

Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

4.1 CONSULTATION

4.1.1 PUBLIC PARTICIPATION SUMMARY

Chapter 2 details the public participation to date. The initial scoping document (Project Record) was sent on October 22, 2007 to approximately 287 individuals, government agencies, tribal governments, news media, businesses, and organizations that have shown interest in similar projects on the Custer National Forest. The public comment period ended on November 26, 2007. A news release was placed in the Billings Gazette (Billings, MT) on October 29, 2007, summarizing the information provided in the document. News releases were sent to local newspapers.

Public meetings were held in Camp Crook and Buffalo, South Dakota, and Ekalaka, Montana in November, 2007.

In response to these efforts, 22 letters, personal comments, or phone calls were received. Collaborative group session information was documented and reviewed. The analysis of electronic, written and verbal comments preliminarily identified several potential issues. Some of these issues were identified as significant issues and were used to formulate the alternatives.

4.1.2 CONSULTATION WITH OTHERS

The following agencies were consulted during preparation of the EIS:

U.S. Fish and Wildlife Service
Montana Department of Fish, Wildlife, and Parks
South Dakota Game, Fish, and Parks
Bureau of Land Management

Coordination with the affected Tribe has been ongoing in the form of the original project scoping letter, public meetings, agency meetings, letter correspondences and proposed/scheduled field trips which outlined the proposed project specifics and requested any concerns that they may have regarding cultural resources or traditional cultural properties. This coordination effort is intended to insure that any tribal concerns or comments are addressed throughout the NEPA process in regards to ARPA, AIRFA, NAGPRA and/or Bulletin 38 issues.

4.2 DISTRIBUTION

This document has been distributed in hardcopy or electronic format to individuals that have expressed an interest in the project and receiving this document, and to the officials, agencies, firms, and organizations listed below.

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U.S. Federal Officials

Honorable Denny Rehberg – Congressman
Honorable John Tester – Senator
Honorable Max Baucus – Senator

U.S. Federal Agencies

Bureau of Land Management
Bureau of Indian Affairs
Natural Resources Conservation Service
Advisory Council on Historic Preservation
USDA APHIS PPD/EAD
USDA National Agricultural Library
U.S. Army Corps of Engineers, Northwestern Division
Environmental Protection Agency
U.S. Department of Interior, Office of Environmental Policy and Compliance
Northwest Power Planning Council
Federal Aviation Administration
Federal Highway Administrator
U.S. Department of Energy

Native American Tribes

Crow Tribe
Northern Cheyenne Tribe
Rosebud Sioux Tribe
Ogalala Sioux Nation
Spirit Lake Sioux Tribe
Standing Rock Sioux Tribe

Yankton Sioux Tribe
Mandan-Hidatsa/Arikara Tribe
Lower Brule Sioux Tribe

Local Officials

Carter County Commissioner
Harding County Commissioner
Fallon County

Organizations and Firms

Audubon Society
American Wildlands
American Wilderness Alliance
Alliance for the Wild Rockies
Defenders of the Black Hills
Montana Fish, Wildlife and Parks
Montana Department of State Lands
Montana Wilderness Association
Treasure State ATV Association
North Dakota State Forester
Rapid City Sierra Club
South Dakota State Game and Fish
Capital Trail Vehicle Association
Families for Outdoor Recreation
Montana Wilderness Association
Families for Outdoor Recreation

4.3 LIST OF PREPARERS

The following people prepared the EIS in an interdisciplinary manner.

Babete Anderson, Public Affairs Specialist/Executive Assistant, USDA Forest Service

Contribution: Human Environment

Education: Embry Riddle Aeronautical University, Montana State University-Billings

Experience: 22 years in public information with the USDA, Forest Service.

Mike W. Bergstrom, Zone Archaeologist, USDA Forest Service

Contribution: Cultural Resources; Archeological Resources

Education: B.S., Sociology - Anthropology Option

Experience: 23 years as an archaeologist, 13 years with the USDA Forest Service

Buck Buchanan, Rangeland Management Specialist, USDA Forest Service

Contribution: Content Analysis, Alternative Development

Education: M.S., Rangeland Ecology and Watershed Management

Experience: 8 years of land management experience

Brenda Christensen, Civil Engineer, USDA Forest Service

Contribution: Public Safety; Maintenance and Administration of Roads and Trails; Editing

Education: B.S., Civil Engineering

Experience: 20 years as a Civil Engineer with USDA Forest Service; Registered Professional Engineer since 1994 in the state of Oregon.

John Clark, Forest Timber Management Officer , USDA Forest Service

Contribution: Content Analysis, Alternative Development

Education: B.S., Forest Management

Experience: 32 years of timber and land management with the USDA Forest Service

Bobby Cordell, Forestry Technician (Fuels) , USDA Forest Service

Contribution: Content Analysis, Alternative Development

Education: A.S. Degree in Civil Surveying

Experience: 9 years land management and 4 years NEPA experience with the USDA Forest Service

Doug Epperly, Recreation Program Manager, USDA Forest Service

Contribution: Project Leader; Chapters 1 and 2; Recreation; Editing

Education: B.S., Forestry

Experience: 20 years of land management and NEPA experience with the USDA Forest Service; 5 years of land management and NEPA coordination with the US Bureau of Reclamation

Mary Gonzales, GIS Specialist, USDA Forest Service

Contribution: Mapping

Education: B.S., Renewable Natural Resources

Experience: 5 years as a GIS Specialist and 15 years as a Culturist with USDA Forest Service

Halcyon LaPoint, Archeologist, USDA Forest Service

Contribution: Cultural Resources; Traditional Cultural Properties

Education: M.A., Anthropology

Experience: 21 years as an Archeologist with USDA Forest Service

John R. Lane, Soil Scientist, USDA Forest Service

Contribution: Soils

Education: B.S. Forest Resource Management; M.S. Soils.

Experience: 21 years as a Soil Scientist with USDA Forest Service, USDA Natural Resource Conservation Service (Soil Conservation Service), USDI National Park Service, and Private Industry

Mark Nienow, Forest Hydrologist, USDA Forest Service

Contribution: Water Quality

Education: B.S., Water Resources

Experience: 20 years as a Hydrologist with USDA Forest Service

Tawni Parks, Wildlife Biologist, USDA Forest Service

Contribution: Content Analysis, Alternative Development

Education: B.S., Fish and Wildlife Management; B.A. Environmental Studies

Experience: 8 years of land management and 3 years of biology and NEPA experience with the USDA Forest Service

Kim Reid, Range Management Specialist, USDA Forest Service

Contribution: Vegetation Ecology; Weeds; Sensitive Plants; Editing

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Education: B.S., Range Management

Experience: 29 years in Range Management, Field Ecology, and Botany with USDA Forest Service

Keith Stockmann, Economist, USDA Forest Service

Contribution: Economics Review

Education: B.A., Economics; M.S., Environmental Studies; Ph.D., Forestry

Experience: 7 years as an Economist with USDA Forest Service

Darin A. Watschke, Fisheries Biologist, USDA Forest Service

Contribution: Fisheries and Aquatics

Education: B.S., Fish and Wildlife Management; M.S., Fisheries Ecology

Experience: 10 years in Fisheries with USDA Forest Service; Fisheries Biologist since 2004

Tom Whitford, Wildlife and Fisheries Program Manager, USDA Forest Service

Contribution: Wildlife

Education: B.S., M.S., Wildlife Biology

Experience: 22 years of land management and NEPA experience with the USDA Forest Service

4.4 REFERENCES

4.4.1 CHAPTER 1: PURPOSE AND NEED, AND PROPOSED ACTION

USDA Forest Service 1987. USDA, Forest Service, Record of Decision for Land and Resource Management Plan and Environmental Impact Statement for the Custer National Forest and National Grasslands. 1987.

USDA Forest Service 1992. USDA, Forest Service, Custer National Forest, Forest Supervisor, Curtis W. Bates. Ashland Ranger District Travel Management Plan

USDA Forest Service 2001. USDA, Forest Service, Northern Region, Regional Forester Dale N. Bosworth. Off-Highway Vehicle Record of Decision and Plan Amendment for Montana, North Dakota and Portions of South Dakota.

USDA Forest Service 2003. USDA, Forest Service, Custer National Forest, Forest Supervisor, Nancy T. Curriden. Forest Scale Roads Analysis, Version 1.0.

USDA Forest Service 2005. USDA, Forest Service, Engineering Staff, EM 7700-30. December 2005. Guidelines for Engineering Analysis of Motorized Mixed Use on National Forest System Roads.

USDA Forest Service 2006. USDA, Forest Service, Region One, Regional Forester Abigail R. Kimbell. Travel Management, Schedule for Implementation.

USDA Forest Service 2007. USDA, Forest Service, <http://www.fs.fed.us/recreation/programs/ohv> Travel Management Schedule.

4.4.2 CHAPTER 2: PUBLIC PARTICIPATION, ISSUES AND ALTERNATIVES

4.4.2.1 Air Quality

MT DEQ. 2008. Montana Dept. of Environmental Quality, Helena, MT. Online data:
<http://www.deq.mt.gov/airquality/aqinfo.asp>

SD DENR, 2008. South Dakota Department of Environment and Natural Resources. Online data:
<http://www.state.sd.us/denr/DES/AirQuality/airprogr.htm>

4.4.2.2 Alternatives Considered in Detail

USDA Forest Service 2005. USDA, Forest Service, National OHV Implementation Team. Motor Vehicle Route and Area Designation Guide v. 111705.

USDA Forest Service 2005. USDA, Forest Service, National OHV Training Cadre. Travel Management: Designated Routes and Areas for Motor Vehicle Use.

4.4.3 CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

4.4.3.1 Recreation

Cordell, H. K., Carter J. Betz, J. M. Bowker, Donald B. K. English, Shela H. Mou, John C. Bergstrom, R. Jeff Teasley, Michael A. Tarrant, and John Loomis. 1999. Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends. Champaign, Illinois: Sagamore Publications.

English, Donald B.K, Susan M. Kocis, Stanley J. Zarnach, and J. Ross Arnold. 2002. Forest Service National Visitor Use Monitoring Process: Research Method Documentation. USDA Forest Service. General Technical Report SRS-57, Asheville, NC.

Montana Fish, Wildlife, and Parks, 2000. Montana State Trail Plan. Found at:
<http://fwp.mt.gov/parks/admin/trails.html>

Montana Fish Wildlife, and Parks, 2008. Personal communications between Scott Hemmer, Montana Fish, Wildlife, and Parks and Doug Epperly, USDA Forest Service, September 2008.

Roper. 2003. Outdoor Recreation in America 2003: Recreation's Benefits to Society Challenged by Trends. Report prepared for the Recreation Roundtable by RoperASW, Inc.

SDGFP. 2008a. Personal communications between John Kanta, South Dakota Game, Fish, and Parks, and Doug Epperly, USDA Forest Service. August 2008.

SDGFP. 2008b. Personal communications between Nathan Wagner, South Dakota Game, Fish, and Parks, and Doug Epperly, USDA Forest Service. August 2008.

USDA. 2001. Tri-State OHV Record of Decision. USDA Forest Service, Northern Region.

USDA. 2003. National Recreational Opportunity Spectrum Inventory Mapping Protocol. Washington, DC.

USDA. 2005. Fish and Wildlife Recreation and Tourism. Report prepared Cindy Swanson, USDA Forest Service, for The Montana Challenge a cooperative effort sponsored by Montana Fish, Wildlife, and Parks and the USDA Forest Service. Missoula, Montana.

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US Fish and Wildlife Service. 2004. Fishing and Hunting 1991-2001: Avid, Casual, and Intermediate Participation Trends. Arlington, Virginia.

4.4.3.2 Cultural Resources

ASPPN (Archeological Sites Protection and Preservation Notebook) I-13 1989. A Study of Vandalism of Archeological Resources in Southwestern Colorado. Edited by Dr. Paul R. Nickens, September 1989, US Army Engineer Waterways Experiment Station, Vicksburg, MS.

ASPPN (Archeological Sites Protection and Preservation Notebook) I-18 1992. Off-Road Vehicle Impacts to Archaeological Sites. Edited by Dr. Paul R. Nickens, May 1992, US Army Engineer Waterways Experiment Station, Vicksburg, MS. Manuscript on file at the Supervisor's Office, Custer National Forest, Billings, Montana.

Beckes, Michael R. and James D. Keyser 1983. The Prehistory of the Custer National Forest: An Overview.

CCGS (Carter County Geological Society) 1940. Indian Mound Investigation, Long Pine Hills, Sioux National Forest Division, Southeast Montana 1934-1939-1940.

Deaver, Sherri 1996. A Cultural Assessment of Chalk Buttes, Carter County, Montana. Compiled and edited by Sherri Deaver, Ethnoscience, Billings, Montana. Confidential.

Deaver, Sherri and Ken Deaver 1988. Prehistoric Cultural Resource Overview of Southeast Montana, Volume I. Report prepared by Ethnoscience, Billings, Montana for the Bureau of Land Management, Miles City District, Miles City, Montana.

Deaver, Sherri and Ann Kooistra-Manning 1995. Ethnographic Overview of the McKenzie, Medora, Sioux, Ashland and Beartooth Ranger Districts of the Custer National Forest. Prepared by Ethnoscience, Billings, Montana. Confidential.

Keyser, James D. and Linea Sundstrom 1984. Rock Art of Western South Dakota. The North Cave Hills and the Southern Black Hills. Special Publication of the South Dakota Archaeological Society, Number 9.

Lyneis, Margaret M., David L. Weide and Elizabeth vonTill Warren 1980. Impacts: Damage to Cultural Resources in the California Desert. Bureau of Land Management, California.

Nielsen, Thomas G. 1941. Field Work on "Ancient Indian Graves" in the Long Pine Hills. Proceedings of the Montana Academy of Science, Volume II.

USDA Forest Service 1976. U.S.D.A. Forest Service Environmental Statement, Sioux Planning Unit, Multiple Use Plan. R1-76-15. Sioux Ranger District, Custer National Forest, Northern Region.

USDA Forest Service 1986. USDA, Forest Service, Custer National Forest and National Grasslands, Land and Resources Management Plan.

USDA Forest Service 2001. Final: Off-Highway Vehicle Record of Decision and Plan Amendment for Montana, North Dakota and Portions of South Dakota..

USDA Forest Service 2002. Managing Degraded Off-Highway Vehicles Trails in Wet, Unstable and Sensitive Environments.

USDA Forest Service 2004. Environmental Impact Statement, Oil and Gas Leasing, Sioux Ranger District, Custer National Forest.

USDA Forest Service 2005. USDA Forest Service Policy for NHPA Compliance in Travel Management: Designated Routes for Motor Vehicles Use. Prepared by the Forest Service in Consultation with the Advisory Council on Historic Preservation.

Will, George F. 1909. Some Observations Made in Northwestern South Dakota. *American Anthropologist*, 11: 257-265.

4.4.3.3 Wildlife

Adams, Rick A. 2003. *Bats of the Rocky Mountain West: Natural History, Ecology, and Conservation*. U. Press of CO, Boulder, Colorado.

Askins, R. A. 1994. Open Corridors in a Heavily Forested Landscape: Impact on Shrubland and Forest-Interior Birds. *Wildlife Society Bulletin* 22:339-347.

Aubry, K. B., G. M. Koehler, and J. R. Squires. 1999. Ecology of Canada Lynx in Southern Boreal Forests. Pages 373-396 in L.F. Ruggiero, K.B. Aubrey, S.W. Buskirk, G.M. Koehler, C. J. Krebs, K.S. McKelvey, and J.R. Squires. 2000. *Ecology and Conservation of Lynx in the U.S.* U.S. Forest Service General Technical Report. RMRS – GTR-30.

Baker, W.L. and R.L. Knight. 2000. Cited in Gucinski, H., M.J. Furness, R.R. Ziemer, and M.H. Brookes. 2001. *Forest Roads: A Synthesis of Scientific Information*. General Technical Report PNW-GTR-509. USDA Forest Service, Pacific Northwest Research Station, Portland, Oregon. 103pp.

Boyle, S.A, and F.B. Samson. 1985. Effects of Nonconsumptive Recreation on Wildlife: a Review. *Wildlife Society Bulletin* 13:110-116.

Bowles, A. E. 1995. Responses of Wildlife to Noise. In Pages 109-156 In Knight, R.L. and K.J.Gutzweiler. eds. *Wildlife and Recreationists: Coexistence Through Management and Research*. Island Press. Washington DC. 372 pp. Cited in USDA Forest Service. 2006. *Gallatin National Forest Travel Plan Final Environmental Impact Statement*. December 2006. Bozeman, MT.

Brody, A.J. and M.R. Pelton. 1989. Effects of roads on black bear movements in western North Carolina. *Wildlife Society Bulletin*. 17:5-10

Bruns, E.H. 1977. Winter Behavior of pronghorns in relation to habitat. *Journal of Wildlife Management* 41:560-571.

Canfield, J. E., L. J. Lyon, J. M. Hillis, and M. J. Thompson. 1999. Ungulates. Pages 6.1-6.25 in G. Joslin and H. Youmans, coordinators. *Effects of Recreation on Rocky Mountain Wildlife: A Review for Montana*. The Wildlife Society, Helena, Montana, USA.

Christensen, A. G., L. J. Lyon, and J. W. Unsworth. 1993. Elk Management in the Northern Region: Considerations in Forest Plan Updates or Revisions. U.S. Forest Service General Technical Report INT-303.

Coleman, J.S. and J.D. Frasier. 1989. Habitat use and home ranges of Black and Turkey Vultures. *Journal of Wildlife Management* 53:782-792.

Earthlink. 2008. <http://home.earthlink.net/~dnitzer/4dHaasEaton/Decibel.html>

Federal Interagency Committee on Noise. 1992. <http://www.rcaanews.org/noiselev.htm>

Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

- Federal Register, Volume 61, Number 55, March 20, 1996. 50 CFR Part 17, Endangered and Threatened Wildlife and Plants: Establishment of a Nonessential Experimental Population of Black-footed Ferrets in Aubrey Valley, Arizona.
- Federal Register, Volume 65, Number 218, November 9, 2000. 36 CFR Parts 217 and 219, National Forest System Land and Resource Management Planning.
- Finegold, L.S., S. Job, R. de Jong, B. Griefahn. 2004. The Effect of Noise on Public Health: International Congress Explores Impact on Sleep, Animals, and How Communities Respond. The ASHA Leader pp.15-16 (www.asha.org/about/publications/leader-online/archives/2004/041005/)
- Forman, R.T. and L.E. Alexander. 1998. Roads and Their Major Ecological Effects. Annual Review of Ecology and Systematics. Nov. 1998. 29:207-231.
- Forman, et al. 2003. Cited in USDA Forest Service. 2006. Gallatin National Forest Travel Plan Final Environmental Impact Statement. December 2006. Bozeman, MT.
- Forrest, S.C., D.E. Biggins, L. Richardson, T.W. Clark, T.M. Campbell III, K.A. Fagerstone, and E.T. Thorne. 1988. Population attributes for the black-footed ferret (*Mustela nigripes*) at Meeteetse, Wyoming, 1981-1985. J. Mamm. 69(2):261-273.
- Frederick, G. P. 1991. Effects of Forest Roads on Grizzly Bears, Elk, and Gray Wolves: A Literature Review. Publication R1-91-73. USDA Forest Service, Kootenai National Forest. Libby, Montana.
- Gaines, W.L., P.H. Singleton, and R.C. Ross. 2003. Assessing the Cumulative Effects of Linear Recreation Routes on Wildlife Habitats on the Okanogan and Wenatchee National Forests. USDA Forest Service Pacific Northwest Research Station General Technical Report PNW-GTR-586. 79pp.
- Galen Carol. 2007. <http://www.gcaudio.com/resources/howtos/loudness.html>
- Graves, T.A. 2002. Spatial and Temporal Response of Grizzly Bears to Recreational Use on Trails. Thesis, University of Montana, Missoula, Montana. 56pp.
- Grover, K.E. and M.J. Thompson. 1986. Factors influencing spring feeding site selection by elk in the Elkhorn Mountains, Montana. Journal of Wildlife Management 50:466-470.
- Harvey, M., J.S. Altenbach, and T. Best. 1999. Bats of the United States. Arkansas Game and Fish Commission and U.S. Fish and Wildlife Service. 64pp.
- Hillis, J. M., M. J. Thompson, J. E. Canfield, L. J. Lyon, C. L. Marcum, P. M. Dolan, and D. W. McCleerey. 1991. Defining Elk Security: The Hillis Paradigm. Pages 38-54 in A. G. Christensen, L. J. Lyon, and T. N. Lonner, compilers. Proceedings of Elk Vulnerability – A Symposium. Montana State University, Bozeman, Montana, USA.
- Hutto, R. L., S. J. Hejl, J. F. Kelly, and S. M. Pletschet. 1995. A Comparison of Bird Detection Rates Derived From On-Road Versus Off-Road Point Counts in Northern Montana. Pages 103-110 in: U.S. Forest Service General Technical Report PSW-GTR-149.
- Joslin, G., and H. Youmans, coordinators. 1999. Effects of Recreation on Rocky Mountain Wildlife: A Review for Montana. Wildlife Society, Montana Chapter, USA. (www.montanatws.org).
- Kaselloo, Paul and Katherine O.Tyson. 2004. Synthesis of Noise Effects on Wildlife Populations. US Department of Transportation, Federal Highway Administration. Petersburg, Virginia.

- Knight, R.L. and D.N. Cole. 1995. Cited in Joslin, G., and H. Youmans 1999. Effects of Recreation on Rocky Mountain Wildlife: A Review for Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society. 307pp.
- Knight, R.L., and Cole, D.N. 1995a. Cited in USDA Forest Service. 2006. Gallatin National Forest Travel Plan Final Environmental Impact Statement. December 2006. Bozeman, MT.
- Knight, R.L. and K.J.Gutzweiler. eds. 1995. Cited in USDA Forest Service. 2006. Gallatin National Forest Travel Plan Final Environmental Impact Statement. December 2006. Bozeman, MT.
- Lyon, L.J. 1983. Road Density Models Describing Habitat Effectiveness for Elk. *Journal of Forestry* 81(9):592-595.
- Lyon, L.J. 1985. Cited in Gucinski, H., M.J. Furness, R.R. Ziemer, and M.H. Brookes. 2001. Forest Roads: A Synthesis of Scientific Information. General Technical Report PNW-GTR-509. USDA Forest Service, Pacific Northwest Research Station, Portland, Oregon. 103pp.
- Lyon, L. J., and M. G. Burcham. 1998. Tracking Elk Hunters with the Global Positioning System. U.S. Forest Service Research Paper RMRS-RP-3.
- Lyon, L.J., and A. G. Christensen. 1992. A Partial Glossary of Elk Management Terms. U.S. Forest Service General Technical Report INT-288.
- Lyon, L.J., and A. G. Christensen. 2002. Elk and Land Management. Pages 557-581 in D. E. Toweill and J. W. Thomas, editors. *North American Elk: Ecology and Management*. Smithsonian Institution Press. Washington, D.C.
- McLellan B. N., and D. M. Shackleton. 1988. Grizzly Bears and Resource-Extraction Industries: Effects of Roads on Behavior, Habitat Use, and Demography. *Journal of Applied Ecology* 25:451-460.
- Mech, L.D., S.H. Fritts, G.L. Radde, and W.J. Paul. 1988. Wolf distribution and road density in Minnesota. *Wildlife Society Bulletin* 16:85-87.
- Miller, B., R.P. Reading, and S. Forrest. 1996. *Prairie Night*. Smithsonian Institute Press. Washington D.C. 320 pp. Cited in Montana Field Guide. (http://fieldguide.mt.gov/detail_AMAJF02040.aspx)
- MTFWP. 2002. Conservation Plan for Black-tailed and White-tailed Prairie Dogs in Montana. Montana Prairie Dog Working Group. 51 pp.
- MTFWP. 2003. Annual rule regulating prairie shooting on public lands. December 12, 2003
- MTFWP. 2005. Montana: Final Elk Management Plan. MT Fish, Wildlife and Parks, Wildlife Division. Helena, MT. 397 pp.
- MTFWP. 2007. Montana's Species of Concern. Montana Fish, Wildlife and Parks website. (<http://fwp.mt.gov/wildthings/concern/birds.html>)
- MTNHP. 2007. Species of Concern Report. Montana Natural Heritage Program website. (<http://nhp.nris.state.mt.us/SpeciesOfConcern/Default.aspx>)
- Rich, A. C., D. S. Dobkin, and L. J. Niles. 1994. Defining Forest Fragmentation by Corridor Width: The Influence of Narrow Forest-Dividing Corridors on Forest-Nesting Birds in Southern New Jersey. *Conservation Biology* 8(4):1109-1120.
- Ruediger, B. 1996. The relationship between rare carnivores and highways. Pages 24-38 In G. Evink, D. Ziegler, P. Garret, and J. Berry (eds). *Transportation and wildlife: reducing wildlife mortality/improving wildlife passageways across transportation corridors*. Proc.

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Transportation-Related Wildlife Mortality Seminar, 30 April-2 May 1996, Orlando, FL.
Florida Dept. Trans. / Fed. Highway Admin.

Schmidt, Dr. Cheryl A. 2003. Conservation Assessment for the Long-eared Myotis in the Black Hills National Forest South Dakota and Wyoming. USDA Forest Service, Rocky Mountain Region, Black Hills National Forest, Custer, SD.

Skovlin, J. M., P. Zager, and B. K. Johnson. 2002. Elk Habitat Selection and Evaluation. Pages 531-555 in D. E. Toweill and J. W. Thomas, editors. North American Elk: Ecology and Management. Smithsonian Institution Press, Washington D.C., USA.

Toweill, D. E., and J. W. Thomas. 2002. The Future of Elk and Elk Management. Pages 793-841 in D. E. Toweill and J. W. Thomas, editors. North American Elk: Ecology and Management. Smithsonian Institution Press, Washington D.C., USA.

Trombulak, S.C., and C.A. Frissell. 1999. Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities. Conservation Biology Vol. 14, No. 1:18-30.

Truax, Barry. 1999. Handbook for Acoustic Ecology. Cambridge Street Publishing. Cambridge, MA.

USDA Forest Service. 2005. Helena National Forest North Belts Travel Plan Wildlife Report. May 2005. Helena, MT.

USDA Forest Service. 2006. Gallatin National Forest Travel Plan Final Environmental Impact Statement. December 2006. Bozeman, MT.

USFWS. 1988. Black-footed Ferret Recovery Plan. U.S. Fish and Wildlife Service, Denver, CO. 154 pp.

USFWS. 2008. Threatened, Endangered, and Candidate Species for the Custer National Forest 3/5/08. Helena, Montana.

Van Dyke, F.G., R.H. Brocke, and H.G. Shaw. 1986. Use of Road track counts as indices of mountain lion presence. Journal of Wildlife Management 50:102-109.

Vore, J., and R. Desimone. 1991. Effects of an Innovative Hunting Regulation on Elk Populations and Hunter Attitudes. Pages 23-29 in A. G. Christensen, L. J. Lyon, and T. N. Lonner, compilers. Proceedings of Elk Vulnerability – a Symposium. Montana State University, Bozeman, Montana, USA.

Wisdom, M., A. Ager, H. Preisler, N. Cimon, and B. Johnson. 2004. Cited in USDA Forest Service. 2006. Gallatin National Forest Travel Plan Final Environmental Impact Statement. December 2006. Bozeman, MT.

4.4.3.4 Water Quality

ARM, 2008. Administrative Rules of Montana – Surface Water Quality [Online]. Available: <http://www.mtrules.org/gateway/Subchapterhome.asp?scn=17.30.6>.

Cole, D.N. 1991. Changes on trails in the Selway-Bitterroot Wilderness, Montana, 1978-1989. USDA-Forest Service, Intermountain Research Station, Research paper INT-450. 5 p.

Deluca, T. H., W. A. Patterson IV, W. A. Freimund, and D. N. Cole. 1998. Influence of llamas, horses, and hikers on soil erosion from established recreation trails in western Montana, USA. Environmental Management 22(2):255-262.

- Elliot, W.J. 2000. Chapter 9. Roads and other corridors. In: Drinking water from forests and grasslands. USDA Forest Service, Southern Research Station, General Technical Report, SRS-39, Asheville, NC,. pp. 85-100.
- Furniss, M. J., T. D. Roeloffs, and S. C. Yee. 1991. Road construction and maintenance. Pages 297-323 in W. R. Meehan, editor. Influences of forest and rangeland management on salmonid fishes and their habitats. American Fisheries Society Special Publication 19.
- Logan, R. 2001. Water quality BMP's for Montana forests. Montana State University- Extension Publications. Bozeman, MT. 59p.
- MacDonald, L.H. and J.D. Stednick. 2003. Forests and water: A state-of-the-art review for Colorado. Colorado Water Resources Research Institute, CSU, Fort Collins, CO. 65 p.
- Meadows, D. 2007. Effects of all terrain vehicles on national forest lands and grasslands (DRAFT). USDA Forest Service. San Dimas Technology and Development Center. 117 p.
- MCA, 2008. Montana Code Annotated – Water Quality [Online]. Available: http://data.opi.mt.gov/bills/mca_toc/75_5.htm.
- MT-DEQ, 2006. 2006 Montana 305(b)/303(d) water quality assessment database. [Online]. Available: <http://www.deq.state.mt.us/CWAIC/default.aspx>. Dept. of Environmental Quality. Helena, MT.
- MT-NRIS, 2008. Montana State Library - Natural Resource Information System. Average Annual Precipitation Map – Stillwater and Carbon County. [Online]. Available: http://nr.is.state.mt.us/gis/gisdatalib/downloads/precip_Carter.pdf
- Patric, J.H., J.O. Evans, and J.D. Helvey. 1984. Summary of sediment yield data from forested land in the United States. Journal of Forestry, 82(1):101-104.
- Seyedbagheri, K.A. 1996. Idaho forestry best management practices: compilation of research on their effectiveness. General Technical Report – 339. USDA - Forest Service, Intermountain Research Station, Ogden, UT. 89p.
- SDAR, 2008. South Dakota Administrative Rules – Surface Water Quality [Online]. Available: <http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:51>.
- SD-DENR, 2008. The 2008 South Dakota Integrated Report for Surface Water Quality Assessment [Online]. South Dakota, Dept of Environment and Natural Resources. Available: <http://www.state.sd.us/denr/Documents/08IRFinal.pdf>.
- Stednick, J.D. 2000. Chapter 10. Timber Management. In: Drinking water from forests and grasslands. USDA Forest Service, Southern Research Station, General Technical Report, SRS-39, Asheville, NC,. pp. 103-119.
- Sudgen, B.D. and S.W. Woods. 2007. Sediment production from forest roads in western Montana. Journal of American Water Resources Association. 43(1):193-206.
- U.S. Code. Title 16-Conservation, Chapter 2-National Forests, Subchapter I-Establishment and Administration, Sec. 528- Development and administration of renewable surface resources for multiple use and sustained yield of products and services; Congressional declaration of policy and purpose. [Online]. Available: <http://www.gpoaccess.gov/uscode/>. Search 16USC528.
- USDA-FS, 1995. Forest Service Handbook 2509.22 - Soil and Water Conservation Practices. U.S. Department of Agriculture - Forest Service, Missoula, Montana. Chapters 11, 12 and 15.
- USDA-FS, 2002. Best management practices effectiveness monitoring report. [Online]. Available: <http://www.fs.fed.us/r1/lolo/resources-natural/index-best-mgt-prac.shtml>. U.S. Department of Agriculture - Forest Service, Lolo National Forest, Missoula, Montana. 117 p.

Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

USDA-FS, 2007. Administrative settlement and order of consent under CERCLA section 122(h)(1) – Riley Pass Mines Site. U.S. Department of Agriculture - Forest Service, Missoula, Montana. 41p.

Wilson, J.P. and J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles, and off-road bicycles on mountain trails in Montana. *Mountain Research and Development*. 14(1):77-88.

4.4.3.5 Fisheries and Aquatics

Dale, D., and T. Weaver. 1974. Trampling effects on vegetation of the trail corridors of north Rocky Mountain forests. *Journal of Applied Ecology* 11:767-772.

Deluca, T. H., W. A. Patterson IV, W. A. Freimund, and D. N. Cole. 1998. Influence of llamas, horses, and hikers on soil erosion from established recreation trails in western Montana, USA. *Environmental Management* 22(2):255-262.

Dole, J. W. 1971. Dispersal of recently metamorphosed leopard frogs *Rana pipiens*. *Copeia*, 1971(2): 221-228.

Dunham, J. B., and B. E. Riemann. 1999. Metapopulation structure of bull trout: influences of physical, biotic and geometrical landscape characteristics. *Ecological Applications* 9(2):642-655.

Everest, F. H., R. L. Beschta, J. C. Scrivener, K. V. Koski, J.R. Sedell, and C. J. Cederholm. 1987. Fine sediment and salmonid production - a paradox. Pages 98-142 in E. Salo and T. Cundy, editors. *Streamside management and forestry and fishery interactions*. University of Washington, College of Forest Resources, Contribution 57, Seattle, Washington.

Fischer, T. D., D. C. Backlund, K. F. Higgins, and D. E. Naugle. June 1999. Field guide to South Dakota amphibians. SDAES Bulletin 733. Brookings: South Dakota State University.

Forman, R. T. et al. 2003. Pages 225-252 in *Road ecology: science and solutions*. Island Press, Washington, DC, USA.

Furniss, M. J., T. D. Roeloffs, and S. C. Yee. 1991. Road construction and maintenance. Pages 297-323 in W. R. Meehan, editor. *Influences of forest and rangeland management on salmonid fishes and their habitats*. American Fisheries Society Special Publication 19.

Hendricks, P., and J.D. Reichel. 1996. Preliminary amphibian and reptile survey of the Ashland District, Custer National Forest: 1995. Montana Natural Heritage Program. Helena, MT.

Hicks, B. J., J. D. Hall, P. A. Bisson, and J. R. Sedell. 1991. Responses of salmonids to habitat changes. Pages 483-518 in W. R. Meehan, editor. *Influences of forest and rangeland management on salmonid fishes and their habitats*. American Fisheries Society Special Publication 19.

Hogan, D. L. and B. R. Ward. 1997. Watershed geomorphology and fish habitat. Chapter 2 in P. A. Slaney and D. Zaldokas, editors. *Fish habitat rehabilitation procedures*. Watershed Restoration Circular 9, Vancouver, British Columbia, Canada.

Maxell, B. 2000. Management of Montana's amphibians: a review of factors that may present a risk to population viability and accounts on the identification, distribution, taxonomy, habitat use, natural history, and status and conservation of individual species. Report to USFS Region 1, Order Number 43-0343-0-0224. University of Montana, Wildlife Biology Program. Missoula, Montana.

- McIntosh, B. A., J. R. Sedell, R. F. Thurow, S. E. Clark, and G. L. Chandler. 2000. Historical changes in pool habitats in the Columbia River Basin. *Ecological Applications* 10(5):1478-1496.
- MFWP (Montana Department of Fish, Wildlife, and Parks). 2008. Field guide to animals. Available: <http://fwp.state.mt.us/fieldguide>
- Nussbaum, R. A., E. D. Brodie, and R. M. Storm. 1983. Amphibians and reptiles of the Pacific Northwest. University Press of Idaho, Moscow, Idaho.
- Reichel, J. D. 1995. Preliminary amphibian and reptile survey of the Sioux District of the Custer National Forest:1994. Montana Natural Heritage Program. Helena, MT.
- Rieman, B. E., and J. D. McIntyre. 1993. Demographic and habitat requirements for conservation of bull trout. U.S. Forest Service General Technical Report INT-302.
- Rieman, B. E., D. Lee, J. McIntyre, K. Overton, and R. Thurow. 1993. Consideration of extinction risks for salmonids. Fish Habitat Relationships Technical Bulletin 14. U.S. Forest Service, Intermountain Research Station, Boise, Idaho, USA.
- Rosgen, D. 1996. Applied river morphology. Printed Media Companies, Minneapolis, Minnesota, USA: pages 4-4 to 4-10.
- SDAR, 2008. South Dakota Administrative Rules – Surface Water Quality [Online]. Available: <http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:51>.
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston.
- Stebbins, R. C. and N. W. Cohen. 1995. A natural history of amphibians. Princeton University Press. Princeton, NJ.
- Stagliano, D., S. Mincemoyer, and B. Maxell. 2006. An integrated assessment of sites in the Custer national Forest Ashland Ranger District. Montana Natural Heritage Program. Helena, MT.
- Thornton, C. I., S. R. Abt, and W. P. Clary. 1997. Vegetation influence on small stream siltation. *Journal of the American Water Resources Association* 33(6):1279-1288.
- Waters, T. F. 1995. Sediment in streams: sources, biological effects, and control. *American Fisheries Society Monograph* 7:79-80; 86-118; 169-180.
- Werner, J. K., B. A. Maxell, P. Hendricks, and D. L. Flath. 2004. Amphibians and reptiles of Montana. Montana Press Publishing Company, Missoula, Montana.
- Wilson, J. P., and J. P. Seney. 1994. Erosional impacts of hikers, horses, motorcycles, and off-road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88.

4.4.3.6 Soils

- Burroughs Jr., E. R., and J. G. King. 1989. Reduction of soil erosion on forest roads. General Technical Report. Intermountain Research Station INT-264. Ogden, Utah:USDA Forest Service.
- Bulmer, C.E. 1998. Forest Soil Rehabilitation in British Columbia: A Problem Analysis. Published by British Columbia Ministry of Forests Research Program. 712 Yates Street, Victoria, BC v8w 1E7.

Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

- Gucinski, Hermann; Furniss, Michael J.; Ziemer, Robert R.; Brookes, Martha H. 2001. Forest roads: a synthesis of scientific information. Gen. Tech. Rep. PNWGTR-509. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 103 p.
- Kolka, Randy K.; Smidt, Mathew F. 2004. Effects of forest road amelioration techniques on soil bulk density, surface runoff, sediment transport, soil moisture and seedling growth. *Forest Ecology and Management* 202: 313-323.
- Weaver, T. and D. Dale. 1978. Trampling Effects of Hikers, Motorcycles and Horses in Meadows and Forests. *The Journal of Applied Ecology*, Vol. 15, No. 2. (Aug., 1978), pp. 451-457.
- Wilson, John P. and Joseph P. Seney. 1994. Erosional Impact of Hikers, Horses, Motorcycles, and Off-Road Bicycles on Mountain Trails in Montana. *Mountain Research and Development*, Vol. 14, No. 1. (Feb., 1994), pp. 77-88.
- USDA Forest Service. 1999. Chapter 2550 – Soil Management, Forest Service Manual 2500 – Watershed and Air Management, R1 Supplement 2500-99-1, Effective 11/12/1999.
- USDA Natural Resource Conservation Service. 2003. Soil Survey of Carter County Area, Montana. USDA Department of Agriculture, Natural Resource Conservation Service in Cooperation with USDA-Forest Service and Montana Agricultural Experiment Station.
- USDA Soil Conservation Service. 1988. Soil Survey of Harding County Area, South Dakota. USDA Department of Agriculture, Natural Resource Conservation Service in Cooperation with USDA-Forest Service and Montana Agricultural Experiment Station

4.4.3.7 Vegetation

- Affleck, Rosa T. 1995. Measurements From Off-Road Vehicles on Seasonal Terrain. Engineering Research and Development Center, Hanover NH Cold Regions Research and Engineering Lab. <http://handle.dtic.mil/100.2/ADA464712>
- Cole, David N. 1993. Trampling Effects on Mountain Vegetation in Washington, Colorado, New Hampshire, and North Carolina. Research Paper INT-464. Ogden, UT: USDA Forest Service, Intermountain Research Station. 56p.
- Cole, David N. 1993b. Minimizing Conflict Between Recreation and Nature Conservation. *Ecology of Greenways: Design and Function of Linear Conservation Areas*. 1993. University of Minnesota Press. Minneapolis, MN. pp. 105-122.
- Cole, David N. 1995a. Disturbance of natural vegetation by camping: Experimental applications of low-level stress. *Environmental Management*. 19(3): 405-416.
- Cole, David N. 1995b. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology*. 32: 203-214.
- Cole, David N. 1995c. Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology*. 32: 215-224.
- Hammit, W. E. and D. N. Cole. 1998. *Wildland Recreation: Ecology and Management*. John Wiley. New York. 361 pp. Found in Marion and Reid, 2001. *Development of the U.S. Leave No Trace Program: An Historical Perspective*.
- Leung, Y. F. and J. L. Marion. 1996. Trail Degradation as Influenced by Environmental Factors: A State-of-the-Knowledge Review. *Journal of Soil and Water Conservation*, 51(2). p. 130-136.

4.4.3.8 Weeds

- Mantas, M. 2003. Evaluating risk to native plant communities from selected exotic plant species. USDA Forest Service and The Nature Conservancy. Unpublished report with CD.
- Sheley, R. and J. Petroff. 1999. Biology and management of noxious rangeland weeds. Oregon State University Press. Corvallis, Oregon. Pages 6, 11, 69.
- Tyser, R. W. and C. A. Worley. 1992. Alien flora in grasslands adjacent to road and trail corridors in Glacier National Park, Montana (U.S.A.). *Conservation Biology* 6: 253-262.
- USDA Forest Service. 2006. Custer National Forest Weed Management FEIS.

4.4.3.9 Sensitive Plants

- Barton, D. and S. Crispin. 2003. Globally significant plants in southeastern Big Horn and southwestern Rosebud Counties, Montana. Prepared for the Bureau of Land Management. Montana Natural Heritage Program, Helena, Montana. 26 pp. plus appendices.
- Hansen, Paul L. and George R. Hoffman. 1987. The Vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer National Forest: A Habitat Type Classification. Gen. Tech. Rep. RM-157. Fort Collins, CO; USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. 68 p.
- Heidel, Bonnie L. and Keith H. Deholm, 1995. Sensitive Plant Survey in the Sioux District, Custer National Forest, 1994; Carter County, Montana and Harding County, South Dakota. Unpublished report to the Custer National Forest. Montana Natural Heritage Program, Helena. 95 p. plus appendices.
- Heidel, Bonnie L. and Keith H. Deholm, 1996. Sensitive Plant Survey, Ashland Ranger District, Custer National Forest, 1996; Powder River and Rosebud Counties, Montana. Unpublished report to the Custer National Forest. Montana Natural Heritage Program, Helena. 94 p. plus appendices.
- Heidel, B., 2001. USFS Region 2 Assessment for *Asclepias ovalifolia*. 3 pp.
- Heidel, B., C. Jean and S. Crispin. 2002. Plant species of concern and plant associations of Powder River County, Montana. Unpublished report prepared for the BLM Montana State Office. Montana Natural Heritage Program, Helena.
- Heidel, B. 2004. Inventory of Barr's milkvetch (*Astragalus barrii*) in the Spring Creek Unit of Thunder Basin National Grassland. Prepared for Medicine Bow National Forest. Wyoming Natural Diversity Database, Laramie.
- Mincemoyer, S. 2006. Surveys of Significant Plant Resources in Southeast and South-central Montana on the Billings and Miles City Field Offices of the Bureau of Land Management. Montana Natural Heritage Program, Helena, MT.
- MNHP, 2008. Montana Natural Heritage Program. A web based information database – <http://nhp.nris.state.mt.us/animalguide>, Montana Natural Heritage Program, Helena, MT.
- NatureServe. 2007. NatureServe Conservation Status Factors. <http://www.natureserve.org/explorer>.
- Ode, D. 1987. The status of Dakota Wild Buckwheat, (*Eriogonum visheri* A. Nels.) in South Dakota: report to the U.S. Fish & Wildlife Service Endangered Species Office, Denver, Colorado. Pierre, S.D.: South Dakota Game, Fish and Parks Department. p.48.

Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

- Schmoller, David. 1993. Status Survey for *Astragalus barrii*. USDA Forest Service – Region 2, Nebraska National Forest, Wall, SD. http://www.schcongo.com/status_survey_for_ERVI.htm
- Schmoller, David. 2000. An Element Stewardship Abstract. (ESA) http://www.schcongo.com/element_stewardship_abstract.htm
- SDNHP (South Dakota Natural Heritage Program), 2002. <http://www.state.sd.us/gfp/Diversity/rareplant2002.htm>
- USDA Forest Service. 1986. Custer National Forest and National Grasslands Land and Resource Management Plan. 1986.
- USDA 1988. Range Plant Handbook. 816 p.
- USDA 2008 PLANTS Database. <http://plants.usda.gov/>
- USFS 2001 Custer NF TES Plant Protocol. 13 p.
- USDI. 2005. Bureau of Land Management Instruction Memorandum No. MT-2005-055. 2005 Montana/Dakotas Special Status Plant Species Policy.
- USGS 2002. Northern Prairie Wildlife Research Center - North Dakota's Federally Listed Endangered, Threatened, and Candidate Species – 1995 <http://www.npwr.usgs.gov/resource/distr/others/nddanger/species/eriovish.htm> Last updated June 3, 2002.
- Vanderhorst et. al., 1998. Vanderhorst, J., S. V. Cooper, and B. L. Heidel. 1998. Botanical and vegetation survey of Carter County, Montana. Unpublished report to Bureau of Land Management. Montana Natural Heritage
- WYNDD (Wyoming Natural Diversity Database) 2008. <http://uwadmnweb.uwyo.edu/>

4.5 GLOSSARY

Area – A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District.

Designated Road, Trail, or Area - A National Forest System road, a National Forest System trail, or an area on National Forest System lands that is designated for motor vehicle use pursuant to 36 CFR 212.51 on a motor vehicle use map. (36 CFR 212.1)

Designation – Motor vehicle use on NFS roads and trails, and in areas on NFS lands shall be designated by vehicle class and, if appropriate, by time of year.

Forest Road or Trail - A forest road or trail is a road or trail wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (23 USC 101)

Motor Vehicle Use Map (MVUM) – - Map required by the 2005 Motorized Travel Rule that indicates designated roads, trails and areas.

National Forest System Road (System Road) - A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, *county* or other local public road authority. (36 CFR 212.1, 36 CFR 251.51, 36 CFR 261.2)

National Forest System Trail (System Trail) - A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county or other local public road authority. (36 CFR 212.1)

Off-highway Vehicle – Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland or other natural terrain.

Road – A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

Route Decommissioning – Activities that result in the stabilization and restoration of unneeded roads to a more natural state.

Season of Use - The time of year that a system road is designated for use.

Temporary road or trail – A road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas.

Trail – A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

Unauthorized road (non-system road) – A road or trail that is not a forest road or trail.

Other Relevant Info: State laws regarding operation of motor vehicles apply to system roads; state laws regarding operation of motor vehicles do not apply to system trails. (CFR's defer to state laws on system roads.).

- End of Chapter 4 -