Martel Forest

Proposed FSC Protected Areas Candidate Sites

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Background and Purpose

FSC Criterion 6.4 requires that representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources. The identification of a viable, representative core reserve network and making progress to permanently protect these areas are important components of obtaining and maintaining an FSC certificate.

In November 2002, a collaborative workshop was held between Tembec, WWF-Canada and CPAWS-Wildlands League to identify gaps in ecological representation, and identify proposed protected areas with which to fill them. This process resulted in the delineation of a suite of proposed protected areas which currently cover almost 220,000 hectares on the forests managed by Tembec.

Similar initiatives to identify and secure the deferral of other proposed protected areas are underway in other FSC certified tenures throughout Ontario, including co-operative SFLs where Tembec is a major shareholder. As of January 2013, there were eighteen forest management units in Ontario that have achieved certification, compared to eight management units back in 2008. This momentum has created a nearly contiguous landscape of land managed to FSC standards in northeastern Ontario, and represents an excellent opportunity to further augment Ontario's parks and protected areas system.

All parties involved in the identification of proposed candidate protected areas through the FSC certification process are cognizant that overlapping interests must be carefully considered before making land use decisions that could impact First Nations, local communities or other stakeholders.

Tembec, CPAWS-Wildlands League, Ontario Nature and WWF-Canada endeavored to undertake regional conservation planning to be consistent with best-in-class systematic conservation planning approaches. However, there are additional pragmatic benefits of a regional approach. Caribou conservation and the Landscape Guide will require a regional approach to ensure likelihood of persistence of conservation attributes across multiple tenures. Planning across multiple tenures will require flexibility in the application of the design thresholds to meet regional targets. Similarly, wood flow considered in a regional context will make it easier to comply with caribou conservation and Landscape Guide targets and thresholds.

Martel Forest

For this report, the study area primarily consists of Site Region 3E. (Appendix 1, Page 4, Assessment of Representation, December 2007). The Martel Forest is located predominantly in 3E with small area in both 4E and 5E. See Figure 1.

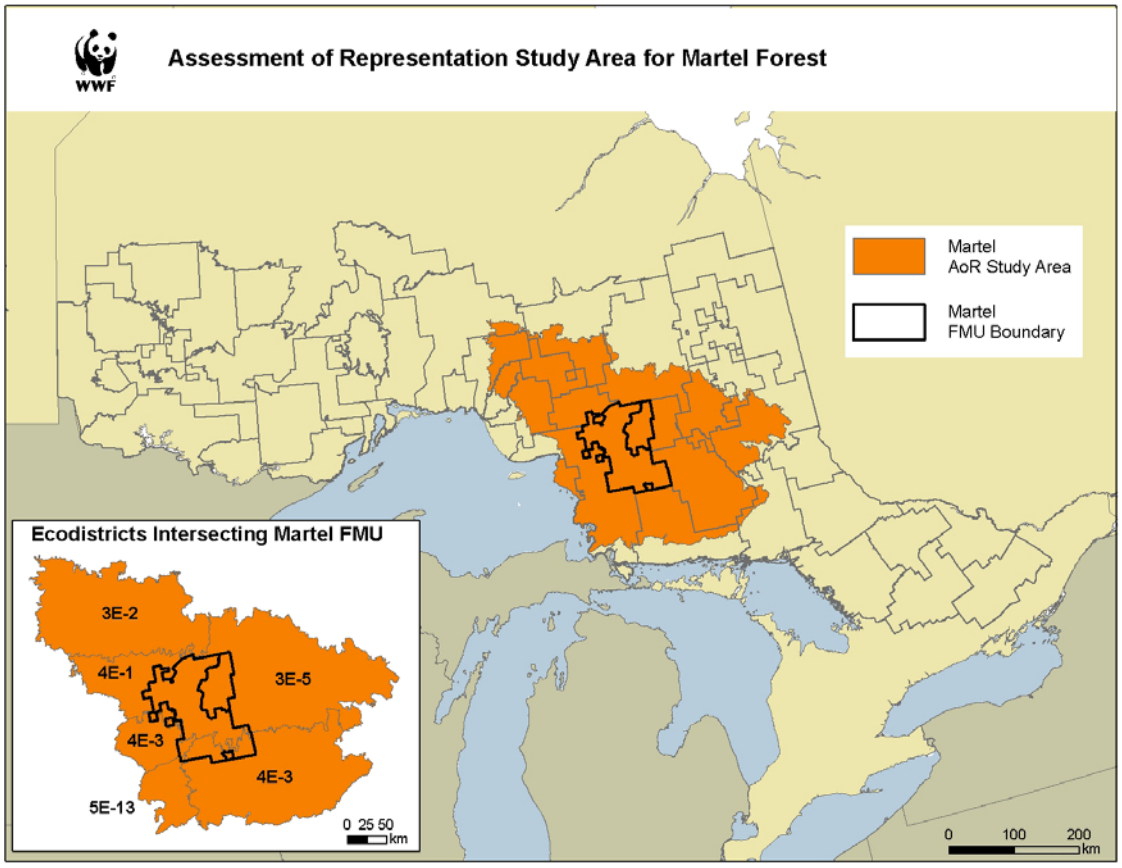
Primer on Systematic Conservation Planning

The academic, resource management and environmental not-for-profit communities have arrived at a consensus of sorts on a few basic points regarding biodiversity conservation:

- it is best to plan over relatively large spatial areas (Groves et al. 2002);
- biodiversity protection requires identifying key habitats for strict protection as well as good management in intervening landscapes (Margules and Pressey 2000); and

- the process of conservation planning needs to be scientifically defensible and rigorous (Noss 2003).

Figure 1. Assessment of Representation Study Area for the Martel Forest



These principles are embodied in the ecoregional or systematic conservation planning approaches described by Margules and Pressey (2000) and Groves et al. (2000), that includes: setting goals and targets, identifying conservation gaps, making site selection criteria explicit, providing peer review and proposing conservation action that includes adaptive management.

The High Conservation Value (HCVF) framework, as described in the FSC boreal standard, was used as the primary site selection methodology. The HCVF framework provides guidance to compile a wide range of fine-filter conservation attributes, from species at risk to focal species to critical ecosystem functions.

The resulting surface of conservation values is then compared with the gaps in protected areas representation using WWF-Canada's automated Assessment of Representation (AoR) tool. A copy of the methodology can be found on the following web site:

http://assets.wwf.ca/downloads/wwf_forest_aor_usersguide.pdf

Of particular importance is the section on criteria and scoring (pg 15-16). These pages outline the rationale, classes and weighting for the different score criteria and have been included in Appendix 2. The full report can be found at:

http://assets.wwf.ca/downloads/wwf_forest_aor_fullreport.pdf

The AoR tool also allows planners and forest managers to test the adequacy of various protected areas options. Use of the two landscape tools in an iterative manner is consistent with conservation design principles that include:

1. coarse-filter ecological representation of environmental variation using enduring features (e.g. landforms) as the surrogate for ecological diversity (below);
2. fine-filter techniques to consider critical habitat of significant species and special elements; and
3. using the guiding principles of maintaining viable populations of native species and sustaining ecological processes in the application of the coarse- and fine-filter techniques, thus having regard for design issues such as landscape connectivity of reserves.

The appended report (Appendix 1) Assessment of Representation, WWF-Canada Analysis for Tembec Inc, Romeo Malette Forest, Martel Forest, Big Pic Forest is the result of the outputs from the use of the Gap Tool.

Analysis of Proposed Protected Areas

Ontario's Protected Areas System

Ontario is committed to establishing a province-wide system of representative protected areas. Ontario's network of parks and protected areas preserve significant natural environments for future generations while providing recreational opportunities for outdoor enthusiasts. Protected areas contribute to the health, vitality and economic prosperity of Ontario by supporting a quality of life that is second to none.

Protected areas safeguard Ontario's natural heritage for future generations. They help conserve biological and geological diversity, and ensure a healthy ecosystem. Setting aside protected areas complements initiatives to develop sustainable forestry practices and demonstrates environmental responsibility by forestry companies, which is increasingly important to consumers.

Protected areas have the potential to generate tourism revenue and diversify regional economies by providing places where people can enjoy the outdoors and find places for recreation while developing an appreciation for Ontario's natural diversity. In 2002, 6.3 million overnight visitors to northern Ontario (2.6 million in the Northeast region alone) spent approximately $1.77 billion on tourism goods and services. Sixty-one percent of these visitors participated in outdoor-based activities.

In addition, protected areas provide habitat for Species at Risk and have scientific and educational value.

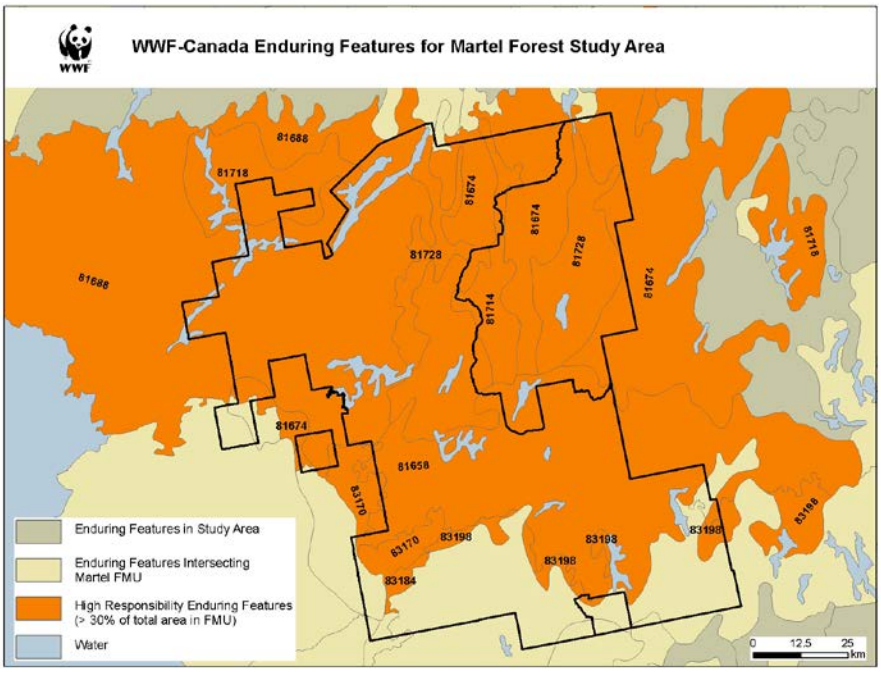
Ontario continues to make progress on protected areas establishment, but there are still gaps in the parks system.

As a progressive analysis approach, nine scenarios were run in AoR as is listed on page 7 of the AoR Report. Complete results can be found from pages 26-32. Of the nine scenarios, only three unique runs exist for the Martel Forest, scenario 1, 2 and 3. Neither the Tembec 2007 FSC candidate sites, the caribou withdrawal areas nor the caribou deferral areas overlapped with enduring features intersecting the Martel Forest so scenarios 4-7 did not apply, and thus scenarios 8 and 9 provided the same result as scenario 3.

Scenario 3 featured candidate sites proposed by Domtar when they managed the J.E. Martel Forest (the northeast portion of the forest management unit now considered the Martel Forest). Upon review of these candidate sites, most did not result in an improvement in representation, and the one proposed site that did result in an improved score contained a significant amount of private land which is not under the control of Tembec. As well, additional enduring features existed with low representation where no proposed candidates were available.

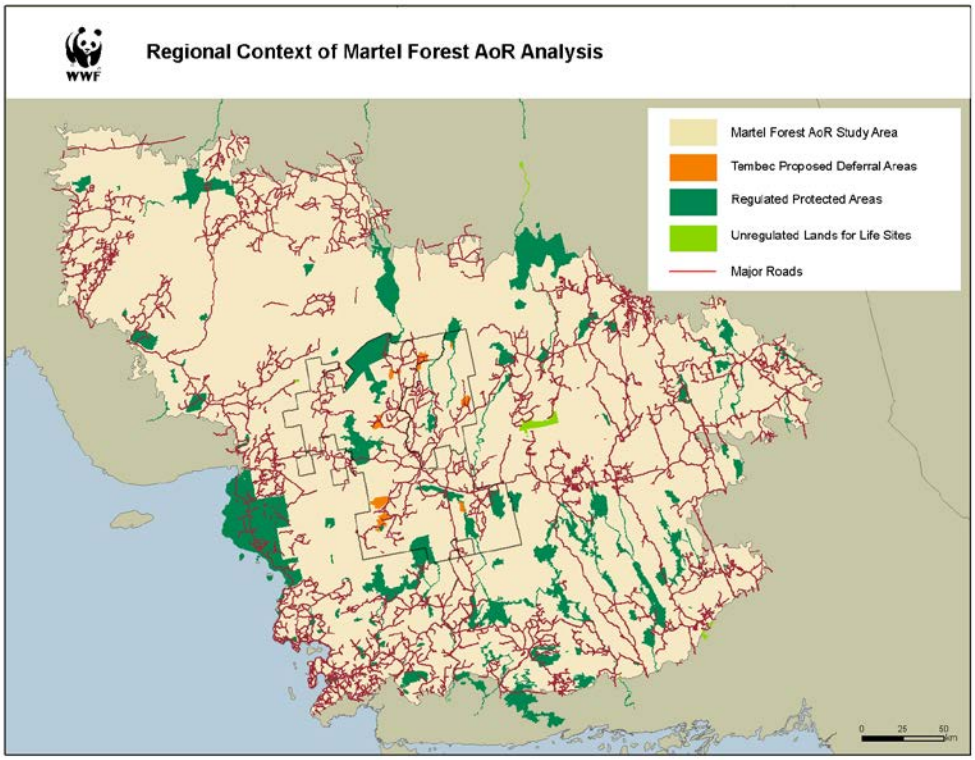
As a result of the Area of Representation report (Snider, 2007), enduring features overlapping the Martel Forest (MF) having low representation scores were reviewed. Scenario 2 was used as the baseline. Since the unregulated protected areas were already protected in our forest management plans, the minimum protection available would be scenario 2, not scenario 1. *Note: all unregulated protected areas used for Scenario 2 are now regulated.* Proposed FSC protected area candidate sites were identified in several enduring features.

The enduring features identified requiring additional protection included:
81658 – score 1.75, representation C, 68.12% of enduring feature located on MF
81714 – score 2.50, representation C, 96.94% of enduring feature located on MF
81728 – score 2.25, representation C, 99.98% of enduring feature located on MF
83170 – score 0.00, representation D, 53.11% of enduring feature located on MF
83184 – score 2.75, representation C, 100.0% of enduring feature located on MF



The proposed FSC protected area candidate sites were selected based on (a) inclusion of conservation attributes compiled using the HCVF framework and (b) ability to fill gaps in ecological representation based on enduring features of the landscape. In total, eight new protected area candidate sites are proposed. Three of these areas are extensions of existing Ontario Living Legacy Provincial Parks. Other areas were planned to incorporate multiple values, wildlife habitat, water values, tourism, etc. Figure 2 provides a map of Tembec's proposed protected areas in the regional context of regulated protected areas. A description of each of the proposed protected areas (cores) is provided below.

Figure 2. Regional Context of Martel Forest AoR Analysis.



Enduring Feature 81658

Two protected areas have been proposed in this enduring feature. This feature is characterized by a mix of surficial units comprised of fluvioglacial and morainal (till) material. Surficial materials are fine-textured to medium textured (silts/clays to sands/loams). Terrain forming flat/level plains to undulating plains and gently rolling hills (very weakly to weakly broken or weakly broken; slopes < 9%).

Boomerang Lake (5,088 hectares)

The general location of this core area is in the southwest portion of the Martel Forest. The core is located to the north and west of the Montreal River system and is within Blackburn and Bordeleau Townships. The core does not have any large water bodies within its boundary, but it does have many smaller tributaries that feed into the Montreal River system. More than half of the forested area is in a mature condition (>80 years old), black spruce and white birch working groups are largely represented in this area, other working groups include jack pine, poplar, lowland conifer and some hard maple.

Wenebegon Addition (1,897 hectares)

This core is located to the west of the waterway that flows into Wenebegon Lake from the north. This core will enhance the Wenebegon Lake Provincial Park which is a waterway class park that was recently regulated as part of Ontario's Living Legacy. The park has a south flowing lake and gravel river route. The core dimensions of approximately 1.5 kilometres wide by 7 kilometres along the river which would give greater connection from the Reaney Peatlands to Wenebegon Lake which forms part of the Wenebegon River Provincial Park. Twenty-five percent of the area is in a mature condition, with a large representation of lowland conifer (spruce and larch with some cedar) as well as some upland conifer and mixed wood stands.

Enduring Feature 81714

One protected area has been proposed within this enduring feature. This feature consists of a combination of exposed acidic bedrock and fluvioglacial deposits. This area boasts a combination of exposed bedrock and fine-textured materials (silts/clays). Terrain forming undulating plains to rolling hills (weakly to moderately broken: slopes < 30%).

Makonie Lake (4,180 hectares)

The core is located in the northeast portion of the Martel forest. The core has Makonie Lake located just outside of its northwest boundary and has the Makonie River flowing through the northern portion of the core area. Approximately two-thirds of the core area was part of the 1955 Admiral Fire which burned over 36,000 hectares. The majority of the core consists of pure conifer forest units (47%). Mixedwood stands represent 43% of the core area while hardwood stands make up the remaining 10% of the core area. This core is also situated within the Chapleau Crown Game Preserve. The game preserve has been identified as a HCF because trapping and hunting are not permitted there, thus enhancing the long term viability for fur bearers and game. It also provides a control area for research, by eliminating hunting. As well, it provides the backdrop for many tourism activities, including wildlife viewing.

Enduring Feature 81728

Four protected areas have been proposed in this enduring feature. This feature is a combination of exposed acidic bedrock and fluvioglacial deposits. A combination of exposed bedrock and medium textured materials (sands/loams) exists for this feature. Terrain forming undulating plains to rolling hills (weakly to moderately broken; slopes < 30%).

Grenadier Lake (2,759 hectares)

This core is located in the northern portion of the Martel Forest to the southeast of Missanaibi Provincial Park. Water makes up a large portion of the core area (over 10% of the area). This is due to the four large lakes that exist within the core including the largest, Grenadier Lake. Grenadier Lake is a picturesque lake with gently rolling hills with the occasional appearance of exposed bedrock outcrops on its shores. There is a balanced representation of conifer, hardwood and mixed wood forest types. There is a mix of young and old forest, much of the young forest regenerating from the 1955 Admiral burn. The older forest is a mixture of birch and birch dominated mixed woods and both upland and lowland conifer.

Tremblay Lake (4,057 hectares)

This core is located in the north central portion of the Martel Forest south of Missanaibi Provincial Park. Poplar, birch, jack pine and spruce make up the immature portion of this core which is approximately 2/3 of the total area. Most of this younger forest has regenerated from the Racine Lake Fire of 1948. The 1948 fire covered over 43,000 hectares on the Martel Forest. The rest of the core is in older age classes, predominately hardwood stands (52%), with the remainder of the area in conifer forest (27%) and mixed woods (21%).

Both Grenadier and Tremblay Lake cores also exist within the Chapleau Crown Game Preserve.

Murdock Lake (3,142 hectares)

This core is located approximately 4.5 kilometres north of highway 101E and is entirely within Murdock Township. The north eastern boundary is located along the Shawmere River. The forest types associated with this core area are mostly mixed wood (50%), with a small portion of hardwood types (~7%), with the remaining area being split up between upland and lowland conifer. It is a relatively young core with only 20% of its area in stands 80 years and older, however it is currently deferred from harvest in the 2011 FMP because of its future suitability for pine marten core habitat.

Nemegosenda Park Addition (640 hectares)

This core is located in the northeast corner of the Martel Forest and is bound by the Chapleau Nemegosenda River Provincial Park on the east side and the Nemegosenda River Wetlands Addition on the northern boundary. The Chapleau-Nemegosenda waterway is of interest to remote tourism operators who operate a fly-in business on this water system and to canoeists seeking adventure. This core, although small, provides an additional add-on to the existing provincial park. It is comprised largely of mature conifer forest with some mixed and hardwood stands.

Enduring Features 83170 and 83184

These two enduring features are adjacent to one another. One core was planned to capture both enduring features. Feature 83170 is characterized by surficial units comprised of fluvioglacial and morainal (till) materials. Surficial materials are fine-textured to medium textured (silts/clays to sands/loams). Terrain forming flat/level plains to undulating plains and gently rolling hills (very weakly to weakly broken or weakly broken; slopes <9%). Feature 83174 differs from 83170, having medium textured soils and more rugged terrain forming more rolling hills (weakly to moderately broken; slopes < 30%).

Puswawa Lake (4,614 hectares)

The Puswawa Lake core is located in the southwestern portion of the Martel forest and is capturing enduring feature 83170 in the northern two thirds and feature 83184 in southern third. This core is bound by Puswawa Lake on the northeast side and the Challenger Lake system on the western side of the core. The southern part of this core is connected to the Alm Lake Forest Conservation Reserve which is an Ontario's Living Legacy area containing eastern white cedar stands, as well as seven other different landform vegetation combinations. Consistent with the Alm Lake Forest, the Puswawa

Lake core also boasts stands of eastern white cedar in complexes with both mixed woods and upland conifer. The majority of the core is comprised of hardwood stands, with mixed woods representing approximately 30% of the forested area and conifer representing just under 20% of the area. There are also concentrations of white pine, sugar maple and yellow birch in stands within the core. Sugar maple and yellow birch are examples of potential HCV's because they are populations at the edge of their range. Many lakes run through the northern portion of this core area and provide great opportunities for outdoor recreation.

Appendix 3 provides a detailed Martel Forest map outlining the enduring features, existing protected areas and proposed protected area candidate sites.

Results

The results can be found in following table; Table 1 provides the Protected Areas Size Scores and Table 2 details the Critical Score Results. All scores in bold indicate an improved AoR score.

Table 1. Martel AoR Results - Protected Areas Size Scores

Enduring Feature >30% Area in FMU

					Regulated Protected Areas & Proposed OLL Sites						Regulated Protected Areas, Proposed OLL Sites & Tembec Candidate Sites					
EFCODE	*Natural Region Code*	*Total EF Area (Ha)*	*Recommended Protected Area (Ha)*	*Percentage Recommended of Total*	*Total Area Protected (Ha)*	*Percentag ef Recommended Protected Area*	*Largest Protected Area Block (Ha)*	*Percentage of Recommended Protected Area*	*Total AoR Score*	*Representation Status*	*Total Area Protected (Ha)*	*Percentage of Recommended Protected Area*	*Largest Protected Area Block (Ha)*	*Percentage of Recommended Protected Area*	*Total AoR Score*	*Representation Status**
81480	3E-2	1000920	105718	10.6	14118	13.4	5754	5.4	3.50	B	14118	13.4	5754	5.4	3.50	B
81494	3E-2	159934	21117	13.2	21836	103.4	19659	93.1	7.25	A	21836	103.4	19659	93.1	7.25	A
81536	3E-2	25047	4144	16.5	6255	150.9	4267	103.0	6.75	A	6255	150.9	4267	103.0	7.25	A
81658	3E-5	396814	46907	11.8	21600	46.0	10365	22.1	1.75	C	28593	61.0	12059	25.7	3.75	**B**
81664	3E-5	93045	13122	14.1	3852	29.4	3168	24.1	2.50	C	3852	29.4	3168	24.1	3.00	C
81674	3E-5	776502	84589	10.9	40303	47.6	9848	11.6	3.50	B	40322	47.7	9848	11.6	3.50	B
81688	3E-5	767957	83771	10.9	53079	63.4	16328	19.5	3.75	B	53080	63.4	16328	19.5	3.75	B
81714	3E-5	44298	6838	15.4	351	5.1	258	3.8	2.50	C	5072	74.2	4721	69.0	3.50	**B**
81718	3E-5	121778	16621	13.6	4954	29.8	1633	9.8	4.25	B	4954	29.8	1633	9.8	4.25	B
81728	3E-5	112751	15534	13.8	10883	70.1	3334	21.5	2.25	C	20889	134.5	3729	24.0	3.75	**B**
81772	3E-5	244040	30606	12.5	3938	12.9	1490	4.9	2.00	C	3938	12.9	1490	4.9	2.00	C
83160	4E-1	54966	7264	13.2	0	0.0	0	0.0	0.00	D	0	0.0	0	0.0	0.00	D
83162	4E-1	384333	39923	10.4	2197	5.5	1267	3.2	2.25	C	2197	5.5	1267	3.2	2.25	C
83170	4E-1	40782	5592	13.7	5	0.1	5	0.1	0.00	D	3591	64.2	3565	63.7	4.75	**B**
83184	4E-1	5592	981	17.5	456	46.5	456	46.5	2.75	C	1501	153.1	1501	153.1	5.75	**B**
83190	4E-3	578042	57086	9.9	80532	141.1	52577	92.1	7.25	A	80540	141.1	52577	92.1	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.1	3152	45.1	3.50	B	3701	53.0	3152	45.1	4.00	B
83238	4E-3	22457	3316	14.8	1399	42.2	1220	36.8	3.25	C	1399	42.2	1220	36.8	2.75	C
83242	4E-3	842655	79424	9.4	87700	110.4	12713	16.0	4.75	B	87700	110.4	12713	16.0	4.25	B
84162	5E-13	40632	5574	13.7	4929	88.4	1794	32.2	4.50	B	4929	88.4	1794	32.2	4.50	B
84164	5E-13	392608	40675	10.4	13737	33.8	2123	5.2	3.50	B	13737	33.8	2123	5.2	3.50	B

* Bold indicates improvement in AoR Score

Table 2. Martel AoR Results - Criteria Scores

Enduring Feature >30% Area in FMU

Regulated Protected Areas & Proposed OLL Si

Enduring Feature	Natural Region Code	Size Score A Largest Contiguous Protected Area	Size Score B Total Protected Area	Size Score C Protected Area Network	Elevation Score	Habitat Score	Habitat Connectivity Score	Total Score	Representation Status
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.00	0.00	0.50	0.75	0.00	1.75	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	0.50	0.00	0.00	1.00	0.00	1.00	2.50	C
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Regulated Protected Areas, Proposed OLL Sites & Tembec Candidate Sites

Enduring Feature	Natural Region Code	Size Score A Largest Contiguous Protected Area	Size Score B Total Protected Area	Size Score C Protected Area Network	Elevation Score	Habitat Score	Habitat Connectivity Score	Total Score	Representation Status
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	1.00	7.25	A
81658	3E-5	**1.00**	**0.50**	0.00	**1.00**	0.75	**0.50**	**3.75**	**B**
81664	3E-5	0.50	0.00	**1.00**	0.00	0.50	**1.00**	**3.00**	C
81674	3E-5	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	**2.00**	**0.50**	0.00	0.00	**1.00**	0.00	**3.50**	**B**
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	**1.00**	0.50	**1.00**	0.75	0.00	**3.75**	**B**
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	**2.00**	**0.50**	0.00	**1.00**	**0.75**	0.50	**4.75**	**B**
83184	4E-1	**4.00**	0.00	0.00	**1.00**	**0.75**	0.00	**5.75**	**B**
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.50	0.00	1.00	1.00	4.00	B
83238	4E-3	1.00	0.00	0.50	0.00	0.75	0.50	2.75	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.00	4.25	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

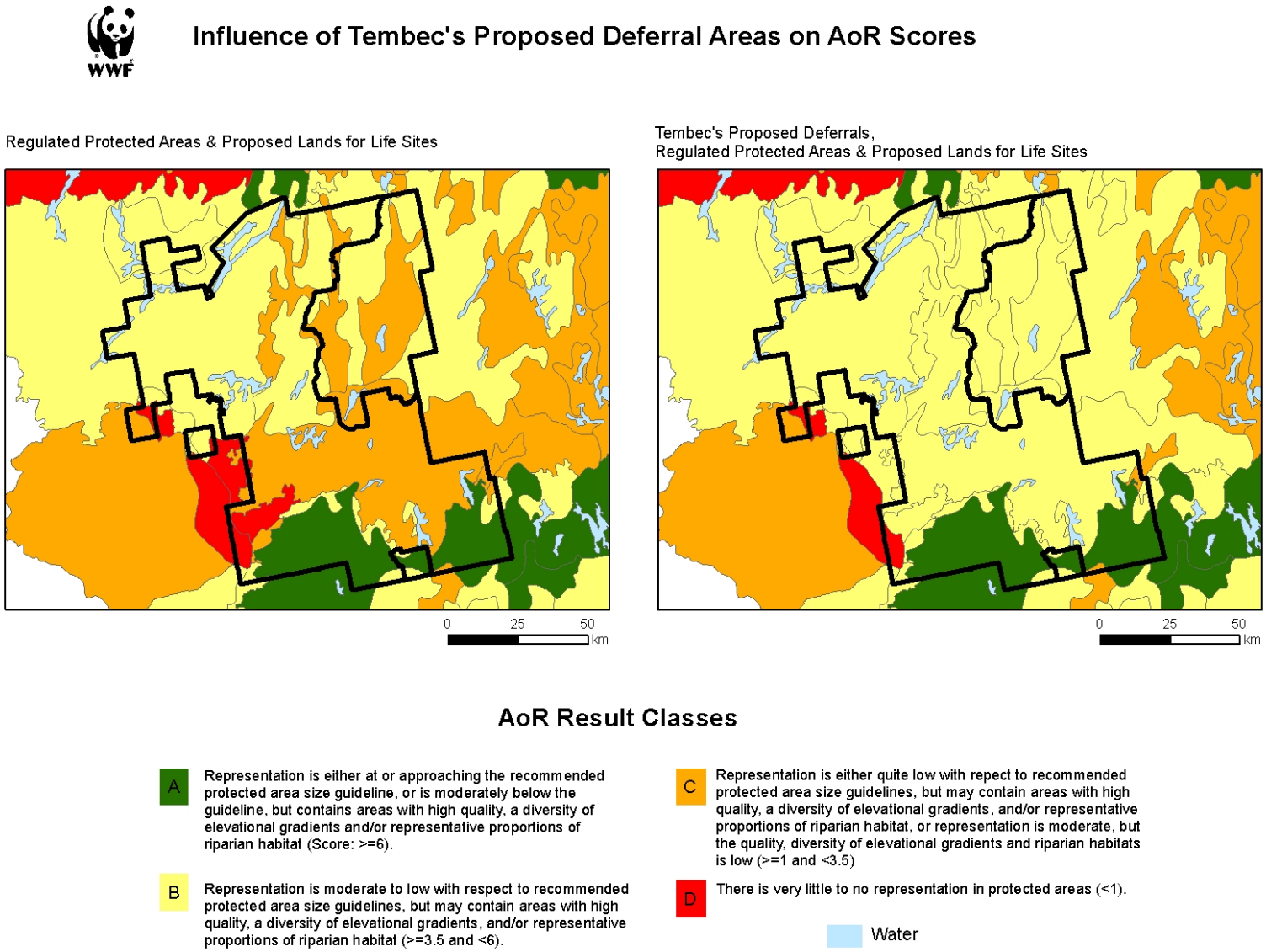
* Bold indicates improved score

Figure 3 and 4 summarize the influence of Tembec's proposed protected area candidate sites (FSC Cores) on AoR Scores.

Figure 3. Influence of Tembec's Proposed Protected Area Candidate Sites (FSC Cores) on AoR Scores (Table).

Protected Area	Size (ha)	Enduring Feature ID	Representation			
			Before FSC Cores		After FSC Cores	
			score	class	score	class
Boomerang Lake	5,088	81658	1.75	C	3.75	B
Wenebegon Addition	1,897					
Makonie Lake	4,180	81714	2.50	C	3.50	B
Grenadier Lake	2,759	81728	2.25	C	3.75	B
Tremblay Lake	4,057					
Murdock Lake	3,142					
Nemegosenda Park Addition	640					
Puswawa Lake	4,614	83170	0.00	D	4.75	B
		83184	2.75	C	5.75	B
Total	**26,378**					

Figure 4. Influence of Tembec's Proposed Protected Area Candidate Sites on AoR Scores (Map)



Note: Proposed Lands for Life sites are now part of the OMNR regulated protected areas network.

July, 2014

From the above results it is evident that the critical scores for each of the five enduring features where new cores have been proposed have significantly improved. The most dramatic change occurred for enduring feature 83140, where the critical score increased from 0.00 to 4.75, increasing the representation from D to B with the addition of the Puswawa Core.

There continues to be a handful of enduring features that intersect the Martel Forest that have a lower than B representation status, however, they are not deemed high responsibility enduring features, i.e. they have less than 30% of their total area in the Martel Forest.

Consultation

After Ontario's Living Legacy was announced in 1999, it was discovered that several of the new parks and conservation reserves overlapped existing mineral tenure. As part of this process, MNR, the Ontario Prospectors Association (OPA) and conservation groups initiated a dialogue to resolve mineral tenure and protected areas conflicts. An initial list of 100 potential conflicts was reduced in half by better information regarding boundary delineation.

One site replacement exercise, C1564 or Woman River Conservation Reserve, is of particular note. This was a 9,721 hectare area near Timmins with considerable ecological values related to intact landscapes and natural forest types. Negotiating protected area replacement sites for the Woman River Conservation Reserve involved MNR, OPA, MNDM, affected First Nation communities and three environmental groups. This particular mineral overlap issue reached final resolution, through consensus, and lead by MNR after over a year of open and constructive dialogue.

Tembec used this opportunity to put forward three sites on the Romeo Malette Forest (refer to the *Romeo Malette Forest Proposed FSC Protected Areas Candidate Sites* report, Pickering 2008) as possible replacement sites. Through the ensuing discussions, a portion one of these areas was regulated to replace C1564.

Another replacement site for the Woman River Conservation Reserve was the Nemegosenda River Wetlands Provincial Park Addition (P1546a), which has representation on the Martel Forest and includes an 80m addition to the existing boundary of the Chapleau Nemegosenda Provincial Park boundary. To facilitate this addition, Tembec voluntarily reserved the 80m area from forest operations to enable consideration of this area as part of the C1564 replacement exercise. This area has since undergone regulation.

Upon the completion of this report, invitations to stakeholder groups and local First Nations communities were made to provide feedback on the selection process and the proposed candidate areas. Presentations were made to the Ministry of Natural Resources and the Local Citizens Committee; however there was limited response from other stakeholders. This may have been the result of other ongoing consultation priorities (i.e., Treaty Land Entitlement processes ongoing with three local First Nations Communities, public and Aboriginal consultation for the 2011 Martel Forest Management Plan).

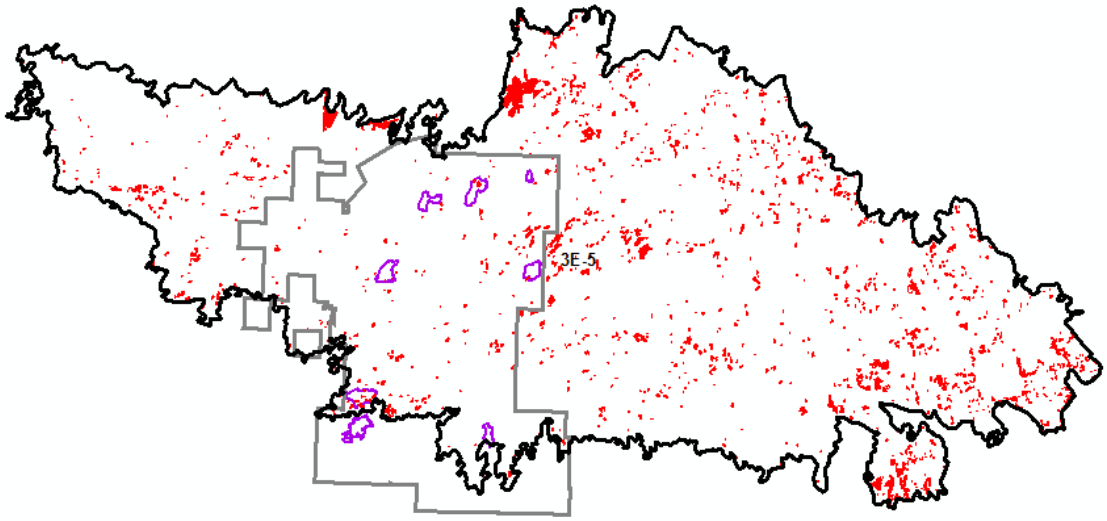
The feedback provided from the MNR was limited because it was a departure from the process the MNR used to identify biodiversity gaps in the province. The feedback prompted Tembec to work with the MNR to conduct a gap analysis using the MNR methodology to see what impact Tembec's proposed protected areas would have on increased representation of MNR biodiversity gaps on the Martel Forest.

MNR GapTool Assessment

Where the WWF AoR Tool looks at enduring features (or landforms) as a surrogate for ecological diversity, the MNR have incorporated vegetation variability on landforms as a basis for assessing terrestrial diversity on the landscape. The GapTool was developed by the MNR to automate the identification of life science representation gaps and assess new potential protected areas. The MNR representation requirements are that at least 1% or 50 hectares of each naturally-occurring landform/vegetation (L/V) association is protected. L/V associations that are not protected to these minimum requirements are considered representation gaps (Davis *et al.*, 2006).

The MNR GapTool was for run for eco-district 3E-5 with the Martel Forest's proposed protected areas (as described in the preceding text). Figure 5 below shows the representation gaps for 3E-5 in the context of the Martel Forest and the proposed protected area candidate sites.

Figure 5. Representation gaps (in red) for eco-district 3E-5 (black outline), the Martel Forest management unit (grey outline) and the proposed FSC protected areas (purple outline).



For eco-district 3E-5, there are a total of 307 L/V associations, or land units. Of these land units, 146 lack the required representation in regulated protected areas, 57 of which occur on the Martel Forest.

Of the seven (of eight) FSC proposed protected area candidate sites which occur in eco-district 3E-5, only four contain underrepresented land units (L/V gaps):

- Twelve critical land units occur within these four proposed FSC protected areas (390 hectares total)

- Seven of the 12 are not represented in any other regulated protected area.
- Two of the 12 meet the requirements for representation as a result of the proposed FSC protected areas.
- There is a significant improvement for three more critical land units (i.e., improvement from 0% to 70%, 77% and 92% representation).

Figure 5 summarizes the influence of Tembec's proposed protected area candidate sites (FSC cores) on the representation of critical land units identified by MNR's GapTool. Maps of the critical land units (L/V associations) within the FSC cores can be found in Appendix 4.

Figure 5. The influence of Tembec's proposed protected area candidate sites (FSC cores) on the representation of critical land units identified by MNR's GapTool.

Land Unit	Landform Description	Vegetation Description	Ecodistrict Total Hectares	Required in Ecodistrict	Area currently in Protection	Area in FSC Cores	Core Name	Total Protection	% of Requirement	
									Before FSC Cores	After FSC Cores
3-33	Precambrian Basic to Int. Bdrck	Jack Pine (pure)	5,714.38	57.14	49.06	0.06	Makonie Lake	49.12	86%	86%
8-4	Coarse Ground Moraine	Exposed Rock	722.62	50.00	18.81	8.44	Tremblay Lake	27.25	38%	55%
8-16	Coarse Ground Moraine	White Pine-Red Pine	1,212.06	50.00	41.88	5.56	Boomerang Lake	47.44	84%	95%
8-28	Coarse Ground Moraine	Sugar Maple	829.06	50.00	0.00	157.06	Boomerang Lake	157.06	0%	314%
8-31	Coarse Ground Moraine	Tol Hdwd-Conifer Mixed	122.62	50.00	0.00	46.00	Boomerang Lake	46.00	0%	92%
10-2	Glaciofluvial Delta	Open Marsh/Fen/Bog	32.12	32.12	0.00	0.94	Makonie Lake	0.94	0%	3%
10-33	Glaciofluvial Delta	Jack Pine (pure)	303.62	50.00	0.00	89.88	Makonie Lake	89.88	0%	180%
10-38	Glaciofluvial Delta	Black Spruce Dominated	3,296.81	50.00	0.00	0.19	Makonie Lake	0.19	0%	0%
10-43	Glaciofluvial Delta	Jack Pine Mixedwoods	187.88	50.00	0.01	38.38	Makonie Lake	38.38	0%	77%
10-47	Glaciofluvial Delta	Intol Hdwd-Other Con Mixed	1,150.88	50.00	0.00	34.75	Makonie Lake	34.75	0%	70%
11-40	Glaciofluvial Esker-Kettle Terrain	Black Spruce-Tam. Mixed	1,007.00	50.00	38.25	5.06	Murdock Lake	43.31	77%	87%
12-28	Glaciofluvial Outwash	Sugar Maple	81.06	50.00	0.00	3.69	Boomerang Lake	3.69	0%	7%
			14,660.11	**589.26**	**148.01**	**390.00**		**538.01**		

Meets requirement
Signicant improvement

References

Davis, R, L. Chora and W.J. Crins. 2006. GapTool: An Analytical Tool for Ecological Monitoring and Conservation Planning. Ontario Ministry of Natural Resources, Peterborough, Ontario. 10 p.

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Noss, R. 2003. A Checklist for Wildlands Network Designs. Conservation Biology 17(5):1-7.

Appendix 1

Assessment of Representation
WWF-Canada Analysis for Tembec

Assessment of Representation

WWF-Canada Analysis for Tembec Inc.

Romeo-Malette Forest
Martel Forest
BigPic Forest

18/12/07

GIS Analyst – James Snider
jsnider@wwfcanada.org

Table of Contents

Assessment of Representation Results: Tembec (Northeastern Ontario)

Romeo- Malette Forest

The most significant enduring feature within the Romeo-Malette tenure (EF 81684) demonstrates improvement in representation as a result of Tembec's candidate sites. Tembec's voluntary deferral sites within the Romeo tenure make a considerable contribution towards the recommended protected area for the feature.

A total of four enduring features within the Romeo boundary report low representation in protected areas. One of these features, EF 81668, occurs only once in the natural region and has 62% of its area within the boundary of the Romeo-Malette tenure. Currently no protected areas exist within this enduring feature.

Martel Forest

Significant representation gaps occur within the Martel forest tenure. Of note are two large enduring features, EF 81728 and EF 81658, that have the majority of their areas within the forest boundary and also report low representation scores.

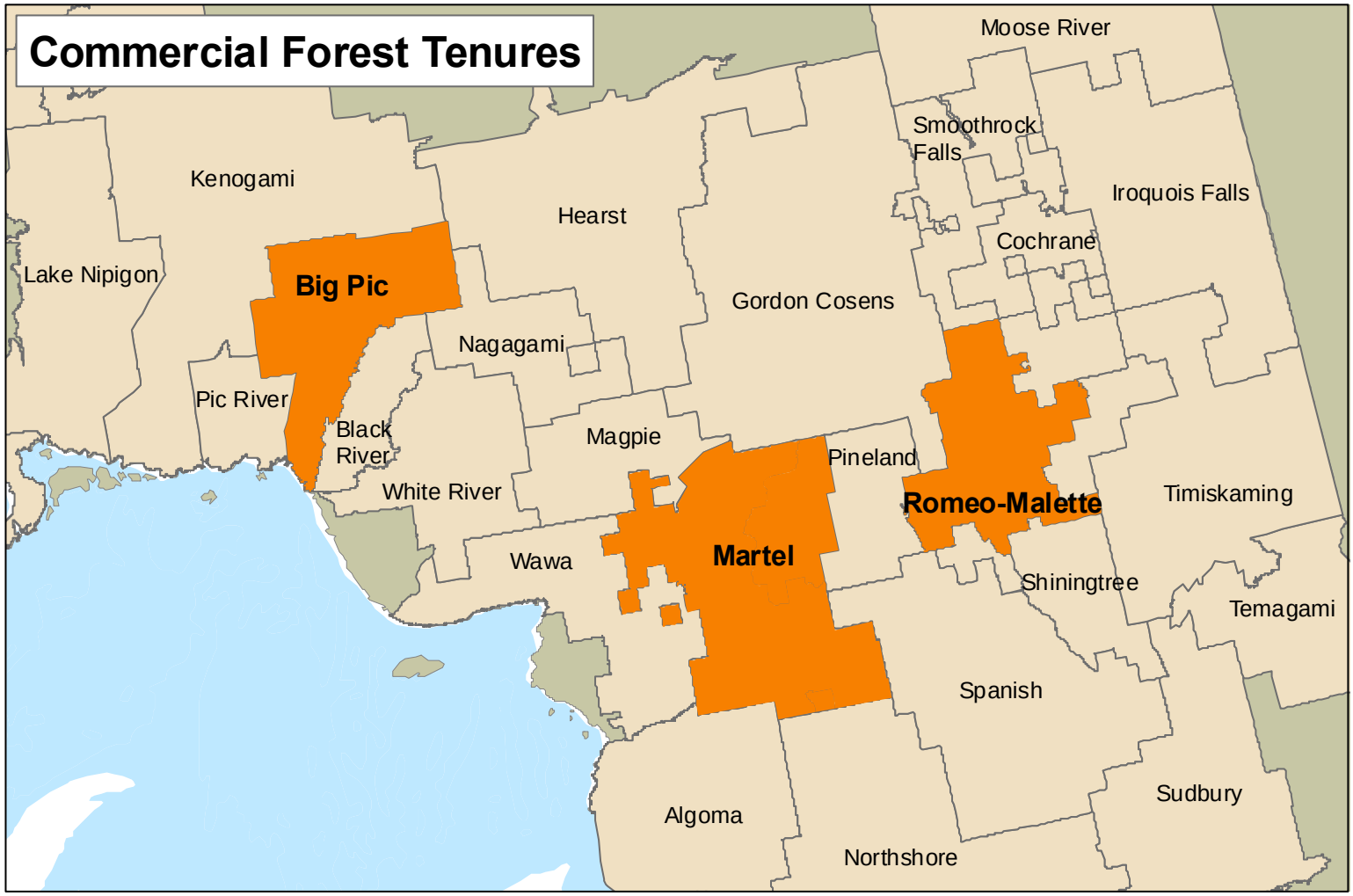
Domtar's candidate sites within the forest tenure only contribute to improved representation for one enduring feature (EF 81714).

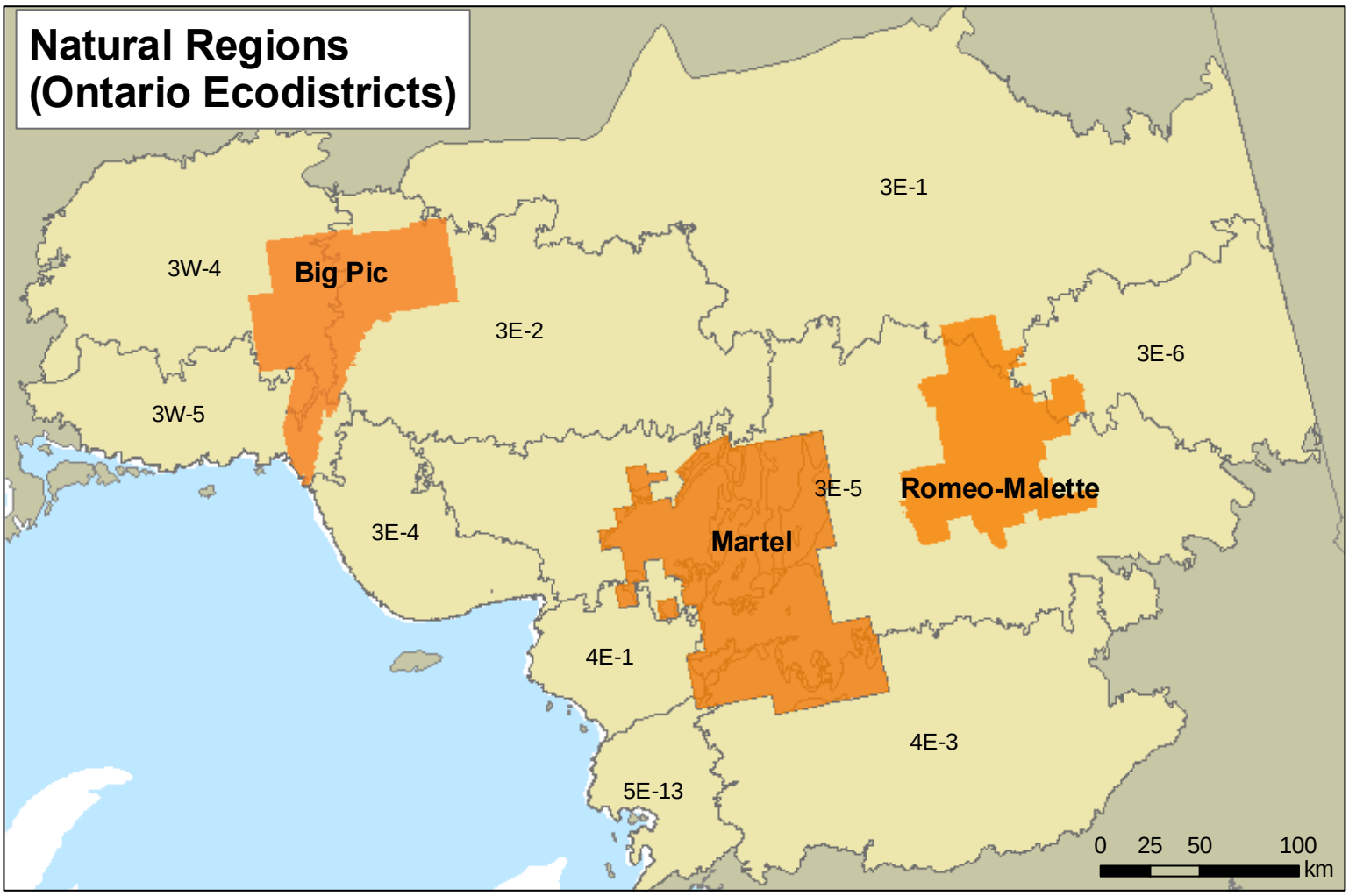
Other candidate protected areas within the region have no impact on the representation of features with the Martel forest.

BigPic Forest

Conservation planning to date has yet to address representation of features within the BigPic tenure. Little to no change can be detected between the nine scenarios run for the analysis.

A total of five enduring features are found to have low representation within the BigPic forest boundary, of which two features can be considered significant. Enduring features 83058 and 83104 both have greater than 30% of their area within the tenure boundary.


Commercial Forest Tenures
Moose River
Smoothrock Falls
Iroquois Falls
Kenogami
Hearst
Cochrane
Lake Nipigon
Big Pic
Gordon Cosens
Nagagami
Pic River
Black River
Magpie
Pineland
White River
Romeo-Malette
Timiskaming
Martel
Wawa
Shiningtree
Temagami
Spanish
Algoma
Sudbury
Northshore


Natural Regions
(Ontario Ecodistricts)
3E-1
3W-4
Big Pic
3E-2
3E-6
3W-5
3E-5
Romeo-Malette
3E-4
Martel
4E-1
4E-3
5E-13
0 25 50 100
km

Enduring Features in Tembec Tenures (Pg. 1/2)

Enduring Feature >30% Area in FMU

Romeo-Malette

EFCODE	*Natural Region Code*	*Total Area (ha)*	*EF Area in FMU (ha)*	*% Total EF Area in FMU*
81684	3E-5	434775	280167	64.44
81668	3E-5	3752	2342	62.42
81630	3E-5	164351	101805	61.94
81448	3E-1	5762	3117	54.10
81672	3E-5	132875	50578	38.06
81718	3E-5	121778	31697	26.03
81918	3E-6	127616	21197	16.61
81670	3E-5	189186	30846	16.30
81900	3E-6	93063	10176	10.93
81772	3E-5	244040	25633	10.50
81358	3E-1	176676	10204	5.78
81664	3E-5	93045	3413	3.67
81880	3E-6	163010	4844	2.97
81388	3E-1	163356	4372	2.68
81322	3E-1	346278	8721	2.52
81908	3E-6	32976	764	2.32
81264	3E-1	1471501	27907	1.90
81902	3E-6	81726	393	0.48

Martel

EFCODE	*Natural Region Code*	*Total Area (ha)*	*EF Area in FMU (ha)*	*% Total EF Area in FMU*
83184	4E-1	5592	5592	100.00
81728	3E-5	112751	112723	99.98
81714	3E-5	44298	42944	96.94
81658	3E-5	396814	270317	68.12
83170	4E-1	40782	21659	53.11
83198	4E-3	52592	24258	46.12
81674	3E-5	776502	240386	30.96
81688	3E-5	767957	233819	30.45
83190	4E-3	578042	155415	26.89
83160	4E-1	54966	12461	22.67
81718	3E-5	121778	17065	14.01
84162	5E-13	40632	2742	6.75
83238	4E-3	22457	1467	6.53
83162	4E-1	384333	7688	2.00
81536	3E-2	25047	402	1.60
81772	3E-5	244040	2654	1.09
83242	4E-3	842655	5859	0.70
81664	3E-5	93045	394	0.42
84164	5E-13	392608	1131	0.29
81480	3E-2	1000920	801	0.08
81494	3E-2	159935	56	0.04

Enduring Features in Tembec Tenures (Pg. 2/2)

BigPic

EFCODE	*Natural Region*	*Total Area (ha)*	*EF Area in FMU (ha)*	*% Total EF Area in FMU*
83058	3W-4	37409	37409	100
83104	3W-5	31703	20840	65.73510393
81494	3E-2	159935	80107	50.08722293
83018	3W-4	487145	202347	41.53732462
81480	3E-2	1000920	231759	23.15459777
83092	3W-5	44400	9039	20.35810811
83034	3W-4	118897	17237	14.49742214
81380	3E-1	6410	919	14.33697348
83088	3W-5	653957	55156	8.434193686
81600	3E-4	491921	1879	0.381971902
81592	3E-4	33660	27	0.080213904

AoR Scenarios : Tembec FSC Audits (Dec. 2007)

1. Regulated protected areas
2. Regulated & unregulated protected areas
3. Regulated & unregulated protected areas plus WWF-Scenario 5 candidate sites and Domtar's Martel candidate sites.
4. Regulated & unregulated protected areas plus Tembec 2007 FSC candidate sites and caribou withdrawal areas.
5. Regulated & unregulated protected areas, Tembec 2007 FSC candidate sites and caribou withdrawal areas plus caribou deferral areas.
6. Regulated & unregulated protected areas, Tembec 2007 FSC candidate sites, caribou withdrawal areas and caribou deferral areas plus Tembec's 2007 voluntary deferral sites in Romeo FMU.
7. Regulated & unregulated protected areas, Tembec 2007 FSC candidate sites, caribou withdrawal areas and caribou deferral areas plus all Tembec 2007 voluntary deferral sites.
8. Scenario 6 plus Domtar's Martel candidate sites.
9. Scenario 7 plus Domtar's Martel candidate sites.

AoR Scenarios

Regulated Protected Areas

Unregulated Protected Areas (Proposed OLL Sites)

Tembec Scenario5 Candidate Sites

Domtar Candidate Deferral Sites

Tembec 2007 FSC Candidate Sites

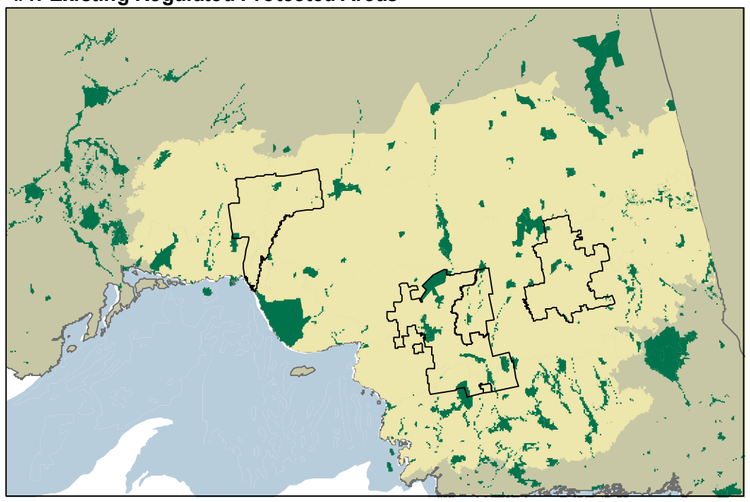
Tembec 2007 Caribou Withdrawal Areas

Tembec 2007 Caribou Deferral Areas

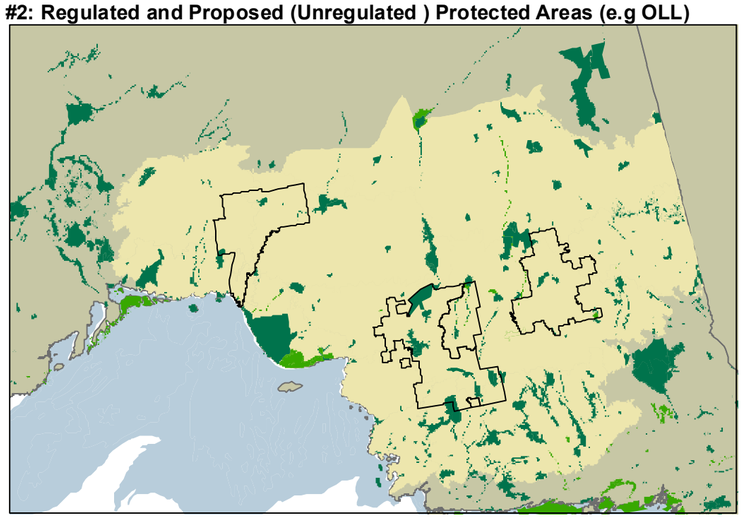
Tembec Voluntary Deferral Areas (Dec. '07)

Tembec Voluntary Deferral Areas (Apr. '07)

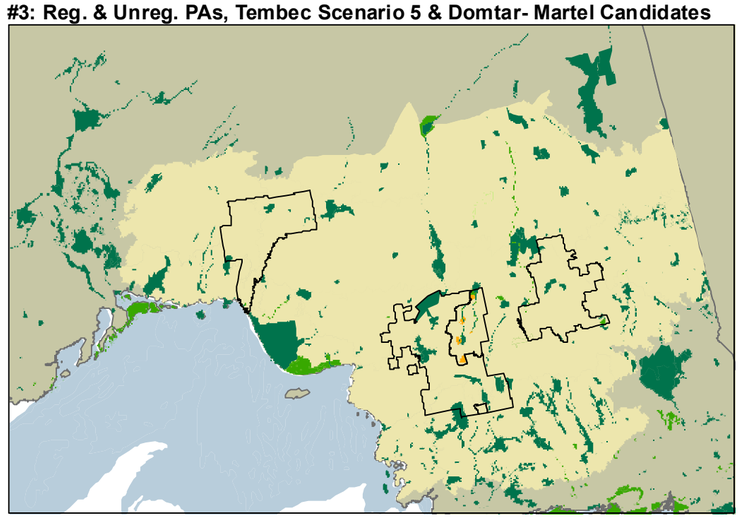
#1: Existing Regulated Protected Areas



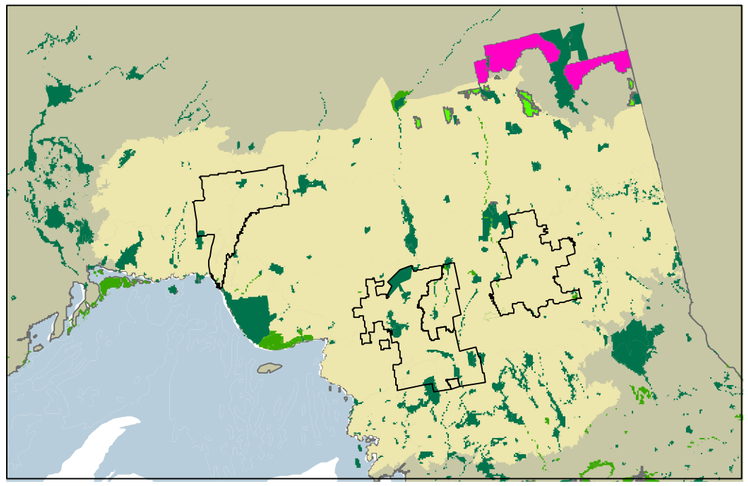
#2: Regulated and Proposed (Unregulated) Protected Areas (e.g OLL)



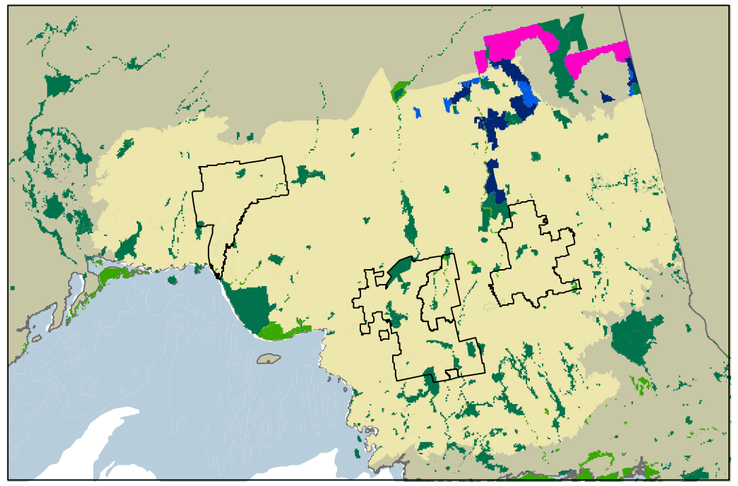
#3: Reg. & Unreg. PAs, Tembec Scenario 5 & Domtar- Martel Candidates



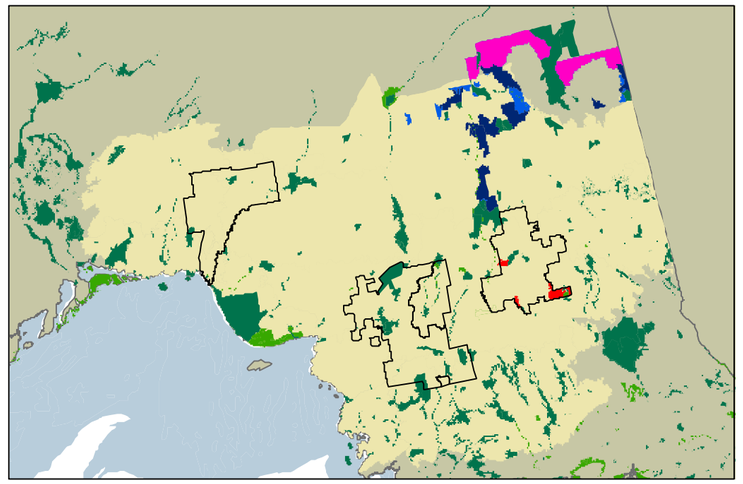
#4: PAs, Tembec 2007 FSC Candidates & Caribou Withdrawals



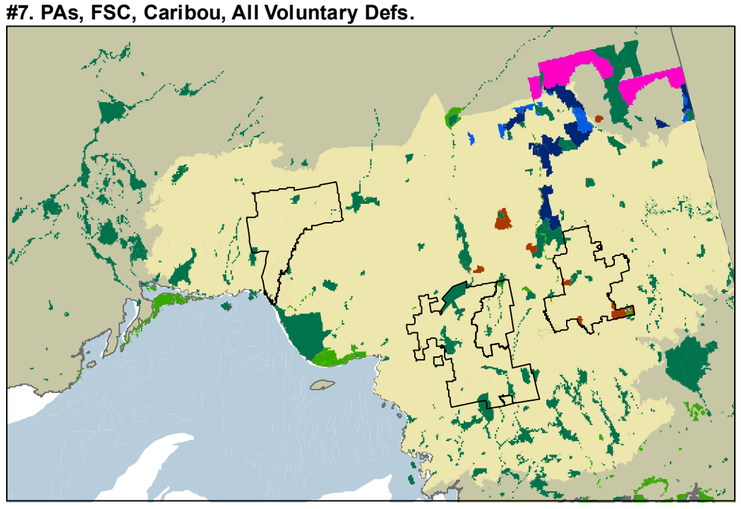
#5: PAs, Tembec FSC Candidates, Caribou Withdrawals & Caribou Deferrals



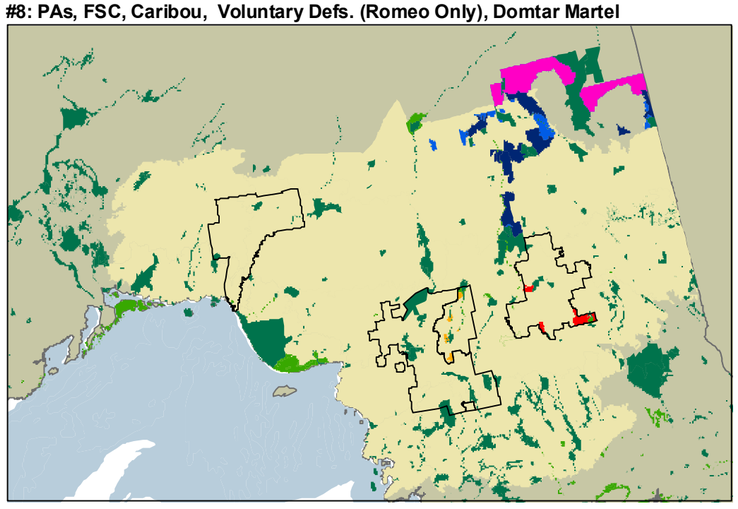
#6: PAs, FSC Sites, Caribou Withdrawals & Defs., Voluntary Defs. (Romeo Only)



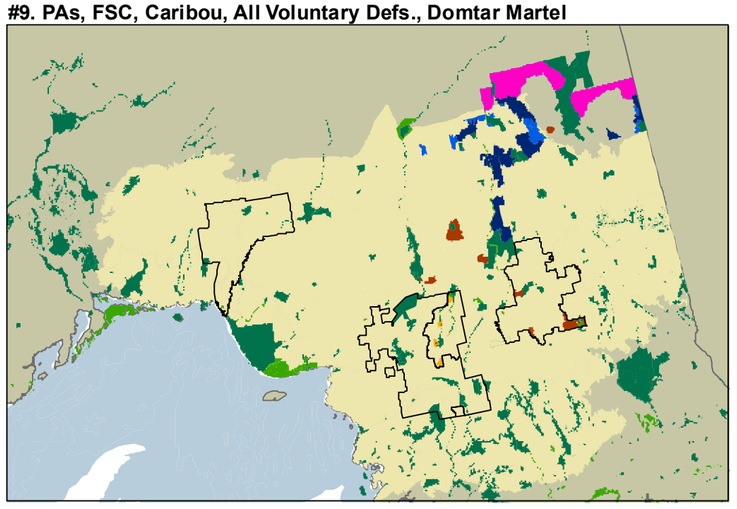
#7. PAs, FSC, Caribou, All Voluntary Defs.



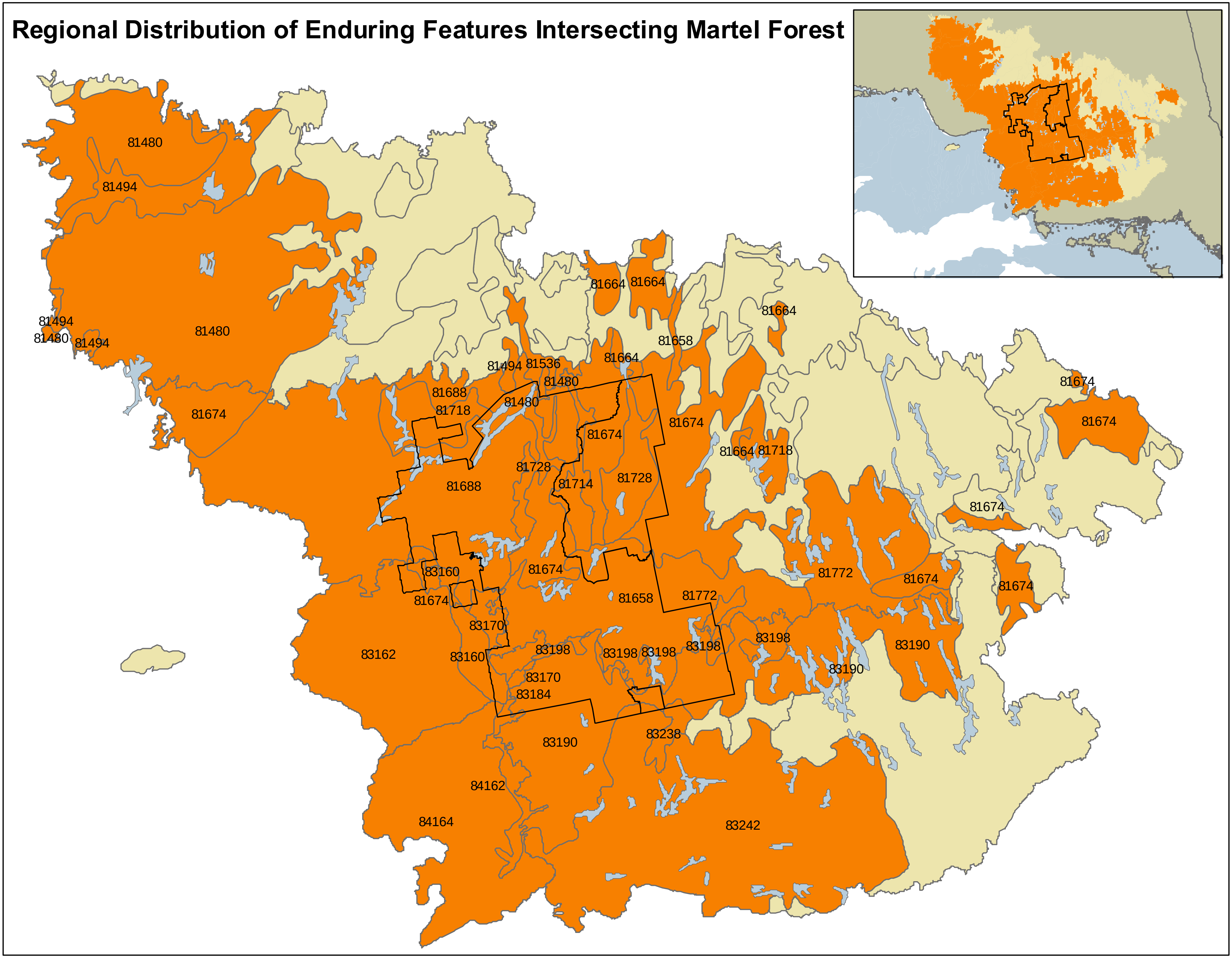
#8: PAs, FSC, Caribou, Voluntary Defs. (Romeo Only), Domtar Martel

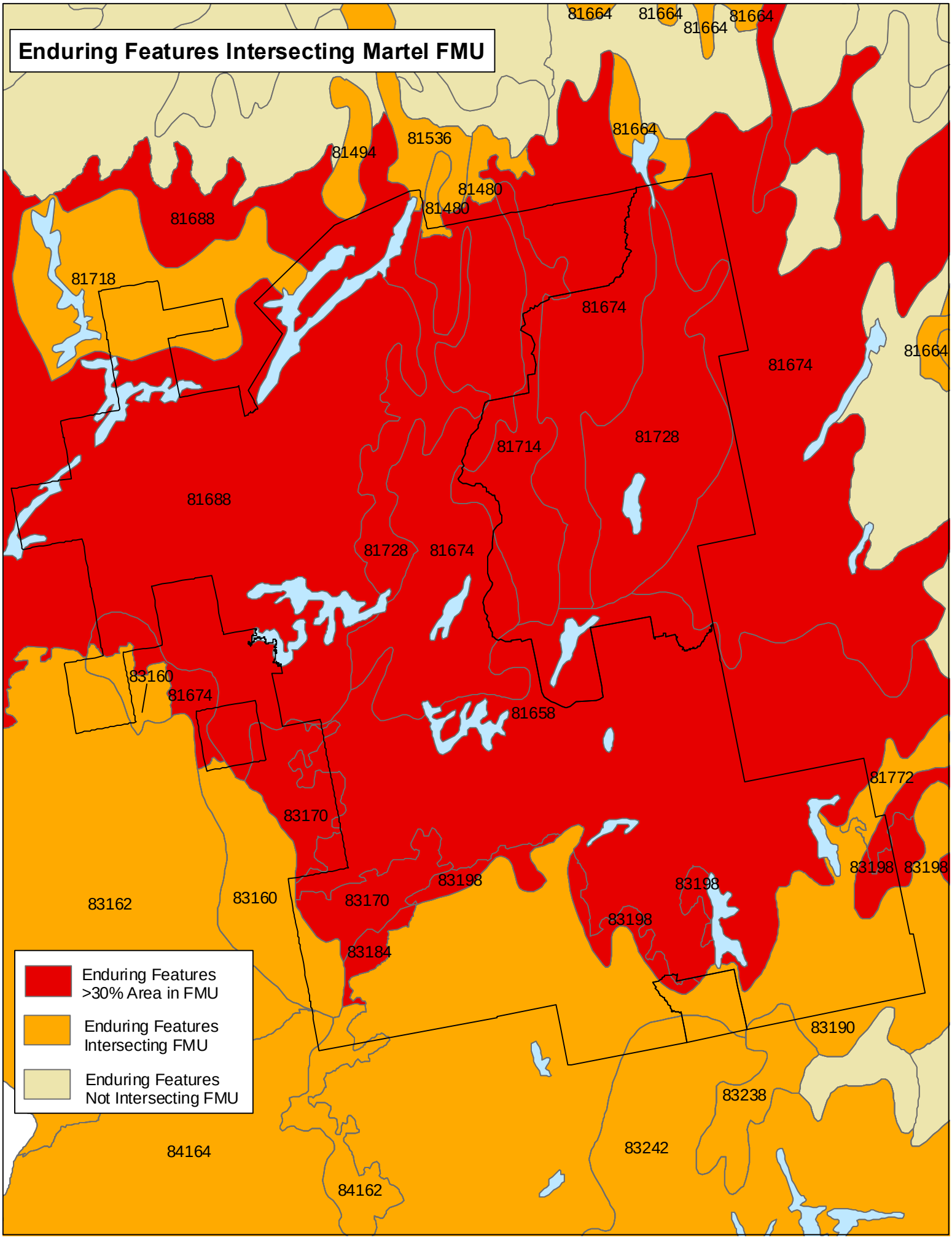


#9. PAs, FSC, Caribou, All Voluntary Defs., Domtar Martel



Regional Distribution of Enduring Features Intersecting Martel Forest




Enduring Features Intersecting Martel FMU
81664
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81536
81494
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81480
81480
81688
81718
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81674
81728
81714
81688
81728
81674
83160
81674
81658
81772
83170
83198
83198
83198
83198
83160
83162
83170
83198
83184
83190
83238
84164
83242
84162
Enduring Features >30% Area in FMU
Enduring Features Intersecting FMU
Enduring Features Not Intersecting FMU

Martel AoR Results

Martel FMU

Water

Assessment of Representation

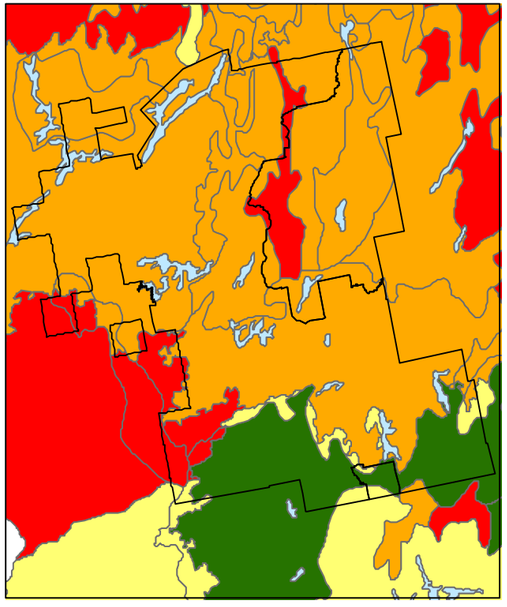
A Representation is either at or approaching the recommended protected area size guideline, or is moderately below the guideline, but contains areas with high quality, a diversity of elevational gradients and/or representative proportions of riparian habitat (Score: >=6).

B Representation is moderate to low with respect to recommended protected area size guidelines, but may contain areas with high quality, a diversity of elevational gradients, and/or representative proportions of riparian habitat (>=3.5 and <6).

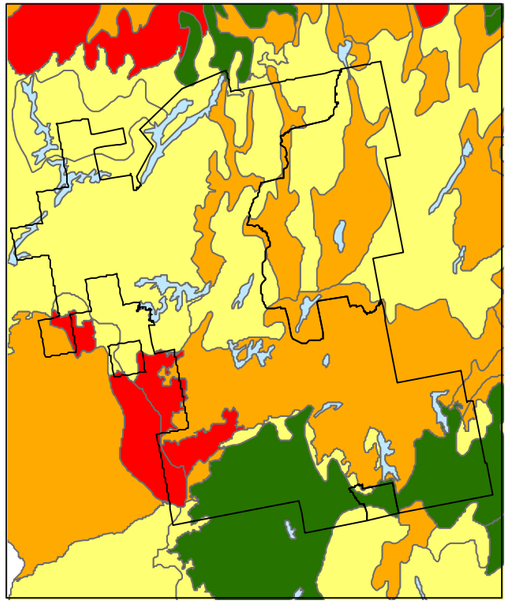
C Representation is either quite low with repect to recommended protected area size guidelines, but may contain areas with high quality, a diversity of elevational gradients, and/or representative proportions of riparian habitat, or representation is moderate, but the quality, diversity of elevational gradients and riparian habitats is low (>=1 and <3.5)

D There is very little to no representation in protected areas (<1).

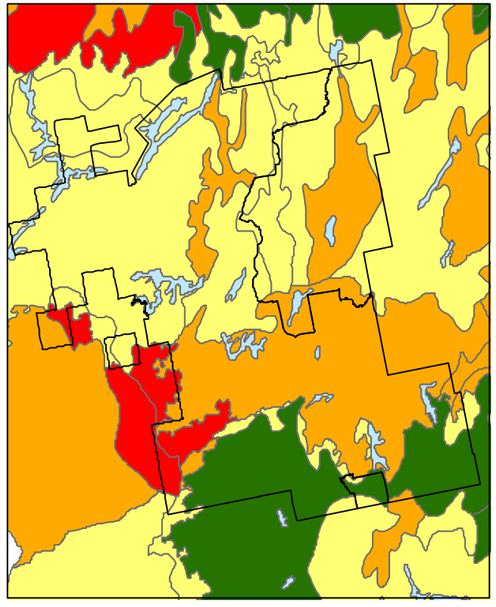
Scenario 1



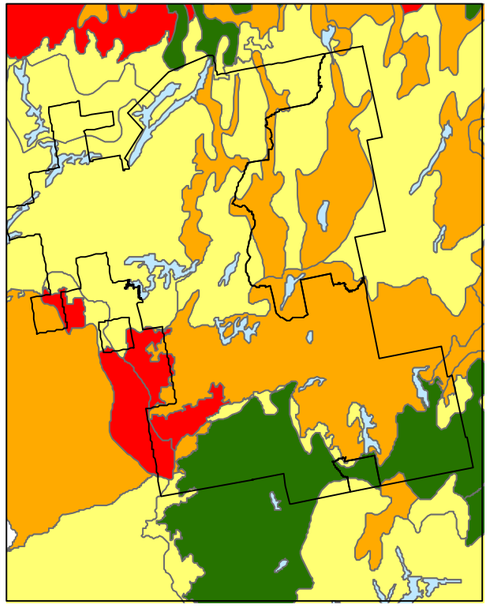
Scenario 2



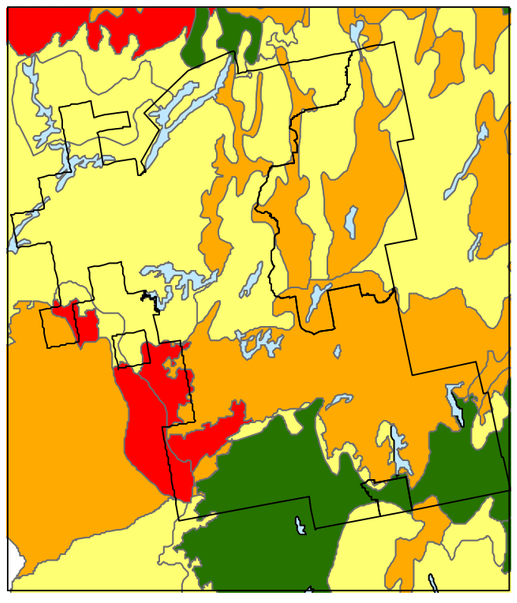
Scenario 3



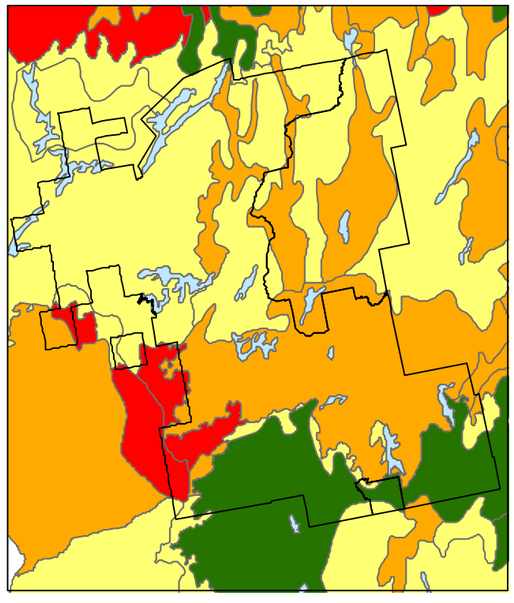
Scenario 4



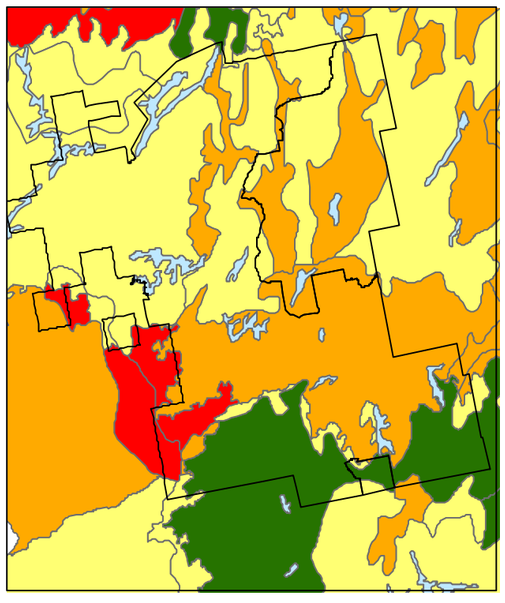
Scenario 5



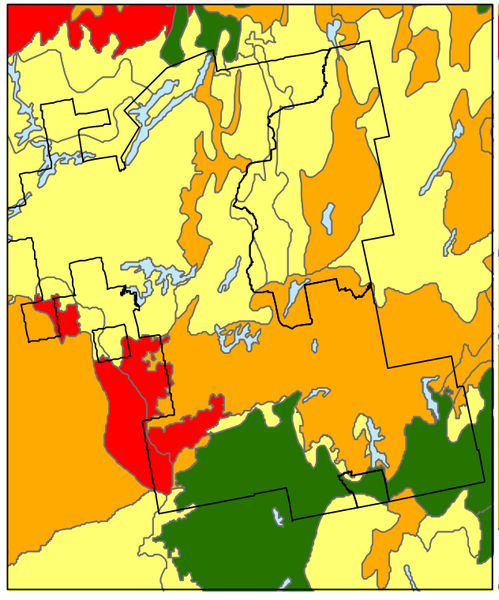
Scenario 6



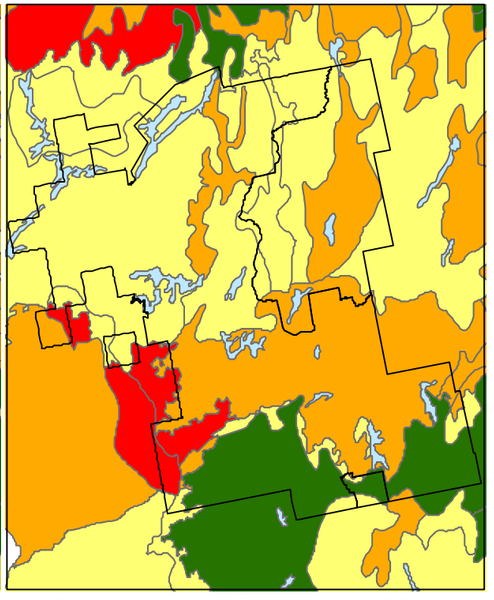
Scenario 7



Scenario 8



Scenario 9



0 50 100

km

Martel AoR Results - Protected Areas Size Scores (Pg. 1/3)

Enduring Feature >30% Area in FMU

					Scenario 1						Scenario 2					
EFCODE	Natural Region Code	Total EF Area (Ha)	Recommended Protected Area (Ha)	% Recommended of Total	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status
81480	3E-2	1000920	105718	10.6	2592	2.5	1443	1.4	2.00	C	14118	13.35	5754	5.44	3.50	B
81494	3E-2	159934	21117	13.2	1905	9.0	1486	7.0	3.50	B	21836	103.41	19659	93.10	7.25	A
81536	3E-2	25047	4144	16.5	2928	70.7	907	21.9	3.00	C	6255	150.95	4267	102.96	6.75	A
81658	3E-5	396814	46907	11.8	17432	37.2	10365	22.1	1.25	C	21600	46.05	10365	22.10	1.75	C
81664	3E-5	93045	13122	14.1	3599	27.4	3166	24.1	1.50	C	3852	29.36	3168	24.14	2.50	C
81674	3E-5	776502	84589	10.9	10946	12.9	3170	3.7	2.25	C	40303	47.65	9848	11.64	3.50	B
81688	3E-5	767957	83771	10.9	39037	46.6	16328	19.5	2.75	C	53079	63.36	16328	19.49	3.75	B
81714	3E-5	44298	6838	15.4	0	0.0	0	0.0	0.00	D	351	5.13	258	3.77	2.50	C
81718	3E-5	121778	16621	13.6	1633	9.8	1633	9.8	3.00	C	4954	29.81	1633	9.82	4.25	B
81728	3E-5	112751	15534	13.8	9058	58.3	3334	21.5	2.25	C	10883	70.06	3334	21.46	2.25	C
81772	3E-5	244040	30606	12.5	2005	6.6	953	3.1	1.50	C	3938	12.87	1490	4.87	2.00	C
83160	4E-1	54966	7264	13.2	0	0.0	0	0.0	0.00	D	0	0.00	0	0.00	0.00	D
83162	4E-1	384333	39923	10.4	0	0.0	0	0.0	0.00	D	2197	5.50	1267	3.17	2.25	C
83170	4E-1	40782	5592	13.7	0	0.0	0	0.0	0.00	D	5	0.09	5	0.09	0.00	D
83184	4E-1	5592	981	17.5	0	0.0	0	0.0	0.00	D	456	46.49	456	46.49	2.75	C
83190	4E-3	578042	57086	9.9	68868	120.6	50952	89.3	7.25	A	80532	141.07	52577	92.10	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.1	3152	45.1	3.50	B	3504	50.15	3152	45.10	3.50	B
83238	4E-3	22457	3316	14.8	1399	42.2	1220	36.8	2.75	C	1399	42.21	1220	36.79	3.25	C
83242	4E-3	842655	79424	9.4	43221	54.4	12713	16.0	3.75	B	87700	110.42	12713	16.01	4.75	B
84162	5E-13	40632	5574	13.7	2576	46.2	1794	32.2	3.50	B	4929	88.42	1794	32.18	4.50	B
84164	5E-13	392608	40675	10.4	535	1.3	535	1.3	3.50	B	13737	33.77	2123	5.22	3.50	B

					Scenario 3					
EFCODE	Natural Region Code	Total EF Area (Ha)	Recommended Protected Area (Ha)	% Recommended of Total	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status
81480	3E-2	1000920	105718	10.6	14118	13.4	5754	5.4	3.50	B
81494	3E-2	159934	21117	13.2	21836	103.4	19659	93.1	7.25	A
81536	3E-2	25047	4144	16.5	6255	150.9	4267	103.0	6.75	A
81658	3E-5	396814	46907	11.8	25653	54.7	10365	22.1	2.75	C
81664	3E-5	93045	13122	14.1	13038	99.4	8983	68.5	5.75	B
81674	3E-5	776502	84589	10.9	46168	54.6	10000	11.8	4.00	B
81688	3E-5	767957	83771	10.9	53079	63.4	16328	19.5	3.75	B
81714	3E-5	44298	6838	15.4	3619	52.9	3619	52.9	4.00	B
81718	3E-5	121778	16621	13.6	4954	29.8	1633	9.8	4.25	B
81728	3E-5	112751	15534	13.8	11766	75.7	3334	21.5	2.25	C
81772	3E-5	244040	30606	12.5	4389	14.3	1941	6.3	2.00	C
83160	4E-1	54966	7264	13.2	0	0.0	0	0.0	0.00	D
83162	4E-1	384333	39923	10.4	2197	5.5	1267	3.2	2.25	C
83170	4E-1	40782	5592	13.7	5	0.1	5	0.1	0.00	D
83184	4E-1	5592	981	17.5	456	46.5	456	46.5	2.75	C
83190	4E-3	578042	57086	9.9	80532	141.1	52577	92.1	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.1	3152	45.1	3.50	B
83238	4E-3	22457	3316	14.8	1399	42.2	1220	36.8	3.25	C
83242	4E-3	842655	79424	9.4	87700	110.4	12713	16.0	4.75	B
84162	5E-13	40632	5574	13.7	4929	88.4	1794	32.2	4.50	B
84164	5E-13	392608	40675	10.4	13737	33.8	2123	5.2	3.50	B

Martel AoR Results - Protected Areas Size Scores (Pg. 2/3)

					Scenario 4						Scenario 5					
EFCODE	Natural Region Code	Total EF Area (Ha)	Recommended Protected Area (Ha)	% Recommended of Total	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status
81480	3E-2	1000920	105718	10.6	14118	13.35	5754	5.44	3.50	B	14118	13.35	5754	5.44	3.50	B
81494	3E-2	159934	21117	13.2	21836	103.41	19659	93.10	7.25	A	21836	103.41	19659	93.10	7.25	A
81536	3E-2	25047	4144	16.5	6255	150.95	4267	102.96	6.75	A	6255	150.95	4267	102.96	6.75	A
81658	3E-5	396814	46907	11.8	21600	46.05	10365	22.10	1.75	C	21600	46.05	10365	22.10	1.75	C
81664	3E-5	93045	13122	14.1	3852	29.36	3168	24.14	2.50	C	3852	29.36	3168	24.14	2.50	C
81674	3E-5	776502	84589	10.9	40303	47.65	9848	11.64	3.50	B	40303	47.65	9848	11.64	3.50	B
81688	3E-5	767957	83771	10.9	53079	63.36	16328	19.49	3.75	B	53079	63.36	16328	19.49	3.75	B
81714	3E-5	44298	6838	15.4	351	5.13	258	3.77	2.50	C	351	5.13	258	3.77	2.50	C
81718	3E-5	121778	16621	13.6	4954	29.81	1633	9.82	4.25	B	4954	29.81	1633	9.82	4.25	B
81728	3E-5	112751	15534	13.8	10883	70.06	3334	21.46	2.25	C	10883	70.06	3334	21.46	2.25	C
81772	3E-5	244040	30606	12.5	3938	12.87	1490	4.87	2.00	C	3938	12.87	1490	4.87	2.00	C
83160	4E-1	54966	7264	13.2	0	0.00	0	0.00	0.00	D	0	0.00	0	0.00	0.00	D
83162	4E-1	384333	39923	10.4	2197	5.50	1267	3.17	2.25	C	2197	5.50	1267	3.17	2.25	C
83170	4E-1	40782	5592	13.7	5	0.09	5	0.09	0.00	D	5	0.09	5	0.09	0.00	D
83184	4E-1	5592	981	17.5	456	46.49	456	46.49	2.75	C	456	46.49	456	46.49	2.75	C
83190	4E-3	578042	57086	9.9	80532	141.07	52577	92.10	7.25	A	80532	141.07	52577	92.10	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.15	3152	45.10	3.50	B	3504	50.15	3152	45.10	3.50	B
83238	4E-3	22457	3316	14.8	1399	42.21	1220	36.79	3.25	C	1399	42.21	1220	36.79	3.25	C
83242	4E-3	842655	79424	9.4	87700	110.42	12713	16.01	4.75	B	87700	110.42	12713	16.01	4.75	B
84162	5E-13	40632	5574	13.7	4929	88.42	1794	32.18	4.50	B	4929	88.42	1794	32.18	4.50	B
84164	5E-13	392608	40675	10.4	13737	33.77	2123	5.22	3.50	B	13737	33.77	2123	5.22	3.50	B

					Scenario 6						Scenario 7					
EFCODE	Natural Region Code	Total EF Area (Ha)	Recommended Protected Area (Ha)	% Recommended of Total	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status	Total Area Protected (Ha)	% of Recommended Protected Area	Largest Protected Area Block (Ha)	% of Recommended Protected Area	Total AoR Score	Representation Status
81480	3E-2	1000920	105718	10.6	14118	13.35	5754	5.44	3.50	B	14118	13.35	5754	5.44	3.50	B
81494	3E-2	159934	21117	13.2	21836	103.41	19659	93.10	7.25	A	21836	103.41	19659	93.10	7.25	A
81536	3E-2	25047	4144	16.5	6255	150.95	4267	102.96	6.75	A	6255	150.95	4267	102.96	6.75	A
81658	3E-5	396814	46907	11.8	21600	46.05	10365	22.10	1.75	C	21600	46.05	10365	22.10	1.75	C
81664	3E-5	93045	13122	14.1	3852	29.36	3168	24.14	2.50	C	4059	30.93	3168	24.14	2.50	C
81674	3E-5	776502	84589	10.9	40005	47.29	9848	11.64	3.50	B	40005	47.29	9848	11.64	3.50	B
81688	3E-5	767957	83771	10.9	53079	63.36	16328	19.49	3.75	B	53079	63.36	16328	19.49	3.75	B
81714	3E-5	44298	6838	15.4	351	5.13	258	3.77	2.50	C	351	5.13	258	3.77	2.50	C
81718	3E-5	121778	16621	13.6	4954	29.81	1633	9.82	4.25	B	4954	29.81	1633	9.82	4.25	B
81728	3E-5	112751	15534	13.8	10883	70.06	3334	21.46	2.25	C	10883	70.06	3334	21.46	2.25	C
81772	3E-5	244040	30606	12.5	4385	14.33	1937	6.33	2.00	C	4385	14.33	1937	6.33	2.00	C
83160	4E-1	54966	7264	13.2	0	0.00	0	0.00	0.00	D	0	0.00	0	0.00	0.00	D
83162	4E-1	384333	39923	10.4	2197	5.50	1267	3.17	2.25	C	2197	5.50	1267	3.17	2.25	C
83170	4E-1	40782	5592	13.7	5	0.09	5	0.09	0.00	D	5	0.09	5	0.09	0.00	D
83184	4E-1	5592	981	17.5	456	46.49	456	46.49	2.75	C	456	46.49	456	46.49	2.75	C
83190	4E-3	578042	57086	9.9	80532	141.07	52577	92.10	7.25	A	80532	141.07	52577	92.10	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.15	3152	45.10	3.50	B	3504	50.15	3152	45.10	3.50	B
83238	4E-3	22457	3316	14.8	1399	42.21	1220	36.79	3.25	C	1399	42.21	1220	36.79	3.25	C
83242	4E-3	842655	79424	9.4	87700	110.42	12713	16.01	4.75	B	87700	110.42	12713	16.01	4.75	B
84162	5E-13	40632	5574	13.7	4929	88.42	1794	32.18	4.50	B	4929	88.42	1794	32.18	4.50	B
84164	5E-13	392608	40675	10.4	13737	33.77	2123	5.22	3.50	B	13737	33.77	2123	5.22	3.50	B

Martel AoR Results - Protected Areas Size Scores (Pg. 3/3)

					Scenario 8						Scenario 9					
EFCODE	*Natural Region Code*	*Total EF Area (Ha)*	*Recommended Protected Area (Ha)*	*% Recommended of Total*	*Total Area Protected (Ha)*	*% of Recommended Protected Area*	*Largest Protected Area Block (Ha)*	*% of Recommended Protected Area*	*Total AoR Score*	*Representation Status*	*Total Area Protected (Ha)*	*% of Recommended Protected Area*	*Largest Protected Area Block (Ha)*	*% of Recommended Protected Area*	*Total AoR Score*	*Representation Status*
81480	3E-2	1000920	105718	10.6	14118	13.35	5754	5.44	4	B	14118	13.35	5754	5.44	3.50	B
81494	3E-2	159934	21117	13.2	21836	103.41	19659	93.10	7	A	21836	103.41	19659	93.10	7.25	A
81536	3E-2	25047	4144	16.5	6255	150.95	4267	102.96	7	A	6255	150.95	4267	102.96	6.75	A
81658	3E-5	396814	46907	11.8	25641	54.66	10365	22.10	2	C	25641	54.66	10365	22.10	2.25	C
81664	3E-5	93045	13122	14.1	3852	29.36	3168	24.14	3	C	4059	30.93	3168	24.14	2.50	C
81674	3E-5	776502	84589	10.9	45870	54.23	10000	11.82	4	B	45870	54.23	10000	11.82	4.00	B
81688	3E-5	767957	83771	10.9	53079	63.36	16328	19.49	4	B	53079	63.36	16328	19.49	3.75	B
81714	3E-5	44298	6838	15.4	3619	52.93	3619	52.93	4	B	3619	52.93	3619	52.93	4.00	B
81718	3E-5	121778	16621	13.6	4954	29.81	1633	9.82	4	B	4954	29.81	1633	9.82	4.25	B
81728	3E-5	112751	15534	13.8	11766	75.74	3334	21.46	2	C	11766	75.74	3334	21.46	2.25	C
81772	3E-5	244040	30606	12.5	4385	14.33	1937	6.33	2	C	4385	14.33	1937	6.33	2.00	C
83160	4E-1	54966	7264	13.2	0	0.00	0	0.00	0	D	0	0.00	0	0.00	0.00	D
83162	4E-1	384333	39923	10.4	2197	5.50	1267	3.17	2	C	2197	5.50	1267	3.17	2.25	C
83170	4E-1	40782	5592	13.7	5	0.09	5	0.09	0	D	5	0.09	5	0.09	0.00	D
83184	4E-1	5592	981	17.5	456	46.49	456	46.49	3	C	456	46.49	456	46.49	2.75	C
83190	4E-3	578042	57086	9.9	80532	141.07	52577	92.10	7	A	80532	141.07	52577	92.10	7.25	A
83198	4E-3	52592	6988	13.3	3504	50.15	3152	45.10	4	B	3504	50.15	3152	45.10	3.50	B
83238	4E-3	22457	3316	14.8	1399	42.21	1220	36.79	3	C	1399	42.21	1220	36.79	3.25	C
83242	4E-3	842655	79424	9.4	87700	110.42	12713	16.01	5	B	87700	110.42	12713	16.01	4.75	B
84162	5E-13	40632	5574	13.7	4929	88.42	1794	32.18	5	B	4929	88.42	1794	32.18	4.50	B
84164	5E-13	392608	40675	10.4	13737	33.77	2123	5.22	4	B	13737	33.77	2123	5.22	3.50	B

Martel AoR Results - Criteria Scores (Pg. 1/4)

Enduring Feature >30% Area in FMU

Scenario 1

EFCODE	Natural Region Code	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	0.00	0.50	0.50	2.00	C
81494	3E-2	0.50	0.00	0.50	1.00	0.50	1.00	3.50	B
81536	3E-2	0.50	0.50	0.50	1.00	0.50	0.00	3.00	C
81658	3E-5	0.50	0.00	0.00	0.00	0.75	0.00	1.25	C
81664	3E-5	0.50	0.00	0.00	0.00	0.50	0.50	1.50	C
81674	3E-5	0.50	0.00	0.50	0.00	0.75	0.50	2.25	C
81688	3E-5	0.50	0.00	0.50	1.00	0.75	0.00	2.75	C
81714	3E-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
81718	3E-5	0.50	0.00	0.50	0.50	0.50	1.00	3.00	C
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.00	1.00	0.00	1.50	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	0.50	0.75	0.50	2.75	C
83242	4E-3	0.50	0.50	1.00	1.00	0.75	0.00	3.75	B
84162	5E-13	1.00	0.00	1.00	0.50	1.00	0.00	3.50	B
84164	5E-13	0.50	0.00	1.00	0.00	1.00	1.00	3.50	B

Scenario2

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.00	0.00	0.50	0.75	0.00	1.75	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	0.50	0.00	0.00	1.00	0.00	1.00	2.50	C
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Scenario 3

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.50	0.50	0.50	0.75	0.00	2.75	C
81664	3E-5	2.00	1.00	1.00	0.00	0.75	1.00	5.75	B
81674	3E-5	0.50	0.50	0.50	1.00	1.00	0.50	4.00	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	2.00	0.50	0.50	0.00	0.50	0.50	4.00	B
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Martel AoR Results - Criteria Scores (Pg. 2/4)

Scenario 4

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.50	1.00	0.50	0.75	0.00	3.25	C
81664	3E-5	4.00	0.00	1.00	1.00	0.75	0.50	7.25	A
81674	3E-5	0.50	0.50	0.50	1.00	1.00	0.50	4.00	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	2.00	0.50	0.50	0.00	0.50	0.50	4.00	B
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Scenario 5

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.50	1.00	0.50	0.75	0.00	3.25	C
81664	3E-5	4.00	0.00	1.00	1.00	0.75	0.50	7.25	A
81674	3E-5	0.50	0.50	0.50	1.00	1.00	0.50	4.00	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	2.00	0.50	0.50	0.00	0.50	0.50	4.00	B
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Martel AoR Results - Criteria Scores (Pg. 3/4)

Scenario 6

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.00	0.00	0.50	0.75	0.00	1.75	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	0.50	0.00	0.00	1.00	0.00	1.00	2.50	C
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Scenario 7

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.00	0.00	0.50	0.75	0.00	1.75	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	0.50	0.00	0.00	1.00	0.00	1.00	2.50	C
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Martel AoR Results - Criteria Scores (Pg. 4/4)

Scenario 8

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.50	0.00	0.50	0.75	0.00	2.25	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.50	0.50	1.00	1.00	0.50	4.00	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	2.00	0.50	0.50	0.00	0.50	0.50	4.00	B
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Scenario 9

EFCODE	NRCODE	SZ_SCOREA	SZ_SCOREB	SZ_SCOREC	ELV_SCORE	HAB_SCORE	HBQ_SCORE	TOT_SCORE	REP_STAT
81480	3E-2	0.50	0.00	0.50	1.00	1.00	0.50	3.50	B
81494	3E-2	3.00	1.00	0.50	1.00	0.75	1.00	7.25	A
81536	3E-2	4.00	0.00	0.50	1.00	0.75	0.50	6.75	A
81658	3E-5	0.50	0.50	0.00	0.50	0.75	0.00	2.25	C
81664	3E-5	0.50	0.00	1.00	0.00	0.50	0.50	2.50	C
81674	3E-5	0.50	0.50	0.50	1.00	1.00	0.50	4.00	B
81688	3E-5	0.50	0.50	0.50	1.00	0.75	0.50	3.75	B
81714	3E-5	2.00	0.50	0.50	0.00	0.50	0.50	4.00	B
81718	3E-5	0.50	0.00	1.00	1.00	0.75	1.00	4.25	B
81728	3E-5	0.50	0.50	0.50	0.00	0.75	0.00	2.25	C
81772	3E-5	0.50	0.00	0.00	0.50	1.00	0.00	2.00	C
83160	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83162	4E-1	0.50	0.00	0.00	1.00	0.75	0.00	2.25	C
83170	4E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	D
83184	4E-1	1.00	0.00	0.00	1.00	0.75	0.00	2.75	C
83190	4E-3	3.00	1.00	1.00	1.00	0.75	0.50	7.25	A
83198	4E-3	1.00	0.50	0.00	0.00	1.00	1.00	3.50	B
83238	4E-3	1.00	0.00	0.00	1.00	0.75	0.50	3.25	C
83242	4E-3	0.50	1.00	1.00	1.00	0.75	0.50	4.75	B
84162	5E-13	1.00	0.50	1.00	1.00	1.00	0.00	4.50	B
84164	5E-13	0.50	0.00	1.00	1.00	1.00	0.00	3.50	B

Appendix 2

Assessment of Representation Analyst User's Guide pp. 15 and 16 – Representation Scores and Classes

Representation Scores and Classes

Representation criteria decision rules and thresholds for enduring features in the automated gap analysis tool.

Representation Criteria	Scoring Guidelines for Representation Criteria (scores are indicated in brackets)					Maximum Possible Score
PROTECTED AREA SIZE AND CONNECTIVITY	A - Largest Single Protected Area Block on Enduring Feature	Meets size guideline (≥95% of recommended size is protected) (4)	Is at least 75% of the recommended size (3)	Is at least 50% of the recommended size (2)	Is at least 25% of the recommended size (1)	Is > 200 ha and <25% of the recommended size (0.5)	4
	B - Total Area Protected on Enduring Feature	*If Size Score A = 4, skip this step, otherwise:*	Meets ≥ 95% of recommended size (1)		Meets at least 50% of the recommended size (0.5)		(1)
	C - Size of Largest Contiguous Protected Area Complex Intersecting the Enduring Feature (Connectivity)		Has a minimum of 200 ha overlapping the feature and is ≥ 75% of the Connectivity Value. (1)	Has a minimum of 200 ha overlapping the feature and is at least 25% of the Connectivity Value. (0.5)			1
ENVIRONMENTAL GRADIENTS	If protected portion > 200 ha, and the calculated mean difference over the average standard deviation (MODVAR) ≤ 0.5 (1)		If protected portion > 200 ha, and the calculated mean difference over the average standard deviation (MODVAR) ≤ 0.75 (0.5)		If protected portion > 200 ha, and the calculated mean difference over the average standard deviation (MODVAR) > 0.75 (0)		1
SHORELINE AND STREAM HABITATS	Size Score A <> 0 and no shoreline habitat recorded in the enduring feature (precautionary approach); or the shoreline habitat in the protected portion ≥ 95% of the proportion of shoreline habitat in the enduring feature. (1)		Size Score A <> 0 and shoreline habitat in the protected portion is at least 50% of the proportion of shoreline habitat in the enduring feature. (0.75)		Size Score A <> 0 and shoreline habitat in the protected portion is at least 5% of the proportion of shoreline habitat in the enduring feature. (0.5)		1
HABITAT QUALITY	Size Score A <> 0 and protected portion is relatively intact: road density ≤ 0.5m/ha. (1)		Size Score A <> 0 and protected portion is less intact: road density > 0.5m/ha and < 1.75m/ha. (thresholds interpreted from Noss 1995) (0.5)		Size Score A <> 0 and protected portion is not intact: road density ≥ 1.75m/ha. (0)		1
						TOTAL:	8

Representation Score Interpretation

Total Score	REP_STAT	Qualitative Interpretation*
≥6	A	Representation of this enduring is either at or approaching the recommended protected area size guideline, or is moderately below the guideline, but contains areas with high quality, a diversity of elevational gradients, and/or representative proportions of riparian habitat.
≥3.5 and <6	B	Representation of this enduring feature is moderate to low with respect to recommended protected area size guidelines, but may contain areas with high quality, a diversity of elevational gradients, and/or representative proportions of riparian habitat.
≥1 and <3.5	C	Representation of this enduring feature is either quite low with respect to recommended protected area size guidelines, but contains areas with high quality, a diversity of elevational gradients, and/or representative proportions of riparian habitat, or representation is moderate, but the quality, diversity of elevational gradients and riparian habitat is low.
<1	D	There is very little to no representation of this enduring feature in protected areas.

*Note: More precise interpretations should be extracted from the individual criteria scores provided in the .dbf output (See Appendix 5 AoR Analyst User's Guide for output field descriptions.)

Decision rules for natural region representation classes

Region graded as "A" if:
- > 90% of the region is adequately represented at the Enduring Feature level

If the above does not apply, then Natural Region graded as "B" if:
- At least 50% of the region is adequate and at least 80% of the remaining enduring features are either partial or moderate
- At least 80% of the region is moderate
- The combination of adequate and moderate enduring features is >80% of the natural region

If the above does not apply, then Natural Region graded as "C" if:
- The combination of moderate and partial and adequate enduring features is at least 80% of the natural region
- The combination of moderate and partial enduring features is at least 80% of the natural region
- The combination of adequate and partial enduring features is at least 80% of the natural region
- If 50% of the natural region is moderate
- If 80% of the natural region is partial
- If the adequate portion of the natural region is > 0%

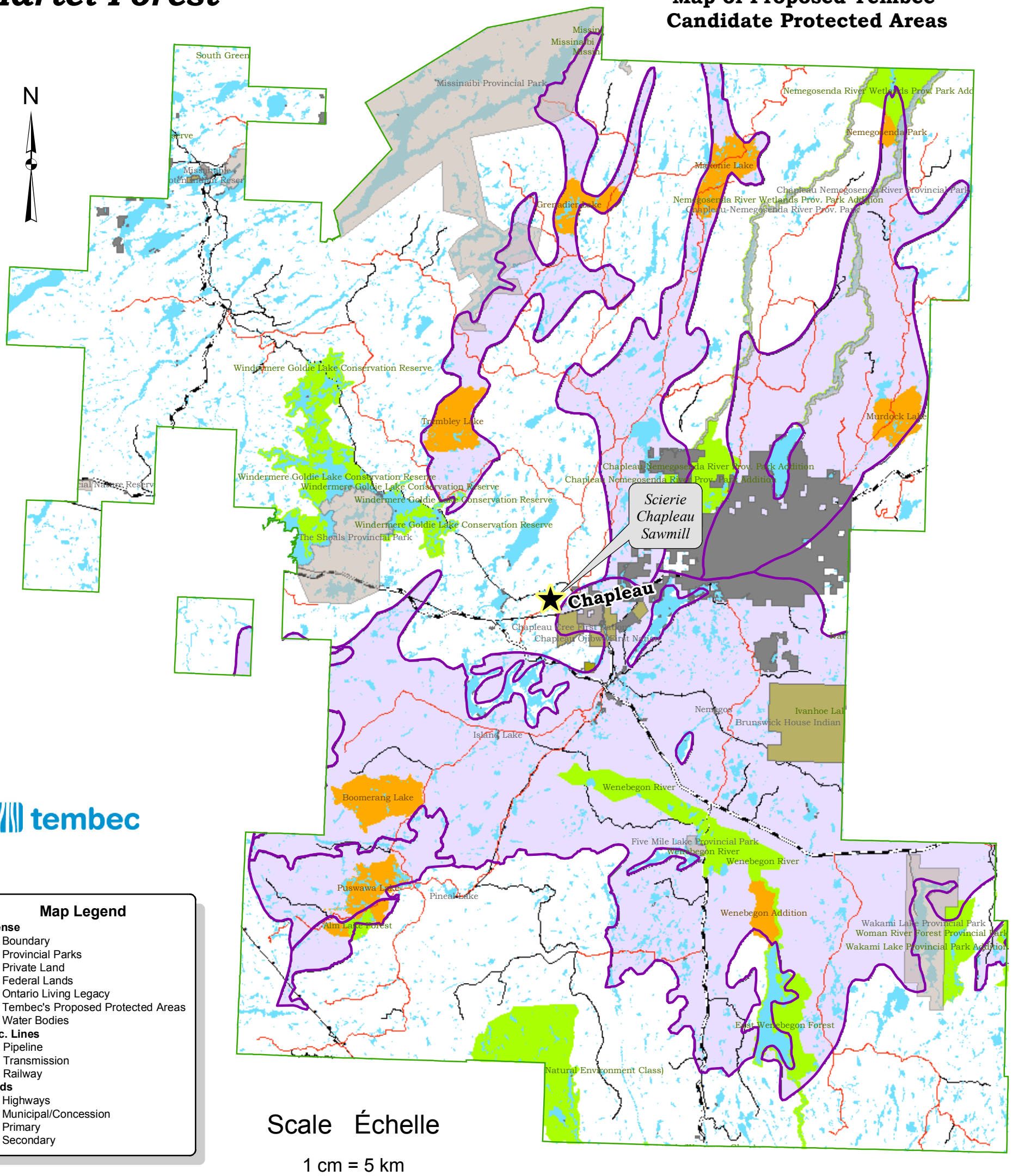
If the above does not apply, then Natural Region graded as "D":
- None of the above mentioned cases exists

Appendix 3

Map of Proposed Tembec Candidate Protected Areas

Martel Forest

Map of Proposed Tembec Candidate Protected Areas



tembec

Map Legend

License
- Boundary
- Provincial Parks
- Private Land
- Federal Lands
- Ontario Living Legacy
- Tembec's Proposed Protected Areas
- Water Bodies

Misc. Lines
- Pipeline
- Transmission
- Railway

Roads
- Highways
- Municipal/Concession
- Primary
- Secondary

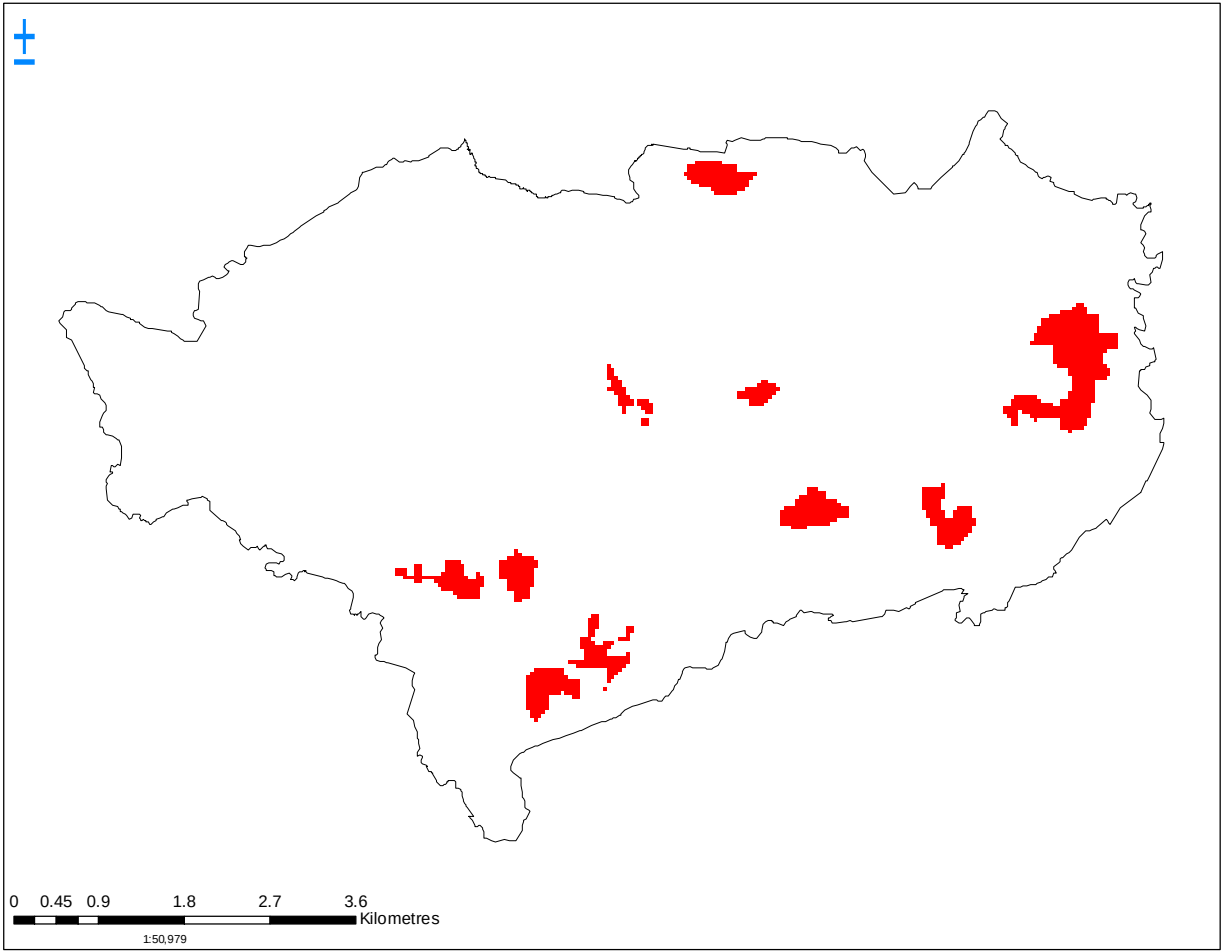
Scale Échelle

1 cm = 5 km

Appendix 4

Maps of Critical Land Units found within Tembec's Proposed Candidate Protected Areas

Critical L/V Associations for Boomerang Lake



Derived from Quaternary Geology/LVFRI 25-metre grid
and current protected area coverage
Ecodistrict 3E-5 (Foleyet)

Legend

- Protected Areas Boundary
- Large Lakes
- L/V association critical to ecodistrict representation

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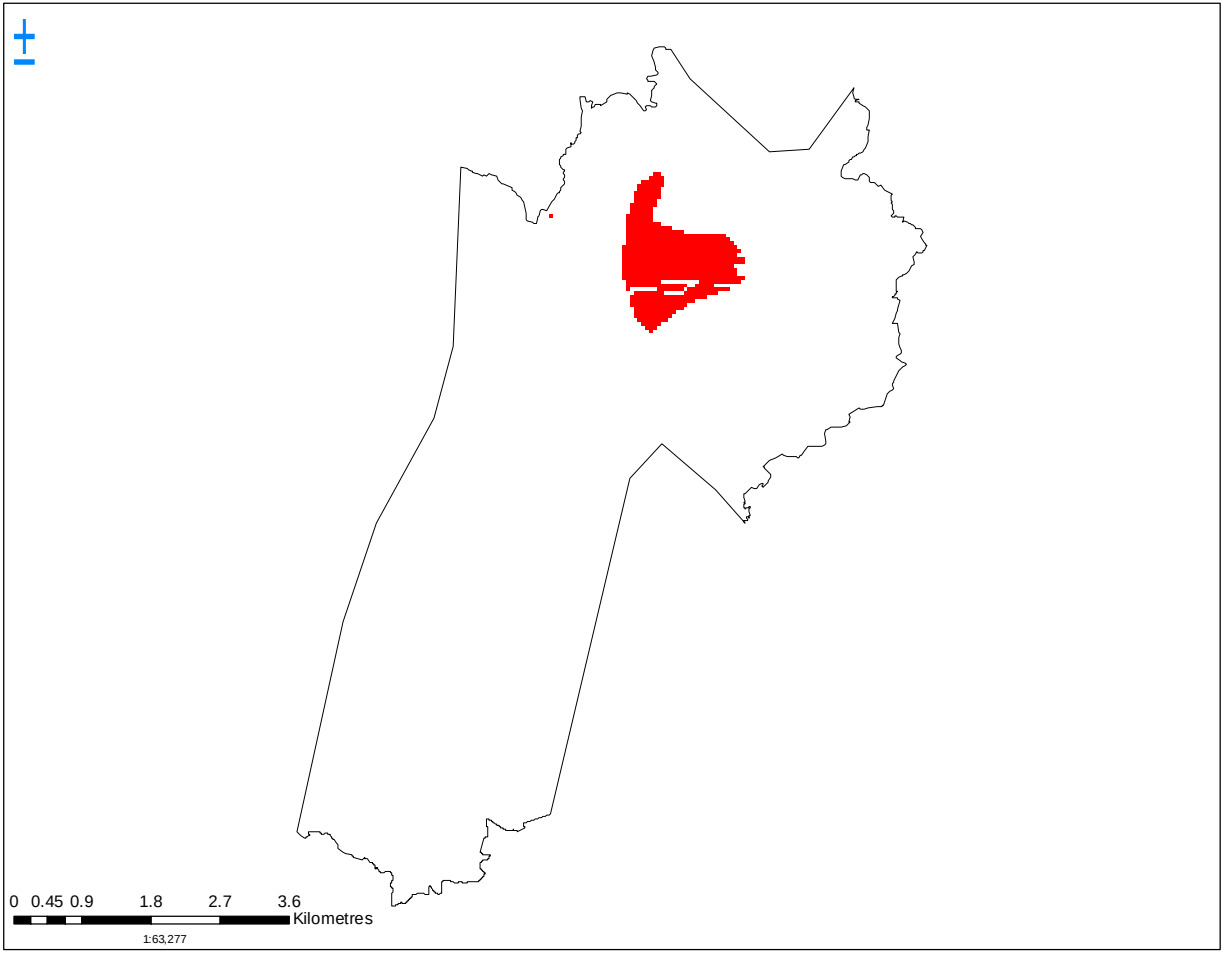
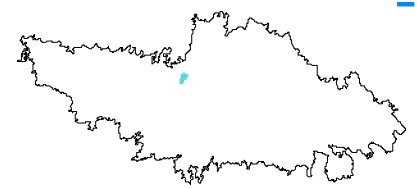
This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation.
Projection: Lambert Conformal Conformal
Datum: North American Datum 1983
Base Derived From: NRVIS (Natural Resource Values Information System)
Produced by: Parks & Protected Areas Policy

Critical L/V Associations for Makonie Lake





Derived from Quaternary Geology/LVFRI 25-metre grid
and current protected area coverage
Ecodistrict 3E-5 (Foleyet)

Legend

- Protected Areas Boundary
- Large Lakes
- L/V association critical to ecodistrict representation

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Projection: Lambert Conformal Conformal
Datum: North American Datum 1983
Base Derived From: NRVIS (Natural Resource Values Information System)
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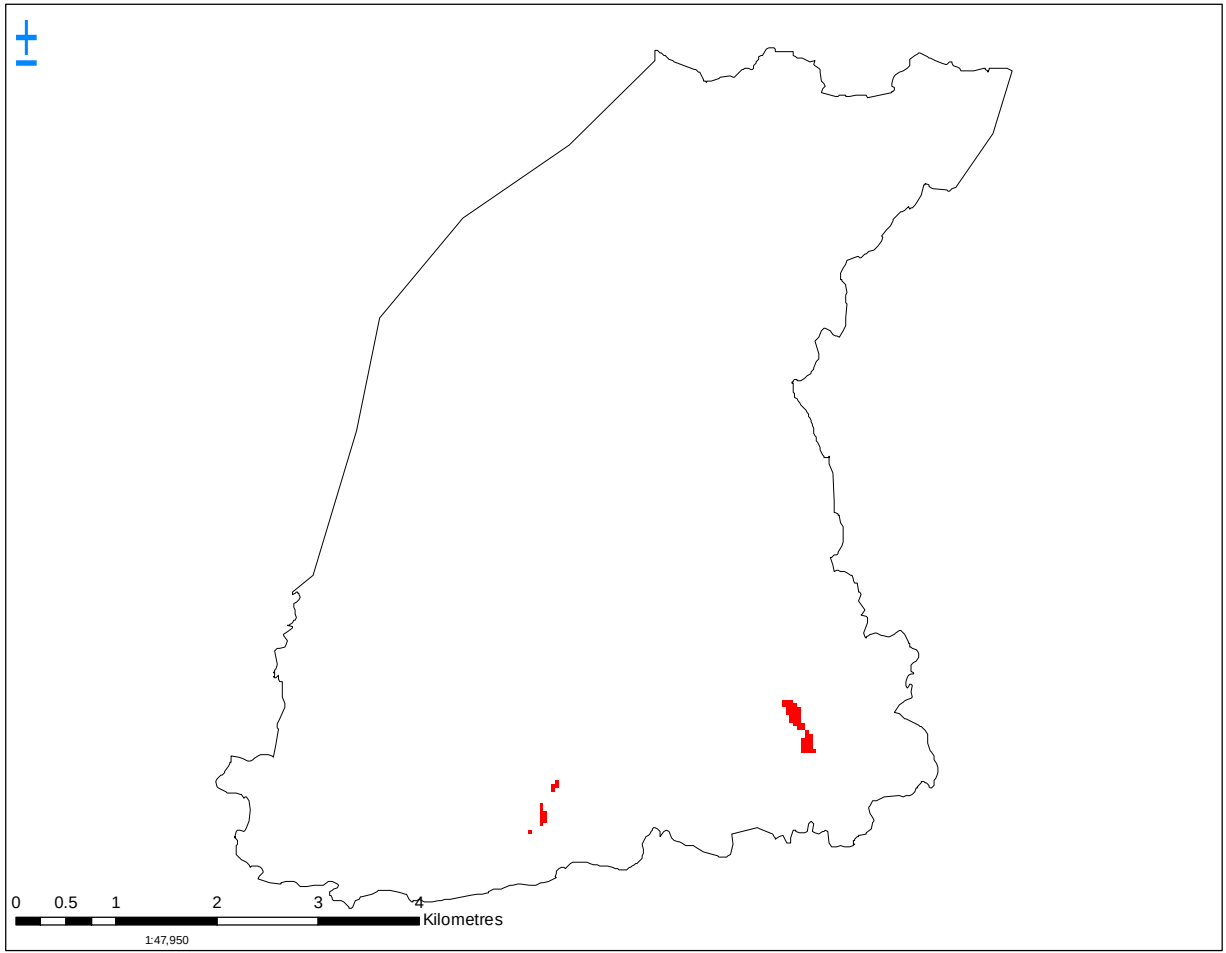
Critical L/V Associations for Trembley Lake



Derived from Quaternary Geology/LVFRI 25-metre grid
and current protected area coverage
Ecodistrict 3E-5 (Foleyet)

Legend

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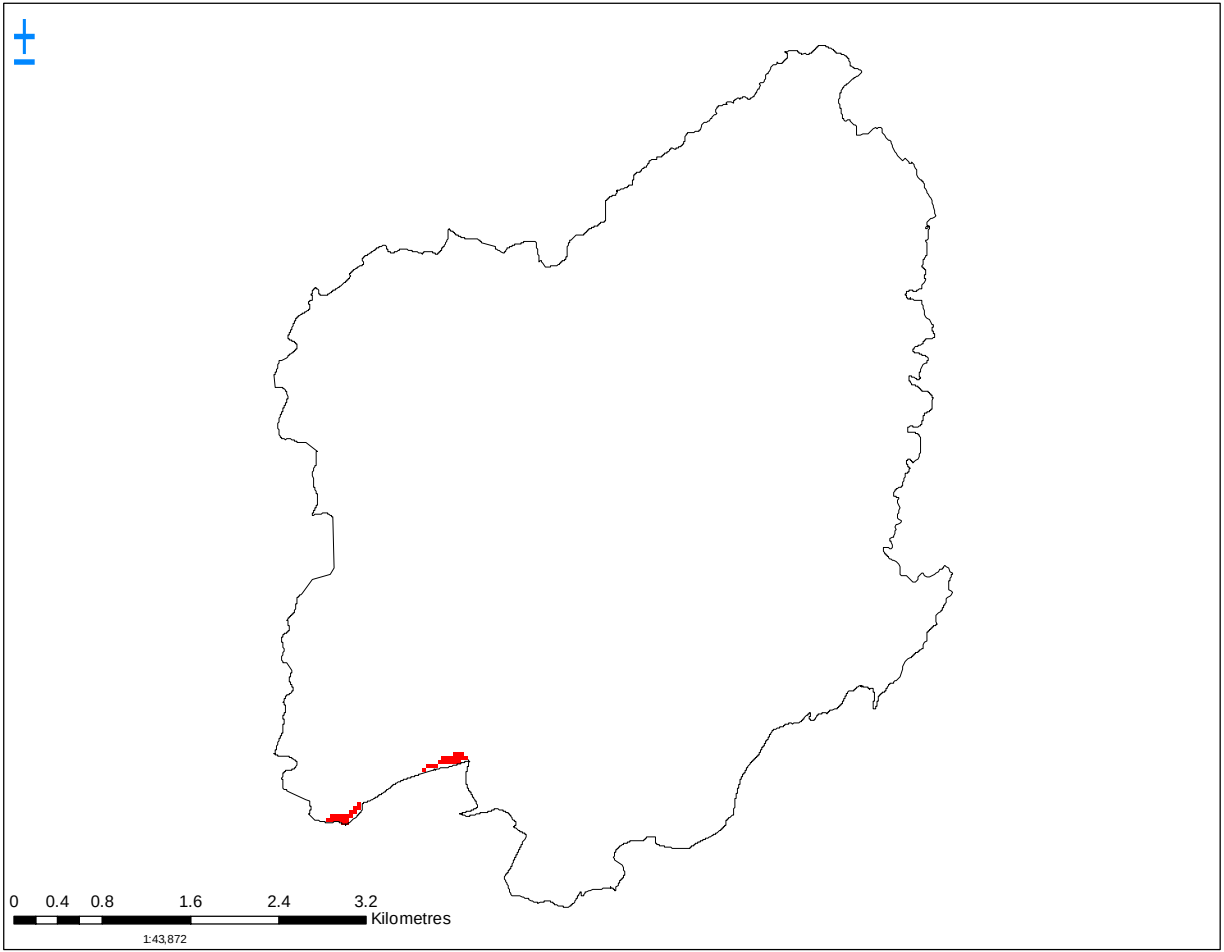
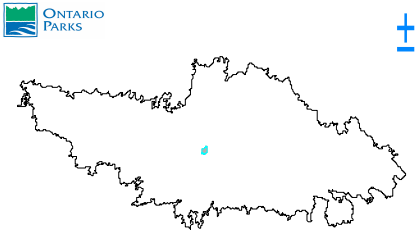
Critical L/V Associations for Murdock Lake





Derived from Quaternary Geology/LVFRI 25-metre grid
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Ecodistrict 3E-5 (Foleyet)

Legend

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