

**Table 8: Biodiversity Potential of Ecosite Phases, Wetlands Types and Other Areas in the Fort McKay FTSA (AVI)**

Natural Subregion (a)	Ecosite Phase/ Wetlands Type/ Other(b)	Total Score	Ranking Index <sup>(c)</sup>	Late-1990s Scenario	Base Case	Application Case	Application Case - Closure	Net Change Application Case to Base Case		Net Change Application Case to Late-1990's Scenario		Net Change Application Case Closure to Base Case		Net Change Application Case Closure to Late 1990's Scenario	
				[ha]	[ha]	[ha]	[ha]	[ha]	[%]	[ha]	[%]	[ha]	[%]	[ha]	[%]
<b>High Biodiversity Potential<sup>(d)</sup></b>															
AP/CM	FFNN	26	0.98	111	57	55	55	-2	-4	-56	-50	-2	-4	-56	-50
AP/CM	MONG	25	0.94	201	144	144	144	0	0	-57	-28	0	0	-57	-28
AP/BH/CM	SONS	25	0.94	8,859	7,080	6,471	6,471	-609	-9	-2,388	-27	-609	-9	-2,388	-27
AP/BH/CM	FTNN	23.5	0.89	43,921	31,287	26,481	26,481	-4,806	-15	-17,440	-40	-4,806	-15	-17,440	-40
<i>subtotal</i>				53,093	38,568	33,151	33,151	-5,417	-14	-19,942	-38	-5,417	-14	-19,942	-38
<b>Moderate Biodiversity Potential<sup>(d)</sup></b>															
AP/BH/CM	FONG	22	0.83	8,077	6,416	5,598	5,598	-818	-13	-2,479	-31	-818	-13	-2,479	-31
AP/BH/CM	STNN	21.5		5,556	4,291	4,128	4,128	-163	-4	-1,428	-26	-163	-4	-1,428	-26
CM	f2	21		0	0	0	503	0	nc	0	nc	503	nc	503	nc
AP/BH/CM	FONS	21		30,313	22,057	18,520	18,520	-3,537	-16	-11,793	-39	-3,537	-16	-11,793	-39
AP/BH/CM	WONN	21	0.79	1,098	845	814	814	-31	-4	-284	-26	-31	-4	-284	-26
AP/CM	littoral <sup>(e)</sup>	21	0.79	0	0	0	1232	0	nc	0	nc	1,232	nc	1,232	nc
AP/CM	BFNN	20	0.75	600	341	297	297	-44	-13	-303	-51	-44	-13	-303	-51
CM	f3	20	0.75	0	0	0	550	0	nc	0	nc	550	nc	550	nc
AP/BH/CM	lake	20	0.75	4,771	4,363	4,258	9,968	-105	-2	-513	-11	5,605	128	5,197	109
AP	e3	19.5	0.74	270	270	252	787	-18	-7	-18	-7	517	191	517	191
BH	e3	19.5	0.74	43	43	43	43	0	0	0	0	0	0	0	0
CM	e3	19.5	0.74	781	357	314	314	-43	-12	-467	-60	-43	-12	-467	-60
AP	b2	19	0.72	3,800	3,532	2,930	3,827	-602	-17	-870	-23	295	8	27	1
BH	b2	19	0.72	2,457	2,456	2,456	2,456	0	0	-1	0	0	0	-1	0
CM	b2	19	0.72	4,756	4,450	4,327	4,327	-123	-3	-429	-9	-123	-3	-429	-9
<i>subtotal</i>				62,520	49,423	43,938	53,365	-5,485	-11	-18,582	-30	3,942	8	-9,155	-15
<b>Low Biodiversity Potential<sup>(d)</sup></b>															
AP	b1	18.5	0.7	9,561	9,087	8,243	8,248	-844	-9	-1,318	-14	-839	-9	-1,313	-14
BH	b1	18.5	0.7	2,227	2,226	2,226	2,226	0	0	-1	0	0	0	-1	0
CM	b1	18.5	0.7	9,133	6,509	5,998	6,273	-511	-8	-3,135	-34	-236	-4	-2,860	-31
AP	b3	18.5	0.7	3,531	3,483	2,399	2,887	-1084	-31	-1,132	-32	-596	-17	-644	-18
BH	b3	18.5	0.7	116	116	116	116	0	0	0	0	0	0	0	0

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				[ha]	[ha]	[ha]	[ha]	[ha]	[%]	[ha]	[%]	[ha]	[%]	[ha]	[%]
CM	b3	18.5	0.7	6,466	5,367	5,227	5,227	-140	-3	-1,239	-19	-140	-3	-1,239	-19
AP/BH/CM	BTNN	18	0.68	37,683	28,508	26,577	26,588	-1931	-7	-11,106	-29	-1,920	-7	-11,095	-29
AP	e1	18	0.68	668	634	607	607	-27	-4	-61	-9	-27	-4	-61	-9
BH	e1	18	0.68	2	2	2	2	0	0	0	0	0	0	0	0
CM	e1	18	0.68	4,297	3,563	3,561	3,561	-2	0	-736	-17	-2	0	-736	-17
AP	e2	18	0.68	1,356	1,271	915	1073	-356	-28	-441	-33	-198	-16	-283	-21
BH	e2	18	0.68	76	76	76	76	0	0	0	0	0	0	0	0
CM	e2	18	0.68	2,347	1,744	1,693	1,693	-51	-3	-654	-28	-51	-3	-654	-28
CM	h1	18	0.68	6,451	4,609	4,440	4,514	-169	-4	-2,011	-31	-95	-2	-1,937	-30
AP/CM	river	18	0.68	5,254	5,253	5,240	5,240	-13	0	-14	0	-13	0	-14	0
BH	d2	17.5	0.66	1,873	1,873	1,873	1,873	0	0	0	0	0	0	0	0
CM	d2	17.5	0.66	23,841	19,943	19,285	20,708	-658	-3	-4,556	-19	765	4	-3,133	-13
AP	a1	17	0.64	36,646	34,368	33,647	33,914	-721	-2	-2,999	-8	-454	-1	-2,732	-7
BH	a1	17	0.64	1,265	1,265	1,265	1,265	0	0	0	0	0	0	0	0
CM	a1	17	0.64	5,999	4,508	4,429	5,482	-79	-2	-1,570	-26	974	22	-517	-9
AP	b4	16.5	0.62	4,083	4,064	3,489	3,492	-575	-14	-594	-15	-572	-14	-591	-14
BH	b4	16.5	0.62	597	597	597	597	0	0	0	0	0	0	0	0
CM	b4	16.5	0.62	1,399	1,065	873	1203	-192	-18	-526	-38	138	13	-196	-14
BH	d3	16.5	0.62	649	649	649	649	0	0	0	0	0	0	0	0
CM	d3	16.5	0.62	8,940	7,426	7,232	7,232	-194	-3	-1,708	-19	-194	-3	-1,708	-19
AP	c1	16	0.6	479	409	391	2220	-18	-4	-88	-18	1,811	443	1,741	363
BH	c1	16	0.6	1,568	1,568	1,568	1,568	0	0	0	0	0	0	0	0
CM	c1	16	0.6	2,404	1,721	1,678	4,314	-43	-2	-726	-30	2,593	151	1,910	79
BH	g1	16	0.6	1,475	1,474	1,474	1,474	0	0	-1	0	0	0	-1	0
CM	g1	16	0.6	2,923	1,631	1,569	7,122	-62	-4	-1,354	-46	5,491	337	4,199	144
AP/CM	pj-lt comp <sup>(f)</sup>	16	0.6	223	109	92	92	-17	-16	-131	-59	-17	-16	-131	-59
AP/BH/CM	shrubland	16	0.6	1,700	1,510	1,505	1,505	-5	0	-195	-11	-5	0	-195	-11
AP/CM	shrubland 2 <sup>(e)</sup>	16	0.6	0	0	0	387	0	nc	0	nc	387	nc	387	nc
AP/CM	shrubland 3 <sup>(e)</sup>	16	0.6	0	0	0	2371	0	nc	0	nc	2,371	nc	2,371	nc

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				[ha]	[ha]	[ha]	[ha]	[ha]	[%]	[ha]	[%]	[ha]	[%]	[ha]	[%]
AP	d1	15.5	0.58	512	441	351	3366	-90	-20	-161	-31	2,925	663	2,854	557
BH	d1	15.5	0.58	2,543	2,543	2,543	2,543	0	0	0	0	0	0	0	0
CM	d1	15.5	0.58	44,514	33,026	32,309	33,961	-717	-2	-12,205	-27	935	3	-10,553	-24
<i>subtotal</i>				<i>232,801</i>	<i>192,638</i>	<i>184,139</i>	<i>205,669</i>	<i>-8499</i>	<i>-4</i>	<i>-48,662</i>	<i>-21</i>	<i>13,031</i>	<i>7</i>	<i>-27,132</i>	<i>-12</i>
<b>Very Low Biodiversity Potential<sup>(d)</sup></b>															
AP/BH/CM	burned uplands	n/a	n/a	810	2,223	1,251	1,251	-972	-44	441	54	-972	-44	441	54
BH/CM	burned wetlands	n/a	n/a	319	2,589	688	688	-1,901	-73	369	116	-1,901	-73	369	116
AP/BH/CM	meadow	n/a	n/a	574	525	521	521	-4	-1	-53	-9	-4	-1	-53	-9
AP/CM	sand	n/a	n/a	129	129	124	124	-5	-4	-5	-4	-5	-4	-5	-4
AP/BH/CM	cutbank	n/a	n/a	93	92	92	92	0	0	-1	-1	0	0	-1	-1
AP/BH/CM	cutblock	n/a	n/a	3,995	3,442	2,941	2,941	-501	-15	-1,054	-26	-501	-15	-1,054	-26
AP/BH/CM	disturbance	n/a	n/a	25,303	90,004	112,791	81,833	22,787	25	87,488	346	-8,171	-9	56,530	223
<i>subtotal</i>				<i>31,223</i>	<i>99,004</i>	<i>118,408</i>	<i>87,450</i>	<i>19,404</i>	<i>20</i>	<i>87,185</i>	<i>279</i>	<i>-11,554</i>	<i>-12</i>	<i>56,227</i>	<i>180</i>
<b>Total</b>				<b>379,635</b>	<b>379,635</b>	<b>379,635</b>	<b>379,635</b>								

(a) AP = Athabasca Plain Natural Subregion; BH = Boreal Highlands Natural Subregion; CM = Central Mixedwood Natural Subregion.

(b) Full names of vegetation types are provided in Table 5.4-9.

(c) Ranking index standardized relative to the ecosite phase or wetlands type with highest total score.

(d) Biodiversity Potential: Very Low = na; Low = ≤0.70; Moderate = 0.71 to 0.84; High = ≥0.85.

(e) Littoral zones are specific to the closure landscape and are described in the Conservation, Closure and Reclamation (C,C&R) Plan (Shell EIA Volume 5, Appendices 5-1 and 5-2); they were assigned the same biodiversity potential score as the shallow open water

(WONN) wetlands type based on professional judgement.

(f) Biodiversity potential for jackpine-tamarack complex (pj-lt comp) was assigned the same total score as the Labrador tea-subhygric black spruce-jack pine (g1) ecosite phase based on professional judgement and field experience in the Oil Sands Region because data for biodiversity indices for this complex were not available.

(g) Shrublands 2 and 3 are specific to the closure landscape and are described in the C,C&R Plan (Shell EIA Volume 5, Appendices 5-1 and 5-2); they were assigned the same biodiversity potential score as the shrubland vegetation type based on professional judgement.

n/a = Not applicable.

nc - % changed is not calculated since the unit is specific to the closure landscape and did not exist at Pre-Development or Base Case

Note: Some numbers are rounded for presentation purposes. Therefore, it may appear that the totals do not equal the sum of the individual values.