

DRAFT PROPOSAL

ST. JOHNS LANDFILL VEGETATION MANAGEMENT PLAN/SUBAREA 1 CLOSURE Materials collection, planting and monitoring of woody plant test plots

INTRODUCTION-

The proposed work shall implement suggestions made to METRO in the SJL Cover Vegetation Plan (FES/MGW, et al; August 1992) for the planting of upland and lowland shrub/tree plots on capped portions at the NE corner of Subarea 1 of the landfill. The overall goals of the test plot plantings are to:

1. Determine the moisture requirements and the correct landscape placement for woody plantings on the capped portion of the landfill.
2. Measure the economy and success of container/bare root nursery stock vs. the in-situ placement of collected propagules (stem and root cuttings) as methods of planting.

The work scope shall encompass the following:

TASKS:

1. Project Preparation (FALL 1992)
A survey of Oregon native plant nurseries will be made in order to assess the availability and cost of proposed containerized and/or bare root stock shrub/tree seedlings for planting. This bid information will be forwarded to METRO staff for action. Additionally, potential propagule collection locations within a 20 mile radius of the landfill will be scouted. This scouting information will also be forwarded to METRO for use in future years.

Additionally, efforts to organize volunteer help for collection and planting will be coordinated with appropriate METRO staff. Solicitations for project help can be made to potentially interested local non profit organizations such as the Wetland Conservancy, the Native Plant Society of Oregon and others.
2. Training & Supervision of Volunteer Collection of Propagules (JANUARY 1993)
3. Training & Supervision of Volunteer Planting of container stock and collected propagules. (FEBRUARY 1993)
Two volunteer training sessions will be planned for presentation in January and February of 1993. Training materials such as winter twig plant identification illustrations, specifications and procedures, diagrams, etc. will be assembled in lesson plan formats for use in training volunteers for the propagule collection and planting work. The loaning of necessary project

supplies such as shovels, pruning shears, etc. will be coordinated with other agencies, such as the City of Portland Bureau of Parks.

The lesson plans will be presented and demonstrated to the volunteers in a field setting. Thereafter, small working groups of volunteers will carry out the collection of stem and root cuttings (at sites identified in Task 1. above) and the subsequent planting of propagules and nurserystock. Each work group will be composed of one supervisor and not more than eight volunteers.

4. Preparation of Woody Plant Maintenance Guidelines (SPRING 1993)

Guidelines for the maintenance of plantings during the first two growing seasons will be developed. Suggested specifications and cost comparisons of several types of mulching and fertilization materials will be prepared. Also, a proposal for a drip irrigation plan using gravity feed irrigation components will be specified and costed.

OPTION: The suitability of irrigation with leachate can also be determined and field tested.

5. Short Term Monitoring Plan for Woody Plantings (SUMMER 1993-SUMMER 1995)

Woody plant monitoring data will be compiled during a short term 2 year period in order to compare the percent survival and rates of growth for container stock vs. in-situ propagules. Analysis of percent survival data can be used to determine the best site adapted species and subsequent planting density recommendations for areas designated lowland and upland shrubs on the site management plan (see SJL Cover Vegetation Plan-FES/MGW, et al; August 1992). Rates of growth can be quantified by: measuring trunk caliper size and height, and counting the number of branches. Analysis of growth rate will identify the advantages of cuttings or containers and measure the affect of irrigation and fertilization.

NOTE: A long term woody plant monitoring plan, implemented after the cessation of irrigation and fertilization, should be designed to collect data on: survivorship, self reproduction and plant community succession.

The short and long term monitoring of shrub/tree plantings should be a subset of an overall vegetation monitoring plan designed for particular subareas, the entire landfill and adjacent lands and waters.

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DESCRIPTION OF PRODUCTS

TASK 1. Project Preparation

3 days

coordination of nursery acquisition
survey of propagule collection locations
project outreach/volunteer solicitation

TASK 2. Training & Supervision of Volunteer Propagule Collection

2 days

preparation of training materials/supplies
work supervision and management

TASK 3. Training & Supervision of Volunteer Planting

preparation of training materials/supplies
work supervision and management

TASK 4. Preparation of Woody Plant Maintenance Guidelines

preparation of mulching & fertilization specifications
preparation of irrigation specifications

TASK 5. Collection of Woody Plant Monitoring Data

Short term:

percent survival: containers vs.
in-situ propagules
rate of growth: containers vs.
in-situ propagules

25
200
3
3
45
3700

CRD

Mower? Brush-hog?

- 8 1/2 acres test plot in native plots
- * - purchase self-propelled mower → leave = 3 hrs. mowing
- mow in Feb. before mustard

call Jim Spahr or Steve Becker re: tools for planting