

2017 Biennial Report of Motorized Access Baseline within the Grizzly Bear Primary Conservation Area (PCA) Northern Continental Divide Ecosystem (NCDE)

This document fulfills the biennial motorized access monitoring of the Primary Conservation Area (PCA) for the Northern Continental Divide Ecosystem (NCDE). For each of the 126 subunits, the open & total motorized route density (OMRD & TMRD) and secure core (CORE) percentage values are calculated on a biennial basis. The process follows the NCDE Conservation Strategy and is the same for the 2011 baseline. Any changes from the previous baseline calculation are to be reviewed.

The baseline value for each subunit is the 2011 value unless there has been a change as allowed by the NCDE Conservation Strategy as incorporated into the federal land management agency plans. For those subunits with a baseline value change, the updated baseline value has a green shading for that “cell” in the table below. For any whole percentage change since 2011, the value as of 2017 is shown in **BLACK BOLD**. If there is no green shading for that “cell”, the change is not a baseline value change. If there is a value enclosed in parentheses, that value is the current existing value, while the baseline value is not in parentheses. These are cases where a project has not been fully implemented on the ground. Those subunits with any changes of one or more percentage values from 2011 to 2017 are discussed individually below the table. The last page of this document has a map of the subunits.

- OMRD is expressed as a percentage of the subunit that has greater than 1.0 mile per square mile of Open Road Motorized Density. For example, the Badger subunit has 0% >1.0 mi/sqmi.
- TMRD is expressed as a percentage of the subunit that has greater than 2.0 miles per square mile of Total Motorized Road Density. For example, the Badger subunit has 0% >2.0 mi/sqmi.
- CORE is expressed as a percentage of the subunit that meets the definition of secure core. For example, the Badger subunit provides 94% secure core.

Under the Application Rules for Motorized access on Federal Lands (NCDE Conservation Strategy Chapter 3, and incorporated into the various federal land management agency plans), there is a list of acceptable changes that may adjust baseline values. All the baseline value changes for 2017 followed these application rules. The list is included here for reference.

- updated/improved data on a motorized route resulting in changed calculations without actual change on the ground;
- technology or projections changed, resulting in changed calculations without actual change on the ground (e.g., a switch from NAD27 to NAD83);

- a road closure location is moved a short distance to a better location (e.g., to the nearest intersection or turnout) to allow a turn-around providing for public safety, to reduce vandalism, or to improve enforcement of the road closure;
- land with or without motorized routes is exchanged, acquired, purchased or sold, resulting in a changed calculation;
- a change in a motorized route is necessary to comply with Federal laws (e.g., Americans with Disabilities Act);
- a change in a motorized route is necessary to address human–grizzly bear conflicts, human safety concerns, or resource damage concerns;
- an adjacent, non-federal landowner made changes to their motorized access management that resulted in a decrease in the percentage of secure core or an increase in motorized route densities on adjacent Federal lands.

Table 1. BMU Subunit 2011 and 2017 Open & Total Route Density and Secure Core.

OMRD – percentage of subunit that is >1.0 mile/square mile.

TMRD – percentage of subunit that is >2.0 mile/square mile.

CORE – percentage of subunit that is secure core.

Percentages in parentheses are current existing percentages. In these subunits, there is a signed project with baseline values that have not yet been completely implemented on the ground. The value outside the parentheses is the baseline to be met when applying direction in federal land management agency plans.

BLACK BOLD text is where the percentage value changes a whole percentage value since 2011.

Green highlight is where there is a change to the baseline value.

BMU	Subunit Name	Principal Agency	Baseline as of 2011			Baseline as of 2017		
			OMRD	TMRD	CORE	OMRD	TMRD	CORE
BATM	Badger	HLCNF-Rocky Mtn Front RD	0	0	94	0	0	73
BATM	Heart Butte	HLCNF-Rocky Mtn Front RD	1	0	81	1	0	61
BATM	Two Medicine	HLCNF-Rocky Mtn Front RD	2	1	87	2	1	78
BGSM	Albino Pendant	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Big Salmon Holbrook	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Black Bear Mud	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Brushy Park	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Buck Holland	FNF-Swan Lake RD	24	41	49	24	44	47

BMU	Subunit Name	Principal Agency	Baseline as of 2011			Baseline as of 2017		
			OMRD	TMRD	CORE	OMRD	TMRD	CORE
BGSM	Burnt Bartlett	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Hungry Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Little Salmon Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
BGSM	Meadow Smith	FNF-Swan Lake RD	18 (20)	54	41	18 (20)	53	42
BGSM	White River	FNF-Spotted Bear RD	0	0	100	0	0	100
BITE	Birch	HLCNF-Rocky Mtn Front RD	0	0	93	0	0	93
BITE	Teton	HLCNF-Rocky Mtn Front RD	12	4	75	11	5	71
BNKR	Big Bill Shelf	FNF-Spotted Bear RD	11	7	87	11	6	87
BNKR	Bunker Creek	FNF-Spotted Bear RD	5	3	92	5	3	92
BNKR	Goat Creek	FNF-SLRD & DNRC	23	59	39	23	59	39
BNKR	Gorge Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
BNKR	Harrison Mid	FNF-Spotted Bear RD	1	0	99	1	0	99
BNKR	Jungle Addition	FNF-Spotted Bear RD	19	17	68	19	19	68
BNKR	Lion Creek	FNF-SLRD & DNRC	19	47	51	19	47	51
BNKR	South Fork Lost Soup	FNF-SLRD & DNRC	25	49	40	25	47	37
BNKR	Spotted Bear Mtn	FNF-Spotted Bear RD	20	18	68	19	18	68
CODV	Pentagon	FNF-Spotted Bear RD	0	0	100	0	0	100
CODV	Silvertip Wall	FNF-Spotted Bear RD	0	0	100	0	0	100
CODV	Strawberry Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
CODV	Trilobite Peak	FNF-Spotted Bear RD	0	0	100	0	0	100
DELK	Falls Creek	HLCNF-Rocky Mtn Front RD	0	0	85	0	0	85
DELK	Scapegoat	HLCNF-Rocky Mtn Front RD	2	0	83	5	1	78
HGHS	Coram Lake Five	FNF-Hungry Horse RD	30	46	14	30	46	14
HGHS	Doris Lost Johnny	FNF-Hungry Horse RD	57	19	36	57	20	36
HGHS	Emery Firefighter	FNF-Hungry Horse RD	19	19 (20)	68 (53)	19	19 (20)	68 (58)
HGHS	Peters Ridge	FNF-HHRD & SLRD	52	25	34	52	25	34
HGHS	Riverside Paint	FNF-Hungry Horse RD	19	16	72	18	16	71
HGHS	Wounded Buck Clayton	FNF-Hungry Horse RD	28	30	65	28	30	66
LMFF	Dickey Java	FNF-Hungry Horse RD	9	0	85	9	0	85
LMFF	Lincoln Harrison	Glacier NP	0	0	98	0	0	98
LMFF	Moccasin Crystal	FNF-Hungry Horse RD	8	1	81	8	1	81

BMU	Subunit Name	Principal Agency	Baseline as of 2011			Baseline as of 2017		
			OMRD	TMRD	CORE	OMRD	TMRD	CORE
LMFF	Muir Park	Glacier NP	0	0	98	0	0	98
LMFF	Nyack Creek	Glacier NP	0	0	100	0	0	100
LMFF	Ole Bear	Glacier NP	0	0	94	0	0	94
LMFF	Pinchot Coal	Glacier NP	0	0	99	1	0	99
LMFF	Stanton Paola	FNF-Hungry Horse RD	8	3	83	8	3	83
LNFF	Anaconda Creek	Glacier NP	5	0	94	5	0	94
LNFF	Apgar Mountains	Glacier NP	15	4	81	15	4	81
LNFF	Canyon McGinnis	FNF-GVRD & FNF-TLRD	18	31	52	18	31	50
LNFF	Cedar Teakettle	FNF-Glacier View RD	35	36	24	35	36	24
LNFF	Dutch Camas	Glacier NP	6	0	93	6	0	93
LNFF	Lake McDonald	Glacier NP	13	5	85	13	5	85
LNFF	Lower Big Creek	FNF-Glacier View RD	18	20	66	19	19	71
LNFF	Upper McDonald Creek	Glacier NP	9	2	90	9	2	90
LNFF	Werner Creek	FNF-Glacier View RD	19	21	42	29	20	63
MSRG	Beaver Creek	FNF-Swan Lake RD	6	26	66	6	19 (26)	71 (66)
MSRG	Cold Jim	FNF-Swan Lake RD	18	57	43	18	54 (55)	44
MSRG	Crane Mtn	FNF-Swan Lake RD	28	56	26	28	55	25
MSRG	Crow	Flathead IR	6	3	92	6	4	92
MSRG	Glacier Loon	FNF-Swan Lake RD	22	43	45	22	41	52
MSRG	Hemlock Elk	FNF-Swan Lake RD	6	30	64	6	30	63
MSRG	Piper Creek	FNF-SLRD & DNRC	19	44	52	19	44	55
MSRG	Porcupine Woodward	FNF-SLRD & DNRC	28	73	15	28	74	15
MSRG	Post Creek	Flathead IR	10	5	87	11	7	86
MSRG	Saint Marys	Flathead IR	4	2	94	4	2	95
MLFK	Alice Creek	HLCNF-Lincoln RD	9	17	71	10	18	71
MLFK	Arrastra Mountain	HLCNF-Lincoln RD	15	19	75	16	19	74
MLFK	Monture	LNF-Seeley Lake RD	1	0	99	1	1	99
MLFK	Mor-Dun	LNF-Seeley Lake RD	17	17	78	18	14	77
MLFK	N-Scapegt	LNF-Seeley Lake RD	0	0	100	0	0	100
MLFK	Red Mountain	HLCNF-Lincoln RD	22	20	62	24	21	61
MLFK	S-Scapegt	LNF-Seeley Lake RD	10	14	79	12	17	75

BMU	Subunit Name	Principal Agency	Baseline as of 2011			Baseline as of 2017		
			OMRD	TMRD	CORE	OMRD	TMRD	CORE
MULK	Krinklehorn	KNF-Fortine RD	22	14	75	22	14	75
MULK	Therriault	KNF-Fortine RD	26	12	71	26	12	71
NFSR	Lick Rock	HLCNF-Rocky Mtn Front RD	0	0	100	0	0	100
NFSR	Roule Biggs	HLCNF-Rocky Mtn Front RD	0	0	100	0	0	100
NEGL	Belly River	Glacier NP	0	0	99	0	0	99
NEGL	Boulder Creek	Glacier NP & Blackfeet IR	18	13	76	23	15	67
NEGL	Chief Mtn	Glacier NP & Blackfeet IR	28	10	53	26	8	55
NEGL	Poia Duck	Glacier NP & Blackfeet IR	23	8	68	26	8	64
NEGL	Upper Saint Mary	Glacier NP	11	1	89	11	1	89
NEGL	Waterton	Glacier NP	0	0	100	0	0	100
RTSN	Mission	LNF-Seeley Lk RD & FWP	23	57	33	25	47	39
RTSN	Rattlesnake	LNF-Missoula RD	3	13	86	3	11	82
RTSN	South Fork Jocko	Flathead IR	38	14	59	41	15	56
SUBW	South Fork Willow	HLCNF-Rocky Mtn Front RD	8	2	88	14	3	81
SUBW	West Fork Beaver	HLCNF-Rocky Mtn Front RD	12	4	84	17	5	80
SEGL	Divide Mtn	Glacier NP & Blackfeet IR	32	25	67	39	27	56
SEGL	Midvale	Glacier NP & Blackfeet IR	7	4	87	10	4	83
SEGL	Spot Mtn	Glacier NP & Blackfeet IR	10	3	79	17	7	67
STRV	Lazy Creek	DNRC	68	62	10	52	78	6
STRV	Stryker	DNRC	37	33	50	34	36	51
STRV	Upper Whitefish	DNRC	34	57	54	33	51	53
SLVN	Ball Branch	FNF-Spotted Bear RD	8	7	84	8	12	84
SLVN	Jewel Basin Graves	FNF-Hungry Horse RD	19	19	72	19	19	75
SLVN	Kah Soldier	FNF-Spotted Bear RD	19	19	68	19	19	68
SLVN	Logan Dry Park	FNF-HHRD & FNF-SBRD	30	33	52	30	35 (36)	54 (51)
SLVN	Lower Twin	FNF-Spotted Bear RD	9	2	91	9	2	92
SLVN	Noisy Red Owl	FNF-Swan Lake RD	22	14	59	20	14	59
SLVN	Swan Lake	FNF-Swan Lake RD	40	24	46	40	21 (23)	46
SLVN	Twin Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
SLVN	Wheeler Quintonkon	FNF-HHRD & FNF-SBRD	25	18	66	25	19	68
TESR	Deep Creek	HLCNF-Rocky Mtn Front RD	4	2	73	9	3	67

BMU	Subunit Name	Principal Agency	Baseline as of 2011			Baseline as of 2017		
			OMRD	TMRD	CORE	OMRD	TMRD	CORE
TESR	Pine Butte	HLCNF-Rocky Mtn Front RD	6	2	71	7	2	64
UMFF	Flotilla Capitol	FNF-HHRD & FNF-SBRD	0	0	100	0	0	100
UMFF	Long Dirtyface	FNF-Hungry Horse RD	0	0	100	0	0	100
UMFF	Plume Mtn Lodgepole	FNF-HHRD & SBRD	0	0	100	0	0	100
UMFF	Skyland Challenge	FNF-Hungry Horse RD	20	17	63	20	17	65
UMFF	Tranquil Geifer	FNF-Hungry Horse RD	0	2	90	0	2	90
UNFF	Bowman Creek	Glacier NP	6	0	93	6	0	93
UNFF	Coal & South Coal	FNF-Glacier View RD	15	21	72	15	19	73
UNFF	Ford Akokala	Glacier NP	7	1	93	7	1	93
UNFF	Frozen Lake	FNF-Glacier View RD	10	4	86	10	4	86
UNFF	Hay Creek	FNF-Glacier View RD	24	16	55	25	13	55
UNFF	Ketchikan	FNF-Glacier View RD	16	3	72	14	3	73
UNFF	Kintla Creek	Glacier NP	3	0	96	3	0	96
UNFF	Logging Creek	Glacier NP	4	0	94	4	0	94
UNFF	Lower Whale	FNF-Glacier View RD	36	17	50	36	17	50
UNFF	Quartz Creek	Glacier NP	4	0	93	4	0	93
UNFF	Red Meadow Moose	FNF-Glacier View RD	25	17	55	24 (25)	17	68
UNFF	State Coal Cyclone	FNF-GVRD & DNRC	31	27	59	29	25	58
UNFF	Upper Trail	FNF-Glacier View RD	14	4	88	14	4	88
UNFF	Upper Whale Shorty	FNF-Glacier View RD	12	11	86	12	11	86
USFF	Basin Trident	FNF-Spotted Bear RD	0	0	100	0	0	100
USFF	Gordon Creek	FNF-Spotted Bear RD	0	0	100	0	0	100
USFF	Jumbo Foolhen	FNF-Spotted Bear RD	0	0	100	0	0	100
USFF	Swan	LNF-Seeley Lake RD	32	16	55	32	16	55
USFF	Youngs Creek	FNF-Spotted Bear RD	0	0	100	0	0	100

Changes for 2017 Report – Specific Subunits

For any subunit that had a whole percentage change in OMRD, TMRD, or CORE from 2011 to 2017 (bolded number in above table), the explanation of the change is described below. If the change updated the baseline, the percentage is noted in bold type (cell is highlighted in

green in above table). Those changes to the baseline are allowed under the application rules in this document in the section called “Secure Core and Motorized Access Management on Federal Lands in the PCA”. Subunits are listed in the same order as the table above.

BATM Badger. Secure core decreased from 94% to 73%. Change is due to several significant changes to land ownership on the Blackfeet Indian Reservation. OMRD and TMRD were affected as well, but did not result in a whole percentage change. This is an update to the baseline, and as of 2017, the secure core value is **73%**.

BATM Heart Butte. Secure core decreased from 81% to 61%. Change is due to several significant changes to land ownership on the Blackfeet Indian Reservation. OMRD and TMRD were affected as well, but did not result in a whole percentage change. This is an update to the baseline, and as of 2017, the secure core value is **61%**.

BATM Two Medicine. Secure core decreased from 87% to 78%. Change is due to 1) one formerly gated yearlong road is now classified as impassable; and 2) several significant changes to land ownership on the Blackfeet Indian Reservation. OMRD and TMRD were affected as well, but did not result in a whole percentage change. This is an update to the baseline, and as of 2017, the secure core value is **78%**.

BGSM Buck Holland. TMRD increased from 41% to 44%. Secure core decreased from 49% to 47%. A majority of the changes are due to the acquisition of one whole section containing several gated yearlong roads. Additionally, there have been updates to the spatial GIS layer to more accurately reflect on the ground locations. This is an update to the baseline and as of 2017, TMRD value is **44%** and secure core is **47%**.

BGSM Meadow Smith. Due to the Meadow Smith signed decision (2003), OMRD baseline value is **18%**. This project has not yet been fully implemented to reach that value but it underwent USFWS consultation prior to 2011. Subunit currently has 20% OMRD. TMRD decreased from 54% to 53%. Secure core increased from 41% to 42%. Changes are due to past and future implementation of Meadow Smith project, updates to the road management, spatial realignments of the GIS location to more accurately reflect on the ground locations, and changes in land ownership, all of which combined to change percentage value. This does result in new baseline values for TMRD of **53%** and for secure core of **42%**.

BITE Teton. OMRD decreased from 12% to 11%, TMRD increased from 4% to 5%, and secure core decreased from 75% to 71%. Changes are due to 1) updated road management for mostly Bureau of Land Management and Montana Fish, Wildlife & Parks roads, and less so for Forest Service roads; 2) changes in land ownership. This is an update to the baseline, and as of 2017, the OMRD value is **11%**, the TMRD value is **5%**, and the secure core value is **71%**.

BNKR Big Bill Shelf. TMRD decreased from 7% (6.68%) to 6% (6.47%). Change is due to spatial realignments of the road GIS layer to more accurately reflect conditions on the ground. OMRD and secure core were affected as well but did not result in a whole percentage change. This is an update to the baseline, and as of 2017, TMRD value is **6%**.

BNKR Jungle Addition. TMRD increased from 17% to 19%. One formerly gated yearlong road was considered impassable in 2011. However, as the road revegetated naturally and there was not a decision to change the road to impassable, the road should have been included in TMRD. The change from impassable to being buffered in the secure core routine did not change the percent of secure core due to the juxtaposition of the road network. This is an update to the baseline, and as of 2017, the TMRD value is **19%**.

BNKR South Fork Lost Soup. TMRD decreased from 49% to 47%, and secure core decreased from 40% to 37%. The decrease in TMRD is a result of updated DNRC road information from the Swan River State Forest and not Forest Service actions. The decrease in secure core is mainly due to one long NFS road that was closed yearlong by barrier in 2013. The road has been closed yearlong by gate since 2014 and is used to access state land. Additionally, there is updated DNRC road information. This does result in new baseline values for TMRD of **47%** and for secure core of **37%**.

BNKR Spotted Bear Mtn. OMRD decreased from 20% (19.53) to 19% (19.37). Road GIS layer in this subunit and surrounding areas has been spatially re-aligned to more accurately reflect on the ground conditions. No changes to road management have occurred. While this affects OMRD, TMRD, and secure core, only OMRD had a whole percentage change. This is an update to the baseline, and as of 2017, the OMRD value is **19%**.

DELK Scapegoat. OMRD increased from 2% to 5%, TMRD increased from 0% to 1%, and secure core decreased from 83% to 78%. Change is due to one trail that was incorrectly not classified as motorized in 2011 and is correctly classified as motorized in 2017. This is an update to the baseline, and as of 2017, the OMRD value is **5%**, the TMRD value is **1%**, and the secure core value is **78%**.

HGHS Doris Lost Johnny. TMRD increased from 19% to 20%. Motorized trails in this subunit and adjacent subunits have been spatially re-aligned to more accurately reflect on the ground conditions. This is an update to the baseline, and as of 2017, the TMRD value is **20%**.

HGHS Emery Firefighter. Due to the Firefighter signed decision (2009), TMRD baseline value is **19%** and secure core baseline is **68%**. This project has not yet been fully implemented to reach those values but it underwent consultation prior to 2011. Subunit currently has 20% TMRD and 58% secure core. Since 2011, secure core increased from 53% to 58%. Changes are due to the implementation of the Firefighter project in consultation with USFWS.

HGHS Riverside Paint. OMRD decreased from 19% to **18%**. Secure core decreased from 72% to **71%**. Changes are due to spatial re-alignments of the GIS layer to more accurately reflect on the ground locations and corrections to the INFRA database on road management (coding errors). No on the ground change occurred. This is an update to the baseline, and as of 2017, OMRD value is **18%**, and secure core is **71%**.

HGHS Wounded Buck Clayton. Secure core increased from 65% to 66%. Change is due implementation of West Side Reservoir Post-Fire project in consultation with USFWS. This is a change to the baseline, and as of 2017, the secure core value is **66%**.

LMFF Pinchot Coal. OMRD increased from 0% to 1%. Change is due to roads and motorized trails on adjacent Moccasin Crystal subunit, which were incorrectly excluded in the 2011 baseline analysis. This is an update to the baseline, and as of 2017, the OMRD value is **1%**.

LNFF Canyon McGinnis. Secure core decreased from 52% to 51%. Change is due to updates to the INFRA database as well as spatial GIS layer to more accurately reflect on the ground conditions. This is an update to the baseline, and as of 2017, secure core value is **50%**.

LNFF Lower Big Creek. OMRD increased from 18% to 19%, TMRD decreased from 20% to 19%, and secure core increased from 66% to 71%. OMRD change is due to a correction to reflect the signed Robert-Wedge Post-Fire decision (2004) in consultation with USFWS. TMRD changes are due to implementation of Big Mtn Ski & Summer Resort (1995). Secure core changes are due to implementation of Moose Post-Fire (2002), both in consultation with USFWS. This is a change to the baseline, and as of 2017, the OMRD value will is **19%**, the TMRD value is **19%**, and the secure core value is **71%**.

LNFF Werner Creek. OMRD increased from 19% to 29%, TMRD decreased from 21% to 20%, and secure core increased from 42% to 63%. Changes are due to implementation of Moose Post-Fire project (2002), in consultation with USFWS. This is a change to the baseline, and as of 2017, OMRD value is **29%**, TMRD value is **20%**, and secure core value is **63%**.

MSRG Beaver Creek. Due to the Beaver Creek Landscape Restoration (2016) and Glacier Loon Fuels Reduction & Forest Health (2013) signed decisions, this subunit will have 19% TMRD and 71% secure core when fully implemented. This changed the baseline, TMRD value is **19%**, and secure core value is **71%**.

MSRG Cold Jim. Due to the Chilly James Restoration (2016) signed decision, TMRD baseline value is **54%**. Since 2011, TMRD decreased from 57% to 55%, secure core increased from 43% to 44%. Changes are due to 1) spatial realignment of road GIS layer to more accurately reflect on the ground locations; 2) implementation of Chilly James Restoration project, in consultation with USFWS. This is a change to the baseline, and as of 2017, TMRD value is **54%** (from the signed decision), and secure core value is **44%**.

MSRG Crane Mtn. TMRD decreased from 56% to 55%, and secure core decreased from 26% to 25%. TMRD change is due to one physically barriered road to naturally re-vegetated with active reclamation for first 0.25 miles per the Crane Mtn Salvage project (1996), in consultation with USFWS. Secure core change is due to an update to the database with the addition private roads east of MT Highway 35. This is a change to the baseline, and as of 2017, TMRD value is **55%**, and secure core value is **26%**.

MSRG Crow. TMRD increased from 3% to 4%. Change are due to 1) updates to the tribal road database to more accurately reflect conditions on the ground; and 2) minor changes in land ownership. This is an update to the baseline, and as of 2017, TMRD value is **4%**.

MSRG Glacier Loon. TMRD decreased from 43% to 41%, and secure core increased from 45% to 52%. Changes are due to 1) spatial realignment road GIS layer to more accurately reflect on the ground locations; 2) implementation of Glacier Loon Fuels Reduction and Forest Health project (2013), in consultation with USFWS. This is a change to the baseline, and as of 2017, TMRD value is **41%**, and secure core value is **52%**.

MSRG Hemlock Elk. Secure core decreased from 64% to 63%. Change is due to spatial realignment of road GIS layer to more accurately reflect on the ground locations. No changes were made to road management. This is an update to the baseline, and as of 2017, secure core value is **63%**.

MSRG Piper Creek. Secure core increased from 52% to 55%. Change is due to 1) spatial realignment of roads GIS layer to more accurately reflect on the ground locations; and 2) update to the database from a on the ground review of roads on lands acquired through the MT Legacy Project. The spatial realignment did not result in a whole percentage change in OMRD or TMRD. This is an update to the baseline, and as of 2017, secure core value is **55%**.

MSRG Porcupine Woodward. TMRD increased from 73% to 74%. Change is due to 1) spatial realignment of road GIS layer to more accurately reflect on the ground locations; and 2) new DNRC roads as well as changes in road management of existing DNRC roads. This is an update to the baseline, and as of 2017, TMRD value is **74%**.

MSRG Post Creek. OMRD increased from 10% to 11%, TMRD increased from 5% to 7%, and secure core decreased from 87% to 86%. Change are due to 1) updates to the tribal road database to more accurately reflect conditions on the ground; and 2) changes in land ownership. This is an update to the baseline, and as of 2017, OMRD value is **11%**, TMRD value is **7%**, and secure core value is **86%**.

MSRG Saint Marys. Secure core increased from 94% to 95%. Change is due to updates to the tribal road database to more accurately reflect conditions on the ground. This is an update to the baseline, and as of 2017, secure core value is **95%**.

MLFK Alice Creek. OMRD increased from 9% to 10%, TMRD increased from 17% to 18%. Changes are due to updates/corrections to the database, and not a change on the ground. This is an update to the baseline, and as of 2017, OMRD value is **10%**, TMRD value is **18%**.

MLFK Arrastra Mountain. OMRD increased from 15% to 16%, secure core decreased from 75% to 74%. Changes are due to updates/corrections to the database, and not a change on the ground. This is an update to the baseline, and as of 2017, OMRD value is **16%**, and secure core value is **74%**.

MLFK Monture. TMRD increased from 0% to 1%. Change is due to updates to the database to more accurately reflect on the ground conditions from project analysis for the Center Horse Landscape Restoration project. This is an update to the baseline, and as of 2017, TMRD value is **1%**.

MLFK Mor-Dun. OMRD increased from 17% to 18%, TMRD decreased from 17% to 14%, and secure core decreased from 78% to 77%. Changes are due to updates to the database to more accurately reflect on the ground conditions from project analysis for the Center Horse Landscape Restoration project. This is an update to the baseline, and as of 2017, OMRD value is **18%**, TMRD value is **14%**, and secure core value is **77%**.

MLFK Red Mountain. OMRD increased from 22% to 24%, TMRD increased from 20% to 21%, and secure core decreased from 62% to 61%. Changes are due to updates/corrections to the database, and not a change on the ground. This is an update to the baseline, and as of 2017, OMRD value is **24%**, TMRD value is **21%**, and secure core value is **61%**.

MLFK S-Scapegt. OMRD increased from 10% to 12%, TMRD increased from 14% to 17%, and secure core decreased from 79% to 75%. Changes are due to 1) updates to the database to more accurately reflect conditions on the ground; 2) corrections to the trail database for motorized trails; and 3) updates to the database to more accurately reflect on the ground conditions from project analysis of the Center Horse Landscape Restoration project. This is an update to the baseline, and as of 2017, OMRD value is **12%**, TMRD value is **17%**, and secure core value is **75%**.

NEGL Boulder Creek. OMRD increased from 18% to 23%, TMRD increased from 13% to 15%, and secure core decreased from 76% to 67%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **23%**, TMRD value is **15%**, and secure core value is **67%**.

NEGL Chief Mountain. OMRD decreased from 28% to 26%, TMRD decreased from 10% to 8%, and secure core increased from 53% to 55%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **26%**, TMRD value is **8%**, and secure core value is **55%**.

NEGL Poia Duck. OMRD increased from 23% to 26%, and secure core decreased from 68% to 64%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **26%**, and secure core value is **64%**.

RTSN Mission. OMRD increased from 23% to 25%, TMRD decreased from 57% to 47%, and secure core increased from 33% to 39%. Changes are due to 1) spatial realignment of road GIS layer to more accurately reflect on the ground conditions; 2) project implementation of Colt Summit project (2011), in consultation with USFWS; and 3) updates to MFWP roads in the Lake Marshall WMA. This is a change to the baseline, and as of 2017, OMRD value is **25%**, TMRD value is **47%**, and secure core value is **39%**.

RTSN Rattlesnake. TMRD decreased from 13% to 11%, and secure core decreased from 86% to 82%. Changes are due to 1) updates to the database to more accurately reflect conditions on the ground; and 2) spatial realignments to road GIS layer to more accurately reflect on the ground conditions. This is an update to the baseline, and as of 2017, TMRD is **11%** and secure core is **82%**.

RTSN South Fork Jocko. OMRD increased from 38% to 41%, TMRD increased from 14% to 15%, and secure core decreased from 59% to 56%. Changes are due to 1) updates to the tribal database to more accurately reflect conditions on the ground both within the subunit and 2) updates to the Lolo NF INFRA database to more accurately reflect conditions on the ground as well as changes in road jurisdiction within the influence zone of the South Fork Jocko subunit. This is an update to the baseline, and as of 2017, OMRD is **41%**, TMRD is **15%** and secure core is **56%**.

SUBW South Fork Willow. OMRD increased from 8% to 14%, TMRD increased from 2% to 3%, and secure core decreased from 88% to 81%. Change is due to updates and corrections for roads accessing recreational residences. This is an update to the baseline, and as of 2017, the OMRD value is **14%**, the TMRD value is **3%**, and secure core value is **81%**.

SUBW West Fork Beaver. OMRD increased from 12% to 17%, TMRD increased from 4% to 5%, and secure core decreased from 84% to 80%. Change is due to updates to roads on state land, as well as changes in land ownership. This is an update to the baseline, and as of 2017, OMRD value is **17%**, TMRD value is **5%**, and secure core value is **80%**.

SEGL Divide Mountain. OMRD increased from 32% to 39%, TMRD increased from 25% to 27%, and secure core decreased from 67% to 56%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **39%**, TMRD value is **27%**, and secure core value is **56%**.

SEGL Midvale. OMRD increased from 7% to 10%, and secure core decreased from 87% to 83%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **10%**, and secure core value is **83%**.

SEGL Spot Mtn. OMRD increased from 10% to 17%, TMRD increased from 3% to 7%, and secure core decreased from 79% to 67%. Changes are due to land ownership changes on the Blackfeet Indian Reservation where there is more tribal land due to land acquisition. This is an update to the baseline, and as of 2017, OMRD value is **17%**, TMRD value is **7%**, and secure core value is **67%**.

STRV Lazy Creek. OMRD decreased from 68% to 52%, TMRD increased from 62% to 78%, and secure core decreased from 10% to 6%. Changes are due to 1) updates the Montana Department of Natural Resources and Conservation (DNRC) database; and 2) sixteen (16) sections of Weyerhaeuser (formerly Plum Creek) lands that are now DNRC lands. The land exchange is a significant, heavily roaded, acreage which will be included in calculations. This is an update to the baseline, and as of 2017, OMRD value is **52%**, TMRD value is **78%**, and secure core value is **6%**.

STRV Stryker. OMRD decreased from 37% to 34%, TMRD increased from 33% to 36%, and secure core increased from 50% to 51%. Changes are due to 1) updates the Montana Department of Natural Resources and Conservation (DNRC) database; and 2) updates to existing NFS roads on adjacent National Forest Service lands within the subunit. This is an update to the baseline, and as of 2017, OMRD value is **34%**, TMRD value is **36%**, and secure core is **51%**.

STRV Upper Whitefish. OMRD decreased from 34% to 33%, TRMD decreased from 57% to 51%, and secure core decreased from 54% to 53%. Changes are due to updates the Montana Department of Natural Resources and Conservation (DNRC) database. This is an update to the baseline, and as of 2017, OMRD value is **33%**, TMRD value is **51%**, and secure core value is **53%**.

SLVN Ball Branch. TMRD increased from 7% to 12%. Change is due to three formerly impassable roads that are now included in TMRD calculations. These roads were impassable due to natural revegetation as well as two different bridges/large culverts being removed. There was not a decision to change these roads to impassable, therefore the roads should have been included in TMRD. This is an update to the baseline, and as of 2017, TMRD value is **12%**.

SLVN Jewel Basin Graves. Secure core increased from 72% to 75%. Secure core change is due to implementation of West Side Reservoir Post-Fire project (2005), in consultation with USFWS. This is a change to the baseline, and as of 2017, secure core is **75%**.

SLVN Logan Dry Park. TMRD increased from 33% to 36%, and secure core decreased from 52% to 51%. Change is due to 1) spatial realignments of road GIS layer to more accurately reflect on the ground locations; 2) updates to the database; and 3) five (5) impassable roads that are now included in TMRD calculations. These roads were impassable due to natural revegetation. There was not a decision to change these roads to impassable, therefore the roads should have been included in TMRD. In 2018, the Betty Baptiste signed decision set new baseline values. These values will be met on the ground once the project has been implemented. Due to the decision, OMRD baseline value is **30%**, TMRD baseline value is **35%** and secure core baseline value is **54%**.

SLVN Lower Twin. Secure core increased from 91% (91.49) to 92% (91.50). Change is due to spatial realignment of road GIS layer to more accurately reflect on the ground locations. The spatial realignment did not result in a whole percentage change in OMRD or TMRD. This is an update to the baseline, and as of 2017, secure core value is **92%**.

SLVN Noisy Red Owl. OMRD decreased from 22% to 20%. Change is due to 1) updates to database of DNRC roads to accurately reflect the actual ownership and jurisdiction of some roads; 2) spatial realignment of road and trail GIS layer to more accurately reflect on the ground locations; and 3) corrections to the ownership GIS layer. The updates to the DNRC road attributes is the main reason for the change in OMRD. This is an update to the baseline, and as of 2017, OMRD value is **20%**.

SLVN Swan Lake. TMRD decreased from 24% (23.52) to 23% (23.37). Change is due to updates to the database of a DNRC road to accurately reflect the actual ownership and jurisdiction of a road. Based on the completed USFWS consultation for the Weed Lake Landscape Restoration project (2018), TMRD value will be 21% on the ground once the project is completed. This is a change to the baseline, and as of 2017, TMRD value is **21%** per the Weed Lake Landscape Restoration project.

SLVN Wheeler Quintonkon. TMRD increased from 18% to 19%, and secure core increased from 66% to 68%. Change is due to 1) spatial realignments of road GIS layer to more accurately reflect on the ground locations; 2) two (2) formerly impassable roads that should have been included in TMRD calculations as there was not a decision to make these roads impassable; and 3) implementation of West Side Reservoir Post-Fire project (2005), in consultation with USFWS. This is a baseline change, and as of 2017, TMRD value is **19%**, and secure core value is **68%**.

TESR Deep Creek. OMRD increased from 4% to 9%, TMRD increased from 2% to 3%, and secure core decreased from 73% to 67%. Changes are due to updates/corrections on BLM roads as well as changes in land ownership. This is an update to baseline, and as of 2017, OMRD value is **9%**, TMRD value is **3%**, and secure core value is **67%**.

TESR Pine Butte. OMRD increased from 6% to 7%, and secure core decreased from 71% to 64%. Changes are due to updates/correction on state land as well as changes in land ownership. This is an update to the baseline, and as of 2017, OMRD value is **7%**, secure core value is **64%**.

UMFF Skyland Challenge. Secure core increased from 63% to 65%. Change is due to 1) spatial realignments of road GIS layer to more accurately reflect on the ground locations; and 2) implementation of Granite Lodgepole project (2012), in consultation with USFWS. Spatial realignments did not result in a whole percentage change to OMRD or TMRD. This is a change to the baseline, and as of 2017, secure core value is **65%**.

UNFF Coal & South Coal. TMRD decreased from 21% to 19%, and secure core increased from 72% to 73%. TMRD and secure core changes are due to implementation of the Shorty and Coal Creeks Stream Restoration project (2010), in consultation with USFWS. This is a change to the baseline, and as of 2017, TMRD value is **19%**, and secure value is **73%**.

UNFF Hay Creek. OMRD increased from 24% to 25%, and TMRD decreased from 16% to 13%. OMRD change is due to two (2) corrections to the database: 1) location of where the road stops and the trail begins; and 2) to more accurately reflect the ownership and jurisdiction of one section of a DNRC road. TMRD change is due to an update to the database for impassable roads that should not be counted in TMRD calculations. These are updates to the baseline, and as of 2017, OMRD value is **25%** and TMRD value is **13%**.

UNFF Ketchikan. OMRD decreased from 16% to 14%, and secure core increased from 72% to 73%. Change is due to four (4) open yearlong DNRC roads that are now closed by physical barrier. This is an update to the baseline, and as of 2017, OMRD value is **14%**, and secure core is **73%**.

UNFF Red Meadow Moose. Current 2017 baseline percentages are 25% for OMRD, 17% for TMRD, and 68% for secure core. For the signed East Red Meadow Drive project (2017), OMRD will be 24% once fully implemented. As a result, the baseline value for OMRD is **24%**. Secure core change is due to implementation of Red Whale project (2008), in consultation with USFWS. This is a change to the baseline, and as of 2017, secure core value is **68%**.

UNFF State Coal Cyclone. OMRD decreased from 31% to 29%, TMRD decreased from 27% to 25%, and secure core decreased from 59% to 58%. Changes for OMRD and TMRD are a result of changes in road management for state roads. Changes for secure core is a result of corrected information on one NFSR road to match on the ground conditions. This is an update to the baseline, and as of 2017, OMRD is **29%**, TMRD is **25%**, and secure core is **58%**.

Late Season Snowmobile Areas

Designated late season snowmobile areas affect secure core in April and May on two forests within the NCDE. There are five (5) areas: Canyon Creek (Glacier View RD), Challenge/Skyland Area (Hungry Horse RD), Copper Bowl Area (Lincoln RD), Lost Johnny Area (Hungry Horse and Swan Lake RDs), and Sixmile Area (Hungry Horse, Swan Lake, and Spotted Bear RDs). NCDE Conservation Strategy and revised or amended forest plans have standards for open & total route density and secure core, but those standards do not involve winter over-snow motorized routes. The information presented here is not required in this monitoring report but is included to provide information on the two month (or shorter) overlap of late season snowmobile use with the grizzly bear non-denning season.

Table 2. Acres of secure core during late season snowmobile.

BMU	Subunit Name	Principal Agency	Dates for Late Season Snowmobiling ¹	Acres of Late Season Snowmobiling overlapping Secure Core
<i>Canyon Creek Area</i>				
LNFF	Canyon McGinnis	FNF-GVRD & FNF-TLRD	December 1 through April 14	180
LNFF	Werner Creek	FNF-Glacier View RD	December 1 through April 14	29
<i>Skyland/Challenge Area</i>				
UMFF	Skyland Challenge	FNF-Hungry Horse RD	December 1 through May 14	6,360
UMFF	Tranquil Geifer	FNF-Hungry Horse RD	December 1 through May 14	1,341
<i>Copper Bowl Area</i>				
MLFK	Red Mountain	HLCNF-Lincoln RD	December 1 through May 31	1,116

Lost Johnny Area

HGHS	Doris Lost Johnny	FNF-Hungry Horse RD	December 1 through May 31	7,678
HGHS	Peters Ridge	FNF-HHRD & SLRD	December 1 through May 31	<1
HGHS	Wounded Buck Clayton	FNF-Hungry Horse RD	December 1 through May 31	8,594

Sixmile Area

SLVN	Ball Branch	FNF-Spotted Bear RD	December 1 through April 30	4
SLVN	Noisy Red Owl	FNF-Swan Lake RD	December 1 through April 30	189
SLVN	Swan Lake	FNF-Swan Lake RD	December 1 through April 30	336
SLVN	Wheeler Quintonkon	FNF-HHRD & FNF-SBRD	December 1 through April 30	946

¹ – While the season will not start earlier than December 1st, the ending date may be earlier due to snow conditions.

Monitoring report completed by:

Kathy Ake
GIS Specialist
Flathead NF & NCDE
kathy.ake@usda.gov
406-758-5358

Figure 1. NCDE Bear Management Units (BMU) and Subunits.

