MONITORING REPORT

Monitoring is continued yearly for the duration of the specified monitoring period. Monitoring includes live and dead tree counts and records of all maintenance activities. Maintenance activities are typically defined as removal practices of invasive or nuisance vegetation and watering schedules. This information should be summarized in a letter format and include photographs which accurately depict the condition of the vegetation and the overall site. Reports are due to Kitsap County Department of Community Development by November 15 of each monitoring year.

Planting Plan Example

A landowners guide for the creation, restoration and enhancement of buffers along streams, wetlands, shorelines and geological hazardous areas in Kitsap County

Buffer Planting Guidelines

printed on recycled paper

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WHAT ARE BUFFERS

Buffers protect critical areas from the adverse impacts of development. They are areas which are preserved as native vegetation and surround designated critical areas. Critical areas are defined as streams, wetlands, shorelines, and geological hazardous areas. Buffers adjacent to these areas provide protection to land, water, and wildlife.

Stream, wetland, and shoreline buffers provide erosion control and storm water treatment by filtering water prior to it reaching surface waters. They also protect stream banks and shorelines from erosion by maintaining the banks’ integrity. Similarly, buffers along geological hazardous areas provide erosion control, strengthening soil conditions which increases slope stability.

Wetlands and their buffers also provide essential habitat for wetland dependent and wetland-related wildlife. Buffers along streams provide the components of maintaining cool, clear waters for multiple fish and invertebrate species.

MONITORING

In most cases DCD requires monitoring of the replanted buffer area. Monitoring includes providing an as-built drawing to document deviations in the original planting plan. Once the as-built is complete, the property owner must contact DCD staff to initiate a site inspection.

Once inspected and approved the monitoring period will begin. Monitoring requires keeping a record of and providing documentation of, the degree of success achieved from the plantings.

Monitoring is required for 3 to 5 years and may extend beyond 5 years if the replanting is not reaching an acceptable level of success. The three primary concerns in buffer plantings are the survival rate of the plants installed, the canopy coverage achieved by those plants, and the degree to which the area has been invaded by non-native plant species.

AS-BUILT REPORT

Photographs of the buffer area must be taken both prior to planting and once planted. Photographs should capture an overview of the general area. To draw an as-built simply create a planting plan schematic similar to the original and add any changes from the original planting plan. Changes may include alterations or substitutions in plants, numbers, or placement. Submit the as-built drawing and photographs to DCD and request an inspection immediately following installation of plants.
WEEDING
An infestation of non-native, exotic and invasive plants can turn a well-designed planting plan into a mess. Invasive plants quickly fill an area, choking out the newly installed native plants. Typical examples are Scot’s broom, Himalayan blackberry and reed canary grass. These species should be removed in early spring as they begin to grow. Pulling the roots is most effective. Although this is hard work and time consuming, if properly controlled, the native vegetation will grow and shade out or out compete exotic and invasive vegetation.

Remember that this is to be a natural planting. If native blackberry or alder trees appear, let them grow. The movement of plants into an area is natural, and if a species prevails in an area, then it is well suited for the area.

MULCHING
Mulching will help to significantly reduce the need for both weeding and watering. Mulch is simply a layer of organic material spread on top of the soil after planting. It keeps the soil from drying out and helps prevent weed seeds from germinating. The importance of mulch is hard to overstate, and it is strongly encouraged. Acceptable mulch includes shredded bark, compost or leaves. Do not use hay or straw, as these materials contain weed seeds that will quickly make for a lot of weeding.

Native vegetation buffers are essential components to critical areas and provide the best protection from adverse impacts to properly functioning conditions found in the unaltered environment. Buffers provide essential habitat for multiple species and reduce the effects of development.

Buffers along critical areas are sometimes compromised by development. Direct impacts from the development along with construction and post-construction activities lead to the degradation or loss of buffers associated with critical areas. When this occurs, vegetation planting for the creation, restoration or enhancement of a buffer is required as mitigation for the impacts.

Buffer designations for streams, wetlands, shorelines and geological hazardous areas are specifically defined in the Kitsap County Critical Areas Ordinance.

Creating Buffers
To create, restore or enhance buffers, a planting plan must be developed and approved by Kitsap County Department of Community Development (DCD) staff. Once approved the plants should be installed and carefully maintained and monitored for a minimum of three years.
The landowner, a wetland biologist or equivalent professional can develop planting plans. The latter is recommended for larger planting projects; however, any homeowner may easily do the planting, maintenance and monitoring on their own. Use the following information to develop and implement a buffer planting plan that will most effectively use your valuable time and resources.

**CHOOSING PLANTS**

Planting plans should include only native plants which are suited to local conditions. If the surrounding vegetation were cedar, big-leaf maple and elderberry a successful planting plan would include those plant species. Other native plants may be used; however, one must be cautious since many factors control the sustainability of plants. For instance, moist soils call for different plant species than dry, rocky soils. Examine the conditions present and select the appropriate species. This reemphasizes the necessity to mimic the existing vegetation type. If a plant species is growing in an area, it is most likely well suited for the those soil characteristics.

The following plant list summarizes the most commonly encountered species in Kitsap County. The list is broken into differing soil characteristics to assist you in making a selection.

**MAINTENANCE**

Native plantings are as low a maintenance-planting scheme that one may use; however, there is no such thing as a no maintenance planting. Maintenance is particularly important within the first two years while the plants are getting established. Watering is likely needed for the first two years. The removal of non-native, invasive plants is required until the native vegetation becomes established. As the area becomes established with native vegetation, there is less chance for weed survival, so the need for continued maintenance is less.

**WATERING**

Too much water can be harmful to plants so only water when the soil dries out. This encourages the roots to search for water, and helps prevent root rot and other diseases. Check soil moisture level by sticking your finger into the dirt. If it is moist, you probably don’t need to water. An occasional deep watering is preferable versus infrequent shallow watering.
**PLANT INSTALLATION**

Installation of plants is not hard; almost everybody has planted a tree at one time or another. Remember to follow these guidelines:

- **Dig a hole for the plant about twice as wide as the diameter of the root mass**

- **Use fertilizer in an appropriate manner, time release tablets are best**

- **Water thoroughly when planting to wet soil and fill in air pockets**

- **Do not compact soil around the roots, except by watering**

- **Stake trees as needed**

- **Mulch!**

Install plants from late fall to early spring. The earlier it is done, the more the roots will establish themselves before the summer dry period.

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**PLANTING DESIGN**

Many objectives must be considered when developing a buffer planting plan. Whether the buffer is for a wetland, stream, shoreline or slope, its purpose is to maintain and safeguard the integrity of the resource. Buffers screen light and noise that disrupts wildlife usage. They provide erosion control, protect water quality and maintain slope stability. This function depends on water falling on and flowing through vegetation, rather than bare soil. This can be accomplished in a relatively

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**TREES FOR MOIST SOILS**
- Western Red Cedar
- Red Alder
- Vine Maple
- Willow
- Northern Black Cottonwood
- Big-Leaf Maple

**TREES FOR DRY SOILS**
- Douglas Fir
- Hemlock
- Serviceberry
- Incense Cedar
- Indian Plum
- Lodgepole or Shore Pine
- Native Hawthorn
- Madrone

**SHRUBS OF MOIST SOILS**
- Salmonberry
- Elderberry
- Pacific Ninebark
- Indian Plum
- Red-osier Dogwood
- Black Twinberry
- Snowberry
- Red Huckleberry

**SHRUBS FOR DRY SOILS**
- Native Rhododendron
- Wild Rose (*Rosa nutkana*)
- Ocean Spray
- Oregon Grape
- Evergreen Huckleberry
- Hazelnut
- Pacific Wax Myrtle

**GROUNDCOVERS**
- Trailing Blackberry
- Sword Fern
- Salal
- Kinnikinnik
- Creeping Oregon Grape

Mimic the surrounding landscape for a successful planting plan.
short time by planting ground covers that will quickly cover the ground or by mulching the area.

Other considerations, although secondary to those stated above, include aesthetics. Aesthetic goals do however mimic natural planting schemes by grouping plants rather than planting individual plants in random patterns. For instance a group of 3 trees or 7 shrubs is more effective for screening and is aesthetically pleasing as well. Other strategies include providing off-season color by placing red-osier dogwood or evergreen huckleberry for winter color.

**PLANT ACQUISITION**

The easiest and best way to get plant material is to purchase them from a grower, nursery, salvage dealer or Conservation District. Nursery stock is generally healthy, fully developed rather than spindly, and in the case of container plants may be planted at any time of the year.

The alternative is to transplant plants from the surrounding land. While cost effective, there are disadvantages to this strategy. One limitation is that plants can be transplanted, with a good chance of survival, only while dormant. Therefore plants can only be collected in the cold months, October to March. Small plants transplant better than large ones, and some species are very difficult to move successfully at any time of the year.

When collecting vegetation from the wild, keep in mind the following guidelines:

- **Do not collect plants from wetlands or their buffers**
- **Collect 1-2 plants at several small areas rather than many plants from one area**
- **Get permission or permits as needed, do not trespass or dig on public land**
- **Replant as soon as possible**