

Gordon Brent Ingram Ph.D. side stream environmental design
321 Railway Street #108 Vancouver V6A 1A4 Canada telephone 604 669 0422 &
University of Victoria School of Environmental Studies * email: gordon_brent_ingram@telus.net

Report to the Conservation Planning & Site Protection Recovery Action Group of the
Garry Oak Ecosystems Recovery Team (GOERT)

21 October, 2001

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

abstract

Under the terms of the Garry Oak Ecosystems Recovery Strategy, the Conservation Planning and Site Protection Recovery Action Group (CP&SP RAG) is charged with both developing and revising, on a periodic basis, a list of ten or more priority sites for additional levels of protection. The first list of priorities for further protection is due in early 2002. In an October 11, 2001 meeting of the subcommittee of the RAG, the following categories of concerns were proposed for identifying and evaluating inadequately protected landscapes and sites for inclusion in the first list:

1. landscape / habitat size;
2. biological richness;
3. integrity and present ecosystem condition;
4. geographical stratification and representativeness
5. degree of threat; and
6. species and communities at risk.

Specific criteria and methods of evaluating locations and sites will be set by the CP & SP RAG in coming meetings – and a list of locations of interest to the CP&SP RAG is currently being developed. The *Catalogue of Site Records*, produced by the Georgia Basin Ecosystem Conservation Partnership and maintained by the BC Conservation Data Centre, is the most comprehensive and detailed list of natural sites, so far, that has relevance to the work of the CP & SP RAG. This discussion paper analyzes the data and data fields of the *Catalogue of Site Records* as part of background to upcoming discussions on data most relevant for both determining priority areas for further protection. In subsequent years, this discussion will also be relevant to the more daunting task of comprehensive conservation planning for Garry oak ecosystems, and associated species, in Canada. This initial analysis of the data identifies 43 'locations' (small sites to multiple sites [termed here as 'locations'] to recommended landscape unit for comprehensive protections) with plant associations and species under the responsibility of GOERT. Based on a review of the data in the Catalogue, in terms of the criteria set below (except for geographical stratification), the following locations, that are virtually all on unprotected private land under relatively immediate threat, become evident.

1. Nanoose Hill – 1,044 hectares
2. Somenos Lake, Cowichan – 390 hectares
3. Thetis-Francis Connector – 223 hectares
4. Eagle Heights – 116 hectares
5. Downes Point, Hornby Island – 175 hectares
6. Oak Bluffs, North Pender Island – 70 hectares
7. Whaling Station Bay, Hornby – 70 hectares
8. Mount Maxwell – 844+ hectares
9. Sutil Mountain, Galiano Island – 78 hectares
10. Mount Finlayson, near Victoria – 66 hectares
11. Saturna Bluffs & Addition – 633 hectares

Table of Contents

abstract	
table of contents	
Introduction	
Setting thresholds related to the criteria	page 3
Initial identification of locations of interest to the CP&SP RAG under the GOERT Recovery Strategy	page 4
Analysis of adequacy of information in the reports	page 5
Analysis of protected areas listed that required increased protection through more effective management	page 6
Analysis of the conservation areas proposed in the reports in the <i>Catalogue of Site Records</i>	page 8
Recommendations of referral of locations for joint work with the Restoration & Management RAG of GOERT	page 10
Analyzing the locations by relevant elements & proposed protected area size	page 12
Recommendations for sites for visits in the first half of 2002 with data collection in terms of the GOERT priorities	page 16
Recommendations of referral of locations for joint work with the Restoration & Management RAG of GOERT	page 18
Locations where the majority of habitat and occurrences of interest to GOERT have been acquired with additional coverage mainly for additional threatened species, buffers & linkages	page 18
Locations with key parcels under pressure for habitat destruction & warranting formal acquisition	page 19
Analysis of & ranking by threats	page 19
APPENDIX I Confirmed & suspected locations with Garry oak ecosystems (GOEs) and other “rare elements of GO and associated ecosystems”	page 22
APPENDIX II GOE Locations lacking in reports in the January 2001 <i>Catalogue of Site Records</i>	page 23
APPENDIX III Rare Elements of Garry Oak and Associated Ecosystems	page 44
APPENDIX IV Proposed Gulf Island National Park Reserve	page 46
	page 47

Introduction

Under the terms of the Garry Oak Ecosystems Recovery Strategy, the Conservation Planning and Site Protection Recovery Action Group (CP&SP RAG) is charged with both developing and revising, on a periodic basis, a list of ten or more priority sites for additional levels of protection. The first list of priorities for further protection is due in early 2002. In an October 11, 2001 meeting of the subcommittee of the RAG, the following categories of concerns were proposed for identifying and evaluating inadequately protected landscapes and sites for inclusion in the first list:

1. landscape / habitat size;
2. biological richness;
3. integrity and present ecosystem condition;
4. geographical stratification and representativeness
5. degree of threat; and
6. species and communities at risk.

Specific criteria and methods of evaluating locations and sites will be set by the CP & SP RAG in coming meetings – and a list of locations of interest to the CP&SP RAG is currently being developed by Allan Lidstone. A second responsibility of the CP & SP RAG is to subsequently plan and design a network of protected areas, with cores, buffers and landscape linkages, to comprehensively maintain the Garry oak ecosystems in Canada and associated species (of interest to GOERT).

The *Catalogue of Site Records*¹, produced by the Georgia Basin Ecosystem Conservation Partnership² and maintained by the BC Conservation Data Centre, is the most comprehensive and detailed list of natural sites, so far, that has relevance to the work of the CP & SP RAG. This discussion paper analyzes the data and data fields of the *Catalogue of Site Records* as part of background to upcoming discussions on data most relevant for both determining priority areas for further protection. In subsequent years, this discussion will also be relevant to the more daunting task of comprehensive conservation planning for Garry oak ecosystems, and associated species, in Canada.

This initial analysis of the data identifies 43 'locations' (small sites to multiple sites [termed here as 'locations'] to recommended landscape unit for comprehensive protections) (Appendix I) with plant associations and species under the responsibility of GOERT (see Appendix III). Of these reports, 31 have significant and confirmed plant communities dominated by Garry oak. Another 12 locations have little or no occurrence of Garry oak but support other plant associations and species, from grassland to woodland to old-growth Douglas fir parkland, with rare and endangered species under the responsibility of GOERT. In considering how to utilize the data for the work of the CP &

¹ Georgia Basin Ecosystem Conservation Partnership. January 2001 (updated periodically). *Catalogue of Site Records*. Victoria: BC Conservation Data Centre (Resource Inventory Branch, Ministry of Environment, Lands and Parks).

² This is a joint federal / provincial initiative (GBEI) launched in 1998 for an "ecosystem approach to protecting the environment throughout the Georgia Basin."

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

SP RAG, some questions about and probably inconsistencies and gaps in the data emerge. This report discusses how the current data might be used in setting short-term conservation priorities, in conjunction with a list developed with the CP&SP RAG, as well as priorities and strategies for filling some of the gaps.

Setting thresholds related to the criteria

In terms of the data in The Catalogue related to setting and evaluating the conservation outlined above, the following information was available.

landscape / habitat size

Perhaps one of the most difficult and least consistent (if consistent were ever possible across so many species and ecosystems) aspects of The Catalogue are the boundaries drawn on the maps. These are proposed conservation areas but the logic in the "site design," where the lines are drawn, is not often clear – or consistent with the rationale. In other cases, there are particular natural boundaries that make clear the logic behind a line. In some cases, lines are drawn included proposed buffers. While in other cases, effective cores are proposed. Therefore the hectares associated with each location report will need to be carefully examined and in some cases proposed boundaries of habitat protection redrawn.

biological richness

There is a "biodiversity significance rating" which gives key information on rare plant associations and species. There is a "representativeness rating." While all of this information can be used, gaps in information and unevenness make comparisons between sites conditional.

integrity and present ecosystem condition

The "protection urgency" and the "management" urgency ratings give some clues to the present conditions of these ecosystems.

geographical stratification and representativeness

The reports indicate the regional district in which the locations occur but there is no system in existence for considering these locations in any kind of biotic districts or relationships to the broader Strait of Georgia region or the bioregion. Such a system could be easily constructed by the RAG as based criteria around watersheds on Vancouver Island (and in the Fraser Valley) and groups and area classes of the other islands.

degree of threat

There is a protection urgency rating that roughly translated into:

- ❖ P1 – very high level of threat and urgency for conservation interventions
- ❖ P2 - moderate to high level of threat and urgency for conservation interventions
- ❖ P3 - low to moderate level of threat and urgency for conservation interventions

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ P4 - effectively protected or a low level of threat that can largely be countered through management and restoration

Unfortunately, some of the logic in setting the protection urgency rating may be inconsistent or the logic unclear. For example, the steepness of the bluffs on islands such as Pender are actually attracting housing development (if only because of the pleasant microclimates and spectacular views) so the P4 rating for private lands warrants examination. In contrast, the P2 rating for Sutil Mountain on Galiano might inconsistently high, though it is a significant site, given the difficulties of building roads that far up a steep mountain. A revised systems for the purposes of this RAG might be worthwhile:

1. imminent threat (that can be confirmed)
2. private land (to be targeted for either acquisition or a covenant)
3. public land where either a change in legal / jurisdictional status or a conservation covenant is advisable and a revised management plan are needed (with the recommendation for a revised management plan forwarded to the R&M RAG)
4. public land where a revised management plan is necessary (with the recommendation for a revised management plan forwarded to the R&M RAG)

species and communities at risk

Information on species and communities at risk is the strongest and most consistent body of data in The Catalogue.³ The problem is in the orienting of an analysis around this data is that some locations have not been well-inventoried and assessed. For example, the two possibly strategic locations of Reginald Hill on Salt Spring Island and Thousand Oaks on Hornby could not be adequately evaluated with the level of data in The Catalogue.

Initial identification of locations of interest to the CP&SP RAG under the GOERT Recovery Strategy

For the information in The Catalogue, cross-referenced with the list of plant associations and species of concern for GOERT (APPENDIX III), an Initial list emerges from the catalogue that might be of interest to the CP&SP RAG:

1. Bamberton (McCurdy Point) grassland
2. Baynes Sound Comox Harbour Macrosite
3. Cobble Hill Slopes, Cowichan Valley
4. Cowichan River Mouth, Cowichan Valley
5. Downes Point, Hornby Island
6. Eagle Heights Grasslands, Koksilah River Park Addition, Cowichan Valley
7. Empress Mountain, Sooke Hill

³ The Conservation Status Ranking is described at the following site:
<http://www.natureserve.org/ranking.htm>

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

8. Harewood Plains, Nanaimo
9. Harmac, Nanaimo
10. Little Mountain, Parksville
11. Mandarte Island
12. Mary Hill, Rocky Point DND Property, near William Head
13. Mill Farm, Salt Spring Island, above Musgrave Landing
14. Mouat Creek Macrosite, Texada Island
15. Mount Finlayson, near Victoria
16. Mount Maxwell woodland, Salt Spring Island
17. Mount Tuam, Salt Spring Island
18. Nanoose Hill and Harbour north of Nanaimo
19. Oak Bay Islands, near Victoria
20. Oak Bluffs, North Pender Island
21. Observatory Hill, Little Saanich Mountain, Saanich
22. Old Baldy Mountain, Shawnigan Lake
23. Porlier Pass Marine, between Galiano and Valdes Islands
24. Quamichan Garry oak site, Elkington reserve near Duncan
25. Reginald Hill, Salt Spring Island
26. Rithets Bog, Victoria
27. Rocky Point, Metchosin
28. Royal Road, Esquimalt Lagoon, Victoria
29. Saturna Bluffs
30. Saturna Island Ecological Reserve Addition
31. Savary Island
32. Somenos Lake, Cowichan Valley
33. Sumas Mountain
34. Sutil Mountain, Galiano Island
35. Thetis-Francis Connector, Victoria
36. Thousand oaks, Hornby Island
37. Tod Inlet basin, Central Saanich (& Saanich)
38. Trial Islands
39. Uplands Cattle Point, Oak Bay
40. Walker Hook, Saltspring Island
41. Whaling Station Bay, Hornby Island
42. White Rapids Road, South of Nanaimo
43. Winchelsea Ballenas Islands Group off Nanaimo
44. Yellow Point, north of Ladysmith

Analysis of adequacy of information in the reports

Of the locations on the initial list, two reports have so little of the information needed by the CP&SP RAG that their consideration for the 2002 list of priorities for additional protection best be postponed until a more complete report is available:

1. Mandarte Island
2. Royal Road, Esquimalt Lagoon, Victoria

This, then, creates a smaller list.

1. Bamberton (McCurdy Point) grassland
2. Baynes Sound Comox Harbour Macrosite
3. Cobble Hill Slopes, Cowichan Valley
4. Cowichan River Mouth, Cowichan Valley
5. Downes Point, Hornby Island
6. Eagle Heights Grasslands, Koksilah River Park Addition, Cowichan Valley
7. Empress Mountain, Sooke Hill
8. Harewood Plains, Nanaimo
9. Harmac, Nanaimo
10. Little Mountain, Parksville
11. Mary Hill, Rocky Point DND Property, near William Head
12. Mill Farm, Salt Spring Island, above Musgrave Landing
13. Mouat Creek Macrosite, Texada Island
14. Mount Finlayson, near Victoria
15. Mount Maxwell woodland, Salt Spring Island
16. Mount Tuam, Salt Spring Island
17. Nanoose Hill and Harbour north of Nanaimo
18. Oak Bay Islands, near Victoria
19. Oak Bluffs, North Pender Island
20. Observatory Hill, Little Saanich Mountain, Saanich
21. Old Baldy Mountain, Shawnigan Lake
22. Porlier Pass Marine, between Galiano and Valdes Islands
23. Quamichan Garry oak site, Elkington reserve near Duncan
24. Reginald Hill, Salt Spring Island
25. Rithets Bog, Victoria
26. Rocky Point, Metchosin
27. Saturna Bluffs
28. Saturna Island Ecological Reserve Addition
29. Savary Island
30. Somenos Lake, Cowichan Valley
31. Sumas Mountain
32. Sutil Mountain, Galiano Island
33. Thetis-Francis Connector, Victoria
34. Thousand oaks, Hornby Island
35. Tod Inlet basin, Central Saanich (& Saanich)
36. Trial Islands
37. Uplands Cattle Point, Oak Bay
38. Walker Hook, Salt Spring Island
39. Whaling Station Bay, Hornby Island
40. White Rapids Road, South of Nanaimo
41. Winchelsea Ballenas Islands Group off Nanaimo

42. Yellow Point, north of Ladysmith

Analysis of protected areas listed that required increased protection through more effective management

From the two lists above, quite a few key areas, with large and secure populations of Garry oak and associated species are not present. These areas are already the concerns of particular programmes, with such initiatives as the Gulf Islands National Park (see Appendix IV). However, the information is uneven. For example in these schedules for increased conservation, Tumbo Island, a major Garry oak location to be considered in a gap analysis, does not have a report in the *Catalogue of Site Records* but the Saturna Island Ecological Reserve Extension does have a record. The adjacent Saturna Bluffs are not considered a priority in that conservation programme. Because of this unevenness, that reflects lags in formal and effective protection; a number of locations that are largely protected can be removed from a list for short-term conservation and can be considered for further protection or even simply referred to the Restoration and Management RAG.

The locations that are already in some protected status, where there is virtually no additional habitat, that could be added are the following:

1. Mill Farm, Salt Spring Island, above Musgrave Landing (recently acquired by the CRD)
2. Oak Bay Islands, near Victoria (an ecological reserve)
3. Porlier Pass Marine, between Galiano and Valdes Islands (part of Dionisio Provincial Park)
4. Quamichan Garry oak site, Elkington reserve near Duncan (a buffer was recently acquired by the owner of the core site, Nature Conservancy of Canada)
5. Trial Islands (already an ecological reserve)

A key location later taken out of this list and grouped below is Cattle Point and Uplands Park. It is only protected as a municipal park in a heavily urban area and effective protection may well require transfer, as in acquisition, of the site by a public agency directly oriented to habitat (and biodiversity) conservation.

These sites should not be forgotten by this RAG and warrant being considered protected area cores in the planning and design of a comprehensive network. This leaves even a small list of locations for consideration:

1. Bamberton (McCurdy Point) grassland
2. Baynes Sound Comox Harbour Macrosite
3. Cobble Hill Slopes, Cowichan Valley
4. Cowichan River Mouth, Cowichan Valley
5. Downes Point, Hornby Island
6. Eagle Heights Grasslands, Koksilah River Park Addition, Cowichan Valley
7. Empress Mountain, Sooke Hill
8. Harewood Plains, Nanaimo

9. Harmac, Nanaimo
10. Little Mountain, Parksville
11. Mary Hill, Rocky Point DND Property, near William Head
12. Mouat Creek Macrosite, Texada Island
13. Mount Finlayson, near Victoria
14. Mount Maxwell woodland, Salt Spring Island
15. Mount Tuam, Salt Spring Island
16. Nanoose Hill and Harbour north of Nanaimo
17. Oak Bluffs, North Pender Island
18. Observatory Hill, Little Saanich Mountain, Saanich
19. Old Baldy Mountain, Shawnigan Lake
20. Reginald Hill, Salt Spring Island
21. Rithets Bog, Victoria
22. Saturna Bluffs
23. Saturna Island Ecological Reserve Addition
24. Savary Island
25. Somenos Lake, Cowichan Valley
26. Sutil Mountain, Galiano Island
27. Thetis-Francis Connector, Victoria
28. Thousand oaks, Hornby Island
29. Tod Inlet basin, Central Saanich (& Saanich)
30. Uplands Cattle Point, Oak Bay
31. Walker Hook, Saltspring Island
32. Whaling Station Bay, Hornby Island
33. White Rapids Road, South of Nanaimo
34. Winchelsea Ballenas Islands Group off Nanaimo
35. Yellow Point, north of Ladysmith

Of this list of 36 sites, a number of publicly owned sites, now effectively but informally managed for habitat protection, also emerge. These locations are still the responsibility of the CP&SP RAG because without more formalized protection, combined with management plans, many of their natural sites and populations are and could be increasingly in jeopardy. The CP&SP RAG could, however, choose to work for the conservation of these areas separately, in a subcommittee with a parallel set of activities to work with public agencies who own those areas, to upgrade (and formalize) protection.

1. Mary Hill, Rocky Point DND Property, near William Head
2. Observatory Hill, Little Saanich Mountain, Saanich
3. Rocky Point, Metchosin
4. Uplands Cattle Point, Oak Bay
5. Winchelsea Ballenas Islands Group off Nanaimo

It should be noted that these five locations have an exceptionally high set of values in both richness and threatened communities and species. More than most on the lists

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

below, these locations warrant interventions (educational, information, planning and design-related and even legal) but the public agencies that own those areas have those resources. Rather than acquisition for protection, these locations warrant policy, planning and management for protection – initiatives that are already going on though perhaps not to the extent that some people would like. So to produce a list for addition *protection through acquisition*, with these locations on them, could antagonize civil servants who have already been working to trying to better protect things. To remove these locations from such as list might be prudent and instead to forge specific relationships between GOERT, the CP&SP RAG and the Restoration and Management RAG, over particular locations, might be more effective.

Another group of locations also emerges at this point. There are a number of locations that are mainly in protected status but relatively small areas (less than 20 percent) are necessary to complete the landscape unit, to protect rare and threatened species (some of which are the responsibility of GOERT) and to optimize integrity.

1. Rithets Bog, Victoria
2. Sumas Mountain
3. Tod Inlet Basin

These unprotected (and somewhat degraded) sites in broader, largely protected landscapes are probably more appropriate as buffers. Such sites warrant highly specific site planning, perhaps involving conservation covenants and acquisition. But the necessary site analyses are best postponed until the phase and planning and design and of network of protected areas.

Analysis of the conservation areas proposed in the reports in the *Catalogue of Site Records*

Of the 35 locations, of interest under the terms of GOERT, that warrant formalized levels of additional protection (not just comprehensive management and restoration plans for respective local biodiversity); there is a wide range in areas of protection as proposed in the CDC. However, the logic in the boundaries of the proposed conservation areas is not always clear and in most cases not based on adequate mapping, conservation objectives or viability analysis to have much credence either in setting immediate priorities for additional protection or in long-term conservation planning. **If**, the areas identified in the *Catalogue of Site Record*, had been delineated with sufficiently consistent or reproducible criteria (and there might be a case for arguing for this) – at least in terms of the associations and species under the responsibility of GOERT, the area of each location could be a considerable guide in conservation planning. Below are the areas of the conservation locations as proposed in the *Catalogue of Site Records*?

1. Bamberton (McCurdy Point) grassland - 260 hectares
2. Baynes Sound / Denman Island edge – 50+ hectares
3. Cobble Hill Slopes, Cowichan Valley – 336 hectares
4. Cowichan River Mouth, Cowichan Valley – 947 hectares

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

5. Downes Point, Hornby Island – 175 hectares
6. Eagle Heights Grasslands, Koksilah River Park Addition, Cowichan Valley – 116 hectares
7. Empress Mountain, Sooke Hill – 46 hectares
8. Harewood Plains, Nanaimo – 171 hectares
9. Harmac, Nanaimo – 105 hectares
10. Little Mountain, Parksville – 790 hectares
11. Mary Hill – 248 hectares
12. Rocky Point DND Property, near William Head – 1224 hectares
13. Mouat Creek Macrosite, Texada Island – 3,851 hectares
14. Mount Finlayson, near Victoria – 66 hectares
15. Mount Maxwell woodland, Salt Spring Island – 844+ hectares (plus already protected areas)
16. Mount Tuam, Salt Spring Island – 99 hectares
17. Nanoose Hill and Harbour north of Nanaimo – 1,044 hectares
18. Oak Bluffs, North Pender Island – 70 hectares
19. Observatory Hill, Little Saanich Mountain, Saanich – 57 hectares
20. Old Baldy Mountain, Shawnigan Lake – 96 hectares
21. Reginald Hill, Salt Spring Island – 124 hectares
22. Rithets Bog, Victoria – 312 hectares (nearly all protected)
23. Saturna Bluffs – 312 hectares (to be combined with Saturna Island Ecological Reserve Addition for a total of 633 hectares)
24. Saturna Island Ecological Reserve Addition – 321 hectares (to be combined with Saturn Bluffs for a total of 633 hectares)
25. Savary Island – 145 hectares
26. Somenos Lake, Cowichan Valley – 390 hectares
27. Sutil Mountain, Galiano Island – 78 hectares
28. Thetis-Francis Connector, Victoria – 223 hectares
29. Thousand oaks, Hornby Island – 22 hectares
30. Tod Inlet basin, Central Saanich (& Saanich) – 717 hectares
31. Uplands Cattle Point, Oak Bay – 36 hectares
32. Walker Hook, Saltspring Island – 44 hectares
33. Whaling Station Bay, Hornby Island – 70 hectares
34. White Rapids Road, South of Nanaimo – 61 hectares
35. Winchelsea Ballenas Islands Group off Nanaimo – total terrestrial area is not determined but is well under 50 hectares
36. Yellow Point, north of Ladysmith – 176 hectares

In ranking the 35 locations, from largest to smallest, the following list is created.

1. Mouat Creek Macrosite, Texada Island – 3,851 hectares
2. Rocky Point DND Property, near William Head – 1224 hectares
3. Nanoose Hill, Nanaimo – 1,044 hectares
4. Cowichan River Mouth, Cowichan Valley – 947 hectares
5. Mount Maxwell woodland, Salt Spring Island – 844+ hectares

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

6. Little Mountain, Parksville – 790 hectares
7. Tod Inlet basin, Central Saanich (& Saanich) – 717 hectares
8. Saturna Island (2 linked areas) 633 hectares
9. Somenos Lake, Cowichan Valley – 390 hectares
10. Cobble Hill Slopes, Cowichan Valley – 336 hectares
11. Rithets Bog, Victoria – 312 hectares (nearly all protected)
12. Bamberton (McCurdy Point) grassland - 260 hectares
13. Mary Hill near William Head – 248 hectares
14. Thetis-Francis Connector, Victoria – 223 hectares
15. Yellow Point, north of Ladysmith – 176 hectares
16. Downes Point, Hornby Island – 175 hectares
17. Harewood Plains, Nanaimo – 171 hectares
18. Savary Island – 145+ hectares
19. Reginald Hill, Salt Spring Island – 124 hectares
20. Eagle Heights Grasslands, Cowichan Valley – 116 hectares
21. Harmac, Nanaimo – 105 hectares
22. Mount Tuam, Salt Spring Island – 99 hectares
23. Old Baldy Mountain, Shawnigan Lake – 96 hectares
24. Sutil Mountain, Galiano Island – 78 hectares
25. Oak Bluffs, North Pender Island – 70 hectares
26. Whaling Station Bay, Hornby Island – 70 hectares
27. Mount Finlayson, near Victoria – 66 hectares
28. White Rapids Road, South of Nanaimo – 61 hectares
29. Observatory Hill, Little Saanich Mountain, Saanich – 57 hectares
30. Baynes Sound / Denman Island – 50+ hectares
31. Winchelsea Ballenas Islands <50 hectares
32. Empress Mountain, Sooke Hills – 46 hectares
33. Walker Hook, Saltspring Island – 44 hectares
34. Uplands Cattle Point, Oak Bay – 36 hectares
35. Thousand oaks, Hornby Island – 22 hectares

But in considering personal knowledge of these landscapes, the numbers above mean little. Some of the areas delineated are mainly Garry oak and associated ecosystems while in other cases the major the total area proposed consists of associations and species not under the responsibility of GOERT.

Analysis of presence of Garry oak ecosystems & associated plant associations and species

The site reports from the *Catalogue of Site Records*, in this initial list, are there because at least one plant association or species, of interest to GOERT, is listed. But there are a few areas where species exist but without the communities of interest to GOERT. The problem is that a more site-specific analysis, of the area around a species of interest to GOERT, might well indicate conditions similar to one of the plant communities of interest to GOERT. For now in this discussion, only one location will be dropped where no plant association of interest exists with only one

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

species: the 3851 hectare, Moaut Creek Macrosite on Texada Island with only species of interest to GOERT, greensheathed sedge, *Carex feta*. While it would be worthwhile to target this species across its range in BC, this species on Texada Island (an area where any oak in the current interglacial period would have been unlikely) occurs with a host of other rare associations and species not under the mandate of GOERT. A link between GOERT and efforts to conserve these Douglas fir associations and species would be worthwhile. In contrast, Little Mountain near Parksville does not have any plant associations of direct interest to GOERT but is part of a historical mosaic that does in deed include Garry oak.

There is an issue that was settled by GOERT well over a year ago: inclusion of plant associations not dominated by Garry oak. In the historic Garry oak landscape mosaics, there were many areas dominated by grassland or Douglas fir. Fragmentation has isolated sites so that an areas historically part of a Garry oak mosaic, and perhaps only recently losing Garry oak from such factors as suppression of fire, would appear to not be associated with Garry oak. And yet a number of allied communities and species of interest to GOERT occur there. The following locations have not significant areas, or even small sites, with Garry oak as a dominant – but do have other rare plant associations and species associated with Garry oak mosaics.

1. Bamberton (McCurdy Point) grassland - 260 hectares
2. Cobble Hill Slopes, Cowichan Valley – 336 hectares
3. Cowichan River Mouth, Cowichan Valley – 947 hectares
4. Empress Mountain, Sooke Hill – 46 hectares
5. Harewood Plains, Nanaimo – 171 hectares
6. Harmac, Nanaimo – 105 hectares
7. Little Mountain, Parksville – 790 hectares
8. Old Baldy Mountain, Shawnigan Lake – 96 hectares
9. White Rapids Road, South of Nanaimo – 61 hectares
10. Yellow Point, north of Ladysmith – 176 hectares

But given uniqueness and richness of these sites (and the mandate of GOERT), there is no scientific or procedural basis for removing these locations from equal consideration with sites dominated by Garry oak (but in numerous cases with less species of interests and probably less landscape and species diversity – and less area).

How could we solve the problem of considering 35 locations – over twenty of which with sites may warrant immediate efforts at habitat protection? One way is to go back to the mandate of GOERT and simply note the number of plant associations and species of interest to GOERT and give a smaller multiplier to for rare species not directly under the current mandate of GOERT. In fact, this latter issue of the presence of very rare species (or records of species which may now be gone or completely extirpated) is one of the most enigmatic aspects of this analysis. Why are there so many rare species in these areas (most with Garry oak as dominants or co-dominants), and that are species that clearly do not exist in many other ecosystems, that were not included under the mandate of GOERT?

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

One formula for beginning to compare area, plant associations and species of interest to GOERT, and other rare associations and species, and that is weighted towards Garry oak associations while not excluded others of interest to GOERT) is the simple equation below. And this formula should not be thought as a factor or rarity or richness (which it is definitely not!) but rather the relevance of the locational data in the *Catalogue of Site Records* to the work of GOERT.

number of plant communities of interest to GOERT = a
 +
 (number of rare plant communities not of interest to GOERT = b X .75)
 +
 (number of species of interest to GOERT = c)
 +
 (number of currently occurring rare or rare species recorded there not of interest to GOERT = d X .75)
 X
 (number of number of plant communities with Garry oak as dominants + 1
 = e) (with nil = 1)

$$[(a) + (b \times .75) + (c) + (d \times .75) \times e]$$

The numbers that begin to emerge are crude and are biased by uneven knowledge of both occurrences of communities and species. Thus the small, lovely and once very rich location, Thousand Oaks on Hornby Island, was never fully surveyed before housing development began. And is now so heavily fragmented and degraded that, unless it would become a key location for particularly rare or strategic populations, might no longer be considered a priority. But perhaps this is too pessimistic and is jumping ahead. The following is one initial and very crude synthesis of values.

Bamberton - 260 hectares [(1) + (0 x .75) + (1) + (0 x .75) x 1] = 2
 Baynes Sound / Denman Island – 50+ hectares [(2) + (0 x .75) + (0) + (0 x .75) x 3] = 6
 Cobble Hill Slopes, Cowichan – 336 hectares [(2) + (0 x .75) + (3) + (0 x .75) x 1] = 5
 Cowichan River Mouth – 947 hectares [(1) + (0 x .75) + (3) + (0 x .75) x 1] = 4
 Downes Point, Hornby Island – 175 hectares [(4) + (b x .75) + (1) + (0 x .75) x 5] = 25
 Eagle Heights – 116 hectares [(4) + (0 x .75) + (1) + (d x .75) x 3] = 15
 Empress Mountain, Sooke Hills – 46 hectares [(1) + (0 x .75) + (0) + (0 x .75) x 1] = 1
 Harewood Plains, Nanaimo – 171 hectares [(2) + (0 x .75) + (1) + (0 x .75) x 1] = 3
 Harmac, Nanaimo – 105 hectares [(1) + (0 x .75) + (1) + (d x .75) x 1] = 2
 Little Mountain, Parksville – 790 hectares [(0) + (0 x .75) + (2) + (d x .75) x 1] = 2
 Mary Hill – 248 hectares [(2) + (0 x .75) + (3) + (d x .75) x 3] = 15
 Mount Finlayson, near Victoria – 66 hectares [(2) + (0 x .75) + (7) + (5 x .75) x 2] = 25.5
 Mount Maxwell – 844+ hectares [(6) + (b x .75) + (5) + (3 x .75) x 5] = 66.25
 Mount Tuam, Salt Spring Island – 99 hectares [(4) + (0 x .75) + (3) + (0 x .75) x 3] = 21
 Nanoose Hill – 1,044 hectares [(2) + (0 x .75) + (4) + (2 x .75) x 3] = 22.5
 Oak Bluffs, North Pender Island – 70 hectares [(1) + (0 x .75) + (5) + (0 x .75) x 2] = 12

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

Observatory Hill – 57 hectares $[(2) + (0 \times .75) + (5) + (d \times .75) \times 2] = 14$
 Old Baldy Mountain – 96 hectares $[(2) + (0 \times .75) + (2) + (d \times .75) \times 1] = 4$
 Reginald Hill, Salt Spring – 124 hectares $[(1) + (1 \times .75) + (0) + (0 \times .75) \times 2] = 3.5$
 Rithets Bog – 312 hectares $[(2) + (2 \times .75) + (5) + (3 \times .75) \times 2] = 18$
 Rocky Point, Metchosin – 1224 hectares $[(7) + (0 \times .75) + (16) + (3 \times .75) \times 5] = 126.25$
 Saturna Bluffs & Addition - 633 hectares $[(2) + (2 \times .75) + (7) + (3 \times .75) \times 2] = 25.5$
 Savary Island – 145 hectares $[(1) + (5 \times .75) + (0) + (2 \times .75) \times 2] = 12.5$
 Somenos Lake, Cowichan – 390 hectares $[(2) + (0 \times .75) + (4) + (3 \times .75) \times 3] = 24.75$
 Sutil Mountain, Galiano Island – 78 hectares $[(3) + (1 \times .75) + (1) + (1 \times .75) \times 3] = 16.5$
 Thetis-Francis Connector – 223 hectares $[(2) + (0 \times .75) + (5) + (0 \times .75) \times 3] = 21$
 Thousand oaks, Hornby – 22 hectares $[(1) + (0 \times .75) + (0) + (0 \times .75) \times 2] = 2$ (data)
 Tod Inlet basin – 717 hectares $[(3) + (0 \times .75) + (4) + (1 \times .75) \times 3] = 23.25$
 Uplands Cattle Point – 36 hectares $[(3) + (0 \times .75) + (20) + (5 \times .75) \times 3] = 80.25$
 Walker Hook, Saltspring – 44 hectares $[(1) + (0 \times .75) + (0) + (0 \times .75) \times 2] = 2$ (data)
 Whaling Station Bay, Hornby – 70 hectares $[(1) + (0 \times .75) + (4) + (0 \times .75) \times 2] = 10$
 White Rapids Road, Nanaimo – 61 hectares $[(3) + (0 \times .75) + (4) + (3 \times .75) \times 1] = 9.25$
 Winchelsea Ballenas Islands – <50 hectares $[(1) + (1 \times .75) + (4) + (2 \times .75) \times 2] = 14.5$
 Yellow Point, Ladysmith – 176 hectares $[(0) + (0 \times .75) + (1) + (1 \times .75) \times e] = 1.75$

In ranking these synthetic scores, there is a kind of intuitive acceptance for the following two reasons.

1. At this point in history, with this level of data, the sites that are well-known and discussed more often with interest tend to score higher.
2. There was a biased constructed for proposed conservation areas that have a strong component of Garry oak as a dominant.

But having qualified this synthesis, it still has direct implications for identification of short-term priorities for added protection – under the mandate of GOERT

1. Rocky Point, Metchosin – 1224 hectares - 126.25
2. Uplands Cattle Point – 36 hectares -- 80.25
3. Mount Maxwell – 844+ hectares - 66.25
4. Saturna Bluffs & Addition - 633 hectares - 25.5
5. Mount Finlayson, near Victoria – 66 hectares – 25.5
6. Downes Point, Hornby Island – 175 hectares - 25
7. Somenos Lake, Cowichan – 390 hectares -- 24.75
8. Tod Inlet basin – 717 hectares -- 23.25
9. Nanoose Hill – 1,044 hectares - 22.5
10. Thetis-Francis Connector – 223 hectares -- 21
11. Mount Tuam, Salt Spring Island – 99 hectares - 21
12. Rithets Bog – 312 hectares - 18
13. Sutil Mountain, Galiano Island – 78 hectares -- 16.5
14. Mary Hill – 248 hectares - 15

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

15. Eagle Heights – 116 hectares - 15
16. Winchelsea Ballenas Islands – <50 hectares -- 14.5
17. Observatory Hill – 57 hectares - 14
18. Savary Island – 145 hectares - 12.5
19. Oak Bluffs, North Pender Island – 70 hectares = 12
20. Whaling Station Bay, Hornby – 70 hectares -- 10
21. White Rapids Road, Nanaimo – 61 hectares -- 9.25
22. Denman Island oaks, Baynes Sound terrestrial edge – 50+ hectares – 6 (data)
23. Cobble Hill Slopes, Cowichan – 336 hectares - 5
24. Cowichan River Mouth – 947 hectares - 4
25. Old Baldy Mountain – 96 hectares - 4
26. Harewood Plains, Nanaimo – 171 hectares - 3
27. Reginald Hill, Salt Spring – 124 hectares - 3.5 (data)
28. Little Mountain, Parksville – 790 hectares – 2
29. Bamberton - 260 hectares - 2
30. Harmac, Nanaimo – 105 hectares - 2
31. Walker Hook, Saltspring – 44 hectares -- 2 (data)
32. Thousand oaks, Hornby – 22 hectares - 2 (data)
33. Yellow Point, Ladysmith – 176 hectares = 1.75
34. Empress Mountain, Sooke Hills – 46 hectares – 1

Analyzing the locations by relevant elements & proposed protected area size

If size sometimes does matter, we could add an additional level of synthesis by multiplying the ‘elements’ score with the size of the proposed habitat units. The rationale here is larger landscape units will be increasingly difficult to get into some kind of integrated conservation unit. The elements / area synthesis is below.

1. Rocky Point, Metchosin – 154,530
2. Mount Maxwell – 55,915
3. Nanoose Hill – 23,490
4. Tod Inlet basin – 16,670
5. Saturna Bluffs & Addition – 16,141
6. Somenos Lake, Cowichan – 9,653
7. Rithets Bog – 5,616
8. Thetis-Francis Connector – 4,683
9. Downes Point, Hornby Island – 4,375
10. Cowichan River Mouth – 3,788
11. Mary Hill – 3,720
12. Uplands Cattle Point – 2,889
13. Mount Tuam, Salt Spring Island – 2,079
14. Savary Island – 145 hectares – 1,813
15. Eagle Heights – 1,740
16. Sutil Mountain, Galiano Island – 1,287
17. Mount Finlayson, near Victoria – 1,683
18. Cobble Hill Slopes, Cowichan – 1,680

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

19. Little Mountain, Parksville – 1,580
20. Oak Bluffs, North Pender Island – 840
21. Observatory Hill – 57 hectares - 798
22. Winchelsea Ballenas Islands – 725
23. Whaling Station Bay, Hornby – 700
24. White Rapids Road, Nanaimo – 564
25. Bamberton - 260 hectares - 520
26. Harewood Plains, Nanaimo – 513
27. Reginald Hill, Salt Spring – 434 (data)
28. Old Baldy Mountain – 384
29. Yellow Point, Ladysmith – 308
30. Denman Island oaks, Baynes Sound terrestrial edge – 300 (data)
31. Harmac, Nanaimo – 105 hectares - 210
32. Walker Hook, Saltspring – 88 (data)
33. Empress Mountain, Sooke Hills - 46
34. Thousand oaks, Hornby – 44 (data)

The trouble with this synthesis is that it favours large sites, with less elements of interest to GOERT, while highlighting some areas, such as Little Mountain in Parksville, that have large areas. And most remaining Garry oak sites are fragmented from urbanization or were naturally fragmented along shorelines. Of course, it is the larger sites that will have the best chance for maintenance of integrity and diverse and resilient populations.

One solution could be to take the top 25 of each of the three rankings (area, elements and elements / area) and focus on the locations that are in all three ranked from 1 to 25. Then, those which fall into the category of management plans and improved protection could be identified which the remaining 10 or so comprising the list for immediate protection through land acquisition.

Interestingly, a strong suite of 20+ locations emerge that have been on all of lists and about half will require major acquisition efforts while the other half can be worked into efforts for better protection – that already exists.

A possible ‘no regret’ subset to concentrate on for the first years of the CP&SP RAG

1. Rocky Point, Metchosin – 154,530
2. Mount Maxwell – 55,915
3. Nanoose Hill – 23,490
4. Tod Inlet basin – 16,670
5. Saturna Bluffs & Addition – 16,141
6. Somenos Lake, Cowichan – 9,653
7. Rithets Bog – 5,616
8. Thetis-Francis Connector – 4,683
9. Downes Point, Hornby Island – 4,375
10. Cowichan River Mouth – 3,788
11. Mary Hill – 3,720
12. Mount Tuam, Salt Spring Island – 2,079

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

13. Savary Island – 145 hectares – 1,813
14. Eagle Heights – 1,740
15. Sutil Mountain, Galiano Island – 1,287
16. Mount Finlayson, near Victoria – 1,683
17. Cobble Hill Slopes, Cowichan – 1,680
18. Oak Bluffs, North Pender Island – 840
19. Observatory Hill – 57 hectares - 798
20. Winchelsea Ballenas Islands – 725
21. Whaling Station Bay, Hornby – 700
22. White Rapids Road, Nanaimo – 564

Uplands Park is not on this list because of its relatively small size.

Recommendations for sites for visits in the first half of 2002 with data collection in terms of the GOERT priorities

A number of other well-appreciated (and in some cases strategic) locations did not get on the list above – mainly because the data was so incomplete. While collection of the data, to answer the key questions for the terms of this RAG will need to be the responsibility of this RAG, this list can be circulated to the other RAGs (notably the species at threat and the Research RAG).

1. mapping of GOE location on Savary Island possible modification of the *Catalogue of Site Records* report
2. Reginald Hill, Salt Spring – 434 (data)
3. Denman Island oaks, Baynes Sound terrestrial edge – 300 (data)
4. Walker Hook, Saltspring – 88 (data)
5. Thousand oaks, Hornby – 44 (data)
+ Other Garry oak locations where there are still no site reports in the *Catalogue of Site Records*
6. Yale
7. Comox

The more complete inventorying of the following landscape units, for elements of interest to GOERT, should become another set of research priorities.

1. Tod Inlet Basin
2. Rithets Bog, Victoria
3. Mount Tuam, Salt Spring Island
4. Sumas Mountain

Recommendations of referral of locations for joint work with the Restoration & Management RAG of GOERT

The following locations will require two sets of interventions:

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

1. upgrading protection through advising on more appropriate status along with design of interior and exterior cores, buffers and landscape linkages (and where information gaps exist, prerequisite inventoring) and
2. increased and upgraded of management and restoration activities (and the development of a revised plan and monitoring programme consistent with the mandate of GOERT)

Virtually all of these locations may well warrant some or most areas upgraded to formal or more secure forms of protection status.

1. Rocky Point, Metchosin
2. Mary Hill, Rocky Point DND Property, near William Head
3. Uplands Park
4. Observatory Hill, Little Saanich Mountain, Saanich
5. Winchelsea Ballenas Islands Group off Nanaimo
6. (probable DND lands at the south end of Tod Inlet Basin)

Locations where the majority of habitat and occurrences of interest to GOERT have been acquired with additional coverage mainly for additional threatened species, buffers & linkages

The following four conservation locations are already largely comprised of protected areas. However, acquisition of key tracts of private land is necessary to complete viable cores and buffers (and landscape linkages). In addition, these locations have been only partially inventoried for species and communities of interest to GOERT. The more complete inventoring of these lands, for elements of interest to GOERT, should become another set of research priorities.

1. Tod Inlet Basin
2. Rithets Bog, Victoria
3. Mount Tuam, Salt Spring Island
4. Sumas Mountain

In some cases, effective protection of these additional areas might be achieved through conservation covenant.

Locations with key parcels under pressure for habitat destruction & warranting formal acquisition

As discussed over, quite a number of locations that scored highly can be permanently or temporarily removed from consideration for immediate protection interventions. Consideration of these locations can be deferred or removed on the basis of the following.

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ More site information is needed and consideration by this RAG is not possible without more data. A link with the Research RAG on these sites might be necessary.
- ❖ The location is already in a protected area category – one that warrants upgrading with a more comprehensive management plan (in conjunction with the R & M RAG).
- ❖ Much of the location is already protected but warrants more land for buffers or for some elements of interest to GOERT. The additional land for conservation would be a small portion of that already protected and could be maintained through a conservation covenant. Much of this work could be achieved through this RAG's work in planning and design of a network of protected areas that effectively maintains the elements of concern to GOERT.

The list of locations that is left consists of 15 locations and some are already the subject of considerable work by a number of agencies and organizations. And in getting closer to ten locations, a number below could be moved, either temporarily or permanently, to the 11 to 15 places after subsequent conservation efforts – if not today in the coming years.

1. (Mount Maxwell – 844+ hectares / 66.25)
2. Nanoose Hill – 1,044 hectares / 22.5
3. Saturna Bluffs & Addition – 633 hectares / 25.5
4. Somenos Lake, Cowichan – 390 hectares / 24.75
5. Thetis-Francis Connector – 223 hectares / 21
6. Downes Point, Hornby Island – 175 hectares / 25
7. (Cowichan River Mouth – 947 hectares / 4)
8. (Savary Island – 145 hectares / 12.5)
9. Eagle Heights – 116 hectares / 15
10. Sutil Mountain, Galiano Island – 78 hectares / 16.5
11. Mount Finlayson, near Victoria – 66 hectares / 25.5
12. (Cobble Hill Slopes, Cowichan – 336 hectares / 5)
13. Oak Bluffs, North Pender Island – 70 hectares / 12
14. Whaling Station Bay, Hornby – 70 hectares / 10
15. (White Rapids Road, Nanaimo – 61 hectares / 9.25)

The following are some of the reasons for concentrating on the other 11 locations on this list while maintaining these 11 in the CP&SP RAG processes (and allied conservation planning processes).

Mount Maxwell, Salt Spring Island

There remains a great deal of uncertainty around what has actually been purchased to date on Mt. Maxwell. As of January 2001, the CDC gave this area a 'P2' rating though this could change as purchases are confirmed. In recent months, there appears to have some closures over transfer of some parcels to conservation bodies. But still much of the key lands are in private hands and the supposed conservation is still only in the realm of commitments and talk. In fact, it is highly unlikely that

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

much more than half of the lands included in the map in the expansive vision proposed in the *Catalogue of Site Records* have been the **subjects** of conservation talks. Also, there are key areas directly south and north of the areas on that map in the Catalogue that are worth considering as part of a broader mosaic. Because there is so much conflicting talk, information of varying quality and commitments that remain confidential, keeping Mt. Maxwell in the top of the CP&SP RAG's list of areas of concern is warranted and prudent. In addition, development an adequate plan and design for the area, that insured the viability of Garry oak ecosystems and other elements of concern to GOERT, could well become a single project of a subcommittee of the RAG (or an allied conservation planning group).

Cowichan River Mouth

There are no Garry oak ecosystems reported for this location though there are a number species-at-risk under the responsibility of GOERT. This large area is largely in protection already and is giving a low, 'P3' protection urgency rating. In an expanded protected area network, some of the drier habitats in this area might have significant roles especially in landscape linkages. There are no indications of any elements of interest to GOERT being under threat.

Savary Island, Ayhus

The *Catalogue of Site Records* report does not actually mention Garry oak ecosystems but from other reports (notably the Community Plan for the small island), it is clear that this ecosystem is there. The current report on the dunes notes a very high, 'P1' protection urgency because of a proposed subdivision and an effort to acquire the land by the Savary Island Land Trust Society. But the Garry oaks may well be only on a small area adjacent to the dunes on another parcel – where only a conservation covenant would be available in the short-term. Until an investigation was made, oriented to the terms of GOERT, and information were available, the location could be kept near the top of the second set of priorities for immediate conservation on based on the following information.

- ❖ The Garry oak ecosystems on Savary Island are the most northerly and effectively the most isolated of all those on the northern margins.
- ❖ If the Garry oak ecosystems were protected in a conservation unit with the dune ecosystems, this would be the only mosaic of these two ecosystems in Canada.
- ❖ There is already an initiative to conserve this location through the Community Plan for the island.

Cobble Hill Slopes

This location does not presently support Garry oak. Instead, the area contains a mosaic of dry Douglas fir forest and wetter variants – including a transition to Western Hemlock. It is one of the only locations in the *Catalogue of Site Records* with white lip rein orchid, *Piperia candida*. And this area may be one of the few corridors still possible for connecting elements in the dry coastal Douglas fir zone up

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

and down Vancouver Island. The location is given a high, 'P1' conservation urgency with the following recommendation, "This area should be protected from development, logging, pipeline and electrical rights-of-way and off-road vehicles." This location might be best removed from 'the top ten list' for now and considered as a candidate landscape link for a subsequent phase of the work of this RAG on conceiving of a comprehensive network of protected areas (and any allied conservation planning processes).

White Rapids Road, Nanaimo

There is not a lot of information presently available on this location. Like the previous location, it does not presently support Garry oaks. However, it has populations of plants of direct concern to GOERT as well as the possible presence of Vancouver Island ermine. Threat is also unclear. With a high, 'P2' rating, "The area is being used by all-terrain vehicles and mountain bikes." Like the previous location, this area might be best considered by the CP&SP RAG in the design of a comprehensive network.

Analysis of & ranking by threats

In virtually all of the cases below review of the criteria and rating for threat is worthwhile. Based on the protection urgency ratings, with some adjustments notes on personal knowledge, the locations that have already rated consistently high, for concerns for the CP&SP RAG, are rated in order of recommended priorities.

1. Nanoose Hill – 1,044 hectares / 22.5 / protection urgency: P1
2. Somenos Lake, Cowichan – 390 hectares / 24.75 / protection urgency: P1
3. Thetis-Francis Connector – 223 hectares / 21 / protection urgency: P1
4. Eagle Heights – 116 hectares / 15 / protection urgency: P1
5. Downes Point, Hornby Island – 175 hectares / 25 / protection urgency: P3 (but more likely P2 – P1)
6. Oak Bluffs, North Pender Island – 70 hectares / 12 / protection urgency: P4 (but more likely P2 – P1)
7. Whaling Station Bay, Hornby – 70 hectares / 10 / protection urgency: P2 – P1
8. Mount Maxwell – 844+ hectares / 66.25 / protection urgency: P2
9. Sutil Mountain, Galiano Island – 78 hectares / 16.5 / protection urgency: P2
10. Mount Finlayson, near Victoria – 66 hectares / 25.5 / protection urgency: P2
11. Saturna Bluffs & Addition – 633 hectares / 25.5 / protection urgency: P2 – P3

APPENDIX I

**Confirmed & suspected locations with
Garry oak ecosystems (GOEs) &
other “rare elements of GO and associated ecosystems”**

Bamberton (McCurdy Point) grassland

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

vascular plants of interest to GOERT:

- ❖ Poison oak, *Toxicodendron diversilobum*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 260 hectares

approximate area with Elements relevant to GOERT: none yet confirmed

biodiversity rating: B2

representativeness rating: R1

protection urgency: P3

Baynes Sound Comox Harbour Macrosite (but current report does not include the terrestrial area of the southwest shore Denman Island)

Note: The review below is based on field work by Ingram – of a narrow terrestrial strip on the eastern edge of the marine area that is described in the catalogue. The location with the GOE is the southwest shore of Denman Island. The GOEs rarely extend more than 100 meters from the shore. This is similar to the situation with the report on Oak bluffs on North Pender Island.

Plant communities of interest to GOERT:

at least the following

- ❖ *Quercus garryana* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 260 hectares (marine) + probably 50+ hectares terrestrial

approximate area with elements relevant to GOERT:

biodiversity rating: B2 (for the adjacent marine ecosystems)

representativeness rating: R1 (for the adjacent marine ecosystems)

protection urgency: P3

Cobble Hill Slopes, Cowichan Valley

plant communities of interest to GOERT:

- ❖ *Festuca roemerii* – *Koeleria macrantha*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*

vascular plants of interest to GOERT:

- ❖ *Festuca roemerii* (a subspecies of *F. idahoensis* ?)
- ❖ Howell's violet, *Viola howellii*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

❖ White lip rein orchid, *Piperia candida*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 336 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R2

protection urgency: P1

Cowichan River Mouth, Cowichan Valley

(SW slopes of Mt. Tzuhalem) unclear whether there is any oak here

plant communities of interest to GOERT:

❖ *Pseudotsuga menziesii* – *Arbutus menziesii*

vascular plants of interest to GOERT:

❖ Slender slender-woolly heads, *Psilocarphus tenellus* var. *tenellus*

❖ Dense spike-primrose, *Epilobium densiflorum*

❖ Howell's triteleia, *Triteleia howellii*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 947 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P3

Downes Point, Hornby Island

plant communities of interest to GOERT:

The communities are unclear but contain most of the species below as dominants on various sites.

❖ *Quercus garryana* – *Acer macrophyllum* – *Prunus* sp.

❖ *Quercus garryana* – *Arbutus menziesii*

❖ *Quercus garryana* / *Bromus carinatus*

❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

❖ Macoun's meadow-foam, *Limnanthes macounii*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 176 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

protection urgency: P3

The major threat is further invasion of exotics.

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

Eagle Heights Grasslands, Koksilah River Park Addition, Cowichan Valley

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

- ❖ dune bentgrass, *Agrostis pallens*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 116 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P1

“This is the best example of pocket grasslands on Vancouver Island..remarkable diversity of macrofungi in the fall.” (Catalogue, page 1 of site report)

Empress Mountain, Sooke Hill

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 46 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P3

Harewood Plains, Nanaimo

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*

vascular plants of interest to GOERT: none yet confirmed

Green sheathed sedge, *Carex feta*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 171 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

protection urgency: P2

Harmac, Nanaimo

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

vascular plants of interest to GOERT:

- ❖ White-top aster, *Aster curtus*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 105 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

protection urgency: P2

Little Mountain, Parksville

plant communities of interest to GOERT: not yet confirmed

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

- ❖ Townsend's big eared bat, *Corynorhinus townsendii*

- ❖ Vancouver Island ermine, *Mustela erminea anguinae*

approximate area of recommended landscape unit for comprehensive protection: 790 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: no rating so far

protection urgency: P1

Mandarte Island

plant communities of interest to GOERT: a large seabird island so unclear if there is any

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 9 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B4

representativeness rating: R1

protection urgency: P4

Mary Hill, Rocky Point DND Property, near William Head

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*

- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

vascular plants of interest to GOERT:

- ❖ Macoun's meadow foam, *Limnanthes maccounii*
- ❖ Needle-leaved navarretia, *Navarretia intertexta*
- ❖ Slender slender woolly -heads, *Psilocarphus tenellus* var. *tenellus*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT:

- ❖ Townsend's big-eared bat, *Corynorhinus townsendii*

approximate area of recommended landscape unit for comprehensive protection: 248 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P4

Mill Farm, Salt Spring Island, above Musgrave Landing

plant communities of interest to GOERT: unclear but probably at least

- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Quercus garryana* – *Arbutus menziesii*

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 55 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R1

protection urgency: P5

This area is owned and managed by the Capital Regional District

Mill Farm Regional Park Reserve

Size: approx. 252 hectares (630 acres)

Location: Salt Spring Island in the Gulf Islands

Classification: park reserve (not open to the public)

Acquired: 1996

Features: located on the western slopes of Mount Bruce, Mill Farm includes old-growth Douglas fir, an old mill and views of the Saanich peninsula.

http://www.crd.bc.ca/parks/in_brief.htm

Mouat Creek Macrosite, Texada Island

plant communities of interest to GOERT:

none

vascular plants of interest to GOERT:

- ❖ greensheathed sedge, *Carex feta*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 3,851 hectares

approximate area with Elements relevant to GOERT:

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

biodiversity rating: B4
 representativeness rating: R3
 protection urgency: P2

Mount Finlayson, near Victoria

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Pinus contorta* - *Arbutus menziesii*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

- ❖ white-top aster, *Aster curtus*
- ❖ cliff paintbrush, *Castilleja rupicola* (on Blue List but not of primary concern to GOERT)
- ❖ slender slender woolly -heads, *Psilocarphus tenellus* var. *tenellus*
- ❖ scalepod, *Idaho scapigera*
- ❖ Pacific waterleaf, *Hydrophyllum tenuipes* (on Blue List but not of primary concern to GOERT)
- ❖ elmera, *Elmera racemosa* var. *racemosa* (on Blue List but not of primary concern to GOERT)
- ❖ lace fern, *Cheilanthes gracillima*

bryophytes of interest to GOERT:

- ❖ *Camphylopus subulatus* (on Red List but not of primary concern to GOERT)
- ❖ *Grimmia elatior* (on Blue List but not of primary concern to GOERT)

invertebrates of interest to GOERT: none yet confirmed

- ❖ butterfly – California dusky wing, *Erynnis propertius*
- ❖ butterfly – Moss's elfin, subsp. Mossi, *Incisalia mossii mossii*

vertebrates of interest to GOERT: none yet confirmed

- ❖ Western screech-owl, *Otus kennicottii saturatus*

approximate area of recommended landscape unit for comprehensive protection: 66 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2
 representativeness rating: R2
 protection urgency: P2

**Mount Maxwell woodland, Salt Spring Island **

The area for protection discussed below extends north along Sansum Narrows to well beyond the areas that are currently subjects for commitments of acquisition for conservation

“This site encompasses the largest stand of Garry oak in Canada.” (page 2 of Georgia Basin catalogue report)

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha* (but heavily degraded from grazing by feral sheep)
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*
- ❖ *Quercus garryana* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Grey's desert-parsley, *Lomatium grayii*
- ❖ Hutchinsia, *Hutchinsia procumbens* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Scalepod, *Idahoia scapigera*
- ❖ *Tonella tenella* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*
- ❖ California hedge-parsley, *Yabea microcarpa* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

- ❖ butterfly – California dusky wing, *Erynnis propertius*
- ❖ butterfly – Moss's elfin, subsp. Mossi, *Incisalia mossii mossii*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 844+ hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P2 (with several key parcels now the subjects to commitments for acquisition)

Mount Tuam, Salt Spring Island

plant communities of interest to GOERT:

unclear but fragments of the following

- ❖ *Festuca idahoensis* – *Koeleria macrantha* (heavily degraded by feral goats)
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Quercus garryana* – *Acer macrophyllum* – *Prunus* sp.
- ❖ *Quercus garryana* – *Arbutus menziesii*

vascular plants of interest to GOERT:

- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis propertius*
- ❖ butterfly – Bremner's silverspot, *Speyeria zerene bremnerii*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 99 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R3

protection urgency: P2

Nanoose Hill and Harbour north of Nanaimo

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*
- ❖ *Quercus garryana* / *Bromus carinatus*

vascular plants of interest to GOERT:

- ❖ white meconella, *Meconella oregana*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Howell's miner's lettuce, *Montia howellii* (probably extirpated in BC so not currently of primary interest to GOERT)
- ❖ Geyer's onion, *Allium geyeri* var. *tenerum* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*
- ❖ Beach sand spurry, *Spergularia macrotheca* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT:

- ❖ *Bartramia stricta* (only two known locations in Canada)

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis California*

approximate area of recommended landscape unit for comprehensive protection: 1,044 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P1

Oak Bay Islands, near Victoria

plant communities of interest to GOERT:

“Eight vegetation types have been described” but are not listed – some of them involving GOEs.

Vascular plants of interest to GOERT:

- ❖ Muhlenberg's centaury, *Centaureum muhlenbergii*
- ❖ California buttercup, *Ranunculus californicus*
- ❖ Snake-root, *Sanicula arctopoides*
- ❖ Scouler's campion, *Silene scouleri* ssp. *Grandis*
- ❖ Graceful arrow-grass, *Triglochin concinnum* var. *concinnum* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Western mannagrass, *Glyceria occidentalis* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Spanish clover, *Lotus unifoliolatus* var. *unifoliolatus*
- ❖ Beach sand spurry, *Spergularia macrotheca*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 181 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P5

Oak Bluffs, North Pender Island

plant communities of interest to GOERT:

- ❖ *Quercus garryana* – *Arbutus menziesii* (but heavily invaded by broom)

vascular plants of interest to GOERT:

- ❖ Erect pygmy weed, *Crassula connata* var. *connata*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Lindley's microseris, *Microseris lindleyi*
- ❖ Macrae's clover, *Trifolium dichotomum*
- ❖ Manroot, *Marah oreganos*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis propertius*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 70 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R1

protection urgency: P4 (debatable logic – could be easily reclassified as P2 or even P1)

Observatory Hill, Little Saanich Mountain, Saanich

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Bromus carinatus*

vascular plants of interest to GOERT:

- ❖ white meconella, *Meconella oregana*
- ❖ California tea, *Rupertia physodes*
- ❖ scalepod, *Idahoia scapigera*
- ❖ prairie lupine, *Lupinus lepidus* var. *lepidus*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis propertius*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 57 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

protection urgency: P2

Old Baldy Mountain, Shawnigan Lake

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

Plus at least

- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*

vascular plants of interest to GOERT:

- ❖ dune bentgrass, *Agrostis pallens*
- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 96 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P2

Porlier Pass Marine, between Galiano and Valdes Islands

With some GOE in the small terrestrial areas.

The report in the catalogue is just for the marine areas plus the small islands in between. Some of protected as part of Dionisio Provincial Park on Galiano and Canoe Islet Ecological Reserve on the Valdes Island site of Porlier Pass. There are GOEs on both sides of Porlier Pass including at on the island off of Dionisio Point described in this report.

Plant communities of interest to GOERT:

- ❖ At least GOE association on the island but not yet classified (visited by Ingram several times in the early 1990s – he was originally supervising a UBC student (Margaret van Dyck now of BC Hydro) who was doing a management plan for the island).

Vascular plants of interest to GOERT:

- ❖ Purple sanicle, *Sanicula bipinnatifida* (on the island in the provincial park) The island is remarkable for GOE species and there should be fairly detailed species lists available – especially for vascular plants.

Bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: none yet confirmed but probably >10 hectares of terrestrial communities

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P2

Quamichan Garry oak site, Elkington reserve near Duncan

The 21 ha parcel and extension have been secured. But the NCC may want to bring a proposal, for expanding the protected area, to this RAG. Consequently, the following information fields have been left blank.

Plant communities of interest to GOERT:

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: the initial parcel is 21 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R – not determined

protection urgency: P – not determined

Reginald Hill, Salt Spring Island

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata* -- This location “is known to contain the best and largest representation” of this association in BC.

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ “One grassland was completely dominated by native CAREX INOPS – DANTHONIA SPICATA (long-stoloned sedge – poverty oat-grass)

vascular plants of interest to GOERT: none yet confirmed
 bryophytes of interest to GOERT: none yet confirmed
 invertebrates of interest to GOERT: none yet confirmed
 vertebrates of interest to GOERT: none yet confirmed
 approximate area of recommended landscape unit for comprehensive protection: 124 hectares
 approximate area with Elements relevant to GOERT:
 biodiversity rating: B2
 representativeness rating: R1
 protection urgency: P2 (This was privately owned in 2000 but may have been acquired by the CRD.)

Rithets Bog, Victoria

plant communities of interest to GOERT:

- ❖ QUERCUS GARRYANA / SYMPHORICARPOS ALBUS / CAREX INOPS (‘Garry oak – Snowberry’)
- ❖ Along with some other rare bog communities PINUS CONTORTA / LEDUM GROENLANDICUM / SPAGNUM

vascular plants of interest to GOERT:

- ❖ Dense spike-primrose, *Epilobium densiflorum*
- ❖ Purple sanicle, *Sanicula bipinnatifida*
- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*
- ❖ *Carex tumulicola*
- ❖ Lemmon’s willow, *Salix lemmonii* (rare and on the Red List but not currently of primary interest to GOERT)
- ❖ Western managrass, *Glyceria occidentalis* (rare and on the Blue List but not currently of primary interest to GOERT)
- ❖ Dwarf birch, *Betula halli* (rare and with a problematic taxonomy and not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ Vancouver Island ringlet, *Coenonympha californica insulana*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 45 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2
 representativeness rating: R1
 protection urgency: P4

Rocky Point, Metchosin

plant communities of interest to GOERT:

The catalogue list the plant communities but on a site that large, most of the communities listed below could well be present – in various states.

- ❖ *Myosurus minimus* – *Montia* spp. – *Limnanthe macounii*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Pinus contorta* - *Arbutus menziesii*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*
- ❖ *Quercus garryana* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

- ❖ Howell's miner's lettuce, *Montia howellii* (probably extirpated in BC but not currently of primary interest to GOERT)
- ❖ Tracy's romanzoffia, *Romanzoffia tracyi* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Coast microseris, *Microseris bigelovii*
- ❖ Cup clover, *Trifolium cyathiferum*
- ❖ *Carex tumulicola*
- ❖ Winged water starwort, *Callitriche marginata*
- ❖ Dune bentgrass, *Agrostis pallens*
- ❖ Spanish clover, *Lotus unifolius* var. *unifolius*
- ❖ Chaffweed, *Anagalis minima*
- ❖ Erect pygmyweed, *Crassula connata* var. *connata*
- ❖ Dwarf sandwort, *Minuartia pusilla*
- ❖ Needle-leaved navarretia, *Navarretia intertexta*
- ❖ Seaside bird's-foot trefoil, *Lotus formosissimus*
- ❖ Snake-root, *Sanicula arctopoides*
- ❖ Chamisso's montia, *Montia chamissoi* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ California buttercup, *Ranunculus californicus*
- ❖ Carolina meadow-foxtail, *Alopecurus carolinianus*
- ❖ Macoun's meadowfoam, *Limnanthes macounii*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

- ❖ butterfly – California dusky wing, *Erynnis propertius*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 1,224 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P4

Royal Road, Esquimalt Lagoon, Victoria

plant communities of interest to GOERT:

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 155 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P4 (is currently Hatley Park and the university grounds)

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

Saturna Bluffs

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

Plus 2 GOE-allied associations associated with shore bluffs

- ❖ (RACOMITRIUM SPP – SELAGINELLA WALLACEI)
- ❖ (MIMULUS GUTTATUS – BRYUM MINIATUM)
- ❖ + some Garry oak associations (at least the last time I visited the bluffs about 20 years ago)

vascular plants of interest to GOERT:

- ❖ Spanish clover, *Lotus unifoliolatus* var. *unifoliolatus*
- ❖ Northern's adder's tongue, *Ophioglossum pusillum occidentalis* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Slender popcorn flower, *Plagiobothrys tenellus*
- ❖ Purple sanicle, *Sanicula bipinnatifida*
- ❖ California hedge-parsley, *Yabea microcarpa* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ scalepod, *Idahoia scapigera*
- ❖ Grey's desert-parsley, *Lomatium grayii*
- ❖ Macrae's clover, *Trifolium dichotomum*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 312 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R3

protection urgency: P3

Saturna Island Ecological Reserve Addition

plant communities of interest to GOERT:

probably none

vascular plants of interest to GOERT:

- ❖ White meconella, *Meconella oregano*
- ❖ scalepod, *Idahoia scapigera*
- ❖ Purple sanicle, *Sanicula bipinnatifida*
- ❖ northern adder's tongue, *Ophioglossum pusillum* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Lindley's microseria, *Uropappus lindleyi* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 321 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

protection urgency: P2

Savary Island

plant communities of interest to GOERT:

- ❖ There is Garry oak in or near this dune area, at Mace Point (Green's Point)⁴ but it is unclear in this report where this occurrence is included in this data. It may be that the report was made before the oaks were detected.
- ❖ Rare community of ARTEMISIA COMPESTRIS – GRINDELIA INTEGRIFOLIA (FESTUCA RUBRA) (rare but not currently of primary interest to GOERT)
- ❖ CAREX MACROCELPHALA vegetation (rare but not currently of primary interest to GOERT)
- ❖ FESTUCA REBRA – AMBROSIA CHAMISSONIS herbaceous vegetation (rare but not currently of primary interest to GOERT)
- ❖ PINUS CONTORTA var CONTORTA – PSEUDOTSUGA MENSZIESSII / GAULTHERIA SHALLON (rare but not currently of primary interest to GOERT)

vascular plants of interest to GOERT:

- ❖ Hairy gumweed, *Grindelia hirsutula* var *hirsutula* (rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT:

- ❖ Moss, *Homalothecium arenarium* (rare but not currently of primary interest to GOERT)

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 145 hectares or possibly greater

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P1

Somenos Lake, Cowichan Valley

"The Garry oak grassland is possibly the rarest ecosystem in Canada." (p. 1 of GBCI Catalogue)

plant communities of interest to GOERT:

- ❖ "There is an outstanding example of QUERCUS GARRYANA / BROMUS CARINATUS... This is the largest known stand of healthy, deep soil Garry oaks in BC and is the only such stand [in BC] known to border a marsh." (except for Cedar Hill in South Saanich).
- ❖ *Quercus garryana* / *Bromus carinatus*

vascular plants of interest to GOERT:

⁴ This occurrence is described briefly in the Savary Island Community Plan

http://www.savary.bc.ca/savesavary/community_plan_draft.html

"4. The northeast tip of Indian Point on the foreshore portion of Block 2, District Lot 1375. The land between Whalebone and Beacon Points constitutes the best and most complete Canadian example of the geography of coastal dune ecosystems and dune associated plant successions when included with the Inland Dune Area (DP-3, discussed below). (Dunster, 2000). A number of other ecologically significant sites require more detailed investigation. Mace Point (Green's Point), the only site where bedrock is exposed on Savary, is the site of the northern range limit of Garry Oak (*Quercus garryana*)."

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Slender alfo heads, *Psilocarphus tenellus* var. *tenellus*
- ❖ Yellow montane violet, *Viola praemorsa* spp. *Praemorsa*
- ❖ Pine broomrape, *Orobanche pinorum* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Howell's trieteleia, *Triteleia grandiflora* var. *howellii* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Water-pepper, *Polygonum hydropiperoides* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis californica*

vertebrates of interest to GOERT:

- ❖ historical records of ermine, *Mustela erminea anguinae*

approximate area of recommended landscape unit for comprehensive protection: 390 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P1

Sumas Mountain

plant communities of interest to GOERT:

- ❖ *Quercus garryana* / *Holodiscus discolor*
- ❖ Also the Blue listed PSEUDOTSUGA MENZIESII – TSUGA HETEROPHYLLA / GAULTHERIA SHALLON

vascular plants of interest to GOERT:

Two plants not on the GOERT species list:

- ❖ Sessile-leaved sandbar willow, *Salix sessilifolia*
- ❖ Fox sedge, *Carex vulpinoidea*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT:

Two fish species in the adjacent waterway:

- ❖ Brassy minnow, *Hybognathus hankinsoni* (blue list)
- ❖ White sturgeon, *Acipenser transmontanus* (red list)

approximate area of recommended landscape unit for comprehensive protection: 1566 hectares (but much of the proposed area is already a provincial park and ecological reserve)

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P4

Sutil Mountain, Galiano Island

“This site represents a good example of habitat for globally rare plants and plant communities.”

Plant communities of interest to GOERT:

- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ *Quercus garryana* / *Symphoricarpos albus* / *Carex inops*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ *Festuca idahoensis* – *Koeleria macrantha*

vascular plants of interest to GOERT:

- ❖ white meconella, *Meconella oregano*
- ❖ slender-spike manna grass, *Glyceria leptostrachya* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 78 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

protection urgency: P2

Thetis-Francis Connector, Victoria

plant communities of interest to GOERT:

- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*

vascular plants of interest to GOERT:

- ❖ White-top aster, *Aster curtus*
- ❖ deltoid balsamroot, *Balsamorhiza deltoidea*
- ❖ Purple sanicle, *Sanicula bipinnatifida*
- ❖ Slender slender woolly-heads, *Psilocarphus tenellus* var. *tenellus*
- ❖ Poison oak, *Toxicodendron diversilobum*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 223 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R2

protection urgency: P1

Thousand oaks, Hornby Island

plant communities of interest to GOERT:

“The BCCDC (2000) records this site as containing one of the largest, highest quality examples of the

- ❖ QUERCUS GARRYANA / BROMUS CARINATUS (Garry oak / California brome – S1 – Red List – B-rank) plant community at close to the northern edge of its range. Further inventory, conducted in the spring, may reveal occurrences of some high priority vascular plants along the bluffs.” (p. 2 of GBEI catalogue).

Some of the following communities also occur in this location.

- ❖ *Festuca idahoensis* – *Koeleria macrantha*
- ❖ *Myosurus minimus* – *Montia* spp. – *Limnanthe macounii*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Pinus contorta* - *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Quercus garryana* / *Melica subulata*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ *Quercus garryana* – *Acer macrophyllum* – *Prunus sp.*
- ❖ *Quercus garryana* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 22 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P1

Tod Inlet basin, Central Saanich (& Saanich)

plant communities of interest to GOERT:

- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ *Quercus garryana* / *Holodiscus discolor*

vascular plants of interest to GOERT:

- ❖ Austin's phantom orchid, *Cephalanthera austiniae*
- ❖ Dense spike-primrose, *Epilobium densiflorum*
- ❖ slender-spike manna grass, *Glyceria leptostrachya* (extirpated or rare but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ butterfly – California dusky wing, *Erynnis propertius*

vertebrates of interest to GOERT:

- ❖ Western screech-owl, *Otus kennicottii saturatus*

approximate area of recommended landscape unit for comprehensive protection: 717 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P4

Trial Islands

plant communities of interest to GOERT:

Quercus garryana / *Bromus carinatus*

- ❖ The shore-bluff, least mouseltail – montia – Macoun's meadow foam, *Myosurus minimus* – *Montia* spp. – *Limnanthes macounii* association is very rare.

Vascular plants of interest to GOERT: none yet confirmed

- ❖ Paintbrush, *Castilleja levisecta*
- ❖ White-top aster, *Aster curtus*
- ❖ Rosy owl-clover, *Orthocarpus bracteosus*
- ❖ Macoun's meadow-foam, *Limnanthes macounii*
- ❖ Howell's miner's lettuce, *Montia howellii* (probably extirpated in BC but not currently of primary interest to GOERT)

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Henderson's checker-mallow, *Sidalcea hendersonii* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Paintbrush owl-clover, *Castilleja ambigua* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Hairy owl-clover, *Castilleja tenuis* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Seaside bird's-foot trefoil, *Lotus formosissimus*
- ❖ Snake-root, *Sanicula arctopoides*
- ❖ California buttercup, *Ranunculus californicus*
- ❖ Scouler's campion, *Silene scouleri* ssp. *Grandis*
- ❖ Beach sandy spurry, *Spergularia marcotheca* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Spanish clover, *Lotus unifoliolatus* var. *unifoliolatus*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ Butterfly – Vancouver Island ringlet, *Coenonympha California insulana* (rare but not currently of primary interest to GOERT)

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 48 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P4

Uplands Cattle Point, Oak Bay

plant communities of interest to GOERT:

- ❖ *Quercus garryana* / *Bromus carinatus*
- ❖ The shore-bluff, least mousetail – montia – Macoun's meadow foam, *Myosurus minimus* – *Montia* spp. – *Limnanthes macounii* association is very rare.
- ❖ Childhood and adolescent memories recall degraded *Quercus garryana* / *Holodiscus discolor* on the north side of the park.

Vascular plants of interest to GOERT:

- ❖ White-top aster, *Aster curtus*
- ❖ Howell's miner's lettuce, *Montia howellii* (probably extirpated in BC but not currently of primary interest to GOERT)
- ❖ Macoun's meadow-foam, *Limnanthes macounii*
- ❖ Kellog's rush, *Juncus kelloggii*
- ❖ Paintbrush owl-clover, *Castilleja ambigua* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Winged water-starwort, *Callitriche marginata*
- ❖ Coast microseris, *Microseris bigelovii*
- ❖ Slender woolly-heads, *Psilocarphus tenellus* var. *tenellus*
- ❖ Geyer's onion, *Allium geyeri* var. *geyeri* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Carolina meadow foxtail, *Alopecurus carolinianus*
- ❖ Hairy owl-clover, *Castilleja tenuis* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Dense spike-primrose, *Epilobium densiflorum*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Purple sanicle, *Sanicula bipinnatifida*
- ❖ Chaffweed, *Anagallis minima* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Nagled bitter-cress, *Cardamine angulata*
- ❖ Beach sandy spurry, *Spercularia macrotheca*
- ❖ Muhlenberg's centaury, *Centaurium muelhlenbuergii*
- ❖ Water-plantain buttercup, *Ranunculus alismifolius* var. *alismifolius*
- ❖ Bearded owl-clover, *Triphysaria versicolor* ssp. *Versicolor*
- ❖ Spanish clover, *Lotus unifoliolatus* var. *unifoliolatus*
- ❖ Mountain sneezeweed, *Helenium autumnale* var. *grandiflorum*
- ❖ Western pearlwort, *Sagina decumbens* ssp. *Occidentalis*
- ❖ Scouler's campion, *Silene scouleri* ssp. *Grandis*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT:

- ❖ Butterfly – Vancouver Island ringlet, *Coenonympha California insulana* (rare but not currently of primary interest to GOERT)
- ❖ butterfly – California dusky wing, *Erynnis California*

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 36 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P3

Walker Hook, Saltspring Island

plant communities of interest to GOERT:

- ❖ *Quercus garryana* – *Arbutus menziesii*

vascular plants of interest to GOERT: none yet confirmed

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 44 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2

representativeness rating: R1

protection urgency: P4 but to be discussed “The current owners are one of Salt Spring Island’s early settlers. They are deeply committed to their land and currently (2000) haven’t no plans to sell.” (p. 2 GBECI catalogue)

Whaling Station Bay, Hornby Island

plant communities of interest to GOERT:

- ❖ *Quercus garryana* – *Arbutus menziesii*

vascular plants of interest to GOERT:

- ❖ Howell’s miner’s lettuce, *Montia howellii* (probably extirpated in BC but not currently of primary interest to GOERT)
- ❖ Rough popcorn flower, *Plagiobothrys figuratus*
- ❖ Carolina meadow foxtail, *Alopecurus carolinianus*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

- ❖ Western pearlwort, *Sagina decumbens* ssp. *Occidentalis*

bryophytes of interest to GOERT: none yet confirmed
invertebrates of interest to GOERT: none yet confirmed
vertebrates of interest to GOERT: none yet confirmed
approximate area of recommended landscape unit for comprehensive protection: 70 hectares
approximate area with Elements relevant to GOERT:
biodiversity rating: B3
representativeness rating: R3
protection urgency: P2

White Rapids Road, South of Nanaimo

plant communities of interest to GOERT:

- ❖ *Festuca idahoensis* – *Koeleria macrantha*
- ❖ *Pseudotsuga menziesii* – *Arbutus menziesii*
- ❖ *Pseudotsuga menziesii* – *Pinus contorta* - *Arbutus menziesii*

vascular plants of interest to GOERT:

- ❖ White-top aster, *Aster curtus*
- ❖ Bog bird's-foot trefoil, *Lotus pinnatus* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Dense spike-primrose, *Epilobium densiflorum*
- ❖ Chaffweed, *Anagallis minima* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Least moonwort, *Bortrychium simplex* (extirpated rare but not currently of primary interest to GOERT)
- ❖ Green sheathed sedge, *Carex feta*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT:

- ❖ Vancouver Island ermine, *Mustela erminea anguinae*

approximate area of recommended landscape unit for comprehensive protection: 61 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B2
representativeness rating: R2
protection urgency: P2

Winchelsea Ballenas Islands Group off Nanaimo

plant communities of interest to GOERT:

- ❖ *Quercus garryana* – *Arbutus menziesii*
- ❖ *Pinus contorta* var. *contorta* – *Pseudotsuga menziessi* / *Cladina* spp. Forest

vascular plants of interest to GOERT:

- ❖ Water-plantain buttercup, *Ranunculus alismifolius* var. *alismifolius*
- ❖ Geyer's onion, *Allium geyeri* var. *geyeri* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ Graceful arrow-grass, *Triglochin concinnum* var. *teberyn* (extirpated or rare but not currently of primary interest to GOERT)
- ❖ dune bentgrass, *Agrostis pallens*
- ❖ coastal wood fern, *Dryopteris arguta*

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

❖ Western pearlwort, *Sagina decumbens* ssp. *Occidentalis*

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: the total terrestrial area of these islands is probably under 50 hectares and the areas not yet

receiving adequate protection and management is unclear

approximate area with Elements relevant to GOERT:

biodiversity rating: B1

representativeness rating: R1

protection urgency: P4

Yellow Point, north of Ladysmith

plant communities of interest to GOERT: none yet confirmed

vascular plants of interest to GOERT:

❖ Macoun's meadow-foam, *Limnanthes macounii*

❖ Howell's miner's lettuce, *Montia howellii* (probably extirpated in BC but not currently of primary interest to GOERT)

bryophytes of interest to GOERT: none yet confirmed

invertebrates of interest to GOERT: none yet confirmed

vertebrates of interest to GOERT: none yet confirmed

approximate area of recommended landscape unit for comprehensive protection: 176 hectares

approximate area with Elements relevant to GOERT:

biodiversity rating: B3

representativeness rating: R2

protection urgency: P3

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

APPENDIX II

GOE Locations lacking in reports in the January 2001 *Catalogue of Site Records*

Email:

Some sites that I do not see on the list include

- ❖ Skirt Mountain,
- ❖ Goldstream (Prospectors Ridge – this is a magnificent forest of oak, Doug fir and arbutus just above the viewpoint on Prospectors Ridge and outside the park (I think))
- ❖ Uvic,
- ❖ Mount Wells-Mount McDonald (outside the regional park lands),
- ❖ the shoreline between Devonian Park and William Head,
- ❖ Langford Lake,
- ❖ Florence Lake (I think there is a beautiful stand of oaks beside the Highway that the PCC has been trying for years to purchase from an uncooperative owner).

There may be others that I will come up with when I check my references at home. These areas may not make the cut, but we should have a look at them.

Allan Lidston

- ❖ Yale
The GOE area in Yale, spanning an Indian Reserve, claimed traditional lands and the ecological reserve warrants a report.
Yale GOE main contact:
Terry T. McIntosh PhD RPBio
Biospherics Environmental Inc.
3 – 1175 E 14th Avenue
Vancouver V5T 2P2
tel. 604 874 1175
ginkgo@direct.ca

Analysis of the January 2001 *Catalogue of Site Records* of the Georgia Basin Ecosystem Partnership for locations of interest for

conservation planning under the terms of the Garry Oak Ecosystems Recovery Strategy

❖ Comox GOE location

----- Original Message -----

From: "George Sirk" <gsirk@oberon.ark.com>

To: "Gordon Brent Ingram" <gordon_brent_ingram@telus.net>

Cc: <jwruiter@home.com>

Sent: Wednesday, October 10, 2001 10:25 AM

Subject: Re: time-dependent – GOERT CP&SP RAG – is your copy of the Georgia Basin Ecosystems catalogue complete?

Hi Gordon

- > I do not have a copy of this catalogue, perhaps it was handed out at a
- > meeting that I did not attend (most!).
- > On the issue of sites is the Vanier grove (Comox-Strathcona Regional
- > District Electoral area " B " – ice arena site) on the list? It might not
- > meet the criteria for the catalogue. But I do point out that Adolf Ceska
- > did state that he felt the plant associations of the grove was unique to
- > B.C. and that it was unknown in other parts of the oaks' range. I have the
- > letter on file.
- > Naturally, my interest is in elevating that particular grove's stature
- > therefore preventing further destruction. The evidence exists for the
- > grove's uniqueness, perhaps it a candidate if not for this issue then for
- > future ones.
- > cheers
- > George

❖ sites under treaty negotiations

There was mention that perhaps sites that are the subject of treaty negotiations were already removed from the catalogue. If this is the case, locations with GOE could be added to our list and be proposed for a conservation easement for after title were transferred to a First Nation.

APPENDIX III

Rare Elements of Garry Oak and Associated Ecosystems (10 2001 from CDC for GOERT)

N.B. The following is a list of species and plant communities known to occur in Garry oak and associated ecosystems that are currently tracked by the CDC (red or blue-listed). Listed are 55 vascular plants, 2 mosses, 9 plant communities, 18 invertebrates, 2 reptiles, 9 birds, and 3 mammals, totalling 98 elements. Rare species considered extirpated in the Georgia Depression are noted with an 'X'. Species for which the CDC has no Element Occurrence Records within the range of Garry oak and associated ecosystems as of October 2001 are noted with an 'N'. Please note that the following 2 plant species on the list of plant taxa at risk in Table 4 of *Towards a Recovery Strategy for Garry Oak and Associated Ecosystems in Canada* are no longer tracked by the CDC: *Montia howellii* and *Senecio macounii*.

Vascular Plants

Agrostis pallens
Alopecurus carolinianus
Aster curtus
Balsamorhiza deltoidea
Callitriche marginata
Carex feta
Carex tumulicola N
Castilleja levisecta
Centaurium muehlenbergii
Cheilanthes gracillima
Clarkia purpurea ssp. *Viminea*
Crassula connata var. *connata*
Dryopteris arguta
Epilobium densiflorum
Epilobium torreyi
Gilia capitata var. *capitata* N
Helenium autumnale var. *grandiflorum*
Idaho scapigera
Juncus kelloggii
Limnanthes macounii
Lomatium grayii
Lotus formosissimus
Lotus pinnatus
Lotus unifolius var. *unifolius*
Lupinus densiflorus var. *densiflorus*
Lupinus lepidus var. *lepidus*
Lupinus oreganus var. *kincaidii* X
Marah oreganus
Meconella oregana
Microseris bigelovii
Microseris lindleyi
Minuartia pusilla
Navarretia intertexta
Orthocarpus bracteosus
Piperia candida N
Plagiobothrys figuratus
Plagiobothrys tenellus
Psilocarphus elatior
Psilocarphus tenellus var. *tenellus*
Ranunculus alismifolius var. *alismifolius*
Ranunculus californicus
Ranunculus lobbii X
Rupertia physodes
Sagina decumbens ssp. *Occidentalis*
Sanicula arctopoides
Sanicula bipinnatifida
Silene scouleri ssp. *Grandis*
Toxicodendron diversilobum
Trifolium cyathiferum
Trifolium dichotomum
Triphysaria versicolor ssp. *Versicolor*
Triteleia howellii
Viola howellii
Viola praemorsa ssp. *Praemorsa*

Mosses

Bartramia stricta N
Tortula laevipila var. *meridionalis* N

Plant Communities

Festuca idahoensis-*Koeleria macrantha*
Myosurus minimus-*Montia* spp.-*Limnanthes macounii*
Pseudotsuga menziesii-*Arbutus menziesii*
Pseudotsuga menziesii-*Pinus contorta*-*Arbutus menziesii*
Pseudotsuga menziesii-*Quercus garryana*/*Melica subulata*
Quercus garryana-*Acer macrophyllum*-*Prunus*
Quercus garryana-*Arbutus menziesii*
Quercus garryana/*Bromus carinatus*
Quercus garryana/*Holodiscus discolor*

Invertebrates

Arctiostrotus perrieri N
Scolopostethus tropicus N
Clivenema fusca N
Ceratocapsus downesi N
Hamostes dorsalis N
Camirus porosus N
Nicocles rufus N
Scleropogon bradleyi N
Erynnis propertius
Euphyes vestris vestris
Euchloe ausonides X,N
Incisalia mossi mossi
Plebejus saepiolus insulanus N
Icaricia icariodes blackmorei N
Spyeria zerene bremnerii
Euphydras chalcedona perdiccas N
Euphydras editha taylori
Coenonympha californica insulana

Reptiles

sharptail snake, *Contia tenuis*
gopher snake, *Pituophis catenifer catenifer* X,N

Birds

Yellow-billed Cuckoo, *Coccyzus americanus* X,N
Barn Owl, *Tyto alba*
Western Screech-Owl, *Otus kennicottii saturatus*
Lewis's Woodpecker, *Melanerpes lewis* X,N
Horned lark, *Eremophila alpestris strigata* X,N
Purple martin, *Progne subis*
Western bluebird, *Sialia mexicana* N
Vesper Sparrow, *Pooecetes gramineus affinis*
Western Meadowlark, *Sturnella neglecta* N

Mammals

Townsend's big-eared bat, *Corynorhinus townsendii*
Vancouver Island ermine, *Mustela erminea anguiniae*
Roosevelt elk, *Cervus elaphus roosevelti* N

APPENDIX IV

