

CHAPTER 7
REFERENCES, ACRONYMS, ABBREVIATIONS,
GLOSSARY and INDEX

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7.1 REFERENCES

- Aubry, K. B., G. M. Koeler, and J. R. Squires. 2000. Ecology of Canada Lynx in Southern Boreal Forests. In Ruggiero, L. F. et al., eds., Ecology and Conservation of Lynx in the United States. General Technical Report RMRS-GTR-30WWW. Fort Collins, Colorado. http://www.fs.fed.us/rm/pubs/rmrs_gtr030.html.
- Banci, V. A. 1994. "Wolverine." In The Scientific Basis for Conserving Forest Carnivores: American Marten, Fisher, Lynx, and Wolverine in the Western United States, eds. L. F. Ruggiero, K. B. Aubry, S. W. Buskirk, L. J. Lyon, and W. J. Zielinski. General Technical Report RM-254. U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experimental Station, Fort Collins, Colorado.
- Beck, W. 2008. Forest Vegetation Specialist Report For Simplot Panel F & G. April 7, 2008.
- BLM (Bureau of Land Management) and USFS (U.S. Forest Service). 2007. Smoky Canyon Mine, Panels F and G—Final Environmental Impact Statement.
- BLM and USFS. 2002. Final Supplemental Environmental Impact Statement: Smoky Canyon Mine, Panels B & C. U.S. Department of the Interior, Bureau of Land Management, Pocatello Field Office, Pocatello, Idaho. U.S. Department of Agriculture, Forest Service, Caribou National Forest.
- BLM and USFS. 2000. Final Environmental Impact Statement, Dry Valley Mine, South Extension Project for FMC Corporation. U.S. Department of the Interior, Bureau of Land Management, Pocatello Resource Area. U.S. Department of Agriculture, Forest Service, Caribou National Forest.
- BLM. 2013. Bond Requirements for Phosphate Mining Operations Memorandum. Idaho State Director. September 10, 2013.
- BLM. 2012. Record of Decision and Approved Pocatello Resource Area Resource Management Plan.
- BLM. 2011. Final Environmental Statement Blackfoot Bridge Mine. U.S. Department of the Interior, Bureau of Land Management, U.S. Army Corps of Engineers, Idaho Department of Lands, Idaho Department of Environmental Quality. March 2011.
- BLM. 2008. Record of Decision: Environmental Impact Statement, Smoky Canyon Mine, Panels F and G. Signed by Julie Jacobson, Deputy Assistant Secretary for Land and Minerals Management. Bureau of Land Management, U.S. Department of the Interior. June 6, 2008.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

- Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater Sage-Grouse Habitats and Populations. University of Idaho, College of Natural Resources Experiment Station, Moscow, Idaho. Station Bulletin 80. October 2003.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to Manage Sage Grouse Populations and Their Habitats. *Wildlife Society Bulletin* 28(4):967-985.
- Connelly, J. W., H. W. Browsers, and R. J. Gates. 1988. Seasonal Movements of Sage Grouse in Southeastern Idaho. *Journal of Wildlife Management* 52:116-122.
- Cossell, J. Jr. 1997. The Class Reptilia. Idaho Museum of Natural History Digital Atlas. Idaho State University. Pocatello, Idaho. <http://imnh.isu.edu/digitalatlas/bio/reptile/main/reptilia.htm>. December 4, 2009.
- Countess Environmental. 2006. Western Regional Air Partnership (WRAP) Fugitive Dust Handbook. Prepared for the Western Governors' Association. WGA Contract No. 30204-111. September 7, 2006.
- CPW (Colorado Parks and Wildlife). 2010. Success of the Colorado Division of Wildlife's lynx reintroduction program. http://wildlife.state.co.us/SiteCollectionDocuments/DOW/Research/Mammals/ColoradoLynxReintroductionAssessment_090710.pdf. September 10, 2010.
- Cressman, E. R. 1964. Geology of the Georgetown Canyon-Snowdrift Mountain Area, Southeastern Idaho. Bulletin 1153. U.S. Department of the Interior, Geological Survey.
- CTNF (Caribou-Targhee National Forest). 2003a. Revised Forest Plan for the Caribou National Forest. U.S. Department of Agriculture. Idaho Falls, Idaho.
- CTNF. 2003b. Final Environmental Impact Statement, Caribou Revised Forest Plan. U.S. Department of Agriculture. Idaho Falls, Idaho.
- Cummins, K. W. and M. A. Wilzbach. 2005. The Inadequacy of Fish-Bearing Criterion for Stream Management. *Aquatic Science* 67:486-491.
- Deiss, C. 1949. Phosphate Deposits of the Deer Creek-Wells Canyon Area, Caribou County, Idaho. Bulletin 955-C. U.S. Department of the Interior, Geological Survey.
- Dobrich, V. 2013. Northern Goshawk Population Monitoring and Inventory: 2012 Final Report. Challenge Cost Share Project 08-CS-11041563-024. Caribou and Targhee National Forests. March 21, 2013.
- Dobrich, V. 2012. Northern Goshawk Population Monitoring and Inventory: 2011 Final Report. Challenge Cost Share Project 08-CS-11041563-024. Caribou and Targhee National Forests. June 2012.
- Dobrich, V. 2010. Northern Goshawk Population Monitoring and Inventory: 2010 Final Report. Challenge Cost Share Project 08-CS-11041563-046. Caribou and Targhee National Forests. November 19, 2010.
- DOI (Department of the Interior). 1995. Departmental Manual, Series: Intergovernmental Relations, Part 512: American Indian and Alaska Native Programs, Chapter 2: Departmental Responsibilities for Indian Trust Resources. Effective Date: December 1, 1995.

- Druss, Mark, Max Dahlstrom, Claudia Druss, and Steve Wright. 1980. Archaeological Investigations in the Smoky Canyon Area. Smoky Canyon lease #I-012890, J.R. Simplot Company, summer and fall 1979. Idaho State University, Pocatello, Idaho.
- Encyclopedia Britannica. 2013. The Financial Crisis of 2008: Year in Review 2008. <http://www.britannica.com/EBchecked/topic/1484264/The-Financial-Crisis-of-2008-Year-In-Review-2008>. December 4, 2013.
- EIA (Energy Information Administration). 2006. U.S. Carbon Dioxide Emissions from Energy Sources 2005 Flash Estimate. U.S. Department of Energy. June 2006.
- EPA (Environmental Protection Agency). 2011. Emission Factors for Greenhouse Gas Inventories. <http://www.epa.gov/climateleadership/inventory/ghg-emissions.html>. Last Modified: 26 September 2011.
- EPA. 2006. AP 42, Volume I, fifth edition. <http://www.epa.gov/ttnchie1/ap42/>.
- EPA. 2004 (updated August). AP 42, Volume I, fifth edition. <http://www.epa.gov/ttnchie1/ap42/>.
- EPA. 2003. Office of Air Quality Planning and Standards, Compilation of Air Pollution Emission Factors, Vol I & II, Fifth Edition, Version 6 and 10, Research Triangle Park, NC. 2003. <http://www.epa.gov/air/data>. September 2004 from
- EPA. 2001. Geosynthetic Clay Liners Used in Municipal Solid Waste Landfills. EPA-530-F-97-002. U.S. Environmental Protection Agency, Washington, D.C.
- EPA. 1981. Office of Noise Abatement and Control. 1981. Noise Effects Handbook EPA 500-9-82-106, National Association of Noise Control Officials, Fort Walton Beach, Florida.
- Fischer, R. A., A. D. Apa, W. L. Wakkinen, and K. P. Reese. 1993. Nesting-area fidelity of sage grouse in southeastern Idaho. *Condor* 95:1038-1041.
- Fisher, S. E. 1991. "Selenium Issues in Drastically Disturbed Land, Reclamation Planning in Arid and Semiarid Environments." In Proceedings of 1990 Billings Land Reclamation Symposium on Selenium in Arid and Semi-arid Environments in the Western United States. Circular no. 1064. U.S. Department of the Interior, Geological Survey.
- Fletcher, J. L. 1980. Effects of Noise on Wildlife: A Review of Relevant Literature 1971-1978. Pp 611-620 in Proceedings of the Third International Congress on Noise as a Public Health Problem, eds. J.V. Tobain, G. Jansen, and W.D. Ward. American Speech-Language-Hearing Association, Rockville, MD.
- Formation Environmental. 2013. Panels F & G Surface Water Monitoring Records, 2006-present. Unpublished data collected by Formation Environmental for Simplot.
- Geosyntech. 2013a. Draft Preliminary Cover Design Report – Panel G Smoky Canyon Mine, Eastern Caribou County, Idaho. May 2013.
- Geosyntech. 2013b. Memorandum from Rebecca Oliver, Geosyntech, to Grant Williams and Lori Hamann, J.R. Simplot. September 13, 2013.
- Gray, D. M, and W. P. Statham. 2005. Addendum B, Baseline Technical Report for Cultural Resources: Panels F and G, Smoky Canyon Mine, Caribou County, Idaho. Frontier Historical Consultants, Grand View, Idaho.

- Gray, D. M., and W. P. Statham. 2004. Addendum, Baseline Technical Report for Cultural Resources: Panels F and G Extension and Transportation Corridors, Smoky Canyon Mine, Caribou County, Idaho. Frontier Historical Consultants, Grand View, Idaho.
- Gray, D. M., D. S. Statham, and W. P. Statham. 2003. Baseline Technical Report for Cultural Resources, Deer and Manning Creek Phosphate Lease Areas, Smoky Canyon Mine, Caribou County, Idaho. Frontier Historical Consultants, Grand View, Idaho.
- Groves, C. R., B. Butterfield, A. Lippincott, B. Csuti, and J. M. Scott. 1997. Atlas of Idaho's Wildlife. A cooperative project of IDFG Idaho Conservation Data Center, The Nature Conservancy, University of Idaho and U.S. Geological Survey. A publication of IDFG, Boise, Idaho. <http://imnh.isu.edu/DIGITALATLAS/bio/atlswf.pdf>.
- Hayward, G. D. and J. Verner, eds. 1994. Flammulated, Boreal, and Great Gray Owls in the United States: a technical conservation assessment. General Technical Report RM-253. Fort Collins, Colorado: U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station.
- Hayward, G. D. and R. E. Escano. 1989. Goshawk Nest-Site Characteristics in Western Montana and Northern Idaho. *The Condor* 91:476-479.
- Hill, R. L. 2002. Observations of Three-toed Woodpeckers (*Picoides tridactylus*) in the Breeding Season. *Great Basin Birds* 5(1):21-25.
- Hogrefe, T. C., C. L. Bailey, P. D. Thompson, and B. Nadolski. 2005. Boreal Toad (*Bufo boreas boreas*) Conservation Plan in the State of Utah. Utah Division of Wildlife Resources Publication Number 05-37. Salt Lake City, Utah. November 2005.
- Hsuan, Y. G. and Koerner, R. M. (2010). "Durability and Lifetime of the Geotextile Fibers of Geosynthetic Clay Liners," Chapter 2 in *Geosynthetic Clay Liners for Waste Containment Facilities*, A. Bouazza and J. J. Bowders, Eds., CRC Press, pp. 17-29. Referenced in *Geosyntech* 2013b.
- Idaho Department of Commerce. 2013. Idaho Land Ownership. Accessed online on October 16, 2013 at: www.commerce.idaho.gov.
- IDEQ (Idaho Department of Environmental Quality). 2012. Facility ID No. 029-00023, JR Simplot Smoky Canyon Mine, Soda Springs Final Permit Letter. May 25, 2012.
- IDEQ. 2010. Final 2010 305(b) Integrated Report. <http://mapcase.deq.idaho.gov/wq2010/>. July 29, 2013.
- IDEQ. 2005. "Principals and Policies for the 2002 Integrated (303(d)/303(b)) Report. http://www.deq.state.id.us/water/data_reports/surface_water/monitoring/2002.cfm#down. August 21, 2006.
- IDEQ. 2002. Air Quality Modeling Guideline. Air Quality Division Stationary Source Program.
- IDFG (Idaho Department of Fish and Game). 2011a. Elk Progress Report. July 1, 2010 to June 30, 2011. Project W-170-R-34. Compiled and edited by J. Rachael, State Game Manager. December 2011. Boise, Idaho.
- IDFG. 2011b. Mule Deer Progress Report. July 1, 2010 to June 30, 2011. Project W-170-R-34. Compiled and edited by J. Rachael, State Game Manager. December 2011. Boise, Idaho.

- IDFG. 2011c. Moose Progress Report. July 1, 2010 to June 30, 2011. Project W-170-R-34. Compiled and edited by D. Towell, Wildlife Program Coordinator. September 2011. Boise, Idaho.
- IDFG. 2011d. Furbearer Progress Report. July 1, 2010 to June 30, 2011. Project W-170-R-35. Compiled and edited by C. White, Wildlife Staff Biologist. September 2011. Boise, Idaho.
- IDFG. 2009. Big Game Harvest Study Progress Report. July 1, 2007 to June 30, 2008. Project W-170-R-32. Prepared by B. Ackerman, Wildlife Biologist. April 2009. Boise, Idaho.
- IDFG. 2008. Idaho Mule Deer Management Plan 2008-2017. Boise, Idaho. March 2008.
- IDFG. 2005. Idaho Comprehensive Wildlife Conservation Strategy. Idaho Conservation Data Center, Idaho Department of Fish and Game, Boise, Idaho. <http://fishandgame.idaho.gov/public/wildlife/cwcs/>.
- IFWIS (Idaho Fish and Wildlife Information System). 2013. Special Status Species Spatial Data Request for 10 miles around the Panel G Lease Modification Area. Shapefiles and Element Occurrence Records. August 12, 2013.
- IMNH (Idaho Museum of Natural History). 2011. Digital Atlas of Idaho: Biology (Mammals). <http://imnh.isu.edu/digitalatlas/bio/mammal/mamfram.htm>.
- Intermountain West Joint Venture (IWJV). 2005. Coordinated Implementation Plan for Bird Conservation in Idaho. Idaho State Steering Committee. Idaho Department of Fish and Game, Boise, Idaho. Authored by Sallabanks, R., J. McCreary, J. Augsburger, S. Bouffard, D. Kemner, and L. Lunte.
- JBR (JBR Environmental Consultants, Inc.). 2013a. Public Scoping Summary Report, Smoky Canyon Mine Panels F and G Lease and Mine Modification Project Environmental Impact Statement.
- JBR. 2013b. Smoky Canyon Mine Panels F and G Lease and Mine Modification Project, Final Baseline Technical Report, Order II Soil Survey. November 2013.
- JBR. 2013c. Smoky Canyon Mine Panels F and G Lease and Mine Modification Project, Final Baseline Technical Report, Wildlife Resources. September 2013.
- JBR. 2012. Final Baseline Technical Report – Wildlife Resources. Dairy Syncline Mine, Caribou County Idaho. April 2012.
- JBR. 2001. Technical report 1.0: Geology, Minerals and Topography; Smoky Canyon Mine, Panels B & C Supplemental Environmental Impact Statement, Rev. 16.
- Keinath, D., and M. McGee. 2005. Boreal Toad (*Bufo boreas boreas*): A Technical Conservation Assessment. Prepared for the U.S. Department of Agriculture, Forest Service, Rocky Mountain Region, Species Conservation Project. May 25, 2005.
- Koplin, J. R. 1969. The Numerical Response of Woodpeckers to Insect Prey in a Subalpine Forest in Colorado. *The Condor* 71(4):436-438.
- Kuck, L. 1984. Southeast Wildlife Studies, Vols. 1 and 2. Job Completion Report W-160R. Idaho Department of Fish and Game, Boise, Idaho.

- Lakin, H. W. 1972. Selenium Accumulation in Soils and its Absorption by Plants and Animals. Geological Society American Bulletin No. 83.
- Lapakko, K. 1993. Evaluation of Tests for Predicting Mine Waste Drainage pH. Report to the Western Governors' Association, Minnesota Department of Natural Resources, Division of Minerals, St. Paul, Minnesota.
- Lowell, W. R. 1952. Phosphatic Rocks in the Deer Creek-Wells Canyon Area, Idaho. Bulletin 982-A. U.S. Department of the Interior, Geological Survey.
- Magoun, A., N. Dawson, J. Ray, and J. Bowman. 2005. Forest Management Considerations for Wolverine Populations in Areas of Timber Harvest in Ontario: Preliminary Recommendations. Ontario Boreal Wolverine Project.
- Maxim (Maxim Technologies, Inc.). 2005a. 2005 Water Resources Monitoring. Manning Creek and Deer Creek Phosphate Lease Areas (Panels F & G) Smoky Canyon Mine Caribou County, Idaho. Prepared for J.R. Simplot Company. December 2005.
- Maxim. 2005b. Addendum Baseline Technical Report: Fisheries and Aquatic Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2004a. Baseline Technical Report: Water Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho, June 2004.
- Maxim. 2004b. Addendum, Baseline Technical Report: Surface Water Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho, November 2004.
- Maxim. 2004c. Baseline Technical Report: Soil Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho, July 2004.
- Maxim. 2004d. Baseline Technical Report: Vegetation Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2004e. Baseline Technical Report: Wetland Resources for Potential Haul Roads and Crow Creek Road. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2004f. Addendum, Baseline Technical Report: Wetland Resources for Potential Haul Roads and Crow Creek Road. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2004g. Baseline Technical Report: Wildlife Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2004h. Baseline Technical Report: Fisheries and Aquatic Resources. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.

- Maxim. 2004i. Final Baseline Technical Report: Land Use, Access, Recreation and Grazing. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- Maxim. 2003. Wetland Surveys and Identification of Waters of the United States. Manning and Deer Creek Phosphate Lease Areas (Panels F & G), Smoky Canyon Mine, Caribou County, Idaho. Prepared for J.R. Simplot Company, Pocatello, Idaho.
- McCallum, D. 1994. "Review of Technical Knowledge: Flammulated Owls." In Flammulated, Boreal, and Great Gray Owls in the United States: a Technical Conservation Assessment, eds. G. D. Hayward and J. Vermeer. U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station and the Rocky Mountain Region.
- McKelvey, V. E. et al. 1959. The Phosphoria, Park City, and Shedhorn Formations in the Western Phosphate Field. Professional Paper 313-A. U.S. Department of the Interior, Geological Survey.
- Merrill, E. H., T. P. Hemker, K. P. Woodruff, and L. Kuck. 1994. Impacts of Mining Facilities on Fall Migration of Mule Deer. *Wildlife Society Bulletin* 22:68-73.
- Montgomery, K. M., and T. M. Cheney. 1967. Geology of the Stewart Flat Quadrangle, Caribou County, Idaho. Bulletin 1217. U.S. Department of the Interior, Geological Survey.
- National Public Radio. 2013. State Impact, Idaho, Work In Progress: Tracking Unemployment in Idaho. <http://stateimpact.npr.org/maps/idaho/unemployment/>. December 4, 2013.
- Nelson, R. L., W. S. Platts, and O. Casey. 1987. Evidence for Variability in Spawning Behavior of Interior Cutthroat Trout in Response to Environmental Uncertainty. *Great Basin Naturalist* 47:480-487.
- NewFields. 2005. Final Site Investigation Report: Smoky Canyon Mine, Caribou County, Idaho. NewFields, Boulder, Colorado. Prepared for J. R. Simplot Company, Pocatello, Idaho, July 2005.
- NOAA (National Oceanic and Atmospheric Administration). 2013a. Divisional Eastern Highlands Idaho data. <http://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp#>. March 2013.
- NOAA. 2013b. Wind- Average Wind Speed- (MPH). Last modified 2008. <http://www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html>. January 4, 2013.
- OKC (O’Kane Consultants). 2013. Smoky Canyon Mine F&G Panel Dinwoody Cover System Summary of Soil-Plant-Atmosphere Numerical Model of Proposed Panel G GCLL Cover System Design. May 2013. Attachment to Geosyntech 2013a.
- OKC (O’Kane Consultants). 2009. P4-Blackfoot Bridge Mine Proposed Mine Development-Modeling of Soil Cover System Alternatives. Report No. 777/02-01. O’Kane Consultants, Saskatoon, SK, Canada. Prepared for P4 Production, LLC (Revised January 2009).
- Parker, P. L., and T. F King. 1998. *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Register Bulletin 38. U.S. Department of the Interior, National Park Service, Interagency Resources Division. U.S. Government Printing Office, Washington D.C.

- Penner, W. and R. Crosland. 2001. A Cultural Resource Inventory of 880 acres of the Manning Creek Property, Caribou County, Idaho. JBR Cultural Resource Report 00-48. JBR Environmental Consultants, Inc., Springville, Utah. Prepared for J. R. Simplot Company.
- Perkins, J. M. and J. R. Peterson. 1997. Bat Distribution in the Juniper Woodlands of the Idaho Owyhee Mountains, Summer 1996. Idaho Department of Land Management Technical Bulletin #97-4.
- Pierson, E. D., M. C. Wackenhut, J. S. Altenbach, P. Bradley, P. Call, D. L. Genter, C. E. Harris, B. L. Keller, B. Lengus, L. Lewis, B. Luce, K. W. Navo, J. M. Perkins, S. Smith, and L. Welch. 1999. Species Conservation Assessment and Strategy for Townsend's Big-eared Bat (*Corynorhinus townsendii townsendii* and *Corynorhinus townsendii pallescens*). Idaho Conservation Effort, Idaho Department of Fish and Game, Boise, Idaho.
- Polk, Ann Swanson and Sandy Chynoweth Pagano. 2013. Evaluation of Arboglyph Sites Near the Proposed Panel G West Haul/Access Road for J.R. Simplot Company's Smoky Canyon Mine, Caribou County, Idaho. Sagebrush Consultants, Inc., Ogden, Utah.
- Price, K., A. Suski, J. McGarvie, B. Beasley, and J. S. Richardson. 2003. Communities of Aquatic Insects of Old-growth and Clearcut Headwater Streams of Varying Flow Persistence. Canadian Journal of Forest Research 33:1416-1432.
- Rasmussen, John R. and Michael R. Polk. 2013. An Intensive Level Cultural Resource Survey for the Proposed J. R. Simplot Smoky Canyon Mine Stormwater Control Features, Caribou County, Idaho. Sagebrush Consultants, Inc., Ogden, Utah.
- Rasmussen, John R. and Michael R. Polk. 2012a. An Intensive Level Cultural Resource Survey for the Proposed J. R. Simplot Panel G East Overburden Disposal Expansion Area, Caribou County, Idaho. Sagebrush Consultants, Inc., Ogden, Utah.
- Rasmussen, John R. and Michael R. Polk. 2012b. An Intensive Level Cultural Resource Survey for the Proposed J. R. Simplot Smoky Canyon Conveyor System, Caribou County, Idaho. Sagebrush Consultants, Inc., Ogden, Utah.
- Reid, F. & Helgen, K. 2008. *Martes pennanti*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. <www.iucnredlist.org>. Downloaded on 18 November 2010.
- Ritter, Sharon. 2000. Idaho Bird Conservation Plan (IBCP), Version 1.0, January 2000, prepared by Idaho Partners in Flight.
- Rodhouse, T. J., E. Madison, K. Oelrich, and L. K. Garrett. 2009. Mammal Inventory of City of Rocks National Reserve 2003. Upper Columbia Basin Network. Natural Resource Technical Report NPS/UCBN/NRTR – 2009/198. U.S. Park Service, Natural Resource Program Center. Fort Collins, Colorado.
- Rowe, R.K. and Sangam, H.P. (2002). "Durability of HDPE Geomembranes", Geotextiles and Geomembranes, Vol. 20, pp. 77-95. Referenced in Geosyntech 2013b.
- Ruediger, B., J. Clarr, S. Gniadek, B. Holt, L. Lewis, S. Mighton, B. Naney, G. Patton, T. Rinaldi, J. Trick, A. Vendehey, F. Wahl, N. Warren, D. Wenger, and A. Williamson. 2000. Canada Lynx Conservation Assessment and Strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Missoula, Montana.

- Shive, J. P. and C. R. Peterson. 2002. Herpetological Survey of Southcentral Idaho. Herpetology Laboratory, Department of Biological Sciences, Idaho State University. Idaho Bureau of Land Management Technical Bulletin No. 02-3. September 2002.
- Shive, J., C. Peterson, and S. Burton. 2000. Occurrence, Distribution, and Relative Abundance of Amphibians and Reptiles at the Smoky Canyon Mine Area, Caribou National Forest, Caribou County, Idaho. Herpetology Laboratory Department of Biological Sciences. Idaho State University, Pocatello.
- Shoshone-Bannock Tribes. 2005. Draft: The Shoshone-Bannock Tribes' Position Paper Regarding the Transfer of Federal Lands. June 27, 2005. Shoshone-Bannock Tribes, Fort Hall, Idaho.
- Shoshone-Bannock Tribes. 2003. Comment letter in response to agency scoping for the Simplot Smoky Canyon Mine Panels F & G Project. Letter dated October 17, 2003.
- Shoshone-Bannock Tribes. 1994. The Policy of the Shoshone-Bannock Tribes for Management of Snake River Basin Resources. November 1994.
- SHPO (State Historic Preservation Office). 2013. Determination of Significance and Effect. January 7, 2013.
- Simplot AgriBusiness. 2004. Storm Water Pollution Prevention Plan (SWPPP) for Smoky Canyon Mine, Caribou County, Idaho.
- Simplot. 2013. Proposed Lease and Mine Plan Modifications for the Smoky Canyon Mine, Panels F and G.
- State of Idaho. 2011. Office of the Attorney General. Attorney General's Report on the Idaho Housing Crisis and How Stakeholders Can Facilitate Cooperative Solutions. February 2011. http://www.ag.idaho.gov/consumer_Protection/foreclosure/IdahoHousingCrisisReport.pdf. December 4, 2013.
- Statham, William. 2003. Baseline Technical Report for Cultural Resources, South Manning Creek Exploration Area, Caribou County, Idaho. Frontier Historical Consultants, Grand View, Idaho.
- Thurber, J. M., R. O. Peterson, T. D. Drummer, and S. A. Thomasma. 1994. Gray Wolf Response to Refuge Boundaries and Roads in Alaska. *Wildlife Society Bulletin* 22:61-68.
- Trotter, P. C. 1987. "Yellowstone Cutthroat Trout." In *Cutthroat: Native Trout of the West*. Colorado Associated University Press.
- Ulliman, M. J., A. Sands, and T. Hemker. 1998. Conservation Plan for Columbian Sharp-tailed Grouse and its Habitats in Idaho. *Draft*.
- USAF (U.S. Air Force). 2004. Report No. IERA-RS-BR-SR-2001-0010, Air Quality Procedures for Civilian Airports and Air Force Bases. Mark Wade, Federal Aviation Administration.
- USDA (U.S. Department of Agriculture). 2013a. Official Soil Series Descriptions. Natural Resource Conservation Service. <http://soils.usda.gov/technical/classification/osd/index.html>. May through October 2013.
- USDA. 2013b. Soil Survey Staff. Natural Resources Conservation Service. ENG-Construction Materials; Reclamation. August 21, 2013.

- USDA. 2003a. Guidelines for the Salvage of Topsoil and Shale Used to Reclaim and Provide a Seed Bed for Phosphate Mine Reclamation. U.S. Department of Agriculture, Forest Service, Caribou-Targhee National Forest, Soda Springs Ranger District, April 2003.
- USDA. 2003b. National soil survey handbook. U.S. Department of Agriculture, Natural Resource Conservation Service, Washington, DC. Handbook no. 430. <http://soils.usda.gov/technical/handbook/> (updated 2003).
- USDA. 1996. Landscape aesthetics, a handbook for scenery management. Agriculture Handbook No. 701.
- USDA. 1993. Soil survey manual. U.S. Department of Agriculture Natural Resource Conservation Service, Washington, DC. USDA Handbook no. 18, issued October 1993. <http://soils.usda.gov/technical/manual/> (updated 2003).
- USFS (US Forest Service). 2013. Motor Vehicle Use Map, Caribou-Targhee National Forest, Montpelier Ranger District. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5420093.pdf. November 8, 2013.
- USFS. 2011. Order Granting Plaintiff's Motion for Declaratory Judgment and Injunctive Relief, Roadless Area Conservation Rule. Issued August 12, 2008. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5052600.pdf.
- USFS. 2009. Memorandum of Understanding between the State of Idaho and United States Department of Agriculture Forest Service, National Forests in Idaho.
- USFS. 2008. Roadless Area Conservation, National Forest Lands in Idaho Final Environmental Impact Statement.
- USFS. 2007. Letter to BLM District Manager Joe Kraayenbrink regarding Roadless Area Conservation Rule (RACR). Caribou-Targhee National Forest, Lawrence A. Timchak, Forest Supervisor. February 8, 2007.
- USFS. 2003a. Caribou National Forest Revised Forest Plan.
- USFS. 2003b. Final Environmental Impact Statement – Caribou Revised Forest Plan. U.S. Department of Agriculture, Forest Service, Caribou-Targhee National Forest, Idaho Falls, Idaho.
- USFS. 2002. Caribou-Targhee National Forest, Montpelier and Soda Springs Ranger Districts. Travel map.
- USFS et al. (2013). Technical Report: Proposed Modification to Panel G, Smoky Canyon Mine. Evaluation of Proposed Modification with Respect to the 2007 Smoky Canyon Mine, Panels F and G – Final Environmental Impact Statement. Wheeler, D. K. (USFS) and 12 other authors (from JBR, BLM, and IDEQ). April 2013.
- USFWS (U.S. Fish and Wildlife Service), Montana Fish Wildlife and Parks, Nez Perce Tribe, National Park Service, Blackfeet Nation, Confederated Salish and Kootenai Tribes, Wind River Tribes, Washington Department of Wildlife, Oregon Department of Wildlife, Utah Department of Natural Resources, and USDA Wildlife Services. 2011. Rocky Mountain Wolf Recovery 2010 Interagency Annual Report. C. A. Sime and E. E. Bangs, eds. USFWS Ecological Services, Helena, Montana.

- USFWS. 2013. Candidate, Proposed and Listed Species & Proposed And Designated Critical Habitat In Idaho. Revised October 22, 2013.
- USFWS. 2006. Environmental Assessment: Issuance of a Recovery Permit for a Candidate Conservation Agreement with Assurances for Columbia Spotted Frogs (*Rana luteiventris*) at San Noble Springs Owyhee County, Idaho. USFWS Snake River Basin Office. Boise, Idaho.
- USFWS. 2008. Birds of Conservation Concern. Division of Migratory Bird Management, Arlington, Virginia. <http://migratorybirds.fws.gov/reports/bcc2002.pdf>.
- USGS (US Geological Survey). 2013. Mineral Commodity Summary – Phosphate Rock. January 2013.
- USGS. 1999. Fertilizers--Sustaining Global Food Supplies. Fact Sheet FS-155-99. U.S. Department of the Interior, Geological Survey. September 1999.
- Western Dairy News. 2010. Volume 10, Number 3. How did the 2009 economic crisis affect Idaho dairy practices? April 2010. <http://www.cvmbs.colostate.edu/ilm/proinfo/wdn/2010/April%202010%20WDN.pdf>. December 4, 2013.
- WGA (Western Governor's Association). 2006. Fugitive Dust Handbook. September 7, 2006.
- Wipfli, M. S., and D. P. Gregovich. 2002. Export of Invertebrates and Detritus from Fishless Headwater Streams in Southeastern Alaska: Implications for Downstream Salmonid Populations. *Freshwater Ecology* 47:957-969.
- WRCC (Western Regional Climate Center). 2004. National climate data center 1957-2005 monthly normals for Afton, Wyoming (480027) and Snotel Graphs for Slug Creek Divide, Idaho. Data provided by US Department of Agriculture and the National Resources Conservation Service. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wyafto> and http://www.wrcc.dri.edu/cgi-bin/snoX_graphX.pl?SLGI1.

7.2 ACRONYMS AND ABBREVIATIONS

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|--|
| ABA | acid base accounting |
| AIZs | aquatic influence zones |
| AOC | Administrative Order on Consent |
| ARD | acid rock drainage |
| Area-Wide AOC | Area-Wide Administrative Order on Consent |
| ASAOC | Administrative Settlement Agreement and Order on consent/Consent Order |
| ASQ | allowable sale quantity |
| ATV | all-terrain vehicle |
| AU | assessment unit |
| AUM | animal unit month |
| BCP | Bird Conservation Plan |
| BIA | Bureau of Indian Affairs |
| BLM | Bureau of Land Management |
| BMPs | best management practices |
| CCE | calcium carbonate equivalent |
| C&H | cattle and horses |
| CEA | cumulative effects area |
| CEQ | Council on Environmental Quality |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| cfs | cubic feet per second |

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|---------------------------------------|
| CNF | Caribou National Forest |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO ₂ e | carbon dioxide equivalent |
| COPCs | contaminants of potential concern |
| Corps | U.S. Army Corps of Engineers |
| CTNF | Caribou-Targhee National Forest |
| DAP | diammonium phosphate |
| dB | decibel |
| dBA | decibel-A weighted |
| DEIS | draft environmental impact statement |
| DNA | deoxyribonucleic acid |
| DPS | distinct population segment |
| EE/CA | engineering evaluations/cost analyses |
| EIS | environmental impact statement |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| EPMs | environmental protection measures |
| ESA | Endangered Species Act |
| F | Fahrenheit |
| FEIS | final environmental impact statement |
| FR | forest road |

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|---|
| FSEIS | final supplemental environmental impact statement |
| GAP | gap analysis program |
| GCLL | geo-synthetic clay laminate liner |
| GHGs | greenhouse gases |
| GIS | geographic information system |
| HDPE | high density polyethylene |
| HUC | hydrologic unit code |
| IDAPA | Idaho Administrative Code |
| IDEQ | Idaho Department of Environmental Quality |
| IDFG | Idaho Department of Fish and Game |
| IDL | Idaho Department of Lands |
| IDWR | Idaho Department of Water Resources |
| IFWIS | Idaho Fish and Wildlife Information System |
| IM | Instruction Memorandum |
| IPM | integrated pest management |
| IRAs | inventoried roadless areas |
| ISHPO | Idaho State Historic Preservation Office |
| ISO | International Organization for Standardization |
| ISU | Idaho State University |
| IWJV | Intermountain West Joint Venture |
| km | kilometer |
| KPLA | known phosphate lease areas |

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|---|
| kV | kilovolt |
| Leq | equivalent sound level |
| M&RP | mine and reclamation plan |
| MBTA | Migratory Bird Treaty Act |
| MCC | motor control center |
| mg/kg | milligrams per kilogram |
| mg/L | milligrams per liter |
| MIS | management indicator species |
| MOU | Memorandum of Understanding |
| MPH | miles per hour |
| MPs | Management Prescriptions |
| MPRA | Meade Peak Roadless Area |
| MSHA | Mine Safety and Health Administration |
| NAAQS | National Ambient Air Quality Standards |
| NEPA | National Environmental Policy Act |
| NFS | National Forest System |
| NHPA | National Historic Preservation Act |
| NOA | Notice of Availability |
| NOAA | National Oceanic and Atmospheric Administration |
| NOI | Notice of Intent |
| NO _x | nitrogen oxides |
| NO ₂ | nitrogen dioxide |

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|---|
| NPDES | National Pollution Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NTUs | nephelometric turbidity units |
| ODA | overburden disposal area |
| OHV | off highway vehicle |
| OSHA | Occupational Safety and Health Administration |
| Pb | lead |
| PEL | permissible exposure limit |
| PGH | preliminary general habitat |
| PIF | Partners in Flight |
| PM | particulate matter |
| PPH | preliminary priority habitat |
| PSD | prevention of significant deterioration |
| RCRA | Roadless Area Conservation Rule |
| RFP | revised forest plan |
| RM | Roaded Modified |
| RMP | resource management plan |
| ROD | Record of Decision |
| ROM | run-of-mine |
| ROS | Recreation Opportunity Spectrum |
| S | sensitive |

| ACRONYM/ABBREVIATION | DEFINITION |
|----------------------|--|
| S&G | sheep and goats |
| SAR | sodium adsorption ration |
| SCRA | Sage Creek Roadless Area |
| SHPO | State Historic Preservation Office |
| SI | site investigation |
| SIP | State Implementation Plan |
| SIO | scenic integrity objective |
| SMS | scenery management system |
| SO ₂ | sulfur dioxide |
| SPM | Semi-primitive Motorized |
| SUA | special use authorization |
| SWPPP | Stormwater Pollution Prevention Plan |
| TDS | total dissolved solids |
| TEPC | threatened, endangered, proposed, and candidate |
| TEPCS | threatened, endangered, proposed, candidate, and sensitive |
| TSP | total suspended particles |
| USDA | U. S. Department of Agriculture |
| USFS | U.S. Forest Service |
| USFWS | U.S. Fish and Wildlife Service |
| UV | ultraviolet |
| VOCs | volatile organic compounds |
| VQO | visual quality objective |

| ACRONYM/ABBREVIATION | DEFINITION |
|-----------------------------|----------------------------------|
| WOUS | waters of the U.S. |
| WRAP | Western Regional Air Partnership |
| YCT | Yellowstone cutthroat trout |

7.3 GLOSSARY

Acre-feet. The volume required to cover 1 acre to a depth of 1 foot, which is equivalent to 43,560 cubic feet.

Acid Base Accounting (ABA). A procedure to determine if waste material produces acid and will leach metals by measuring undisturbed overburden for acid and alkaline-producing potential.

Acid Generation Potential (AGP). The concentration of acid generating minerals in a rock or soil material, measured in tons of CaCO₃ equivalents per kiloton of rock.

Acid Neutralization Potential (ANP). The concentration of acid neutralizing minerals in a rock or soil material, measured in tons of CaCO₃ equivalents per kiloton of rock.

Acute. Severe; having a sudden onset, sharp rise, and short duration.

Acid Rock Drainage (ARD). Water with pH less than 5, elevated TDS, SO₄, and trace metal concentrations that result from the oxidation of acid generating sulfide minerals with subsequent dissolution and transport of the oxidation products.

Administrative Settlement Agreement and Order on Consent/Consent Order (ASAOC). At any time after the commencement of a proceeding, the parties jointly may move to defer the hearing for a reasonable time to permit negotiation of a settlement or an agreement containing findings and an order disposing of the whole or any part of the proceeding. The allowance of such deferment and the duration thereof shall be in the discretion of the administrative law judge, after consideration of such factors as the nature of the proceeding, the requirements of the public interest, the representations of the parties and the probability of reaching an agreement which will result in a just disposition of the issues involved.

Allowable Sale Quantity (ASQ). The maximum amount of timber that can be sold from a National Forest, often within a year.

Alluvial. Pertaining to material or processes associated with transportation or deposition of soil and rock by flowing water (e.g., streams and rivers).

Alluvium. Soil and rock deposited by flowing water (e.g., streams and rivers); consists of unconsolidated deposits of sediment, such as silt, sand, and gravel.

Alteration. A geochemical process involving mineralogic and geochemical changes due to reaction with fluids moving through rock or soil under natural conditions, particularly in association with mineral deposits. Transformation of feldspar minerals to clay through chemical weathering is considered alteration.

Ambient. Surrounding, existing, background conditions.

Animal Unit Month (AUM). A unit used in federal and state livestock grazing permits to mean the amount of forage (i.e., food) required for one animal unit. An animal unit refers to the equivalent of one mature cow.

Anticline. A fold in rock where the interior of the fold is comprised of rocks older in age than the rocks on the exterior of the fold.

Aquatic Influence Zones (AIZs). Defined by the National Forest as the areas between streams or water bodies and the adjacent upland area that have an influence on water quality.

Best Management Practices (BMPs). Vegetative and structural methods to control erosion and sedimentation.

Biological Assessment. Information prepared by or under the direction of the federal agency concerning listed species that may be present in the action area and the evaluation of potential effects of the action on such species and habitats. The purpose of the biological assessment is to evaluate the potential effects of the action on listed or proposed species or designated or proposed critical habitat, and determine whether any such species and habitats are likely to be adversely affected by the action. Biological Assessments are conducted for major federal construction projects requiring an EIS.

Biological Evaluation. A U.S. Forest Service document of activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed, or sensitive species.

Bird Conservation Plan (BCP). Plans initiated by Partners In Flight to guide conservation and for birds.

Carbon Dioxide Equivalent (CO₂e). A quantity that describes the amount of CO₂, when measured over a specific time, that would have an impact on global warming potential.

Cubic Feet per Second (cfs). Metric of water flow that describes a cubic feet of water that passing over a given point on a water body (i.e., stream or river).

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). A federal law that taxes chemical and petroleum industry to fund releases of hazardous substances. Also known as “Superfund.”

Chert. A hard, dense microcrystalline or cryptocrystalline sedimentary rock, consisting chiefly of interlocking crystals of quartz; it may contain amorphous silica (opal). It has conchoidal fracture, and may be white or variously colored. Chert occurs principally as nodular or concretionary segregations, or nodules in limestone and dolomite, and less commonly as layered deposits, or bedded chert; it may be an organic or inorganic precipitate or a replacement product.

Chronic. Marked by long duration or frequent recurrence.

Contaminants of Potential Concern (COPCs). A contaminant which may cause risk or adverse effects to humans or other plants and animals.

Contrast (visual). The effect of a striking difference in form, line, color, or texture of the landscape features within the area being viewed.

Critical (Crucial) Habitat/Range. Habitat that is present in minimum amounts and is a determining factor for population maintenance and growth.

Decibel-A Weighted (dBA). The sound pressure levels in decibels measured with a frequency weighing network corresponding to the A-scale on a standard sound level meter. The A-scale tends to suppress lower frequencies (e.g., below 1,000 Hz).

Decibel (dB). One-tenth of a Bel is a measure on a logarithmic scale that indicates the ratio between two sound powers. A ratio of 2 in power corresponds to a difference of 3 decibels between two sounds. The decibel is the basic unit of sound measure.

Dissolution. The process of dissolving.

Distinct Population Segment (DPS). The designation of a taxonomic division of a species, as used under the Endangered Species Act.

Electrical Conductivity (or Specific Conductance). The ability of a water or a soil-water paste to transmit electrical current, used to estimate ion concentration.

Endangered Species. Species in danger of extinction throughout all or a significant portion of its range.

Engineering Evaluations/Cost Analyses (EE/CA). An evaluation of methods and alternatives for restoration or clean up of the environment.

Environmental Impact Statement (EIS). A document prepared under the National Environmental Policy Act that describes environmental effects of an action.

Environmental Protection Measures (EPMs). Standards used to protect the environment.

Ephemeral Stream. A stream or portion of a stream which flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the water table.

Equivalent Sound Level (Leq). A term that describes the noise in the environment, as a value of sound for a specific duration.

Evapotranspiration (ET). The portion of precipitation returned to the air through evaporation and transpiration by plants.

Fahrenheit (F). A metric of temperature.

Fate and Transport. Description of the movement of a contaminant through a groundwater system which may include the effects of dilution, dispersion, attenuation and various chemical reactions.

Floodplain. The low and relatively flat areas adjacent to rivers and streams. A 100-year floodplain is that area subject to a 1 percent or greater chance of flooding in any given year.

Flux. Volume of groundwater per unit time that travels through a solid permeable medium, such as alluvium and bedrock.

Folds. A bend or curve in the planar features in rocks produced by geologic deformation.

Forage. Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

Forbs. Any herbaceous plant other than a grass.

Fry. The young of fish.

Game Species. Animals commonly hunted for food or sport.

Geographic Information Systems (GIS). A system that presents spatial geographic data.

Geosynthetic Clay Laminate Liner (GCLL). A technology that uses a synthetic liner on top of overburden to reduce infiltration.

Graminoid. Grasses, or more technically graminoids, are monocotyledonous, usually herbaceous plants with narrow leaves growing from the base. They include the "true grasses", of the family Poaceae, as well as the sedges and the rushes.

Greenhouse Gases (GHGs). An atmospheric gas such as water vapor, CO₂, methane, and ozone, that absorb and emits radiation.

High Density Polyethylene (HDPE). A product commonly used in the production of plastic bottles, piping, and geomembranes because of its high strength to density ratio.

Hydraulic Conductivity (K). A coefficient of proportionality describing the rate at which water can move through a permeable medium.

Hydrograph. A graph that shows some property of groundwater or surface water as a function of time.

Hydrologic Unit Code (HUC). A number that is used to identify a watershed.

Hydrostratigraphic Unit. A formation, part of a formation, or group of formations in which there are similar hydrologic characteristics allowing for grouping into aquifers or confining layers.

Instruction Memorandum (IM). Supplementary documents used by the BLM to help to address new policies, interpret policies, and provide immediate instruction.

Integrated Pest Management (IPM). An approach used to control pests such as insects that uses careful consideration of economics and environment to reduce risks to human and environmental health.

Intermittent Stream. Stream that flows only part of the time or during part of the year; some segments of the stream may flow year-round.

Intermountain West Joint Venture (IWJV). A partnership to conserve bird habitats in the western United States.

International Organization for Standardization (ISO). Developer of voluntary standards for products, services, and practices that improve the efficiency and effectiveness of industry.

Key Observation Point (KOP). An observer position on a travel route used to determine visible area.

Kilometer (km). A unit that measures length equivalent to 0.621 miles.

Land Use Plan. The organized direction or management of the use of lands and their resources to best meet human needs over time, according to the land's capabilities.

Limestone. A sedimentary rock consisting chiefly of the mineral calcite (calcium carbonate), with or without magnesium carbonate. Common impurities include chert and clay. Limestone is the most important and widely distributed of the carbonate rock and is the consolidated equivalent of limy mud, calcareous sand, and/or shell fragments. It yields lime on calcination.

Lithic Scatter. A discrete grouping of flakes of stone created as a byproduct in the tool-making process. Often includes flakes used as tools as well as formal stone tools such as projectile points, knives, or scrapers.

Land and Resource Management Plan (LRMP). Document that established direction for future decisions of the use of lands and resources in the planning area to best meet human needs over time, according to the land and resource capabilities.

Management Indicator Species (MIS). Species used to represent the health of wildlife habitats, in relation to management activities.

Management Prescriptions (MPs). Goals and objectives used to achieve desired conditions on a National Forest.

Maximum Contaminant Level (MCL). The highest level of a contaminant that is allowed in drinking water.

Mesic. Moist habitats associated with springs, seeps, and riparian areas.

Memorandum of Understanding (MOU). A document describing an agreement between two or more parties.

Milligrams per kilogram (mg/kg). A unit of volumetric measurement.

Milligrams per liter (mg/L). A unit of volumetric measurement.

Migratory Bird Treaty Act (MBTA). A law that makes it unlawful to pursue, hunt, take, capture, kill, or sell birds such raptors and songbirds.

Miles Per Hour (MPH). A measurement of speed.

Mine and Reclamation Plan (M&RP). A plan that describes the mining and reclamation activities of a mine.

Mitigation. Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

Motor Control Center (MCC). A device that controls performance of an electric motor.

Nephelometric Turbidity Units (NTUs). A measurement of turbidity, or the “cloudiness” of water.

Notice of Intent (NOI). A formal announcement from the federal government that an Environmental Impact Statement will be prepared.

Off Highway Vehicle (OHV). Any vehicle that can drive off a paved or gravel road.

Overburden. Sub-economic non-ore rock or soil associated with a mineral deposit.

Overburden Disposal Area (ODA). An area where overburden is placed and stored.

Oxidation. A geochemical process involving chemical and mineralogic changes to rock or soil under chemical weathering conditions. Oxidation is typically associated with exposure of buried materials to atmospheric oxygen and water. The process occurs naturally, but is accelerated by mining activity.

Peak Flow. The greatest flow attained during melting of winter snowpack or during a large precipitation event.

Perennial Stream. A stream that flows throughout the year and from source to mouth.

Permeability. The capacity of porous rock, sediment, or soil to transmit a fluid.

Permissible Exposure Limit (PEL). The legal limit of a chemical substance an employee may be exposed to, often measured in parts per million.

pH. The negative \log_{10} of the hydrogen ion activity in solution; measure of acidity or alkalinity of a solution.

Particulate Matter (PM). Small particles or liquid droplets that are in the air. Can also be known as Particle Pollution.

PM_{2.5}. Particulate matter less than 2.5 microns in aerodynamic diameter.

PM₁₀. Particulate matter less than 10 microns in aerodynamic diameter.

Preliminary General Habitat (PGH). In reference to greater sage-grouse, areas of high quality habitat but lacks characteristics to make the habitat priority.

Preliminary Priority Habitat (PPH). In reference to greater sage-grouse, essential and irreplaceable and important habitats.

Prevention of Significant Deterioration (PSD). A permit program to prevent environmental impacts from large sources of air pollution.

Probable Maximum Precipitation (PMP). The greatest depth of precipitation for a given duration that is physically possible over a given storm area at a particular location at a certain time of year.

Raptor. A bird of prey (e.g., eagles, hawks, falcons, and owls).

Riparian. Situated on or pertaining to the bank of a river, stream, or other body of water. Riparian is normally used to refer to plants of all types that grow along streams, rivers, or at spring and seep sites.

Record of Decision (ROD). A record that explains why a federal action was selected, based on alternatives described in a Final Environmental Impact Statement.

Recreation Opportunity Spectrum (ROS). A system for managing opportunities for recreation, often on federal lands.

Revised Forest Plan (RFP). A Plan that has been updated to reflect changes to an existing Forest Plan.

Resource Management Plan (RMP). Document that establishes direction for the use of resources to best meet the needs of humans over time, according to the resource potential or capability.

Roadless Area (RA). Natural or federal lands that are without roads.

Run-of-Mine (ROM) Overburden. Sub-economic rock mined from the phosphate deposit, which is and placed in surface dumps or as pit backfill.

Salinity. Measure of solute concentration, in grams per kilogram; “saltiness”.

Scenic Integrity Objective (SIO). Scenic integrity is how visually intact people perceive the landscape to be. A SIO is an objective that defines how visually intact the landscape should be.

Scenery Management System (SMS). Used to analyze impacts of activities on the scenery of federal lands.

Scoping. Procedures by which agencies determine the extent of analysis necessary for a proposed action, (i.e., the range of actions, alternatives, and impacts to be addressed; identification of significant issues related to a proposed action; and the depth of environmental analysis, data, and task assignments needed).

Sediment Load. The amount of sediment (sand, silt, and fine particles) carried by a stream or river.

Seepage Collection System. A system of drains, ponds, and pumps to collect and return tailing impoundment and embankment seepage.

Semi-primitive Motorized (SPM). Areas that are managed for a natural-looking environment but vehicle access is allowed on low standard roads and trails.

Sensitive (as in Species). Those plant or animal species that are susceptible or vulnerable to activity impacts or habitat alterations.

Shale. A fine-grained detrital sedimentary rock, formed by the compaction of clay, silt, or mud. It has a finely laminated structure, which gives it a fissility along which the rock splits readily, especially on weathered surfaces. Shale is well indurated, but not as hard as argillite or slate. It may be red, brown, black, or gray.

Significant. As used in NEPA, requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole, and the affected region, interests, and locality. Intensity refers to the severity of impacts (40 CFR 1508.27).

Site Investigation (SI). In relation to mining, a survey used to document mining features. Drilling may be used.

State Implementation Plan (SIP). A Plan created by a state for compliance with the Clean Air Act at sites that are polluted.

Sodium Adsorption Ratio (SAR). Ratio of dissolved sodium to calcium and magnesium in water; provides a prediction of cation exchange reaction potential.

Special Use Authorization. A permit that authorizes the use of or action on National Forest System lands.

Spill Prevention Control and Countermeasures (SPCC) Plan. A plan that is used to prevent, prepare, and respond to oil spills into waterbodies.

Storm Water Pollution Prevention Plan (SWPPP). A plan that is used to reduce pollutants entering waterbodies during storm (i.e., rain) events. Includes sources of pollution and control measures.

Swell. The increase in volume exhibited by certain soils and rocks on absorption of water; an enlarged place in an orebody.

Syncline. A folded rock sequence where the interior of the fold is younger than the rock on the exterior.

Threatened Species. Any species of plant or animal which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Total Suspended Particulate/Particles (TSP). Particulates less than 100 microns in diameter (Stokes equivalent diameter).

Total Dissolved Solids (TDS). Total amount of dissolved material, organic or inorganic, contained in a sample of water.

Total Suspended Solids (TSS). Undissolved particles suspended in liquid.

Ultraviolet (UV). A light with wavelengths shorter than visual light in the range of 10 to 400 nanometers.

Ungulate. A hoofed mammal.

Visual Quality Objective (VQO). A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape.

Watershed. Drainage basin for which surface water flows to a single point.

Wetlands. Areas inundated by surface water or groundwater with a frequency sufficient to support vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wetland Functions. Dynamic biological, chemical, and physical processes that characterize wetland ecosystems.

Wetland Values. Based on societal properties by which wetlands are determined to be useful, or impart public good.

7.4 INDEX

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Wildlife: ES-7, ES-8, 1-8, 1-11, 1-13, 1-17, 2-24, 2-35, 2-36, 2-35, 2-36, 3-1, 3-9, 3-29, 3-34, 3-37, 3-39, 3-42, 3-45, 3-49, 3-50, 3-78, 3-79, 3-80, 4-33, 4-34, 4-35, 4-40, 4-41, 4-42, 4-43, 4-52, 4-57, 4-73, 4-74, 4-76, 4-85, 4-86, 5-22, 5-23, 5-24, 5-35, 6-3, 6-4, 6-5, 6-6

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