically local drought tolerant bare-root plants
Bare-root planting	02/01/05	2000	ea	0.45	900.00	plant installation
Mulch	02/01/05	2000	ea	0.20	400.00	
Mulching	02/01/05	2000	ea	0.35	700.00	
Maintenance spot spray	03/01/05	1	ls	800.00	800.00	spot-apply herbicides to re-invading weeds
				TOTAL	6,400.00	

2000-2004 Rainfall Data: SLJL/NPR Area

Attachment B

North Portland Rainfall Data, March - July 2004 (inches of precip)

Month	2004 Rainfall Totals	Y-to-Y Monthly Average	2004 Deviation from Avg	%Deviation
July	0.01	0.24	-0.23	-96%
June	0.75	1.01	-0.26	-25%
May	1.34	1.45	-0.11	-8%
April	1.05	2.71	-1.66	-61%
March	1.58	3.66	-2.08	-57%

5-Month Departure From Normal	**-4.34**

Columbia IPS Raingage - 5001 N. Columbia Blvd. (Station #107)
PROVISIONAL, UNCORRECTED RAW DATA FROM THE CITY OF PORTLAND HYDRA NETWORK.

Portland Airport Temperature Data and Comparison to Averages, March - July 2004 (degrees Farenheit)

Month	2004 Avg Monthly Temp	Y-to-Y Monthly Average	2004 Deviation from Avg
July	71.5	68.1	3.4
June	65.5	62.7	2.8
May	60.1	57.1	3.0
April	56.3	51.2	5.1
March	51.2	47.2	4.0

5-Month Departure from Normal	**+3.7**

METARS Raw Data - Portland Airport

ASH CREEK FOREST MANAGEMENT
Plant List
St Johns Landfill
December 9, 2004

Species	*Common Name*	*Stock Type*	*No*
Acer macrophyllum	Big Leaf Maple	5-1/2 band	100
Ceanothus velutinus	Snowbrush	1-gal	20
Ceanothus velutinus	Snowbrush	mp-1 bare-root	20
Crataegus douglasii	Black Hawthorn	1-1 bare-root	100
Fraxinus latifolia	Oregon Ash	1-0 bare-root	100
Holodiscus discolor	Oceanspray	mp-1 bare-root	200
Mahonia aquifolium	Tall Oregon Grape	1-1 bare-root	400
Philadelphus lewisii	Mock Orange	mp-1 bare-root	100
Pinus ponderosa	Ponderosa Pine	2-0 bare-root	50
Quercus garryana	White Oak	1-0 bare-root	50
Ribes sanguineum	Red Flowering Current	mp-1 bare-root	200
Rubus leucodermis	Blackcap	1-gal	10
Rubus parviflorus	Thimbleberry	P-1 bare-root	50
Sambucus cerulea	Blue Elderberry	1-0 bare-root	100
Symphoricarpos albus	Snowberry	1-0 bare-root	500
		Total	2000