



Chapter Five: Consultation and Coordination

SUMMARY OF PUBLIC INVOLVEMENT, INCLUDING SCOPING

A 3-day workshop: “Community-Based Ecosystem Stewardship,” was held in Alamosa, Colorado, on November 19–21, 2002. The National Park Service hosted the workshop with the goal of developing solid working relationships among people committed to effective management of public lands within Great Sand Dunes National Park and Preserve. Approximately 40 participants, primarily from the San Luis Valley and representing various formal and informal groups, attended. Participants also included representatives from neighboring federal and state land management agencies.

In January 2003, the public was notified of the Great Sand Dunes GMP effort via three methods: (1) a *Federal Register* notice of intent to prepare an environmental impact statement, (2) distribution of Great Sand Dunes GMP Newsletter 1, and (3) a press release announcing public scoping meetings for the GMP.

Newsletter 1:

- Provided an overview of the Great Sand Dunes system and the Great Sand Dunes National Park and Preserve Act of 2000.
- Introduced the Great Sand Dunes Advisory Council.
- Discussed the concepts of general management planning and wilderness review.
- Outlined GMP issues and a general schedule for development of the GMP.

- Invited the public to attend four public scoping meetings about the GMP.

Seventeen people attended the Alamosa, Colorado, meeting held on February 13, 2003. Twenty-three people attended the Crestone, Colorado, meeting on February 14, 2003. Twelve people attended the Golden, Colorado, meeting held on February 20, 2003, and 13 people attended the Westcliffe, Colorado, meeting on February 21, 2003. Many questions were answered and about 33 comments were received at these meetings. Superintendent Steve Chaney held a supplemental informal question and answer session in Crestone in April 2003. About 80 people attended this meeting.

Great Sand Dunes National Park Advisory Council members also held formal and informal meetings with various groups and individuals to identify planning issues and concerns. Council members then shared this information with the planning team during advisory council meetings.

Seventy written scoping comments were received by mail, e-mail, or Internet between February 13, 2003 and May 31, 2003.

Newsletter 2, Issued in November 2003:

- Provided a synopsis of comments received from Newsletter 1 and the public scoping meetings.
- Reviewed the park purpose, significance, mission and interpretive themes.

- Outlined special park mandates, including the advisory council, water resources, wilderness, hunting, fishing, trapping, domestic livestock, and the Closed Basin Project.
- Discussed fundamental resources and values including the dunes system, natural diversity, human connections; and visitor opportunities.
- Updated the planning steps and the status of the wilderness review.

Seventeen written comments were received by mail, e-mail, or Internet between June 23, 2003 and January 3, 2004.

Newsletter 3, issued in April 2004:

- Summarized comments received from the second public comment period.
- Revised and condensed fundamental resources and values statements.
- Summarized an interagency meeting related to Great Sand Dunes planning.
- Provided a wilderness review update.
- Provided a Great Sand Dunes National Park Advisory Council update.
- Provided a planning steps update.

Newsletter 4, issued in July 2004:

- Discussed parkwide desired conditions (goals).

- Provided an overview of the draft management zones.
- Updated the status of the wilderness review.
- Provided an advisory council update.
- Discussed alternative management concepts.

Twenty-four comments were received by mail, e-mail, or Internet between January 4, 2004 and August 19, 2004.

Newsletter 5, issued in January 2005:

- Presented refined alternatives.
- Discussed actions considered but dismissed.
- Provided a planning steps update.
- Invited the public to attend four public meetings.

Ten people attended the Alamosa, Colorado, meeting held on January 31, 2005, about 40 people attended the Crestone, Colorado, meeting on February 1, 2005, four people attended the Golden, Colorado, meeting held on February 8, 2005, and six people attended the Westcliffe, Colorado, meeting on February 2, 2005. Many questions were answered and about 50 comments recorded at these meetings.

About 140 additional written comments were received by mail, e-mail, or Internet between August 20, 2004 and February 24, 2005.

Using input from the public and considering the probable environmental consequences and costs of the alternatives, the planning team developed a preferred alternative. Development of the preferred alternative is discussed in appendix E. A

draft general management plan and environmental impact statement was produced and distributed for public review.

Newsletters and draft documents were also available online.

Great Sand Dunes National Park Advisory Council meetings, which were held every few months and were open to the public, included additional opportunities for public comment. Great Sand Dunes Superintendent Steve Chaney also held several separate, informal question and answer sessions in Crestone as the need arose. These sessions were well attended.

CONSULTATION

The National Park Service initiated consultation with the Colorado SHPO in January 2005. The Colorado SHPO responded on January 13, 2005, indicating that it concurred with the intent to use the NEPA process and documentation to comply with section 106 of NEPA.

The National Park Service initiated consultation with the USFWS in January 2005, to determine the presence of federally listed threatened, endangered, and candidate species in the park. The USFWS responded on February 15, 2005, with a list of species.

Tribes affiliated with the Great Sand Dunes were identified via an ethnographic overview (White 2005). The National Park Service initiated consultation with these tribes on January 5, 2004, when a letter was sent to each tribe notifying them of the general management plan effort. The letter included as enclosures the GMP newsletters published to date. It also invited the tribes to participate in the planning effort. A year later, on January 11, 2005, a letter was sent to each tribe inviting representatives to participate in a March, 2005 meeting of the Great Sand Dunes National Park Advisory Council; the Oglala Lakota

and Jicarilla Apache responded affirmatively and participated in the meeting. On February 8, 2005, the National Park Service sent another letter to the tribes regarding a land exchange effort that is not directly related to the GMP. This letter included a reminder that the National Park Service also seeks their input on the GMP. Park staff conducted follow-up meetings and telephone calls with representatives from several tribes throughout the planning process.

A series of interagency meetings (for federal and state agencies) on the GMP / wilderness study were hosted by the National Park Service during the planning process. The first meeting was held in November 2004, to aid understanding of the different agencies' missions, roles, and concerns related to management of lands in and near the Great Sand Dunes. The second meeting was held in April 2004, and its purpose was to share the National Park Service and advisory council's preliminary ideas about management alternatives for the national park and preserve, and to get feedback on these ideas. The third meeting was held in March 2005, and its purpose was to gather input from the agencies on more detailed alternatives for the park.

TABLE 27. COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Action	Section 106 Compliance
<ul style="list-style-type: none"> ▪ New bike lanes along the park entrance road ▪ Fee booth replacement in a new location near the park entrance 	<p>These elements of the NPS preferred alternative would not have an adverse effect on a historic property and therefore would not require consultation with the Colorado SHPO.</p>
<ul style="list-style-type: none"> ▪ Adaptive use of Medano Ranch headquarters for an NPS administrative center, and for public uses on a limited, scheduled basis ▪ Wilderness recommendation for areas within the park expansion area 	<p>These elements of the NPS preferred alternative have potential to adversely affect an eligible historic property and therefore would require consultation with the Colorado SHPO.</p>
<ul style="list-style-type: none"> ▪ New backcountry zone in the north of the park (includes an access road and trailhead) ▪ New trails in as yet undetermined locations within the backcountry adventure and guided learning zones ▪ New hike/bike path connecting Pinyon Flats campground to dunes parking lot and visitor center ▪ Adaptive use of Medano Ranch headquarters for an NPS administrative center, and for public uses on a limited, scheduled basis. 	<p>These elements of the NPS preferred alternative have potential to adversely affect a potentially eligible historic property and therefore would require consultation with the Colorado SHPO. If it is determined that a resource is not eligible, consultation would not be required for that resource.</p>

**LIST OF AGENCIES CONTACTED FOR INFORMATION
OR SENT A COPY OF THE PLAN**

Federal Agencies

Advisory Council on
Historic Preservation
Bureau of Land
Management
Bureau of Reclamation
Federal Highway
Administration
U.S. Environmental
Protection Agency
U.S. Fish and Wildlife
Service
U.S. Forest Service
U.S. Geological Survey
U.S. Natural Resources
Conservation Service

USDA Resource
Conservation and
Development

Tribes

Cheyenne and Arapahoe
Tribes of Oklahoma
Comanche Indian Tribe of
Oklahoma
Hopi Indian Tribe
Jicarilla Apache Indian Tribe
Kiowa Tribe of Oklahoma
Navajo Nation
Northern Arapaho Indian
Tribe
Northern Cheyenne Indian
Tribe

Pine Ridge Oglala Lakota
Indian Tribe
Pueblo of Acoma
Pueblo of Cochiti
Pueblo of Jemez
Pueblo of Picuris
Pueblo of San Juan
Pueblo of Santa Clara
Pueblo of Taos
Pueblo of Zia
San Juan Southern Paiute
Tribe
Southern Ute Tribe
Uintah and Ouray Ute Tribe
Ute Mountain Ute Tribe
White Mesa Ute Tribe

**U.S. Senate / House of
Representatives**

Senator Wayne Allard
Senator Ken Salazar
Representative Bob
Beauprez
Representative Diana
DeGette
Representative Joel Hefley
Representative Scott
McGinnis
Representative Marilyn
Musgrave
Representative John T.
Salazar
Representative Thomas
Tancredo
Representative Mark Udall

State Agencies

Colorado Division of Water
Resources
Colorado Division of
Wildlife
Colorado Historical Society/
State Historic
Preservation Office
Colorado State Forest
Service
Colorado State Land Board
Colorado State Parks

**Other Agencies and
Organizations**

Alamosa County, Colorado
Baca Grande Library—
Crestone, Colorado
Baca Grande Water and
Sanitation District
Colorado College Library
Colorado Mountain Club
Friends of the Dunes
National Parks and
Conservation Assoc.
Saguache County, Colorado
San Luis Valley Ecosystem
Council
Southern Peaks Public
Library—Alamosa,
Colorado
The Nature Conservancy
West Custer County
Library—Westcliff,
Colorado
The Wilderness Society

SELECTED BIBLIOGRAPHY

- Adams, R.
1990 Biogeography of bats in Colorado: Ecological implication of species tolerances. *Bat Research News* 31:17-21.
- Adams, R.
2003 *Bats of the Rocky Mountain West: Natural History, Ecology, and Conservation*. University Press of Colorado, Boulder, CO. 289 pp.
- Adamus, P.R., L.T. Stockwell, E.J. Clairan, Jr., M.E. Morrow, L.P. Rozas, and D.R. Smith
1991 "Wetland evaluation technique (WET); Volume I: Literature review and evaluation rationale," Technical Report WRP-DE-2, U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A251 739, Vol I; NTIS No. AD A189 986, Vol II.
- Alves, J.A.
1996 Rio Grande cutthroat trout management plan. Colorado Division of Wildlife.
- American Ornithologists' Union (AOU).
1983 *Check-list of North American Birds*, 6th edition. Allen Press, Inc., Lawrence, KS. 877 pp.
- Armstrong, D.
1972 Distribution of mammals in Colorado. Monograph of the University of Kansas Museum of Natural History 3:1-415.
- Armstrong, D., R. Adams, and J. Freeman
1994 Distribution and ecology of bats in Colorado. University of Colorado Museum, Natural History Inventory 15:1-82.
- Baca Grande Design Guidelines and Requirements
2002 Baca Grande Property Owners Association, Crestone, CO.
- Bean, L. E.
1975 *Land of the Blue Sky People*. A Story of the San Luis Valley. Alamosa, Colorado. 121 pp + index.
- Bechard, M. J., and J. K. Schmutz
1995 Ferruginous Hawk (*Buteo Regalis*). in *The Birds of North America*, No. 172 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C. 20 pp.

SELECTED BIBLIOGRAPHY

Billings, W. D.

- 1988 Alpine vegetation. Pages 391–420 in M. G. Barbour and W. D. Billings, editors. *North American Terrestrial Vegetation*. Cambridge University Press, NY.

Binkley, Dan, et al.

- 1997 Department of Forest Sciences, Status of Air Quality and Related Values in Class I National Parks and Monuments of the Colorado Plateau, April 1997.

Biosystems Analysis, Inc.

- 1989 Endangered Species Alert Program Manual: Species Accounts and Procedures. Southern California Edison Environmental Affairs Division.

Boddie, Peter, Eric Saenger, and Eric J. Harmon

- 1991 Geophysical and Hydrology Studies in Sand Creek, Great Sand Dunes National Monument, CO. HRS Water Consultants. Lakewood, CO.

Brand, C. J., L. B. Keith, and C. A. Fischer

- 1976 Lynx responses to changing snowshoe hare densities in central Alberta. *Journal of Wildlife Management* 40(3):416-428.

Britten, H. B., P. F. Brussard, and D. D. Murphy

- 1994 The pending extinction of the Uncompahgre fritillary butterfly. *Conservation Biology* 8:86-94.

Brown, B. T.

- 1988 Breeding ecology of a willow flycatcher population in Grand Canyon, Arizona. *Western Birds* 19:25-33.

Bunch, Fred

- 1997 Water Rights on Medano Creek. Great Sand Dunes National Monument, CO.
- 1997 Dune Movement. National Park Service. Great Sand Dunes National Monument, CO.

Colorado Board of Land Commissioners

- 2004 Board Order 2004-005; Oil and Gas Lease Auction Approval, Saguache County Tracts. Denver, CO.

Colorado Department of Agriculture

- 2003 Rules pertaining to the administration and enforcement of the Colorado Noxious Weed Act. Accessed via the World Wide Web at <<http://www.ag.state.co.us/DPI/weeds/statutes/weedrules.pdf>>.

Colorado Department of Labor and Employment, Labor Market Information

- 2005 Colorado Area Labor Force Data. <<http://www.coworkforce.com/LMI/ali/lfpag.asp>>.

Colorado Department of Local Affairs, Cartography/GIS Section

- 2001 Land Area of Counties in Colorado. Downloaded from
<<http://www.dola.state.co.us/oem/cartography/cartog.htm>>.

Colorado Department of Transportation

- 2005 Traffic Data Statistics – 2004. Online at
<http://www.dot.state.co.us/App_DTD_DataAccess/Traffic/>.

Colorado Division of Wildlife (CDOW)

- 2004 On-line Species Profile for Gunnison Sage Grouse. Available at:
<http://wildlife.state.co.us/species_profiles/gunnisonsagegrouse.asp>.

- 2005 On-line Species Profile for Humpback Chub. Available at:
<http://wildlife.state.co.us/species_profiles/humpback.asp>.

- 2005 On-line Species Profile for Colorado Pikeminnow. Available at:
<http://wildlife.state.co.us/species_profiles/pikeminnow.asp>.

- 2005 On-line Species Profile for Boreal Toad. Available at:
<http://wildlife.state.co.us/species_profiles/boreal.asp>.

- 2005 Maps of historical and current distributions of boreal toads. Available by links
from: <<http://wildlife.state.co.us/aquatic/boreal/index.asp>>.

- 2005 General Locations of Lynx (*Lynx canadensis*) Reintroduced to Southwestern
Colorado from February 4, 1999 through February 1, 2005. April 2005, 13 pp.

- 2005 Rivale, R. Personal communication with Miki Stuebe (e²M) on 28 April 2005 at
Interagency Meeting for Great Sand Dunes GMP, Alamosa, CO.

Colorado Division of Local Government

- 2004 Preliminary Population Forecasts by County and Region. 20003–2030. Accessed
online at: <<http://dola.colorado.gov/demog/populationtotals.cfm>>.

Colorado Natural Areas Program. State of Colorado

- 2005 Indian Spring Designated Colorado Natural Area. Available online at:
<http://parks.state.co.us/cnap/Natural_Areas/NA%20pages/indianspg.htm>.

Colorado Natural Areas Program. State of Colorado

- 1984 Colorado Natural Areas Act of 1984. CRS 33-33-101.

Colorado Natural Heritage Program (CNHP)

- 1999 A Biological Inventory and Conservation Recommendations for the Great Sand
Dunes and San Luis Lakes, Colorado. March 1999. 87 pp. Prepared by Phyllis M.
Pineda, Renee J. Rondeau, and Anne Ochs, Colorado State University, College of
Natural Resources, Fort Collins, CO.

SELECTED BIBLIOGRAPHY

- 1998 Saguache County, Closed Basin Inventory, Volumes I and II: A Natural Heritage Assessment Final Report. February 1998. Prepared by Colorado Natural Heritage Program, Renee J. Rondeau, Daniel Sarr, Michael B. Wunder, Phyllis M. Pineda, Gwen M. Kittel. Report prepared for The Nature Conservancy, San Luis Valley Program. Saguache, CO.
- Colorado Partners In Flight (COPIF)
- 2005 Long-billed Curlew Page. Available at:
<<http://www.rmbo.org/pif/bcp/phy36/grasland/lbcu.htm>>.
- Colorado State Historic Preservation Office
- 2005 Site record 5AL411. Compass Web site access on July 16, 2005.
- 2005 Site record 5AL101. Compass Web site access on July 12, 2005.
- Colorado State Parks
- 1996 San Luis Lakes State Park Management Plan. Colorado Department of Natural Resources, Division of Parks and Outdoor Recreation. Denver, CO.
- Conservation Foundation
- 1984 The state of the environment: an assessment at mid-decade. Washington DC.
- Cooper, David
- 1992 Wetland of the San Luis Valley, Colorado: An ecological study and analysis of the hydrologic regime, soil chemistry, vegetation and potential effects of a water table drawdown. Research Paper for State of Colorado Division of Wildlife U.S. Fish and Wildlife Service Rio Grande Water Conservation District.
- de Vargas, D.
- 1694 Journal of the Vargas Expedition into Colorado, 1694. Archivo de la Nación, Mexico City, Mexico in Jodry, M. A. B. 1999. Folsom technological and socioeconomic strategies: views from Stewart's Cattle Guard and the Upper Rio Grande Basin, Colorado. Ph.D. Dissertation, American University, Washington, D.C. 20016. 396 pp inc. appendices + index.
- Denver Post
- 2005 "Haze clouds parks' future." Newspaper article, July 25, 2005.
- Ellis, K. L. and J. Haskins
- 1985 Unusual Nest Site for Greater Sandhill Cranes in Colorado. *Western Birds* 16:185-186.
- Emery, Philip A.
- 1997 Hydrogeology of the San Luis Valley, Colorado: An Overview – and a Look at the Future. *Al2O3 Geohydrology*. Lake Havasu City, AZ.

Environmental Laboratory

- 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Fellers, G. and E. Pierson

- 2002 Habitat use and foraging behavior of Townsend's big-eared bat (*Corynorhinus townsendii*) in coastal California. *Journal of Mammalogy* 83:167-177.

Fowler, Ron

- 2005 Division of Realty, U.S. Fish and Wildlife Service. Personal communication with R. Dutton, September 15, 2005.

Fryberger, S.G., L.F. Krystinik, and C.J. Schenk

- 1990 Modern and ancient eolian deposits: Petroleum exploration and production. Rocky Mountain Section, Society of Economic Paleontologists and Mineralogists. Denver, CO.

Giroir, G.

- 2005 Draft Final Report on the General Avian Inventory of Great Sand Dunes National Park and Preserve, Colorado. Submitted to Mike Britten, NPS, 12795 W. Alameda Parkway, Lakewood, CO on 18 February 2005.

Graber, D.

- 1996 Status of terrestrial vertebrates. In Sierra Nevada Ecosystem Project: Final report to Congress, Vol. II, chapter 27. Davis: University of California, Centers for Water and Wildland Resources.

Graul, W.D.

- 1975 Breeding biology of the mountain plover. *The Wilson Bulletin* 87(1):6-31.

Graul, W.D. and L.E. Webster

- 1976 Breeding status of the mountain plover. *Condor* 78:265-267.

Great Sand Dunes

- 2002 NM&PRES VSP Visitor Study June 23-29, 2002, Visitor Services Project Great Sand Dunes National Monument and Preserve

Great Sand Dunes National Monument

- 1997 An Interpreter's Guide to Great Sand Dunes Research. Volunteer In Park: Elizabeth Sundermeyer, Editor.

Gripp, Pamela

- 2005 Personal communication with Pamela Gripp, Baca/Crestone Ambulance Service administrator.

SELECTED BIBLIOGRAPHY

Hammond, Dave

- 1997 Pond Disappearance. Geology Department, Colorado State University. Fort Collins, CO.

Hansen, R. and V. Reid

- 1973 Distribution and adaptations of pocket gophers. Pp. 1-19 in Pocket gophers and Colorado mountain rangeland (G. Turner, R. Hansen, V. Reid, H. Tietjen, and A. Ward, eds.). Experiment Station Bulletin, Colorado State University 2:1-554.

Hawks Aloft, Inc.

- 2002 Southwestern willow flycatcher surveys in the San Luis Valley, Colorado. Report dated 26 November 2002, submitted to Kelli Stone, Wildlife Biologist, Alamosa NWR. 13 pp + appendices.

Hoffer, Roger, Thom Curdts, Vern Thomas, Eric Windesheim

- 1990 Landsat Thematic Mapper Classification of the Great Sand Dunes National Monument. Colorado State University. Fort Collins, CO.

Jodry, Margaret A. and Dennis J. Stanford

- 1997 Changing Hydrologic Regimes and Prehistoric Landscape Use in the Northern San Luis Valley, Colorado. Smithsonian Institution, Paleoindian/Paleoecology Program, National Museum of Natural History. Washington, DC.

- 1992 Stewart's Cattle Guard Site: An Analysis of Bison Remains in a Folsom Kill-Butchery Campsite. In Ice Age Hunters of the Rockies. Denver Museum of Natural History and University Press of Colorado, Niwot, CO.

Jodry, M. A. B.

- 1999 Folsom technological and socioeconomic strategies: views from Stewart's Cattle Guard and the Upper Rio Grande Basin, Colorado. Ph.D. Dissertation, American University, Washington, DC. 20016. 396 pp inc. appendices + index.

Jones, C.

- 1965 Ecological distribution and activity periods of bats of the Mogollon Mountains area of New Mexico and adjacent Arizona. Tulane Studies in Zoology 12:93-100.

Knopf, F.L.

- 1996 Mountain Plover (*Charadrius Montanus*). In A. Poole and F. Gill, editors. The Birds of North America, No. 211. The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, DC. 16 pp.

Knopf, F. L., and B. J. Miller.

- 1994 *Charadrius Montanus* - montane, grassland, or bare-ground plover? Auk 111(2):504-506.

Knopf, F. L., and J. R. Rupert.

- 1995 Habits and habitats of mountain plovers in California. Condor 97:743-51.

Knowles, C. J., C. J. Stoner and S. P. Gieb

- 1982 Selective use of black-tailed prairie dog towns by mountain plovers. *Condor* 84:71-74.

Le, Yen, and Littlejohn, Margaret

- 2003 "Visitor Services Project, Great Sand Dunes National Monument and Preserve". Cooperative Park Studies Unit, University of Idaho, Moscow, ID.

MacArthur, R. A., V. Geist, and R. H. Johnston

- 1979 Factors influencing heart rate in free-ranging bighorn sheep: a physiological approach to the study of wildlife harassment. *Canadian Journal of Zoology* 57:2010-2021.

MacArthur, R. A., V. Geist, and R. H. Johnston

- 1982 Cardiac and behavioral responses of mountain sheep to human disturbance. *Journal of Wildlife Management* 46(2):351-358.

Magee, Pete

- 1991 Preliminary Textural Analyses from Core Samples, The Great Sand Dunes National Monument, South Central Colorado. Adams State College. Alamosa, CO.

_____ and Mary K. Mueller

- 1991 Identification of Multiple Groundwaters in the Great Sand Dunes National Monument, South Central, Colorado. Adams State College. Alamosa, CO.

Martorano, Marilyn A., Ted Hofer III, Margaret (Pegi) A. Jodry, Vince Spero, and Melissa A. Taylor

- 1999 *Colorado Prehistory: A Context for the Rio Grande Basin*. Colorado Council of Professional Archaeologists, Denver, CO.

Martorano, Marilyn A.

- 2005 Personal communication regarding archeological resources in the Great Sand Dunes Park and Preserve. July 7, 2005.

- 2004 Cultural Resources Interim Report, Archaeological Investigations in the Northern Sands, Great Sand Dunes National Monument and Preserve, Colorado. Lakewood, CO.

- 2002 Final 2001 Field Season Cultural Resources Interim Report, Great Sand Dunes National Monument and Preserve, Colorado. Lakewood, CO.

- 2001 Area Emergency Rehabilitation (BAER) Cultural Resources Interim Report, Great Sand Dunes National Monument, Colorado. Lakewood, CO

SELECTED BIBLIOGRAPHY

Martorano, Marilyn A. and Heather Mrzlack

- 2003 Field Season Cultural Resources Interim Report, Archaeological Inventory in the High Country, Great Sand Dunes National Monument and Preserve, Colorado. Lakewood, CO.

McArthur, Durant and Stewart Sanderson

- 1990 Vegetation Patterns: 1960 (1936) – 1990, Great Sand Dunes National Monument. U.S. Forest Service. Ogden, UT.

McCalpin, James C.

- 1991 Stream Flow Measurements in Sand Creek. Utah State University. Logan, UT.

——— Seasonal and Diurnal Discharge Fluctuations in Medano Creek, Great Sand Dunes National Monument. Utah State University. Logan, UT.

Muths, E. and S. Street

- 2002 Report to Great Sand Dunes National Monument and Preserve: NPS Inventory and Monitoring Project – Amphibians and Reptiles. Final Report submitted 1 November 2002. 30 pp.

National Park Service, U.S. Department of the Interior (NPS)

- 2005 Public Use Statistics Office – The Money Generation Model II. <<http://www2.nature.nps.gov/stats/>>.

2005 Natural Resources Reference Manual 77: Air Resources Management. Accessed online at: <<http://www.nature.nps.gov/rm77/air/authority.cfm>>.

2005 Great Sand Dunes National Park and Preserve Environmental Assessment/Assessment of Effect, Rehabilitate Main Park Roads.

2005 Great Sand Dunes National Park and Preserve. Emergency medical services, search and rescue, and motor vehicle accident records.

2004 Groundwater Claim Filed for Great Sand Dunes National Park and Preserve. National Park Service Water Resources Division Annual Report. By William R. Hansen.

2003 Great Sand Dunes National Monument and Preserve – Visitor Study, Summer 2002. Completed by Le, Yen and Margaret Littlejohn.

2003 Dogs in Parks. Accessed online at: <<http://www.nps.gov/jotr/manage/dogs/dogs.ntml>>.

2002 Great Sand Dunes National Monument and Preserve Visitor Study, Summer 2002. Park Studies Unit, Resource Recreation and Tourism Department, University of Idaho.

- 2001 National Park Service Management Policies. Washington, D.C.
- 1998 NPS Director's Order 77-1: Wetland Protection. Washington, D.C.
- 1997 Visitor Use Survey, Great Sand Dunes National Monument. On file at Great Sand Dunes National Park and Preserve, CO.
- 1995 Water Resources Management Plan; Great Sand Dunes National Monument, Colorado. Coordinated by Mark Chatman, Geologist, Planning and Evaluation Branch, Water Resources Division. Fort Collins, CO.
- 1995 Colorado Plateau Ambient Sound Monitoring Program: Results of Monitoring at Great Sand Dunes National Monument 7/93 – 10/94. Denver Colorado, October 1995. Colorado Air Quality Report to the Public, 1990, the Colorado Air Quality Control Division.
- 1993 Guiding Principles of Sustainable Design. Denver Service Center, Denver, CO.
- 1984 Soil Survey of Saguache County Area, Colorado. U.S. Soil Conservation Service in cooperation with the Colorado Agricultural Experiment Station; U S DI-BLM; and Saguache County. Author: James M. Yenter. Denver, CO.
- 1973 Soil Survey of Alamosa Area, Colorado. U.S. Soil Conservation Service in cooperation with the Colorado Agricultural Experiment Station. Authors: James P. Pannell, James M. Yenter, Stanley O. Woodyard, and Richard E. Mayhugh. Denver, CO.
- n.d. Great Sand Dunes National Park and Preserve Visitor Map.
- National Park Service, U.S. Fish and Wildlife Service, and The Nature Conservancy
2005 Greater Sand Dunes Interagency Fire Management Plan Environmental Assessment/ Assessment of Effect. April 25, 2005.
- National Register of Historic Places Registration Form. Medano Ranch Headquarters.
- Natural Diversity Information Source (NDIS)
- 2005 NDIS Bonytail Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifesp.aspx?SpCode=010630>>.
- 2005 NDIS Razorback Sucker Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifesp.aspx?SpCode=010595>>.
- 2005 NDIS Yellow-billed Cuckoo Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifesp.aspx?SpCode=040277>>.
- 2005 NDIS Bald Eagle Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifesp.aspx?SpCode=040231>>.

SELECTED BIBLIOGRAPHY

- 2005 NDIS Canada Lynx Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=051036>>.
- 2005 NDIS Black-tailed Prairie Dog Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=051006>>.
- 2005 NDIS Rio Grande Chub Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=010580>>.
- 2005 NDIS Mexican Spotted Owl Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=040019>>.
- 2005 NDIS Northern Leopard Frog Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=020191>>.
- 2005 NDIS Ferruginous Hawk Wildlife Page:
<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=040229>>.
- 2005 NDIS Greater Sandhill Crane Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=040701>>.
- 2005 NDIS Long-billed Curlew Wildlife Page:
<<http://ndis.nrel.colostate.edu/wildlifespx.asp?SpCode=040489>>.
- NatureServe
2004 International Ecological Classification Standard: Terrestrial Ecological Classifications. Great Sand Dunes NP vegetation mapping project area. NatureServe Central Databases. Arlington, VA and NatureServe, Boulder, CO. Data current as of April 20, 2005.
- Olson, S.L.
1984 Density and distribution, nest site selection, and activity of the mountain plover on the Charles M. Russell National Wildlife Refuge. M.S. thesis. University of Montana, Missoula. 62 pp.
- Olson, S.L., and D. Edge
1985 Nest site selection by mountain plovers in northcentral Montana. *Journal of Range Management* 38(3):280-282.
- Olson-Edge, S. L. and W. D. Edge
1987 Density and distribution of the mountain plover on the Charles M. Russell National Wildlife Refuge. *The Prairie Naturalist*. 19(4):233-238.
- Page, G. W., L. E. Stenzel, and C. A. Ribic
1985 Nest site selection and clutch predation in the snowy plover. *Auk* 102:347-353.

Phillips, A., J. Marshall, and G. Monson

1964 The birds of Arizona. The University of Arizona Press, Tucson, AZ.

Pike, Z. M.

1810 Sources of the Mississippi and the Western Louisiana Territory, to the Sources of the Arkansaw, Kans, La Platte, and Pierre Jaun, River's Performed by Order of the Government of the United States During the Years 1805, 1806, and 1807, and a Tour Through the Interior Parts of New Spain, When Conducted through These Provinces, by Order of the Captain-General, in the year 1807. Philadelphia: C. & A. Conrad in White, D. R. M. 2005. Seinanyédi: An Ethnographic Overview of Great Sand Dunes National Park and Preserve. Applied Cultural Dynamics, Santa Fe, New Mexico. Report to the National Park Serviced, U.S. Department of the Interior, Great Sand Dunes National Park and Preserve, Colorado. 338 pp + appendices.

Pineda, Phyllis M.

2002 Natural History of the Great Sand Dunes Tiger Beetle, *Cincindela theatina* Rotger (*Coleoptera: Carabidae*), and Invertebrate Inventory of Indian Spring Natural Area, at Great Sand Dunes, Colorado. M.S. Thesis, Colorado State University, Fort Collins, CO.

Popovich, S. J., W. D. Shepperd, D. W. Reichert, and M. A. Cone

1993 Flora of the Fraser Experimental Forest, Colorado. U.S. Forest Service General Technical Report RM-233. 62 pp.

Quinn, N.W.S. and G. Parker

1987 Lynx. pp. 682-694. in Novak, M., Baker, J.A., Obbard, M.E., and B. Malloch (eds). 1987. Wild Furbearer Management and Conservation in North America. Ontario Ministry of Natural Resources. Toronto. 1150pp.

Rawinski, J.J.

2004 Birds of the Rio Grande National Forest and San Luis Valley Area: A summary of bird observations. Summary report produced for and provided by the Rio Grande National Forest.

Renner, L., P. Gray, and V. Graham

1990 Greater sandhill crane nesting success and recruitment in northwest Colorado, December 1991. Prepared by Colorado Division of Wildlife, Terrestrial Wildlife Section, Grand Junction, Colorado. 56 pp.

RMC Consultants, Inc.

2005 Class I Cultural Resources Overview of the Baca Land Exchange BLM Parcels, Fremont, Saguache, and Conejos Counties, Colorado. Prepared for: NPS, BLM, FWS: NPS – C124801AA01, May 2005.

Robertson, Paul

- 2005 The Nature Conservancy – Unit Manager, Medano-Zapata Ranch. Personal communication with R. Dutton, September 2005.

Rupert, M.G., and Plummer, L.N.

- 2004 Groundwater flow direction, water quality, recharge sources, and age, Great Sand Dunes National Monument and Preserve, south-central Colorado, 2000-2001: U.S. Geological Survey Scientific Investigations Report 2004-5027, 32 p.

San Luis Lakes State Park

- 2005 Online description of San Luis Lakes State Park; San Luis Valley, Colorado. Accessed online at: <http://www.sangres.com/stateparks/sanluislakes.htm>.

Schmidt, C.

- 2003 Conservation assessment for Townsend's big-eared bat (*Corynorhinus townsendii*) in the Black Hills National Forest of South Dakota and Wyoming. Available online at: <www.fs.fed.us/r2/blackhills/projects/planning/assessments/big_ear_bat.pdf>.

Scott, J. Michael and Michael D. Jennings

- 1998 Large-Area Mapping of Biodiversity. Reprinted from the Annals of the Missouri Botanical Garden, Vol. 85, No. 1. Presented

Seamans, M. E., and R. J. Gutierrez

- 1995 Breeding habitat of the Mexican spotted owl in the Tularosa Mountains, NM. *Condor* 97:944-952.

Seidl, A.

- 1995 Larval biology, population dynamics and conservation status of the Uncompahgre fritillary *Boloria acrocne* (*Lepidoptera: Nymphalidae*). M.S. thesis. Colorado State University, Fort Collins, CO.

Seidman, V. and C. Zabel

- 2001 Bat activity along intermittent streams in northwestern California. *Journal of Mammalogy* 82:738-747.

Simes, C. A.

- 1999 "Domestic Dogs in Wildlife Habitats." Pages 8.1-8.17 in G. Joslin and H. Youmans, coordinators. 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.

Simmons, R. Laurie and Thomas H. Simmons

- 2004 Historical Context (Overview) Medano Ranch and Trujillo Homestead Sites, The Nature Conservancy, San Luis Valley Program, Colorado. Colorado State Historic Fund Project #2000-02-015. RMC Consultants, Inc., Lakewood, CO.

Spackman Panjabi, Susan and K. Decker

- 2002 Great Sand Dunes National Monument and Preserve Vascular Plant Inventory Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO.

Spackman Panjabi, Susan, K. Decker, G. Doyle, and D. Anderson

- 2004 Great Sand Dunes National Monument and Preserve 2003 Vascular Plant Inventory Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO.

Stogner, Robert W., Sr.

- 1997 Variability of Nitrate Concentrations in the Shallow Ground Water in a Selected Area of the San Luis Valley, South-central Colorado. USGS: Water Resources of Colorado, Fact Sheet 004-97. Obtained online at: <http://water.usgs.gov/pubs/fs/fs004-97>.

Sundermeyer, Beth

- 1997 Fecal Coliform Testing in Great Sand Dunes National Monument. National Park Service. Great Sand Dunes National Monument, CO.

Taylor, Milissa L.

- 1999 Colorado Prehistory: A Context for the Rio Grande Basin. Published by the Colorado Council of Professional Archaeologists, distributed through the University of Utah Press.

Trails and Wildlife Task Force, Colorado State Parks, and Hellmund Associates.

- 1998 Planning Trails with Wildlife in Mind. Denver, CO <www.dnr.state.co.us/parks>

U.S. Fish and Wildlife Service (USFWS)

- 1995 Recovery plan for the Mexican spotted owl (*Strix occidentalis lucida*). Volume 1. Albuquerque, New Mexico. 172 pp
- 2005 Threatened and Endangered Species System (TESS) Species Profile for Razorback Sucker (*Xyrauchen texanus*), available at: <http://ecos.fws.gov/species_profile/servlet/gov.doi.species_profile.servlets.SpeciesProfile?spcode=E054>.
- 1979 Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Office of Biological Services. 131 pp.

U.S. Forest Service (USFS)

- 2005 Deadman Creek Research Natural Area. Accessed online at: <<http://rna.nris.state.mt.us/rna>>.
- 2005 <<http://www.fs.fed.us/r2>>. Web site accessed July 25, 2005 for information regarding campground facility.

U.S. Geological Survey. (USGS)

- 2003 Investigation of Water Quality in the Great Sand Dunes National Monument and Preserve, Saguache County, Colorado, February 1999 through September 2000: Qualifying for Outstanding Waters Designation.

United States Salinity Laboratory Staff (L.A. Richards, Editor)

- 1954 Diagnosis and Improvement of Saline and Alkali Soils. Agriculture Handbook No. 60, Soil Conservation Research Branch, United State Department of Agriculture, Washington DC.

U.S. Census Bureau

- 2005 Annual Estimates of the Population for Counties of Colorado, April 1, 2000 to July 1, 2004. <<http://www.census.gov/popest/counties/>>.
- 2005 Annual Estimates of the Population for Incorporated Places in Colorado, Listed Alphabetically: April 1, 2000 to July 1, 2004. <<http://www.census.gov/popest/cities/>>.
- 2005 Annual Estimates of Housing Units for Counties: April 1, 2000 to July 1, 2004. <<http://www.census.gov/popest/housing/HU-EST2004-4.html>>.
- 2005 Regional Economic Information System (REIS), Personal income by major source and earnings by industry and full-time and part-time employment by industry, 1969 to 2003. <<http://www.bea.gov/bea/regional/statelocal.htm>>.
- 2004 Small Area Income and Poverty Estimates, Estimates for Colorado Counties, 2002. <<http://www.census.gov/hhes/www/saie/county.html>>.
- 2004 Poverty Thresholds 2002. <<http://www.census.gov/hhes/www/poverty/threshld.html>>.
- 2004c Projected Population of the United States: 2000–2050 (Interim Projections). Accessed online at: <<http://www.census.gov/ipc/www/usinterimproj/>>.
- 2004 Annual Estimates of the Population for Counties of Colorado: April 1, 2000 to July 1, 2004. Accessed online at: <<http://www.census.gov/popest/counties/tables/CO-EST2004-01-08.xls>>.
- 2002 Census 2000, Demographic Profiles – 100 Percent and Sample Data, Colorado. <<http://www.census.gov/Press-Release/www/2002/demoprofiles.html>>.

U.S. Department of Agriculture, National Agricultural Statistics Service

- 2004 2002 Census of Agriculture – Colorado. <<http://www.nass.usda.gov/wy/>>.

U.S. Department of the Interior (DOI)

- 2005 PILT Payment in Lieu of Taxes—Total Payments and Total Acres by State/County. Downloaded from <<http://www.doi.gov/pilt/>>.

Valdez, E.

- 2003 Mammal inventory of Great Sand Dunes and Florrisant Fossil Beds National Monuments, 2003. Report prepared for NPS Inventory and Monitoring Program. 34pp.

Weber, W.A. and R.C. Wittmann

- 2001 Colorado Flora Eastern Slope, Third Edition. University Press of Colorado, Boulder, CO.

Western Regional Climate Center (WRCC)

- 2005 Accessed online: <http://www.wrcc.dri.edu/cgi-bin/clinMAIN.pl?cosaug>

Wuerthner, G.

- 1998 "Are Cows Just Domestic Bison? Behavioral and Habitat Use Differences Between Cattle and Bison," in *International Symposium on Bison Ecology and Management in North America*, edited by L. Irby, L. Knight, and J. Knight. Bozeman: Montana State University.

White, D. R. M.

- 2005 Seinanyédi: An Ethnographic Overview of Great Sand Dunes National Park and Preserve. Applied Cultural Dynamics, Santa Fe, New Mexico. Report to the National Park Serviced, U.S. Department of the Interior, Great Sand Dunes National Park and Preserve, Colorado. 338 pp + appendices.

Whitson, T.D., L.C. Burrill, S.A. Dewey, D.A. Cudney, B.E. Nelson, R.D. Lee, and R. Parker

- 2000 Weeds of the West, 9th Edition. Western Society of Weed Science, the Western United States Land Grant Universities Cooperative Extension Services, and the University of Wyoming. Grand Teton Lithography, Jackson, WY. 628 pp.

Wilson, D. D.

- 1975 They came to hunt. Early man in the San Luis Valley. In James, H. L. (ed.), 1975, Guidebook of the San Luis Basin, Colorado, twenty-second field conference, September 30–October 1, 1971. New Mexico Geological Society, Alamosa, CO. 325 pp.

PREPARERS AND CONSULTANTS

DOCUMENT PREPARERS

Jayne Aaron*, Architectural Historian/Environmental Planner, engineering-environmental Management, Inc. B.A. Environmental Design (Architecture), M.S. Environmental Policy and Management. Cultural Resources and NEPA: 16 years experience. Responsible for description of existing conditions and impact analysis for: scenic quality and visual resources, health and safety, NPS operations. Also responsible for Appendix H: Wild and Scenic River Evaluation.

Ronald Dutton*, Regional Economist, Sammons/Dutton LLC. B.S. Economics, M.S. Economics. Experience: 29 years. Responsible for description of existing conditions and impact analysis for: socioeconomics.

Daniel Hart, Historical Archeologist/Architectural Historian, engineering-environmental Management, Inc. B.A. anthropology/history, M.A. anthropology. Experience: 13 years in cultural resource management consulting. Responsible for description of existing conditions and impact analysis for: historic structures and cultural landscapes.

David Hesker, Graphic Designer/Illustrator, ERO Resources Corporation. B.F.A. Colorado State University, emphasis in graphic design. Experience: 15 years. Responsible for maps and other graphic illustrations.

Wanda Gray Lafferty, Technical Publications Specialist, engineering-environmental Management, Inc. Two years undergraduate work. Experience: 27 years in the legal field and as communications director for national environmental nonprofit organization. Responsible for document editing and publication.

Marilyn A. Martorano, Archeologist/Cultural Resource Management Specialist, RMC Consultants, Inc. B.A. Anthropology, M.A. Anthropology/Archeology emphasis. Experience: 27 years. Responsible for description of existing conditions and impact analysis for cultural resource topics.

Cheryl Schmidt, Mammalogist, engineering-environmental Management, Inc. B.S. Biology, M.S. Biology, Ph.D. Biology. Experience: 21 years, 4 years with e²M as wildlife biologist. Responsible for: description of existing conditions and impact analysis for: wildlife, federal threatened and endangered species, operations of other management agencies and entities.

Christy J. Smith, Archeologist, engineering-environmental Management, Inc. B.A. Archeology. Experience: 9 years. Responsible for description of existing conditions and impact analysis for archeology.

Miki Stuebe*, Landscape Architect/Planner, engineering-environmental Management, Inc. B.A. Biology, M.S. Biology-Ecology, M.L.A. Land Resource Planning. Experience: 16 years, 10 years with the National Park Service as Landscape Architect/Planner. Responsible for: description of existing conditions and impact analysis for: visitor use and experience. Also responsible for Chapter 1: Purpose and Need for the Plan, Chapter 2: Alternatives, impact topics considered but not analyzed in detail, Chapter 5: Consultation and Coordination, and appendices B-G, and J.

Jim Von Loh, Senior Biologist, engineering-environmental Management, Inc. B.S. Biology, M.S. Biology. Ecology, Botany and Biology: 31 years experience. Responsible for description of existing conditions and impact analysis for: vegetation, ecologically critical areas, and wetlands.

Craig Vrabel, Senior Geologist, engineering-environmental Management, Inc. B.S. Geology. Geology, Hydrogeology, and Hazardous and Solid Waste Management: 17 years experience. Responsible for description of existing conditions and impact analysis for: soils and geologic resources, water resources.

*document preparers who are also Core Team Members

NATIONAL PARK SERVICE CORE TEAM MEMBERS

Steve Chaney, Superintendent, Great Sand Dunes National Park and Preserve
Jim Bowman, Chief Park Ranger, Great Sand Dunes National Park and Preserve
Fred Bunch, Chief of Resources, Great Sand Dunes National Park and Preserve
Mark Seaton, Chief of Maintenance, Great Sand Dunes National Park and Preserve
Carol Sperling, Chief of Interpretation and Visitor Services, Great Sand Dunes National Park and Preserve
Suzy Stutzman, Landscape Architect/Planner, National Park Service Intermountain Region

GREAT SAND DUNES NATIONAL PARK ADVISORY COUNCIL

Herry Andrews, Alamosa County Administrator; Alamosa, Colorado (*term 2003 – 2007*)
Christine Canaly, Environmentalist; Crestone, Colorado (*term 2003 – 2007*)
Hobart Dixon, Botanist; Alamosa, Colorado (*term 2003 – 2007*)
Bill McClure, former Saguache County Commissioner; Center, Colorado (*term 2003 – 2005*)
Robert Ogburn*, Senior Judge; Monte Vista and Pueblo West, Colorado (*term 2003 – 2007*)
Robert Philleo, former Saguache County Commissioner; Crestone, Colorado (*term 2003 – 2007*)
Paul Robertson, San Luis Valley Project Director, The Nature Conservancy (Colorado Chapter); Mosca, Colorado (*term 2005 – 2007*)
Terry Sandmeier, Hunting Guide/Outfitter; Fairplay, Colorado (*term 2003 – 2007*)

Michael J. Spearman, Saguache County Commissioner; Saguache, Colorado (*term 2005 – 2007*)

Michael Tetrault, Director, Western Region, The Nature Conservancy (Colorado Chapter); Mosca, Colorado (*term 2003 – 2005*)

George Whitten, Jr., Rancher; Saguache, Colorado (*term 2003 – 2007*)

Jeff Woodard, Businessman; Alamosa, Colorado (*term 2005 – 2007*)

Robert Zimmerman, former Alamosa County Commissioner; Alamosa, Colorado (*term 2003 – 2005*)

*Chairman

CONSULTANTS

Adrienne Anderson, National Park Service Intermountain Region

Beth Hall, former Administrative Clerk, Great Sand Dunes National Park and Preserve

Barb Irwin, former Chief of Administration, Great Sand Dunes National Park and Preserve

Margaret Johnston, Superintendent, Golden Spike National Historic Site

Cay Ogden, Wildlife Biologist, National Park Service Intermountain Region

Phyllis Pineda-Bovin, Biologist, Great Sand Dunes National Park and Preserve

Chris Turk, Regional Environmental Quality Coordinator, National Park Service Intermountain Region

Andrew Valdez, Geologist, Great Sand Dunes National Park and Preserve

Joel Wagner, Hydrologist, NPS Water Resources Division

Bill Wellman, Superintendent, Black Canyon of the Gunnison National Park and Curecanti National Recreation Area

John White, Protection Ranger, Great Sand Dunes National Park and Preserve

Ayesha Williams, Administrative Technician, Great Sand Dunes National Park and Preserve