

MINIMUM RENT ANALYSIS & SCHEDULE
MONTANA/DAKOTAS FIELD OFFICES

BLM Land Use Authorizations
Tracts of BLM Land to 25 Acres

SUBMITTED TO

Bureau of Land Management
Janet Eubanks, Realty Specialist
2800 Cottage Way
Sacramento, CA 95825

IVIS CASE NUMBER

00073617

IVIS PROJECT NUMBER

L15031

DATE OF REPORT

April 7, 2015

SUBMITTED BY

Kent Wilkinson
Department of the Interior
Office of Valuation Services
125 South State Street, Suite 1209
Salt Lake City, Utah 84138-1126



UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF VALUATION SERVICES
125 SOUTH STATE STREET, SUITE 1209
SALT LAKE CITY, UTAH 84138-1126

April 7, 2015

Bureau of Land Management
Janet Eubanks, Realty Specialist
2800 Cottage Way
Sacramento, CA 95825

Re: Fee Schedule of Minimal Rents on BLM small tracts up to 25 acres

Dear Ms. Eubanks:

Per the request of the Bureau of Land Management (BLM) via the Office of Valuation Services, I have conducted a study of comparable commercial practices and other valuation methodologies that are useful in establishing a reasonable rent schedule for Land Use Authorization grants for small uses up to 25 acres in Montana and in North and South Dakota. This study relies heavily on previous work and analysis that was conducted by Anne Renaud-Wilkinson, and James Green, in recent Minimum Rent Analysis Studies for Idaho and California. For clarity and consistency the applicable methodology and analysis was retained and was applied for New Mexico, Utah, Wyoming, and the Montana and Dakotas schedules in this Consultation Study.

The purpose of this Study is to help BLM Field Offices establish or update current BLM minimal rent schedule fees for non-linear rights-of-way and small permits. A streamlined and uniform approach to establishing small tract rental fees is consistent with provisions of 43CFR§2806 and 43CFR§ 2920. Within the context of this study the terms rent and fee are interchangeable.

Past experience has demonstrated that appraising individual Land Use Authorizations (LUAs) requests is at times not economically beneficial to the U.S. Government for some types of grants or authorizations as the time and cost associated with an appraisal can be substantially higher than the rent achieved. For this reason, development of a rent schedule is warranted for those cases not practical to individually appraise. I have conducted a study, and this report provides findings of comparable commercial practices, as well as serving as a basis for establishing a fee schedule for small non-linear tracts of BLM land that are uneconomical to appraise individually.

It is important for the realty specialist along with any user of this study to read the study in its entirety in order to understand the analysis prior to using any information or data contained herein.

Please note, as this study is a compilation of a wide variety of information including BLM memorandums, regulations, along with other private and public sources, some of the comments, discussions and explanations may not have been specifically cited.

The following pages contain the fee schedule for minimum rents on BLM lands in Montana and in North and South Dakota. The schedules are specific to the identified BLM Field Offices, as well as individual Counties within these Field Offices. Following the schedule charts is the explanation of how the fees were derived.

This fee schedule is not intended to use for oil and gas and other mineral related site rights-of-way or permits. In most States with significant BLM lands there is a well-established market, sufficient lease data for comparing similar oil and gas and mineral related sites, and a process that is economically practical to support the completion of individual appraisals or specific rent schedules.

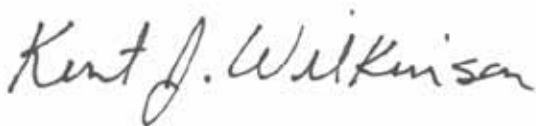
BLM Offices typically request individual appraisals for rental sites when it is economically practical to complete them, and that process should continue. If there is a question about a specific permit or right or way case, OVS can help BLM Realty Personnel screen which cases should be appraised.

It is also not intended for use for site rights of way that are outside the size parameters identified in the schedule, or where there are well established markets, and sufficient data exists, to demonstrate rental fees for particular uses significantly higher than the fees identified on the schedule.

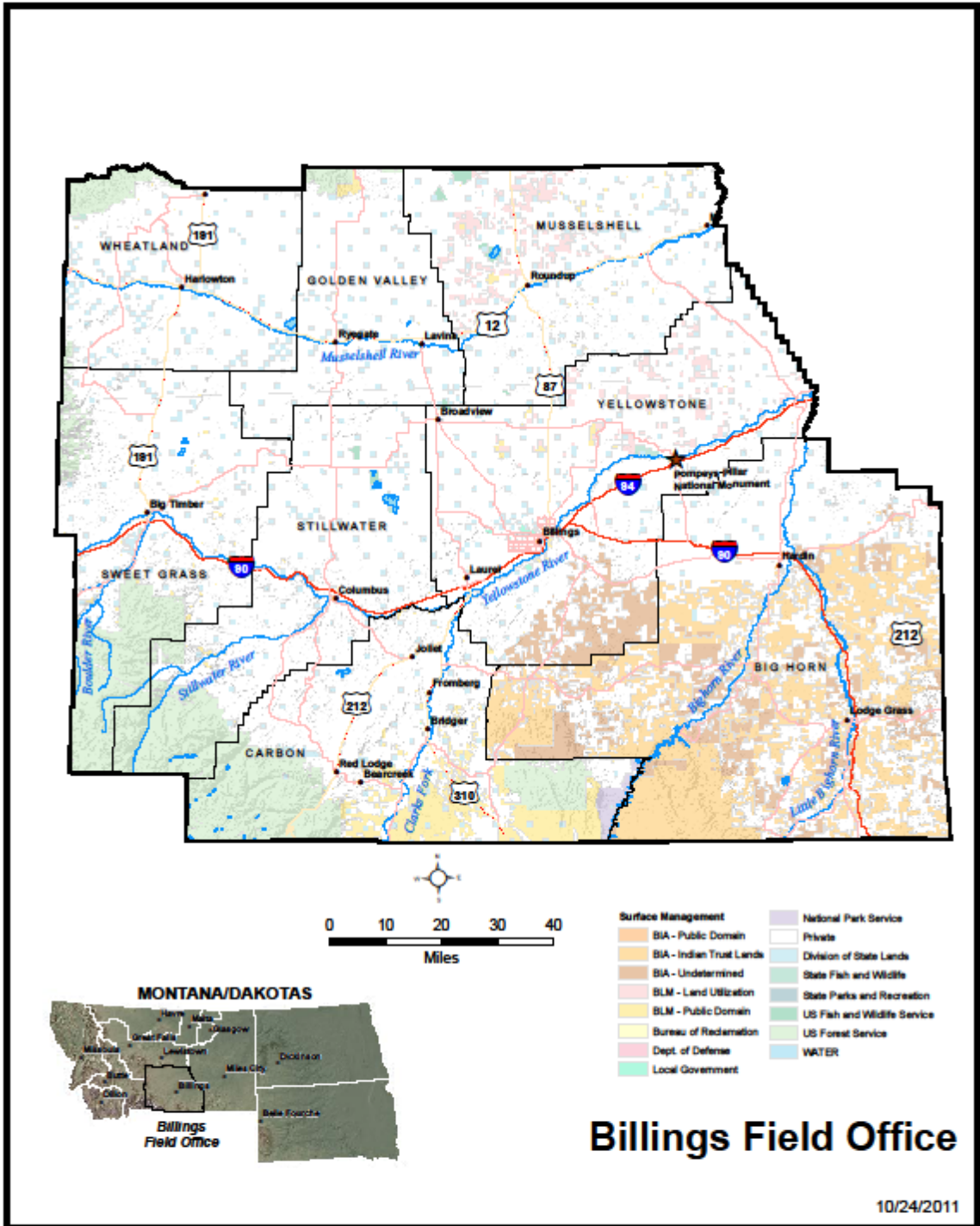
This schedule is also not intended to replace existing schedules for solar, filming, hydroelectric, geothermal, telecommunication, linear right-of-way uses, recreation, and permit fees under 43 CFR 2930, or any other use fee established by specific authorization.

Additional guidance is attached, in the form of a “[Survey of Rent Determination for Apiary Sites and Agricultural Cropland Trespasses](#)” completed June 9, 2014, and can be used as a minimum rental schedule for those uses.

Respectfully submitted,

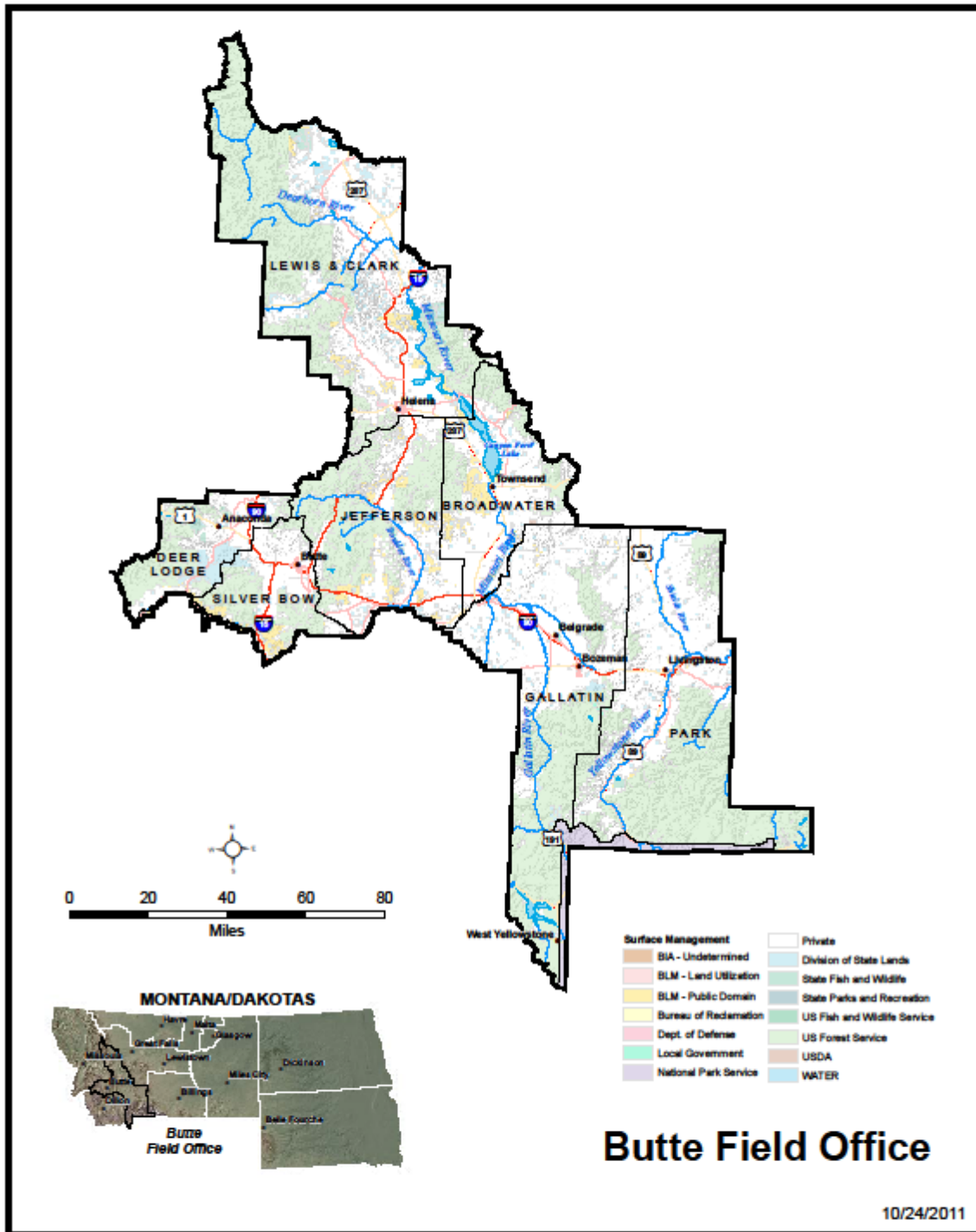


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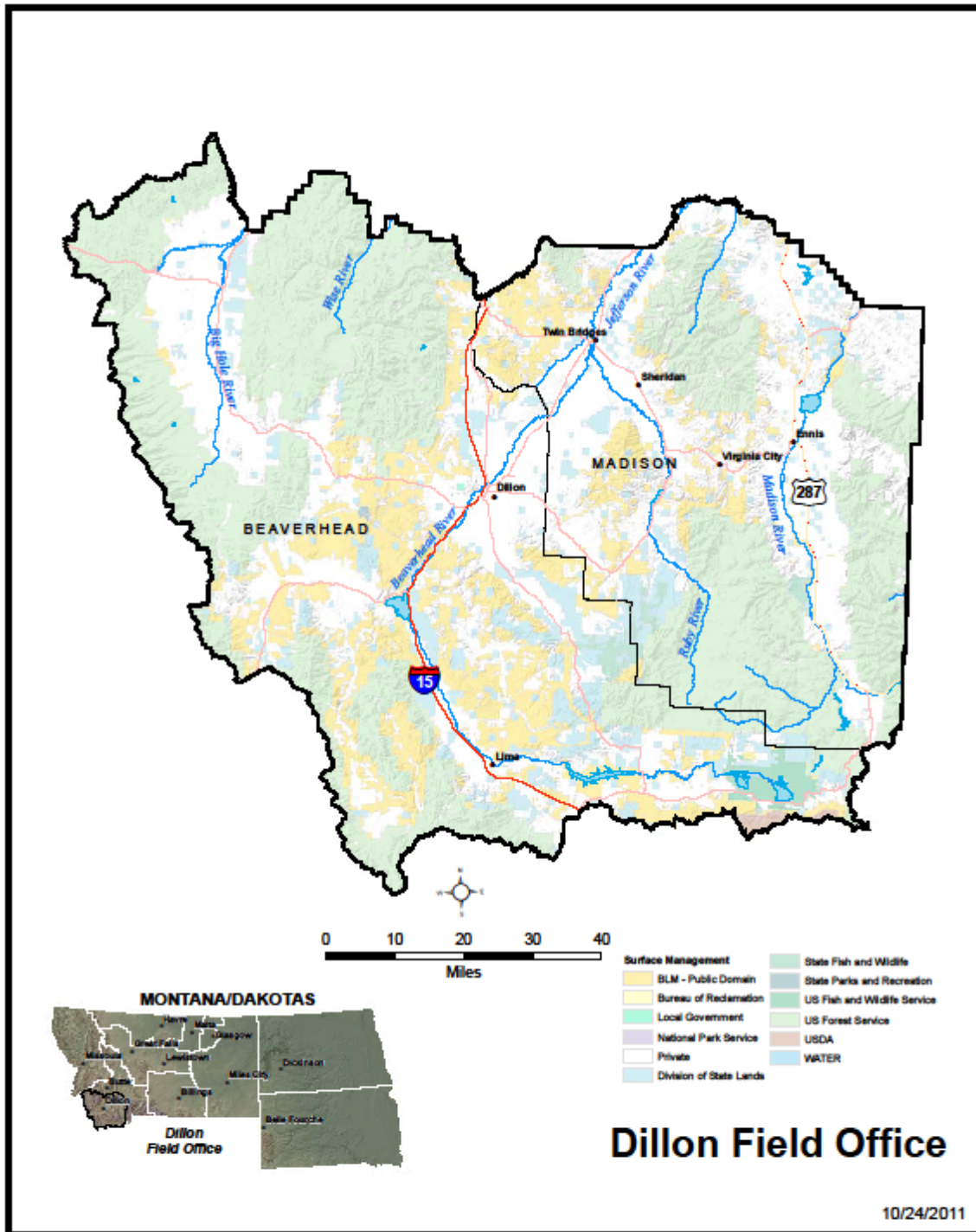
ANNUAL FEE												
BILLINGS FIELD OFFICE												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Big Horn (353)	33	49	66	66	98	131	98	148	197	164	246	328
Carbon (942)	88	131	175	175	263	351	263	394	526	438	657	876
Golden Valley (451)	42	63	84	84	126	168	126	189	252	210	315	420
Musselshell (395)	37	55	74	74	110	147	110	165	221	184	276	368
Stillwater (1117)	104	156	208	208	312	415	312	467	623	519	779	1039
Sweet Grass (860)	80	120	160	160	240	320	240	360	480	400	600	800
Wheatland (410)	38	57	76	76	114	152	114	171	229	190	286	381
Yellowstone (611)	57	85	114	114	171	227	171	256	341	284	426	568

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- This schedule is also not intended to replace existing schedules for solar, filming, hydroelectric, geothermal, telecommunication, linear right-of-way uses, or any other use fee established by specific authorization.



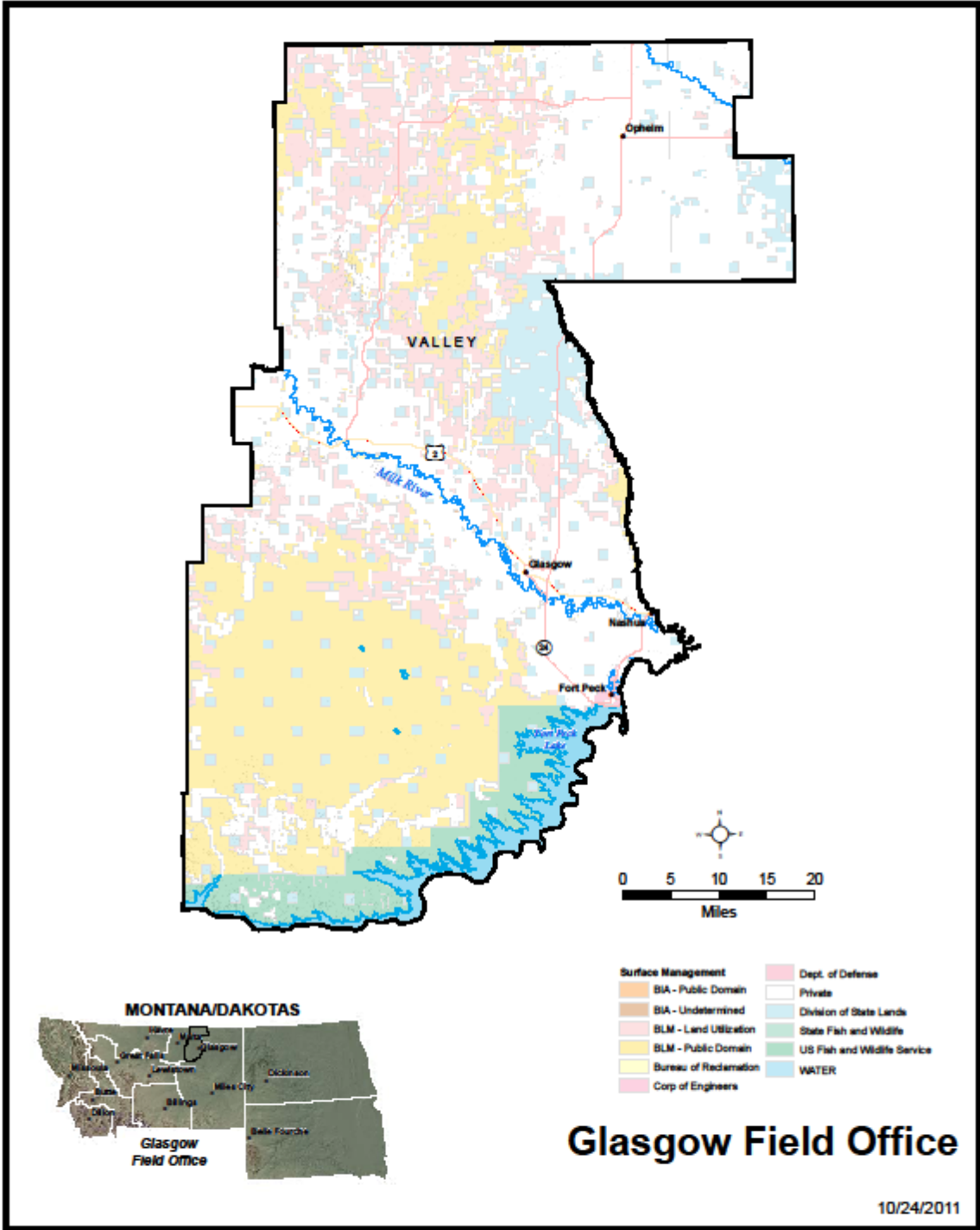
ANNUAL FEE												
BUTTE FIELD OFFICE												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01 – 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Broadwater (915)	85	128	170	170	255	340	255	383	511	426	638	851
Deer Lodge (1290)	120	180	240	240	360	480	360	540	720	600	900	1200
Gallatin (2114)	197	295	393	393	590	787	590	885	1180	983	1475	1966
Jefferson (907)	84	127	169	169	253	337	253	380	506	422	633	844
Lewis & Clark (1212)	113	169	225	225	338	451	338	507	676	564	845	1127
Park (2042)	190	285	380	380	570	759	570	854	1139	949	1424	1899
Silver Bow (1255)	117	175	233	233	350	467	350	525	700	584	876	1167

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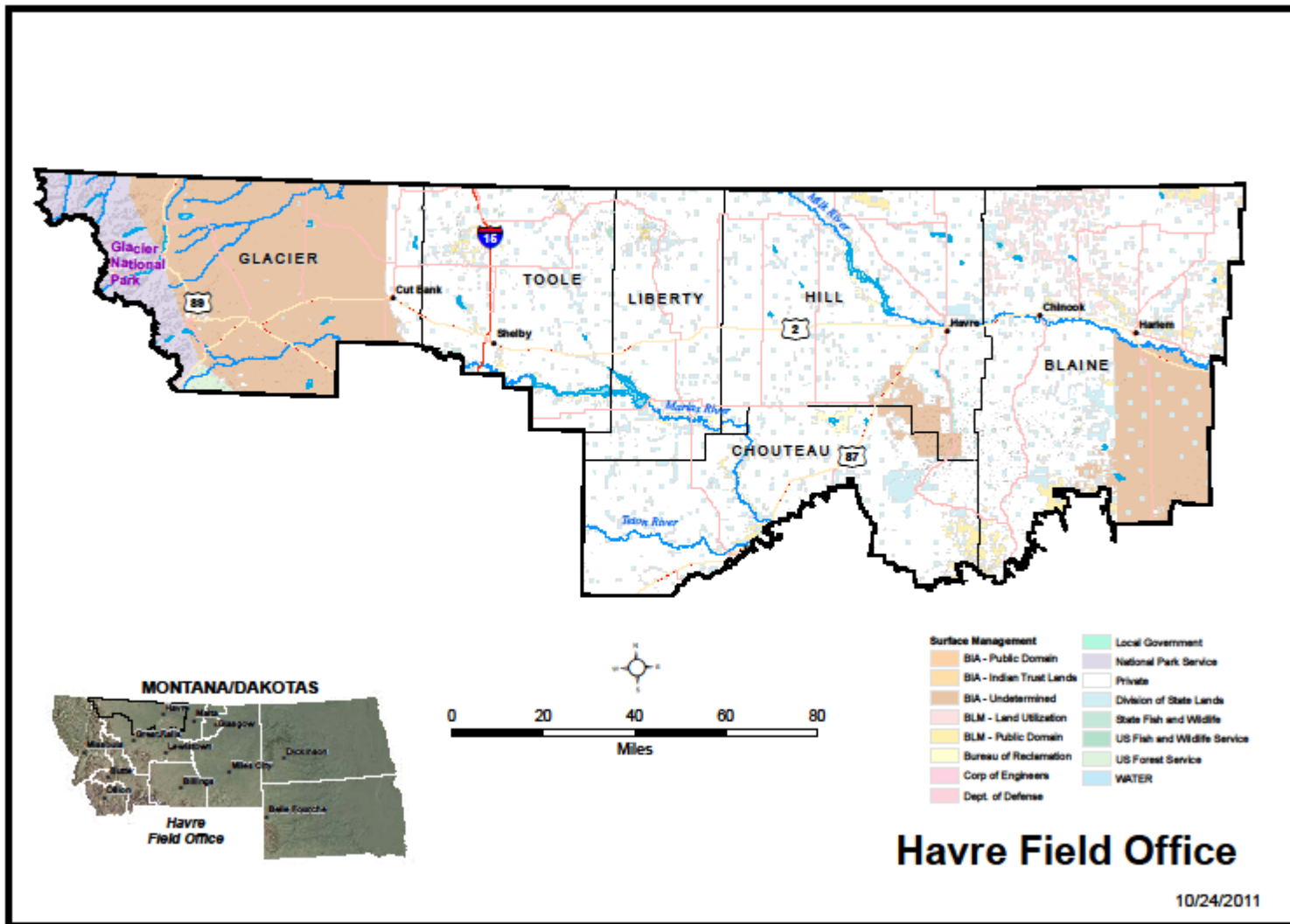
ANNUAL FEES												
DILLON FIELD OFFICE												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01 – 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Beaverhead (892)	83	124	166	166	249	332	249	373	498	415	622	830
Madison (1002)	93	140	186	186	280	373	280	420	559	466	699	932

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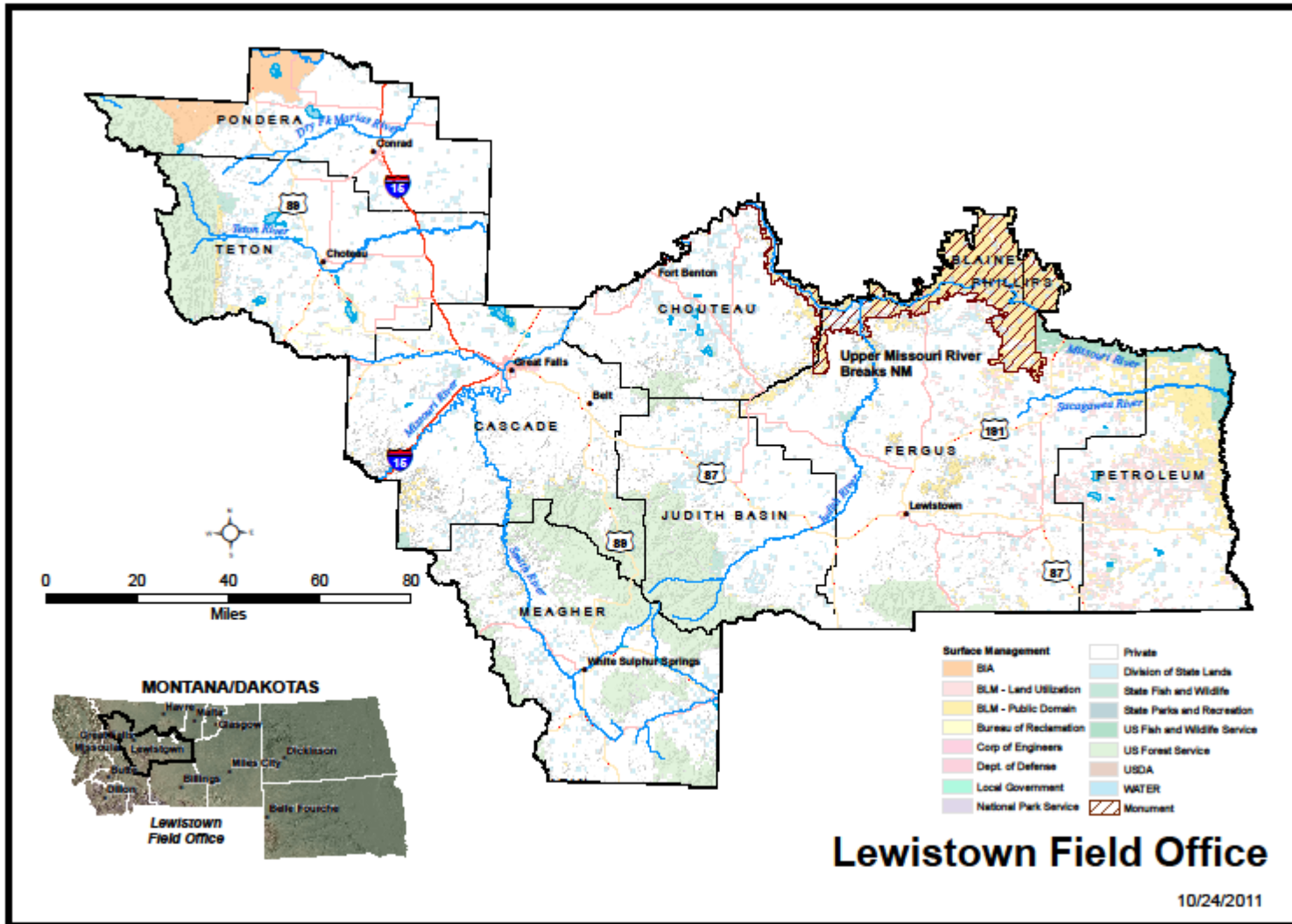
ANNUAL FEES												
GLASGOW FIELD OFFICE												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01 – 15 ACRES			15.01 – 25 ACRES		
Impact>	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Valley (397)	37	55	74	74	111	148	111	166	221	185	277	369

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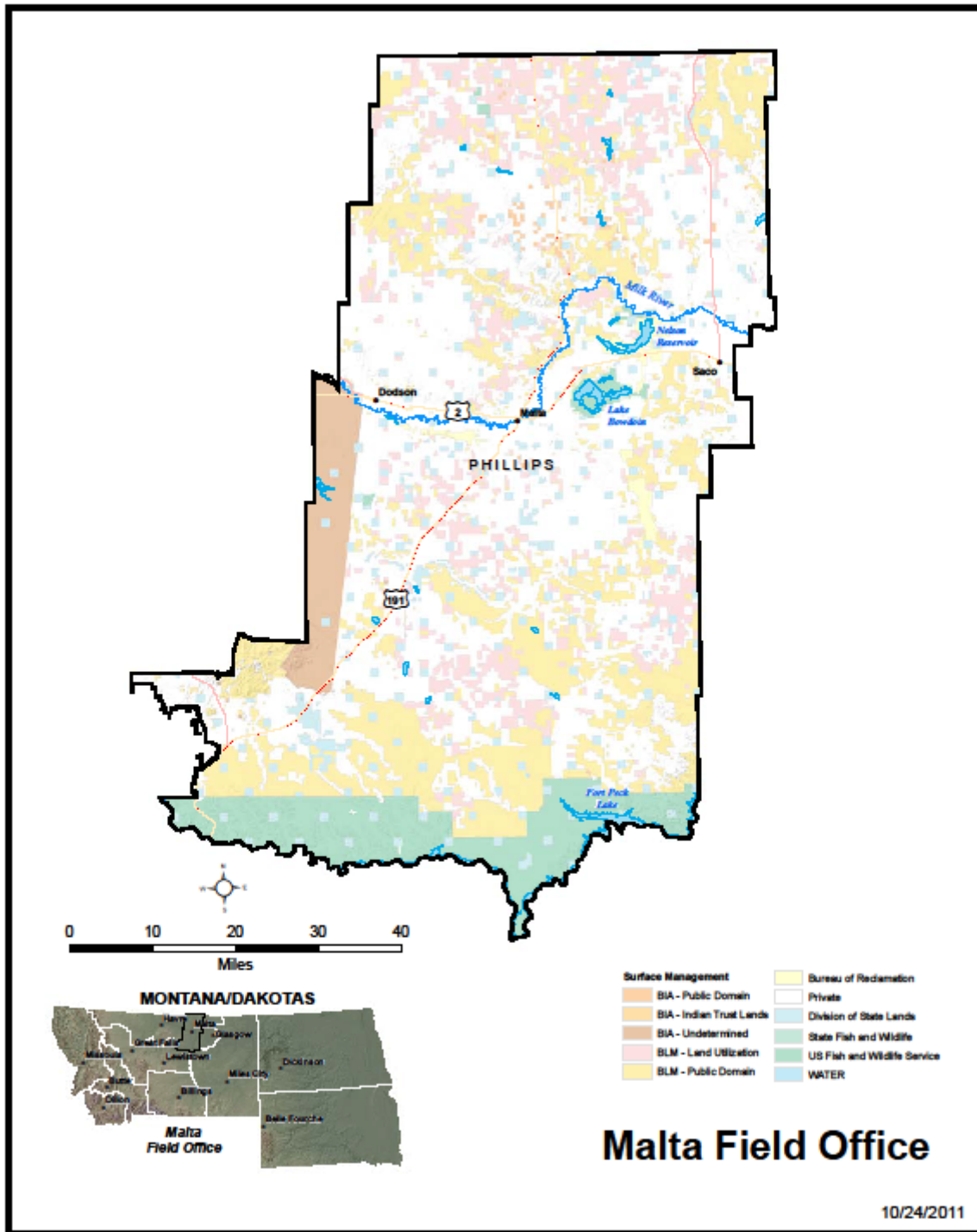
ANNUAL FEE												
HAVRE FIELD OFFICE												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Blaine (478)	44	67	89	89	133	178	133	200	267	222	333	444
Chouteau (642)	60	90	119	119	179	239	179	269	358	298	448	597
Glacier (546)	51	76	102	102	152	203	152	229	305	254	381	508
Hill (518)	48	72	96	96	144	193	144	217	289	241	361	481
Liberty (486)	45	68	90	90	136	181	136	204	271	226	339	452
Toole (574)	53	80	107	107	160	213	160	240	320	267	400	533

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ANNUAL FEE												
LEWISTON FIELD OFFICE												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Blaine (478)	44	67	89	89	133	178	133	200	267	222	333	444
Cascade (844)	78	118	157	157	235	314	235	353	471	392	589	785
Chouteau (642)	60	90	119	119	179	239	179	269	358	298	448	597
Fergus (692)	64	97	129	129	193	257	193	290	386	322	483	644
Judith Basin (714)	66	100	133	133	199	266	199	299	399	332	498	664
Meagher (769)	71	107	143	143	214	286	214	322	429	357	536	715
Petroleum (351)	33	49	65	65	98	131	98	147	196	163	245	327
Phillips (460)	43	64	86	86	128	171	128	193	257	214	321	428
Pondera (649)	60	91	121	121	181	241	181	272	362	302	453	603
Teton (841)	78	117	156	156	235	313	235	352	469	391	586	782

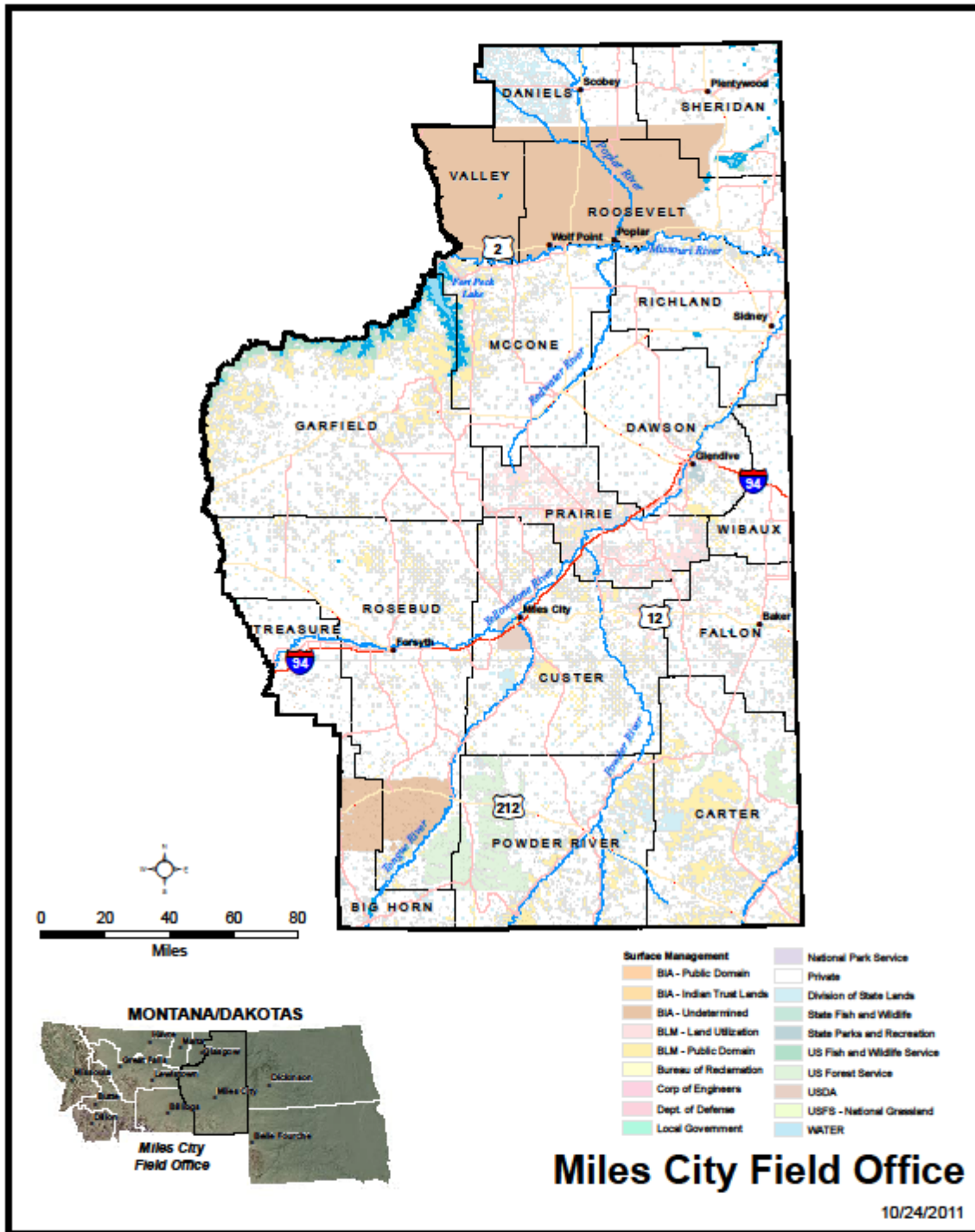
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PART 2 HERE

ANNUAL FEES												
MALTA FIELD OFFICE												
COUNTY Impact>	0 – 5 ACRES			5.01 – 10 ACRES			10.01 – 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Phillips (460)	43	64	86	86	128	171	128	193	257	214	321	428

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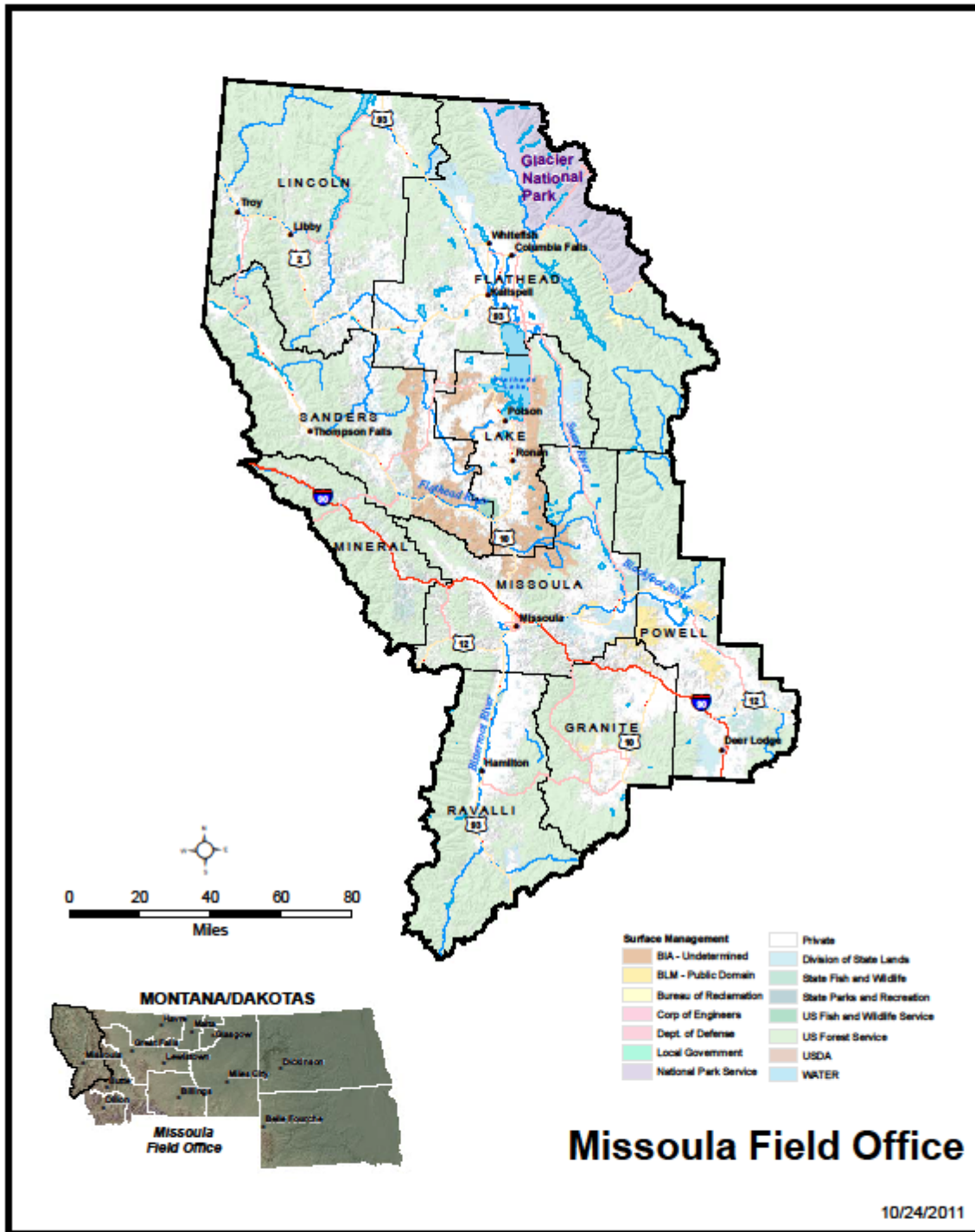


ANNUAL FEE												
MILES CITY FIELD OFFICE (1)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Bighorn (353)	33	49	66	66	98	131	98	148	197	164	246	328
Carter (430)	40	60	80	80	120	160	120	180	240	200	300	400
Custer (322)	30	45	60	60	90	120	90	135	179	150	224	299
Daniels (413)	38	58	77	77	115	154	115	173	230	192	288	384
Dawson (358)	33	50	67	67	100	133	100	150	200	167	250	333
Fallon (351)	33	49	65	65	98	131	98	147	196	163	245	327
Garfield (395)	37	55	74	74	110	147	110	165	221	184	276	368
McCone (384)	36	54	71	71	107	143	107	161	214	179	268	357
Powder River (441)	41	61	82	82	123	164	123	184	246	205	307	410

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ANNUAL FEE												
MILES CITY FIELD OFFICE (2)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Prairie (451)	42	63	84	84	126	168	126	189	252	210	315	420
Richland (479)	45	67	89	89	134	178	134	201	267	223	334	446
Roosevelt (506)	47	71	94	94	141	188	141	212	282	235	353	470
Rosebud (330)	31	46	61	61	92	123	92	138	184	154	230	307
Sheridan (474)	44	66	88	88	132	176	132	199	265	221	331	441
Treasure (402)	37	56	75	75	112	150	112	168	225	187	281	374
Valley (397)	37	55	74	74	111	148	111	166	221	185	277	369
Wixbaux (3749)	35	52	70	70	104	139	104	157	209	174	261	348

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ANNUAL FEE												
MISSOULA FIELD OFFICE												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Flathead (3995)	372	557	743	743	1115	1486	1115	1672	2229	1858	2787	3716
Granite (1021)	95	142	190	190	285	380	285	427	570	475	712	949
Lake (1278)	119	178	238	238	356	475	356	535	713	594	891	1188
Lincoln (3002)	279	419	558	558	838	1117	838	1257	1675	1396	2094	2792
Mineral (3558)	331	496	662	662	993	1323	993	1489	1985	1654	2481	3309
Missoula (2215)	206	309	412	412	618	824	618	927	1236	1030	1545	2060
Powell (757)	70	106	141	141	211	282	211	317	422	352	528	704
Ravalli (3885)	361	542	723	723	1084	1445	1084	1626	2168	1806	2710	3613
Sanders (950)	88	132	177	177	265	353	265	397	530	442	662	883

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ANNUAL FEE												
NORTH DAKOTA FIELD OFFICE (1)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Adams (645)	60	90	120	120	180	240	180	270	360	300	450	600
Barnes (1788)	166	249	333	333	499	665	499	748	998	831	1247	1663
Benson (1034)	96	144	192	192	289	385	289	433	577	481	721	962
Billings (630)	59	88	117	117	176	235	176	264	352	293	440	586
Bottineau (1081)	101	151	201	201	302	402	302	452	603	503	754	1005
Bowman (602)	56	84	112	112	168	224	168	252	336	280	420	559
Burke (671)	62	94	125	125	187	250	187	281	375	312	468	624
Burleigh (1125)	105	157	210	210	314	419	314	471	629	524	786	1048
Cass (2292)	213	320	426	426	639	853	639	959	1279	1066	1599	2132
Cavalier (1522)	142	212	283	283	425	566	425	637	849	708	1061	1415
Dickey (1803)	168	252	335	335	503	671	503	755	1006	838	1258	1677
Divide (517)	48	72	96	96	144	192	144	216	288	240	360	481
Dunn (730)	68	102	136	136	204	272	204	306	408	340	509	679
Eddy (1070)	100	149	199	199	299	398	299	448	597	498	747	995

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ANNUAL FEE												
NORTH DAKOTA FIELD OFFICE (2)												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Emmons (942)	88	131	175	175	263	351	263	394	526	438	657	876
Foster (1494)	139	208	278	278	417	556	417	625	834	695	1042	1390
Golden Valley (674)	63	94	125	125	188	251	188	282	376	314	470	627
Grand Forks (1681)	156	234	313	313	469	625	469	703	938	782	1172	1563
Grant (738)	69	103	137	137	206	274	206	309	412	343	514	686
Griggs (1459)	136	204	271	271	407	543	407	611	814	679	1018	1357
Hettinger (897)	83	125	167	167	250	334	250	375	500	417	626	834
Kidder (740)	69	103	138	138	206	275	206	310	413	344	516	688
La Moure (1730)	161	241	322	322	483	644	483	724	966	805	1207	1609
Logan (818)	76	114	152	152	228	304	228	342	456	380	570	760
McHenry (719)	67	100	134	134	201	268	201	301	401	334	502	669
McIntosh (941)	87	131	175	175	262	350	262	394	525	437	656	875
McKenzie (590)	55	82	110	110	164	219	164	247	329	274	411	548
McLean (1050)	98	146	195	195	293	390	293	439	586	488	732	976

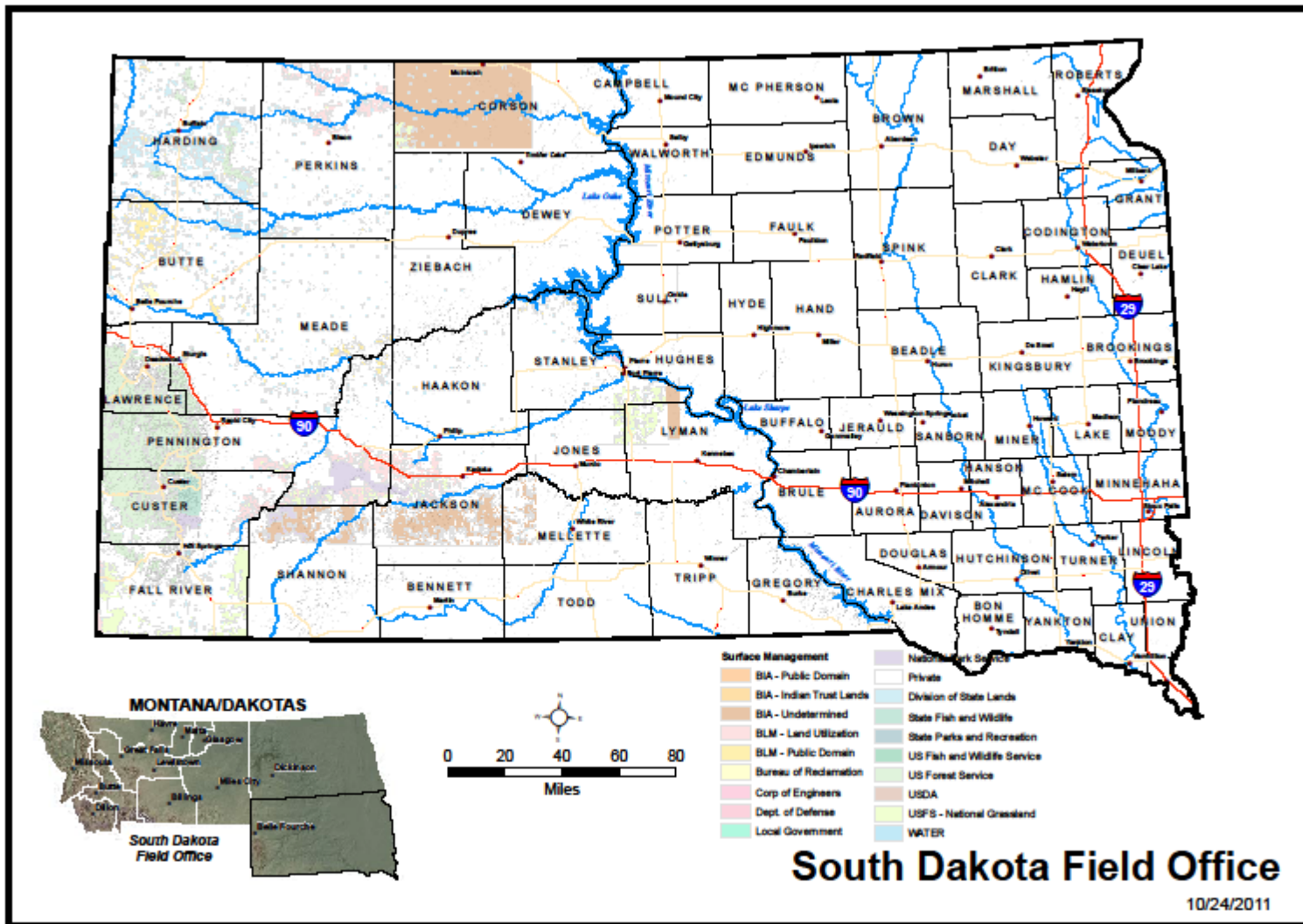
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ANNUAL FEE												
NORTH DAKOTA FIELD OFFICE (3)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Mercer (762)	71	106	142	142	213	284	213	319	425	355	532	709
Morton (818)	76	114	152	152	228	304	228	342	456	380	570	760
Mountrail (728)	68	102	135	135	203	271	203	305	406	339	508	677
Nelson (940)	87	131	175	175	262	350	262	393	525	437	656	874
Oliver (817)	76	114	152	152	228	304	228	342	456	380	570	760
Pembina (2062)	192	288	383	383	575	767	575	863	1150	959	1438	1917
Pierce (822)	76	115	153	153	229	306	229	344	459	382	574	765
Ramsey (1114)	104	155	207	207	311	414	311	466	621	518	777	1036
Ransom (1462)	136	204	272	272	408	544	408	612	816	680	1020	1360
Renville (1294)	120	180	241	241	361	481	361	541	722	602	902	1203
Richland (2376)	221	331	442	442	663	884	663	994	1326	1105	1657	2210
Rolette (899)	84	125	167	167	251	335	251	376	502	418	627	836
Sargent (1898)	176	265	353	353	529	706	529	794	1059	882	1324	1765
Sheridan (748)	70	104	139	139	209	278	209	313	417	348	522	696

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ANNUAL FEE												
NORTH DAKOTA FIELD OFFICE (4)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Sioux (715)	67	100	133	133	200	266	200	299	399	333	499	665
Slope (682)	63	95	127	127	190	254	190	286	381	317	476	635
Stark (1086)	101	152	202	202	303	404	303	455	606	505	758	1010
Steele (1480)	138	206	275	275	413	551	413	619	826	688	1032	1376
Stutsman (1397)	130	195	260	260	390	520	390	585	779	650	974	1299
Towner (1026)	95	143	191	191	286	382	286	430	573	477	716	955
Traill (2321)	216	324	432	432	648	863	648	971	1295	1079	1619	2158
Walsh (1902)	177	265	354	354	531	707	531	796	1061	884	1326	1768
Ward (1230)	114	172	229	229	343	457	343	515	686	572	858	1144
Wells (1294)	120	180	241	241	361	481	361	541	722	602	902	1203
Williams (596)	55	83	111	111	166	222	166	249	333	277	416	554

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ANNUAL FEE												
SOUTH DAKOTA FIELD OFFICE (1)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Aurora (1889)	176	263	351	351	527	703	527	790	1054	878	1317	1757
Beadle (2291)	213	320	426	426	639	852	639	959	1278	1065	1598	2131
Bennett (452)	42	63	84	84	126	168	126	189	252	210	315	420
Bon Homme (2336)	217	326	434	434	652	869	652	978	1303	1086	1629	2172
Brookings (3409)	317	476	634	634	951	1268	951	1427	1902	1585	2378	3170
Brown (2334)	217	326	434	434	651	868	651	977	1302	1085	1628	2170
Brule (1822)	169	254	339	339	508	678	508	763	1017	847	1271	1695
Buffalo (946)	88	132	176	176	264	352	264	396	528	440	660	879
Butte (495)	46	69	92	92	138	184	138	207	276	230	345	461
Campbell (1020)	95	142	190	190	285	379	285	427	569	474	711	949
Charles Mix (1882)	175	263	350	350	525	700	525	788	1050	875	1313	1751
Clark (2027)	189	283	377	377	566	754	566	848	1131	943	1414	1885
Clay (3538)	329	493	658	658	987	1316	987	1480	1974	1645	2467	3290
Codington (2147)	200	300	399	399	599	799	599	899	1198	998	1498	1997

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ANNUAL FEE												
SOUTH DAKOTA FIELD OFFICE (2)												
COUNTY	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
Impact >	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Corson (523)	49	73	97	97	146	195	146	219	292	243	365	487
Custer (917)	85	128	171	171	256	341	256	384	512	426	639	853
Davison (2714)	252	379	505	505	757	1010	757	1136	1515	1262	1893	2524
Day (1529)	142	213	284	284	427	569	427	640	853	711	1066	1422
Deuel (2361)	220	329	439	439	659	878	659	988	1317	1098	1647	2196
Dewey (458)	43	64	85	85	128	171	128	192	256	213	320	426
Douglas (2283)	212	319	425	425	637	849	637	956	1274	1062	1593	2123
Edmunds (1754)	163	245	326	326	489	652	489	734	979	815	1223	1631
Fall River (412)	38	57	77	77	115	153	115	172	230	192	287	383
Faulk (1556)	145	217	289	289	434	579	434	651	868	724	1085	1447
Grant (2394)	223	334	445	445	668	890	668	1002	1336	1113	1670	2226
Gregory (977)	91	136	182	182	273	363	273	409	545	454	681	908
Haakon (481)	45	67	89	89	134	179	134	201	268	224	335	447
Hamlin (2858)	266	399	532	532	797	1063	797	1196	1595	1329	1993	2658

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ANNUAL FEE												
SOUTH DAKOTA FIELD OFFICE (3)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Hand (1526)	142	213	284	284	426	568	426	639	852	710	1065	1420
Hanson (2996)	279	418	557	557	836	1115	836	1254	1672	1393	2090	2786
Harding (336)	31	47	62	62	94	125	94	141	187	156	234	312
Hutchinson (2630)	146	219	292	292	438	584	438	657	876	730	1095	1460
Hughes (1570)	245	367	489	489	734	978	734	1100	1467	1223	1834	2446
Hyde (1112)	103	155	207	207	310	414	310	465	620	517	776	1034
Jackson (636)	59	89	118	118	177	237	177	266	355	296	444	591
Jerauld (1574)	146	220	293	293	439	586	439	659	879	732	1098	1464
Jones (582)	54	81	108	108	162	216	162	243	325	270	406	541
Kingsbury (2655)	247	370	494	494	741	988	741	1111	1482	1235	1852	2469
Lake (3265)	304	455	607	607	911	1215	911	1366	1822	1518	2277	3036
Lawrence (1135)	106	158	211	211	317	422	317	475	633	528	792	1056
Lincoln (4352)	405	607	809	809	1214	1619	1214	1821	2428	2024	3036	4047
Lyman (802)	75	112	149	149	224	298	224	336	448	373	560	746

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ANNUAL FEE												
SOUTH DAKOTA FIELD OFFICE (4)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
McCook (3398)	316	474	632	632	948	1264	948	1422	1896	1580	2370	3161
McPherson (1224)	114	171	228	228	341	455	341	512	683	569	854	1138
Marshall (1788)	166	249	333	333	499	665	499	748	998	831	1247	1663
Meade (539)	50	75	100	100	150	201	150	226	301	251	376	501
Mellette (572)	53	80	106	106	160	213	160	239	319	266	399	532
Miner (2570)	239	358	478	478	717	956	717	1075	1434	1195	1792	2390
Minnehaha (4117)	383	574	766	766	1149	1531	1149	1723	2297	1914	2871	3829
Moody (4075)	379	568	758	758	1137	1516	1137	1705	2274	1895	2842	3790
Pennington (559)	52	78	104	104	156	208	156	234	312	260	390	520
Perkins (430)	40	60	80	80	120	160	120	180	240	200	300	400
Potter (1599)	149	223	297	297	446	595	446	669	892	744	1115	1487
Roberts (2025)	188	282	377	377	565	753	565	847	1130	942	1412	1883
Sanborn (1902)	177	265	354	354	531	707	531	796	1061	884	1326	1768
Shannon (368)	34	51	68	68	103	137	103	154	205	171	257	342

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ANNUAL FEE												
SOUTH DAKOTA FIELD OFFICE (5)												
COUNTY Impact >	0 – 5 ACRES			5.01 – 10 ACRES			10.01– 15 ACRES			15.01 – 25 ACRES		
	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High	Minimal	Moderate	High
Spink (2381)	221	332	443	443	664	886	664	996	1328	1107	1661	2214
Stanley (734)	68	102	137	137	205	273	205	307	410	341	512	683
Sully (1248)	116	174	232	232	348	464	348	522	696	580	870	1161
Todd (409)	38	57	76	76	114	152	114	171	228	190	285	380
Tripp (894)	83	125	166	166	250	333	250	374	499	416	624	832
Turner (3453)	321	482	642	642	963	1284	963	1445	1927	1606	2408	3211
Union (4010)	373	559	746	746	1119	1492	1119	1678	2237	1864	2797	3729
Walworth (1185)	110	165	220	220	331	441	331	496	661	551	826	1102
Yankton (3314)	308	462	616	616	924	1233	924	1387	1849	1541	2311	3082
Ziebach (380)	35	53	71	71	106	141	106	159	212	177	265	353

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CONCEPTUAL OVERVIEW

The Office of Valuation Services has been tasked with the mission of updating and standardizing a state-by-state process of charging fees for individual, sometimes incidental, non-linear uses of small tracts of BLM managed land. Historically, these fees were established based on linear rights-of-way formulas, comparable fees established by other federal agencies, or appraisals, as dictated by 43 CFR§2806 and 43CFR§2920:

Section 2806.5 (Rights-of-Way) - *When neither the linear nor the communication use rent schedule is appropriate, BLM determines your rent through a process based on comparable commercial practices, appraisals, competitive bid, or other reasonable methods.*

Section 2920.8 (Permits) - *The rental shall be based either upon the fair market value of the rights authorized in the land use authorization or as determined by competitive bidding. In no case shall the rental be less than fair market value.*

Setting rents is difficult as there are no generally acceptable standards or methods in setting rents to cover a broad range of uses over a wide geographic area.

In the past, these types of rents were based on surveys of other federal agencies; sometimes set based on an analysis of other minimum fees, or established by individual appraisals. Often, individual real estate appraisals are not economically feasible as the time and cost associated with an appraisal is often substantially higher than the economic benefit to the government with regards to the compensation achieved. Furthermore, appraisal methodologies such as market rent surveys do not generally translate as well for establishing rent schedules over large areas.

Given the nature of this assignment--- to assist BLM in their development of a statewide fee schedule for sites under 25 acres applicable to users of government land--- it was necessary to consider alternative methods that are more attune to economic reasoning than traditional valuation methodology. Nonetheless, these methods find their basis in those used by other federal agencies.

Intended BLM users of this fee schedule should exercise reasonable judgment in assessing the impact to the proposed rental site. While the preceding charts provide exact values within the acreage ranges, there is great leeway for the intended users to interpret the category of use and degree of impact. For instance, a request to stage construction materials or equipment along land adjacent to a pipeline during construction may encompass a cumulatively large area, and yet the actual use will only impact a small portion of the total area at any one time. The selection of a minimal impact fee on the entire area may be appropriate, or selection of a high impact within the small area actually used at a given time may likewise be appropriate, depending on the interpretation of the user.

Duration or intermittent uses may also require interpretation with regard to the degree of impact. Use of BLM land as a staging area for a day or for periodic use could be interpreted as minimal, even though use is exclusive and intense during that period.

SCOPE OF THIS ASSIGNMENT

When determining an appropriate alternative methodology, I relied on the following scope of work:

- I determined if the BLM state was operating under an existing minimum rent schedule, or if a schedule needed to be established. I also considered uses that should be excluded from this schedule because they warrant completion of an appraisal, or are covered by other regulations or specific schedules setting rents.
- I surveyed other federal agencies, state agencies and private parties for information that might provide data within the context of comparable commercial practices.
- I referenced the Code of Federal Regulations, specifically 43 CFR, Public Lands: Interior, for guidance as to how fees had been established for similar land use. (Linear right-of-ways, mineral leasing, filming, hydrologic, geothermal, and telecommunication uses have specific, formula-based fee schedules.)

METHODOLOGY

After careful consideration, I determined the Rate of Return to Land would provide a reasonable basis for opening minimum rents for use of government lands where there is limited data or the use of the land is land is uneconomic to appraise. This method is similar to that used for the linear ROW schedule used by BLM under 43 CFR 2800, 2880, and 2920. Derivation of per county rental rates employed a five step process¹:

1. Determine the LAND VALUE ESTIMATE per county (NASS values x 80%)
2. Derive a RATE OF RETURN. (See following derivation)
3. Determine an ENCUMBRANCE FACTOR. (See following discussion)
4. Apply the RATE OF RETURN to the LAND VALUE ESTIMATE, then multiply the per acre value times the largest acreage size in each of the size brackets (0-5 acres, 5.01-10 acres, 10.01-15 acres, 15.01-25 acres). This is the 100% encumbrance rental rate for that size bracket.²
5. Apply 50% and 75% to the 100% value from #4 to arrive at the minimal impact and moderate impact rates.

¹ This method is recognized in other agencies as being a reasonable and well received method of rent determination. Indeed, under the authority of 16 U.S.C. 792-828c; and 42U.S.C. 7101-7352, the Federal Energy Regulatory Commission established an annual per-acre rental fee based on an adjusted per-acre value multiplied by an encumbrance factor multiplied by the rate of return multiplied by the annual adjustment factor. This formula was established after a lengthy legal challenge and public comment period. IBLA has also recognized this as an acceptable methodology where there is a paucity of reliable market data to directly compare grants in the market.

² The largest acreage size in each category was used in schedule calculations to help ensure fees within that class reasonably cover authorizations in the class as required in CFR 2920.8, and for consistency with the calculations used in the most recent BLM minimum rental studies for other States.

LAND VALUE ESTIMATE

Estimating land value over a large geographical area is difficult to say the least. However, given the predominately rural nature of BLM land, using agricultural land values as the basis for this analysis is reasonable. Support for using the USDA/NASS published reports on land value is provided by Congress, which specifically endorsed the use of this data for rental determination purposes when it passed the “National Forest Organizational Camp Fee Improvement Act of 2003” (Pub. L. 108–7) (16 U.S.C. 6231). This law established a formula for determining rent for organizational camps located on NFS lands by applying a 5 percent rate of return to the average per acre land and building value, by state and county, as reported in the most recent NASS Census. The law also provided for a process to update the per acre land values annually based on the change in per acre land value, by county, from one census period to another.

The United States Department of Agriculture (USDA) publishes an annual agricultural land value report via the National Agricultural Statistics Service (NASS) identified by ISSN: 1949-1867 (http://www.nass.usda.gov/Charts_and_Maps/Land_Values/index.asp). Agricultural land values are reported by state and broken down into per county values. For the States of Montana/Dakotas, the AG LAND, INCLUDING BUILDINGS, ASSET VALUE, MEASURED IN \$/ACRE, was used as the reference for arriving at the land value estimate. These values are found in the NASS on-line web site at <http://quickstates.nass.usda.gov/data/printable> where the numerical value represents the overall per acre value. Since BLM land covers a broad spectrum of land types, with prime recreational land associated with fishing resources, as well as remote high desert land, it is reasonable to use a similarly all-encompassing agricultural land value. Nonetheless, the overall value does include irrigated land and buildings, so an adjustment to the overall land value is applied to account for these conditions. Guidance for this adjustment can be found in Federal Register; 43 CFR Parts 2800, 2880, and 2920, Update of Linear Right-of-Way Schedule; Final Rule of October 31, 2008. In this rule, a 20% adjustment is deemed appropriate as a diminution to the overall land value to account for irrigation and buildings. Therefore, a 20% diminution is applied to each county’s overall land value to arrive at a base Land Value Estimate as shown below.

BILLINGS FIELD OFFICE		BUTTE FIELD OFFICE		DILLON FIELD OFFICE	
County	Adj. Land Value\$/acre	County	Adj. Land Value \$/acre	County	Adj. Land Value \$/acre
Big Horn	353	Broadwater	915	Beaverhead	892
Carbon	942	Deer Lodge	1290	Madison	1002
Golden Valley	451	Gallatin	2114		
Musselshell	395	Jefferson	907		
Stillwater	1117	Lewis & Clark	1212		
Sweet Grass	860	Park	2042		
Wheatland	410	Silver Bow	1255		
Yellowstone	611				

GLASGOW FIELD OFFICE		HAVRE FIELD OFFICE		LEWISTOWN FIELD OFFICE	
County	Adj. Land Value\$/acre	County	Adj. Land Value \$/acre	County	Adj. Land Value \$/acre
Valley	397	Blaine	478	Blaine	478
		Chouteau	642	Cascade	844
		Glacier	546	Chouteau	642
		Hill	518	Fergus	692
		Liberty	486	Judith Basin	714
		Toole	574	Meagher	769
				Petroleum	351
				Phillips	460
				Pondera	649
				Teton	841

MALTA FIELD OFFICE		MILES FIELD OFFICE		MISSOULA FIELD OFFICE	
County	Adj. Land Value\$/acre	County	Adj. Land Value \$/acre	County	Adj. Land Value \$/acre
Phillips	460	Big Horn	353	Flathead	3995
		Carter	430	Granite	1021
		Custer	322	Lake	1278
		Daniels	413	Lincoln	3002
		Dawson	358	Mineral	3558
		Fallon	351	Missoula	2215
		Garfield	395	Powell	757
		McCone	384	Ravalli	3885
		Powder River	441	Sanders	950
		Prairie	451		
		Richland	479		
		Roosevelt	506		
		Rosebud	330		
		Sheridan	474		
		Treasure	402		
		Valley	397		
		Wixbaux	374		

NORTH DAKOTA FIELD OFFICE					
County	Adj. Land Value\$/acre	County	Adj. Land Value \$/acre	County	Adj. Land Value \$/acre
Adams	645	Grant	738	Ransom	1462
Barnes	1788	Griggs	1459	Renville	1294
Benson	1034	Hettinger	897	Richland	2376
Billings)	630	Kidder	740	Rolette	899
Bottineau	1081	La Moure	1730	Sargent	1898
Bowman	602	Logan	818	Sheridan	748
Burke	671	McHenry	719	Sioux	715
Burleigh	1126	McIntosh	941	Slope	682
Cass	2292	McKenzie	590	Stark	1086
Cavalier	1522	McLean	1050	Steele	1480
Dickey	1803	Mercer	762	Stutsman	1397
Divide)	517	Morton	818	Towner	1026
Dunn	730	Mountrail	728	Traill	2321
Eddy	1070	Nelson	940	Walsh	1902
Emmons	942	Oliver	817	Ward	1230
Foster	1494	Pembina	2062	Wells	1294
Golden Valley	674	Pierce	822	Williams	596
Grand Forks	1681	Ramsey	1114		

SOUTH DAKOTA FIELD OFFICE					
County	Adj. Land Value\$/acre	County	Adj. Land Value \$/acre	County	Adj. Land Value \$/acre
Aurora	1889	Fall River	412	Marshall	1788
Beadle	2291	Faulk	1556	Meade	539
Bennett	452	Grant	2394	Mellette	572
Bon Homme	2336	Gregory	977	Miner	2570
Brookings	3409	Haakon	481	Minnehaha	4117
Brown	2334	Hamlin	2858	Moody	4075
Brule	1822	Hand	1526	Pennington	559
Buffalo	946	Hanson	2996	Perkins	430
Butte	495	Harding	336	Potter	1599
Campbell	1020	Hughes	1570	Roberts	2025
Charles Mix	1882	Hutchinson	2630	Sanborn	1902
Clark	2027	Hyde	1112	Shannon	368
Clay	3538	Jackson	636	Spink	2381
Codington	2147	Jerauld	1574	Stanley	734
Corson	523	Jones	582	Sully	1248
Custer	917	Kingsbury	2655	Todd	409
Davison	2714	Lake	3265	Tripp	894
Day	1529	Lawrence	1135	Turner	3453
Deuel	2361	Lincoln	4352	Union	4010
Dewey	458	Lyman	802	Walworth	1185
Douglas	2283	McCook	3398	Yankton	3314
Edmunds	1754	McPherson	1224	Ziebach	380

RATE OF RETURN

A rate of return is an income rate that expresses the relationship between rent (income) and the corresponding land value (capital). It is similar to a capitalization (cap) rate that an investor uses to convert income into an indication of value (direct capitalization) when analyzing income producing properties--- ***net income divided by cap rate is an indication of value***. Cap rate, the ratio of income to the property value, is among the most widely used variables to quantify property values and plays an important role in real estate investment decisions. In reverse, a rate of return can be used to indicate rent--- ***land value multiplied by a rate of return is an indication of rent (income)***.

Cap rates are typically extracted from sales of income producing properties. However, given the uniqueness of government property an alternative method is required to opine a reasonable rate of return. In theory, a cap rate, or in this case, a rate of return is the sum of four components: Expected Inflation, Real Return, Risk Premium, & Recapture Premium.

Expected Inflation

By definition, an investment is the commitment of capital in exchange of a monetary benefit, or a return (income). Investors require a ***return of capital invested*** as a prerequisite for committing capital to a given venture or property. This required return should first provide for the preservation of the purchasing power of invested capital through time. Hence, the first component of required return is expected inflation, so that the purchasing power of invested capital will not decline through time. Ideally, this component is estimated based on inflation rate forecasts, however, many analysts use an average inflation rate over the past five or ten years.

The Consumer Price Index (CPI) averaged over the past five years as published by Bureau of Labor Statistics (<http://www.bls.gov/home.htm>) was used to project expected inflation.

Year	CPI
2009	-0.40%
2010	1.60%
2011	3.20%
2012	2.10%
2013	2.10%
Average	1.72% Expected Inflation

Real Return

The second component of required return is the real return, which is the true monetary benefit that the investor will gain from committing his/her capital--- ***return on capital***. This is typically estimated as the difference between the rate on government securities and the inflation rate reflecting a risk free rate or safe rate.

Using the average 30-year Treasury bond rate over the past five years is reasonable for estimating a real return on real estate. This is in tune with ground lease rates and is what the government is paying as a fair return to those who invest in the U.S. Government (<http://www.treasury.gov>).

Year	Rate
2009	4.08%
2010	4.25%
2011	3.91%
2012	2.92%
2013	3.45%
Average	3.72%

Deducting the five year average rate of expected inflation from the 30 year Treasury bond rates results in the real return as illustrated in the following chart.

Real Return Calculation

5 Year Average 30-Year Bond Rate	3.72%
5 Year Average Expected Inflation	1.72%
Real Return	200%

Risk Premium

A property investment is actually an investment in the property's future income earning capacity. However, there is a lot of uncertainty with this future income earning capacity. This risk is the uncertainty associated with the future income stream and the value of the property. Within this context, real estate investors require a risk premium on top of inflation and real return. The risk premium for a given property depends on the quality of the tenants occupying the property, the length of existing contracts, the property's occupancy rate, the strength of the property's location and expectations regarding the prospects of the economy and the local real estate market.

Since government owned land is not an investment per se, no risk is associated with leasing unimproved federally owned BLM land, and for this type of analysis a risk premium is not warranted.

Recapture Premium

Finally, investors require a recapture premium in the case of improved property investments, since improvements depreciate or lose value through time. Since the value of the property represents the owner's invested capital, it follows that by the end of the physical life of

improvements, when its value becomes theoretically zero, the investor loses its capital. The purpose of the recapture premium is to replace this capital loss through time. Thus, if the physical life of an improvement is 50 years the recapture premium should be 2% on an annual basis. If we assume though, that the capital that is recaptured every year is reinvested (sinking fund approach) then a less than 2% recapture rate will be required. Since my analysis involves unimproved government owned land, no recapture premium is warranted.

Rate of Return Conclusion

The Rate of Return is estimated as the sum of the four components as discussed above and illustrated in the following:

Expected Inflation	1.72%
Real Return	2.00%
Risk Premium	---
<u>Recapture Premium</u>	<u>---</u>
Rate of Return	3.72%

As a test of reasonableness for this rate Ann Wilkinson, in the Idaho Schedule, examined the implied rates imbedded in the NASS data. Specifically, she looked at the cash rents and their relationship to the agricultural land value. As an example, the average rent received for agricultural land in Bannock County, Idaho is \$60.17 and the average unadjusted per acre value for agricultural land is \$1,807. The implied rate of return is:

$$\$60.17 \div \$1,807 = 0.033 = 3.3\%$$

My check of the Agricultural Resources Report for the four BLM districts in Utah found a range of rates for cropland and pasture rented for cash for the most recent year cited between 3.0 and 3.2 percent. This would also support a rate reasonably close to the rate calculated above.

As an added test of reasonableness for the rate of return analysis above, I considered sales and offerings of properties encumbered with an absolute net lease--- also known as a bond lease and reflective of ground leases. As these types of encumbrances are most similar to the characteristics associated with government Land Use Authorizations (LUAs). That is, bond lease tenants are similar to LUA user in that they would perform all obligations related to the premises including the construction and maintenance of improvements and are fully responsible--- in essence the only responsibility of the property owner is to cash the rent checks. In the private sector, these types of leases are known as “hell-or-high-water leases” meaning that regardless of what occurs on or off the property, the tenant is obligated to pay rent. Therefore, the credit worthiness of the tenant is similar to a company’s bond rating--- hence, the term bond lease. That is, a strong credit tenant is generally referred to as an investment grade tenant and considered economically similar to an investment grade bond secured by real property. The advantage in leasing to a credit tenant is strong and stable income stream that is risk averse, even when there are negative changes to market conditions.

The following chart illustrates median asking cap rates for properties offered for sale based on the companies that occupy the real estate.

Median Asking Cap Rates by Company Occupied Real Estate

Company	Cap rate	S & P Rating	Risk
McDonald's	4.05%	A	0.33%
Chase	4.60	A+	0.88%
Wells Fargo	4.70%	AA	0.98%
Bank of America	4.75%	A	1.03%
7-Eleven	5.50%	AA-	1.78%
CVS	5.50%	BBB+	1.78%
Walgreens	5.58%	A	1.86%
AutoZone	5.69%	BBB	1.97%
Advance Auto Parts	6.40%	BBB	-2.68%
Dollar General	6.50%	BB	2.78%
FedEx	6.50%	BBB	2.78%

Us 30 YR Treasury Bond Rate = 3.72%

As shown, there is a relationship between a company’s Standard & Poor’s bond credit rating and real estate cap rate (or rate of return). Extracting the risk premium from the cap rate, further illustrates the association between risk, bond rating, and cap rates.

These added tests of reasonableness support a rate of return conclusion of 3.72%.

THE ENCUMBRANCE FACTOR

The Encumbrance Factor (EF) reflects the intensity of the proposed use and corresponding impact on the land. An encumbrance factor is mostly considered in easement valuations, i.e., the impact an easement has on market value. Easement valuations are reflected in differences in market value before & after the imposition of an easement. That is, a property is first valued without an easement and then valued with an easement; the difference in value being the easement’s impact on value. Studies regarding the impact on value that a specific easement (or use) will have when it partially encumbers a property is time intensive and costly to perform. Hence, the enactment of the law regarding the BLM Linear Right-of-Way schedule and the development of a non-linear right-of-way schedule. Because of the time and cost, published studies are typically utilized and referenced when categorizing uses in determining an Encumbrance Factor.

One such study was conducted and published by Donald Sherwood, MAI, SR/WA in the May/June 2006 edition of the Right Of Way magazine, a portion of which is represented as follows:

Easement Valuation Matrix

Percentage of Fee	Comments	Potential Types of Easements
90% - 100%	Severe impact on surface use. Conveyance of future uses.	Overhead electric Flowage easements Railroad ROW Irrigation canals Access roads
75% - 89%	Major impact on surface use. Conveyance of future uses.	Pipelines Drainage easements Flowage easements
51% - 74%	Some impact on surface use. Conveyance of ingress/egress rights	Pipelines Scenic Easements
50%	Balanced use by both owner and easement holder	Water line Sewer line Cable line Telecommunication lines

Impact Categories

The following uses listed under High, Moderate, and Minimal Impact are only examples, and are not inclusive. A specific use may not necessarily fall under that level of impact in every situation. The examples are provided to help the user select the most appropriate impact category and thus rental for their specific use.

High Impact (100%)

Characteristics of significant impact right-of-way grants or permits warranting a higher rent include: a relatively on going occupation, an exclusivity of use. While BLM rarely grants all use and control in their right of way and permit grants (for example BLM typically reserves the right to issue grants for other compatible uses), a reasonable analysis should look not just at the legal rights reserved but at the likelihood and possibility of compatible other uses on the site. Since for the highest category of impact, additional or other uses would generally not be physically compatible. Examples are; intense industrial type uses, large fenced areas, significant surface disturbance and/or ongoing disruption, high visual impacts, and little or no flexibility as to location. For high impact uses, I recommend an Encumbrance Factor of **100%** to be applied to land value based on the discussion above and consistency with the High impact percentage used in the most recent BLM minimum rental studies derived for other states. High impact uses might include:

- Electric transformer stations
- Water Pump and compressor stations
- Equipment storage sites
- Processing sites

- Portal or tunnel sites
- Sewage lagoons
- Water treatment sites
- Large, fenced and gated staging areas
- Parking areas with intense use

Moderate Impact (75%)

Characteristics of moderate impact right-of-way grants or permits include sites where the uses and impacts are moderate because, the area and/or uses have permanent or ongoing occupation, have some surface disturbance, and/or may be quasi-commercial in nature. For moderate impact uses, I have concluded an Encumbrance Factor of **75%** to be applied to land value. Moderate impact uses might include:

- Gates
- Culverts
- Small water diversion structures or tank sites
- Historic or commemorative monuments
- Small staging areas for geologic exploration or other uses
- Rustic work camp or outfitter sites
- Structures and areas used for cultural arts or educational events
- Farm equipment and machinery storage yards
- Large haystack storage areas
- Highway and other permanent signs
- Minor berms and earthwork

Minimal Impact (50%)

Characteristics of minimal impact right-of-way grants or permits include sites that are short term or intermittent, seldom visited, can be easily relocated if necessary, include smaller disturbed or enclosed areas, and have little or no ongoing surface disturbance. Typically, these sites can accommodate multiple uses. For instance, a minor water or air quality site would accommodate public access. For minimal impact uses, I have concluded an Encumbrance Factor of **50%** to be applied to land value. Minimal impact uses might include:

- Small mail box sites
- Water and air quality monitoring sites
- Water valve sites on pipelines
- Temporary sites with little or no surface disturbance
- Seasonal pivot crossings
- Temporary agricultural product storage sites

The degree of impact requires a significant level of interpretation on the part of BLM staff that will implement this schedule. Along with the size and often unique aspect of these land use

authorizations comes an implied level of temporariness, adding another layer of interpretation to the authorization. In its most rudimentary interpretation, this rent schedule represents the minimum amount that should be applied to a land use authorization.

OTHER INCLUDED MINIMUM RENTAL STUDIES

Additional guidance is attached, in the form of a “[Survey of Rent Determination for Apiary Sites and Agricultural Cropland Trespasses](#)” completed June 9, 2014.

The “*Apiary Sites and Agricultural Cropland Study*” can be used as a basis for determining minimum rental schedule for those uses.



United States Department of the Interior

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MEMORANDUM:

FROM: Gary L. Lay, ARA
Office of Valuation Services/BLM Team
2602 1st Ave. North, Room 329
Billings, Mt. 59101

TO: Janet Eubanks
Realty Specialist
Land Tenure Lead
Lands, Realty & Cadastral
20 M Street
Washington DC 20003

DATE: June 09, 2014

RE: Additional Guidance for Minimum Rental Analysis – Land Use Authorizations
Non Linear Rights of Way (R/W) Rental:
Survey of Rent Determination for Apiary Sites and Agricultural (Cropland) Trespasses

In accordance with your consultation request (L13055), I have consulted with area BLM Realty Staff to identify their specific needs in the region, two areas of interest were recognized; Apiary Sites and Agricultural (Cropland) Trespasses. The following discussion addresses these two issues. The intended use of this report is to provide the BLM with a rental schedule for apiary sites and agricultural (cropland) trespasses in Montana, North Dakota and South Dakota to become effective January 1, 2014.

Apiary Sites

An apiary (also known as a bee yard) is a place where beehives of honey bees are kept. Traditionally beekeepers (also known as apiarists) paid land rent in honey for the use of small

parcels. Some farmers will provide free apiary sites, because they need pollination, and farmers who need many hives often pay for them to be moved to the crops when they bloom.²

Sites

There are generally two types of beekeeping: stationary and migratory. Stationary beekeeping is primarily focused on the production of honey in a single location. Migratory beekeeping involves transporting bee colonies several times a year for crop pollination or moving bee colonies to produce different varieties of honey. In the off-season winter months bee colonies are stockpiled, usually in southern states, while waiting for crops to bloom. During this time they do not produce honey. Each of these types of beekeeping requires the use of land on which to place the bee hives (structures where the colonies live).

Honey production varies yearly and regionally depending on rainfall, soil conditions, temperatures, cropping patterns, and hive management. Typical yield for stationary colonies may be only 10 to 25 pounds per colony in desert locations compared to 40 to 50 pounds per colony in populated areas. Colonies placed on or near irrigated cropland tend to have the highest honey yields of 50 pounds or more.

There are estimated 115,000 – 125,000 beekeepers in the United States. The vast majority are hobbyists with less than 25 hives. Commercial beekeepers are those with 300 or more hives. The number of U.S. honey bee colonies producing honey in 2013 was 2.64 million (based on beekeepers who manage five or more colonies), up 4% from 2012.² Many commercial beekeepers migrate their colonies during the year to provide pollination services to farmers and to reach the most abundant sources of nectar. Commercial beekeeping operations are frequently family businesses that are handed down from generation to generation.

Honey production in 2013 from producers with five or more colonies totaled 149 million pounds, up 5 percent from 2012. The average producer price per pound was \$2.121, up 6% from \$1.992 in 2012. The 2013 crop was valued at \$317.1 million.³

Honey is produced in every state, the following states were the top five honey producing states in 2013:

<u>State</u>	<u>Pounds Produced</u>	<u>Dollar Value of Production</u>
1. North Dakota	33,120,000	\$67,565,000
2. Montana	14,946,000	\$31,088,000
3. South Dakota	14,840,000	\$30,570,000
4. Florida	13,420,000	\$27,377,000
5. California	10,890,000	\$22,869,000

² Wikipedia

³ National Agricultural Statistics Service, US Dept of Agriculture March 21, 2014

United States Honey Production Up 5 Percent

Honey production in 2013 from producers with five or more colonies totaled 149 million pounds, up 5 percent from 2012. There were 2.64 million colonies producing honey in 2013, up 4 percent from 2012. Yield per colony averaged 56.6 pounds, up 1 percent from the 56.0 pounds in 2012. Colonies which produced honey in more than one State were counted in each State where the honey was produced. Therefore, at the United States level yield per colony may be understated, but total production would not be impacted. Producer honey stocks were 38.2 million pounds on December 15, 2013, up 20 percent from a year earlier. Stocks held by producers exclude those held under the commodity loan program.

Record High Honey Prices

Honey prices increased to a record high during 2013 to 212.1 cents per pound, up 6 percent from 199.2 cents per pound in 2012. United States and State level prices reflect the portions of honey sold through cooperatives, private, and retail channels.

Analysis

Research indicates that rental rates for typical apiary sites on private land used for honey production are paid in honey to the landowner, typically at a rate equivalent to approximately 1% of the honey produced from a typical site consisting of 100 colonies. Since it is not practical to receive payment in honey, NASS data was used to estimate the dollar value of 1% of honey production per site of 100 colonies located in Montana, North Dakota and South Dakota. US production data is also considered. Due to the fluctuation in annual honey yield and price, an average of the years of 2012 and 2013 was used to determine the value of 1% yield per 100 colonies as follows:

	2012	2013	2-Year Average	Value of 1% Yield per 100 Colonies
US Colonies (1,000's)	2,539	2,640	2,590	
Yield per Colony (Lbs.)	56	56.6	56	
Average Price per Lb.	\$1.99	\$2.12	\$2.06	\$116
Price per Colony	\$111.44	\$119.92	\$115.68	
Montana(1,000's)	145	159	152	
Yield per Colony (Lbs.)	52	94	73	
Average Price per Lb.	\$1.95	\$2.08	\$2.06	\$148
Price per Colony	\$101.40	\$195.52	\$148.46	
North Dakota (1,000's)	480	480	480	
Yield per Colony (Lbs.)	69	69	69	
Average Price per Lb.	\$1.92	\$2.04	\$1.98	\$137
Price per Colony	\$132.48	\$140.76	\$136.62	
South Dakota (1,000's)	260	265	263	
Yield per Colony (Lbs.)	63	56	60	
Average Price per Lb.	\$1.95	\$2.06	\$2.00	\$119
Price per Colony.	\$122.85	\$115.36	\$119.11	

Based upon the above data the comparable rental rates for honey production on a typical site on private land within the study area, and United States overall, range from \$116 to \$148 per year. Considering the narrow range of the data the appraiser estimates the BLM Site fee for Apiary Sites at \$132 which is the middle of the range. Typical site size is estimated at one acre.

Agricultural Trespasses (Cropland)

There are instances where lands that are owned by the United States of America/Bureau of Land Management are being utilized as crop land in conjunction with privately held ownerships. Regardless whether the crop production is dryland or irrigated the land being considered is always viewed as being dryland as USA/BLM does not provide irrigations rights, any irrigation water being applied to the land is through the private operator who is farming the parcel. The following discussion and analysis is based upon current lease agreements for dry cropland.

After an extensive research which involved discussions with regional farming operations and agricultural lenders the following conclusions were derived.

1. Most cropland is being leased on a share crop basis with the landowner receiving $\frac{1}{3}$ to $\frac{1}{2}$ of the harvested crop. The variances are dependent upon the production cost shared by the owner.
2. The cash lease basis is less common than the share crop basis. Currently the accepted rate for cash leases is \$0.90 per bushel of the proven average yield (dry land wheat) per acre for the entire leased property. There is no discount for fallow acres.

Based upon the above scenario the following table is to be used in determining the per acre lease rate for cropland cash leases.

Yield Rate	Rate	\$\$/Acre Lease Rate
30 Bu.	.90	\$27 acre
35 Bu.	.90	\$32 acre
40 Bu.	.90	\$36 acre
45 Bu.	.90	\$41 acre

To determine the average proven yield for a specific area the BLM Realty Staff is encourage to contact the leasee first, and verify the information with the local USDA Farm Service Agency and/or the local county extension agent. Both of these resources are an excellent in determining and confirming proven yield rates.

Anytime there is an unusual situation or questions arise that fall outside the Minimum Rental Analysis – Land Use Authorizations for Non Linear Rights of Way (R/W) Rental, or this supplemental memorandum, contact Tim Hansen, Client Service Manager, the Office of Valuation Services-BLM Team at 303-969-5368 or email: timothy_hansen@ios.doi.gov.