

**United States Department of the Interior
Bureau of Land Management**

Determination of NEPA Adequacy

**DOI-BLM-UT-0300-2016-007-DNA
Grand Staircase Escalante Partners
Escalante River Restoration Project**

Location: Grand Staircase-Escalante National Monument

Applicant/Address: Grand Staircase Escalante Partners
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Worksheet

Determination of NEPA Adequacy

U.S. Department of the Interior
Utah Bureau of Land Management

OFFICE: Grand Staircase-Escalante National Monument (GSENM)

TRACKING NUMBER: DOI-BLM-UT-0300-2016-007-DNA

PROPOSED ACTION TITLE/TYPE: Grand Staircase Escalante Partners (GSEP)
Escalante River Restoration Project

LOCATION/LEGAL DESCRIPTION: Grand Staircase-Escalante National Monument
located in Kane and Garfield Counties, Utah

APPLICANT (if any): Bureau of Land Management and Grand Staircase Escalante Partners

A. Description of the Proposed Action and Any Applicable Mitigation Measures

The BLM is proposing to authorize GSEP to remove Russian olive trees from the riparian zone of the Escalante River including the tributaries. The work would consist of cutting and/or girdling Russian olives using chainsaws, handsaws, and other hand tools. After trees are cut or girdled there would be an application of herbicides to the cambium layer of the tree, (the live tissue between the bark and the wood). If trees are dropped they would be cut to lengths shorter than four feet. Girdled trees would remain standing. Piles would be made on the river banks in such a way that water isn't blocked. These piles would be washed away with flash floods. Piles would also be created in the riparian zone and / or floodplains; these would eventually be washed away by larger flash floods. Herbicides to be used are glyphosate and imazapyr. These herbicides are on the BLM approved list, and their use is unrestricted. The work would be conducted by conservation corps members, volunteers, GSEP staff, and GSENM staff.

Restoration efforts on the Escalante River would be passive in nature. Work done previously has shown when woody invasives are removed the native vegetation is able to grow in rapidly. If sites are found to not restore themselves with the surrounding native vegetation steps would be taken to restore those areas by actively restoring them with native materials previously collected from the Escalante River watershed that are currently stored at the USFS Bend Seed Extractory in Bend, OR.

New treatments and retreatments would not occur until after August 31st avoiding the migratory bird season, as well as Mexican Spotted Owl (MSOs) breeding season.

New Treatments would occur on approximately 233 acres at these locations;

- Along the Escalante River down river from the confluence of Phipps Wash.
- Horse Canyon and the Escalante River at the Horse Canyon confluence.
- Ten Mile Wash and Harris Wash.
- New treatments consist generally of higher density vegetation.

Retreatment would occur on approximately 541 acres in these locations;

- Alvey Wash
- Death Hollow
- Calf Creek
- Deer Creek below the town of Boulder
- Escalante river above and below the confluence of Boulder Creek
- Escalante river confluence of Sand Creek
- Retreatment consists generally of lower density vegetation.

Conservation Corps Groups

Four conservation corps would work with GSEP and GSENM, the Utah Conservation Corps (UCC), Canyon Country Youth Corps (CCYC), and South West Conservation Corps Ancestral Lands Program (SCC-AL). GSEP and GSENM staff would oversee the corps members. GSEP field staff would frequently camp with the corps on a rotating schedule. Conservation corps consists of eight people maximum, generally operating three or four chainsaws. Each work site would have two groups that alternate work week.

Corps member would use chainsaws and herbicides to treat woody invasives species. There would be two crew leaders with each group that are trained and licensed to use herbicides. All corps members would be trained in chainsaw and herbicide use as well as plant identification and Leave No Trace ethics. Pesticide application records would be maintained at each work site recording such things as daily herbicide use and weather conditions.

Camp locations would be selected based on safety if a flash flood were to occur and to have the least impact on other resources such as recreation, vegetation and soils. Camp sites would be regularly inspected by GSENM and GSEP staff and just prior and immediately after the conservation crews vacate to ensure resources are not damaged. Crews would be supported with contracted horse packers to transport herbicides, garbage, and other group needs. All human waste would be removed via portable sanitation (groover) and horse packed out.

Summary of Schedule for Conservation Corps

Please review attached maps to assist with this section.

Two CCYC crews would work below the Phipps Wash confluence camping at site 1 working towards site 2. Two UCC crews would work further downstream and camp at site 4 and work towards site 3. Work would begin September 1 through November 10; these crews would have their rotation day on Mondays and Thursdays.

Two UCC crews would work in Horse Canyon toward the Escalante River. They would also

treat the Horse Canyon confluence of the Escalante River. The UCC crews would begin September 1 and finish November 10. These crews would have their rotation day on Mondays. A request will be submitted to the Monument Manager for use of the Horse Canyon administrative road by GSEP for both the horse packers and the conservation corps.

One Ancestral Lands Crew would work in Harris Wash; GSEP would work with Monument staff to determine the best place for a campsite. The crews will hike to the work sites. Work would begin September 1 and end November 10. This crew is a five person crew. They would work in Ten Mile / Harris Wash towards the boundary with GLCA. This crew would not be horse supported and camping location would be away from the trailhead out of the flash flood zone.

One retreatment crew consisting of two GSEP Field staff and two AmeriCorps interns would work in a variety of places in both front country and backcountry settings. These areas are identified in the project maps. The two GSEP field staff and two AmeriCorps interns would do retreatment when they are passing through areas needing retreatment while supporting the crews.

Volunteer Groups

Please review attached maps to assist with this section.

Volunteer groups would have a maximum of 10 people. Volunteers would not work with the conservation corps. They would be placed on the opposite end of the project areas where the conservation corps crews would be working. GSEP field staff and/or GSENM staff would oversee the volunteers and work and camp with them for the duration of the trip. GSEP field staff would instruct the volunteers in the protocols of cutting small trees and clearing underneath larger trees preparing them for the conservation corps crews to finish with chainsaws.

Volunteers use hand tools only (loppers and hand saws) to cut Russian olive saplings and prune larger trees. Under the direction of the GSEP field staff (licensed), the volunteers would use the same herbicides the corps use to spray the saplings that are cut.

Volunteers would hike to the work site and camp in either the backcountry or front country for one week. Horses would be utilized to pack in all gear needed to accomplish the project and pack out human waste and gear when project is complete.

Summary of schedule for identified Volunteer Groups

Volunteers would work for a week in September / October (schedule has not been finalized; it will not be scheduled before September 1) and camp at site 2 below Phipps Wash and work towards campsite 3. This trip would be scheduled to occur before the work crews arrive at campsite 2 and 3.

Volunteers would work for a week in September / October (schedule has not been finalized; it will not be scheduled before September 1) in Ten Mile / Harris Wash.

GSEP Field Staff

GSEP has hired a field supervisor and two field assistants and one AmeriCorps intern with the Utah Conservation Corps. to help with the Escalante River Watershed Project woody invasive removal projects. The staff and intern would all have their Utah State herbicide applicators license, chainsaw training, and wilderness first responder certification. The field staff and

interns would conduct field work from March until November throughout the watershed, including all federal lands and in some cases on private lands.

Activities include:

- Oversee all scheduled retreatment, beginning after September 1.
- Oversee volunteer groups
- Working with the GSEP Project Coordinator to oversee supply and equipment logistics for the project
- Conduct monitoring of treatment areas, and
- Update the GIS database on treatment activities.

B. Land Use Plan (LUP) Conformance

LUP Name: GSENM Monument Management Plan (MMP); Date Approved: February 2000

The proposed action is in conformance with the MMP because it is specifically provided for in the following LUP decisions:

NW-1 through NW-8, RM-4, NAT 1, NAT 2, VEG-1, RIPA-6; REV-1

C. Identify the applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

Programmatic Noxious Weed and Invasive Plant Management Environmental Assessment and Record of Decision – Grand Staircase Escalante National Monument, EA# DOI-BLM-UT0300-2011-009, August 29, 2015, Kanab, UT. (Hereinafter “2015 EA”)

Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States: Programmatic Environmental Impact Statement, FES 07-21, June 2007, BLM, Reno, NV. (Hereinafter “PEIS”)

Record of Decision for Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States: Programmatic Environmental Impact Statement, September 2007. (Hereinafter “ROD”)

Final Vegetation Treatments on Bureau of Land Management Lands in 17 Western States: Programmatic Environmental Report, FES 07-21, June 2007, BLM, Reno, NV. (Hereinafter “PER”)

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes, The Proposed Action is entirely within the limits of a programmatic level analysis of the

2015 EA signed August 29, 2015. The size of the project sites, the scope of the work, the methods used and setting are described in the programmatic analysis.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action (or existing proposed action), given current environmental concerns, interests, and resource values?

Yes, the range of alternatives considered in the 2015 EA is appropriate. The EA analyzed three alternatives pertaining to non-native vegetation treatments, including;

- No Action,
- Expanded Use (the preferred alternative), and
- No Chemical Use.

The 2015 EA was tiered to the PEIS, which considered a range of vegetation treatment alternatives including the use of herbicides.

The current environmental concerns, interests, and resource values, the range of alternatives and identified issues are still appropriate.

3. Is existing analysis adequate in light of any new information or circumstances (such as, rangeland health standards assessment; recent endangered species listings, updated list of BLM sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes, the existing analysis is valid. The proposed action is removal of invasive woody species and is based on activities that have been addressed in the PEIS/PER, and the 2015 EA.

Based on the review described above, no new information or circumstances have been identified that would substantially change the analysis of removing woody invasive species.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes, the analysis of this type of proposed action was based on a target of acres treated;

- Manual, use of chainsaw, analyzed up to 400 acres
- Manual, use of hand tools, analyzed up to 600 acres, and
- Chemical treatments analyzed up to 800 acres (hand application).

Proposed total acres that would be treated in fall 2016;

- Manual, use of chainsaw, 233 acres, new treatments.
- Manual, use of hand tools, 541 acres, re-treatment
- Chemical treatments, 774 acres, total project area acres.

From year 2010 to 2013 actual herbicide use ranged from 54 acres to 146 acres. In mid-2014, GSEP started using Imazapyr and Glyphosate herbicides instead of Triclopyr; these two herbicides require less herbicide (active ingredients) per acre. In 2014, 13.2 acres was treated

with Imazapyr and Glyphosate; 72.40 acres were treated with Triclopyr. In 2015 21.12 acres were treated with Imazapyr and Glyphosate. Based on these numbers it is estimated that actual herbicide use should not exceed 150 acres.

The impacts are within the scope of existing NEPA analysis.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes, a scoping letter for the 2011 EA was sent out to the public and posted on ENBB on April 9, 2012. Eight letters were received; these comments and BLM response are included in the EA. The 2011 EA was posted on ePlanning on July 10, 2015 and six letters were sent to interested parties. No comments were received.

E. Persons/Agencies/BLM Staff Consulted

See Appendix A. (ID Team Checklist)

CONCLUSION *(If you found that one or more of these criteria is not met, then you cannot conclude that the NEPA documentation fully covers the proposed action).*

Based on the review documented above, I conclude that continuing Russian olive removal activities conforms to the Monument Management Plan and that the existing NEPA documentation adequately considers the impacts of the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

Signature of Project Lead

Date

Signature of NEPA Coordinator

Date

Signature of the Responsible Official

Date

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

ATTACHMENTS

ID Team Checklist

Map

Minimum Requirements Decision Guide

Stipulations

INTERDISCIPLINARY TEAM CHECKLIST

Project Title: ERWP Russian olive removal
NEPA Log Number: DOI-BLM-UT-0300-2016-007-DNA
Project Leader: Amber Hughes

DETERMINATION OF STAFF: *(Choose one of the following abbreviated options for the left column)*

NP = not present in the area impacted by the proposed or alternative actions
 NI = present, but not affected to a degree that detailed analysis is required
 PI = present with potential for impact that needs to be analyzed in detail
 NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form.
 The rationale column may include NI and NP discussions.

**RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL
AUTHORITIES APPENDIX 1 H-1790-1)**

Determination	Resource	Rationale for Determination*	Signature	Date
NC	Air Quality (Bybee)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/A.Bate	3/31/2016
NP	Areas of Critical Environmental Concern (Beal/Gale)	No Areas of Critical Environmental Concern are designated within Grand Staircase-Escalante National Monument.	/s/ J. Beal	20160328
NC	Biological Soil Crusts (Brinkerhoff)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/R. Brinkerhoff	3/23/16
NP	BLM Natural Areas (Beal)	This project will occur in a designated natural area within GSENM. This project will have short term effects on naturalness with the cutting of trees and creation of wood piles. With time, flooding and natural deterioration the sites will return to a natural appearance. No long term impacts to naturalness is expected.	/s/ J. Beal	20160328
NP	Cultural Resources (Zweifel)	This project is for removal of invasive plant species (Russian olive, tamarisk) within the flood plain of riparian corridors. Cultural resource sites are not found in these settings.	/s/ M. Zweifel	3/31/2016
NC	Greenhouse Gas Emissions (Bybee)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/A.Bate	3/31/2016
NI	Environmental Justice (Hughes)	The proposal would not have disproportionate effects on low income or minority communities. According to the EPA EJView Mapper, Kane Counties have been categorized as having a minority population of 0-10% and a below poverty population of 0-10%. (Accessed at: http://epamap14.epa.gov/ejmap/ejmap.aspx?wherestr=Garfield%20County%2C%20UT on 2/6/2014.).	/s/ A. Hughes	2/10/2016

Determination	Resource	Rationale for Determination*	Signature	Date
NP	Farmlands (Prime or Unique) (Hughes)	Prime farmland is described as farmland with resources available to sustain high levels of production. In Utah, it normally requires irrigation to make prime farmland. In general, prime farmland has a dependable water supply, a favorable temperature and growing season, acceptable levels of acidity or alkalinity, an acceptable content of salt and sodium, and few or no rocks. Unique farmland in Utah is primarily in the form of orchards. Based on these definitions, no prime or unique farmlands exist within the Monument. (see NRCS 1997 Results - Cropland Utah accessed at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ut/technical/dma/nri/?cid=nrcs141p2_034092 on 2/6/2014.)	/s/ A. Hughes	2/10/2016
NC	Fish and Wildlife Excluding USFW Designated Species (Tolbert/McQuivey)	There is no change from the original checklist. The affects were analyzed in the programmatic. Mitigation and best management practices should be followed better by the group as a whole.	/s/ T. Tolbert	04/04/16
NC	Floodplains (Bradshaw)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/K. Bradshaw	03/28/2016
NC	Fuels/Fire Management (Bate)	The activities proposed were analyzed in the EA. No new issues are anticipated.	/s/A.Bate	03/31/2016
NC	Geology / Mineral Resources/Energy Production (Titus)	Geological resources would not be affected by the treatments outlined in the proposed action, which is largely non-surface disturbing and in Holocene alluvium. No additional measures beyond the scope of the Programmatic EA are proposed.	/s/ Alan Titus	03/31/2016
NC	Hydrologic Conditions (Bradshaw)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/ K. Bradshaw	3/28/2016
NC	Invasive Species/Noxious Weeds (EO 13112) (Brinkerhoff)	The point of the project is to remove woody invasive species from riparian areas to protect native vegetation. This was analyzed in the EA.	/s/R.Brinkerhoff	3/23/16
NC	Lands/Access (Foley)	Existing NEPA analysis in Programmatic 2011-0009-EA is sufficient for the proposed action, as these types of activities typically have no impact on land tenure, access, or realty-related valid existing rights. Scoping should include project-adjacent state, local government, and private landowners. Activity should take care to preserve survey markers, bearing trees, and witness corners.	/s/ Mark Foley	03/10/2016
NC	Livestock Grazing (Bate)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/A.Bate	
NP	Native American Religious Concerns (Zweifel)	This project has no potential to impact cultural resource sites, and will benefit natural vegetation. This project will be included in the annual GSENM/Native American consultations, and only positive comments are anticipated.	/s/ M. Zweifel	3/31/2016
NI/NC	Paleontology (Titus)	Paleontological resources would not be affected by the treatments outlined in the proposed action, which is largely non-surface disturbing and in Holocene alluvium. No additional measures beyond the scope of the Programmatic EA are proposed.	/s/ Alan Titus	3/31/2016
NC	Rangeland Health Standards (Bate)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/A.Bate	3/31/2016
NI	Recreation (Beal/Gale)	The proposed action will cause a short term disruption in recreation activities as people pass through the area of work. This work is temporary in nature and will not have long term effects. The Programmatic EA did identify and analyze recreation impacts in regard to this restoration project.	/s/ J. Beal	20160328

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Socio-Economics (Hughes)	The proposed action is not likely to provide any noticeable impact to the local economy.	/s/ A. Hughes	2/10/2016
NC	Soils (Bradshaw)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/ K. Bradshaw	3/28/2016
NC	Threatened, Endangered or Candidate Plant Species (Brinkerhoff)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/ R. Brinkerhoff	3/23/16
NI	Threatened, Endangered or Candidate Animal Species (Tolbert/McQuivey)	The effects of the vegetation removal portion of this project were analyzed in the programmatic weed EA. If any other projects are proposed as ERWP activities more NEPA analysis will be required. A new riparian species, the yellow billed cuckoo, has been listed since the start of this project. Best management practices and timing restrictions for vegetation removal used for Southwestern willow flycatchers should be sufficient protection for cuckoos if there are any using the area. Surveys for listed riparian species, yellow billed cuckoos, Southwestern willow flycatchers and Mexican spotted owls, should be done throughout the whole scope of ERWP projects before vegetation removal during the birds breeding and brood raising periods.	/s/ T. Tolbert	04/04/2016
NP	Wastes (hazardous or solid) (Pierson)	There will be no industrial wastes or toxic substances used or generated.	/s/ B. Pierson	3/9/16
NC	Water Resources/Quality (drinking/surface/ground) (Bradshaw)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/ K. Bradshaw	3/28/2016
NC	Wetlands/Riparian Zones (Brinkerhoff)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/R. Brinkerhoff	3/23/16
NC	Wild and Scenic Rivers (Beal/Gale)	The proposed activities were analyzed in the programmatic EA. Although new geographic area, same effects on WSR long-term eligibility. Beneficial to WSR values and long-term eligibility. Project stipulations will insure protection of associated riparian resources.	/s/LGale	4/4/16
NC	Wilderness/WSA (Beal/Gale)	The proposed activities were analyzed in the programmatic EA. Although new geographic area in WSA, same effects on WSA eligibility. Completion of MRDG and project stipulations insures least impairing methods employed and no long-term threat to suitability. Beneficial to restoration of natural ecological processes.	/s/LGale	4/4/16
NC	Woodland/Forestry (Bate)	The proposed activities were analyzed in the programmatic EA. No new issues were identified.	/s/A.Bate	3/31/2016
NC	Vegetation Excluding USFWS Designated Species (Brinkerhoff)	The proposed action will be removing the non-native vegetation and allowing the native vegetation to expand into these areas. Therefore making the site stable and more resilient.	/s/R. Brinkerhoff	3/23/16

Determination	Resource	Rationale for Determination*	Signature	Date
NC	Visual Resources (Angus)	Visual impacts were addressed in the Programmatic EA. New treatment segments are located in Class I areas in canyons where visibility is limited primarily to those hiking into the areas. Contrast rating analysis is not warranted due to the scale, scope, visibility of these treatment segments and knowledge of visual impacts from previous work in similar locations. New treatment segments would meet VRM objectives as analyzed in the PEA. Retreatments are located in VRM Class I and II areas; these were also analyzed in PEA and would meet VRM objectives in all locations.	/s/AAngus	4/11/2016
NP	Wild Horses and Burros (Stewart)	There are no Wild Horse and Burro Herd Management Areas within GSENM.	/s/A.Bate	3/31/2016
NC	Lands with Wilderness Characteristics (Beal/Gale)	The proposed activities were analyzed in the programmatic EA. Although new areas of LWC involved, same effects to wilderness characteristics. Completion of MRDG and project stipulations serve to protect LWC.	/s/LGale	4/4/16

FINAL REVIEW

Reviewer Title	Signature	Date	Comments
Environmental Coordinator			
Authorized Officer			

Escalante River Restoration Project Stipulations

General Requirements

1. GSEP, its staff, and volunteers will use Leave No Trace and TREAD Lightly stewardship practices.
2. Cuttings (i.e., slash or biomass) shall be disposed in either stream bank piles or wildlife habitat piles, and shall be constructed as described in the “Guide to Russian Olive Removal on the Escalante River: Field Season 2014, Upper Escalante Canyon.” Cuttings shall not be thrown in the river or piled on trails.
3. Project activities will be restricted during the nesting season April 1-July 15 to minimize, reduce or avoid impacts to migratory birds. Where Russian olive removal activities are proposed to occur during the nesting season, a GSENM biologist will survey the proposed treatment area to identify any habitat that must be avoided.
4. Where activities are proposed to occur during the Mexican spotted owl nesting season (March 1-August 30) a GSENM biologist will survey the proposed treatment area to identify any habitat that must be avoided.
5. A portable sign shall be placed at the trailhead to alert backcountry users that crews are removing Russian olive and using herbicides.
6. A notice will be placed in the Escalante Interagency Visitor Center notifying users of the areas where Russian olive removal activities are occurring.

Herbicide Use

1. Application operations will typically be suspended when any of the following conditions exist on the treatment area:
 - a. Wind velocity exceeds 6 miles per hour for the application of liquids or 15 miles per hour for the application of granular herbicides, or as specified on the label (whichever is less).
 - b. Snow or ice covers the target foliage.
 - c. Precipitation is occurring or is imminent.
 - d. Fog significantly reduces visibility.
 - e. Air turbulence (for example, thermal updrafts) is sufficient to affect the normal chemical distribution pattern.
2. Herbicides will not be applied during rainfall or when rainfall is expected to occur within the next 3 days.
3. Direction of spraying will be away from water sources and not towards them.

4. Protective buffer zones will be provided along important riparian habitat not designed to be treated and along streams, rivers, lakes, wetlands, and xeroriparian areas along important dry water courses.
5. Treatment will be restricted to only the areas of noxious weed infestation.
6. Spray tanks will not be washed out in or near by streams, and chemical containers will be disposed of in areas designated for such disposal.
7. All containers will be securely resealed before transporting.
8. Herbicides will not be mixed or transferred from one container to another in or near streams or drainage ways or on slopes exceeding 30 percent.
9. Precautions will be taken to assure that equipment used for storage, transport, and mixing or application will not leak into water or soil creating a contamination hazard.
10. Periods of treatment should avoid the bird nesting season and other critical seasons when loss of cover would be critical to wildlife; e.g. during critical reproductive periods and prior to severe winter weather conditions. Application of diesel fuel as a carrier of herbicides to bird eggs and young of any wildlife species should be avoided.
11. Prior to herbicide applications, any managed apiaries (honey bee colonies) in the vicinity will be notified in advance to allow time for removal or other protection of the hives.
12. When application and timing of herbicide spraying could cause a hazard for human consumption of wild game taken by sport hunters, the spray area should be adequately posted to warn hunter of the potential hazard.
13. A preventative maintenance program will be incorporated as part of each project treatment proposal that would help guard against re-encroachment of undesired plant or shrub species.
14. Chemical application and supervision will be only by males when there is a danger of Teratogenic effects.
15. Herbicide will be applied in strict conformity to label instructions.
16. Standards and guidelines in BLM Handbook Section 9011 (Pesticide Storage, Transportation, Spills, and Disposal) Section 11 will be met. This defines standards for storage facilities, posting and handling, accountability, and transportation. It covers spill prevention, planning, cleanup, and container disposal requirements.
17. A State certified pesticide applicator will be present for all chemical applications.
18. All BLM personnel will follow BLM safety procedure as outlined in BLM manual 9222,

appendix 2, pages 8 through 10.

19. Individuals involved in the herbicide handling or application will be instructed on the safety plan and spill procedures.

Standard Operating Procedures

1. The safety of the general public, and employees and contractors of BLM will be primary consideration when proposing land treatments. Proper protective clothing will be worn by employees as prescribed in manuals.
2. During site specific analysis and preliminary planning of weed management and vegetation treatment a field survey will be complete prior to proposed treatment. This survey will identify target plant species as well as associated plant species, land uses of the area, soil physical and chemical characteristics, water, climatic conditions, proximity to sensitive resources such as threatened and endangered species of plants and animals, riparian habitat, areas of human use, wildlife use and migration, livestock grazing, presence of cultural resources, and any human health hazards which may exist. The project area will be mapped and flagged if appropriate.
3. Projects that may affect areas of historic, cultural, or archeological values will be subject to standard cultural surveys and site clearances. Project will be modified or altered to protect significant resources if found.
4. Sites proposed for vegetation treatment with herbicides will be treated prior to or after maximum recreation use occurs. Treatment sites with potential for public use will be posted to notify the public of any hazard that may exist.
5. Projects that may affect areas of threatened or endangered species of plants or animals will be postponed or site design modified to protect the presence of these species. Section 7 Consultation (as required by the Endangered Species Act) with the appropriate office of the US Fish and Wildlife Service will be initiated.
6. If herbicides are proposed, those with minimum toxicity to fish and wildlife will be used. Protective buffer zones will be provided along streams, rivers, and lakes and important riparian and xeroriparian areas along dry water courses. Treatment periods will avoid bird nesting season and other critical seasons when loss of cover or disturbance by equipment would be detrimental to wildlife.
7. If herbicides are proposed for use, buffer strips will be provided adjacent to dwellings, domestic water sources, agriculture land, streams, lakes, and ponds. A minimum buffer strip 100 feet wide will be provided for aerial application, 25 feet for vehicle application, and 10 feet for hand application. Any deviations must be in accordance with the label for the herbicide. Herbicides will be wiped on individual plants within 10 feet of water where application is critical.

8. Application contracts will contain stipulations to reduce the possibility for herbicide drift and spills. All personnel involved in pesticide application must be trained and license. Protective clothing and equipment, as specified on EPA-approved labels and the BLM H-9011-1 Handbook, will be worn by workers directly involved in herbicide applications and by employees using hazardous tools/ equipment.
9. Effectiveness of mitigating measures identified in project- specific environmental documents would be monitored through periodic inspections. Air and water quality would be monitored where appropriate.
10. Post-treatment and surveys and evaluations will be conducted to evaluate the effectiveness of the treatment practices used. Information gained will be used to improve future project design.

Camping

1. Dispersed primitive camping is not allowed in the Frontcountry and Passage Zones. If GSEP, its staff, or volunteers intends to camp in areas in the Frontcountry and Passage Zones, they must identify these areas in advance and obtain approval from the authorized officer.
2. Motorized or mechanized vehicles may pull off designated routes no more than 50 feet for direct access to dispersed camping areas in the Outback Zone. Camping will be limited to previously disturbed areas. No roadside disturbance is allowed where signed and adjacent to Wilderness Study Areas, endangered plant areas, relict plant areas, or riparian areas.
3. Camping within 300 feet of an isolated water source, i.e., spring, pond, rock pool, water pocket, is prohibited.
4. There is no camping allowed in the Kodachrome Bladder pod restoration area along Rock Spring Bench Road and Paria River. Camping in existing disturbed areas is allowed.

Fire

1. Campfires are not allowed in the Escalante and Paria/Hackberry Canyons, No Mans Mesa or other identified relict plant areas, and in archaeological sites, rock shelters and alcoves throughout the Monument.
2. Campfires are allowed only where designated fire grates, exist, or by using mandatory fire pans in Frontcountry and Passage Zones. Wood collection for campfires is not allowed in Frontcountry and Passage Zones. GSEP, its staff, or volunteers must bring firewood from the immediate area and remove all unused wood from the campsite upon departure.
3. Campfires are allowed in Outback and Primitive Zones. Use of fire pans or fire blankets

are encouraged and only dead and down wood can be collected or bring your own. Burn wood to ashes and douse with water, making sure that your fire is DEAD OUT and that the area is restored to a natural condition before leaving.

4. When using designated fire grates in the Frontcountry and Passage Zones, burn all wood and coals to ash, put out campfires completely, and then leave cool ashes.
5. GSEP, its staff, or volunteers may be held responsible for fire suppression costs resulting from wildfire caused by the GSEP, employees, agents, and/or representatives and by all volunteers and participants under GSEP's supervision.
6. Wildfires should be reported immediately to the nearest BLM office. GSEP is responsible for informing employees, volunteers, and participants of the current fire danger and required precautions that may be placed in effect by BLM or the State of Utah.

Group Size Limits

1. Group size is limited to 25 people in the Passage and Outback Zones including guides.
2. Group size within the Primitive Zone is limited to 12 people and 12 pack animals including guides; however within the Paria River corridor in the Primitive Zone, permits could be approved for groups over 12 people up to a maximum of 25 people. Group sizes over 12 people must be provided in writing in the operating plan.

Transportation and Access

1. All machinery (street legal motorized vehicles, non-street legal all-terrain vehicles, dirt bikes, mountain bikes, etc.) that has been used outside the Monument must be cleaned prior to use in the Monument to prevent the possible introduction and spread of noxious weeds.
2. Motorized and mechanized travel within the Monument must be along open roads listed on the transportation map in the Grand Staircase-Escalante National Monument Management Plan.
3. Cross-country motorized or mechanized travel on the Monument is prohibited. All motorized and mechanized (bicycles, skateboards, deer carts, etc.) vehicles must stay on designated open roads while traveling in the Monument.
4. GSEP, its staff, and volunteers shall not construct new trails or maintain existing trails without written authorization from the Authorized Officer.
5. GSEP, its staff, and volunteers shall not use paint or flagging or construct cairns to mark trails, unless specifically allowed for in its authorization.

Sanitation

1. GSEP, its staff, and volunteers must use a portable self-contained toilet system when camping in an area less than a 300-foot distance from water sources. All human waste must be packed out and disposed of at a certified disposal site.
2. If a small portable toilet cannot be used, deposit solid human waste in cat holes dug 4 to 6 inches deep and no less than 300 feet from water sources, camp, and trails. Cover and disguise the cat hole when finished. Never dig a cat hole under an overhang or shelter.

Supplemental Stipulations for the Use of Riding or Packing Animals

1. Horses or other pack animals are not allowed in relict plant communities, archaeological sites, rock shelters, or alcoves.
2. Riding and pack stock are limited to 12 animals in the Primitive Zone.
3. Riding and pack stock may not be confined within 200 feet of water sources, camp and trails, or 100 feet of an archaeological site. If it is necessary to keep riding and pack stock confined for an extended period of time, select a site where damage to vegetation is minimized.
4. Stock may not travel in streams except when crossing.
5. Stock may not travel in the riparian zone of Deer Creek to avoid habitat for the endangered species Ute Ladies Tresses (*Spiranthes diluvialis*). Stock needs to remain on the high trail through Deer Creek canyon.

Archaeological and Historical Site Etiquette

Archaeological and Historical sites are fragile and irreplaceable resources. These resources include, but are not limited to, archaeological sites such as prehistoric camps, quarries, structures, middens, rock art, and historic sites such as corrals, line cabins, dumps, historic signatures and signature panels, trails, mines and related structures, and historic roads. No collection of archaeological or historical materials is allowed except by permit, which are issued only to qualified research institutions. When artifacts are encountered on the surface, they can be examined and gently handled, but must be returned to their exact location. Removal of artifacts from a subsurface context is not allowed as such removal will damage the archaeological or historical site. Do not drive on, or ride livestock across, such sites unless on an existing, Monument-approved road or trail. Do not touch or use tracing techniques at rock sites, as rubbing, pressure, and hand oils permanently damage rock art sites. Enjoy the archaeological or historical site, but assure that the site remains undamaged for future permittees, the general public, and for future research.

Paleontological Resource Etiquette

Paleontological resources are fragile, non-renewable resources. In GSENM they come in five different categories: bone sites, track and trace sites, wood sites, paleo-botanical sites, and invertebrate sites. No collecting of any materials is allowed except by permit, which are only issued to qualified research institutions. The handling of botanical and invertebrate fossils is ok, but these resources should be returned to their original location. The removal of vertebrate fossils from the ground is not allowed as it destroys the context of rare resources. When vertebrate fossils (bones, scales, and teeth) are encountered, enjoy them in place and report their location to Monument staff. Tracks and trace fossil localities such as dinosaur footprint sites can be very fragile and experience high visitation. Avoid standing on or trampling them which can accelerate their erosion. No molding or casting of any sort is allowed on fossil footprints without a permit, issued by the BLM's Utah State Office.

Biological Soil Crust Etiquette

Concentration of recreational use is generally desirable. Use designated or existing campsites to reduce impacts of haphazard placement of rest sites or campsites by individuals. Use existing trails to minimize the amount of biological soil crust that is disrupted by trampling. When possible, use hardened surfaces, such as rocks, or areas with minimal crust potential. When hiking in areas that lack trails, please use washes; walk on rock or in erosional channels to minimize impacts to soil crust.

Wilderness Study Areas Etiquette

GSENM has 16 Wilderness Study Areas (WSAs) located in the primitive zone that are managed and monitored to protect their suitability for designation by Congress as wilderness. The Monument's approximately 881,997 acres of lands identified as WSAs are protected for their qualities of naturalness and remain predominantly untouched by human activity. They offer outstanding opportunities for solitude and primitive and unconfined recreation. In addition, nearly all possess at least one or more ecological, geological, scientific or scenic value. BLM is required to provide stewardship of these lands so as not to impair suitability of WSAs until Congress makes a final determination on designation.

GSEP, its staff, and volunteers are responsible for knowing boundaries of primitive zones that include WSAs or other special management areas and for complying with legislative and permit conditions that may exist in such areas. Maps and information concerning WSAs are available on the GSENM website and at Monument Visitor Centers.