

**From:** [Berglund, Jeff](#)  
**To:** [Wightman, Catherine](#)  
**Subject:** Fwd: GRSG - MT lek spreadsheet  
**Date:** Monday, January 12, 2015 9:20:12 AM  
**Attachments:** [Summary Updated.xlsx](#)

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here's what was sent previously... thanks!

----- Forwarded message -----

**From:** **Berglund, Jeff** <[jeff\\_berglund@fws.gov](mailto:jeff_berglund@fws.gov)>  
**Date:** Mon, Jan 12, 2015 at 8:12 AM  
**Subject:** GRSG - MT lek spreadsheet  
**To:** "Wightman, Catherine" <[CWightman@mt.gov](mailto:CWightman@mt.gov)>

Hi Catherine - would it be possible for you to send me the 2014 version of the excel lek spreadsheet that you sent over in 2013? Thanks!

Jeff

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Core Area Name	1999 - 2008 (10 year Average)			2004 - 2013 (10 year Average)			Change	
	Leks w/ Male Counts	Average Male Count	% of Males Counted	Leks w/ Male Counts	Average Male Count	% of Males Counted	Average Male Count	% of Males Counted
Beaverhead	63	15.02	4.6	66	14.26	6.1	-0.76	1.5
Carbon	30	19.91	2.9	28	16.53	3.0	-3.39	0.1
Carter	136	18.73	12.3	145	12.57	11.7	-6.16	-0.6
Cedar Creek	27	13.96	1.8	27	9.12	1.6	-4.83	-0.2
Fergus	120	20.88	12.1	110	17.62	12.5	-3.26	0.4
Golden Valley	19	29.70	2.7	20	21.99	2.8	-7.71	0.1
McCone/Garfield	43	13.62	2.8	54	10.99	3.8	-2.63	1.0
Musselshell	38	17.96	3.3	34	15.90	3.5	-2.06	0.2
North Rosebud	136	18.34	12.1	100	11.96	7.7	-6.38	-4.4
North Valley	15	10.96	0.8	16	11.47	1.2	0.51	0.4
PRB	29	9.73	1.4	23	8.86	1.3	-0.87	-0.1
South Phillips	129	29.06	18.2	121	27.32	21.3	-1.74	3.1
NON - CORE	403	12.78	24.9	361	10.09	23.5	-2.69	-1.5
<b>Total</b>	<b>1188</b>	<b>17.37</b>		<b>1105</b>	<b>14.04</b>		<b>-3.33</b>	

Core Area Name	2008 Leks Status Code Summary				2013 Leks Status Code Summary			
	CA	UC	CI	CE	CA	UC	CI	CE
Beaverhead	51	20			62	18	1	
Carbon	30	5	2		27	5	1	3
Carter	47	111	2		96	67	4	1
Cedar Creek	21	8			23	8	1	1
Fergus	122	25	15		113	29	22	
Golden Valley	29	7	7		19	6	18	1
McCone/Garfield					43	16		4
Musselshell	30	19			31	19	3	
North Rosebud	77	132	11		96	95	19	4
North Valley	12	5			14	4		
PRB	20	14			21	15	1	
South Phillips	119	21	1		123	16	3	
NON - CORE	285	422	23		314	238	63	40
<b>Total</b>	<b>843</b>	<b>789</b>	<b>61</b>	<b>0</b>	<b>982</b>	<b>536</b>	<b>136</b>	<b>54</b>

**CA** - Confirmed Active; **UC** - Unconfirmed; **CI** - Confirmed Inactive; **CE** - Confirmed Extirpated;

ALL LEKS

Core Area Name	1999 - 2008 (10 year Average)			2004 - 2013 (10 year Average)			Change	
	Leks w/ Male Counts	Average Male Count	% of Males Counted	Leks w/ Male Counts	Average Male Count	% of Males Counted	Average Male Count	% of Males Counted
Beaverhead	63	15.02	4.6	66	14.26	6.1	-0.76	1.5
Carbon	30	19.91	2.9	28	16.53	3.0	-3.39	0.1
Carter	136	18.73	12.3	145	12.57	11.7	-6.16	-0.6
Cedar Creek	27	13.96	1.8	27	9.12	1.6	-4.83	-0.2
Fergus	120	20.88	12.1	110	17.62	12.5	-3.26	0.4
Golden Valley	19	29.70	2.7	20	21.99	2.8	-7.71	0.1
McCone/Garfield	43	13.62	2.8	54	10.99	3.8	-2.63	1.0
Musselshell	38	17.96	3.3	34	15.90	3.5	-2.06	0.2
North Rosebud	136	18.34	12.1	100	11.96	7.7	-6.38	-4.4
North Valley	15	10.96	0.8	16	11.47	1.2	0.51	0.4
PRB	29	9.73	1.4	23	8.86	1.3	-0.87	-0.1
South Phillips	129	29.06	18.2	121	27.32	21.3	-1.74	3.1
NON - CORE	403	12.78	24.9	361	10.09	23.5	-2.69	-1.5
Total	1188	17.37		1105	14.04		-3.33	
NonCore Summary								
NC_Bearspaw	44	11.41	2.4	54	9.58	3.3	-1.83	0.9
NC_Beaverhead	11	13.22	0.7	12	11.56	0.9	-1.66	0.2
NC_Bighorn	18	10.39	0.9	8	9.49	0.5	-0.91	-0.4
NC_Carbon	3	12.67	0.2	3	8.92	0.2	-3.75	0.0
NC_CedarCreek	30	9.60	1.4	36	7.45	1.7	-2.15	0.3
NC_Fergus	1	12.50	0.1	1	10.67	0.1	-1.83	0.0
NC_Garfield	62	17.96	5.4	60	12.50	4.8	-5.46	-0.6
NC_Musselshell	16	10.87	0.8	8	12.27	0.6	1.39	-0.2
NC_NorthValley	23	10.87	1.2	21	10.46	1.4	-0.41	0.2
NC_PRB	4	6.14	0.1	3	4.61	0.1	-1.53	0.0
NC_SE	102	12.88	6.4	96	9.13	5.6	-3.75	-0.7
NC_SPhillips	11	24.88	1.3	9	22.34	1.3	-2.54	0.0
NC_Terry	25	8.85	1.1	18	7.05	0.8	-1.81	-0.3
NC_WhiteSulphur	14	13.57	0.9	11	12.68	0.9	-0.89	0.0
NC_Yellowstone	39	10.62	2.0	21	8.54	1.2	-2.08	-0.8
Previous Potential Areas (subset of Non-Core - BLM and FWP areas overlap)								
BLM Garfield	35	17.11	2.9	35	12.34	2.8	-4.77	-0.1
FWP Garfield Original	107	15.64	8.1	106	11.73	8.0	-3.91	-0.1

2008 Males Counted	2013 Males Counted
947	941
597	463
2547	1823
377	246
2505	1938
564	440
586	594
682	540
2494	1196
164	184
282	204
3749	3306
5150	3642
20645	15516

502	518
145	139
187	76
38	27
288	268
13	11
1114	750
174	98
250	220
25	14
1314	877
274	201
221	127
190	139
414	179

599	432
1674	1243

CA Leks w/ 5 or more counts in each 10 year period

Core Area Name	1999 - 2008 (10 year Average)			2004 - 2013 (10 year Average)			Change	
	Leks w/ Male Counts	Average Male Count	% of Males Counted	Leks w/ Male Counts	Average Male Count	% of Males Counted	Average Male Count	% of Males Counted
Beaverhead	21	20.26	5.7	21	19.94	6.5	-0.32	0.8
Carbon	21	23.14	6.5	21	19.87	6.4	-3.27	0.0
Carter	6	29.78	2.4	6	23.77	2.2	-6.01	-0.2
Cedar Creek	5	23.83	1.6	5	15.89	1.2	-7.93	-0.4
Fergus	43	26.73	15.3	43	21.58	14.3	-5.15	-1.0
Golden Valley	14	35.92	6.7	14	26.51	5.7	-9.41	-1.0
McConeGarfield	10	13.28	1.8	10	11.70	1.8	-1.58	0.0
Musselshell	9	30.73	3.7	9	22.93	3.2	-7.80	-0.5
North Rosebud	15	26.75	5.4	15	24.73	5.7	-2.02	0.4
North Valley	6	11.25	0.9	6	9.38	0.9	-1.86	0.0
PRB	9	17.08	2.1	9	12.37	1.7	-4.71	-0.3
South Phillips	73	34.17	33.3	73	32.67	36.8	-1.50	3.5
NC_Bearspaw	3	7.05	0.3	3	7.46	0.3	0.41	0.1
NC_Beaverhead	3	19.47	0.8	3	16.48	0.8	-2.99	0.0
NC_Garfield	16	25.19	5.4	16	17.92	4.4	-7.27	-1.0
NC_Musselshell	2	27.55	0.7	2	20.66	0.6	-6.89	-0.1
NC_NorthValley	8	13.61	1.5	8	11.71	1.4	-1.90	0.0
NC_PRB	1	10.57	0.1	1	6.50	0.1	-4.07	0.0
NC_SE	1	9.83	0.1	1	5.29	0.1	-4.55	0.0
NC_SPhillips	7	28.15	2.6	7	25.96	2.8	-2.19	0.2
NC_Terry	1	7.50	0.1	1	10.17	0.2	2.67	0.1
NC_WhiteSulphur	7	19.68	1.8	7	15.38	1.7	-4.30	-0.2
NC_Yellowstone	6	15.92	1.3	6	11.60	1.1	-4.31	-0.2
Total	287	26.11		287	22.57		-3.54	
Previous Potential Areas (subset of Non-Core - BLM and FWP areas overlap)								
BLM Garfield	8	17.24	1.8	8	11.96	1.5	-5.28	-0.4
FWP Garfield	24	21.19	6.8	24	15.93	5.9	-5.26	-0.9

2008 Males Counted	2013 Males Counted
425	419
486	417
179	143
119	79
1149	928
503	371
133	117
277	206
401	371
67	56
154	111
2494	2385

21	22
58	49
403	287
55	41
109	94
11	7
10	5
197	182
8	10
138	108
96	70

7492	6478
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138	96
509	382

Core Area Name	2008 Leks Status Code Summary				% of CA Leks	2013 Leks Status Code Summary					% of CA Leks	AHM
	CA	UC	CI	CE		CA	UC	CI	CE			
Beaverhead	51	20			6.0	62	18	1		6.3	7	
Carbon	30	5	2		3.6	27	5	1	3	2.7	9	
Carter	47	111	2		5.6	96	67	4	1	9.8	2	
Cedar Creek	21	8			2.5	23	8	1	1	2.3	0	
Fergus	122	25	15		14.5	113	29	22		11.5	17	
Golden Valley	29	7	7		3.4	19	6	18	1	1.9	11	
McCone/Garfield						43	16		4	4.4	0	
Musselshell	30	19			3.6	31	19	3		3.2	3	
North Rosebud	77	132	11		9.1	96	95	19	4	9.8	1	
North Valley	12	5			1.4	14	4			1.4	0	
PRB	20	14			2.4	21	15	1		2.1	0	
South Phillips	119	21	1		14.1	123	16	3		12.5	14	
NON - CORE	285	422	23		33.8	314	238	63	40	32.0	22	
Total	843	789	61	0		982	536	136	54			

CA Lek  
Density Per  
100SqMiles

2.9  
5.4  
4.5  
23.5  
6.6  
5.1  
4.8  
5.2  
3.4  
1.5  
12.1  
4.7

NC_Bearspaw	39	34			4.0	0
NC_Beaverhead	9	12	1		0.9	0
NC_Bighorn	9	15	2	1	0.9	0
NC_Carbon	3	1	1		0.3	0
NC_CedarCreek	29	11	1		3.0	0
NC_Fergus	1		1		0.1	0
NC_Garfield	53	19	5	21	5.4	9
NC_Musselshell	9	21	18		0.9	2
NC_NorthValley	20	15			2.0	0
NC_PRB	3	6	4	2	0.3	0
NC_SE	79	53	1	8	8.0	0
NC_SPhillips	12	1			1.2	1
NC_Terry	18	28	3	1	1.8	0
NC_WhiteSulphur	10	3	10	7	1.0	4
NC_Yellowstone	20	19	16		2.0	6

**Potential Areas (subset of Non-Core - BLM and FWP areas overlap)**

BLM_Garfield	22	22	2	2.6	27	12	1	7	2.7	2
FWP_Garfield	71	69	2	8.4	90	30	5	22	9.2	9

**CA** - Confirmed Active; **UC** - Unconfirmed; **CI** - Confirmed Inactive; **CE** - Confirmed Extirpated;

**AHM** - Adaptive Harvest Management Leks

Acres	100sqmiles
1369329	21.39576563
318059	4.969671875
1356244	21.1913125
62703	0.979734375
1097791	17.15298438
238108	3.7204375
569433	8.897390625
382007	5.968859375
1820529	28.44576563
606793	9.481140625
110879	1.732484375
1677728	26.2145

MONTANA			
	Acres	% of state	% of habitat
State	93,871,885		
SG Habitat	33,835,705	36.0	
SG Core	9,599,424	10.2	28.4

WYOMING			
	Acres	% of state	% of habitat
State	62,547,353		
SG Habitat	43,442,613	69.5	
SG Core	15,263,210	24.4	35.1
SG Connectivity	375,649	0.6	0.9

Wyoming Own					
	Acres				
	Bureau of Indian	Federal	Private	State	Water
State	1,551,045	29,718,117	27,703,361	3,628,384	250,503
SG Habitat	1,243,704	18,833,946	20,465,376	2,882,844	190,744
SG Core	293,673	8,275,479	5,615,875	1,104,006	60,768
SG Connectivity		59,696	295,273	20,865	
	%				
	Bureau of Indian	Federal	Private	State	Water
State	2.5	47.3	44.1	5.8	0.4
SG Habitat	2.9	43.2	46.9	6.6	0.4
SG Core	1.9	53.9	36.6	7.2	0.4
SG Connectivity	0.0	15.9	78.6	5.6	0.0

Montana Own					
	Acres				
	Indian	Reservatic	Federal	Private	State
State	8,424,426	26,113,623	52,949,375	5,723,237	661,224
SG Habitat	2,012,717	7,504,153	21,806,918	2,453,133	58,784
SG Core	130,633	3,374,201	5,210,894	856,722	26,973
	%				
	Indian	Reservatic	Federal	Private	State
State	9.0	27.8	56.4	6.1	0.7
SG Habitat	5.9	22.2	64.4	7.3	0.2
SG Core	1.4	35.2	54.3	8.9	0.3



CoreName	Total Acres	Buffers				CA0_6
		CA0_25	Oth0_25	ALL0_25	Not025	
Beaverhead	1,369,329	7,785	2,319	10,104	1,359,225	41,562
Carbon	318,059	3,386	746	4,132	313,927	19,478
Carter	1,356,244	11,812	8,236	20,048	1,336,196	62,117
Cedar Creek	62,703	2,705	965	3,670	59,033	12,659
Fergus	1,097,791	14,194	5,648	19,842	1,077,949	78,281
Golden Valley	238,108	2,388	3,043	5,431	232,677	13,498
McConeGarfield	569,433	5,279	1,741	7,020	562,413	29,312
Musselshell	382,007	3,896	2,686	6,582	375,425	21,729
North Rosebud	1,820,529	11,800	12,867	24,667	1,795,862	65,846
North Valley	606,793	1,759	503	2,262	604,531	10,134
PRB	110,879	2,520	1,964	4,484	106,395	12,676
South Phillips	1,677,728	15,473	2,292	17,765	1,659,963	87,539
<b>Totals Inside Core</b>	<b>9,609,603</b>	<b>82,997</b>	<b>43,010</b>	<b>126,007</b>	<b>9,483,596</b>	<b>454,831</b>
NC_Bearspaw		4,678	3,910	8,588		25,285
NC_Beaverhead		1,131	1,634	2,765		6,451
NC_Bighorn		1,131	2,180	3,311		6,514
NC_Carbon		377	251	628		2,193
NC_CedarCreek		3,379	1,249	4,628		18,756
NC_Fergus		90	134	224		1,225
NC_Garfield		6,682	3,026	9,708		39,170
NC_Musselshell		1,131	4,952	6,083		7,200
NC_NorthValley		2,262	1,813	4,075		12,881
NC_PRB		393	1,236	1,629		2,850
NC_SE		9,505	6,541	16,046		53,432
NC_SPhillips		1,471	126	1,597		9,365
NC_Terry		2,262	3,895	6,157		13,007
NC_WhiteSulphur		1,257	1,634	2,891		7,238
NC_Yellowstone		2,513	4,371	6,884		14,477
<b>Totals Outside Core</b>		<b>38,262</b>	<b>36,952</b>	<b>75,214</b>	<b>0</b>	<b>220,044</b>

NOTE: CA - buffers around confirmed active leks; Oth - Additional area covered by UC and CI leks; ALL - sum

CoreName	PERCENTS	Buffers				CA0_6
		CA0_25	Oth0_25	ALL0_25	Not025	
Beaverhead		1	0	1	99	3
Carbon		1	0	1	99	6
Carter		1	1	1	99	5
Cedar Creek		4	2	6	94	20
Fergus		1	1	2	98	7
Golden Valley		1	1	2	98	6
McConeGarfield		1	0	1	99	5
Musselshell		1	1	2	98	6
North Rosebud		1	1	1	99	4
North Valley		0	0	0	100	2
PRB		2	2	4	96	11
South Phillips		1	0	1	99	5
<b>Totals Inside Core</b>		<b>1</b>	<b>0</b>	<b>1</b>	<b>99</b>	<b>5</b>

Oth0_6	ALL0_6	Not06	CA1	Oth1	ALL1	Not1	CA2	Oth2
12,369	53,931	1,315,398	103,588	32,182	135,770	1,233,559	331,475	97,549
3,661	23,139	294,920	50,798	7,569	58,367	259,692	142,691	15,489
41,986	104,103	1,252,141	159,780	91,756	251,536	1,104,708	504,325	175,097
4,095	16,754	45,949	27,789	4,921	32,710	29,993	52,193	502
27,309	105,590	992,201	200,480	58,223	258,703	839,088	591,344	95,058
14,853	28,351	209,757	35,270	32,828	68,098	170,010	117,084	57,400
9,557	38,869	530,564	76,827	22,254	99,081	470,352	251,775	47,833
14,840	36,569	345,438	56,888	37,452	94,340	287,667	171,884	89,540
68,624	134,470	1,686,059	176,279	160,061	336,340	1,484,189	599,023	363,249
2,895	13,029	593,764	28,149	8,043	36,192	570,601	109,809	25,899
10,052	22,728	88,151	28,659	18,977	47,636	63,243	69,898	17,539
12,429	99,968	1,577,760	234,223	29,943	264,166	1,413,562	778,264	42,592
<b>222,670</b>	<b>677,501</b>	<b>8,932,102</b>	<b>1,178,730</b>	<b>504,209</b>	<b>1,682,939</b>	<b>7,926,664</b>	<b>3,719,765</b>	<b>1,027,747</b>
18,501	43,786		65,264	38,730	103,994		216,787	92,718
9,256	15,707		17,016	24,190	41,206		60,047	77,405
12,222	18,736		17,699	32,764	50,463		63,868	113,451
1,255	3,448		6,814	2,938	9,752		40,926	10,631
6,091	24,847		49,697	15,557	65,254		181,977	50,688
713	1,938		6,559	2,222	8,781		45,021	13,338
17,004	56,174		109,623	44,619	154,242		415,518	139,050
29,155	36,355		23,626	79,734	103,360		122,515	264,910
9,977	22,858		34,864	26,062	60,926		133,633	89,741
6,527	9,377		11,197	17,353	28,550		58,737	49,191
35,944	89,376		144,943	92,366	237,309		539,996	291,328
818	10,183		28,523	3,300	31,823		139,747	17,878
21,242	34,249		35,366	53,071	88,437		126,514	168,845
9,229	16,467		20,106	22,750	42,856		79,553	71,721
24,274	38,751		40,479	62,825	103,304		156,394	174,215
<b>202,208</b>	<b>422,252</b>	<b>0</b>	<b>611,776</b>	<b>518,481</b>	<b>1,130,257</b>	<b>0</b>	<b>2,381,233</b>	<b>1,625,110</b>

1 of CA and Oth; Not - area outside of buffers within core

Oth0_6	ALL0_6	Not06	CA1	Oth1	ALL1	Not1	CA2	Oth2
1	4	96	8	2	10	90	24	7
1	7	93	16	2	18	82	45	5
3	8	92	12	7	19	81	37	13
7	27	73	44	8	52	48	83	1
2	10	90	18	5	24	76	54	9
6	12	88	15	14	29	71	49	24
2	7	93	13	4	17	83	44	8
4	10	90	15	10	25	75	45	23
4	7	93	10	9	18	82	33	20
0	2	98	5	1	6	94	18	4
9	20	80	26	17	43	57	63	16
1	6	94	14	2	16	84	46	3
2	7	93	12	5	18	82	39	11

ALL2	Not2	CA4	Oth4	ALL4	Not4
429,024	940,305	865,744	123,255	988,999	380,330
158,180	159,879	287,493	2,559	290,052	28,007
679,422	676,822	1,098,189	94,833	1,193,022	163,222
52,695	10,008	59,604	107	59,711	2,992
686,402	411,389	1,006,031	23,298	1,029,329	68,462
174,484	63,624	218,742	19,311	238,053	55
299,608	269,825	523,835	24,734	548,569	20,864
261,424	120,583	334,629	45,170	379,799	2,208
962,272	858,257	1,374,617	261,018	1,635,635	184,894
135,708	471,085	344,114	15,068	359,182	247,611
87,437	23,442	105,136	4,069	109,205	1,674
820,856	856,872	1,476,842	10,268	1,487,110	190,618
<b>4,747,512</b>	<b>4,862,091</b>	<b>7,694,976</b>	<b>623,690</b>	<b>8,318,666</b>	<b>1,290,937</b>
309,505		569,214	172,069	741,283	
137,452		250,462	275,127	525,589	
177,319		215,115	306,170	521,285	
51,557		181,634	34,835	216,469	
232,665		516,869	113,598	630,467	
58,359		239,360	41,118	280,478	
554,568		1,320,458	225,107	1,545,565	
387,425		493,940	631,250	1,125,190	
223,374		461,169	264,352	725,521	
107,928		201,137	64,532	265,669	
831,324		1,715,432	687,670	2,403,102	
157,625		663,010	51,310	714,320	
295,359		392,325	402,118	794,443	
151,274		273,147	143,777	416,924	
330,609		474,675	276,356	751,031	
<b>4,006,343</b>	<b>0</b>	<b>7,967,947</b>	<b>3,689,389</b>	<b>11,657,336</b>	<b>0</b>

ALL2	Not2	CA4	Oth4	ALL4	Not4
31	69	63	9	72	28
50	50	90	1	91	9
50	50	81	7	88	12
84	16	95	0	95	5
63	37	92	2	94	6
73	27	92	8	100	0
53	47	92	4	96	4
68	32	88	12	99	1
53	47	76	14	90	10
22	78	57	2	59	41
79	21	95	4	98	2
49	51	88	1	89	11
<b>49</b>	<b>51</b>	<b>80</b>	<b>6</b>	<b>87</b>	<b>13</b>