Redwood Guidelines

Introduction and Purpose

The Conservation Committee strives to protect heritage and significant sized trees that are growing in appropriate natural habitats where they thrive without human intervention.

Sequoia sempervirens, or Coast Redwoods, are iconic California native plants that are among the tallest and longest living of all trees. These trees once covered 1.6 million acres of California in 1850, but now more than 95% of the old growth forest is gone, lost to indiscriminate logging, especially during the gold rush. Redwoods are admirable trees that are familiar in the Portola Valley landscape and we are fortunate that this unique tree can thrive in our community. Like most native plants, redwoods thrive naturally in habitats that are appropriate to their needs. Specifically, they need both summer and winter fog and adequate rainfall, which occurs in a narrow coastal belt between the 42nd and 36th degree North latitudes. Portola Valley is at 37.3 degrees North.

Humans can alter habitats in such ways as to allow almost any plant to grow, even if that species would not normally be found in that location. Since redwoods require a constant supply of water in the summer, they do not grow naturally in the oak woodlands and other dry land communities in the hills on the bay side of our valley where fog drip is not as common. Redwoods can only stay healthy and alive in those habitats with the human intervention of summer watering.

The purpose of these guidelines is to provide current and future homeowners with information on where it is appropriate to plant redwoods on their property and the process for removing them if they currently exist.

I. Planting of Redwoods

A. Grouping of Trees

This species has a preference for the company of other close redwoods. When grown as a stand-alone tree, they are prone to topple in a windstorm because they have no taproot. Planting the trees in clusters allows their root systems to become intertwined, providing the support needed to survive major windstorms that frequent the central and northern sections of the California coastline. Therefore, if one is interested in planting a redwood in a suitable location, several of them should be grouped together or closely spaced, as anyone who ever walked into an old growth native forest has observed.

B. Appropriate Planting Locations

Among the habitats where redwoods would be appropriate to be planted, are the following locations that provide a year round source of water:

1. Along perennial streams in riparian areas.
2. In fog drip locations along the western hillsides. The latitudinal limits of coast redwood distribution correspond approximately to the 35% fog threshold.
3. In sag ponds and large seep areas.
4. In high water table areas, where the water is so near the surface that no supplemental water is needed.
5. Far enough from existing or proposed structures that their extensive root systems will not cause damage.

C. Inappropriate Planting Locations

The Conservation Committee discourages the planting of redwoods in locations outside of their native microclimate. This recommendation is consistent with low water usage and appropriate natural vegetation communities policies that the Town and the Conservation Committee encourage. In addition, the insatiable appetite for water, particularly from fog drip, has resulted in redwoods developing a shallow and very extensive lateral root system which can extend 100 feet from the trunk in a mature tree (a mature redwood can consume 500 gallons of water a day). This root system often causes problems with the foundations of nearby buildings, septic tanks and leach fields. Furthermore,

redwoods can grow rapidly, and unless carefully sited, can block views causing strife between neighbors.

Based on these characteristics, the Committee discourages the planting of redwoods in the following locations:

1. Oak woodlands.
2. Grasslands and meadows.
3. Anywhere that requires supplemental summer watering.
4. Within 50 feet of any existing or proposed structures, septic systems or leach fields where the roots will eventually cause problems.
5. In any locations where eventual growth will compromise your view or your neighbor's view.
6. For screening, unless careful consideration has been given to eventual height and view obstruction for you or your neighbors. There are more appropriate plantings to choose for screening, such as Holly Leaf Cherry. See the attached Appendix A or the Town website for more appropriate screening shrubs and trees. It is never appropriate to create a hedge of any plant.

II. Care of Redwoods

A redwood growing in an appropriate habitat needs no special care once it is established. The trees are native to the area and resistant to fungus and parasites. The trees should never be topped.

III. Removal of Existing Redwoods

The Conservation Committee is tasked with reviewing the removal of significant trees in the Town of Portola Valley. Significant redwoods are any tree with a trunk or multiple trunks with a total circumference of 54 inches or a diameter greater than 17.2 inches. The Committee would need a compelling safety reason to approve the removal of redwoods growing in appropriate planting locations. They are an iconic part of our landscape and heritage and are to be treasured.

Existing redwoods in Portola Valley that are not in appropriate planting locations were planted in the past before the current understanding of sustainable appropriate planting, view

preservation and minimizing water use were established. As redwoods grow, they often cause problems with obstruction of neighbors' views, and their roots may damage buildings, septic systems, roads and other infrastructure. Whether or not these trees should be removed requires a balancing of esthetic, safety, neighborly and economic considerations. If homeowners and neighborhoods desire to remove existing redwoods planted in inappropriate locations, the Committee has no objection, subject to an appropriate permit review.

These Redwood Guidelines were adopted by the Town of Portola Valley at the Town Council meeting on September 11, 2013.

APPENDIX A – Appropriate Substitute Screening Plants

It is generally recommended that you use several different species, planted in a staggered pattern, so that they can have layers rather than straight lines. Also, it's a good way to hedge your bets that something will survive. While some are deciduous, it is interesting and healthier for the evergreens to mix in some plants that lose their leaves to promote air circulation.

Screening native plants for hot/dry locations:

- ✓ Arctostaphylos crustacea ssp. crustacea (Brittle Leaf Manzanita) */**
- ✓ Arctostaphylos regismonta (Kings Mtn Manzanita) */**
- ✓ Arctostaphylos ssp (there are several other locally native manzanitas)*/**
- ✓ Artemisia californica (California Sagebrush) */**
- ✓ Baccharis pilularis (Coyote Brush) */**
- ✓ Garrya elliptica (Coast Silktassel) */**
- ✓ Heteromeles arbutifolia (Toyon, Christmas Berry) *
- ✓ Rhamnus crocea (Redberry) *
- ✓ Rhus integrifolia (Lemonadeberry) */**
- ✓ Ribes malvaceum (Chaparral Currant)
- ✓ Ceanothus thyrsiflorus (Blue Blossom) *
- ✓ Cercocarpus betuloides (Mountain Mahogany) *
- ✓ Prunus ilicifolia (Hollyleaf Cherry) *
- ✓ Quercus agrifolia (Coast Live Oak) */**
- ✓ Quercus douglasii (Blue Oak)
- ✓ Ribes californicum (Hillside Gooseberry)

* = evergreen ** = deer proof

Screening native plants for moist locations:

- ✓ Baccharis pilularis (Coyote Brush) */**
- ✓ Cornus sericea (Creek Dogwood, Redtwig Dogwood)
- ✓ Corylus californica (CA Hazelnut)
- ✓ Gaultheria shallon (Salal, Oregon Wintergreen) */**
- ✓ Heteromeles arbutifolia (Toyon, Christmas Berry) *
- ✓ Holodiscus discolor (Creambush, Ocean Spray)
- ✓ Lonicera involucrata (Twinberry, Twinberry Honeysuckle)
- ✓ Physocarpus capitatus (Ninebark)

- ✓ Ribes aureum (Golden Currant)
- ✓ Ribes californicum (Hillside Gooseberry)
- ✓ Ribes sanguineum (Pink-Flowering Currant)
- ✓ Rosa californica (California Wild Rose)
- ✓ Vaccinium ovatum (California Huckleberry, Evergreen Huckleberry) */**
- ✓ Cercis occidentalis (Western Redbud)
- ✓ Quercus agrifolia (Coast Live Oak) */**
- ✓ Quercus lobata (Valley Oak)
- ✓ Salix lasiolepis (Arroyo Willow) **