

Appendix E: Opportunities

Several opportunities for route maintenance, new construction, easements, improved route design, improved water and fisheries resource conditions, and other recreational plans were identified during collaboration meetings and public comments. Although the following opportunities are outside the scope of this analysis, they may be considered for further review, prioritization, and NEPA analysis.

E.1 WATER RESOURCE OPPORTUNITIES

The following Table outlines opportunities to address water resource concerns.

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2071	7.72	WF Rock Creek	The road segment past the asphalt has a number of drainage problems that route sediment to the West Fork. These include cross-drain culverts that route ditch drainage without adequate filter zones, and ditches that drain to tributary channel crossing sites or bridge crossing sites along the West Fork. One cross drain culvert inlet was completely buried. Roads and ditches are composed of material that is highly erodible. Action: Reconstruction.
RD207111	0.05	WF Rock Creek	Access road to dispersed campsite. Drainage from road crosses dispersed site and down trail to stream. Action: Obliterate.
RD20714	0.07	WF Rock Creek	Road longer than shown on map- extended to access additional dispersed sites. Back half of road intercepts cross drainage from 2071 and routes to West Fork. Dispersed sites mostly hardened with boulders and not sediment sources. Action: Obliterate.
RD20719	0.21	WF Rock Creek	Access road to three dispersed campsites. Drainage from dispersed sites and bank impacts at stream access points are sediment sources. Road is not a problem. Action: Stabilize bank or close site.
RD2073F	0.22	Sage Creek	Mostly vegetated with clover or duff covered. Steep but mostly stable. Old cross-drains mostly functional. Short segments of surface flow and erosion. Some recent sign of motorized use as trails continue up through junction with rd 23087 and possibly to rd 2308. Old wooden culvert at bottom near junction with rd 2073 is plugged and adjacent spring flows across road and down fillslope. Action: Obliterate.
RD2073H	0.17	Sage Creek	Flat and semi-vegetated. Road accesses spring site and crosses small stream. Logs and bare soil indicate motorized vehicles get stuck in soft soil adjacent to stream. Dispersed campsite in middle of road on opposite side of stream. Road/trail continues beyond campsite. Could keep open for access to spring and dispersed campsite, but terminate and install barrier before stream crossing. Action: Provide access for dispersed site, but close at spring channel and obliterate beyond.
RD2073J	0.27	Sage Creek	Deeply entrenched to the point where very high investment would be needed to correct. Action: Obliterate.
RD2085A	0.43	Wyoming Creek	Mostly bare two-track contributes surface flow and sediment to Wyoming Creek and intercepts streamflow for approximately 50'. Action: Obliterate.

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2085L	0.43	Bridge Hollow	Road vegetated but within Red Waffle Fire burn area and immediately adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. Action: Close until Red Waffle Fire landscape stabilizes. Fisheries: Bridge Hollow is a tributary to Crooked Creek, Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2085M	1.14	Demijohn Hollow	Road has sparse vegetation and is within Red Waffle Fire burn area. North end of road is adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. Action: Close until Red Waffle Fire landscape stabilizes. Fisheries: Demijohn Hollow is a tributary to Crooked Creek. Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2085U	0.43	Gooseberry Hollow	Road vegetated but within Red Waffle Fire burn area and immediately adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. Road is used by firewood cutters which have removed logs placed in channel for BAER treatments. Action: Close until Red Waffle Fire landscape stabilizes. Fisheries: Gooseberry hollow is a tributary to Crooked Creek. Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2097C	0.28	Sage Creek	Alternate route to cabin mentioned under Road 2097A. Mostly unvegetated with native gravel/sand surface. Crosses a number of wet seep areas. Action: Obliterate and rehabilitate wetland.
RD21401A	0.39	Picket Pin Cr.	Moderate WQ impacts from old road that cuts across perennial tributary. Partial old log crossing present. Tributary flows down road and into adjacent wetland. Beyond, unvegetated road is adjacent to wet overflow channel for 100's of feet and occasionally drains to channel. Road may be longer than appears on map. Action: Obliterate. Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21401B	1.48	Picket Pin Cr.	Ford of same perennial tributary crossed by 21401A. Steep approach on southside. Both approaches route road drainage to stream. Action: Obliterate. Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21407	0.13	Picket Pin Cr.	Moderate WQ impacts at well developed dispersed campsite: bare soil, access trail to and across stream. ATV traffic across stream. Action: Reconstruct. Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21417 /18/19	0.87	West Fork Red Lodge Creek	These spur roads are deeply rutted from past runoff events and contribute flow and sediment to the south side ditch of RD2141 which is subsequently routed to the perennial tributary channel in SWNE section 11. Action: Obliterate.

Route ID	Miles	Watershed	Observations and Recommended Actions
RD241412	0.09	Benbow Rd spurs	Road has been extended by ATV traffic and now fords a perennial stream. Fine textured soils easily routed to stream, although currently little road drainage to stream. Potential for impacts to increase. Excessive, but localized bank trampling by livestock. Action: Obliterate. Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD241413	0.14	Benbow Rd spur	Road parallels stream with three dispersed campsites along route. No real impacts from road but dispersed campsite impacts stream. Localized grazing impacts along streambanks. Action: Maintain. Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD241419	0.06	Benbow Rd spur	This route provides access to the Benbow Mine and parallels Little Rocky Creek near its headwaters. This route is on a steep hillside comprised of loose unconsolidated material, immediately upslope of the stream course. This route has high potential for impacting aquatic habitat and sensitive species. Action: Obliterate. Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD24141A	0.15	Benbow Rd spur	Similar to 241413, except turnaround and one dispersed campsite very close to stream. Action: Obliterate. Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD24141C	0.06	Benbow Rd spur	Road crosses perennial stream, but approaches are short and flat. Minor water quality impacts. Action: Obliterate. Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2421	4	Rock Creek	Very minor impacts from road at crossing sites. The main impacts along this road are from some of the dispersed campsites along Rock Creek. Some sites have developed at sensitive points along the channel- outside bends where stream access trails and high stream flows combine to destabilize stream banks and cause significant bank erosion. Closing and rehabilitating dispersed sites at sensitive stream/bank locations. Action: Maintain.
RD24219	0.15	Rock Creek	Long sustained steep grade without adequate drainage. Gulley erosion occurred as a result of 2006 Beartooth Hwy flood event. Routes sediment to Rock Creek during high intensity rain events. Action: Obliterate.
RD242119A	0.15	Rock Creek	Road routes flow and sediment from 2421 to two dispersed sites and stream. Road at end is a large mudhole and difficult for vehicles to navigate without causing deeper ruts. Action: Obliterate.
RD2421C	0.19	Rock Creek	M-K Campground. Road is stable with good drainage. Erosion problems at steep stream access points at a couple campsites along stream. These are very steep and unstable terrace slopes. A solution may be to build wood or rock steps at one or two locations where stream-side area is naturally hardened. This issue occurs at other dispersed campsites along Rock Creek. Action: Stabilize bank.

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2478	1.94	Nichols Creek-tributary to WF Rock Creek	This entire road has drainage problems and the surrounding geology produces soils that are highly erodible. Two crossings of perennial flow- one mainstem and one tributary. Both have long sustained, poorly drained upslope approaches that route significant fines to stream system. Sediment is also routed to the mainstem at a couple cross drains and low points in the road system where filter zones are inadequate. One of these is just below the junction with WF Rock Creek RD2071. Most drainage structures (cross drain dips) are only partially functioning at best. The road is entrenched in places and therefore difficult, if not impossible, to install cross drain structures. Old cross drains near bottom do not have adequate filter distance and likely routed significant sediment to the stream for years after installation. Significant road maintenance will be required to keep this road on the system, even if the road is closed yearlong and gated. Action: Reconstruct portions to standard and obliterate entrenched portions.
TR22	1.66	Lodgepole Creek	Evaluated the trail to just beyond where the stream changes from ephemeral to intermittent (~1 mi.). 70' trail approach on north side of lower ford routes water and sediment to crossing, but WQ overall impacts are minimal. Trail crosses two seeps from NE slope also with minimal impact. Last seep appears to be origin of flow in drainage. Except for two short trail segments (~100') of steep grade and loose soil, and one short segment (~50') of seasonally wet trail tread, the trail is stable and partially vegetated. Some localized grazing impacts at lower ford crossing. This trail has now been reconstructed after the Derby Fire and will require monitoring to ensure drainage features function properly. Action: Maintain and monitor.

E.2 RECREATION OPPORTUNITIES

- Consider securing an easement to Stillwater Plateau Trailhead.
- Consider moving Stillwater Plateau Trailhead to avoid marshy area and address access.
- Consider a Recreation Management Plan for the Benbow area, including a parking/unloading area for trailers (ATV and horse), camping area with a dispersed feel, and more looping trails.
- Consider a loop in the middle of the Benbow trail.
- Consider a day use area in Benbow for families
- Consider a trail system to connect the Benbow area to the Iron Mountain or Picket Pin.
- Consider a new non-motorized trail from Picket Pin Road to Initial Creek Campground.
- Park City Recreation Association is interested in entering into an agreement / cost share / grant / adopt a trail with the Forest Service to help with parking areas, signing, etc. They have resources such as heavy equipment to help with turnaround/parking areas. The Association and Backcountry Horseman represented at the collaboration meetings are interesting in promoting tread lightly concepts and educating riders / operators from tearing up areas, etc.
- Consider making Silver Run Trails one way only.
- Consider motorized interpretative spur destinations and loops related to western culture and heritage, or other points of interest.
- The Billings Motorcycle Club offered to adopt Trails 22 and 27 under the Adopt a Trail Program.
- Use volunteers to help post and maintain the route markers. Implement an educational campaign (through media, signs, volunteers) to disseminate travel rules and the agency's intention to enforce them.

- Consider a trail system for non-motorized users from Sage Creek Campground.
- Consider more hiking opportunities near Palisades Campground and work with groups to develop better trail systems map.
- Consider trail planning proposals for Red Lodge, Red Lodge Creek, and Lily Pad Trails.
- Consider better signage and public information about poor camping opportunities at Lake Mary.
- Consider temporary closures (i.e. 24 months) at specific sites in Wilderness alpine and lake areas.

E.3 MAINTENANCE OPPORTUNITIES

- Consider diverting the spillway overflow from the Red Reservoir (Pryor Mountain Road between Big Ice Cave and Dryhead Overlook) to flow through the road culvert and not down the road.
- If the Pryor Mountain Wild Horse Territory northwest buck and rail fence is rebuilt, road equipment may need to be brought in to construct an effective cattleguard / gate for vehicles. That might be an opportunity to improve the road immediately northwest of the fence by ditching and building up the roadbed.
- Consider culvert installation at the junction with route #2092 and #2093.
- Consider replacing wooden cattleguards on #2092, #2093 and #2094.
- Consider drainage repairs for roads #2492 and #2814.
- Consider repairing drainage problems on the Stockman Trail (2850) section, between the junctions with 28507 and 28505.
- Consider repairing road #2097-Beaverslide.
- Consider spot surfacing isolated areas across the District.

E.4 ROUTE DECOMMISSIONING OPPORTUNITIES

The following is a list of routes which are candidates for decommissioning in the future. Prior to ground disturbance, appropriate NEPA analysis would be conducted.

System Roads		
Route Number	Route Name	Segment Length
2002	2002	0.32
2009	LINE CREEK	1.68
2012	PINEY CREEK	1.85
2016	EAST OF BEAR CANYON	1.41
20731A	OLD TIMBER ROAD	0.32
2073A	SCHWEND RANCH ACCESS	0.10

System Roads		
Route Number	Route Name	Segment Length
2073F	DISPERSED CAMPSITE	0.22
2073H	DISPERSED CAMPSITE	0.03
2073J	OLD TIMBER ROAD	0.27
2085A	WYOMING CREEK CAMP	0.48
2085P	2085P	0.20
2085R	2085R	0.70

System Roads		
Route Number	Route Name	Segment Length
2085S	2085S	0.30
2085T	MILL HOLLOW	0.70
2085T1	MILL HOLLOW CABIN	0.29
2088	SHRIVER PEAK ROAD	2.23
20911	20911	0.48
20912	20912	0.15
20913	20913	0.38
2091B	SANDRA MINE	0.20
2091D	RED PRYOR SPRING	0.36
2091E	BEAR CREEK SPUR	0.20
2091H	HORSE HAVEN	1.90
2092B	2092B	0.44
2092E	2092E	0.53
2097B	BEAVERSLIDE CUTOFF	0.54
2097C	GUARD STATION CUTOFF	0.28
2099	2099	0.59
21401A	PICKET PIN CAMP	0.39
21401B	OLD SAWMILL SPUR	1.50
2144F	2144F	0.09
2144G	GEODOME HOME	0.12
2144H	OLD HOMESTEAD	0.55
2144I	DRY HEAD CREEK	1.00
2144J	CABIN AND SPRING	0.55
23086	23086	0.58
23087	23087	0.80
23088	23088	0.52
2308B	DRYHEAD LOOP	0.62
2308W	2308W	0.60
24191	OLD BEDFORD	0.72
25001	25001	0.51
2849F	2849F	0.20
2850B	2850B	0.75

Non-System Roads		
Route Number	Route Name	Segment Length
20071	BEAR CREEK OFF METESEE TRAIL	1.92
20072	SOUTH FORK GROVE CREEK	2.06
20073	OFF GOLD CREEK NORTH	0.35
20074	SOUTH FORK GROVE CR SPRING	0.88
20075	GOLD CREEK	0.54
20083	ROBERTSON DRAW SPUR	0.46
20084	NORTH FORK LINE CREEK	0.67
20084A	NORTH FORK LINE CREEK SPUR	1.16
20094	20094	0.14
20101	PALISADES CAMP (CCC)	0.34
20101A	20101A	0.23
20101B	20101B	0.14
20101C	20101C	0.36
2010B	OLD CCC ROAD	0.38
20121A	20121A	0.06
20121B	20121B	0.21
20122	20122	0.37
20134	20134	0.35
20141	20141	0.06
20143	20143	0.15
20144A	STILLWATER PLATEAU CUTOFF	0.39
20161	20161	0.15
20162	20162	2.99
20181	20181	0.16
20711	20711	0.25
207111	207111	0.05
20718	20718	0.12
20718A	20718A	0.06
20719	20719	0.21
20723	POWERLINE ACCESS	0.57
20726	20726	0.14
20731	SCHWEND GATE	0.61
2073I	2073I	0.23
20853	TIBBS HOLLOW	0.34

Non-System Roads		
Route Number	Route Name	Segment Length
20854	CLEAR CUT GULCH	0.23
2085AA	2085AA	0.85
2085P1	2085P1	0.13
2085P2	2085P2	0.15
2085T2	2085T2	0.15
209110	209110	0.24
209111	209111	0.10
209112	209112	0.10
209112A	209112A	0.10
209116	209116	0.37
209117	209117	0.28
209118	209118	0.15
209118A	209118A	0.10
20916A	OLD GLORY MINE SPUR	0.25
20916B	OLD GLORY MINE SPUR	0.10
20916C	OLD GLORY MINE SPUR	0.15
2091A1	SANDRA MINE SPUR	0.21
2091A1A	SANDRA MINE SPUR	0.11
2091D1	2091D1	0.10
2091H1	2091H1	0.17
2091H2	2091H2	0.57
2091H3	2091H3	1.10
2091H4	2091H4	0.56
2091T	MURDI RESERVOIR	2.75
20951	20951	2.66
20951A	20951A	0.33
2095A1	RESERVOIR	0.36
20971A	20971A	0.08
20972	ROBERTS BENCH	0.63
2104A1	2104A1	0.25
2122	CAMPSITE	0.17
2123	BEARTOOTH HWY GRAVEL PIT	0.10
2126	2126	0.52
2140G	2140G	0.65

Non-System Roads		
Route Number	Route Name	Segment Length
2140G1	2140G1	0.05
214110	214110	0.04
21412	21412	0.11
21413	21413	0.42
21413A	21413A	0.09
21413B	21413B	0.04
21413C	21413C	0.03
21414	21414	0.03
21415A	21415A	0.03
21415B	21415B	0.53
21415C	21415C	0.20
21415D	21415D	0.11
21417	21417	0.12
21418	21418	0.31
21419	SOUTH EATEN	0.06
2141B	2141B	0.33
2141B1	2141B1	0.08
2141B2	2141B2	0.05
21422	SHEEP CREEK	0.68
21423	DALLAS SPRING	0.34
21423A	ROBINSON SPRING	0.29
2142A	DEAD INDIAN	0.29
2144D1	POWERLINE ACCESS SPUR	0.14
2144D2	POWERLINE CUTOFF	0.12
2144H1	OLD HOMESTEAD SPUR	0.23
21778A	NORTHSIDE RIVER	2.94
230811	230811	0.19
23082	23082	0.11
23083	23083	0.14
23084	23084	0.14
2308B1	DRYHEAD LOOP CUTOFF 2	0.11
2308W1	2308W1	0.17
234611	234611	0.03
234612	234612	0.23

Non-System Roads		
Route Number	Route Name	Segment Length
234613	234613	0.14
24005	NYE TRAIL HEAD	0.07
241412	241412	0.09
241415	241415	0.24
241415A	241415A	0.06
241416	BENBOW MILL SITE	0.25
241416A	BENBOW LOWER MILL SITE	0.21
241416B	BENBOW MIDDLE MILL SITE	0.16
241419	BENBOW MINE	0.06
241420	241420	0.24
241421	241421	0.15
241422	241422	0.06
241423	241423	0.05
24142A	24142A	0.09
24142B	24142B	0.03
2414A	POWERLINE ACCESS	0.17
24192	24192	0.25
24193	24193	0.94
242117	DISPERSED CAMPSITE	0.03
242118	DISPERSED CAMPSITE	0.05
242119A	DISPERSED CAMPSITE	0.14
24211A	DISPERSED CAMPSITE	0.06
24219	DISPERSED CAMPSITE	0.23
24781	24781	0.04
24782	NICHOLS CREEK SPUR	0.39
24782A	NICHOLS CREEK SPUR A	0.14
24783	24783	0.06

Non-System Roads		
Route Number	Route Name	Segment Length
24784	24784	0.10
24785	24785	0.27
24786	24786	0.02
249111	249111	0.20
249131	249131	0.37
249132	249132	0.33
24914	OLIVER DRAW	2.04
24914A	OLIVER DRAW SPUR	0.29
24914B	OLIVER DRAW SPUR	0.17
24915	WILDCAT SPRING	0.52
24916	BOUNDARY DRAW	0.55
24921	24921	1.18
24924	24924	0.25
25002	RANGER CANYON TRAIL	0.37
25007	RANGE DEVELOPMENT	0.26
28461A	28461A	0.20
2846D1	2846D1	0.40
28501A	TIMBER CANYON	2.25
28502	28502	0.10
28504	28504	0.36
28504A	SHEEP RESERVOIR	0.72
28505	28505	0.40
28505A	28505A	0.25
28506	28506	0.05
28507	28507	0.41
2850E	INGRAM SPRING	0.17

- End of Appendix E -