



Gap Analysis for Port Hawkesbury Paper LP FULA Lands for Eastern Mainland and Cape Breton, Nova Scotia

Joel Taylor, RPF

Cameron McNeill

August 2014



Contents

Introduction	5
Landbase Classification	5
Legal and Administrative Protected Area	8
Quantifying Adequate Representation	8
Legal and Administrative Protected Area by Ecoregion	9
Legal and Administrative Protected Area by Ecodistrict	10
Landscape Element Composition by Ecodistrict	28



Figure 1 – Ecoregions of PHP’s FULA Landbase	6
Figure 2 - Ecodistricts for PHP's FULA landbase.....	7
Figure 3 - Legal and Administrative Protected Area for Cape Breton Taiga (Ecodistrict 100).....	10
Figure 4 - Legal and Administrative Protected Area for Cape Breton Highlands (Ecodistrict 210)	11
Figure 5 - Legal and Administrative Protected Area for Victoria Lowlands (Ecodistrict 220).....	12
Figure 6 - Legal and Administrative Protected Area for Cape Breton Hills (Ecodistrict 310).....	13
Figure 7 - Legal and Administrative Protected Area for Inverness Lowlands (Ecodistrict 320).....	14
Figure 8 - Legal and Administrative Protected Area for Pictou Antigonish Highlands (Ecodistrict 330)	15
Figure 9 - Legal and Administrative Protected Area for Cobequid Hills (Ecodistrict 340)	16
Figure 10 - Legal and Administrative Protected Area for Mulgrave Plateau (Ecodistrict 360).....	17
Figure 12 - Legal and Administrative Protected Area for St. Mary's River (Ecodistrict 370)	18
Figure 12 - Legal and Administrative Protected Area for Central Uplands (Ecodistrict 380)	19
Figure 13 - Legal and Administrative Protected Area for Eastern Drumlins (Ecodistrict 420).....	20
Figure 14 - Legal and Administrative Protected Area for Eastern Interior (Ecodistrict 440).....	21
Figure 15 - Legal and Administrative Protected Area for Governor Lake (Ecodistrict 450).....	22
Figure 16 - Legal and Administrative Protected Area for Bras d'Or Lowlands (Ecodistrict 510)	23
Figure 17 - Legal and Administrative Protected Area for St. George's Bay (Ecodistrict 520)	24
Figure 18 - Legal and Administrative Protected Area for Northumberland Lowlands (Ecodistrict 530)	25
Figure 19 - Legal and Administrative Protected Area for Cape Breton Coastal (Ecodistrict 810)	26
Figure 20 - Legal and Administrative Protected Area for Eastern Shore (Ecodistrict 820).....	27
Figure 21 - Landscape Element Composition for Cape Breton Taiga (Ecodistrict 100)	28
Figure 22 - Landscape Element Composition for Cape Breton Highlands (Ecodistrict 210)	29
Figure 23 - Landscape Element Composition for Victoria Lowlands (Ecodistrict 220)	30
Figure 24 - Landscape Element Composition for Cape Breton Hills (Ecodistrict 310)	31
Figure 25 - Landscape Element Composition for Inverness Lowlands (Ecodistrict 320)	32
Figure 26 - Landscape Element Composition for Pictou Antigonish Highlands (Ecodistrict 330).....	33
Figure 27 - Landscape Element Composition for Cobequid Hills (Ecodistrict 340).....	34
Figure 28 - Landscape Element Composition for Mulgrave Plateau (Ecodistrict 360)	35
Figure 29 - Landscape Element Composition for St. Mary's River (Ecodistrict 370).....	36
Figure 30 - Landscape Element Composition for Central Uplands (Ecodistrict 380)	37
Figure 31 - Landscape Element Composition for Eastern Drumlins (Ecodistrict 420)	38
Figure 32 - Landscape Element Composition for Eastern Interior (Ecodistrict 440).....	39
Figure 33 - Landscape Element Composition for Governor Lake (Ecodistrict 450)	40
Figure 34 - Landscape Element Composition for Bras d'Or Lowlands (Ecodistrict 510).....	41
Figure 35 - Landscape Element Composition for St. George's Bay (Ecodistrict 520).....	42
Figure 36 - Landscape Element Composition for Northumberland Lowlands (Ecodistrict 530).....	43
Figure 37 - Landscape Element Composition for Cape Breton Coastal (Ecodistrict 810)	44
Figure 38 - Landscape Element Composition for Eastern Shore (Ecodistrict 820)	45



Table 1 - Adequate Representation Criteria	8
Table 2 - Legal and Administrative Protected Area by Ecoregion.....	9
Table 3 - Element Protection Status for Cape Breton Taiga	46
Table 4 - Element Protection Status for Cape Breton Highlands.....	47
Table 5 - Element Protection Status for Uplands (1 of 4)	48
Table 6 - Element Protection Status for Uplands (2 of 4)	49
Table 7 - Element Protection Status for Uplands (3 of 4)	50
Table 8 - Element Protection Status for Uplands (4 of 4)	51
Table 9 - Element Protection Status for Eastern (1 of 2)	52
Table 10 - Element Protection Status for Eastern (2 of 2)	53
Table 11 - Element Protection Status for Northumberland/Bras D'Or (1 of 2)	54
Table 12 - Element Protection Status for Northumberland/Bras D'Or (2 of 2)	55
Table 13 - Element Protection Status for Atlantic Coastal.....	56
Table 14 - Element Protection Status for all FULA.....	57



Introduction

Port Hawkesbury Paper LP (PHP) recognizes the importance that protected areas play in maintaining the natural biodiversity of Nova Scotia forests. PHP has made huge contributions to the protected areas network of Nova Scotia through both legal and administrative set asides as managers of the majority of the crown license in Eastern Nova Scotia. In addition to protected areas, PHP implements a vast array of special management practices on the remainder of its holdings to sustain ecosystem function and natural biodiversity.

In order to evaluate our progress in contributing to the protected areas of Nova Scotia and set forth a plan in moving forward, an independent Gap Analysis has been conducted on PHP's land holdings. In accordance with FSC Criterion 6.4, Provincial classification systems were used to evaluate the representivity of current legal and administrative protected areas. This document outlines the current standing of protected areas at several landscape scales using provincial classification schemes.

Landbase Classification

Three separate yet inter-relatable provincial layers were used to assess gaps at the different landscape scales. All layers are used in the Long Term Plan and are the framework for reporting on all habitat, economic, social, and timber supply objectives. Ecoregions, being the coarsest scale, was used to classify PHP's FULA lands into six regional categories. Ecoregions are primarily delineated based upon differences in climatic conditions. Figure 1 on the following page displays Ecoregions present on PHP land.

Ecoregions can be further broken down into Ecodistricts. PHP manages eighteen Ecodistricts on its license. All Ecoregions, with the exception of Cape Breton Taiga, are composed of multiple Ecodistricts. For instance, the Uplands Ecoregion is broken down into seven separate ecodistricts. Figure 2 on page 6 displays the eighteen Ecodistricts PHP manages.

Scale becomes further refined with the next landscape classification component in the Ecological Landscape Assessment. There are twenty six classes of Landscape Elements included in this analysis. Note that Coastal Beaches, Salt Marshes, Water, and Wetlands were excluded from this analysis since these are considered inoperable. Although we have significant protection in these areas, the maps and figures exclude the areas of these features both in and out of protection. Landscape Elements will follow Ecodistricts which follow Ecoregions as this document works from coarse to fine scale.

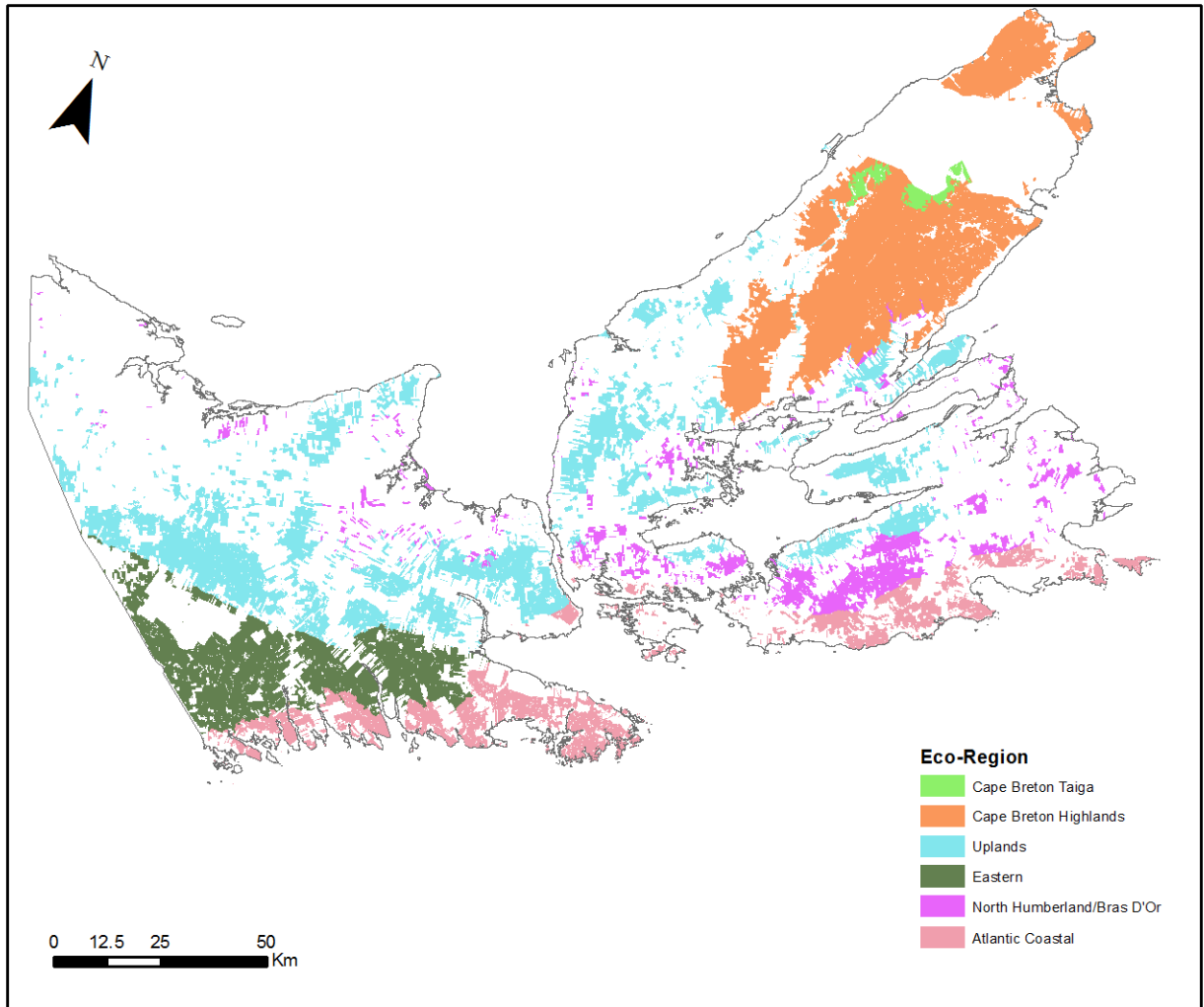


Figure 1 – Ecoregions of PHP's FULA Landbase

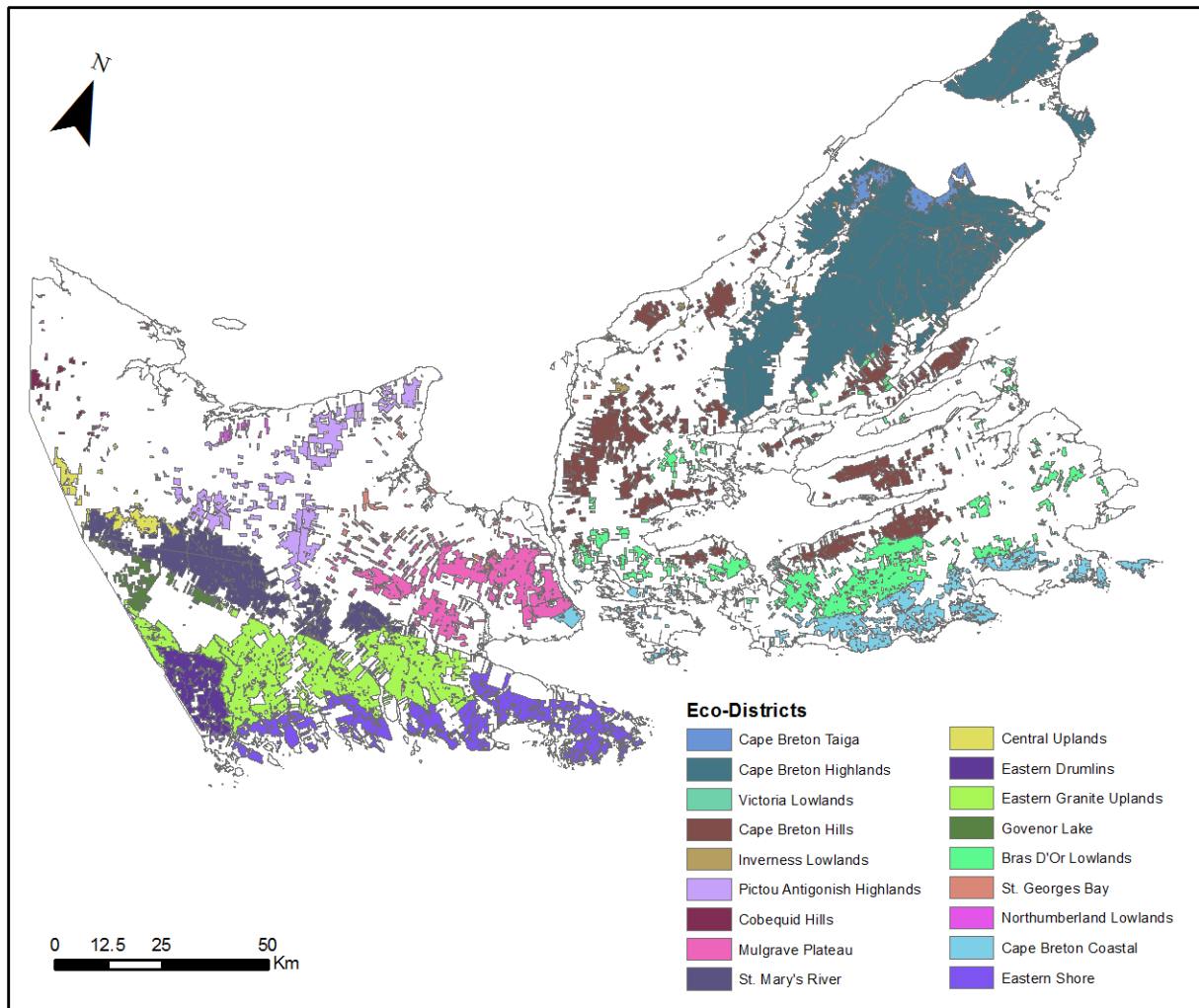


Figure 2 - Ecodistricts for PHP's FULA landbase

Legal and Administrative Protected Area

Protected area as stated in this document is referred to as being either legally or administratively protected. Legal Protection is composed of the 12% protected lands and Crown Wilderness areas. Administrative protection is area which is protected through policies in place to protect habitat and other considerations. The administrative protected areas consist of Old Forest, Moose Patches, Lynx Bog Buffers, Boreal Felt Lichen Buffers, Steep Slopes (>30%), and Leave Patches for other wildlife ex: Goshawk Nests. It is important to note that watercourse buffers were not considered protected areas in this analysis. Also note that there was no double counting of Protected Areas, for example if a one hectare patch is protected by both Old Forest and Steep Slopes it is still considered one hectare of protected. Using the same example, a map of that hectare would show as either Old Forest or a Steep Slope depending on order of GIS overlay.

Quantifying Adequate Representation

The breakdown of protected area as a percentage will vary depending on the scale observed and the number of classes used. PHP has taken a tiered approach to evaluating protected area allocation across its landbase. The criteria and associated representation class are displayed in Table 1.

Table 1 - Adequate Representation Criteria

Criteria	Category
< 2%	Lacks Representation
> 2% and ≤ 6%	Representation Present, Fair
> 6% and <14%	Representation Present, Good
≥ 14%	Representation Present, Excellent



There are twenty four Landscape Elements used in this analysis. Since Elements are permanent spatial features which cross Ecodistrict boundaries, the result is 80 different Ecodistrict/Element classes. PHP has committed to maintaining a minimum of 2% of each element within each Ecodistrict in a protected state. Referring to Table 3 in appendix A, this minimum target has been satisfied.

At the Ecodistrict scale, summarizing all elements within each Ecodistrict (bottom summary row in Table 3, Appendix A) PHP commits to maintaining a minimum of 6% protected. Table 3 displays PHP's strong contributions to protected areas with all Ecodistricts showing adequate representation, especially Ecodistricts in which PHP manages sizeable portions of land.

With 36% of PHP's landbase being either legally or administratively protected, PHP feels it has more than satisfied its commitment to set aside representative ecosystem samples.

Legal and Administrative Protected Area by Ecoregion

The percentages of protected area for the six Ecoregions of Eastern Nova Scotia are displayed in Table 2.

Table 2 - Legal and Administrative Protected Area by Ecoregion

Ecoregion	Percent Protected
1 - Cape Breton Taiga	72%
2 - Cape Breton Highlands	59%
3 - Uplands	25%
4 - Eastern	19%
5 - Northumberland	19%
8 - Atlantic Coastal	42%

Legal and Administrative Protected Area by Ecodistrict

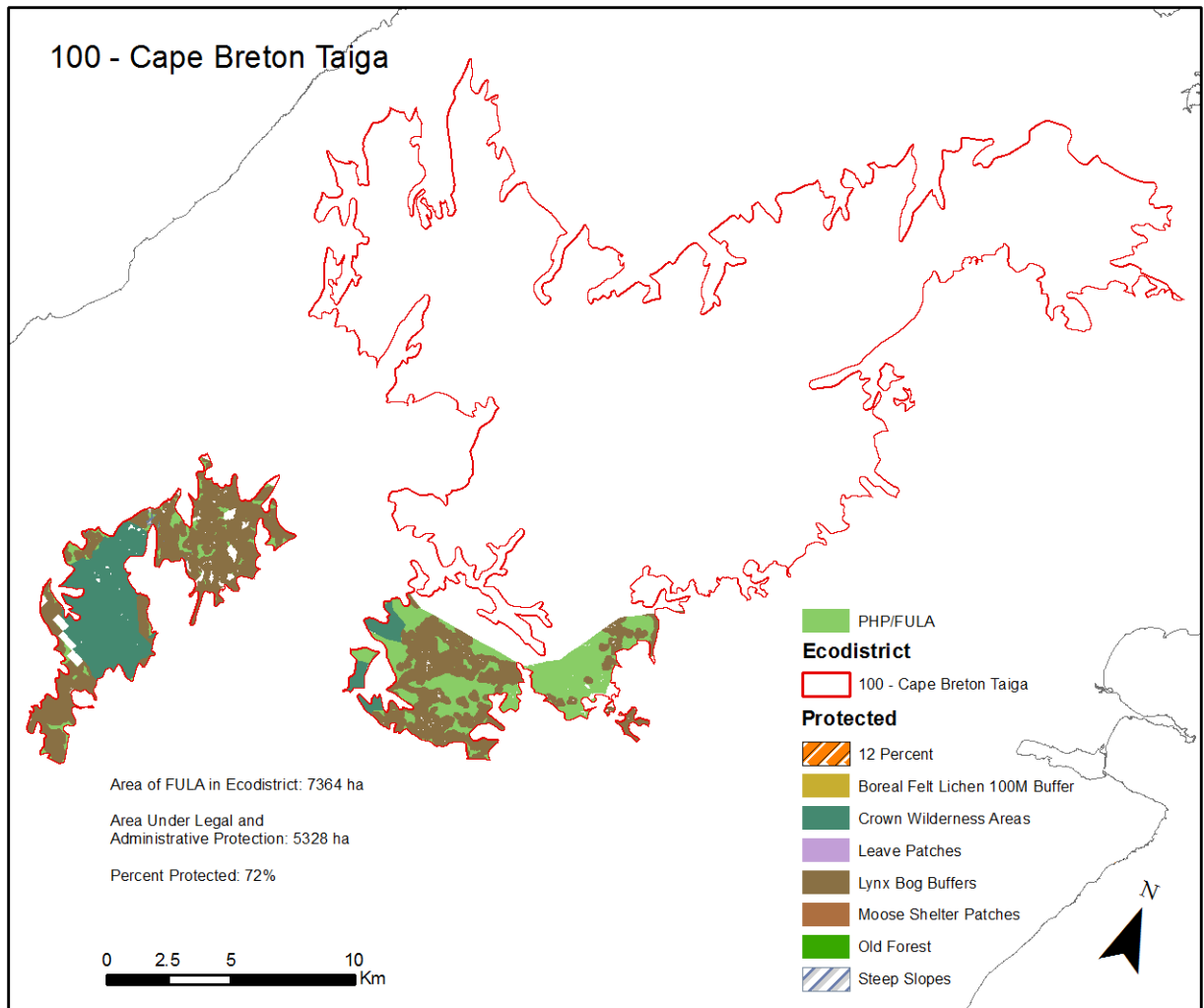


Figure 3 - Legal and Administrative Protected Area for Cape Breton Taiga (Ecodistrict 100)

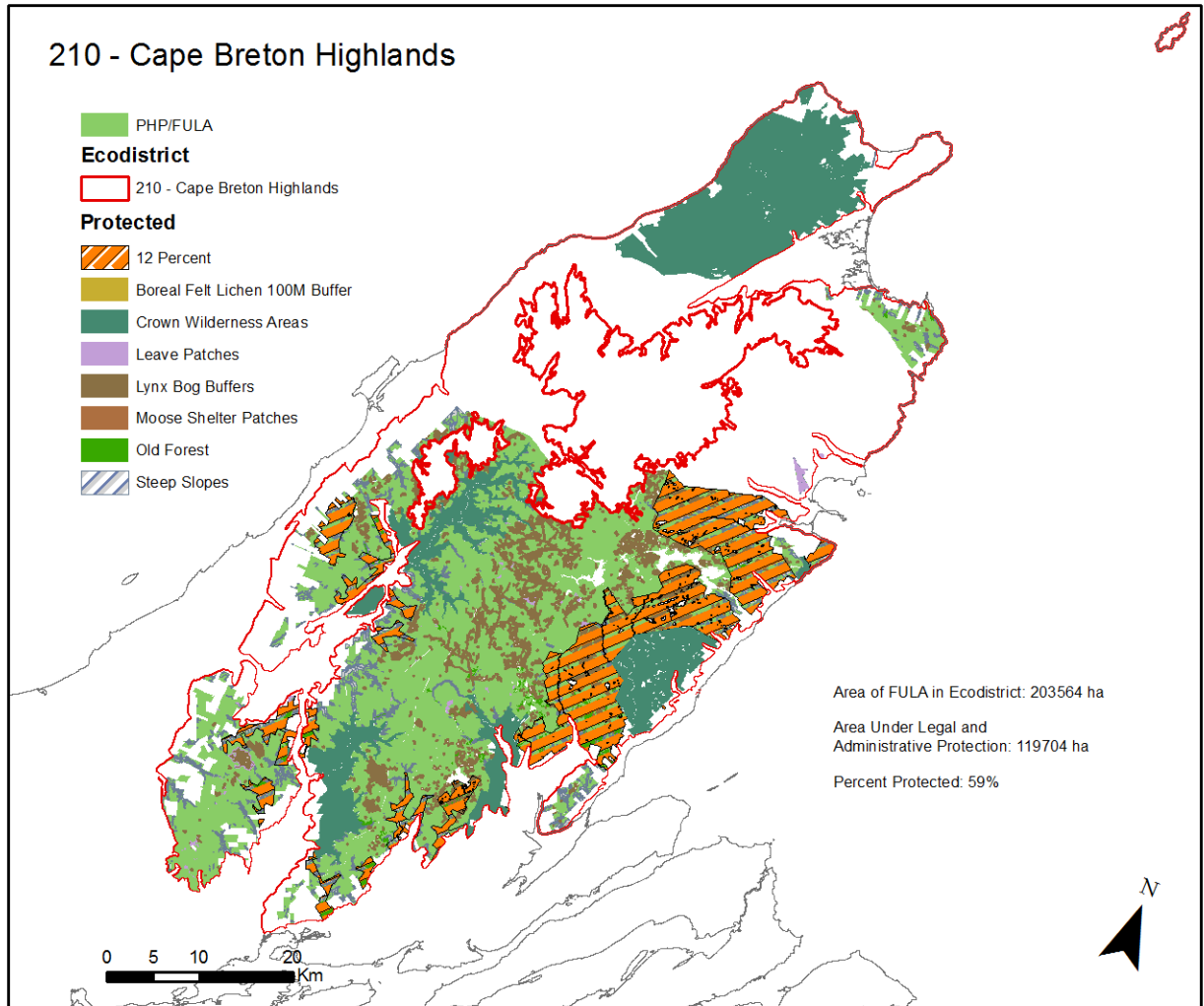


Figure 4 - Legal and Administrative Protected Area for Cape Breton Highlands (Ecodistrict 210)

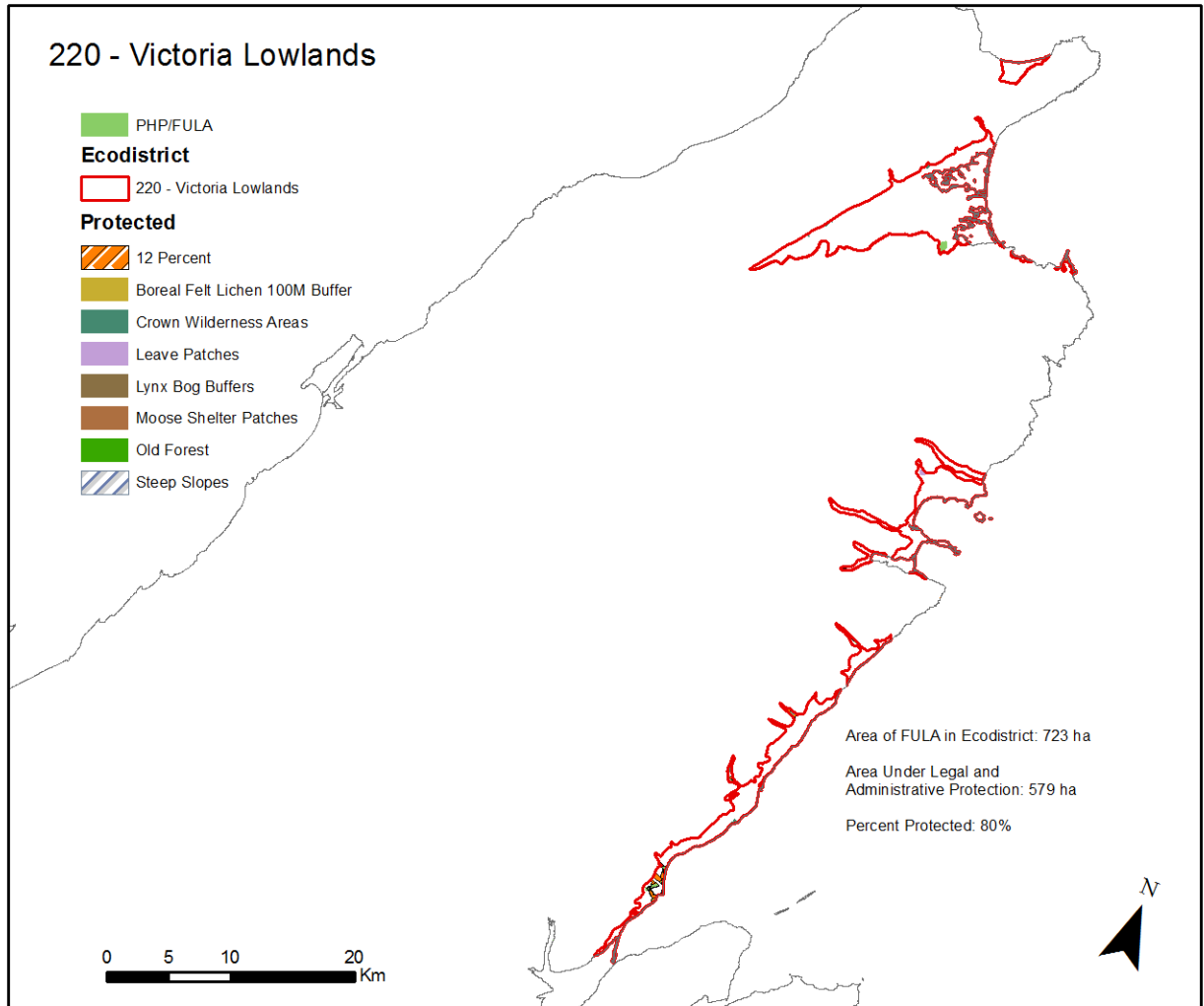


Figure 5 - Legal and Administrative Protected Area for Victoria Lowlands (Ecodistrict 220)

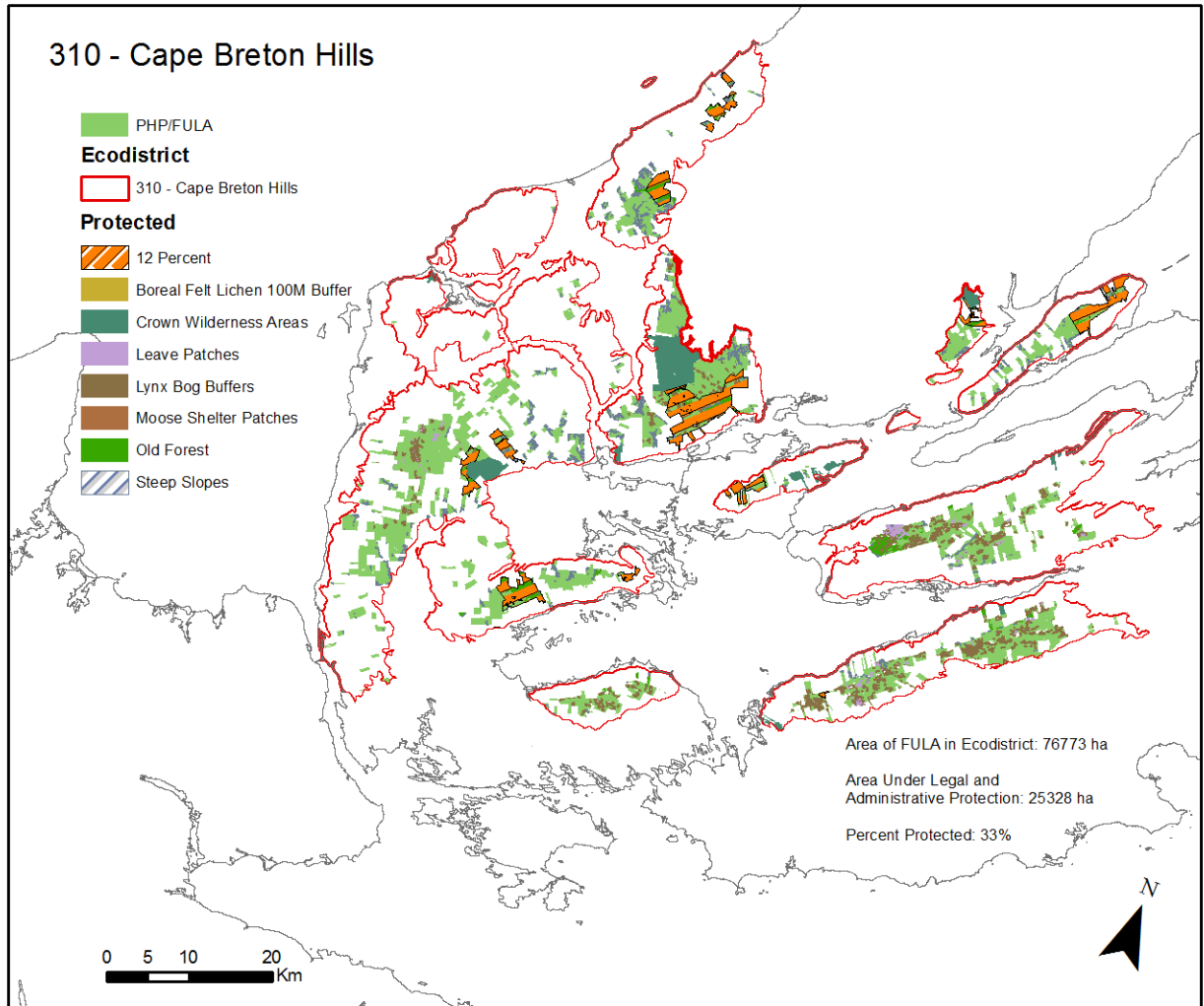


Figure 6 - Legal and Administrative Protected Area for Cape Breton Hills (Ecodistrict 310)

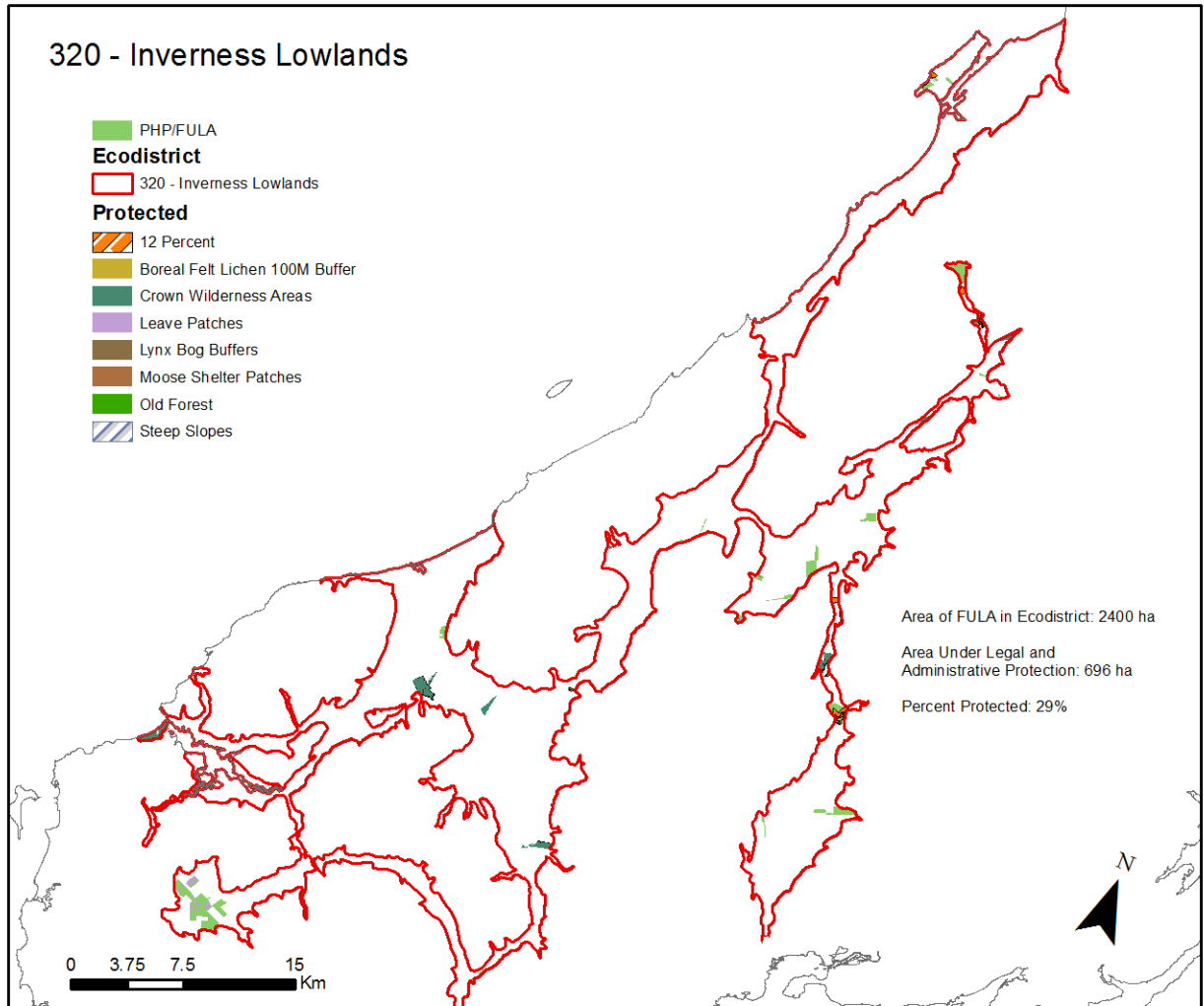


Figure 7 - Legal and Administrative Protected Area for Inverness Lowlands (Ecodistrict 320)

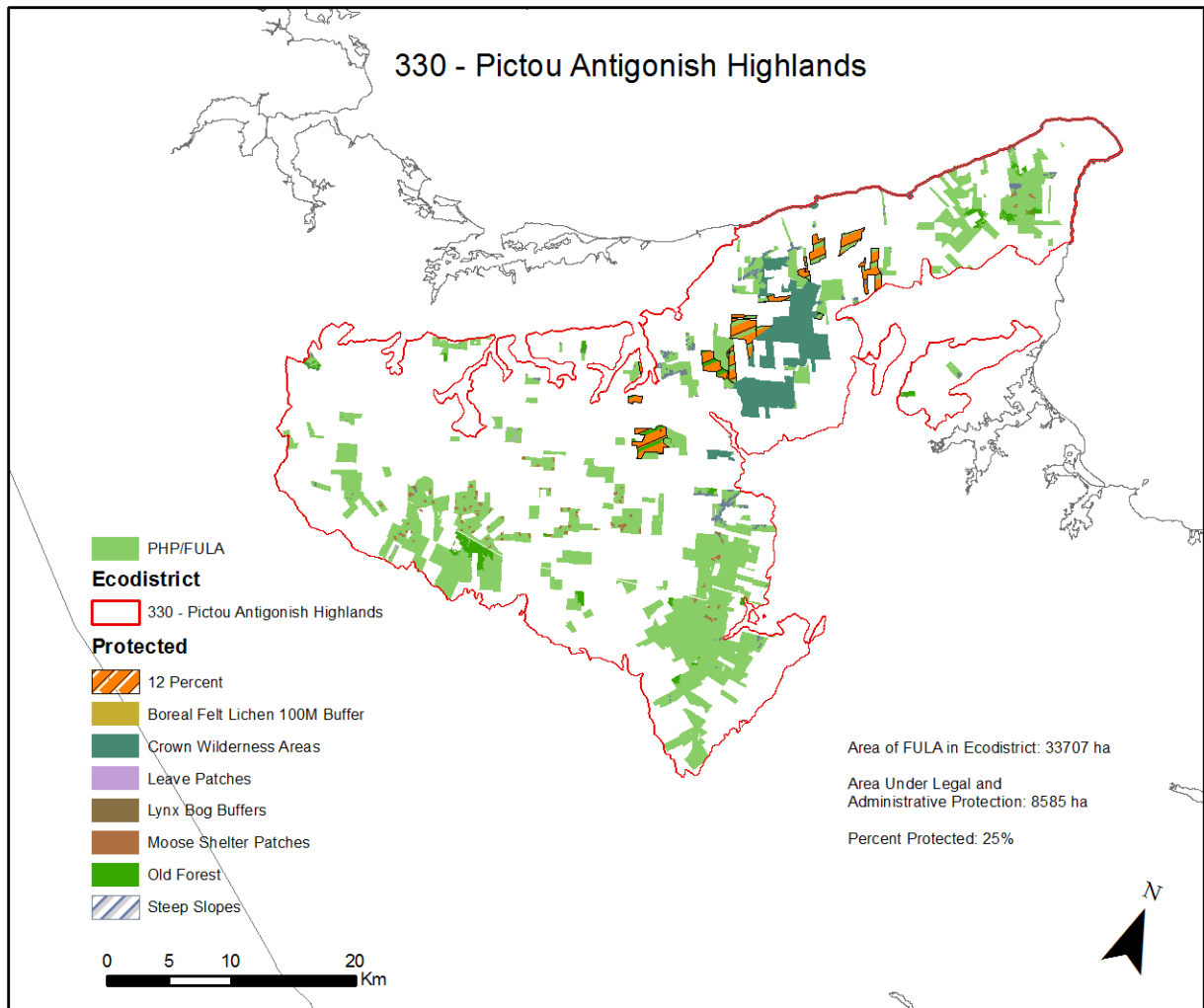


Figure 8 - Legal and Administrative Protected Area for Pictou Antigonish Highlands (Ecodistrict 330)

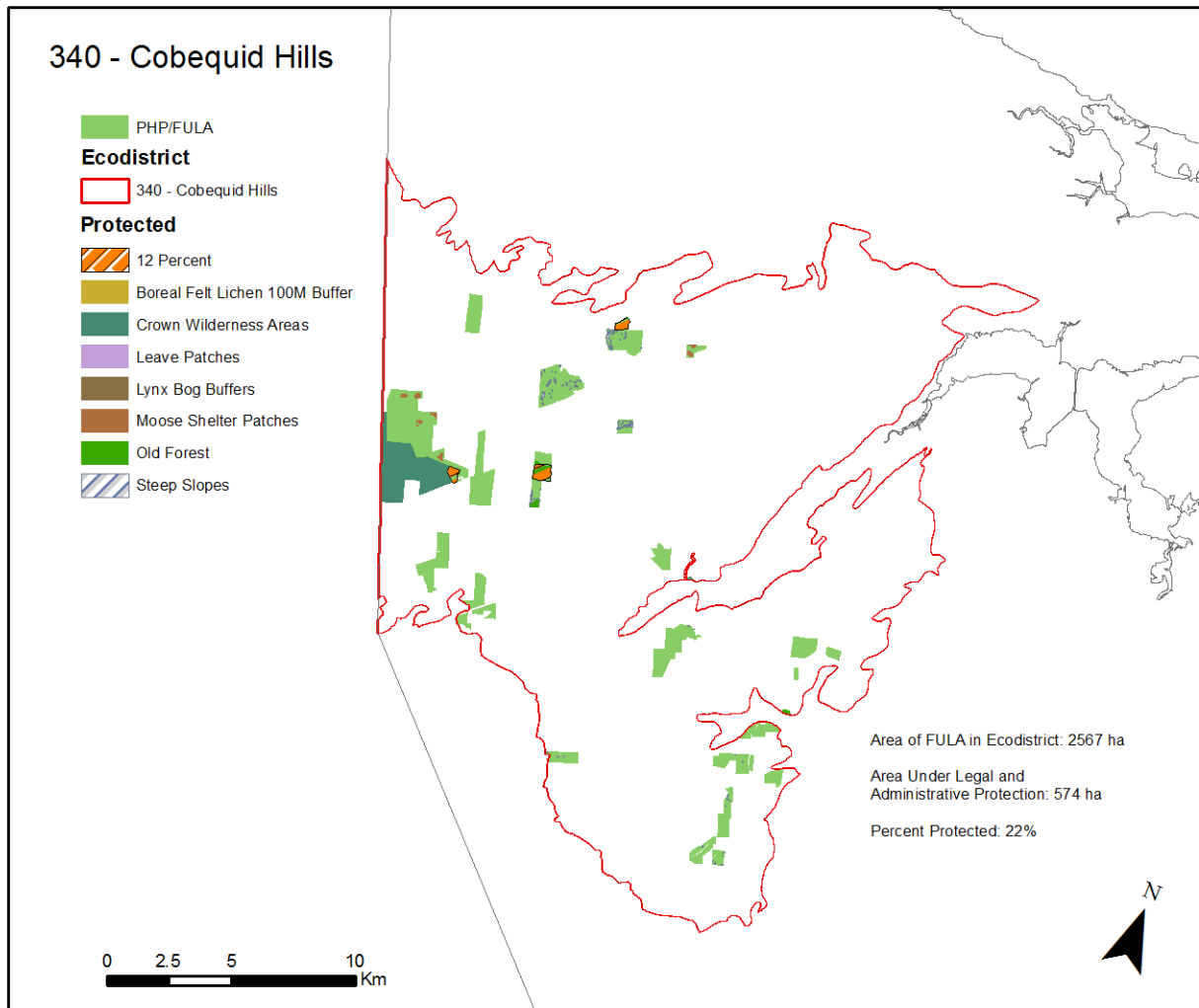


Figure 9 - Legal and Administrative Protected Area for Cobequid Hills (Ecodistrict 340)

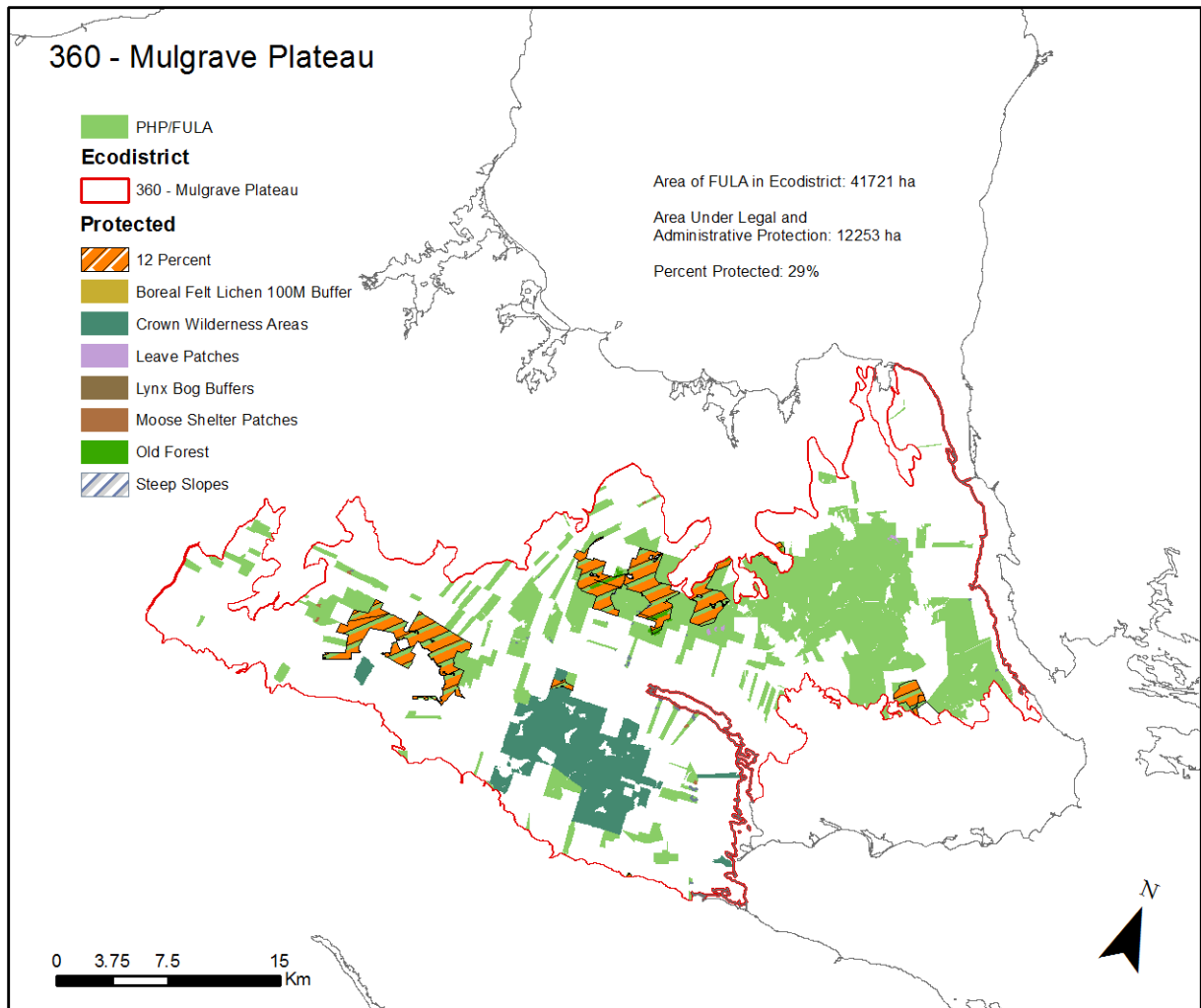


Figure 10 - Legal and Administrative Protected Area for Mulgrave Plateau (Ecodistrict 360)

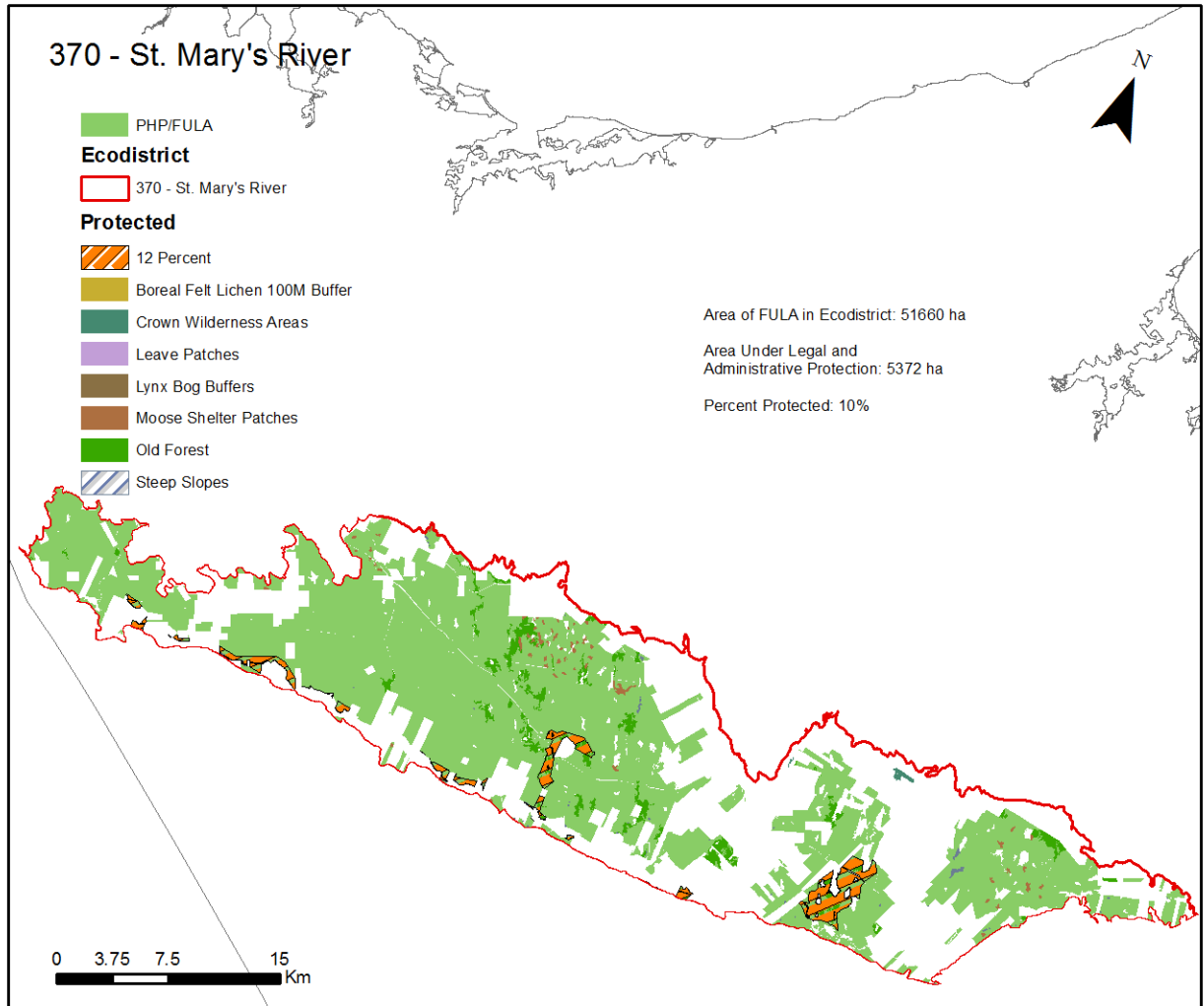


Figure 11 - Legal and Administrative Protected Area for St. Mary's River (Ecodistrict 370)

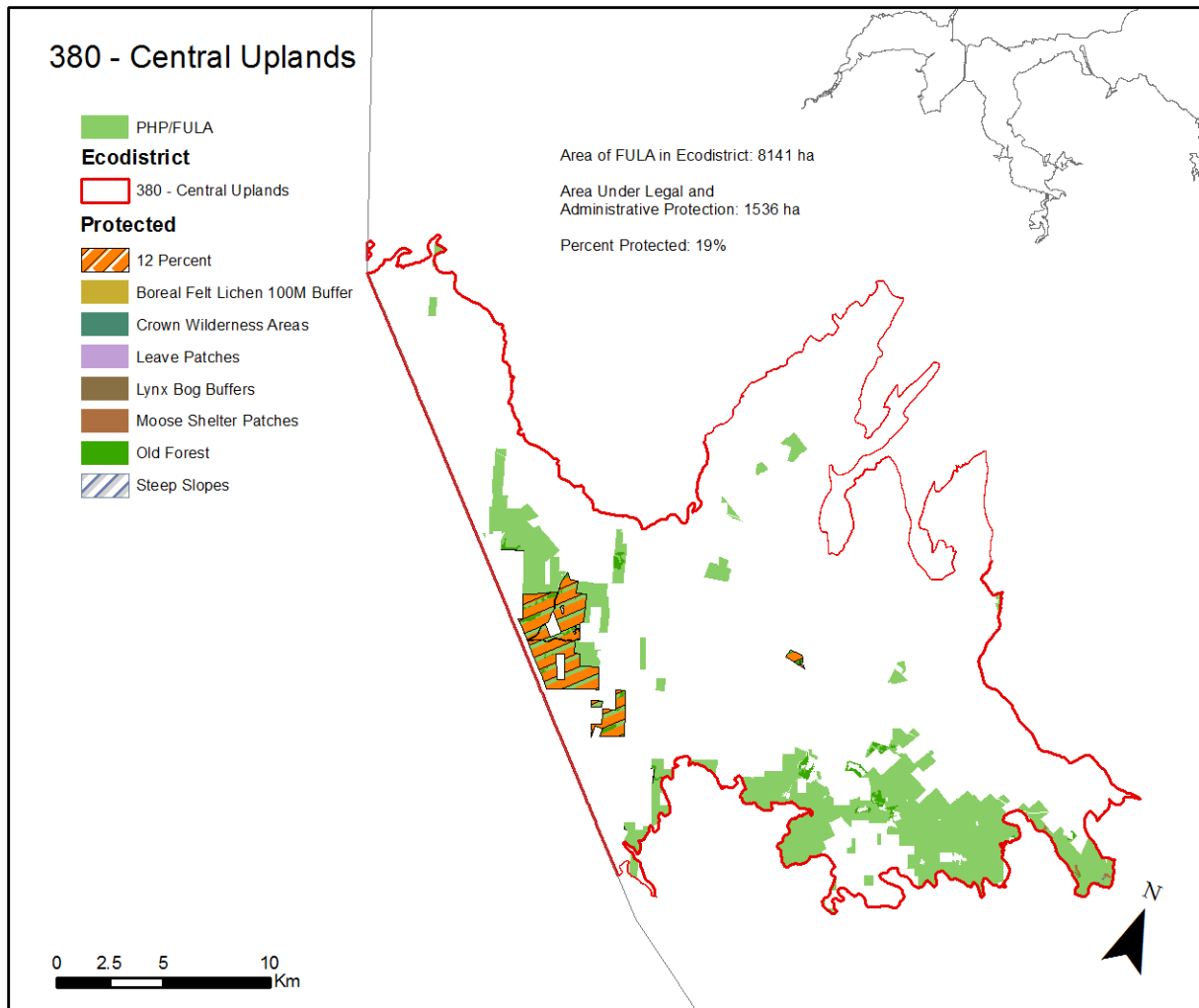


Figure 12 - Legal and Administrative Protected Area for Central Uplands (Ecodistrict 380)

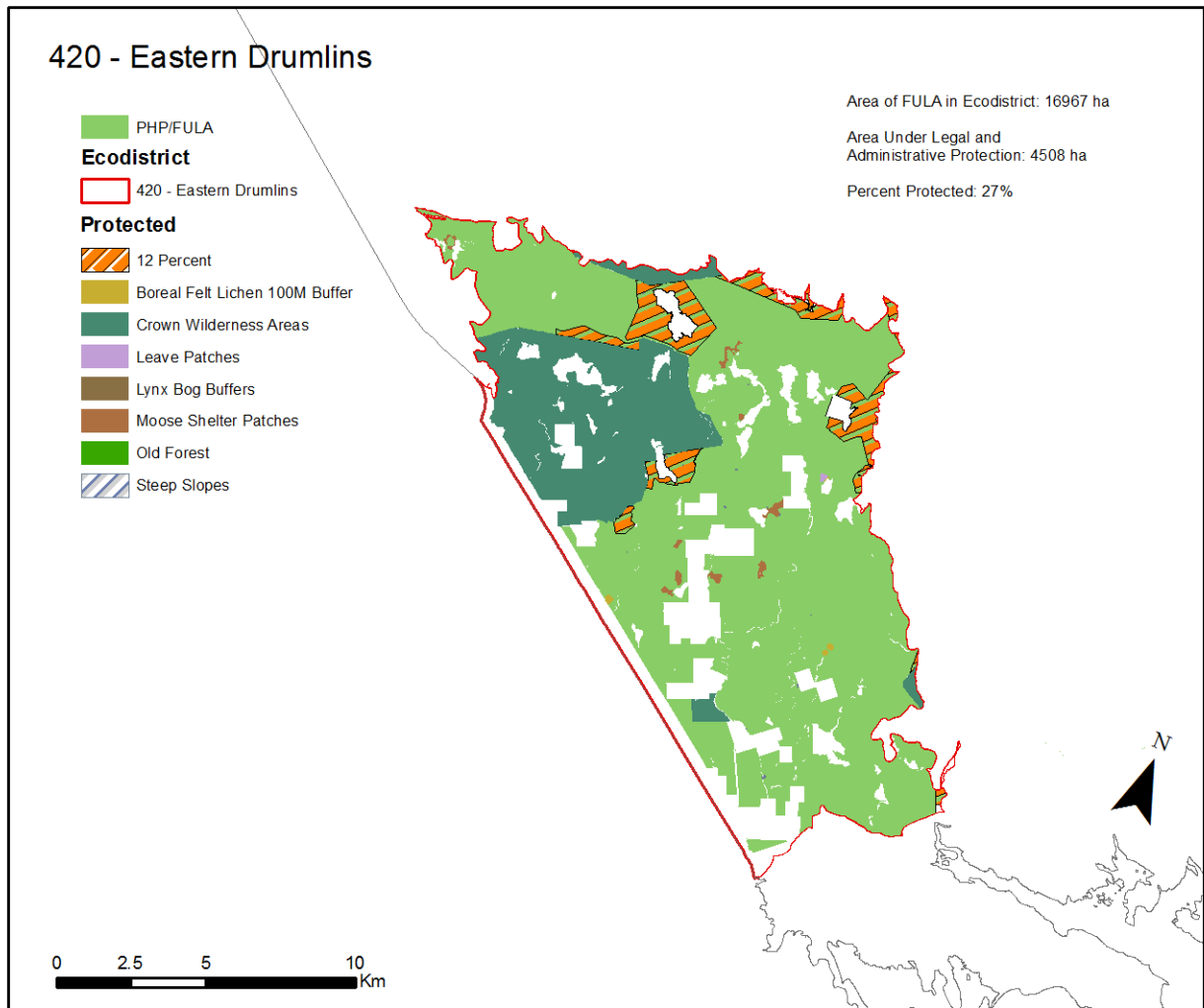


Figure 13 - Legal and Administrative Protected Area for Eastern Drumlins (Ecodistrict 420)

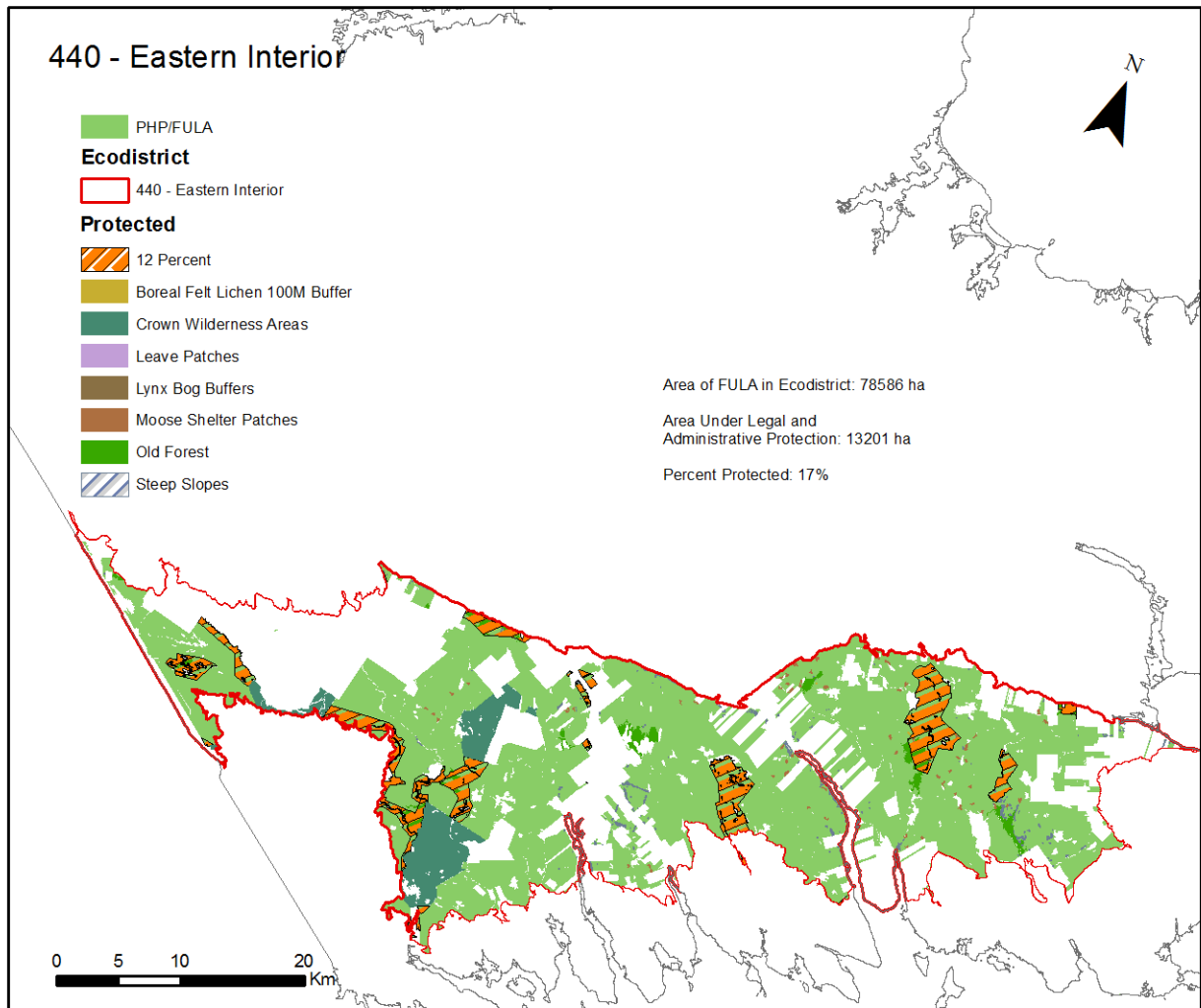


Figure 14 - Legal and Administrative Protected Area for Eastern Interior (Ecodistrict 440)

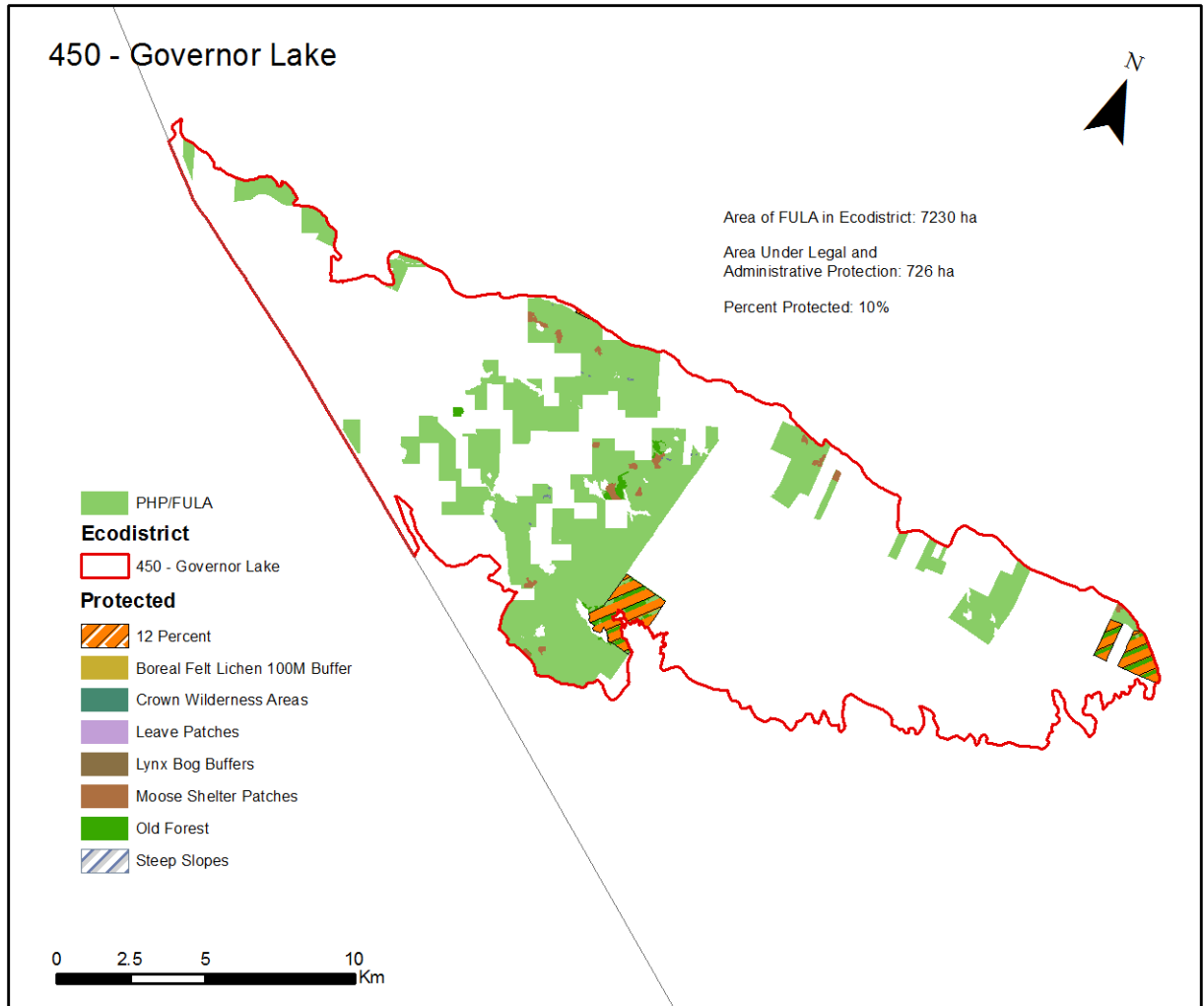


Figure 15 - Legal and Administrative Protected Area for Governor Lake (Ecodistrict 450)

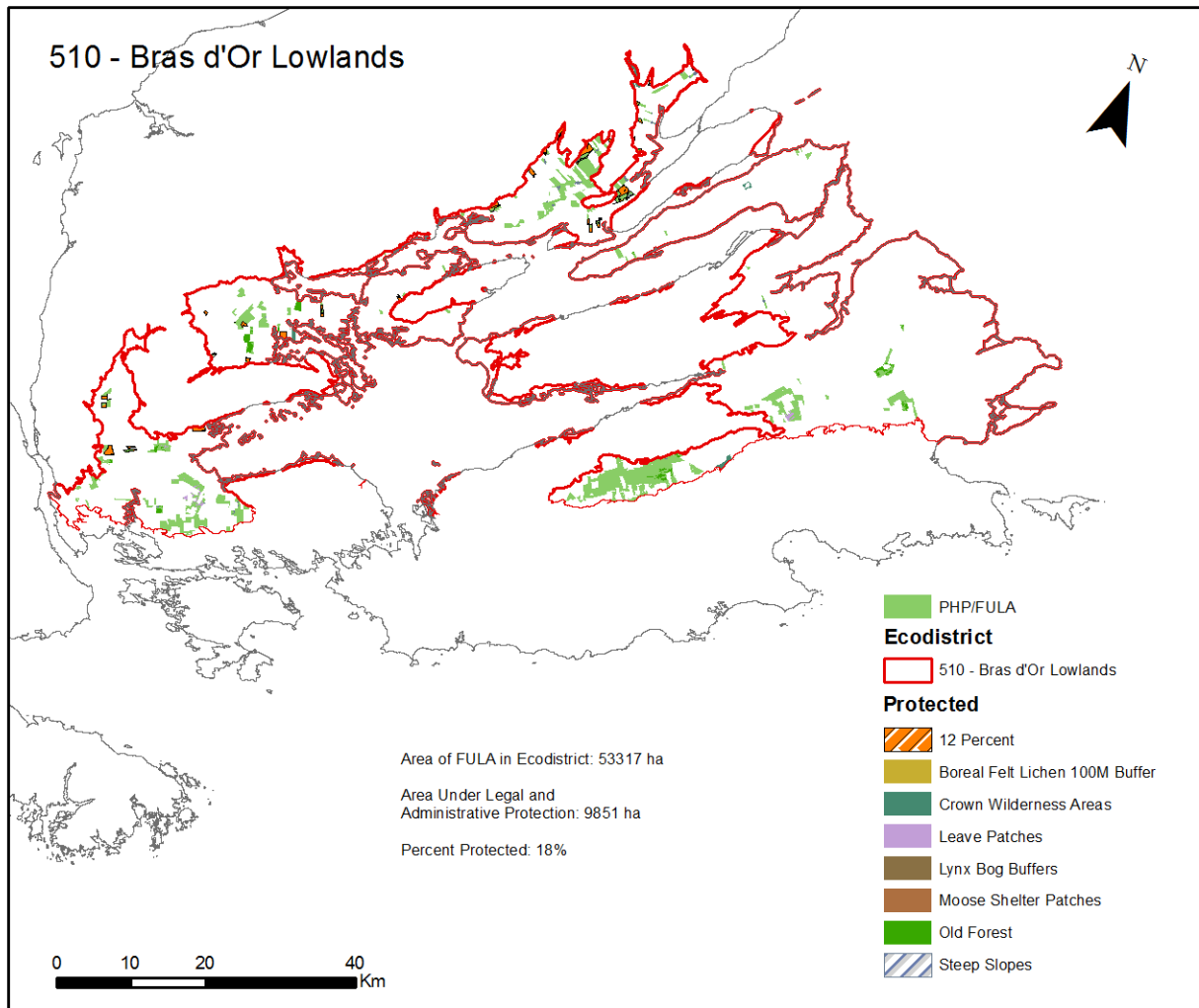


Figure 16 - Legal and Administrative Protected Area for Bras d'Or Lowlands (Ecodistrict 510)

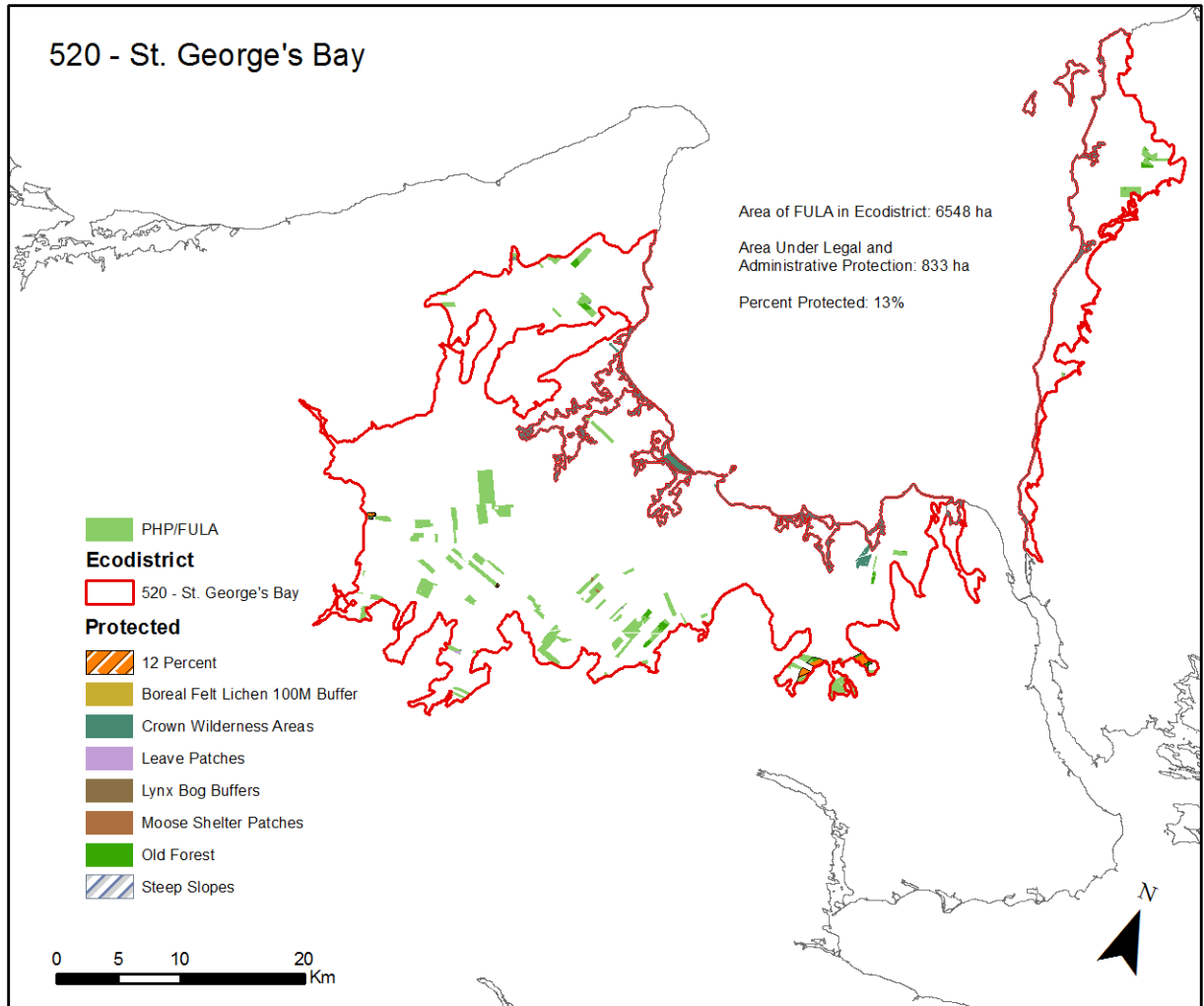


Figure 17 - Legal and Administrative Protected Area for St. George's Bay (Ecodistrict 520)

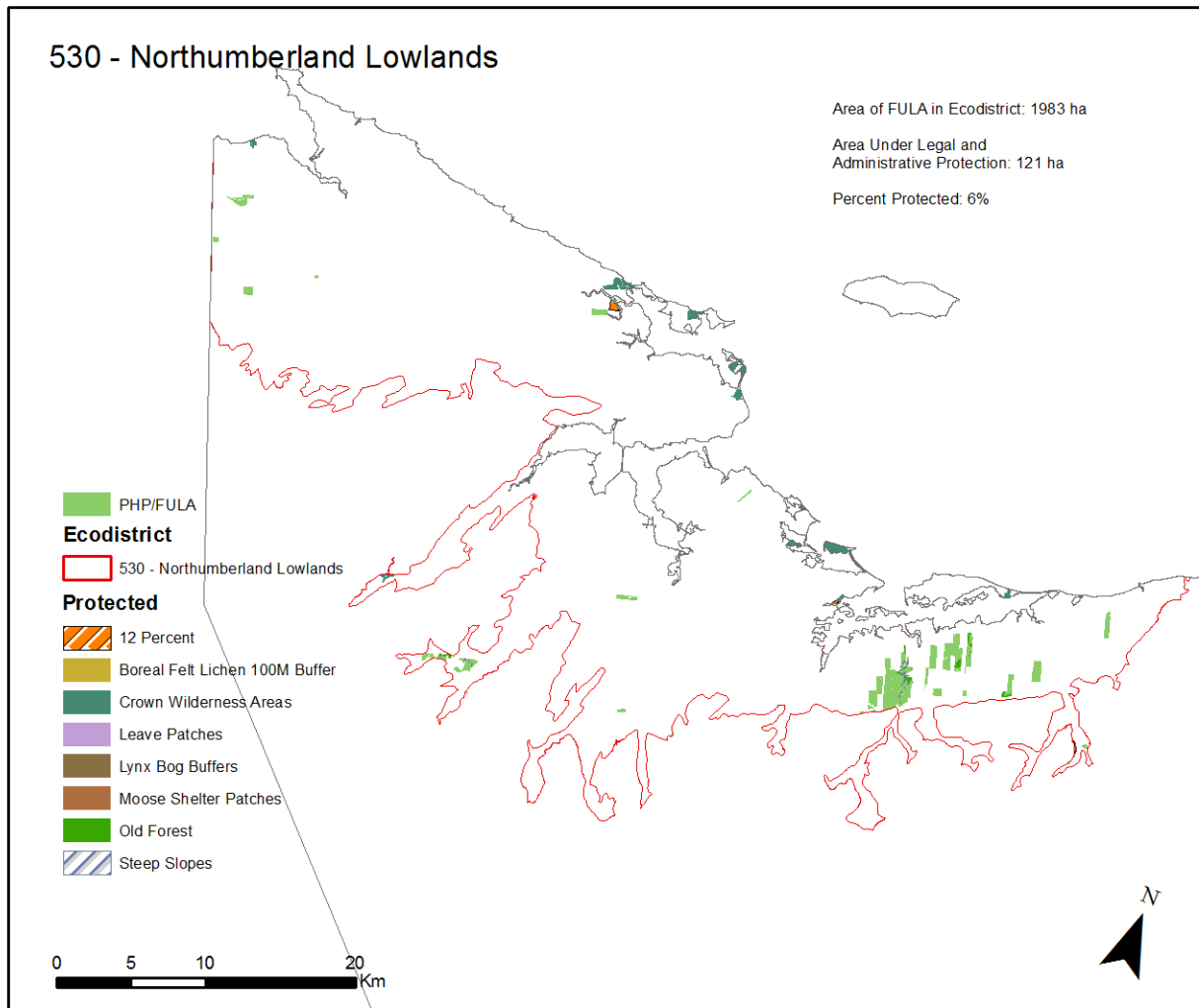


Figure 18 - Legal and Administrative Protected Area for Northumberland Lowlands (Ecodistrict 530)

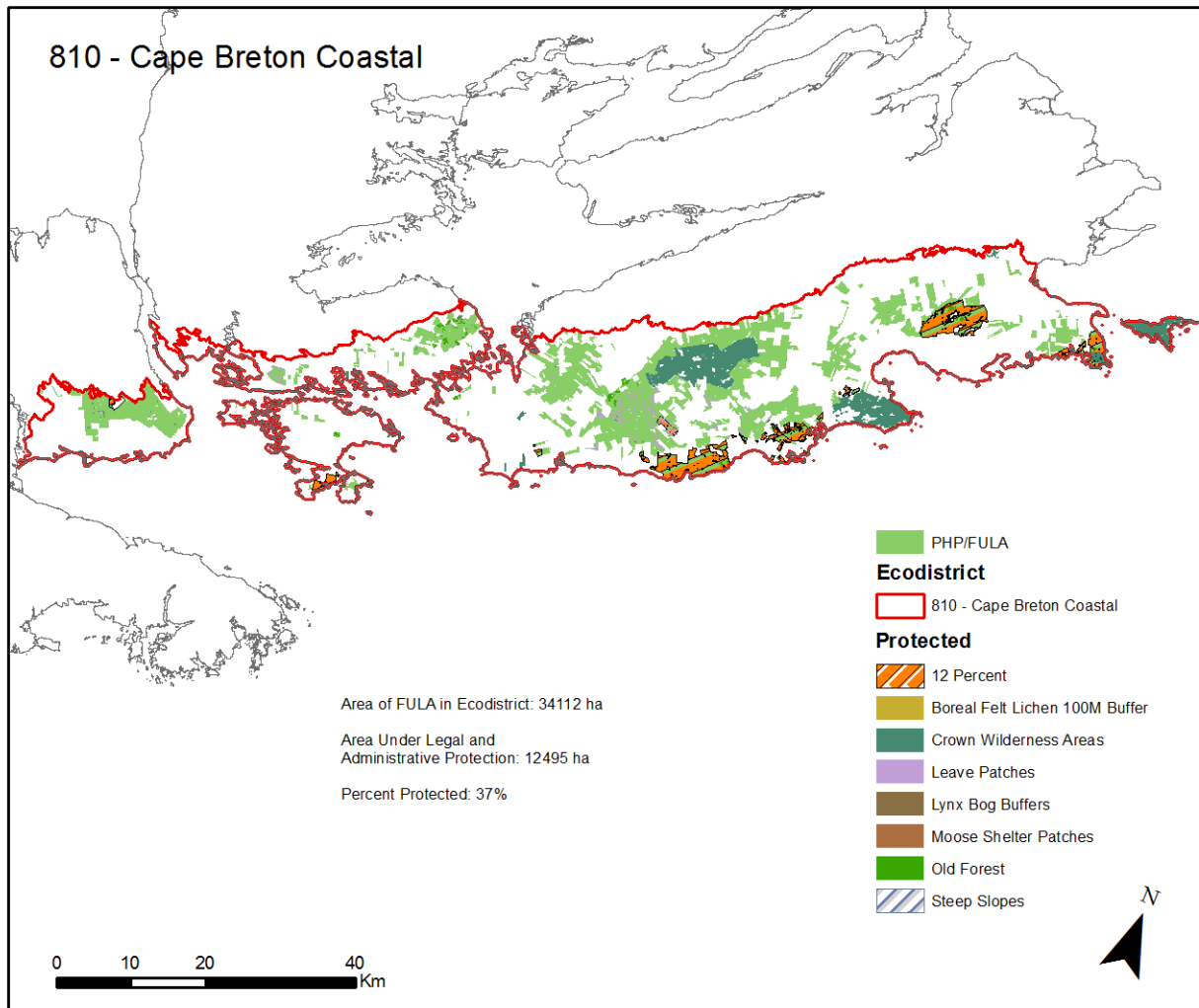


Figure 19 - Legal and Administrative Protected Area for Cape Breton Coastal (Ecodistrict 810)

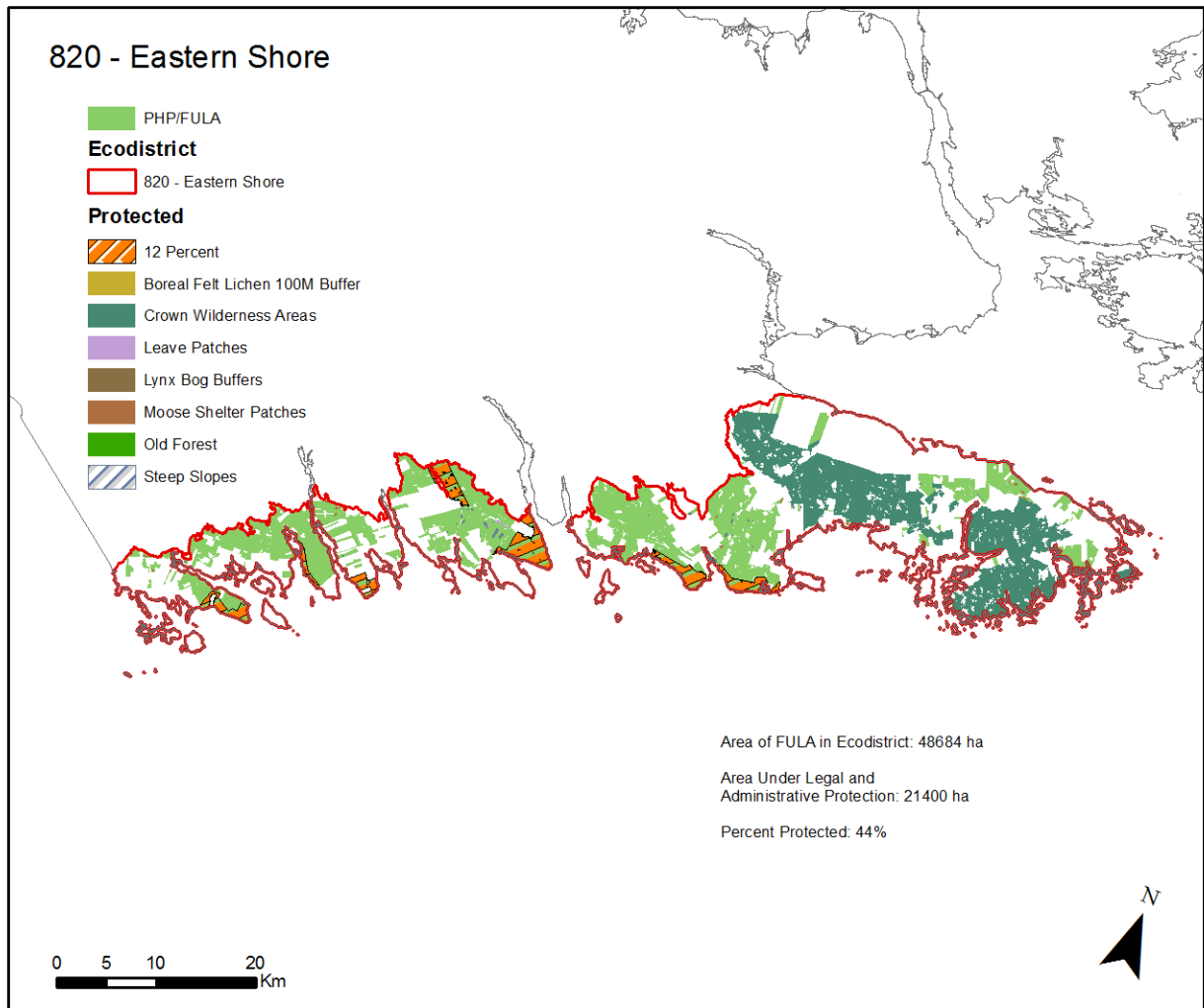


Figure 20 - Legal and Administrative Protected Area for Eastern Shore (Ecodistrict 820)

Landscape Element Composition by Ecodistrict

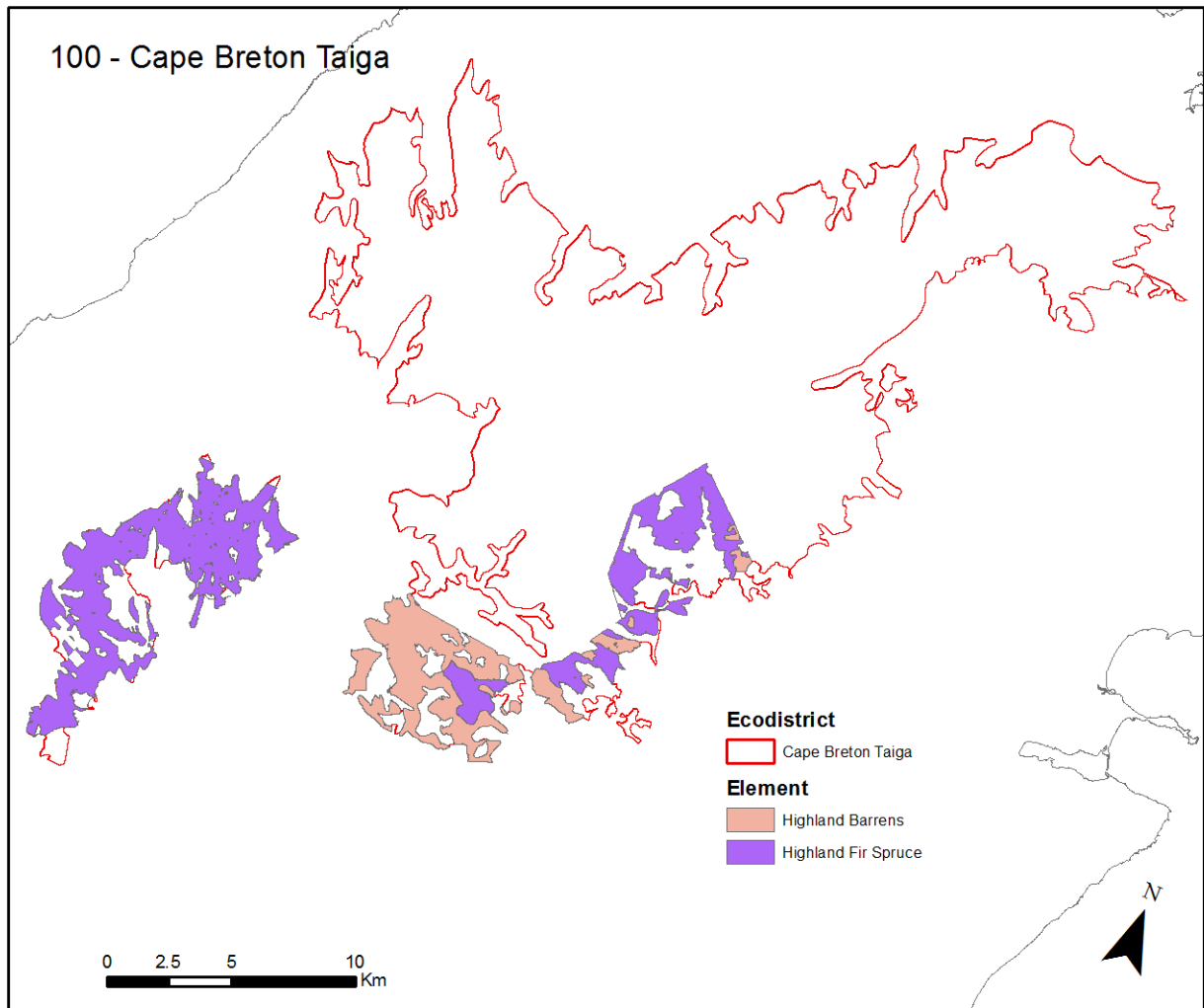


Figure 21 - Landscape Element Composition for Cape Breton Taiga (Ecodistrict 100)

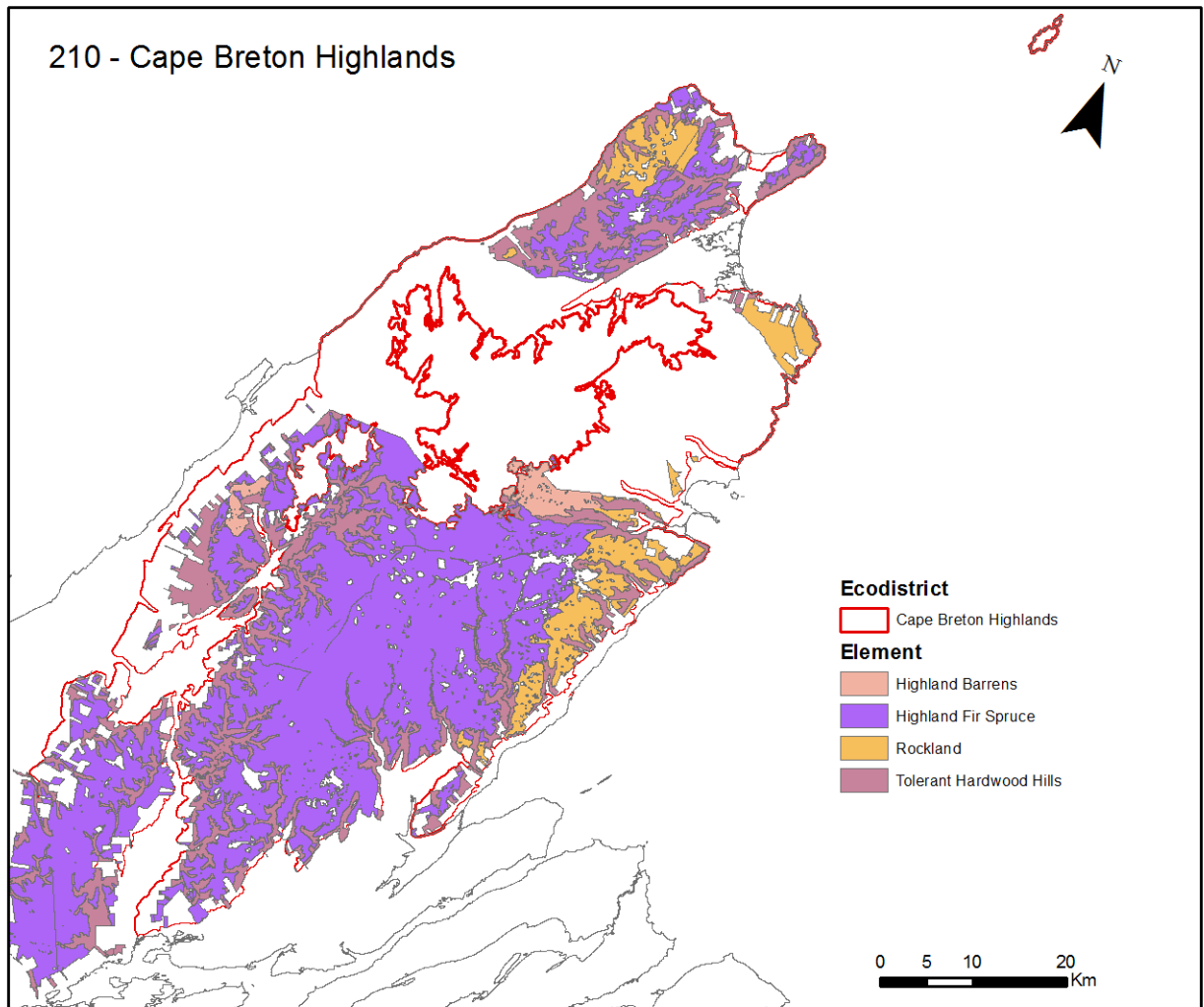


Figure 22 - Landscape Element Composition for Cape Breton Highlands (Ecodistrict 210)

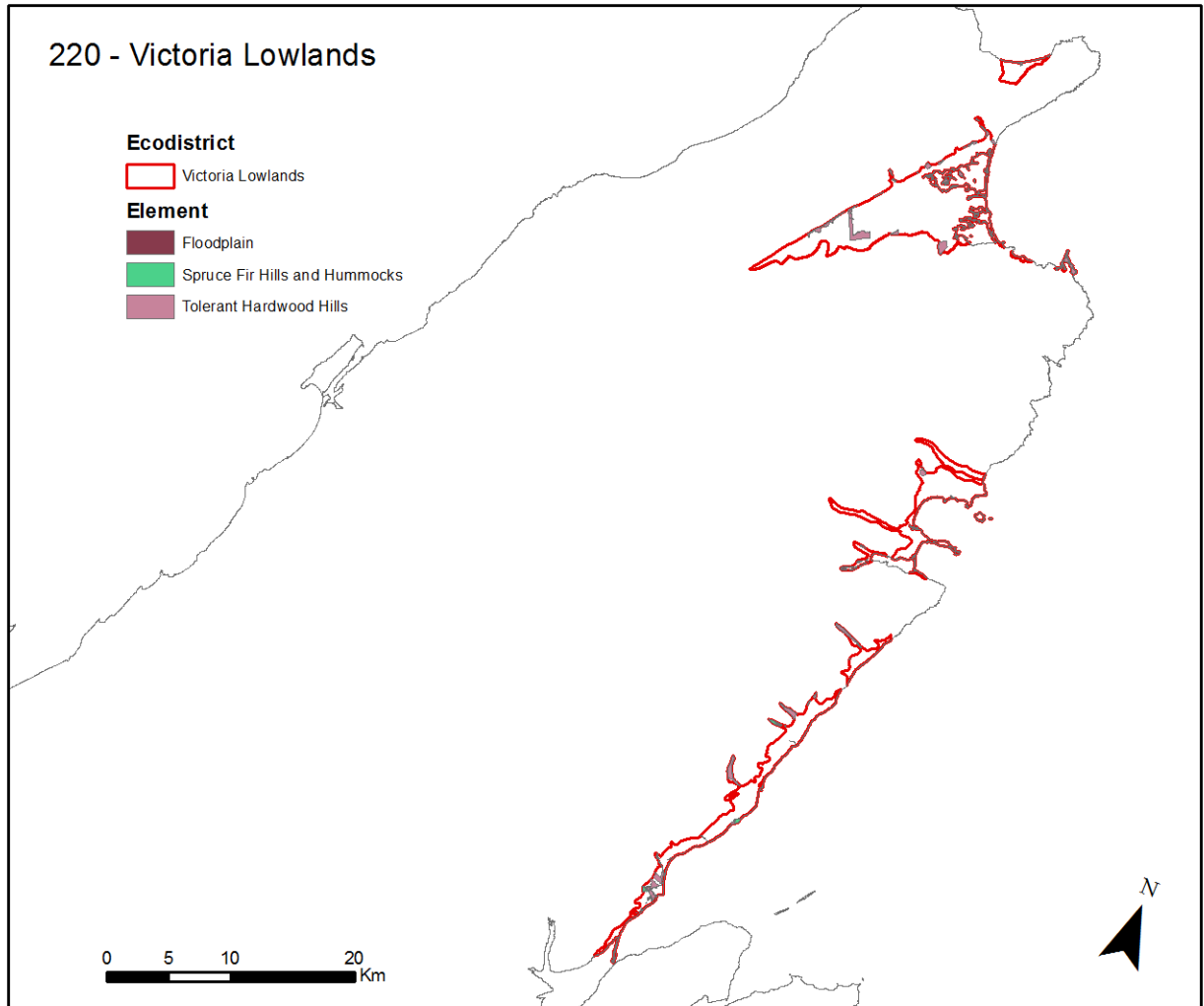


Figure 23 - Landscape Element Composition for Victoria Lowlands (Ecodistrict 220)

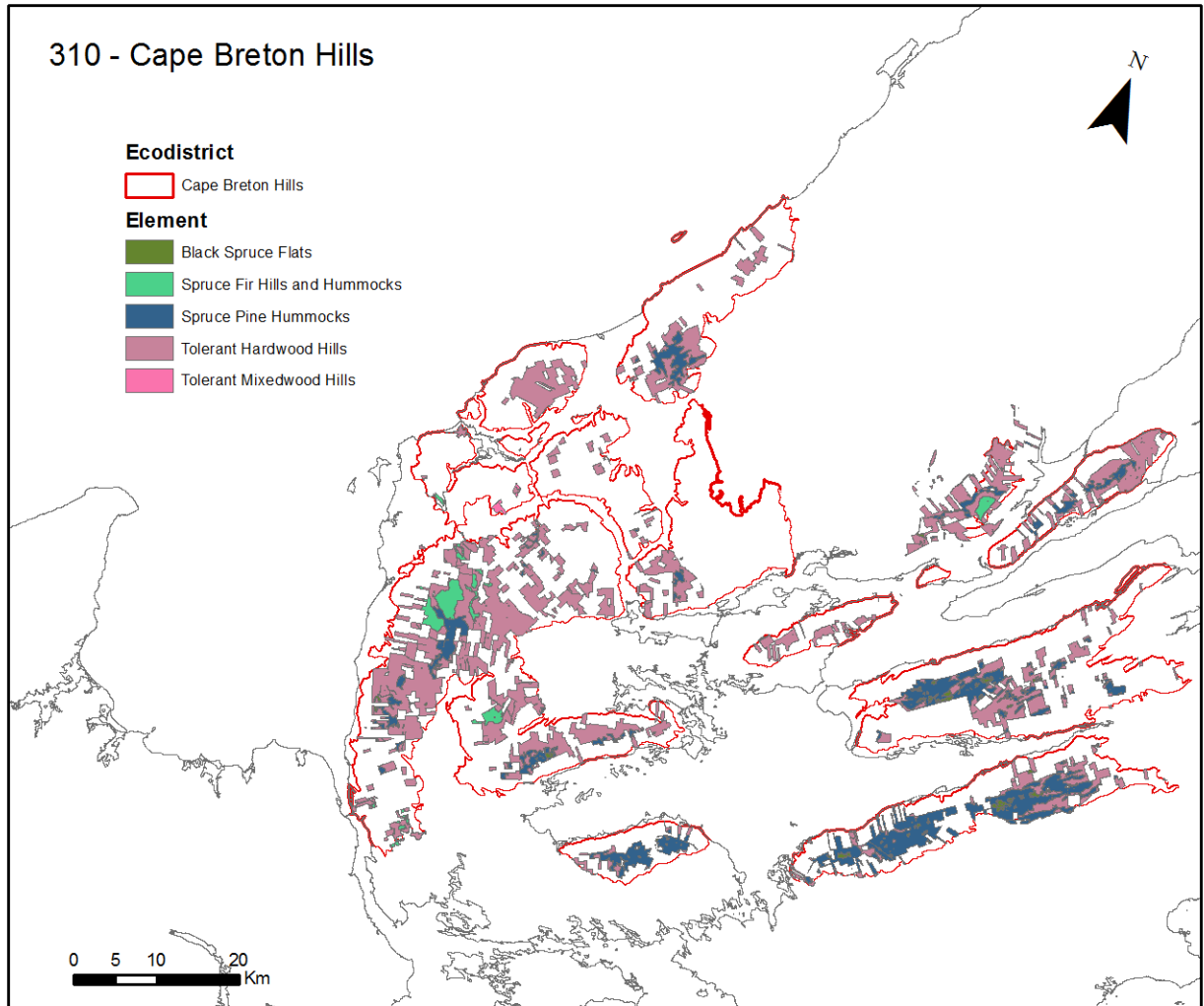


Figure 24 - Landscape Element Composition for Cape Breton Hills (Ecodistrict 310)

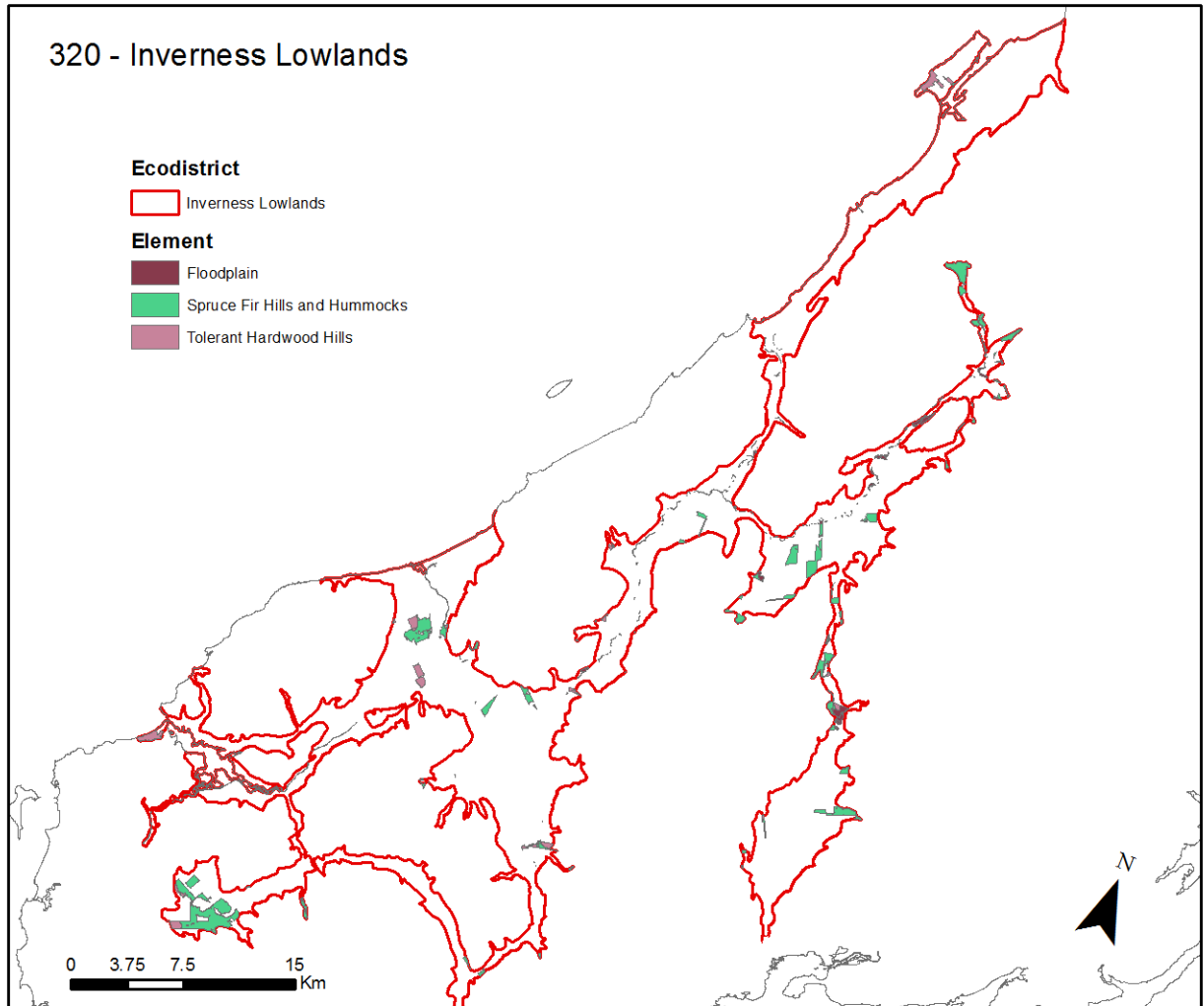


Figure 25 - Landscape Element Composition for Inverness Lowlands (Ecodistrict 320)

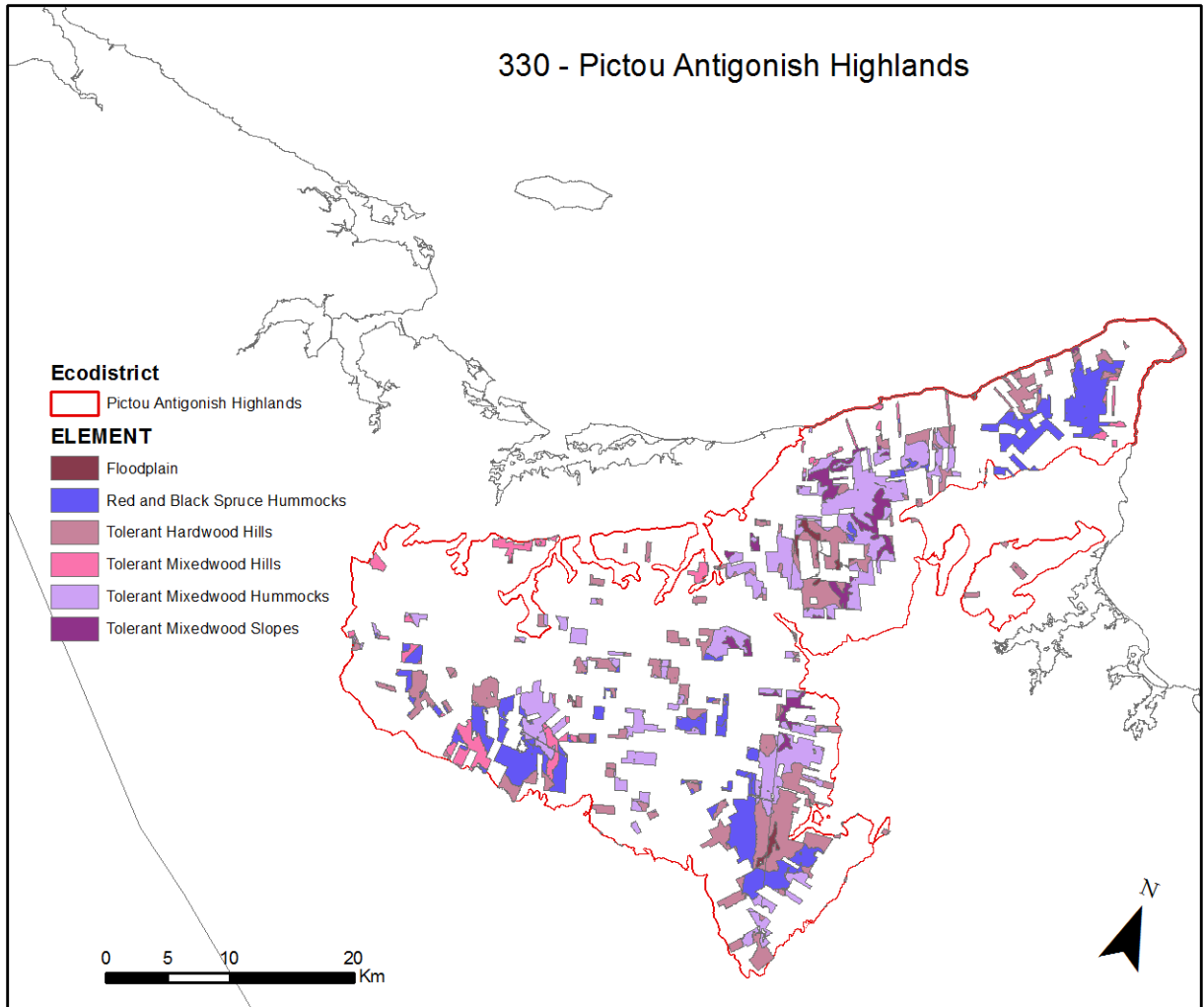


Figure 26 - Landscape Element Composition for Pictou Antigonish Highlands (Ecodistrict 330)

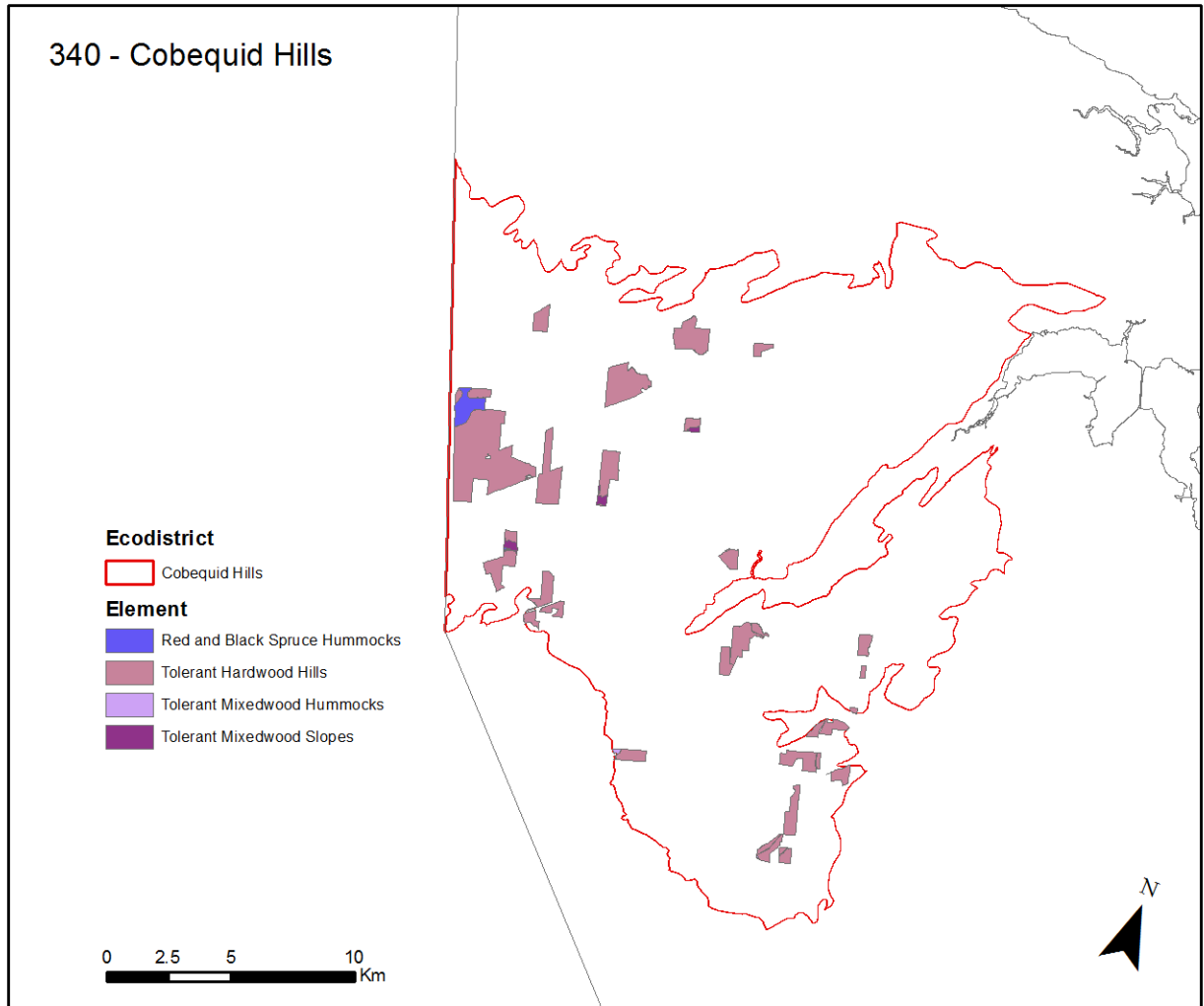


Figure 27 - Landscape Element Composition for Cobequid Hills (Ecodistrict 340)

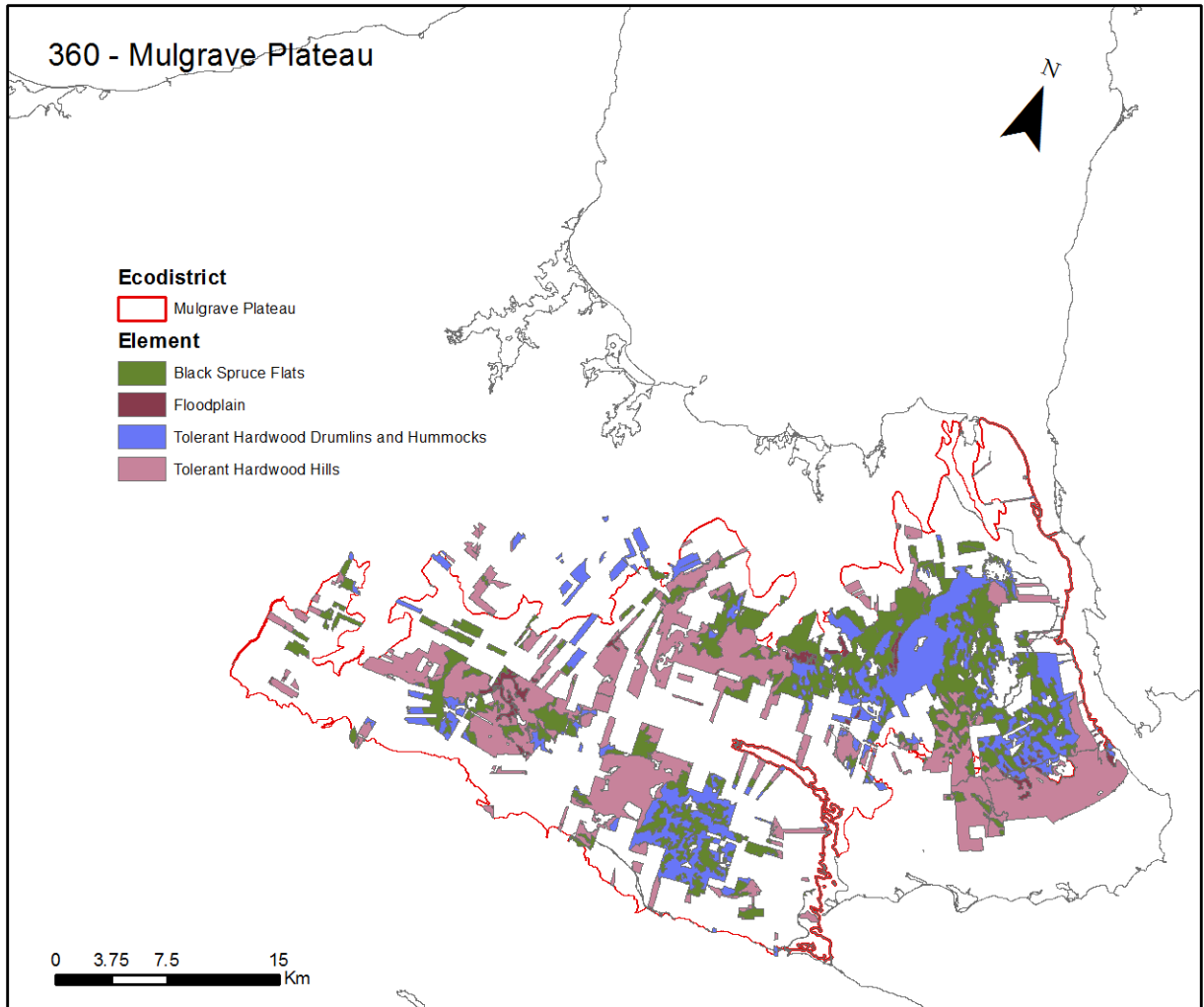


Figure 28 - Landscape Element Composition for Mulgrave Plateau (Ecodistrict 360)

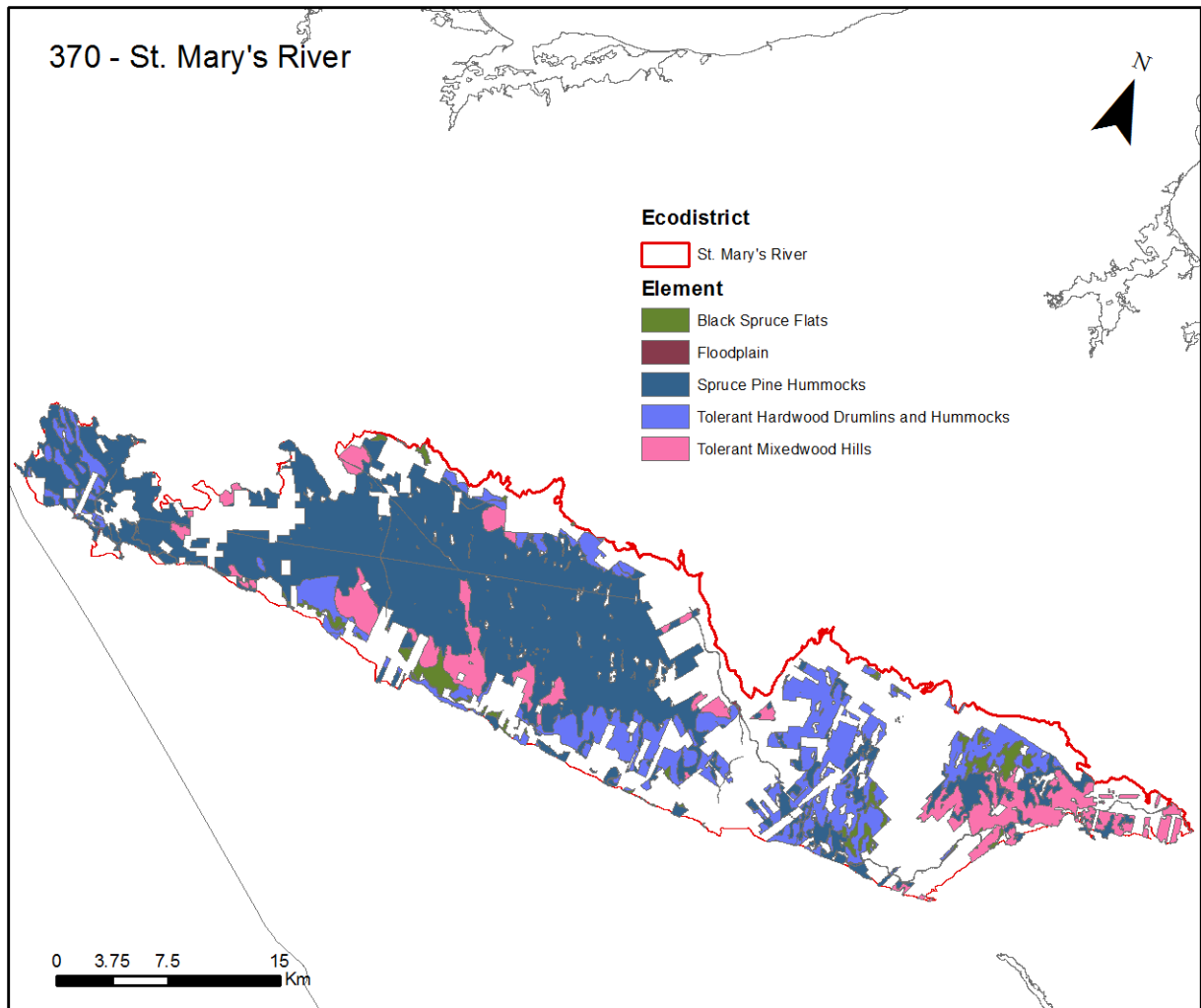


Figure 29 - Landscape Element Composition for St. Mary's River (Ecodistrict 370)

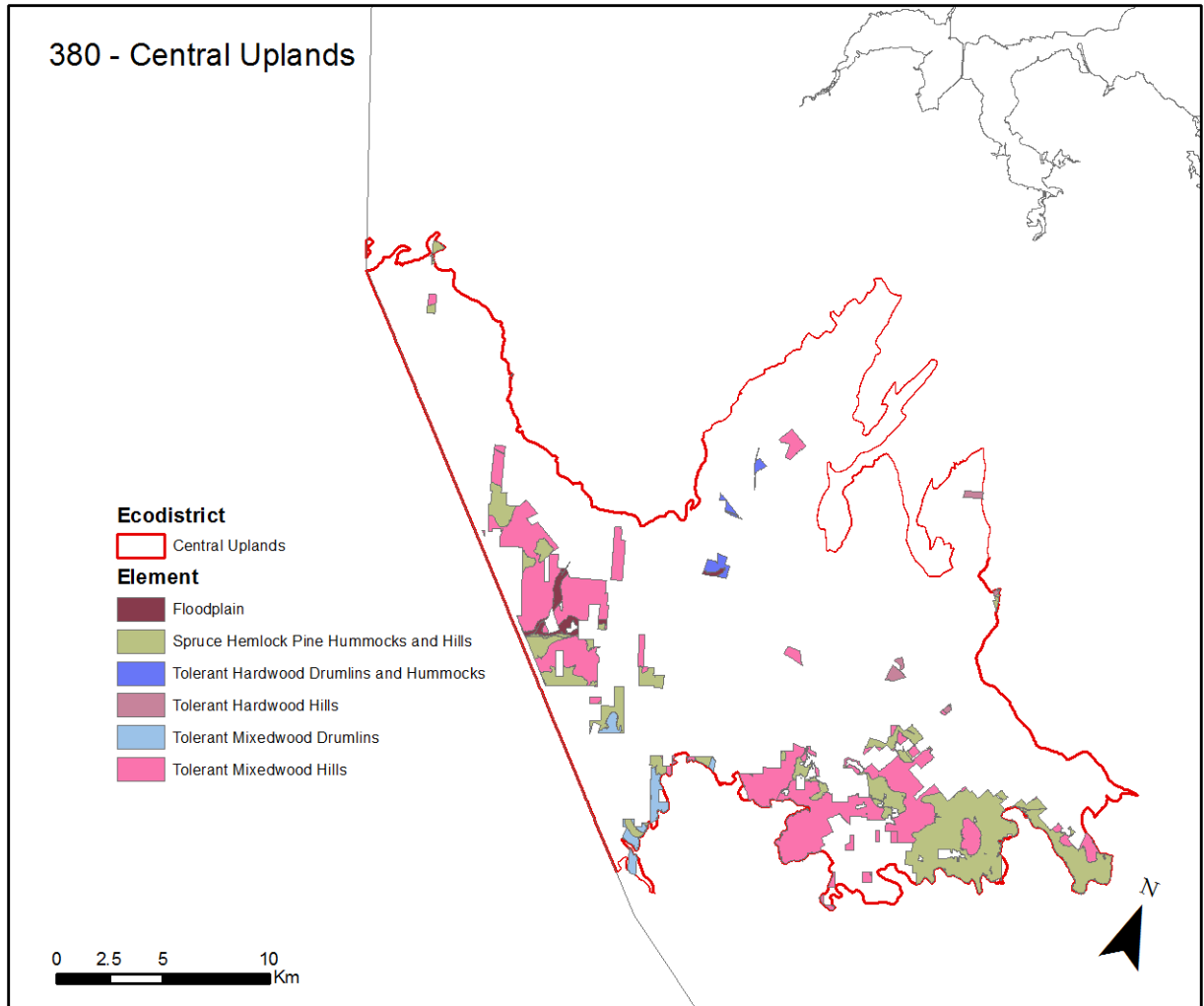


Figure 30 - Landscape Element Composition for Central Uplands (Ecodistrict 380)

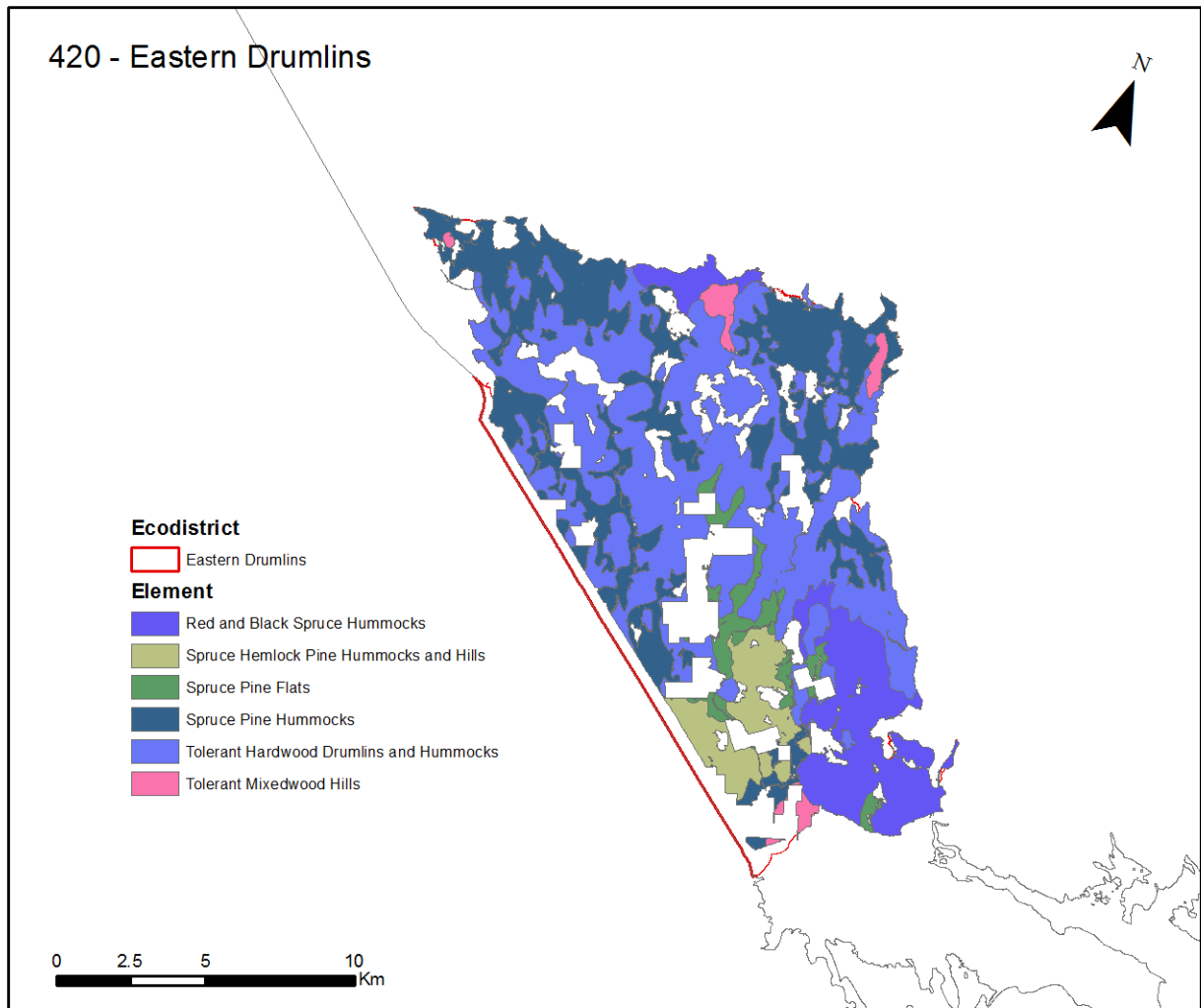


Figure 31 - Landscape Element Composition for Eastern Drumlins (Ecodistrict 420)

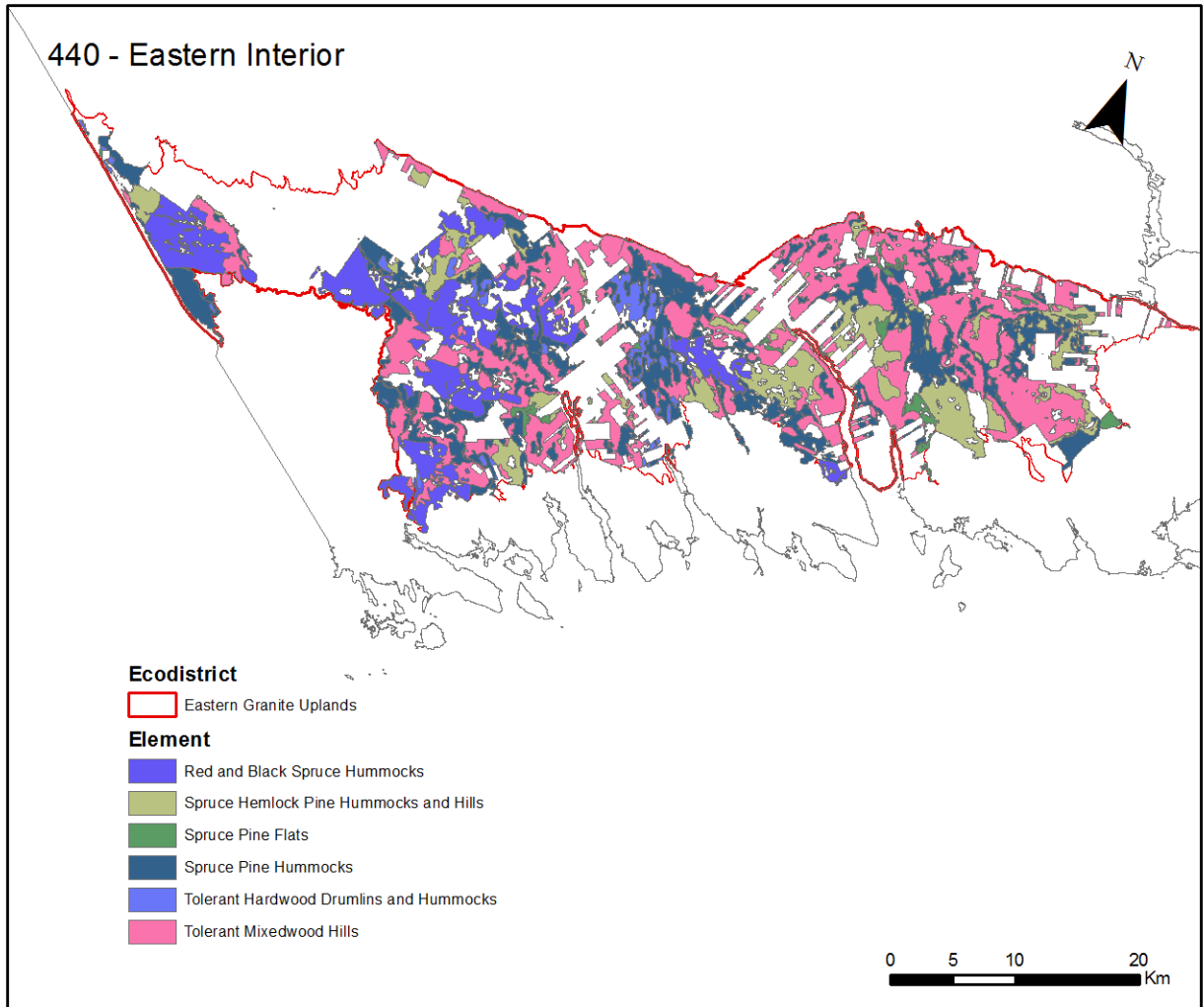


Figure 32 - Landscape Element Composition for Eastern Interior (Ecodistrict 440)

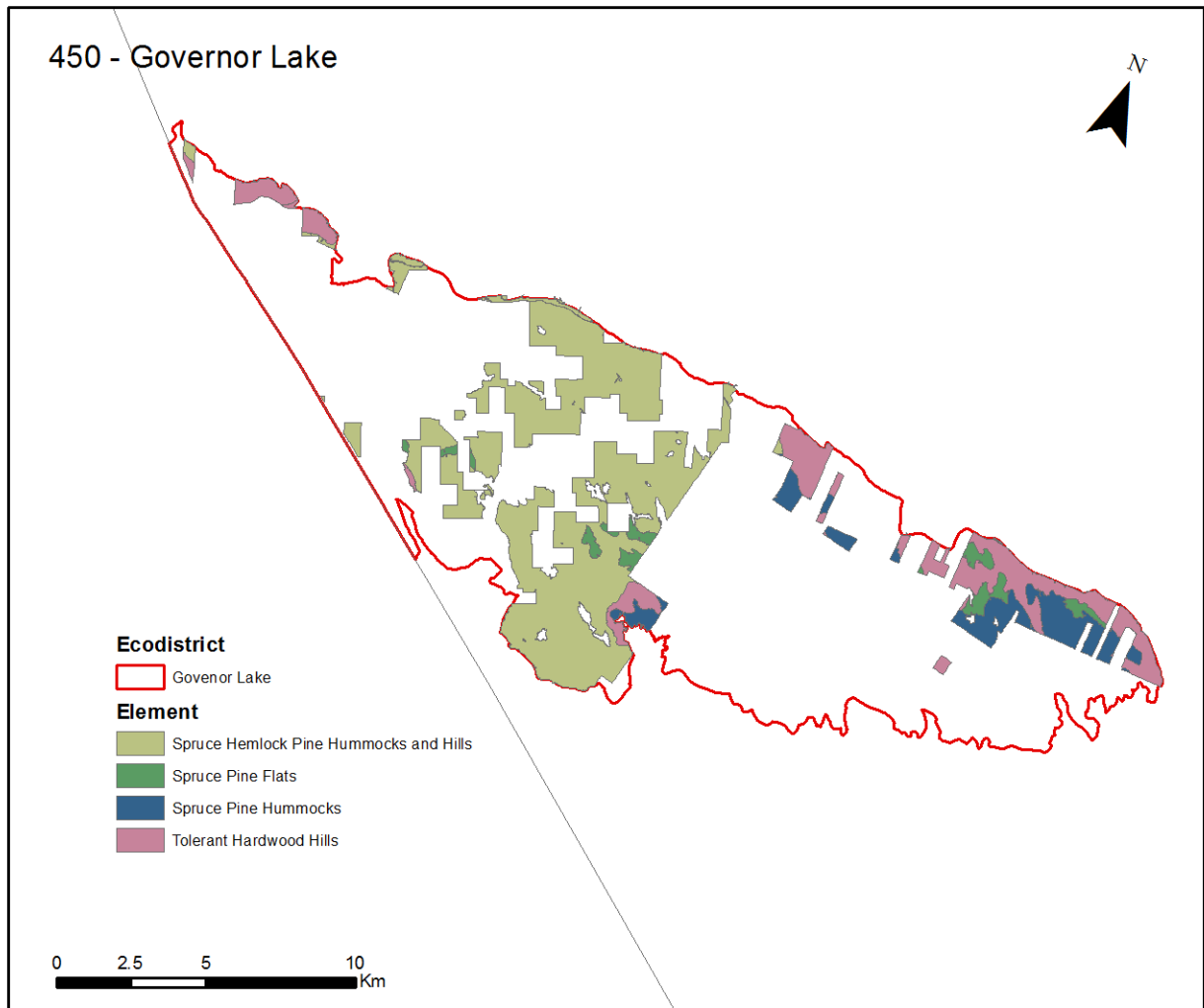


Figure 33 - Landscape Element Composition for Governor Lake (Ecodistrict 450)

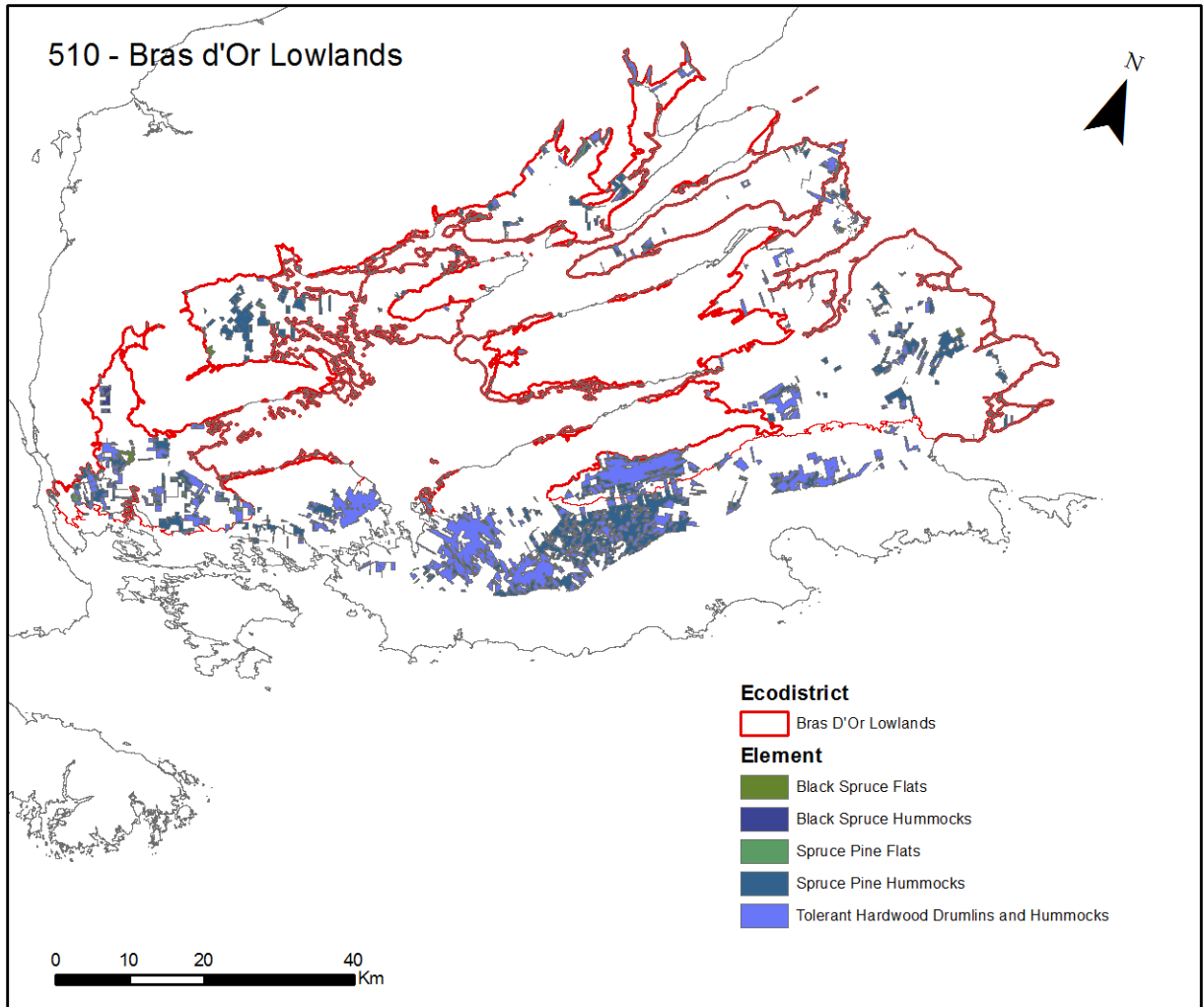


Figure 34 - Landscape Element Composition for Bras d'Or Lowlands (Ecodistrict 510)

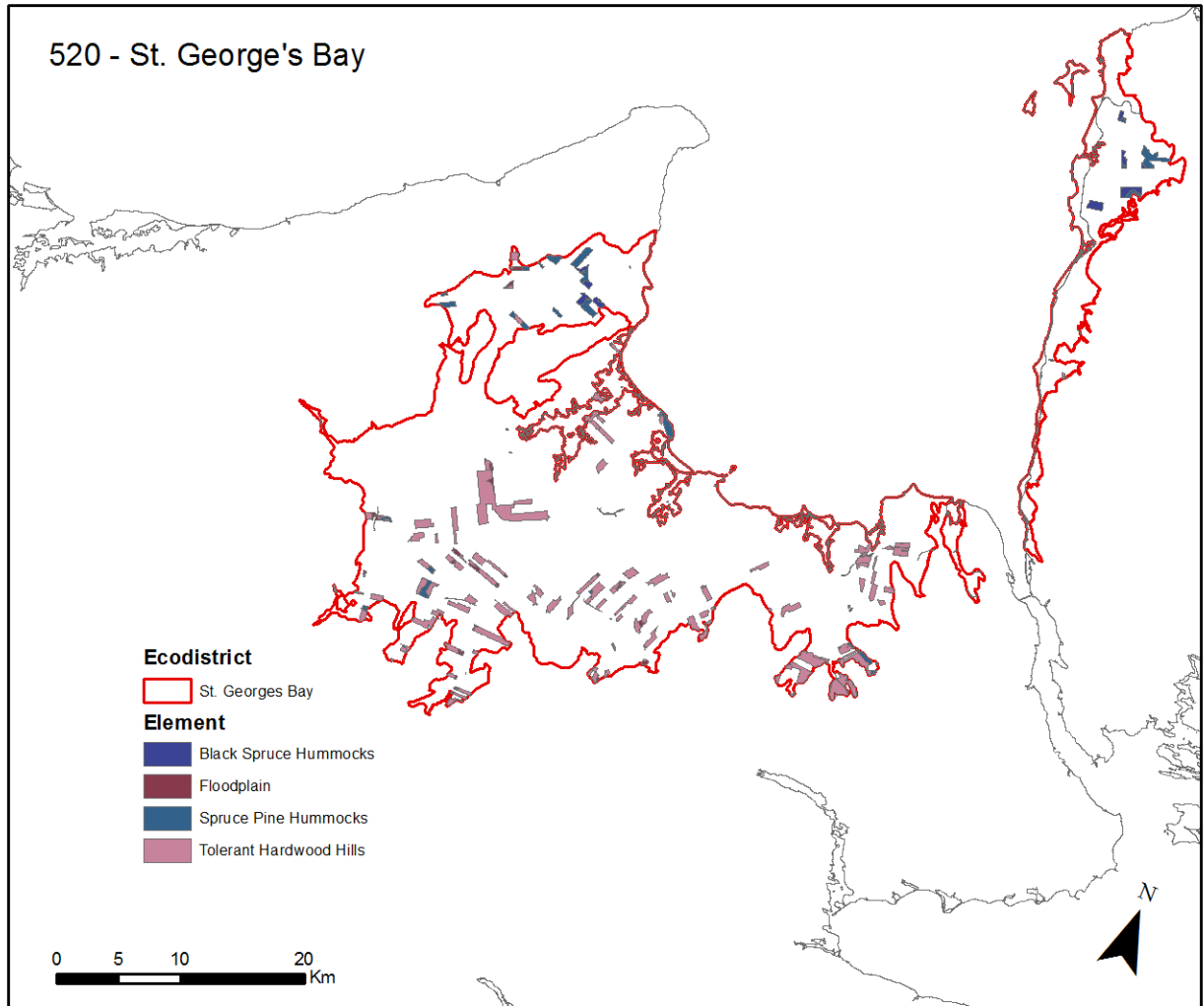


Figure 35 - Landscape Element Composition for St. George's Bay (Ecodistrict 520)

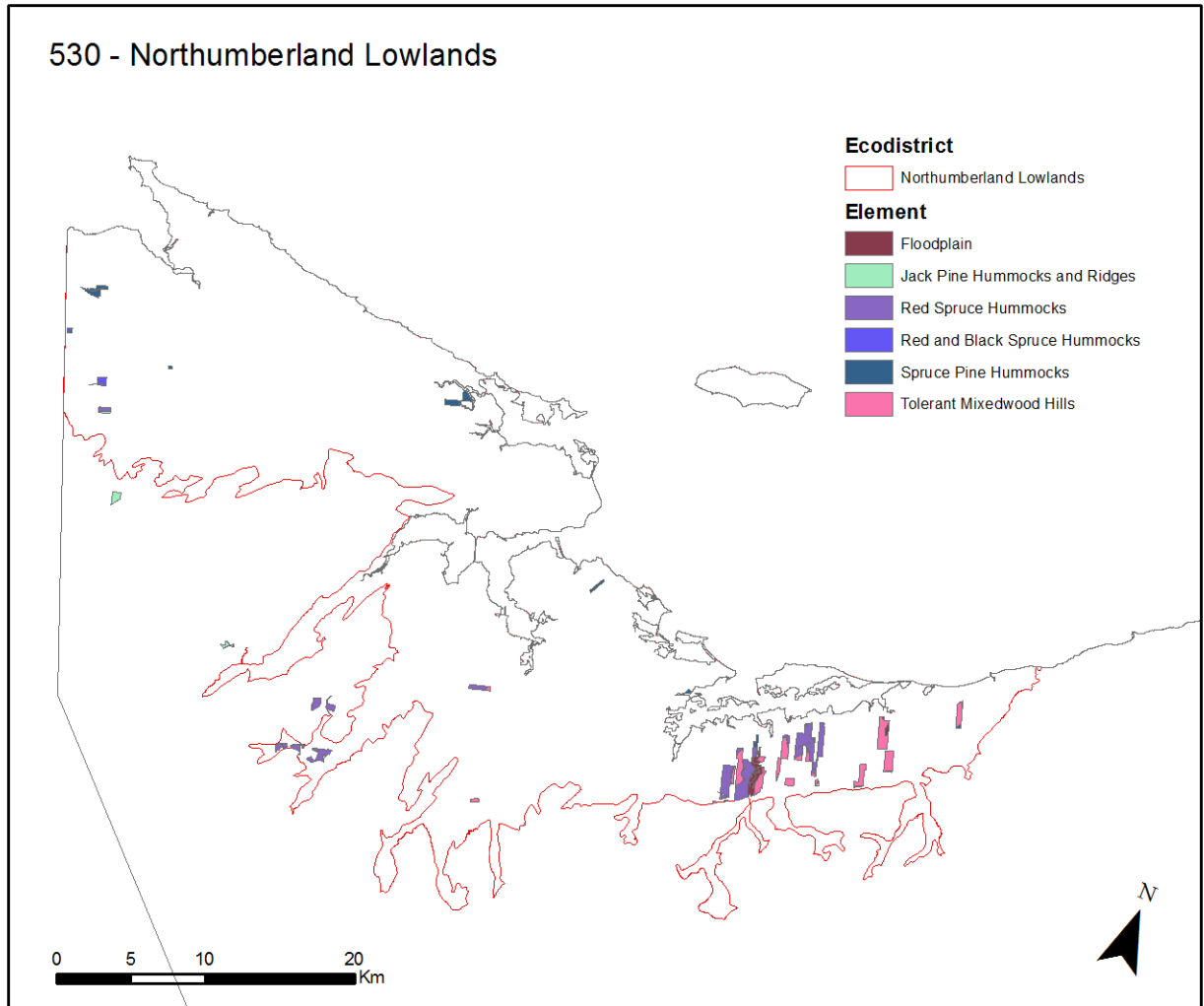


Figure 36 - Landscape Element Composition for Northumberland Lowlands (Ecodistrict 530)

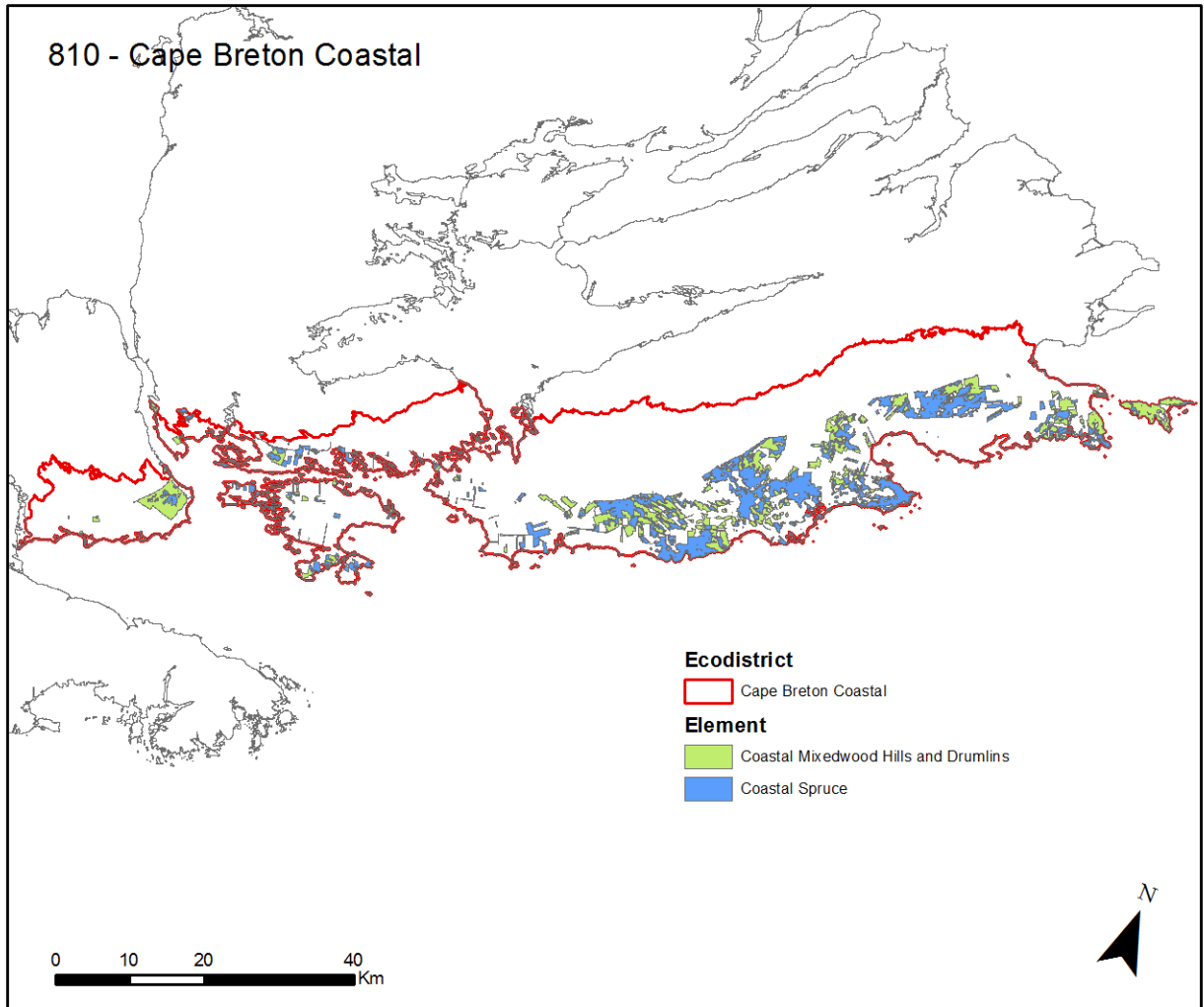


Figure 37 - Landscape Element Composition for Cape Breton Coastal (Ecodistrict 810)

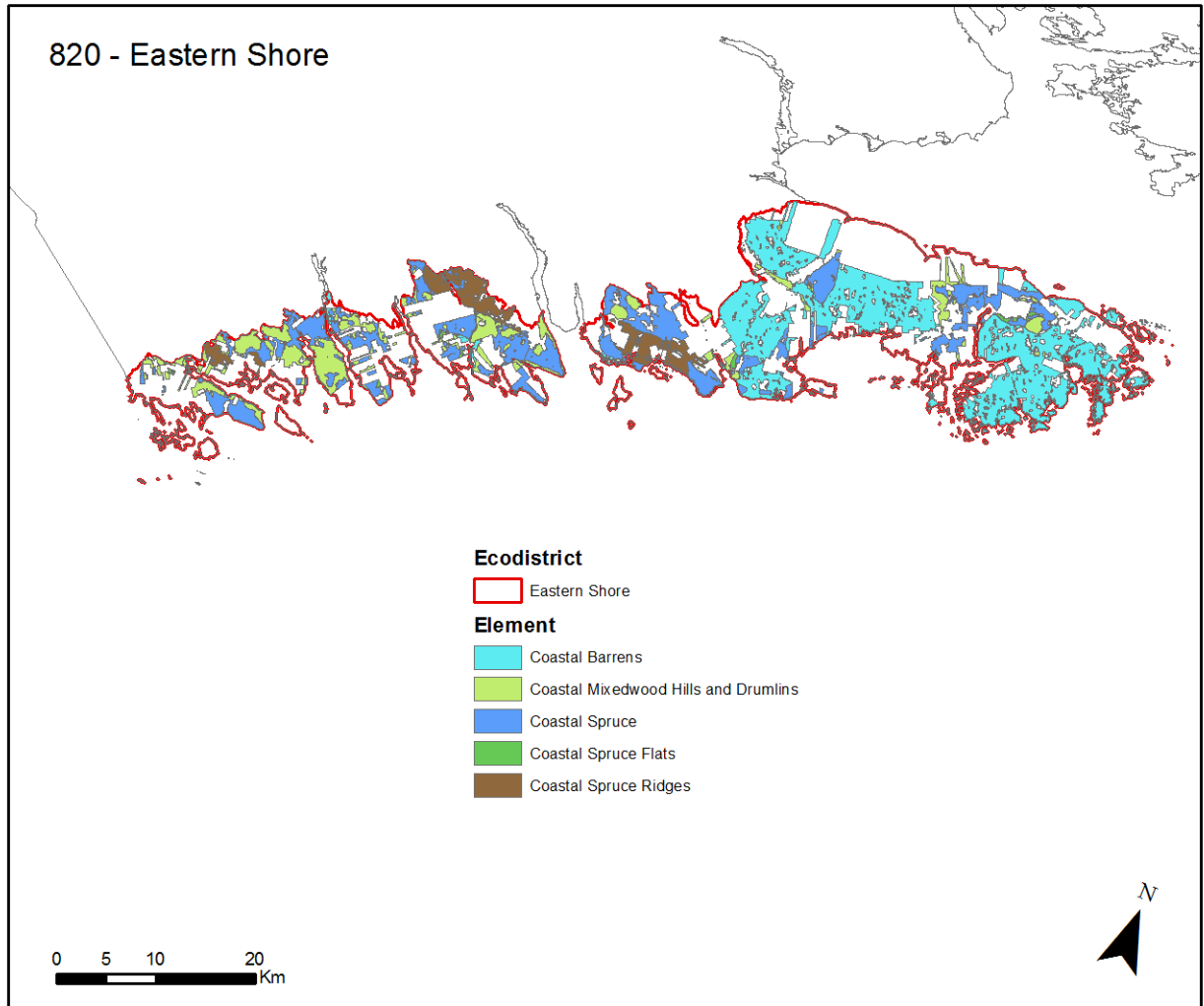


Figure 38 - Landscape Element Composition for Eastern Shore (Ecodistrict 820)

Table 3 - Element Protection Status for Cape Breton Taiga

Landscape Elements	1 - Cape Breton Taiga		
	100 - Cape Breton Taiga		
	Area	Protected	% Protected
Black Spruce Flats			
Black Spruce Hummocks			
Coastal Barrens			
Coastal Mixedwood Hills and Drumlins			
Coastal Spruce			
Coastal Spruce Flats			
Coastal Spruce Ridges			
Highland Barrens	2,171	1,310	60%
Highland Fir Spruce	5,193	4,018	77%
Jack Pine Hummocks and Ridges			
Red and Black Spruce Hummocks			
Red Spruce Hummocks			
Rockland			
Spruce Fir Hills and Hummocks			
Spruce Hemlock Pine Hummocks and Hills			
Spruce Pine Flats			
Spruce Pine Hummocks			
Tolerant Hardwood Drumlins and Hummocks			
Tolerant Hardwood Hills			
Tolerant Mixedwood Hummocks			
Tolerant Mixedwood Slopes			
Tolerant Mixedwood Hills			
Floodplain			
Tolerant Mixedwood Drumlins			
	7,364	5,328	72%

Table 4 - Element Protection Status for Cape Breton Highlands

Landscape Elements	2 - Cape Breton Highlands					
	210 - Cape Breton Highlands			220 - Victoria Lowlands		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats						
Black Spruce Hummocks						
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens	4,216	3,311	79%			
Highland Fir Spruce	127,939	58,184	45%			
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks						
Red Spruce Hummocks						
Rockland	17,534	14,400	82%			
Spruce Fir Hills and Hummocks				41	29	71%
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats						
Spruce Pine Hummocks						
Tolerant Hardwood Drumlins and Hummocks						
Tolerant Hardwood Hills	53,876	43,810	81%	655	531	81%
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills						
Floodplain				27	20	74%
Tolerant Mixedwood Drumlins						
	203,564	119,704	59%	723	579	80%

Table 5 - Element Protection Status for Uplands (1 of 4)

Landscape Elements	3 - Uplands					
	310 - Cape Breton Hills			320 - Inverness Lowlands		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats	906	718	79%			
Black Spruce Hummocks						
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks						
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks	2,929	556	19%	1,793	406	23%
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats						
Spruce Pine Hummocks	18,782	6,934	37%			
Tolerant Hardwood Drumlins and Hummocks						
Tolerant Hardwood Hills	53,975	17,102	32%	420	194	46%
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills	180	18	10%			
Floodplain				187	97	52%
Tolerant Mixedwood Drumlins						
	76,773	25,328	33%	2,400	696	29%

Table 6 - Element Protection Status for Uplands (2 of 4)

Landscape Elements	3 - Uplands					
	330 - Pictou Antigonish Highlands			340 - Cobequid Hills		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats						
Black Spruce Hummocks						
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks	8,322	841	10%	105	3	3%
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks						
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats						
Spruce Pine Hummocks						
Tolerant Hardwood Drumlins and Hummocks						
Tolerant Hardwood Hills	10,048	2,457	24%	2,413	562	23%
Tolerant Mixedwood Hummocks	10,939	3,778	35%	6	0	3%
Tolerant Mixedwood Slopes	1,833	1,102	60%	43	12	28%
Tolerant Mixedwood Hills	2,132	185	9%			
Floodplain	433	221	51%			
Tolerant Mixedwood Drumlins						
	33,707	8,585	25%	2,567	577	22%

Table 7 - Element Protection Status for Uplands (3 of 4)

Landscape Elements	3 - Uplands					
	360 - Mulgrave Plateau			370 - St. Mary's River		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats	13,111	3,323	25%	1,697	328	19%
Black Spruce Hummocks						
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks						
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks						
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats						
Spruce Pine Hummocks				32,770	3,135	10%
Tolerant Hardwood Drumlins and Hummocks	10,006	2,588	26%	10,718	1,729	16%
Tolerant Hardwood Hills	17,718	5,889	33%			
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills				6,436	176	3%
Floodplain	885	453	51%	38	5	12%
Tolerant Mixedwood Drumlins						
	41,721	12,253	29%	51,660	5,372	10%

Table 8 - Element Protection Status for Uplands (4 of 4)

Landscape Elements	3 - Uplands		
	380 - Central Uplands		
	Area	Protected	% Protected
Black Spruce Flats			
Black Spruce Hummocks			
Coastal Barrens			
Coastal Mixedwood Hills and Drumlins			
Coastal Spruce			
Coastal Spruce Flats			
Coastal Spruce Ridges			
Highland Barrens			
Highland Fir Spruce			
Jack Pine Hummocks and Ridges			
Red and Black Spruce Hummocks			
Red Spruce Hummocks			
Rockland			
Spruce Fir Hills and Hummocks			
Spruce Hemlock Pine Hummocks and Hills	3,220	495	15%
Spruce Pine Flats			
Spruce Pine Hummocks			
Tolerant Hardwood Drumlins and Hummocks	122	3	2%
Tolerant Hardwood Hills	93	3	3%
Tolerant Mixedwood Hummocks			
Tolerant Mixedwood Slopes			
Tolerant Mixedwood Hills	4,241	833	20%
Floodplain	187	139	74%
Tolerant Mixedwood Drumlins	278	66	24%
	8,141	1,539	19%

Table 9 - Element Protection Status for Eastern (1 of 2)

Landscape Elements	4 - Eastern					
	420 - Eastern Drumlins			440 - Eastern Interior		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats						
Black Spruce Hummocks						
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks	2,339	301	13%	13,210	3,645	28%
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks						
Spruce Hemlock Pine Hummocks and Hills	1,021	41	4%	10,504	320	3%
Spruce Pine Flats	660	47	7%	1,463	67	5%
Spruce Pine Hummocks	5,089	1,435	28%	20,518	3,493	17%
Tolerant Hardwood Drumlins and Hummocks	7,536	2,664	35%	2,388	455	19%
Tolerant Hardwood Hills						
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills	322	19	6%	30,504	5,221	17%
Floodplain						
Tolerant Mixedwood Drumlins						
	16,967	4,508	27%	78,586	13,201	17%

Table 10 - Element Protection Status for Eastern (2 of 2)

Landscape Elements	4 - Eastern		
	450 - Governor Lake		
Landscape Elements	Area	Protected	% Protected
Black Spruce Flats			
Black Spruce Hummocks			
Coastal Barrens			
Coastal Mixedwood Hills and Drumlins			
Coastal Spruce			
Coastal Spruce Flats			
Coastal Spruce Ridges			
Highland Barrens			
Highland Fir Spruce			
Jack Pine Hummocks and Ridges			
Red and Black Spruce Hummocks			
Red Spruce Hummocks			
Rockland			
Spruce Fir Hills and Hummocks			
Spruce Hemlock Pine Hummocks and Hills	4,734	268	6%
Spruce Pine Flats	332	10	3%
Spruce Pine Hummocks	762	146	19%
Tolerant Hardwood Drumlins and Hummocks			
Tolerant Hardwood Hills	1,402	309	22%
Tolerant Mixedwood Hummocks			
Tolerant Mixedwood Slopes			
Tolerant Mixedwood Hills			
Floodplain			
Tolerant Mixedwood Drumlins			
	7,230	733	10%

Table 11 - Element Protection Status for Northumberland/Bras D'Or (1 of 2)

Landscape Elements	5 - Northumberland / Bras D'Or					
	510 - Bras d'Or Lowlands			520 - St. Georges Bay		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats	588	148	25%			
Black Spruce Hummocks	263	97	37%	388	32	8%
Coastal Barrens						
Coastal Mixedwood Hills and Drumlins						
Coastal Spruce						
Coastal Spruce Flats						
Coastal Spruce Ridges						
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks						
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks						
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats	517	180	35%			
Spruce Pine Hummocks	22,702	5,026	22%	1,001	236	24%
Tolerant Hardwood Drumlins and Hummocks	29,247	4,400	15%			
Tolerant Hardwood Hills				4,908	527	11%
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills						
Floodplain				251	38	15%
Tolerant Mixedwood Drumlins						
	53,317	9,851	18%	6,548	833	13%

Table 12 - Element Protection Status for Northumberland/Bras D'Or (2 of 2)

5 - Northumberland / Bras D'or			
530 - Northumberland Lowlands			
Landscape Elements	Area	Protected	% Protected
Black Spruce Flats			
Black Spruce Hummocks			
Coastal Barrens			
Coastal Mixedwood Hills and Drumlins			
Coastal Spruce			
Coastal Spruce Flats			
Coastal Spruce Ridges			
Highland Barrens			
Highland Fir Spruce			
Jack Pine Hummocks and Ridges	74	3	4%
Red and Black Spruce Hummocks	31	2	5%
Red Spruce Hummocks	898	39	4%
Rockland			
Spruce Fir Hills and Hummocks			
Spruce Hemlock Pine Hummocks and Hills			
Spruce Pine Flats			
Spruce Pine Hummocks	185	43	23%
Tolerant Hardwood Drumlins and Hummocks			
Tolerant Hardwood Hills			
Tolerant Mixedwood Hummocks			
Tolerant Mixedwood Slopes			
Tolerant Mixedwood Hills	657	17	3%
Floodplain	139	19	14%
Tolerant Mixedwood Drumlins			
	1,983	122	6%

Table 13 - Element Protection Status for Atlantic Coastal

Landscape Elements	8 - Atlantic Coastal					
	810 - Cape Breton Coastal			820 - Eastern Shore		
	Area	Protected	% Protected	Area	Protected	% Protected
Black Spruce Flats						
Black Spruce Hummocks						
Coastal Barrens				22,535	14,792	66%
Coastal Mixedwood Hills and Drumlins	13,926	4,119	30%	7,578	1,500	20%
Coastal Spruce	20,186	8,376	41%	14,304	4,197	29%
Coastal Spruce Flats				323	148	46%
Coastal Spruce Ridges				3,944	763	19%
Highland Barrens						
Highland Fir Spruce						
Jack Pine Hummocks and Ridges						
Red and Black Spruce Hummocks						
Red Spruce Hummocks						
Rockland						
Spruce Fir Hills and Hummocks						
Spruce Hemlock Pine Hummocks and Hills						
Spruce Pine Flats						
Spruce Pine Hummocks						
Tolerant Hardwood Drumlins and Hummocks						
Tolerant Hardwood Hills						
Tolerant Mixedwood Hummocks						
Tolerant Mixedwood Slopes						
Tolerant Mixedwood Hills						
Floodplain						
Tolerant Mixedwood Drumlins						
	34,112	12,495	37%	48,684	21,400	44%

Table 14 - Element Protection Status for all FULA

	Total		
	FULA		
Landscape Elements	Area	Protected	% Protected
Black Spruce Flats	16,303	4,518	27.7%
Black Spruce Hummocks	651	128	19.7%
Coastal Barrens	22,535	14,792	65.6%
Coastal Mixedwood Hills and Drumlins	21,504	5,619	26.1%
Coastal Spruce	34,490	12,573	36.5%
Coastal Spruce Flats	323	148	45.8%
Coastal Spruce Ridges	3,944	763	19.4%
Highland Barrens	6,387	4,620	72.3%
Highland Fir Spruce	133,131	62,201	46.7%
Jack Pine Hummocks and Ridges	74	74	100.7%
Red and Black Spruce Hummocks	24,007	4,792	20.0%
Red Spruce Hummocks	898	39	4.4%
Rockland	17,534	14,400	82.1%
Spruce Fir Hills and Hummocks	4,762	990	20.8%
Spruce Hemlock Pine Hummocks and Hills	19,478	1,124	5.8%
Spruce Pine Flats	2,972	304	10.2%
Spruce Pine Hummocks	101,808	20,450	20.1%
Tolerant Hardwood Drumlins and Hummocks	60,018	11,838	19.7%
Tolerant Hardwood Hills	145,510	71,383	49.1%
Tolerant Mixedwood Hummocks	10,945	3,779	34.5%
Tolerant Mixedwood Slopes	1,876	1,114	59.4%
Tolerant Mixedwood Hills	44,471	6,469	14.5%
Floodplain	2,147	992	46.2%
Tolerant Mixedwood Drumlins	278	66	23.7%
	676,047	243,176	36.0%