

# Christmas Mountains

Proposed Management  
National Park Service  
Big Bend National Park

January 31, 2008

## Table of Contents

Introduction.....	3
PROPOSED MANAGEMENT.....	3
Planning.....	3
Infrastructure.....	4
Antenna Site.....	4
Terlingua Ranch Roads.....	4
New Infrastructure.....	4
Visitor Use.....	5
Hiking and Camping.....	5
Stock Use.....	5
Lake Ament.....	6
Hunting.....	6
Education and Interpretation.....	6
Personal Contact.....	6
Printed and Published Materials.....	6
Web Services.....	7
Exhibits.....	7
Natural Resource and Fire Management.....	7
Natural Resource Management.....	7
Cooperative Resource Surveys and Inventory.....	8
Fire Management.....	8
Cultural Resource Management.....	8
Visitor and Resource Protection.....	9
Search and Rescue.....	9
Patrol and Law Enforcement.....	9
Safety.....	10
Hazardous Materials.....	10
Dams.....	10
Boundary Establishment.....	10
Survey.....	10
Marking.....	10
Appendix I: Hunting Potential.....	11

## ***Introduction***

The National Park Service proposes that the Christmas Mountains be added to Big Bend National Park and managed as a backcountry area of the national park. We feel that management by the National Park Service (NPS) has several advantages including:

1. The area would be permanently protected and preserved as part of the national park.
2. Public use of the area would be assured and the public would be able to participate in the planning process.
3. The park has extensive experience in managing public use in backcountry environments including law enforcement, search and rescue and emergency medical expertise.
4. The park can provide a full range of professional educational and interpretive services which are essential to a safe and enjoyable experience in a rugged and remote area.
5. The park has an excellent resource management staff including wildlife biologist, physical scientist, geologist, botanist and archeologist. In addition, we have access to numerous NPS resource specialists and academic institutions.

## **Acquisition**

The NPS preferred method of acquisition would be through donation. Since the tract of land was previously purchased with the intention of donation to either the NPS or Texas State Parks, we believe that it would be appropriate for the General Land Office (GLO) to transfer the land to the NPS at no cost. If this is not possible, the NPS will work with private conservation organizations to find a third party that would be willing to purchase the interest remaining after the conservation easement at no more than the appraised value. If agreement is reached to transfer the land to the NPS, the park service will need approximately 6 months to process the transfer. However, if a third party is involved, the transfer to the third party could take place at any time.

## **Proposed Management**

### ***Planning***

If the Christmas Mountains become part of Big Bend National Park, the NPS would conduct a public planning process to determine specific management objectives and actions. The planning process would be public and would comply with NEPA, NHPA, and ESA. The Conservation Fund, as holder of the existing conservation easement, would be involved in the planning process. Following completion of the Christmas Mountains Plan, that plan would guide future management of the area.

This proposed management description provides the General Land Office of Texas, the public and other interested parties with an understanding of the National Park Service (NPS) framework

for management that would apply to Christmas Mountains tract, should it come under NPS management.

## ***Infrastructure***

Facilities that are currently functional and in at least occasional use include an antenna system on the south peak, a rugged service road to the antenna site and several roads entering the property from Terlingua Ranch.

Other existing infrastructure includes approximately 15 miles of road, two wells with windmills, two water storage tanks, a man-made lake with a large rock masonry dam, several picnic ramadas and tables, and one small masonry dam. There is also one small wood frame shack associated with the Fernandez Mining Prospect and one concrete foundation slab associated with mining along the road to the radio repeater site.

### **Antenna Site**

Radio repeater infrastructure atop the south peak supports Brewster County and Terlingua Emergency Medical Services communication. The NPS supports maintaining this communication infrastructure for current purposes, and would consider adding an NPS radio antenna to support NPS communication needs related to management of the area.

### **Terlingua Ranch Roads**

Other than the one-mile common boundary with BBNP, the Christmas Mountains tract is surrounded by private properties that are part of the Terlingua Ranch subdivision. Roads on Terlingua Ranch are not open to the public. However, the roads are open to property owners and residents of Terlingua Ranch.

Although several short spur roads from Terlingua Ranch properties enter the property, of greatest significance is a through route from the Lake Ament area to Terlingua Ranch headquarters. This road generally follows the northern property boundary, and meanders in and out of the Christmas Mountains property.

The NPS would allow continued historic use and management of the route between Lake Ament and Ranch Headquarters. The route has historically been maintained only to minimum standards, required high-clearance vehicles for passage, and has only occasional traffic. Should Terlingua Ranch wish in the future to significantly change the road's character, type, or intensity of use, approval from the NPS would be required to alter road sections within the Christmas Mountains tract.

Other spur roads into the Christmas Mountains Tract would be evaluated for closure at the boundary during the public planning process.

### **New Infrastructure**

The NPS does not at this time foresee a need to develop housing or administrative support infrastructure beyond those currently in place and functional. Should long-term protection or

resource management realities indicate a need for full-time or seasonal staff housing, up to one residence or bunkhouse, including workshop, office and storage space, could be constructed.

## ***Visitor Use***

Since the Christmas Mountains Tract is surrounded by private properties of Terlingua Ranch, there is no public access option other than via the one-mile common boundary with Big Bend National Park. The nearest road within BBNP is the paved West Entrance Road, (Park Route 13), which comes within five miles of the Christmas Mountains Tract. Thus, hiking and horseback travel from Route 13 would be the primary means of public access to the property.

If the Christmas Mountains become part of the national park, the exact type and nature of access would be determined through a public planning process. At that time access at one or more points from Terlingua Ranch could be considered; however, there is no guarantee that access through the ranch is possible or desirable.

## **Hiking and Camping**

As with other areas of BBNP backcountry, day and overnight hiking would be allowed. Day hiking would be at-will, with no permit required. Overnight backpacking, would require an NPS permit.

In keeping with other areas of BBNP backcountry, a use area would be established for the Christmas Mountains. An overnight user capacity would be established in keeping with capacities in other similar BBNP Use Areas. If water sources can be developed for visitor use, the ability for extended backcountry trips would be greatly enhanced.

Hiking and horseback riding would initially be cross-country, as there is no constructed trail connecting BBNP road access and the Christmas Mountains. The NPS would initiate a planning process to evaluate the feasibility of constructing a hiking trail loop to the area from a trailhead along Park Route 13. Evaluation factors include degree of public interest, cost, terrain ruggedness, and available routes for trail construction through the rugged southern exposure of the Christmas Mountains.

Hikers and horseback riders and future trail development would find the antenna access route to be a primary destination for remarkable vistas available from the 5700' south peak.

## **Stock Use**

As with hiking, public horseback use would initially be cross-country from Park Route 13. All horseback use would require an NPS permit, and overnight stock use would be allowed. A limiting factor for stock and human use is the lack of available water, and feed must be packed in. Should construction of a trail prove feasible, stock use would be allowed on the trail.

## **Lake Ament**

Lake Ament, inside the northwest corner of the Christmas Mountains tract, is an impoundment of spring seepage and rainfall runoff behind a stone masonry dam constructed in the 1950's.

Although there is no public access to the site, Terlingua Ranch residents and their guests have historically used Lake Ament as a venue for picnics, birdwatching, and similar recreational activities.

Depending upon safety considerations (see Dams, below), and evaluation of access rights, the area may remain open to traditional uses and users.

## **Hunting**

In accordance with the United States Code of Federal Regulations (16 U.S.C.) regarding hunting in National Parks, hunting would not be allowed. See Appendix I, attached, for a summary of the issue.

## ***Education and Interpretation***

BBNP provides a full range of professional educational and interpretive services. These include personal contact, printed and published material, a web site, visitor center exhibits and wayside exhibits. Christmas Mountains information would be integrated into each of these formats.

### **Personal Contact**

Depending upon seasonal visitor use patterns, up to five visitor centers and two entrance stations are open and provide direct staff contact with visitors to BBNP. Visitors would be able to consult knowledgeable staff at visitor centers to develop suitable Christmas Mountains use itineraries, understand abilities and preparation required for a successful visit to the area and to obtain backcountry camping and horseback riding permits.

Other personal contacts into which Christmas Mountains interpretive messages would be integrated include presentations at park amphitheatres, nature trails and other sites; off-site outreach programs to area schools and civic organizations; and presentations to organized tour and educational groups. The NPS would integrate information regarding the Christmas Mountains into the existing interpretive programs, including evening programs, nature walks, as well as through outreach programs to area schools, civic organizations, and local area outfitters.

### **Printed and Published Materials**

The Big Bend Paisano, a park newspaper updated and published annually, provides current information to educate and inform visitors and to help visitors plan safe and enjoyable trips. Should the Christmas Mountains become part of BBNP, the first issue thereafter would be dedicated to that region of the park. Basic Christmas Mountains information and updates would be provided in subsequent annual issues.

A brochure, known as a site-bulletin, would be developed on the topic of the Christmas Mountains, its resources and values, and use of the area. Site bulletins are topic-specific and are available for mail or as a direct hand-out to those seeking specific, more detailed information on a covered subject or park location.

Developed in cooperation with the Big Bend Natural History Association, BBNP publications include a variety of hiking and camping guides, histories, geology and paleontology primers, animal and plant checklists, and other materials specific to the park and portions of the park. As revisions and updates occur, Christmas Mountains resources and activities would be incorporated into these publications.

### **Web Services**

The BBNP web site is recognized as among the most professional and extensive in the national park system. Web users may access the site for much of the information otherwise available through traditional personal and print sources, including trip planning; educational materials, event schedules, hiking and horseback riding information, maps, news, public involvement in park planning, climate and weather data, camping information and reservations, rules and regulations and many other topics.

The BBNP web site would immediately be updated to integrate appropriate Christmas Mountains information. More thorough and detailed coverage of Christmas Mountains resources and issues would occur as additional studies, resource evaluations and visitor-use planning occurs.

### **Exhibits**

Wayside exhibits located along roads in BBNP provide fixed, permanent information and interpretation regarding park resources, issues and available activities. A wayside exhibit would be installed at a Christmas Mountains observation point along Park Route 13, possibly co-located with a parking area and starting point for hiking and horseback riding to the Christmas Mountains.

## ***Natural Resource and Fire Management***

Proper management of the Christmas Mountains must begin with baseline natural and cultural resource inventories to identify botanical and faunal species, exotic species and species of concern, and significant historical and archeological resources. The NPS would also conduct inventories to identify critical access for purposes of wildland fire management, search and rescue, and law enforcement activities. Existing BBNP, NPS Regional and Servicewide natural resource and fire management programs and expertise would be extended to the Christmas Mountains tract.

### **Natural Resource Management**

Primary natural resource management initiatives that would initially be extended to the Christmas Mountains tract include species inventories, exotic plant management, rare and threatened species inventory, geologic resource mapping, and a wildland fire management evaluation and planning. During the planning process actions and programs needed to restore

natural system in the Christmas Mountains, such as enhancement of water resources to restore specific animal species, will be determined.

BBNP natural resource and fire management staff include six program categories with specialist expertise in: Botany/Vegetation Management, Wildlife Management, Geology/Paleontology, Hydrology / Physical Sciences, Geographic Information Systems, and Fire Management. Additional expertise and experience would be drawn from the Intermountain Region Natural Resources Program and servicewide offices for Biological Resources, Geologic Resources, Air and Water Quality, Environmental Quality, and Inventory and Monitoring.

### **Cooperative Resource Surveys and Inventory**

BBNP has numerous established relationships with other federal and state agencies, academic and educational institutions, non-governmental resource organizations, and independent scientists, representing a full range of disciplines and taxa, who are available and often interested in contributing resource inventories and studies. On an annual basis, BBNP issues over 100 research and resource activity permits to such cooperators. Such cooperators would add significant expertise and resources to NPS programs focused upon resource inventory and monitoring, identification of resource threats or problems, and development of conservation strategies.

### **Fire Management**

The BBNP Fire Management Plan would be updated to include the Christmas Mountains tract. Fire management policies include direct suppression of fires within one mile of the park boundary. This buffer would be extended to the Christmas Mountains boundary. Within the boundary buffer, fire management strategies include a variety of suppression, wildland fire use, and prescribed fire strategies for the benefit and protection of natural and cultural resources, park facilities, and sensitive resources.

In addition to approximately twenty on-staff employees trained and equipped to U.S. Interagency wildland fire fighter standards, a crew of 40 NPS-trained and supervised Mexican firefighters are on-call. Additional ground, aerial and incident management resources are available through the National Interagency Fire Center. BBNP staff include full-time fire program employees certified in incident management, crew supervision, prescribed fire management, and fire ecology.

### ***Cultural Resource Management***

No baseline cultural resource inventory exists for the Christmas Mountains. However, one historic mining site is listed in the Texas Historical Commission Site Atlas. Structures associated with mining and ranching, and several prehistoric campsites and rock shelter sites are known to exist on the property but have not been recorded in detail. A baseline inventory is needed to identify significant historical and archeological resources and develop appropriate management strategies.



The NPS would initiate a baseline cultural resource inventory to identify and document cultural resources of the Christmas Mountains tract, and where applicable, evaluate those resources for potential inclusion in the National Register of Historic Places.

BBNP staff includes an Archeologist / Cultural Resource Specialist who is experienced in developing and implementing cultural resource assessments, and in applying NPS cultural resource research, preservation and management strategies. Additional expertise, assistance, and funding is available from NPS Intermountain Region and Servicewide sources. Existing BBNP partnerships and agreements also allow application of expertise from local, state and regional institutions and other organizations to NPS cultural resource priorities.

## ***Visitor and Resource Protection***

### **Search and Rescue**

Should a visitor to the Christmas Mountains become lost or injured, the professional BBNP Search and Rescue team would provide assistance. The well-equipped team of up to 15 persons includes leaders trained in Incident Management, high-angle technical climbing and recovery expertise, and staff Medics and Emergency Medical Technicians.

Aircraft spotting services are available from the BBNP aviation program of a Ranger/Pilot and one airplane, yet includes additional, regionally available call-up aviation resources. Additionally, existing NPS relationships exist to allow for call-up of non-governmental Search-and-Rescue and trained canine search teams.

### **Patrol and Law Enforcement**

The Christmas Mountains tract would be added to BBNP Law Enforcement's West District for purposes of ranger patrols for resource and visitor protection. The West District currently includes five field rangers who provide foot, horse, and vehicle patrol throughout the district. The park has a Ranger/Pilot who provides routine air patrol and is on-call for targeted aerial support operations. Nine additional rangers are on-call from other BBNP district and headquarters staff. These rangers also form the core of BBNP Search and Rescue, medical, and incident management programs.

Due to the rugged and isolated nature of the Christmas Mountains tract, the primary routine patrol function would be via the park airplane. When necessary, the Ranger/Pilot would inform ground-based ranger follow-up for further investigation or response. Occasional ground-based foot and horse patrols would be scheduled, and intensified as warranted.

Volunteers (without law enforcement commissions) often provide significant backcountry hiking, horseback and backcountry road patrol assistance throughout BBNP. This service would be extended to the Christmas Mountains tract. For example, volunteers in 2007 contributed 6700 hours of backcountry patrol throughout BBNP and the Rio Grande Wild and Scenic River. These volunteers prompt ranger response as warranted and provide valuable reporting, documentation, and visitor assistance services.

## **Safety**

### **Hazardous Materials**

A Level 1 Hazardous Materials Survey has already been completed on the Christmas Mountains Property. This survey may be augmented with additional site inspections to insure visitor protection. The NPS Mining and Mineral Branch and the Texas Railroad Commission completed a mine safety evaluation and completed closures on several unsafe mine openings.

### **Dams**

The Lake Ament Dam was built in 1957-58 and employed 100 Mexican laborers and skilled stone masons. Its massive size and vernacular architecture are a testament to masonry construction in the Big Bend. The NPS is required to evaluate all structures older than 50 years for eligibility for listing in the National Register of Historic Places. The NPS is also required to conduct a professional inspection of the Lake Ament dam evaluate structural integrity, potential for risk to life and property, and determine appropriate maintenance needs. Professional assistance and expertise would be provided through the NPS Servicewide Dam Safety Program office. Should dam safety issues be identified, a mitigation plan would be developed and applied as appropriate.

## ***Boundary Establishment***

### **Survey**

A primary initial activity would be identifying the legal property boundary. The NPS would provide for an independent, 3<sup>rd</sup> order survey, meeting U.S. Department of the Interior and State of Texas criteria, to define the property limits.

### **Marking**

The property boundary would be marked as appropriate. Fencing would be constructed where necessary and reasonable, but due to the rugged nature of much of the area, occasional markers rather than fencing would also be employed.

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## ***Appendix I: Hunting Potential***

Subject: **Evaluation of the Christmas Mountains tract for Hunting Potential**

### **Background**

The Christmas Mountains tract comprises approximately 9,263 acres of land located on the northwestern boundary of Big Bend National Park. The land ranges in elevation from 3,400 feet to over 5,700 feet and is comprised largely of extremely mountainous terrain with a sparse cover of Chihuahuan Desert vegetation. Water is extremely scarce or absent most of the year with the exception of one small lake located in the northwest corner of the property.

This tract has a one mile contiguous boundary with Big Bend National Park with no road or trail access from the park. The land is otherwise landlocked by surrounding private property on the Terlingua Ranch. There is no public road access to the tract. The tract comprises approximately one percent of the total acreage of the park.

### **Opportunity for Hunting**

- The Christmas Mountains offers extremely limited opportunity for hunting due to lack of reliable water sources and limited numbers of desired game species.
- The Texas Parks and Wildlife Department (TPWD) estimates current deer populations hunted on lands managed by the agency in Brewster County, TX at 1 deer per 150-200 acres. Christmas Mountains is about 9,200 acres which would yield approximately 46-61 deer and only a portion of these would be harvestable bucks. Without adequate research, it is unknown how many deer could be taken while maintaining a sustainable population on the tract.

For example: if research showed and estimated 50 deer and that the herd could sustain at 10% harvest, and that hunter success was expected to be 75%, then 7 permits could be issued that year.

**(note:** TPWD considers only 60% of the Black Gap Wildlife Management Area "hunnable acres". In the much more rugged Christmas "hunnable acres would probably be a smaller percentage, but certainly no more than 5,500 acres.)

- Javelina are also a game animal in the region. According to TPWD biologists, an accurate population estimation and sustainable harvest calculation method for javelina does not exist. TPWD has strict limits on the numbers of javelina taken on state lands because they are highly social herd animals and removal of one or two individuals from a herd can create significant inter- and intra-herd territory disruption and conflict. Additionally, it is possible to encounter and kill entire herds without strict and intensive limit enforcement. Brewster County has no season but a bag limit of 2 animals per licensed hunter.

- The largest potential hunting opportunity would be for birds – both quail and dove. Hunting opportunities are dependant of drought, feed and other variable factors.
- The remaining hunting opportunities are for non-game species such as rabbits and exotic species – specifically wild hogs. Again these species are heavily influenced by drought and available foods.

### **Problems with Implementing a Hunting Program**

- Hunting would require special legislation to establish the Christmas Mountains as a preserve.
- Access for hunting is problematic. There is no public road access to the Christmas Mountains tract (all roads near the Christmas Mountains are owned and maintained by Terlingua Ranch). It can be accessed by hiking approximately 5 miles from Route 13 in Big Bend NP.
- Deer populations are significantly influenced by the proximity to Terlingua Ranch (a ranchette subdivision) and hunting pressure on those adjacent lands. There are as many as sixty separate owners of small tracts around the Christmas Mountains boundary. Legal hunting and illegal poaching on adjacent lands likely has negative impacts on game populations within the Christmas Mountains tract..
- Language in the deed covenants restrict hunting activities to a management action related to maintaining wildlife populations. Given the hunting pressure surrounding the relatively small Christmas Mountains block, it is quite possible that excess populations of huntable species may never occur and it is unlikely that hunting would ever be needed for wildlife management purposes.
- Except the one mile joint boundary with Big Bend National Park, the Christmas Mountains tract is totally surrounded by the Terlingua Ranch subdivision. Approximately 80 lots actually adjoin the tract. Hunting, particularly with high power rifles would pose a serious safety threat to neighboring homeowners.

- An NPS managed hunting program on Christmas Mountains would require some initial investments for planning and staffing in support of a managed hunting program. Costs are estimates based upon comparables in west Texas and other NPS areas with hunting programs.

Environmental assessment process - \$50,000

Initial survey and boundary posting of approximately 19 miles of boundary @ \$5,000/mile – \$95,000

Biological surveys of game populations (annual assessments also required) - \$50,000

Annual posting of boundary signs (labor and supplies) – \$3,000

Personnel required (annual costs):

5 @ 0.20 GL-9 & 12 Ranger/Ranger Pilot - \$ 100,000

0.25 Wildlife Biologist/Technician – \$20,000

Game Check Station/Hunting permit management - \$15,000

Aviation costs for patrol – 160 hours at \$ 150/hr - \$13,650

Equipment/vehicles - \$ 7,000 per vehicle per year.

**Total: \$195,000 initial costs, reoccurring annual costs \$138,650**

Although public hunting lands are very limited in the State of Texas, Brewster County, Texas has three state public hunting areas. Elephant Mountain WMA offers 23,147 acres. Black Gap WMA offers 103,000 acres. A large portion of the 300,000 acre Big Bend Ranch State Park is within Brewster County and public hunting is allowed on the State Park.

## **Conclusion**

### **Pros:**

- Provide an additional hunting opportunity in Texas
- Provide a potential wildlife management tool in the event overpopulations of huntable species should occur

### **Cons:**

- Limited opportunity for hunting: only 5,500 huntable acres and current population numbers would support few, if any permits.
- Would require special legislation
- Safety issues the Terlingua Ranch development
- Expensive: \$200,000 initial costs, \$140,000 annual costs
- No public road access to the Christmas Mountains
- Brewster County has several better public hunting opportunities

In summary, while it would be technically possible to provide a hunting opportunity in the Christmas Mountains, it would be extremely expensive and of limited benefit to the public. Hunting . We would not support hunting in the Christmas Mountains if the NPS acquires the property.