CHAPTER 5

CONSULTATION AND COORDINATION

INTRODUCTION

The Jack Morrow Hills CAP was prepared by an interdisciplinary team of specialists from the Rock Springs Field Office, and the Wyoming State Office (Table 5-1). Reviews and accuracy and consistency were provided by both the field office and the state office staffs.

Consultation, coordination, and public involvement have occurred throughout the process through public meetings, informal meetings, individual contacts, news releases, and Federal Register notices.

Initial steps in the process began in 1997 with the development of a preparation plan. Other early efforts included research, inventory, analysis, and interagency coordination.

PUBLIC PARTICIPATION

A public participation plan was prepared to ensure that the public would have numerous opportunities to be actively involved in the planning and environmental process. Formal and informal input has been encouraged and used.

A scoping notice was mailed out to the public in January of 1998. A Notice of Intent to prepare the Cap was published in the Federal Register of February 5, 1998. Open houses were held during February 1998 in Lander and Rock Springs, Wyoming and again in February of 1999. Two field tours were conducted in September and October of 1998, providing a field review of the area.

Each operator of a grazing allotment has been contacted either in person or in writing to discuss standards and guidelines review of their allotment.

BLM personnel have met formally or informally with many members of the ranching and minerals industries and with other interest groups and agencies. A summary of comments generated from these meetings is on file in the Rock Springs Field Office.

A total of 197 comment letters were received during the scoping process. Comment points included concern for addressing wildlife resources, cultural resources, visual quality, air quality, water quality, recreation use, socioeconomic affects, vegetation and livestock grazing, minerals management, and recommendations for transportation planning.

CONSISTENCY

Coordination with other agencies and consistency with other plans was accomplished through frequent communications and cooperative efforts between the BLM and involved federal, state, and local agencies and organizations (Table 5-2).

The Wyoming Governor's Clearinghouse receives 20 copies of this draft document for review to ensure consistency with ongoing State plans. The interdisciplinary team reviews county land use plans to ensure consistency. Meetings are held with the respective county planners and commissioners to promote greater understanding of goals, objectives, and resources of both the counties and the BLM.

CONSULTATION AND COORDINATION

Members of the interdisciplinary team have consulted formally or informally with numerous agencies, groups, and individuals in the CAP development process. The following list is representative of the businesses, agencies, organizations, and individuals who have indicated an interest in the JMHCAP and who have been contacted during the planning process. This list is not all-inclusive. A complete list is on file in the Rock Springs Field Office.

Meetings were held with and Sweetwater and Fremont County representatives.

Meetings and communications occurred throughout the preparation of the DEIS with the Wyoming State Clearing-house.

The USFWS was contacted for Section 7 consultation and threatened and endangered species lists and initial screens in December 1998. An updated species list was received in October 1999. Meetings and communications also occurred throughout the preparation of the DEIS.

As part of the general scoping process, scoping letters were sent to the Northern Arapaho, Eastern Shoshone, Shoshone-Bannock, and Ute tribes, and to the Medicine Wheel Alliance. These letters described the JMHCAP project and asked for information and input. Additionally, in the spring of 1998, written communication was initiated with the four tribes. Letters were sent to the tribes requesting assistance in obtaining cultural resource management information for the planning area. BLM officials Bernard Weynand and Russel Tanner also met with the Medicine Wheel Alliance in June of 1998. They outlined the JMHCAP effort to several elders at the meeting. As a result of this meeting, a tour with representatives of the Eastern Shoshone tribe was scheduled to identify the kinds of places that might be of concern to Native American peoples. A field tour was conducted with tribal representatives Haman Wise and Delphine Clair, in September 1998. As a result of this tour, areas noted as "respected places" were identified. Management recommendations were identified and used in the alternative formulation process. Following the field trips, staff archaeologists Russel Tanner, Terry Del Bene, Haman Wise, and Delphine Clair met and discussed Native American concerns both in general and relative to several specific sites such as rock art sites, petroglyphs, and altar and stone circle sites. Information gathered from these field trips and meetings was used in formulating management recommendations for rock art sites, the Steamboat Mountain

CONSULTATION AND COORDINATION

area, Monument Ridge, Steamboat Rim, stone circles, and altar sites.

Since 1986, Native Americans (i.e., Haman Wise, John Tarnesse, and Delphine Clair) have been taken on tours of sites in the Rock Springs Field Office area that could be of concern to Native Americans relative to proposed developments. The other tribes (Northern Arapaho, Shoshone-Bannock, and Ute tribes) are known to have had a major presence in the area in historic times (i.e., 1650-1900) and have been invited to participate in all of the tours; however, they either did not respond to our invitation or indicated that the Eastern Shoshone could take the "lead."

Federal Agencies

Department of the Interior

Bureau of Indian Affairs Bureau of Land Management Bureau of Reclamation Fish and Wildlife Service Geological Survey National Park Service Minerals Management Service Office of Environmental Affairs

Department of Agriculture Forest Service Natural Resource Conservation Service

Department of Commerce Department of Defense Department of Energy Department of Housing and Urban Development Department of Transportation Environmental Protection Agency

State of Wyoming

Department of Environmental Quality Game and Fish Department Geological Survey of Wyoming Governor of Wyoming State Clearinghouse State Department of Transportation State Engineer State Historic Preservation Office University of Wyoming Wyoming Recreation Commission

Federal Elected Officials

Congresswoman Barbara Cubin Senator Craig Thomas Senator Mike Enzi

State Elected Officials

Senators and Representatives of Fremont, Sublette, and Sweetwater counties.

Local Governments

County governments of Fremont, Sublette, and Sweetwater counties. Mayors' offices of Green River, Rock Springs, and

Superior.

Tribal Councils

Northern Arapaho, Eastern Shoshone, Shoshone-Bannock, and Ute Tribal Councils

Industry

Black Butte Coal Co. Bridger Coal Company Chevron USA, Inc. Exxon Company U.S.A. Hunt Oil Marathon Oil Co. Pacific Power Pacificorp Questar Corporation Questar Pipeline Co. River Gas Corporation Texaco Inc. Texas Gulf, Inc. Union Pacific Resources Co.

Associations and Interest Groups

American Humane Association Animal Protection Institute of America Defenders of Wildlife Environmental Defense Fund Fund for Animals Greater Yellowstone Coalition Independent Petroleum Association of Mountain States National Wildlife Federation Natural Resources Defense Council Oregon-California Trails Association Petroleum Association of Wyoming Public Lands Advocacy **Rock Springs Grazing Association** Sierra Club Southwest Wyoming Industrial Association Sweetwater Economic Development Association (SWEDA) The Nature Conservancy Wilderness Society Wyoming Wildlife Federation

Others

Many individuals were contacted, including all range permittees, mining claimints, and lessees in the planning area.

TABLE 5-1KEY COORDINATION ACTIONS

Agency	Coordination/Responsibility
FEDERAL AGENCIES: Department of the Interior Bureau of Reclamation	Coordinate mineral leasing and other activities that affect lands that are
	administered by the BOR. Review the JMHCAP for consistency with BOR planning.
Fish and Wildlife Service	Review actions affecting threatened or endangered species of fish, wildlife, or plants. Consultation and review.
Geological Survey	Review of JMHCAP for consistency with USGS planning.
Minerals Management Service	Review of JMHCAP for consistency with MMS planning.
Department of Agriculture Forest Service	Coordinate mineral leasing and other activities that affect lands administered by USDA Forest Service. Review the JMHCAP for consistency with USDA Forest Service planning.
	Review of JMHCAP for consistency with the management actions. The proposed actions would also be discussed with the Wyoming State Forestry Division and other agencies involved in wild land fire management.
	Coordinate and cooperate with USDA Forest Service, DEQ, and EPA on monitoring and collecting of air quality data.
Environmental Protection Agency	Coordinate and cooperate with USDA Forest Service, DEQ, and EPA on monitoring and collecting of air quality data.
STATE AGENCIES	BLM would cooperate with the State of Wyoming on the 208 plan and coordinate the development of water quality plans consistent with BLM programs and JMHCAP recommendations.
	BLM would coordinate with Wyoming DEQ and EPA on air quality standards and regulations that could affect BLM-managed activities.
	BLM would coordinate with Wyoming DEQ and EPA on the development of visibility standards and guidelines.
	BLM would coordinate and cooperate with USDA Forest Service, DEQ, and EPA on monitoring and collecting of air quality data.
	Vegetation manipulation projects would involve coordination with affected livestock operators and the Wyoming Game and Fish Department.
	Consultation and review with Wyoming Game and Fish Department.
	Coordinate and cooperate with WYDOT on transportation planning and highway access.
STATE AGENCIES (continued)	Consultation with the State Historic Preservation Officer on compliance with Section 106 of the National Historic Preservation Act in accordance

Fremont, Sublette, Sweetwater with the National Programmatic Agreement, as implemented in the Wyoming Protocol to that agreement.

Review JMHCAP for consistency. Zoning. Access permits.

TABLE 5-2 LIST OF PREPARERS

Name	Job Title	CAP Responsibility	
Rock Springs Field Office			
Don Judice Rick Amidon Renée Dana	Petroleum Engineer Wildlife Biologist Resource Advisor	Team coordination, coordination with State Office, review of public comments, co-author, review and release of any public information	
Barbara Amidon	Botanist	Vegetation, Woodlands, Threatened and Endangered Plants	
Rick Amidon	Wildlife Biologist	Wildlife	
Mike Brown	Public Affairs Officer	Public Affairs, Socioeconomics	
Teri Deakins	Environmental Protection Specialist	NEPA Compliance	
Dennis Doncaster	Hydrologist	Watershed, Surface Water	
Jim Glennon	Botanist	Vegetation, Woodlands, Threatened and Endangered Plants	
Patricia Hamilton	Realty Specialist	Lands, Rights-of-Ways, Travel Management	
John Henderson	Fisheries Biologist	Riparian, Wetlands, Fisheries	
Don Judice	Petroleum Engineer	Fluid Minerals, GIS Technical Assistance	
Jon Kautt	Rangeland Management Specialist	Livestock Grazing	
Lorraine Keith	Wildlife Biologist	Wildlife	
John MacDonald	Natural Resource Specialist	Soils, Vegetation	
Lance Porter	Rangeland Management Specialist	Livestock Grazing	
George Schoenfeld	Environmental Scientist	Hazardous Materials	
Thor Stephenson	Rangeland Management/Wild Horse Specialist	Wild Horses	
Russ Tanner	Archaeologist	Cultural Resources	
Andy Tenney	Outdoor Recreation Planner	Recreation, Visual Resources, Off-Road Vehicle, Wilderness, ACECs, Transportation Planning	

Name	Job Title	CAP Responsibility		
Tony Tezak	Fire Control Officer	Fire		
David Valenzuela	Geologist	Paleontology, Coal, Sodium, Salables, Locatables, Groundwater		
J. David Chase	Geologist (Casper Field Office)	Fluid Minerals, Drainage		
Dean Stilwell	Geologist (Casper Field Office)	Fluid Minerals, Drainage, Geologic Hazards		
Mary Apple	Public Affairs Officer (Rawlins Field Office)	Public Affairs		
Wyoming State Office				
Roy Allen	Economist	Socioeconomics		
Laurie Bryant	Geologist	Palentology		
Susan Caplan	Physical Scientist	Air Quality		
Jerry Carter	Printing Specialist	Printing		
Tom Enright	Rangeland Management Specialist	Livestock Grazing		
Don Glenn	Rangeland Management Specialist	Wild Horses		
Tamara Hammack	Printing Technician	Typesetting		
Jon Johnson	Environmental Protection Specialist	WSO planning and NEPA technical/policy guidance, and coordination of WSO Staff input and coordination among field and WSO Staffs		
Roger Lawrence	Visual Information Specialist	Illustrations		
Gretchen Meyer	Natural Resource Specialist	Remote Sensing		
Terri Mitchell	Supervisory Cartographic Technician	Manual Cartography		
Sheri Morris	Printing Specialist	Typesetting, Preflighting		
Larry Neasloney	GIS Specialist	GIS Technical Assistance, Mapping		
Joe Patti	Natural Resource Specialist; Field Planning Coordinator	WSO planning and NEPA technical/policy guidance, and coordination of WSO Staff input and coordination among field and WSO Staffs		

GLOSSARY

Active Use. The current authorized use, including livestock grazing and conservation use. Active use may constitute a portion, or all, of permitted use. Active use does not include temporary nonuse or suspended use of forage within all or a portion of an allotment.

Avoidance Areas. Areas on public lands where future rightsof-way may be granted only when no feasible alternative route or designated right-of-way corridor is available.

Current Annual Growth. The amount of forage produced by a plant in one growing season.

Disruptive Activities. The physical presence, sounds, and movements of people and their activities (on, below, or above the land surface) whether on foot, riding animals, or using non-motorized or motorized vehicles or equipment.

The bulk of the concern for mitigation of disruptive activities is associated with the effects of human presence and activity on wildlife. That is, the effect that human presence, movements and sounds (including those of the equipment used) may have on the well-being of wildlife during critical lifecycle stages (breeding, nesting, birthing), or during periods of severe weather conditions (severe winter storms, long periods of severe cold or deep snow conditions), when forage or habitat are severely limited, and when the animals are under high stress and depleted body-energy conditions. Harassment of wildlife from human presence, movements, or sounds during these kinds of periods and conditions can cause excessive and unnecessary impacts, including mortality, fetal abortion, and abandonment of young. While these types of activities can be associated with the performance of surfacedisturbing activities, they are not exclusive to that.

Disruptive activities can also be associated with effects to other resources, such as excessive or adverse influences and effects of human presence or modern society's imprint on areas of highly primitive, seclusive, scenic, or historic value.

Disturbance Zone. Area of influence around a disturbance causing a change in animal behavior such as: leaving the area, increased stress, abandoning young, not breeding, and aberrant behavior. Examples of disturbances include: road construction and road use, facility construction and placement, pipeline construction, field facility maintenance, rights-of-way construction, range improvement construction.

Eolian Ice Cells. Perennial ice formed from snowfall and insulated from summer heat by a cover of windblown sands. This ice feeds small ponds within the dunes.

Exclusion Areas. Areas on public lands where future rightsof-way mat be granted only when mandated by law.

Flockets. A local term for the ponds and associated wet meadows created in the Sand Dunes from melting eolian ice cells.

Minimum Heights. The amount of plant material remaining during the grazing season.

Native American respected place. A physical location about which Native American tribal representatives have expressed

concern. The location could be a traditional cultural property, a sacred site, or a site important to tribal history. Management strategies at these sites may be different from those commonly used at typical archeological sites. For instance, viewsheds are usually important, and other issues, including audible intrusions, may need to be considered. Data recovery mitigation is usually not an appropriate mitigation at a respected place.

No Surface Occupancy (NSO). The term "no surface occupancy" (NSO) is used in two ways. It is used in one way to define a no surface occupancy area where no surface disturbing activities, of any nature or for any purpose, would be allowed. For example, construction or the permanent or long-term placement of structures or other facilities for any purpose would be prohibited in an NSO area.

The other way the "no surface occupancy" term is used is as a stipulation or mitigation requirement for controlling or prohibiting selected land uses or activities that would conflict with other activities, uses, or values in a given area. When used in this way, the NSO stipulation or mitigation requirement is applied to prohibit one or more specific types of land and resource development activities or surface uses in an area, while other-perhaps even similar-types of activities or uses (for other purposes) would be allowed. For example: Protecting important rock art relics from destruction may require closing the area to the staking of mining claims and surface mining, off-road vehicle travel, construction or longterm placement of structures or pipelines, power lines, general purpose roads, and livestock grazing. Conversely, the construction of fences to protect the rock art from vandalism or from trampling or breakage by livestock, an access road or trail, and other visitor facilities to provide interpretation and opportunity for public enjoyment of the rock art would be allowed. Further, if there were interest in development of leasable minerals in the area, leases for oil and gas, coal, and so forth, could be issued with a "no surface occupancy" stipulation or mitigation requirement for the rock art site, which would still allow access to the leasable minerals from adjacent lands and underground.

The term "no surface occupancy" has no relationship or relevance to the presence of people in an area.

Nondiscretionary Closures. Areas closed to fluid mineral development by law, regulation, Executive Order, and Secretarial decision.

Non-motorized Vehicle (or Non-motorized Mechanical Transport). Any contrivance for moving people or material in or over land, water, snow, or air, that has moving parts, and that is powered by a living or non-motorized power source. This includes, but is not limited to, sailboats, hang gliders, parachutes, bicycles, game carriers, carts, and wagons. The term does not include wheelchairs when used as necessary medical appliances, nor does it include skis, snowshoes, non-motorized river craft, sleds, travois, or similar primitive devices without moving parts.

Off-Road Vehicle Management Designations. Designations apply to all off-road vehicles regardless of the purposes

GLOSSARY

for which they are being used. Emergency vehicles are excluded. The ORV designation definitions have been developed in cooperation with representatives of the USDA/Forest Service, U.S. Park Service, and BLM State and Field Office personnel. BLM recognizes the differences between off-road vehicles and oversnow vehicles in terms of use and impact. Therefore, travel by oversnow vehicles will be permitted off existing routes and in all open or limited areas (unless otherwise specifically limited or closed to oversnow vehicles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife.

Closed: Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

Open: Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands.

Limited: a. Vehicle travel is permitted only on existing roads and vehicle routes which were in existence prior to the date of designation in the Federal Register. Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and/or widening of existing routes is not allowed without prior written agency approval.

- b. Vehicle travel is permitted only on roads and vehicle routes designated by BLM. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations are posted as follows:
 - 1. Vehicle route is open to vehicular travel.
 - 2. Vehicle route is closed to vehicular travel.
- c. Vehicle travel is limited by number or type of vehicle. Designations are posted as follows:
 - 1. Vehicle route limited to four-wheel drive vehicles only.
 - 2. Vehicle route limited to motorbikes only.
 - 3. Area is closed to oversnow vehicles.
- d. Vehicle travel is limited to licensed or permitted use.
- e. Vehicle travel is limited to time or season of use. Posted:

Seasonal closure to all motor vehicles (the approximate dates of closure are indicated).

f. Where specialized restrictions are necessary to meet resource management objectives, other limitations may also be developed. Posted:

Recreational ORV open play areas.

Paleosol. A term used by archeologists and some geologists to refer to an ancient soil deposit. Paleosols are particularly

important because they often contain evidence about some of the earliest cultures to inhabit North America.

Permitted Use. The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUMs.

Proper Functioning Condition. A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to:

- dissipate stream energy associated with high waterflow, thereby reducing erosion and improving water quality;
- filter sediment, capture bedload, and aid floodplain development;
- improve flood-water retention and groundwater recharge
- develop root masses that stabilize streambanks against cutting action
- develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
- support greater biodiversity.

The components of this definition are in order relative to how processes work on the ground.

Range Readiness. Stage of plant development at which grazing may begin in an area/pasture/allotment without damage to vegetation or soil.

Respected Places. The term Eastern Shoshone informants use to identify places that are important to them.

Seasonal Utilization (relative). Seasonal utilization is the amount of utilization that has occurred before the end of the growing season.

Season-long use (passive, continuous grazing). The term season-long use or passive, continuous grazing means grazing throughout the growing period, with little or no effort to control the amount of distribution of livestock use in area/ pasture/allotments.

Surface Disturbing Activities (or Surface Disturbance). The physical disturbance and movement or removal of the land surface and vegetation. It ranges from the very minimal to the maximum types of surface disturbance associated with such things as off-road vehicle travel or use of mechanized, rubber-tired, or tracked equipment and vehicles; some timber cutting and forest silvicultural practices; excavation and development activities associated with use of heavy equipment for road, pipeline, power line and other types of construction; blasting; strip, pit, and underground mining and related activities, including ancillary facility construction; oil and gas well drilling and field construction or development and related activities; range improvement project construction; and recreation site construction. **Utilization.** The portion of forage that has been consumed (or destroyed) by livestock, wild horses, wildlife, and insects during a specified period. The term is also used to refer to the pattern of such use (43 CFR 4100.0-5).

Utilization is the proportion or degree of the current year's forage production by weight that is consumed or destroyed by animals (including insects). The term may refer either to a single plant species, a group of species, or the vegetation community as a whole. Utilization is synonymous with use.

Viable. Capable of sustaining a healthy and reproducing population over a long period of time.

Visual Resource Management Classes (definition of).

Class I. The objective of this class is to maintain a landscape setting that appears unaltered by humans. It is applied to designated wilderness areas, wilderness study areas, some natural areas, wild portions of the wild scenic rivers, and other similar situations where management activities are to be restricted.

Class II. The objective of this class is to design proposed alterations so as to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III. The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape. However, the changes should remain subordinate to the existing characteristic landscape. Structures located in the foreground distance zone (0 to 1/2 mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic

landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards, and if not, whether they add acceptable visual variety to the landscape.

Class IV. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. Structures located in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards, and if not, whether they add acceptable visual variety to the landscape.

Rehabilitation Area. Change is needed or change may add acceptable visual variety to an area. This class applies to areas where the naturalistic character has been disturbed to a point where rehabilitation is needed to bring it back into character with the surrounding landscape. This class would apply to areas identified in the scenic evaluation where the quality class has been reduced because of unacceptable cultural modification. The contrast is inharmonious with the characteristic landscape. It may also be applied to areas that have the potential for enhancement; i.e., add acceptable visual variety to an area or site. It should be considered an interim or short-term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired visual resource management class should be identified.

Ahern, J.; M. Collentine; and S. Cooke 1981, "Occurrence and Characteristics of Ground Water in the Green River Basin and Overthrust Belt, Wyoming." Report to U.S. Environmental Protection Agency, Water Resources Research Institute Volume V-A, University of Wyoming, Laramie, Wyoming.

Anderson, Stanley PhD. 1999. Personal communication. Coop Leader, USGS-University of Wyoming Fish and Wildlife Coop.

Barlett, Bill 1998. Telephone conversation with Teri Deakins of the BLM regarding housing in Fremont County, June 1998. Barlett is a Realty Specialist in the BLM Field Office in Lander, Wyoming.

Barlow & Haun, Inc. 1994. "Accessibility to the Greater Green River Basin Gas Supply, Southwestern Wyoming," for Gas Research Institute. Chicago, Illinois. 185 pages.

Barlow & Haun, Inc. 1994. "Accessibility to the Greater Green River Basin Gas Supply, Southwestern Wyoming." for Gas Research Institute, GRI Contract No. 5903-212-2683, GRI-94/0363.

Barlow & Haun, Inc. 1998. Comment Letter to Bureau of Land Management, Jack Morrow Hills Coordinated Activity Plan Scoping Notice. March 4, 1998.

Bastron, Alvin F.; Richard R. Stapp; Jim H. Adsit; and Bartlett E. Olson 1965. "Construction Materials Survey, Interstate Route 80; Flaming Gorge Junction to Point of Rocks Section." Wyoming State Highway Department and U.S. Department of Commerce Bureau of Public Roads, Cheyenne, Wyoming.

Bayley, Richard W.; Paul Dean Proctor; and Kent C. Condie 1973. "Geology of the South Pass Area, Fremont County, Wyoming." U.S. Geological Survey Professional Paper, 793, 39 p.

Beauvais, G. P. and R. Smith. 1999. "Occurrence of breeding mountain plovers (*Charadrius montanus*) in the Wyoming Basins ecoregion". Prepared by the Wyoming Natural Diversity Database for the USDI Bureau of Land Management, Rock Springs, Wyoming.

Bock, Ryan and F. Lindzey 1999. "Preliminary Report for the Jack Morrow Hills Desert Elk Study." Wyoming Cooperative Fish and Wildlife Research Unit, University of Wyoming.

Bourgeron, P.S. and L.D. Engelking 1994. "A Preliminary Vegetation Classification of the Western United States." The Nature Conservancy, Western Heritage Task Force. Boulder, Colorado.

Bradley, W.H. 1964. "Geology of Green River Formation and Associated Eocene Rocks in Southwestern Wyoming and Adjacent Parts of Colorado and Utah." U.S. Geological Survey Professional Paper, 496-A, pp. A1-A86.

Breithaupt, B.H. 1982. "Paleontology and paleoecology of the Lance Formation (Maastrichtian), east flank of Rock Springs Uplift, Sweetwater County, Wyoming," Contributions to Geology, University of Wyoming, 21(2):123-151. Bromley, M. 1985. "Wildlife management implications of petroleum exploration and development in wildland environments." USDA, Forest Service Intermountain Research Station General Technical Report, INT-191. Ogden, Utah.

Chadwick, Howard W. and Paul D. Dalke 1965. "Plant Succession on Dune Sands in Fremont County, Idaho." Ecology 46:6.

Collentine, M.; R. Libra; K.R. Feathers; and L. Hamden 1981. "Occurrence and Characteristics of Ground Water in the Great Divide and Washakie Basins, Wyoming," Report to U.S. Environmental Protection Agency, Water Resources Research Institute, Volume VI-A, University of Wyoming, Laramie, Wyoming.

Culbertson, W.C.; J.W. Smith; and L.G. Trudell 1980. *Oil Shale Resources and Geology of the Green River Formation in the Green River Basin*. U.S. Department of Energy, Laramie Energy Technology Center, Laramie, Wyoming.

Culwell, D. 1992. Personal communication with Barb Amidon (BLM Rock Springs District Botanist) on November 4, 1992. Culwell is with WESTECH-Western Technology and Engineering Inc. (in District files).

Dana, G. and J. Smith 1976. "Nature of Black Water Occurrence, Northern Green River Basin," Wyoming Geological Association Earth Science Bulletin, Vol. 9, No. 1, Laramie, Wyoming.

Devoto, Bernard 1943. *The Year of Decision 1846*, Little, Brown and Company. Boston.

Diedrich, Robin 1999. Personal conversation with Dean Stilwell on February 4, 1999 about the assumptions and range of drilling levels in Jack Morrow Hills. Diedrich is a geologist for North American Resources Company.

Dorn, Robert 1986. "The Wyoming Landscape, 1805-1878." Mountain West Publishing, Cheyenne, Wyoming.

Dorn, R. 1990. "Report on the status of *Arabis pusilla*, a Candidate Threatened Species." Report to U.S. Fish and Wildlife Service. Denver, Colorado.

Environmental Protection Agency 1971. "Community Noise." Prepared by the Wyle Laboratories for EPA Office of Noise Abatement Control. Washington D.C.

Federal Register 1978. "Endangered Species Act of 1973." 43:6230-6233, February 14, 1978.

Fertig, W. 1990. "Status Report on *Antennaria arcuata* in Central Wyoming." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database under Cooperative Agreement #K910-A4-0011 Task Order #007. Unpublished. Laramie, Wyoming.

Fertig, W. 1994. "Status Report on *Oryzopsis contracta*, a USFWS Category 2 Candidate Species." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database under Cooperative Agreement #K910-A4-001 1. Unpublished. Laramie Wyoming.

Fertig, W. 1995. "Status Report on *Lesquerella macrocarpa* in Southwestern Wyoming." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database under Cooperative Agreement #K910-A4-0011 Task Order #003. Unpublished. Laramie, Wyoming.

Fertig, W. 1996a. "Status Report on *Antennaria arcuata* in Central Wyoming." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database under Cooperative Agreement #K910-A4-0011 Task Order #007. Laramie, Wyoming.

Fertig, W. 1996b. *Wyoming Plant Species of Special Concern*, 1996 edition. Wyoming Natural Diversity Database. Laramie, Wyoming.

Fertig, W. 1998. "Plant Species of Special Concern of the Ross Butte Ecosystem, Sublette County, Wyoming." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database, Laramie, Wyoming.

Fertig, W.; L. Welp; and S. Markow 1998. "The Status of Rare Plants in Southwest Wyoming." Prepared for the Bureau of Land Management, Wyoming State Office, by the Wyoming Natural Diversity Database under Cooperative Agreement # K910-A4-0011, Task Order TO-14. Laramie, Wyoming.

Freddy, D.J. 1979. "Measuring heart rates of mule deer using a repeater-type telemetry system." Pages 144-155, in F.M. Long (ed.), Proceedings second international conference on wildlife biotelemetry. Laramie, Wyoming.

Fremont County Planning 1998. "Draft Fremont County Land Use Plan, First Draft, May 1998." Lander, Wyoming.

Frison, George C. 1971. "Shoshonean Antelope Procurement in the Upper Green River Basin, Wyoming," *Plains Anthropologist*, 16 (54):258-284.

Frison, George C. 1998. Telephone conversation with Russel Tanner, BLM archaeologist concerning the Krmpotich Site. Frison is emeritus professor of anthropology at the University of Wyoming and member of the National Academy of Sciences.

Gas Research Institute 1996. "Emerging Resources in the Greater Green River Basin, Upper Cretaceous Gas Atlas." CD-ROM, Version 1.0. GRI-96/0096.

Geo/Resource Consultants, Inc. 1984. Green River Basin Geologic Resources Inventory.

George, G. R. 1992. "Pine Canyon, in Wyoming Oil and Gas Fields Symposium Greater Green River Basin and Overthrust Belt." Wyoming Geological Association, p. 252-255.

Hausel, W.D., Sutherland, W., and Gregory, R. 1995. "Lamproites, Diamond Indicator Minerals, and Related Anomalies in the Green River Basin, Wyoming." Wyoming Geological Association Guidebook, Wyoming State Geological Survey, Laramie, Wyoming.

Hayden-Wing Associates 1991. *Review and evaluation of Triton Oil and Gas Corporation's proposed coal bed methane field development.* Final Report prepared for Triton Oil and Gas Corp., Dallas, Texas, 92 pp. Heath, B.J.; R. Straw; S.H. Anderson; and J. Lawson 1997. "Sage Grouse Productivity, Survival, and Seasonal Habitat Use Near Farson, Wyoming." Completion Report. Wyoming Game and Fish Department. Pages 14-16.

Hershey, T.J. and T.A. Leege 1976. "Influences of logging on elk on summer range in north-central Idaho." Pages 73-80 in S. R. Hieb, ed. Proc. Elk-logging-roads symposium, University of Idaho, Moscow, Idaho.

Hobbs, N.T. 1989. "Linking energy balance to survival in mule deer: development and test of a simulation model." Wildlife Monograph, 101: Pages 1-39.

Jones, G. and W. Fertig 1996. "Plant Associations and Plant Species of Special Concern in the Jack Morrow Hills Ecosystem." Prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database under Cooperative Agreement #K910-A4-0011 Task Order #006. Unpublished. Laramie Wyoming.

Jones, G.P. 1992. "Wyoming Plant Community Classification." Wyoming Natural Diversity Database (The Nature Conservancy). Laramie, Wyoming.

Kautz, M.A.; W.W. Mautz; and L.H. Carpenter 1981. "Heart rate as a predictor of energy expenditure of mule deer." Journal of Wildlife Management, 45: Pages 715-720.

Knight, D.H; R.J. Hill; and A.T. Harrison 1976. "Potential Natural Landmarks in the Wyoming Basin: Terrestrial and Aquatic Ecosystems." Prepared for the U.S. Department of Interior, National Park Service by the Department of Botany, University of Wyoming, Laramie. Contract No. 9900X20047. Laramie, Wyoming.

Knight, Dennis 1994. *Mountains and Plains: The Ecology of Wyoming Landscapes*. Yale University Press, p. 121.

Love, J.D. 1961. "Definition of Green River, Great Divide, and Washakie Basins, Southwestern Wyoming," American Association of Petroleum Geologists Bulletin, v. 45, no. 10, pp. 1749-1755.

Love, J.D. and Christiansen, A.C. 1985. "Geologic Map of Wyoming." Wyoming Geological Survey, Laramie, Wyoming.

Lyon, L.J. 1979a. Habitat effectiveness for elk as influenced by roads and cover. Journal of Forestry 77: Pages 658-660.

Lyon, L.J. and A.L. Ward 1982. "Elk and land management." Pages 443-477 in J.W. Thomas and D.E. Toweill, eds. Elk of North America, ecology and management. Stackpole Books, Harrisburg, Pennsylvania.

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: Pages 351-358.

Mariott, H. 1988. Draft Habitat Management Plan for Threatened, Endangered, and Sensitive Plant Species and Their Habitats on the Rock Springs District. Bureau of Land Management. Wyoming Natural Diversity Database, Rocky Mountain Heritage Task Force, The Nature Conservancy. Laramie, Wyoming.

Martner, B.E. 1986. *Wyoming Climate Atlas*. University of Nebraska Press, Lincoln, Nebraska. 432 pages.

McGrew, Paul O. and Thomas M.Bown 1976. "Fossil Vertebrate Faunas and Important Paleontological Sites in the Green Mountain, Ferris Seven Lakes and Sandy EIS Areas, and Sweetwater County, Wyoming." A report for the Bureau of Land Management, Contract No. YA-512-CT6-192.

Miller, Mark E. 1998. "Test excavations at the Adams Site, 48SW10267". Unpublished report. Office of the Wyoming State Archaeologist. Laramie.

Miller, Nina Hill 1962. *Shutters West*. Sage Books, Denver, Colorado.

Morgan, Dale 1964. The West of William H. Ashley: The international struggle for the fur trade of the Missouri, the Rocky Mountains, and the Columbia, with explorations beyond the Continental Divide, recorded in the diaries and letters of William H. Ashley and his contemporaries 1822-1838. The Old West Publishing Company. Denver.

Moss, Pat 1998. Personal communication with Teri Deakins of the BLM on December 2, 1998, regarding income on Wind River Reserveration. Moss is the Planner for the Northern Arapaho Tribe.

New Mexico Bureau of Mines & Mineral Resources 1993. "Atlas of Major Rocky Mountain Gas Reservoirs."

Perry, C., and R. Overly 1976. "Impacts of roads on big game distribution in portions of the Blue Mountains of Washington." Pages 62-68 in S.R. Hieb. ed. Proc. Elk-logging-roads symposium, University of Idaho. Moscow, Idaho.

Peterson, James A. 1988. "Overview: Carbonate Reservoir Facies, Wyoming and Parts of Montana," in Goolsby, Steven M. and Longman, Mark W. (eds.), Occurrence and Petrophysical Properties of Carbonate Reservoirs in the Rocky Mountain Region, pp. 75-96. The Rocky Mountain Association of Geologists, Denver, Colorado.

Picard, M.. Dane 1975. "Facies, Petrography and Petroleum Potential of Nugget Sandstone (Jurassic), Southwestern Wyoming and Northeastern Utah." Rocky Mountain Association of Geologists Symposium, pp. 109-127.

Pipiringos, George N. 1961. "Uranium-Bearing Coal in the Central Part of the Great Divide Basin," U.S. Geological Survey Bulletin 1099-A, pp. A1-A104.

Public Law 100-4.

Robertson, Shirley 1998. Telephone conversation with Teri Deakins of the BLM regarding housing in Sweetwater County, July 15, 1998. Robertson is a sales agent/realtor with Apple Realty in Rock Springs, Wyoming.

Rock Springs Rocket Miner 1998. Classified ads: Apartments for Rent, Houses for Rent. June 30, 1998. Rock Springs, Wyoming.

Roehler, Henry W. 1965. "Summary of Pre-Laramide Late Cretaceous Sedimentation in the Rock Springs Uplift Area.." Wyoming Geological Association 19th Field Conference, pp. 10-12. Rose, Peter R. 1977. "Mississippian Carbonates Shelf Margins, Western United States." Wyoming Geological Association, 29th Annual Field Conference Guidebook, pp. 155-172.

Rosenberger, et al. 1999. "Draft Report on Recreation Expenditures for the USDA/Forest Service," Colorado State University.

Ross, R.J., Jr. 1976. "Ordovician Sedimentation in the Western United States." Rocky Mountain Association of Geologists Symposium, pp. 109-133.

Rost, G. R. and J. A. Bailey 1979. "Distribution of mule deer and elk in relation to roads." Journal of Wildlife Management, 43 (3): Pages 634-641.

Rykaczewski, D.; M. Ryne; C. Ewing; C. Smith; and F. Ogliaro 1980. "Baseline Climate and Air Quality for BLM Lands in Wyoming," Vol. 1, Science Applications, 476 pages. LaJolla, California.

Sanner, S. 1998. Personal communication with Dean Stilwell on September 30, 1998. Sanner is a Trona Mining Engineer with the USDI Bureau of Land Management in the Rock Springs Field Office, Rock Springs, Wyoming.

Sawyer, H. Hall 1998. "Evaluation of a summer elk model, and sexual segregation of elk in the Bighorn Mountains, Wyoming." Page 17.

Schultz, Alfred, R. and Whitman Cross 1912. "Potash Bearing Rocks of the Leucite Hills, Sweetwater County Wyoming." Department of the Interior United States Geological Survey, Bulletin 512, Washington: Government Printing Office.

Sheridan, Douglas M.; Charles H. Maxwell; and John T. Collier 1961. "Geology of the Lost Creek Schroeckingerite Deposits Sweetwater County, Wyoming." U.S. Geological Survey Bulletin 1087-J, pp. 391-478.

Skinner, B.J. 1976. *Earth Resources*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Squires, J.R. and T. Lorean 1999. "Lynx home range and movement in Montana and Wyoming-preliminary results." Chapter 11 IN Draft Report of the Lynx Science Team, February 1999.

State of Wyoming 1998a. Department of Administration and Information, Division of Economic Analysis. *Equality State Almanac* 1997, 5th Edition. Cheyenne, Wyoming.

State of Wyoming 1998b. Department of Administration and Information, Division of Economic Analysis. "Annual Residential Building Permits for Wyoming and Counties." Source: U.S. Department of Commerce, Bureau of the Census. <eadiv.stte.wy.us/housing/annlbldg.htm> June 1998.

State of Wyoming 1998c. Department of Administration and Information, Division of Economic Analysis. "Average Monthly Rental Rates for Apartments and Houses in Wyoming." From "Wyoming Cost of Living for the Fourth Quarter 1997," March 20, 1998. <eadiv.stte.wy.us/housing/ wyorents.htm> June 1998.

State of Wyoming 1998d. Treasurer's Office. Telephone conversation with Teri Deakins of the BLM regarding grazing and timber payments to Sublette County. July 1998.

State of Wyoming 1998e. Department of Family Services. Internet site. http://dfsweb.state.wy.us/mnthly/u_98stat/ Apr_1.htm>.

Stilwell, Dean 1999. "Updated Reservoir Study of Greater Sand Dunes ACEC for JMHCAP." Bureau of Land Management, Casper, Wyoming.

Sweetwater County Department of Planning and Development and SWEDA 1998. "The Sweetwater County Housing Report, 1998 Update." April 1998, Volume 1.

Sweetwater Economic Development Association (SWEDA) 1998a. "The Sweetwater County Employment and Population Report, 1998 Update." May 7, 1998, Volume 96-1.

Sweetwater Economic Development Association (SWEDA) 1998b. "Sweetwater County Demographics, 1997-1998 Community Profile". May 7, 1998. Rock Springs, Wyoming.

Tanner, Russel L. and David T. Vlcek 1995. "Picturing the Past: Prehistoric and Historic Rock Art of the Green River Basin in Wyoming." A paper presented at the second biennial Rocky Mountain Anthropological Conference. Steamboat Springs, Colorado.

True, Warren R. 1995. "First year of AGA's weekly storage survey suggests useful patterns," Oil and Gas Journal. Vol. 93, No. 29, pages 50-56. July 17, 1995.

Tyler, R.; W.R. Kaiser; A.R. Scott; and D.S. Hamilton 1996. "The Potential for Coalbed Gas Exploration and Production in the Greater Green River Basin, Southwest Wyoming and Northwest Colorado," in *The Mountain Geologist*, Vol. 34, No. 1, January 1997, p. 7-24. The Rocky Mountain Association of Geologists.

U.S. Census Bureau 1997. *Statistical Abstract of the United States*, 1997.

U.S. Fish and Wildlife Service 1995. *Ute Ladies-tresses* (*Spiranthes diluvialis*) *recovery plan*. U.S. Fish and Wildlife Service, Denver, Colorado. 46 pp.

U.S. Fish and Wildlife Service 1999. "Canada lynx conservation assessment and strategy," Lynx Biology Team, July 18, 1999. Denver, Colorado.

U.S. Geological Survey 1996. "Tabular Data, Text, and Graphical Images in Support of the 1995 National Assessment of United States Oil and Gas Resources." CD-ROM, Digital Data Series DDS-36.

U.S. Geological Survey 1996. "1995 National Assessment of United States Oil and Gas Resources—Results, Methodology, and Supporting Data." CD-ROM, Digital Data Series DDS-30, Release 2.

U.S. Geological Survey 1996. "Digital Map Data, Text, and Graphical Images in Support of the 1995 National Assessment of United States Oil and Gas Resources." CD-ROM, Digital Data Series DDS-35. USDI Bureau of Land Management 1978. *Final Environmental Statement, Proposed Domestic Livestock Grazing Management Program for the Sandy Area.* Rock Springs District, Wyoming.

USDI Bureau of Land Management 1990. *Final Rock Springs Wilderness Environmental Impact Statement*. Rock Springs District, Rock Springs, Wyoming.

USDI Bureau of Land Management 1992. *Green River Resource Management Plan and Draft Environmental Impact Statement*. Green River Resource Area, Rock Springs District. Washington: Government Printing Office.

USDI Bureau of Land Management 1994. *Arabis pusilla Habitat Management Plan*. HMP WY-048-WHA-P1. Green River Resource Area.

USDI Bureau of Land Management 1995. *Interim Management Policy and Guidelines for Lands Under Wilderness Review*. Update Document, H-8550-1. Washington: Government Printing Office.

USDI Bureau of Land Management 1996. *Green River Resource Area Resource Management Plan and Final Environmental Impact Statement*. Green River Resource Area, Rock Springs District. Washington:Government Printing Office.

USDI Bureau of Land Management 1997. *Record of Decision and Green River Resource Management Plan.* Green River Resource Area, Rock Springs District. Washington: Government Printing Office.

USDI Bureau of Land Management 1998. "Public Land Order No. 7312; Withdrawal of Public Land for the Protection of *Arabis pusilla* Plant Habitat; Wyoming." *Federal Register*, February 23, 1998 (Volume 63, Number 35).

USDI Bureau of Land Management 1998a. *Record of Decision, Jonah Field II Natural Gas Development Project EIS*. Pinedale and Green River Resource Areas.

USDI Bureau of Land Management 1998b. *Fire Management Implementation Plan for the BLM-Administered Public Lands in the State of Wyoming*, Wyoming State Office. Cheyenne, Wyoming.

USDI Bureau of Land Management 1999. "Wyodak Coal Bed Methane Project Draft Environmental Impact Statement," Buffalo Field Office.

USDI Bureau of Land Management 1999a. *Technical Report, Pinedale Anticline Oil and Gas Exploration and Development Project Draft Environmental Impact Statement,* Pinedale Field Office.

USDI Bureau of Land Management 1999b. *Pinedale Anticline Oil and Gas Exploration and Development Project Draft Environmental Impact Statement*, Pinedale Field Office.

USDI Bureau of Land Management 1999c. Continental Divide/Wamsutter II Natural Gas Project, Sweetwater and Carbon Counties, Wyoming, Draft Environmental Impact Statement. Rawlins and Rock Springs Field Offices. USDI Minerals Management Service 1996. *Report on Receipts from Federal and Indian Leases, Mineral Revenues.* Washington, D.C.

USDI Minerals Management Service 1997. *Federal Mineral Revenue Disbursements by State and County, Fiscal Year 1997.* Washington, D.C.

Vanderpool, Virginia 1998. Telephone conversation with Teri Deakins of the BLM regarding real estate listings in Sweetwater County, June 16, 1998. Vanderpool is the Executive Officer for the Sweetwater County Board of Realtors.

Wallem, D.B.; R.C. Surdam; and J.R. Steidtmann 1981. "Source Rock Analysis of the Lower Cretaceous Bear River Formation-Western Wyoming Overthrust Belt." in Wyoming Geological Association Guidebook, 1981.

Ward, A.L. 1976. "Elk behavior in relation to timber harvest operations and traffic on the Medicine Bow range in south central Wyoming." Pages 32-34 in S.R. Hieb, ed. Proc. Elklogging roads symposium, Univ. Idaho, Moscow.

Welder, George, E. 1968. "Ground-Water Reconnaissance of the Green River Basin Southwestern Wyoming" Hydrologic Investigations Atlas HA-290, Department of the Interior, United States Geological Survey, Washington, D.C.

Welder, George, E., and Laurence J. McGreevy 1966. "Ground-Water Reconnaissance of the Great Divide and Washakie Basins and Some Adjacent Areas Southwestern Wyoming," Hydrologic Investigations Atlas HA-219, Department of the Interior, United States Geological Survey, Washington, D.C.

Welp, L.; B.E. Nelson; and R. Hartman 1996. "General Floristic Inventory of the Great Divide Basin, Green and Crooks Mountains, and Upper Sweetwater River Drainage," Final Report. Prepared for the Bureau of Land Management by the Rocky Mountain Herbarium under Cooperative Agreement #K910-A2-0011. Laramie, Wyoming.

Wood, W. Raymond 1980. "Plains Trade in Prehistoric and Protohistoric Intertribal Relations," Pp. 98-109 in *Anthropology on the Great Plains*. W. Raymond wood and Margot Liberty, eds. University of Nebraska Press. Lincoln.

Wright, Thomas L. and Thomas C. Pierson 1992. Living with Volcanoes, The U.S. Geological Survey's Volcano Hazards Program. USGS Circular 1073, GPO: Washington D.C.

WSDC Bulletin, April 1998.

Wyoming Almanac.

Wyoming Game and Fish Department 2000. Personal communication in February 2000 with Tom Rider, Wildlife Biologist, Lander Office.

Wyoming Oil and Gas Conservation Commission 1995. "Wyoming Oil and Gas Statistics 1995." Casper, Wyoming.

Wyoming State Law 9-4-101 through 9-4-115, 35-11-12(a)(i), and 35-11-302.

Riparian References Section

These references were reviewed as part of the process of developing the riparian sections of the CAP text and appendix.

Behnke, Robert J. and Robert F. Raleigh 1978. "Grazing and the riparian zone: impact and management perspectives." In: R. Roy Johnson, et al., Proceedings, Strategies for Protection and Management of Floodplain Wetlands and other Riparian Ecostysems, Dec. 11-13, 1978, Callaway Gardens, Georgia, GTR WO-12, p. 263-267.

Berry, Charles R., Jr. 1978. "Impact of sagebrush management on riparian and stream habitat." In: The Sagebrush ecosystem: A Symposium. Utah State University, College of Natural Resources, Logan, Utah, p. 192-209.

Bohn, Carolyn 1986. "Biological importance of streambank stability." Rangelands 8(2):55-56.

Busby, Frank E. 1978. "Riparian and stream ecosystems, livestock grazing, and multiple-use management." In: Cope, Oliver B., Proceedings of the Forum-Grazing and riparian/ stream ecosystems, Denver, Colorado, November 3-4, 1978, p. 6-12.

Chaney, Ed; Wayne Elmore; and William S. Platts 1990. *Livestock Grazing on Western Riparian Areas*. U.S. Environmental Protection Agency. Eagle, Idaho. 44pp.

Clarkson, Robert W. and Jeffrey R. Wilson 1995. *Evaluation* of the U.S. Forest Services' fish habitat relationship system in east-central arizona-a final report. Arizona Game and Fish Department, Research Branch, Technical Report #8.

Clary, Warren P. and Bert F Webster 1989. *Managing grazing of riparian areas in the intermountain region*. USDA Forest Service, Intermountain Research Station, GTR INT-263.

Clary, Warren P. and Bert F. Webster 1990. "Recommended grazing practices." In: Proceedings of Conference XXI, International Erosion Control Association, February 14-17, p. 77-81.

Davis, Jerry W. 1987. "Options for managing livestock in riparian habitats." Transactions of the 51st North American Wildlife and Natural Resources Conference, August 1987, p. 290-297.

Ellis, Steve and Lynn Danly 1993. "Prescription for a troubled stream." Rangelands 15(5):233-235.

Frost, William E.; E. Lamar Smith; and Phil R. Ogden 1994. "Utilization guidelines." Rangelands 16(6):256-259.

Groeneveld, David P. and Thomas E. Griepentrog 1985. "Interdependence of groundwater, riparian vegetation, and streambank stability: A case study." in: Johnson, R. Roy, et al., *First North American Riparian Conference, Riparian Ecosystems and their Management: Reconciling Conflicting Uses.* April 16-18, 1985, Tucson, Arizona. Page 44-48.

Heede, Burchard H. 1985. "Interactions between streamside vegetation and stream dynamics." In: Johnson, R. Roy, et al., *First North American Riparian Conference, Riparian Ecosystems and their Management: Reconciling Conflicting Uses.* April 16-18, 1985, Tucson, Arizona. Page 54-58.

Hockett, Brian L. and James W. Roscoe 1993. "Livestock management guidelines for grazing in southwest montana riparian-wetland areas." In: *Workshop on Western Wetlands and Riparian Areas: Public/Private Efforts in Recovery, Management, and Education,* September 9-11, 1993, Snowbird, Utah, p. 102-106. Thorne Ecological Institute.

Kauffman, J. Boone; W. C. Krueger; and M. Vavra 1983. "Effects of late season cattle grazing on riparian plant communities." Journal of Range Management 36(6):685-691.

Kauffman, J. Boone; W. C. Krueger; and M. Vavra 1983. "Impacts of cattle on streambanks in Northeastern Oregon." Journal of Range Management 36(6):683-685.

Kauffman, J. Boone; W.C. Krueger; and M. Vavra 1985. "Ecology and plant communities of the riparian area associated with Catherine creek in northeastern Oregon." Oregon Agricultural Experiment Station, Technical Bulletin 147, p. 1-35, Corvallis, Oregon.

Kauffman, J. Boone and W.C. Krueger 1984. "Livestock impacts on riparian ecosystems and streamside management implications... a review." Journal of Range Management 37(5):430-438.

Kay, Charles E. and Steve Chadde 1991. "Reduction of willow seed production by ungulate browsing in Yellowstone National Park." In: Proceedings-Symposium on Ecology and Management of Riparian Shrub Communities, p. 83-88. USDA Forest Service, Intermountain Research Station, GTR INT-289.

Keller, Charles R. and Kenneth P. Burnham 1982. "Riparian fencing, grazing, and trout habitat preference on Summit Creek, Idaho." North American Journal of Fisheries Management 2:53-59.

Keller, Charles; Loren Anderson; and Paul Tappel 1978. "Riparian and stream ecosystems, livestock grazing, and multiple-use management." In: Cope, Oliver B., Proceedings of the Forum- Grazing and riparian/stream ecosystems, Denver, Colorado, Nov 3-4, 1978, p. 46-52.

Kinch, Gene 1989. *Riparian area management: grazing management in riparian areas*. BLM Technical Reference 1737-4. 48 pp.

Kinney, John W. and Warren P. Clary 1994. *A photographic utilization guide for key riparian graminoids*. USDA Forest Service Intermountain Research Station, INT-GTR-308, 13 pp.

Knopf, Fritz L. 1984. *Impacts of seasonal grazing on willow riparian communities.* Research information bulletin #84-72. U.S. Fish and Wildlife Service.

Kovalchik, Bernard L. 1991. "Growth and yield of willows in central oregon compared to reports in world literature." In: Proceedings-Symposium on Ecology and Management of Riparian Shrub Communities, p. 83-88. USDA Forest Service, Intermountain Research Station, GTR INT-289. Krueger, Henry O. and Stanley H. Anderson 1985. "The use of cattle as a management tool for wildlife in shrub-willow riparian systems." In: Johnson, R. Roy, et al., First North American Riparian Conference, Riparian Ecosystems and their Management: Reconciling Conflicting Uses. April 16-18, 1985, Tucson, Arizona. Page 300-304.

Krueper, David J. 1992. "Effects of land use parctices on western riparian ecosystems." In: Finch, Deborah M., Proceedings- Status and Management of Neotropical Migratory Birds, Sept. 21-25, 1992. Rocky Mountain Forest and Range Experiment Station, GTR RM-229. P. 321-330.

Marlow, Clayton B.; Kathrin Olson-Rutz; and Jennifer Atchley 1989. "Response of a southwest montana riparian system to four grazing management alternatives." In: Gresswell, Robert E., et al., Practical Approaches to Riparian Resource Management, an Educational Workshop, May 8-11, 1989, p. 111-116.

Marlow, Clayton B.; Thomas M. Pogacnik; and Shannon D. Quinsey 1987. "Streambank stability and cattle grazing in southwestern Montana." Journal of Soil and Water Conservation 42(4):291-296.

Marlow, Clayton B. 1987. "Mitigating livestock impacts to streambanks within northern rocky mountain foothills riparian zones." In: Proceedings- Issues and technology in the management of impacted wildlife, Proceedings III, Nov. 2-4, 1987, Colorado Springs, Colorado. Thorne Ecological Institute, 1988, pp. 147-150.

Marlow, Clayton B. and Thomas M. Pogacnik 1985. "Time of grazing and cattle-induced damage to streambanks." In: R. Roy Johnson, et al., Proceedings, Riparian Ecosystems and their management: Reconciling Conflicting Uses, First North American Riparian Conference, Tucson, Arizona. p. 279-284.

Myers, Lewis H. 1989. "Grazing and riparian management in southwestern montana." In: Gresswell, Robert E., et al., Practical Approaches to Riparian Resource Management, an Educational Workshop, May 8-11, 1989, p. 117-120.

Myers, Thomas J. and Sherman Swanson 1991. Aquatic habitat condition index, stream type, and livestock bank damage in northern Nevada. Water Resources Bulletin, American Water Resources Association, 27(4):667-677.

Myers, Thomas J. and Sherman Swanson 1992. Variation of stream stability with stream type and livestock bank damage in northern Nevada. Water Resources Bulletin, American Water Resources Association 28(4):743-754.

Overton, Kerry C.; Gwynne L. Chandler; and Janice A Pisano 1994. Northern/intermountain regions' fish habitat inventory:grazed, rested, and ungrazed reference stream reaches, Silver King Creek, California. USDA Forest Service, Intermountain Reserach Station, GTR INT-311.

Packer, Paul E. 1953. "Effects of trampling disturbance on watershed condition, runoff, and erosion." Journal of Forestry 51:28-31.

Platts, William S. 1981. "Effects of livestock grazing." In: Influence of Forest and Rangeland Management on Anadromous Fish Habitat in Western North America. USDA Forest Service, pacific Northwest Forest and Range Experiment Station, GTR PNW-124.

Platts, William S. 1981. *Effects of sheep grazing on a riparian-stream environment*. USDA-Forest Service, Intermountain Forest and Range Experiment Station, Research Note INT-307, 6pp.

Platts, William S. 1984. "Fencing to control livestock grazing on riparian habitats along streams: is it a viable alternative?" North American Journal of Fisheries Management 4:266-272.

Platts, William S. 1986. "Riparian stream management." Transactions of the Western Section, The Wildlife Society 22:90-93.

Platts, William S. 1986. "Managing riparian stream habitats." In: Proceedings, Wyoming Water 1986 and Streamside Zone Conference, p. 59-62.

Platts, William S. 1989. "Characteristics of riparian plant communities and streambanks with respect to grazing in northeastern Utah." In: Gresswell, Robert E., et al., Practical Approaches to Riparian Resource Management, an Educational Workshop, May 8-11, 1989, p. 73-81.

Platts, William S. 1989. "Compatibility of livestock grazing strategies with fisheries." In: Gresswell, Robert E., et al., Practical Approaches to Riparian Resource Management, an Educational Workshop, May 8-11, 1989, p. 103-110.

Platts, William S. and Rodger Loren Nelson 1981. *Livestock-Fishery interaction studies, Tabor Creek, Nevada, Progress Report 2.* USDA-Forest Service, Intermountain Forest and Range Experiment Station, Boise, Idaho. 39pp.

Platts, William S. and Rodger Loren Nelson 1985. "Streamside and upland vegetation use by cattle." Rangelands 7(1):5-7.

Platts, William S., et al. 1987. *Methods for evaluation riparian habitats with applications to management*. USDA Forest Service, Intermountain Research Station. GTR INT-221.

Platts, William S.. "Sheep and cattle grazing strategies on riparian-stream environments." In: Symposium, Wildlife-Livestock Relationships, Department of Wildlife Resources, College of Forestry, Wildlife and Range Sciences, University of Idaho, p. 251-270.

Platts, William S., Rodger Loren Nelson, Osborne Casey, and Val Crispin 1983. "Riparian-stream habitat conditions on Tabor creek, Nevada, under grazed and ungrazed conditions." In: Proceedings, 63rd Annual Conference of the Western Association of Fish and Wildlife Agencies, Teton Village, Wyoming, July 10-14, 1983. Pp. 162-184.

Platts, William S. and Rodger Loren Nelson 1985. "Stream habitat and fisheries response to livestock grazing and instream improvement structures, Big Creek, Utah." Journal of Soil and Water Conservation 40(4):374-379.

Popolizio, Carlo A., Harold Goetz, and Phillip L. Chapman 1994. "Short-term response of riparian vegetation to four grazing treatments." Journal of Range Management 47(1):48-53.

Prichard, Don, et al. 1993. *Process for assessing proper functioning condition*. BLM Technical Reference 1737-9.

Prichard, Don, et al. 1994. *Process for assessing proper functioning condition for lentic riparian-wetland areas.* BLM Technical Reference 1737-11.

Rauzi, Frank and Clayton L. Hanson 1966. "Water intake and runoff as affected by intensity of grazing." Journal of Range Management 19(6):351-356.

Richard, W. H. and C. E. Cushing 1982. "Recovery of streamside woody vegetation after exclusion of livestock." Journal of Range Management 35(3):360-361.

Roath, Leonard Roy and William C. Krueger 1982. "Cattle grazing influence on a mountain riparian zone." Journal of Range Management 35(1):100-103.

Schulz, Terri Tucker and Wayne C. Leininger 1990. "Differences in riparian vegetation structure between grazed areas and exclosures." Journal of Range Management 43(4):295-299.

Skovlin, Jon M. 1984. "Impacts of grazing on wetlands and riparian habitat: a review of our knowledge." In: Developing Strategies for Rangeland Management, p. 1001-1103. National Research Council/National Academy of Sciences. Westview Press.

Smeins, Fred E. 1975. "Effects of livestock grazing on runoff and erosion." In: Proceedings of the American Society of Civil Engineering, Watershed Management Symposium. Utah State University, Logan, Utah. p. 267-274.

Smith, Bruce H. 1980. "Riparian willow management: its problems and potentials, within the scope of multiple use on public lands." In: Fisser, Herbert G. and Kendall L. Johnson, Wyoming Shrublands: Proceedings of the Ninth Wyoming Shrub Ecology Workshop, Lander, Wyoming, p. 15-20.

USDA, Forest Service, Beaverhead National Forest 1994. Implementing the beaverhead forest riparian guidelines. 19pp.

USDA, Forest Service, Intermountain Region 1992. Integrated Riparian Evaluation Guide.

USDI, Bureau of Land Management 1992. *Management techniques in riparian areas*. Riparian Area Management, TR-1737-6, Bruce Smith and Don Prichard; 1992.

USDI, Bureau of Land Management 1992. *Procedures for Ecological Site Inventory with Special Reference to Riparian-Wetland Sites*. Riparian Area Management, TR-1737-7, Steve Leonard, George Staidl, Jim Fogg, Karl Gebhardt, Warren Hagenbuck, Don Prichard; 135pp; 1992.

USDI, Bureau of Land Management 1993. *Greenline Riparian-Wetland Monitoring*. Riparian Area Management, TR-1737-8; Jim Cagney; 45pp; 1993.

USDI, Bureau of Land Management 1993. *Process for Assessing Proper Functioning Condition*. Riparian Area Management, TR-1737-9. Don Prichard, Hugh Barrett, Karl Gebhardt, Jim Cagney, Dr. Paul Hansen, Ron Clark, Brenda Mitchell, Jim Fogg, Dan Tippy; 60pp; 1993.

USDI, Bureau of Land Management 1994. Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas. Riparian Area Management, TR-1737-11. Don Prichard, Clay Gridges, Steve Leonard, Russ Krapf, Warren Hagenbuck; 46pp; 1994.

USDI, Bureau of Land Management 1997. *Grazing Management for Riparian-Wetland Areas*. Riparian Area Management, TR-1737-14. Steve Leonard, Gene Kinch, Van Elsbernd, Dr. Mike Borman, and Dr. Sherman Swanson; 1997. USDI, Bureau of Land Management 1998. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas. Riparian Area Management, TR-1737-15. D. Prichard, J Anderson, R. Krapf, C. Correll, S. Leonard, J. Fogg, B. Mitchell, K. Gebhardt, J. Statts; National Applied Resources Science Center; 136pp.; 1998.

Warren, S.D.; M.B. Nevill; W.H. Blackburn; and N.E. Garza 1986. "Soil response to trampling under intensive rotation grazing." Journal of the American Soil Science Society 50:1336-1341.

Warren, S. D.; T.H. Thurow; W.H. Blackburn; and N.E. Garza 1986. "The influence of livestock trampling under intensive rotation grazing on soil hydorlogic characteristics." Journal of Range Management 39(6):491-495.