

Preserving Rare and Endangered Plants

San Juan County is home to a number of rare plants that are protected under the County's critical area regulations. Photos and descriptions of these "protected plants" can be found on the County website at https://www.sanjuanco.com/cdp/CAO_ImplementationDocs.aspx.

Many of these plants are endangered due to the impacts of agriculture and residential land development; over grazing by deer who no longer have natural predators on the islands; and the lack of summer fires which helped control the growth of shrubs and less fire tolerant trees. When using and developing property it is important to avoid harming these plants, and if possible to help them thrive and spread. As a last resort if disturbance of these plants cannot be avoided, they should be relocated in accordance with the following guidelines.

Most plants can also be grown from seed though some have special needs such as "cold stratification" prior to planting. When collecting seed never take more than 10% of the seed from a single plant. This will allow for continued natural reproduction, ensure biodiversity, and preserve food sources for native animals. Collect seed on days that are dry and be sure the seed is "ripe" (e.g. it is dry and the seeds fall out on their own). Spread the seed out and leave it uncovered for a few weeks to dry and cure. Remove chaff, stems and non-seed material, then place in a sealed container with an equal amount of silica gel packets or rice (to absorb moisture). Store the seed in a cool dry location.

In general when growing native plants from seed, the most effective method is to start them outside in small containers of potting soil (e.g. egg cartons or tubes) that are protected from deer and slugs. Avoid planting seeds in heavy clay soils. In many cases, the best planting time is in the late summer and fall, but the particular needs of each plant should be determined prior to planting.

Guidelines for Relocating Plants

- Identify and mark the location of plants during the spring and early summer, when they are clearly visible. Plants can be marked with flagged wires, or strips of brightly colored nylon or yarn tied to the plant or to a sod stake inserted next to the plant.
- Before moving the plant, read about its unique characteristics such as whether it has a tap root or spreads underground via rhizomes. In addition to the information available on the San Juan County website, more detailed guidance is available on the internet or from the references listed below.
- Examine the site where the plants are located, noting the soil type, aspect (direction the site is facing - north, south, east, or west), amount of sun/ shade, moisture (is it saturated during the rainy winter months, or is the soil well drained?), surrounding plants and tree cover.
- Find a relocation site that has similar characteristics to the original location. Avoid locations where the plant will be surrounded by taller plants or shrubs that are likely to win the competition for moisture, light and nutrients.
- Move plants in the fall or winter – late September through February – so they have a chance to become established during the cool, rainy season.
- If necessary, moisten the soil around the plant the day before moving it.

- If soils are saturated do not move the plant until the soils are moist but not soggy.
- Do not move plants on days that are warm and sunny – wait for a cool cloudy day (or better yet a series of cool cloudy days). If possible, move plants in the evening.
- Prepare the new location by loosening the soil, adding compost if available, and excavating a hole approximately twice the diameter of the plant with its surrounding soil. Remove any existing plants/weeds.
- If the plant has a tap root dig as deeply as possible and protect the tap root during transport.
- If the plant spreads by rhizomes try to keep the entire plant, or as much of it as possible, in-tact.
- Dig the plant up, trying to avoid exposing any roots. Put it in a bucket or other container for transport to the new location and replant immediately. Gently pack soil around the plant and then water it thoroughly. If available, sprinkle leaf litter or other mulch around the plant. Water daily (unless it rains) for the next few days. If the weather turns warm and sunny, try to cover the plants with a bucket, milk jug cut in half or other container that will shield them from the sun.
- During dry periods water the plants until they are well established.
- To protect from deer, consider surrounding the plant with chicken wire fencing with a piece of mesh placed over the top. Twist ties can be used to connect the chicken wire, and sod staples can be used to secure it to the ground.

References

- *Northwest Native Plants for Gardens and Landscapes* by Kathleen A. Robson, Alice Richter and Marianne Filbert, 2008.
- *The Garry Oak Gardeners Handbook* available from the Garry Oak Ecosystem Recovery Team at <http://www.goert.ca/>
- Guidelines for collecting seed and plants from the Washington Native Plant Society at <http://www.tardigrade.org/natives/plantcollect.html>
- *Plant Propagation* by Alan Toogood, American Horticultural Society, 1999.
- *Gardening with Native Plants of the Pacific Northwest: An Illustrated Guide* by Arthur Kruckeberg, University of Washington Press, 1996.
- *Plants of the Pacific Northwest Coast* by Pojar and Mackinnon, Lone Pine Publishing, 1994.
- *Wild Plants of the San Juans* by Scott Atkinson and Fred Sharpe, The Mountaineers, 1985.
- Inside Passage Native Plant Seeds, Port Townsend at <http://www.insidepassageseeds.com/>