

9 SCHEDULE OF PLANNED MANAGEMENT ACTIONS

- 9.1 Forest Unit #1 – Coastal Residential
- 9.2 Forest Unit #2 – Natural Forest South
- 9.3 Forest Unit #3 – Natural Forest North
- 9.4 Forest Unit #4 – Interior Residential

The following is an Action Plan for development of a section of Forest Unit #4 Common Area identified in *LWC Resolution 19-03 – Forest, Cove & Wetland Management Plan (FMP)*. For brevity, this Action Plan will be referenced as the “*Forest Plan*.” The section being addressed in this Plan is the pathway areas from Singing Tree, past the LWC Maintenance Facility and ending in two locations on Walking Wood. This pathway will be referred to as the “*Shed Common Area*,” in this Plan.

9.4.1 Background Information

Forest Unit #4 concerns and development goals are outlined in Section 6, of this document. This area is described in the FMP as containing a mix of Sitka Spruce, Western Hemlock, Alder and a variety of ground cover, including Elderberry, Salmonberry, Salal, Huckleberry and Ferns. This area also contains English Ivy, which has been identified by LWC as an invasive species and has been targeted for removal by a number of volunteer teams.

Section 6.4.1 of the FMP cites: “*We will actively maintain Forest Unit #4 in a “natural” state for residents to enjoy as a transit network of trails within LWC, with interesting trees, understory and wildlife observed from asphalt trails. The maintenance model shall be one of a regularly accessed urban forest, focused on tree and shrub maintenance and the asphalt trails. Trees will be regularly monitored for health and safety, with selective thinning and replanting. We will organize annual clean-up events to both remove invasive species and pick up some debris that adds to the fire fuel risk. The forest itself will be more actively managed with some test areas established to try opening up the canopy to additional light, replacing mature Alder stands, etc.*”

In addition, Sections 6.5 and 6.6 include a number of goals and objectives for the Shed Common Area, including “*maintain an open forested aesthetic*”, replanting “*areas of mature Alder stands with native deciduous trees*”, removing invasive species, reducing fire risk, etc.

9.4.2 Issues

The following is a list of issues that should be considered when an Action Plan:

- Definition of “open and inviting” with ground cover vs. “natural”. The latter often means minimum maintenance and overgrown by late summer. The former does not mean manicured.



- “Open and inviting” forest vs. privacy for adjacent dwellings and/or units.
- “Fire Risk Mitigation and Risk Assessment Plan for LWC” (Refer to Sections 8 and 8.8) cites removing dead trees and shrubs without cleaning out all undergrowth. It also recommends taking steps to retain soil moisture through replanting, etc. How is this integrated with ivy pull activities?
- Establish a “soft path” or similar access to ivy pull areas (requires multi-year effort), while not encouraging homeowners to establish their own, non-sanctioned soft paths.
- Staff time and plant costs for renovating forest areas. This can be partially offset by volunteer work, but a base level will probably be provided by LWC Staff.
- Timing of removal and replanting. When is this done for the health of the plantings and reduction of special water use.

9.4.3 Observations

The following photographs and notes were taken – Friday, August 23, 2019 – 1:00 PM – Sunny day, on the main north/south Shed Common Area path:



Pict. 1: Open forest area adjacent to path. Partial ground cover. Shade and some vegetation keep soil moist. Looks like an area that would invite entry to explore plants and wildlife.



Pict. 2: Open forest area adjacent to path with low ground cover. Aesthetically very appealing. Open to observe wildlife, but not as open to foot traffic to explore plant life. Will require work to prevent annual growth becoming a sight barrier.



Pict. 3: “Natural landscaping”, but over grown. High enough to partially obscure background forest. A visual barrier that keeps residents on trail.



Pict 4: Ivy mixed in heavy under growth. Dead spots and heavy barrier limit enjoyment of this space. A replanting plan is needed to minimize future dead spots in this area.



Pict 6: Recently cleared ivy area. Open ground subject to drying in Fall. It allows viewing of distance forest and provides easy foot access in area for future ivy pull work.



Pict 7: Older ivy pull area. False Lily is rapid growing ground cover. View of distant forest areas. No foot traffic without damaging ground cover. Ivy and other invasive species are still visible. Future ivy work requires removal of tripping hazards and some vegetation.

9.4.3.1 Summary Observation

Forest growth seems to be very high in most places. When left alone, most of our Common Areas will quickly become a tangled mix of plant life. This is evident not only in the Shed Common Area, but along the hillsides leading to the cove where work parties have been used to clear undergrowth to allow the previous tree plantings to survive.

Deep shade seems to be one limiting factor to rapid plant growth. One goal in the Shed Common Area is to allow more light, but without a planting plan, more light will likely result in unconstrained plant growth.

Clearing invasive species in a cost and time effective manner, while maintaining the health, including moisture level of the surrounding forest is a big issue in the Shed Common Area. Maintaining open and/or low vegetation with this area should reduce the ivy pull effort.

9.4.4 Action Plan

9.4.4.1 Recommendations

Goals listed in Section of the FMP, include removing invasive species, reducing tree and shrub density in selected areas and maintaining an open forested aesthetic to encourage increased use in this “wind protected” area. Of these, invasive species removal and fire mitigation are the most pressing issues. Fire mitigation and forest health is addressed by removing dead understory and retaining soil moisture wherever practical.

The Committee Action Plan is as follows:

- Continue English Ivy pull activities on the East side of the Shed Common Area. Ivy removal is a multi-year effort requiring periodic removal and selective spraying.
- Solicit Tintinnabulary homeowner input on privacy barrier along canal banks. Plant taller growing shrubs along the canal bank to provide privacy where requested.
- Actively pull ivy to the drainage canal and replant with low lying shrubs of moderate height to establish an open aesthetic in this area.
- Use wood chip material as a temporary fill to retain soil moisture in recently cleared areas when appropriate.
- Do not attempt to clear canal areas themselves, rather simply deal with ivy and other invasive species that spread from the canal through selective spraying and/or clearing.
- To reduce maintenance costs and effort, provide ready access to the areas where English Ivy is/was present. Implement a randomized open area design that appears as scattered clearings in this area. Do not construct “permanent” pathways that will encourage significant usage.
- Pull ivy on West side of Shed Common Area trails.
- Solicit homeowner input from homes on west side of path along Walking Wood and Singing Tree.
- Plant appropriate shrubs along common/private property boundary near houses to satisfy homeowner privacy concerns. Preference is given to placing plants on private property where practical, and on common land where the distance between the home and trail is too short to allow a barrier on private land at a reasonable distance from house.
- Remove ivy after privacy barrier plantings have been established.
- Open the forest aesthetic along both sides of the Shed Common Areas by clearing and/or cutting back all shrub “barriers” over four (4) feet tall and replacing them with lower growing ground cover for a distance of 10 to 30 feet from the path where privacy barriers allow. Stand alone shrubs over five (5) feet high will be allowed as long as there is significant open areas around them.
- The FMP calls for replacing failing Alders with deciduous trees. The advantage of deciduous trees is that they allow more sunlight during the grey winter months. No trees should be removed without a replanting plan.
- Consider long term maintenance costs (both labor and plant stock) when replacing shrubs and other ground cover. LWC has extensive common areas that need maintenance. Ground cover such as Salal is green year round, but will require regular cutting to prevent it from becoming a sight boundary and/or potential fire and/or ladder fuel. See recommended planting list below, Section 9.4.4.3.



- The LWC Grounds Superintendent is responsible for selecting the appropriate plants and trees, and implementing the open esthetic goals referenced above.

9.4.4.2 Proposed Implementation Sequence

Timeline

2019	-Contact homeowners on boundaries of Shed Common Area and identify plantings that will be used as privacy barriers. -Ivy pull on East side of Shed Common Area.
2020	-LWC Grounds Superintendent identifies shrub alternatives for use in privacy barriers and other areas. Implement LWC nursery plant to lower long term costs where appropriate. -Plant privacy barrier shrubs identified in 2019. -Continue Ivy pull on East side of Shed Common Area. -Begin Ivy pull around and to the West of Maintenance Facility. -Establish randomized walk areas in the ivy removal areas, covering ground with new plantings and wood chips to retain ground moisture and access for further ivy removal.
2021	-Continue Ivy pull activities. -Begin reducing shrub and vegetation height within 10 – 30 feet of paths in Shed Common Area where appropriate.
2022	-Continue Ivy pull activities. -Assuming appropriate growth of privacy barrier plantings in 2020, extend vegetation height reduction to 40 feet of trails where appropriate. -Develop and approve plans for other common areas in Unit #4.
2023	-Continue Ivy pull activities -Maintain vegetation height throughout Shed Common Area as described above. -Begin implementing plans for other common areas in Unit #4.
2024	-Continue Ivy pull activities. -Maintain vegetation height throughout Shed Common Area as described above
2025	-Continue Ivy pull activities. -Maintain vegetation height throughout Shed Common Area as described above.

9.4.4.3 Recommended Shrubs and Trees

The following list contains a subset of approved trees and shrubs. (*Refer to Section 8, Appendix A of this document for a complete list of approved trees and shrubs*). Any tree or shrub listed in *Appendix A – Approved PNW Plants, Trees and Shrubs* can be used in the Shed Common Area. The final



choice will be made by the LWC Grounds Superintendent after consultation with the LWC Forest Management Committee.

Trees

- Sitka Spruce
- Coast Redwood
- Western Red Cedar
- Western Yew
- Western Hemlock
- Oregon Ash – shade tolerant, extensive shallow root system, can withstand strong winds.
- Oregon Myrtle – large tree, a bit north of its native range
- Silver Fir
- Grand Fir
- Oregon Myrtle
- Cascara
- Indian Plum, 3' – 17'
- Pacific Ninebark, 3' to 13'
- Western Crabapple

Shrubs

- Rhododendron
- Pacific Wax Myrtle
- Huckleberry (grows fast)
- Western Azalea
- Twinberry (grows fast and leggy)
- Vine Maple
- Salal (pruning required to prevent woody understory)
- Coast Black Gooseberry (thorns, usable in areas where foot traffic is discouraged)
- Kinnikinnik
- Douglas Iris
- Ferns
- Common Juniper
- Flowering Red Currant
- Western Serviceberry, 3' – 20'
- Oregon Grape
 - Mahonia Aquifolium, 4'-6'
 - Mahonia Nervosa, 3'-4'
 - Mahonia Repens, 1'-3'



10. ADDENDUMS

Addendum 1 – LWCHA Invasive Plant Management

As noted in the Forest Management Plan, all LWC forest units, to some degree, have areas overgrown with invasive plants, mostly ivy, blackberry and along Highway 101, Scotch broom.

A five-year plan to eliminate and maintain control of these species is difficult, given the almost overwhelming spread of ivy throughout LWC. We estimate almost 348,000 square feet, close to 8 acres, are infested with ivy.

Due to the extent of LWC's ivy invasion, it is difficult to develop a comprehensive five-year plan of control. Our goal is to begin extermination in control areas listed below, and when those areas have been cleared, assess the amount of time and type of control we think best for the remaining forest areas.

LWC has tried spraying ivy, but the result has often been an ugly patch of dead ivy that sooner or later becomes overgrown with healthy ivy from adjoining areas. For that reason, our plan is to pull as much ivy off the ground and trees as possible. Once it has been largely removed, we will begin regular maintenance of the area, consistently spraying or pulling new growth to prevent its resurgence.

Because there is no simple way to begin controlling our massive invasion except to start somewhere, we have selected as our first goals:

- Pulling ivy and other invasive plants from the east side of the forested common area path from the recreation center to Overlook on Walking Wood.
- Removing ivy from the bank south of the path from Singing Tree to the wildflower meadow on the oceanfront.
- Maintaining the LWC border adjoining Highway 101 where volunteers last year removed Scotch Broom.

To accomplish this, we plan to initiate regularly scheduled volunteer working parties beginning in March or April. The dates and times will be announced in the LWC weekly e-mails sent to all homeowners.

Wherever we work, we will do our best to safeguard the privacy of homeowners who may have extensive ivy growth nearby. Once invasive plants have been removed, our goal, if the existing tree and bush root growth allow us, is to plant native bushes to replace the privacy screen once provided by invasive plants.



Addendum 2 – Controlling English Ivy in the PNW

Controlling English Ivy (*Hedera helix*) in the Pacific Northwest

Although produced by and the responsibility of The Nature Conservancy, this document grew from a workshop co-sponsored by Metro, The City of Portland Parks, Natural Resources Division, The Society for Ecological Restoration, Northwest Chapter and The Nature Conservancy in February 2002. As well as extensive literature review, the data and field experience of more than 20 individuals and organizations (primarily) from northwestern Oregon went into this document. Funding for the production of this guide and the research that supported it was provided by the Northwest Service Academy of the AmeriCorps and the United States Fish and Wildlife Service. In addition, the Oregon Department of Agriculture and the No Ivy League in Portland, Oregon provided friendly review. Thank you all.

Editors Note: The discussion in this document is specific to *Hedera helix* (English ivy) and not particular named cultivars. Some cultivars apparently behave ecologically like *H. helix* and are likely to respond similarly to the treatments described here, some apparently do not. Because of the risk that other cultivars will prove invasive, the authors urge caution in the use of any ivy cultivars for landscaping. Please seek out and use other landscaping choices.

English Ivy Description

English ivy (*Hedera helix*) is a trailing or climbing vine (**photograph 1 and 2**) belonging to the family Araliaceae (ginseng) and is native to Europe. Brought to North America by colonial settlers, *H. helix* is widely cultivated as ornamental/utilitarian groundcover in the Pacific Northwest (PNW).



Photo 1. Ivy ground cover

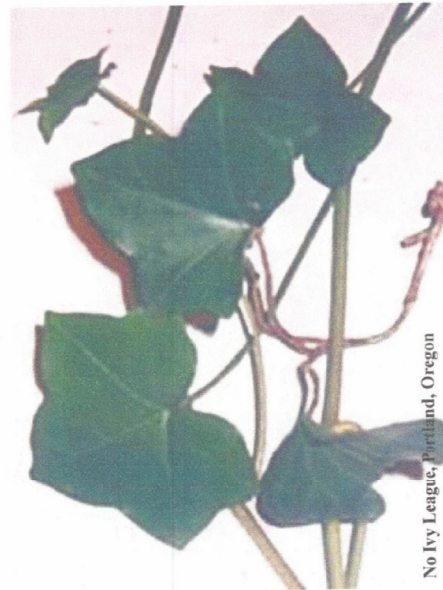


Photo 2. Ivy leaves and viney stems

No Ivy League, Portland, Oregon