GKP Tips for Creating a Plant Request

The following document is a collection of resources to assist GKP stewards in planning a native plant materials request. It is intended to point you toward the resources you may need to plan a single plant order.

 GKP strives to create planting plans that incorporate:

- Site conditions based on a site assessment
- Target Plant Communities or other restoration goals
- Onsite conditions, challenges, and opportunities

Three Steps to Help Determine your Plant Request

1. **Use your Goals and Site Conditions to create a general palette of possible plants**
2. **Measure your Site**
3. **Calculate Plant Quantities and Select Species**

QUICK LINKS TO USEFUL RESOURCES

GKP Steward Field Guide (pages 51 - 59; 80 - 84)

Target Ecosystem & Plant Communities in Kirkland (See Steward Resource Page)

Basic Site Assessment Questionnaire (See Steward Resource Page)

Online Plant Calculator by Sound Native Plants

Plant species information:

- **King County Native Plant Guides**
- **Sound Native Plants: Species Selection Guide**
- **Fourth Corner Nursery: Catalog and Plant Lists**
- **Washington Native Plant Society: Landscaping Resources & Plant Directory**

1. **USE GOALS AND SITE CONDITIONS TO CREATE A GENERAL PALETTE OF POSSIBLE PLANTS**
   A. **Site Conditions:**

   For each potential planting area determine:

Light/Canopy Cover	Open or Closed (Sun, Shade or Part Shade)
Soil texture	**Fine or Coarse**; do one of the following stand out: **Sand, Silt, Clay** Do you think the soil will be **well-drained** or will it **pool water?**
Soil moisture	Is it **saturated, damp or dry** in summer?
Existing Vegetation	List the most common **trees, shrubs and groundcovers**
Tree Regeneration	List any **native sapling trees** in the understory: How far apart are trees spaced from each other (in general): >**25 feet, 15 feet,** or **<10 feet apart**
Other Features	**Indicated any other conditions that might be relevant:** Slope, Aspect (N, E, S, W), disturbance, built features, Streams/hydrology, Past and Current Land-use

   See the Steward Resource Page for a **rapid assessment worksheet.**

   B. **Target Ecosystem & Plant Communities Info:**

   There are seven basic ecosystems that you can use as a reference in Kirkland. Each restoration management unit is assigned a target. Consider these plant communities as a potential palette of plants for your site. See the **addendum** for details or use the links for the larger documents.

   For a list of ecosystems common to the Kirkland area visit the Steward Resource Page.

   These three are relevant to most Steward sites:

   - Moist to Dry Conifer-Deciduous Forest
   - **Moist to Wet Conifer-Deciduous Forest**
   - Forested Conifer-Deciduous Swamp

   C. **Other Goals:**

   Your planting palette and site goals may also be influenced by other opportunities and constraints or you might utilize other sites as potential references to develop your plant palette. We suggest a diversity of plants to support wildlife, consider trails and human use, and use any monitoring results from past plantings to help guide you.

   Use the steps above to generate a **simple planting palette (15-20 plants)** that you can narrow down to select appropriate species to meet your goals.

2. MEASURE YOUR SITE

Break your site into distinct **planting areas**. Then calculate the square footage of these areas – examples for calculating area are in your Steward Field Guide. Each planting area will have different planting plans.

Ideas for separating your site into **planting areas**:

- **By Site Conditions (light/canopy, soil texture/moisture):**

E.g. Calculate the area for all your sunny, wet sites separately from shaded, dry areas as these will require different species.

- **Type of Planting Needed:**

E.g. You may also want to separate planting areas by the type of planting needed – for example measure NEW or BARE areas separate from areas where you are IN-FILL planting around existing plants.

- **By Existing Vegetation**

E.g. You may want to separate out areas that will still have dense weed cover or those that have thick existing native cover.

- **By Other Site Conditions (human-use, natural features)**

E.g. You can separate out areas adjacent to paths/trails as they require specific plants or by natural features such as slopes which may result in specific plant requirements.

See Steward Handbook: Pages 51-54

See the *Measuring your Site* video and *Pacing Worksheet* on the Steward Resource Page.
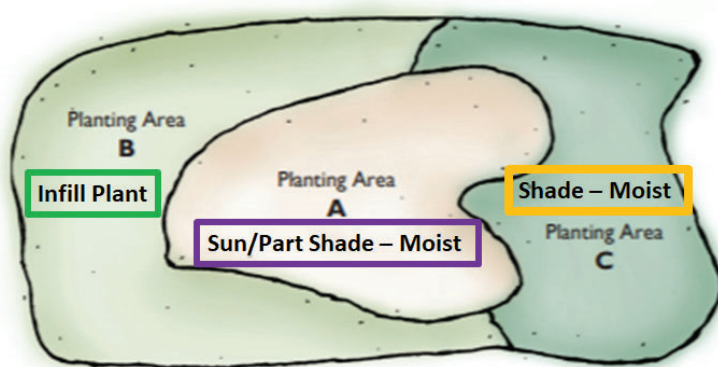
Spacing On Center - Overhead View
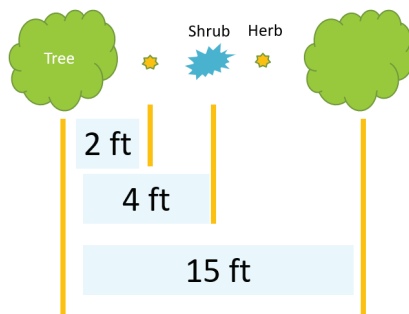
Plant and Stock Type	Desired Plant Density	Spacing Average (on center)	Divide Square Footage by
Trees	Dense	6 ft	36 sq ft
	Medium	8, 9, or 10 ft	64, 81or 100 sq ft
	Sparse	15 ft	225 sq ft
Shrubs	Dense	3 ft	9 sq ft
	Medium	4 ft	16 sq ft
	Sparse	5 ft	25 sq ft
Live Stakes	Dense	1 ft	2 sq ft
	Medium	2 ft	4 sq ft
	Sparse	3 ft	9 sq ft
Emergent Plugs	Dense	6 in	.25 sq ft
	Medium	12 in	1 sq ft
	Sparse	18 in	2.25 sq ft
Herbaceous/ Ground Cover (4" pots in groups of 3)	Dense	2 ft	4 sq ft
	Medium	3 ft	9 sq ft
Herbaceous/ Ground Cover (1 gallon pot)	Dense	2 ft	4 sq ft
	Medium	3 ft	9 sq ft

3.   CALCULATE PLANT QUANTITIES AND SELECT SPECIES

Using your **Planting Areas** you can now calculate the quantity of each species needed per area.

See **Online Plant Calculator by Sound Native Plants** (also in your Steward Handbook) which uses **spacing on-center** of plants based on your area (sq. ft).

Tips:

- Remove existing vegetation from your calculation by either reducing the total area (ex: 50% of the area is already full) or by increasing the spacing between your plants.
- Plant calculators will give you an extremely high number of groundcover plants. We recommend scaling down these counts in years 1 – 3 and/or consider any woody species and ferns as "low-shrubs" in your planning.
- Consider **how many plants you can actually plant** in a given season and **given site conditions**.
  - New volunteers plant ~4-6 plants (+mulch ring) per hour in 2 hour event
  - <50 is appropriate if you are solo and plan no events
  - 80 – 100 is appropriate for small event (~10 volunteers per event).
  - 100 – 200 is appropriate for medium events (~25 volunteers) or multiple small events.
  - 200+ for large events (>50 volunteers) and/or multiple events.
- If you are adding browse protection (cages of fencing around plants) this usually takes ~10 additional minutes per plant depending on product.

See Steward handbook pages 56-57 for further directions.

Selecting Species:

Use your potential plant palette generated in early steps to begin selecting species for your current years planting.

Tips:

- Use the **site conditions** (right plant, right place) and **goals** to help select plants.
- **You won't plant all your desired species in one year**, maintenance and other requirements might restrict your selection in year 1 but in years 2-4 you can in-fill with new plants. You will also adapt each year based on any monitoring results from the previous year.
- Determine rough % of each species at each layer (tree, shrub, groundcover) and apply to each planting area calculation. Ex: Western Redcedar (50%), W. Hemlock (25%), Douglas Fir (25%).

For species specific information checkout:

- **King County Native Plant Guides Link**
- **Sound Native Plants: Species Selection Guide Link**
- **Fourth Corner Nursery: Catalog Link and Plant Lists Link**
- **Washington Native Plant Society: Landscaping Resources Link & Plant Directory Link**
- **Steward Field Guide page 80: Appendix G**
- **EarthCorps Pollinator Planting Guide (7mb download)**