Saanich PARKS & RECREATION

Restoration Plan for Hutchison Park

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1.0 Site Description

1.1 Overview

Hutchison Park has a diverse array of ecosystems that include a bog, wetland communities and Garry oak *Quercus garryana* Ecosystems (GOEs) (Saanich, 2006). As a Natural Park, it is dedicated to the preservation and protection of indigenous wilderness while allowing access for the enjoyment of the natural conditions without substantially harming them (Saanich, 2006).

The Park's GOEs include meadow, rock outcrop and woodland and have been heavily impacted by **fragmentation**, **human use** and **invasive plant species** (MacDonald, 2005). The biggest threat to the remaining ecosystems is the domination by many different types of invasive plant species, especially **English ivy** *Hedera helix* (MacDonald, 2005).

Situated in the Coastal Douglas-fir (CDF) Bioclimatic Zone, the elevation on the site ranges from approximately 35 m to approximately 47 m on the Middle section rock outcropping (MacDonald, 2005). The park is zoned P-4N (a park zoning for natural parks) and is identified as Plan #72447 and 68826R, latitude and longitude: 123° 23' 39.0" W, 48° 28' 41.3"N (Saanich, 2006). The total area of Hutchison Park is 0.848 hectares (Saanich, 2006).

The park is surrounded by townhouses to the southeast and northeast, single family housing and a strata road (Rockhome Gardens) to the west, Rogers Ave. to the south and Quadra St. to the east (MacDonald, 2005). A gravel trail dissects the park from north to south and from Quadra St. to Rockhome Gardens, east to west (MacDonald, 2005).

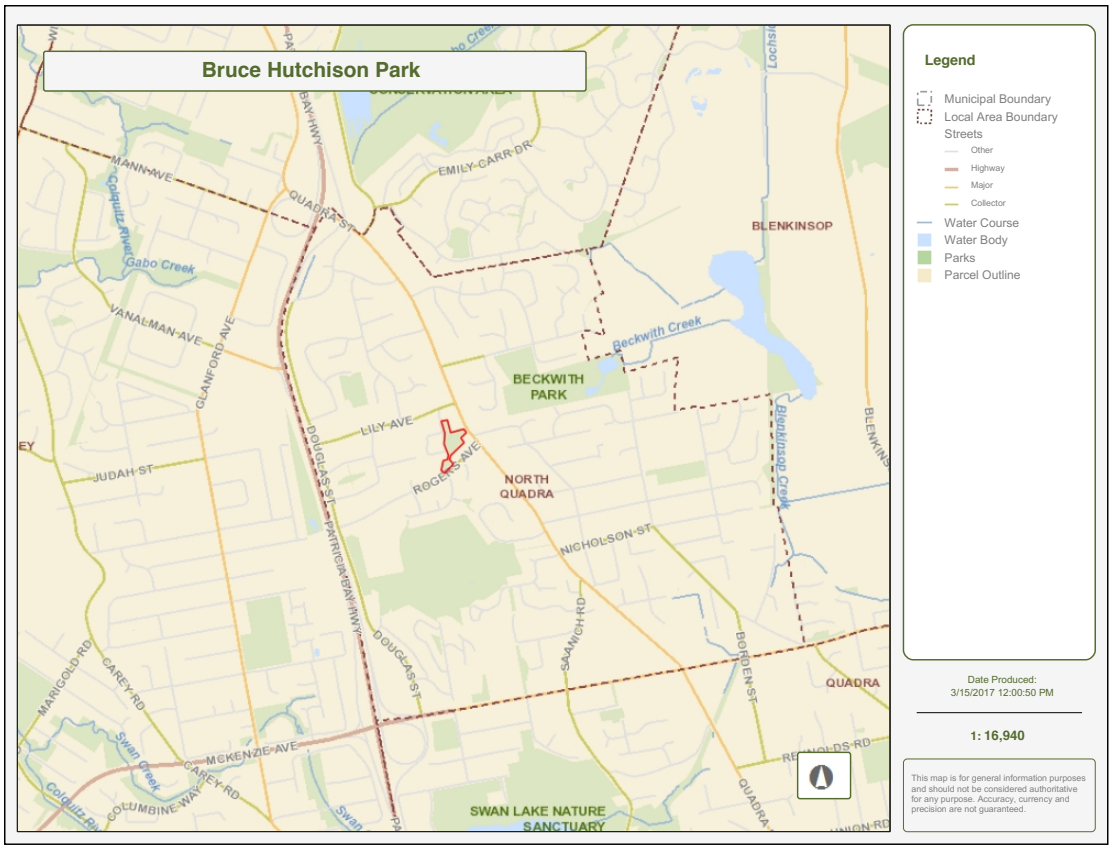

Figure 1. Map showing location of Hutchison Park (outlined in red) in the North Qaudra Neighborhood of Saanich, BC.

1.2 History

Hutchison Park is most likely within the traditional territory of the Songhees First Nation, specifically the Kosampson family group of the Lekwungen peoples, due to its close proximity to Christmas Hill (Beckwith, 2011). The large and broad Garry oak trees located in deeper soils at the north end of the park could indicate that Indigenous burning practices contributed to the maintenance of the site (Beckwith, 2011).

As the area was colonized, the space which is now Hutchison Park became part of George Rogers dairy farm called Chester Lea Dairy around 1903. In 1917 Douglas street expanded North and separated the farm in two. As a result, new barns were built on the east side of the road kitty corner to what is now Hutchison Park on Rogers Ave. (See **Figure 2**).

In 1925, Bruce and Dorothy Hutchison purchased 11 acres from Rogers farm. Over the next couple of years they built 'Rockhome'. The designated heritage home is located beside Hutchison Park at 820 Rogers Ave. Bruce Hutchison described George Rogers' land management practices:

> He came to know every corner of the land, every tree in the woods. Because he loved the land and the woods he would not sell them and would not desolate them. In every field, though it increased the labor of harvest and reduced the yield, he left the best oak trees and sometimes he would stop his team to look at them. The white lilies of the woods he left untouched so that they multiplied and the children played amongst them in the springtime... (Beckwith, 2011)

In the late 1980s, as development pressures increased and farming became more difficult and economically unsustainable, the Rogers families tried to remove their land from the Agricultural Land Reserve so it could become parkland, and remain protected in some way (Beckwith, 2011).

In 1994, Christmas Hill Slopes Advisory Group was formed to review and examine interests in the area and develop an Action Area Plan. The major recommendations of the Advisory Group were:

> ...to recognize the natural and scenic values of the Christmas Hill Slopes and protect areas deemed to be significant in terms of environmental uniqueness, viewscapes, topography, open space value, linkages to amenities and open spaces, possible heritage value, or where land adjacent to the Nature Sanctuary should be considered as buffer areas to reduce impact from incompatible uses. (Beckwith, 2011)

As the development of mixed family housing in this area completed in 2002 and based on the Advisory Group's recommendations, Hutchison Park was zoned P-4 (MacDonald, 2005). In preparation for the development of the park, a public open house was held March 12, 2003 to review trail development plans for both Hutchison and Christmas Hill Parks (MacDonald, 2005). Following the public review, trails were developed in the Park and basic signage installed (MacDonald, 2005).

Figure 2. The historic photo depicts the Rogers Ave. barns facing north towards the Hutchison property.

1.3 Challenges

Due to extensive development surrounding the park and historically within the meadow, habitat fragmentation, human use and invasive plants are the biggest challenges to restoring the site (MacDonald, 2005). Adult English ivy on trees is of primary concern because of damage to the trees and seeds spreading throughout the rest of the Park (GOERT, 2002).

1.4 Amenities

The park is dissected by two gravel trails from north to south and from Quadra St. to Rockhome Gardens, east to west (MacDonald, 2005). At the Rogers Ave. entrance there is a large interpretive sign with the Rogers Farm history on one side and Hutchison Family history on the other (see **Figure 3**). There is also a garbage can at the Quadra St. entrance and a dog bag dispenser at the Rockhome Gardens entrance.

1.5 Current Use

Passive, trail walking and jogging, bird watching (Saanich, 2006).

Figure 3. Hutchison side of the interpretive sign located at the Rogers St. entrance to the Park.

1.6 Unique Features

The researcher could not find criteria or examples of unique features in the literature, so the following are based on what the researcher perceived as special (or unique) within the Park. There are the two impressive large Garry oaks in the meadow (see **Figure 4**). The northernmost one is noted in Saanich's significant tree registry. There is also a profusion of Licorice ferns *Polypodium glycyrrhiza* on the two rock outcrops. Additionally, there is also a lot of bird activity in the Middle section of the Park (see **Figure 6** for map of Park sections). And lastly is the overall abundance of stunted oaks surrounding the rock outcrops and the richness of wildflowers in the South section of the Park.

Figure 4. Image showing the size of the two large oaks in the meadow.

1.7 Plant Inventory

The dominant plant species are Garry oak, English ivy and Himalayan blackberry *Rubus discolor*.

Table 1. Plant species list for Hutchison Park. Taken from the Park Maintenance Plan (Saanich, 2006).

Snowberry	*Symphoricarpus alba*
Himalayan blackberry	*Rubus discolor*
Dandelion	*Taraxacum officinale*
Grape hyacinth	*Muscari armeniacum*
Curled dock	*Rumex crispus*
Common vetch	*Vicia sativa*
Queen Anne's lace	*Daucus carota*
Clover spp	*Trifolium spp*. (non-native)
Orchard grass	*Dactylis glomerata*
Garry oak	*Quercus garryana*
Domestic cherry	*Prunus avium.*
Oceanspray	*Holodiscus discolor*
Tall Oregon grape	*Mahonia aquifolium*
Daphne	*Daphne laureola*
English ivy	*Hedera helix*
Fawn lily	*Erythronium oregonum*
Licorice fern	*Polypodium glycyrrhiza*
Herb Robert	*Geranium robertianum*
Miners lettuce	*Montia perfoliata*
Chickweed	*Cerastium arvense*
Bluebells	*Hyacinthoides non-scripta*
Purple dead nettle	*Lamium purpureum*
Moss spp.	
Holly	*Ilex aquifolium*
Indian plum	*Oemleria cerasiformis*
Common camas	*Camassia quamash*

Figure 5. Photo of Common camas patch next to Rogers Ave. and the trail.

1.8 Invasive Plant Species Populations

The following tables were created using the *General Decision Process for Managing Invasive Plant Species in Garry Oak and Associated Ecosystems (GOEs)* by the Garry Oak Ecosystems Recovery Team (GOERT) (2007). For this restoration plan the park is divided into three sections, South, Middle and North (see **Figure 6**).

Table 2. Invasive plant species in the South section of the Park.

Invasive Plant Species	**# of areas present**	**Density**	**Establishment**	**Significance**
Orchard grass	Few	5%	Somewhat	High
Scotch broom	Few	<1%	Starting	High
English ivy	**Many**	**60%**	**Somewhat**	**High**
Daphne	Few	10%	Somewhat	Medium
Himalayan blackberry	Few	2%	Somewhat	Medium
Holly	Few	5%	Somewhat	Low
English laurel	Few	5%	Somewhat	?

Table 3. Invasive plant species in the Middle section of the Park.

Invasive Plant Species	# of areas present	Density	Establishment	Significance
Orchard grass	Few	3%	Somewhat	High
English ivy	**Many**	**15%**	**Well**	**High**
Daphne	Few	7%	Somewhat	Medium
Himalayan blackberry	**Many**	**30%**	**Well**	**Medium**
Holly	Few	2%	Somewhat	Low
English laurel	Few	2%	Somewhat	?

Table 4. Invasive plant species in the North section of the Park.

Invasive Plant Species	# of areas present	Density	Establishment	Significance
Orchard grass	**Many**	**40%**	**Well**	**High**
Himalayan blackberry	**Many**	**30%**	**Somewhat**	**Medium**

Figure 6. Map of South, Middle and North sections of park.

1.9 Soils

Soils on the site have been impacted by gravel trail construction and other human impacts (previous nursery in meadow) (MacDonald, 2005). A description of the soils on the site was provided by Michael Payne from the ESR Report, which includes two soil pits described and profiled below (MacDonald, 2005). The following diagrams and charts were created by Carolyn MacDonald from her site assessment report (2005).

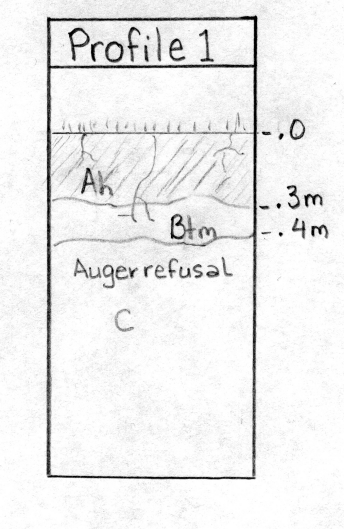

Figure 7. Profile 1 soil description. Sampled June 28, 1996 by Michael Payne P.Eng., P.Geo, Payne Engineering Geology Ltd. in North section of park between large oaks numbered T83A and T84.

Depth (m)		Abbreviated Soil Description	Moisture
From	To		
0.00	0.30	Dark brown silt, non-plastic, sandy, trace gravel, stiff, some roots, no mottling.	Dry
0.30	0.40	Light brown sand, fine, silty, trace gravel, compact to dense, uniformly graded, some roots, no mottling.	Dry
0.40		BOTTOM – Auger refusal	

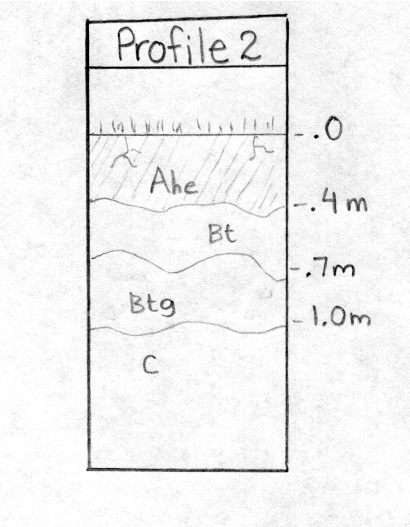

Figure 8. Profile 2 soil description. Sampled June 28, 1996 by Michael Payne P.Eng., P.Geo, Payne Engineering Geology Ltd. Near Rogers Ave. and Quadra St., southwest of Middle rock knoll.

Depth (m)		Abbreviated Soil Description	Moisture
From	To		
0.00	0.40	Dark grayish brown to black silt, non-plastic, sandy, trace gravel, firm to stiff, some roots, no mottling	Dry to moist
0.40	0.70	Brown sand, fine, silty, loose to compact, uniformly graded, faint mottling	Wet
0.70	1.00	Brown silt, non-plastic, some sand, hard, well graded, no roots, prominent mottling	Wet 0.70 to 0.80, moist 0.80 to 1.00
1.00		BOTTOM – At desired depth	

2.0 Directives and Guidelines

2.1 Safety Considerations

Danger trees should be assessed by parks staff before ivy is removed from trees to prevent injury from falling limbs. Poison hemlock is to be removed from the park on a routine annual basis by parks staff (Saanich, 2006). Removal should include digging up the plant or at a minimum removal of the seed head and appropriate disposal in the solid waste stream (Saanich, 2006). Also, staff and volunteers need to follow safe removal techniques for Daphne (see **Table 7**).

2.2 Supporting Documents

Policy for English Ivy Removal, Noxious Weed Bylaw, Procedure for Removing Ivy, Parks Management and Control Bylaw, Safety Procedures for Workers in Natural Parks, Integrated Pest Management Plan, Standards for Trails, Parks Tree Policy (Saanich, 2006).

3.0 Vision Statement

Restoration of Hutchison Park does not mean the eradication of all invasive plant species but the sustained support by parks staff and volunteers to control the most severe species/conditions and restore areas that have the highest concentrations/potential for natural habitat and human enjoyment.

4.0 Restoration Goals and Objectives

4.1 Work Area Descriptions

Priority (P) 1: Removal of adult ivy from trees (See map in **Figure 9** for location within Park)

As noted in MacDonald's report and evidenced by volunteer work winter 2016/17, adult ivy on trees is of paramount concern for many of the Park's oaks (2005). **P1** should focus on the removal of the adult ivy zone throughout the park, as the ability of this phase to produce seed increases the chances that it will spread to other areas and also damage trees (GOERT, 2002). See treatment plan below taken from GOERT's Best Practices for ivy (2002).

Table 5. Treatment plan for adult ivy.

Condition	Method	When	Notes
Ivy climbing trees in adult phase.	Remove a 1 m tall band at waist height all the way around the trunk (using folding saw, loppers, axe, weed wrench with a leverage pad to pry off of, or hand clippers).	Fall.	Ivy above the removed band can be left in place to die, but the band must be kept clear as old ivy can make a ladder for returning ivy. If the tree is dead then pulling to remove ivy may cause it to topple. This presents a serious safety concern, and may also damage important habitat for wildlife. Ivy should be removed from snags by an experienced person who knows the risks and follows proper **WCB safety procedures**, and after a **Hazardous Wildlife Tree Assessment**. Must ensure all contact between roots and upper parts of the ivy plant are severed.

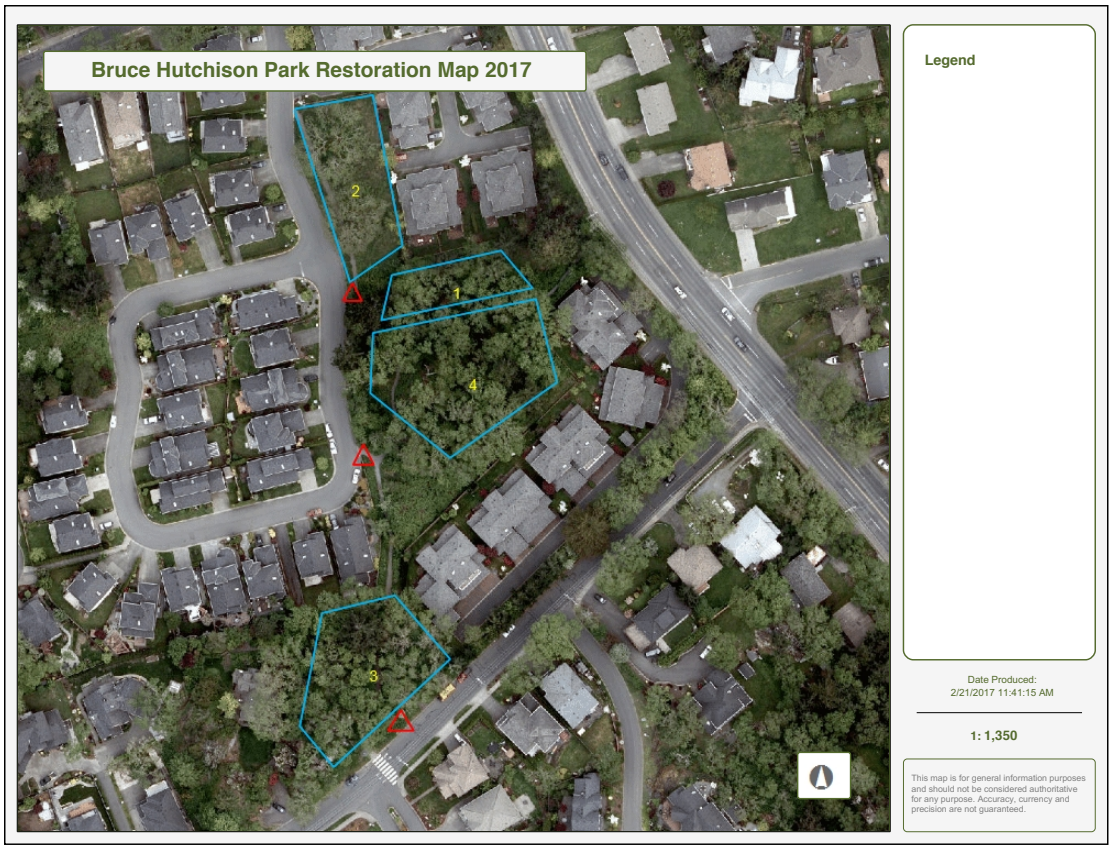

Figure 9. Map of work area priorities and potential piling sights for specified invasive plant species. The priority areas are denoted by blue polygons with the priority numbers enclosed. The red triangles show possible piling sites for larger amounts of non-toxic invasive plant material.

P2: Annual cutting of Orchard grass and Himalayan blackberry in meadow

Based on the current Park Maintenance Plan and activities, the meadow should continue to be maintained because of its ecological and cultural significance (2006). See treatment plans below taken from GOERT's Best Practices for Orchard grass (2007) and Himalayan blackberry (2002).

Table 6. Treatment plans for Orchard grass and Himalayan blackberry.

Condition	Method	When	Notes
Large area of Orchard grass growing in deep soil.	Mow.	Early to mid-July (after native wild-flowers have bloomed).	This method is appropriate for areas where some native plant species are also present. Seed with native plant species after each mowing, and repeat (mowing then seeding) several times per year, and for several years' duration. Some mowers allow good power as well as precision for avoiding native species (e.g. Field and Brush Mower, from DR Power Equipment).
Any size patch of Himalayan blackberry.	Manual control: loppers (can also be used as tongs to pull the cut canes out), hand clippers, brush saw.	August – October before roots form from draping shoots.	If patch is used as a nesting site for native passerine birds, remove the patch gradually and avoid nesting season. Also, remove the root crown or burls, as they can remain viable for a long time (use pick axe, mattock or Pulaski).

P3: Remove understory ivy, then Daphne, then Holly from South section of park

Based on MacDonald's report and Saanich's Sensitive Ecosystem Inventory, the South section of the park had the best establishment of native herbaceous plants and shrubs (2005). However, since the time of her report, many invasive plant species have crept into the area, specifically, ivy, Daphne and Holly. See treatment plans below taken from GOERT's Best Practices for ivy (2002) and Daphne (2007). Holly's treatment plan was primarily curated from the Islands Trust Fund website (2016).

Table 7. Treatment plans for understory ivy, Daphne and Holly.

Condition	Method	When	Notes
Mats of ivy spreading horizontally (usually in juvenile phase).	Dig out roots (using paring knife, dandelion weed fork, or weed wrench) and roll into 2-person-manageable piles.	Late fall (Nov).	Lift gently, or roots will break and re-sprout. Be cautious of species that are emerging in fall (eg. Licorice fern). Remind volunteers there are species we are trying to protect; **avoid a "just get the ivy" mind set.** With weed wrenches, use leverage pads when soils are wet.
Mature Daphne plants and young shrubs, in any size of invasion (small to large).	Cutting the stem below the soil line.	In the summer.	**Protective clothing should be worn, and avoid direct skin contact with the plant.** Cut the bottom of the stem where there is an obvious colour change between the stem and root. The easiest method: push bypass loppers into the ground at the base of the plant and close them to cut the stem below ground. Seed or plant afterwards with native species. If the invasion is large, expect dense germination from the seed bank after treatment and refrain from planting native species until after the initial pulse of Daphne germination (which usually occurs within the first two to three years).
Holly	Hand-pull small seedlings when the soil is moist. Cut larger trees at ground level.	In the summer.	Regularly monitor the area for re-sprouting either at the stump or through suckers nearby. Eventually, diligent cutting will kill the root system. Mature trees have deep and extensive roots making digging labour-intensive and highly disruptive to surrounding soil.

P4: Remove understory ivy, blackberry and Daphne from rock outcrop and surrounding are in Middle section of park

Based on Saanich's Sensitive Ecosystem Inventory, the middle section rock outcrop and its surrounding area should be cleared of major invasive species, specifically ivy, blackberry and Daphne. Re-see treatment plans for blackberry in **P2** and understory ivy and Daphne in **P3**.

Figure 10. Photo displaying adult ivy on an oak in the northern Middle section of the Park (**P1**).

4.2 Replanting

Based on conversations with Rick Hatch (Saanich Natural Areas Practitioner), Suzanne Woods (Lead Park Steward) and Robert Hutchison (son of Bruce Hutchison), there is interest in doing some replanting in the meadow. Below is a list of herbaceous plant species that are suitable for Garry oak meadow replanting. The list was taken from *The Garry Oak Gardeners Handbook: 2nd Edition* (GOERT, 2009). Also, Saanich Parks has bagged Garry oak meadow mix, which includes Alaska brome *Bromus sitchensis*, Idaho fescue *Festuca idahoensis*, Blue wildrye *Elymus glaucus*, Western fescue *Festuca occidentalis*, Tufted hair grass *Deschamsia cespitosa* and Sandburg bluegrass *Poa secunda* that would be suitable grasses to replant the meadow. However, because large sections of the meadow used to be part of a nursery and the area is highly visible to Rockhome Gardens and Twin Oaks developments, the researcher thinks there is opportunity to have a more decorative native plant garden, with a bench and a secondary trail looping through the meadow (see **Figure 11** for Map and description).

Table 8. Suitable grasses and herbaceous plants for replanting the meadow.

Herbaceous Plants	
Early Spring Bloomers	
Common camas	*Camassia quamash*
Harebell	*Campanula rotundifolia*
Field chickweed	*Cerastium arvense*
Blue-eyed Mary	*Collinsia grandiflora*
Menzies' larkspur	*Delphinium menzeisii*
Broad-leaved shootingstar	*Dodecatheon hendersonii*
White fawn lily	*Erythronium oregonum*
Woodland strawberry	*Fragaria vesca*
Chocolate lily	*Fritillaria affinis,* also known as *F. lanceolata*
Small-flowered woodland star	*Lithophragma parviflorum*
Spring-gold	*Lomatium utriculatum*
Sea blush	*Plectritis congesta*

Western buttercup	*Ranunculus occidentalis*
Satin-flower	*Olsynium douglasii*
Meadow death-camas	*Zygadenus venenosus*
Mid-Spring Bloomers	
Yarrow	*Achillea millefolium*
Hooker's onion	*Allium acuminatum*
Nodding onion	*Allium cernuum*
Red columbine	*Aquilega formosa*
Harvest brodiaea	*Brodiaea coronaria*
Woolly sunflower	*Eriophyllum lanatum*
Fireweed	*Epilobium angustifolium*
Small-flowered alumroot	*Heuchera micrantha*
Tiger lily	*Lilium columbianum*
Two-coloured lupine	*Lupinus bicolor*
Fool's onion	*Triteleia hyacinthina*
Summer and Late Bloomers	
Fool's onion	*Triteleia hyacinthina*
Pearly everlasting	*Anaphalis margaritacea*
Woodland strawberry	*Fragaria vesca*
Canada goldenrod	*Solidago canadensis*

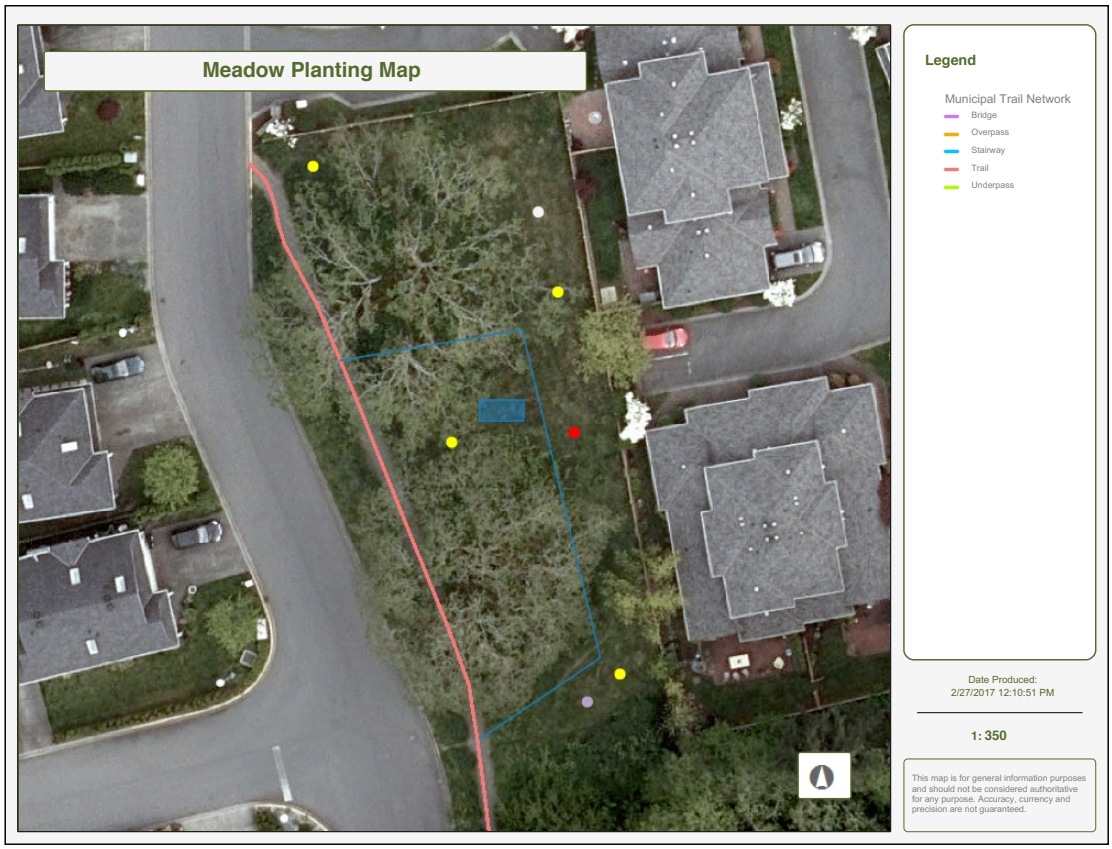

Figure 11. Map of the meadow with an example replanting scheme. The salmon coloured line running north to south at the western edge of the meadow is the current trail. The blue line that roughly travels between the two large oaks, parallels the Twin Oaks fence and rejoins the trail in the southern part of the meadow is a possible route for a secondary path. The blue shaded rectangle shows the rough location of a possible bench. The yellow dots denote possible locations for planting Garry oaks to succeed the mature two. The white, red and gray dots show possible locations of more decorative native shrubs such as Mock orange *Philadelphus*, Red-flowering current *Ribes sanguineum*, Pacific rhododendron *Rhododendron macrophyllum* and Pacific dogwood *Cornus nuttallii*.

As the meadow is mowed annually (**P2**) to suppress Himalayan blackberry and Orchard grass and keep the meadow open, it is recommended that native grasses and herbaceous plants be seeded (Dependent on resources. Possibly bi-annually). If blackberry root balls or Orchard grass clusters are dug up larger bulbs such as Common camas and White fawn lilies could also be planted in their stead.

5.0 Disposal Plan

The following disposal plans for ivy (2002), Orchard grass (2007), blackberry (2002) and Daphne (2007) were taken from the same GOERT Best Practices documents as the **work area descriptions** treatment pans. The researcher created Holly's disposal plan using GOERTs format.

Table 9. Disposal plans for types of invasive plant material.

Material	**Removal**	**Disposal**
Large amounts of ivy with no seeds.	Move to disposal areas (see **Figure 9**) on tarps or makeshift "stretchers".	Parks staff to remove to composting facility.
Any volume of dead ivy with seeds.	Same as above but be very careful to not spread seeds to other areas en route.	
Small amounts of ivy without seeds.	Not necessary.	Parks staff to remove to composting facility.
Orchard grass.	Not necessary.	If in larger clumps spread out to speed up composting on site and decrease nitrogen loading.
Small amounts of dead blackberry shoots.	Not necessary.	Maybe leave on site in small piles but generally Parks staff to remove to composting facility.
Blackberry root crowns.	Not necessary.	Leave them in an area where they will dry out and not re-sprout.
Daphne	Move to disposal area on tarps or makeshift "stretchers". Be very careful to not spread seeds to other areas en route.	Transport off-site wrapped in tarps to prevent the seeds from being distributed en route. Never transport Daphne cuttings or plants inside an enclosed vehicle because noxious compounds in the bark, leaves and fruit can cause **respiratory irritation**. If seeds present, Parks staff will dispose of material in invasive bin, which gets incinerated. If seeds not present, material to be removed to composting facility by Parks staff.
Holly	If berries are present, move to disposal area on	If seeds present, Parks staff will dispose of material in invasive bin, which gets incinerated. If seeds not present,

	tarps or makeshift “stretchers”.	material to be removed to composting facility by Parks staff.

6.0 Connectivity

Based on the recent housing developments, which border the park on the north, west, and south sides, and Quadra St. on the east, the park faces substantial habitat fragmentation and isolation. The nearest natural area is Christmas Hill Nature Sanctuary to the south (see **Figure 12**).

Figure 12. Photo looking south from Park to Rogers Farm housing development and Christmas Hill (in behind).

7.0 Community Outreach and Communication Plan

7.1 Potential Partners

Rockhome Gardens Strata, Twin Oaks Strata, Oak Park, Quadra Community Association, Neighbours, Rogers Elementary, Greater Victoria Green Team, Suzanne Woods.

Jenny Eastman is Saanich's Coordinator of Volunteers who oversees the Pulling Together program, which assists in the restoration of Saanich's parks. To get involved please email her at jenny.eastman@saanich.ca or phone 250-475-5522 and ask to be transferred to the Coordinator of Volunteers.

When potential partners become participants in the Pulling Together program they "remove invasive species, plant native trees and shrubs, improve wildlife habitat, plan and monitor the progress of ecological restoration work, and educate others about parks, invasive species and ecological restoration" (Saanich, 2017).

Potential partners can be involved in most aspects of the work **Priorities**. However, removal of some noxious plants such as Poison hemlock and Daphne may be best suited for Parks workers. Some examples of suitable activities would be cutting blackberry canes with loppers, digging out root balls and removing ivy but others can be arraigned through communication between participants, the Coordinator of Volunteers and Parks workers.

8.0 Monitoring Plan

Based on other local Garry oak restoration projects, such as Mill Hill Regional Park, monitoring could be done annually by parks staff (or **Potential Partners**). The monitoring should be a formal check-in with the park to determine if the objectives are being achieved. This will require documentation of changes to the **Work Area Sites** or **Replanting**.

The researcher recommends using the *General Decision Process for Managing Invasive Plant Species in Garry Oak and Associated Ecosystems (GOEs)* by GOERT, which requires recording the estimated percent coverage of the invasive plant species listed in the **Work Area Sites**. In order to ensure the **Priorities** are being met, compare the percent invasive plant species cover to the baseline in **Section 1.8**.

Monitoring could be done at the end of the growing season (late summer early fall).

9.0 Resources

Saanich's **Small Sparks Grant**, which can be up to $500 to support invasive plant removal projects for community groups.

There still may be $5-10,000 in the Saanich Foundation for the purposes of ecological restoration at the Park, which was placed there by Robert Hutchison (MacDonald, 2005). The researcher also met with Robert Hutchison for this report where he mentioned his willingness to donate more money to ecological restoration of the Park, specifically replanting the meadow with some decorative shrubs, if the fund had been depleted.

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