

**From:** Michael Weiss - NOAA Federal  
**To:** [Bowman, Randal](#)  
**Subject:** Re: delay in transferring marine monument comments  
**Date:** Tuesday, August 01, 2017 12:32:20 PM  
**Attachments:** [NASCA Comments on DOI NM Notice \(Final 10July2017\).pdf](#)  
[National Monuments Review Comment \(2\).pdf](#)  
[Marianas Trench.pdf](#)  
[Marine National Monuments Interior Department Comments.pdf](#)

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Hi again Randy.

A few observations and questions. Mutual goal here is to ensure the policy folks have the relevant information re: the public comments- for upcoming discussions.

1. Appreciate your sending what you identified as new information, but some of the comments included do not appear to meet that threshold (are more opinion/position comments). How are you doing the sorting?
2. DOI initially committed to, using its contractor and system, sorting the comments by bins (e.g., opinion- for/against changes, new information) and then by monument. You indicated that DOI was not sorting by individual monuments as your team reviews comments, due to the fact that a high percentage of comments mention multiple monuments. That makes sense at first cut, but then how have you been identifying discrete monument specific comments that may provide substantive content?
3. In response to our request for DOI to summarize the comments on the marine monuments, you indicated that there is unfortunately nothing to summarize except what percent of comments are for or against the review overall. You indicated DOI had plans to do a second round of coding for comments with new information, breaking them down by EO factors and traditional DOI issues like grazing, hunting etc, and then reporting on that, but had to abandon because there is virtually nothing submitted with any of that information. Is that still the case, at least for the marine monuments? I did a quick search on [regulations.gov](#) and pulled a few examples of discrete comments received. How have you been summarizing comments like these?

Also, do you have a master list of the commentors even if not broken out by site?

Per your other email, happy to follow up with a call later today to discuss. I am free except from 2:30-3:30.

Thanks again,

Michael

On Thu, Jul 27, 2017 at 12:11 PM, Bowman, Randal <[randal\\_bowman@ios.doi.gov](mailto:randal_bowman@ios.doi.gov)> wrote:

System is working again. Attached are all 8 of the comments coded as "new information" and referencing marine monuments to date; the final set of comments is still being uploaded, and there are a few thousand comments from earlier still being reviewed.

It was easier to copy these than to go through the "export file" process, given the few comments. Some of our reviewers do not seem to share my concept of what "new information" is, but I'm sending them all anyhow. I did no editing except removing double/tripple-spacing between paragraphs in one comment.

On Thu, Jul 27, 2017 at 6:02 AM, Michael Weiss - NOAA Federal  
<[michael.weiss@noaa.gov](mailto:michael.weiss@noaa.gov)> wrote:  
Morning.

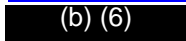
Ok, thanks for the update. If there is any way to get the few new information comments over today, that would be appreciated.

On Wed, Jul 26, 2017 at 4:16 PM, Bowman, Randal <[randal\\_bowman@ios.doi.gov](mailto:randal_bowman@ios.doi.gov)> wrote:

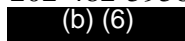
Our contractor's system is experiencing delays in uploading the last round of comments from [regs.gov](https://www.regulations.gov), for some of the same reasons regs. had trouble with them, including many attachments with hand-written post cards eating up computer processing capacity. The search function is working irregularly as a result.

This should be resolved in a day or so, and I will start sorting the marine comments out and sending them over next week - I will be gone and not able to access email from mid-afternoon tomorrow until mid-afternoon Monday,

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Michael Weiss  
Office of the Under Secretary  
National Oceanic and Atmospheric Administration  
[202-482-5958](tel:202-482-5958) (w)  
 (b) (6) (c)

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**National Headquarters**

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[www.defenders.org](http://www.defenders.org)

*Submitted electronically via regulations.gov*

July 10, 2017

The Honorable Ryan Zinke  
Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street, N.W.  
Monument Review, MS-1530  
Washington, DC 20240

Re: Review of Certain National Monuments Established Since 1996; Notice of Opportunity for  
Public Comment (May 11, 2017)

Dear Secretary Zinke:

Defenders of Wildlife (Defenders) respectfully submits the following comments on Marianas Trench Marine National Monument for consideration in the Department of the Interior's "Review of Certain National Monuments Established Since 1996."<sup>1</sup>

Founded in 1947, Defenders of Wildlife is a national non-profit conservation organization dedicated to conserving and restoring native species and the habitats on which they depend. Based in Washington, DC, the organization also maintains six regional field offices around the country. Defenders is deeply involved in the conservation of marine species and ocean habitats, including the protection and recovery of species that occur in U.S. waters in the Pacific Ocean. We submit these comments on behalf of almost 1.2 million members and supporters nationwide.

President Trump's Executive Order 13792<sup>2</sup> directed you to "review" national monuments designated or expanded since January 1, 1996, pursuant to the Antiquities Act of 1906.<sup>3</sup> Section 1 of the order, "Policy," states in pertinent part: "[d]esignations should be made in accordance with the requirements and original objectives of the Act and appropriately balance the protection of landmarks, structures, and objects against the appropriate use of Federal lands and the effects on surrounding lands and communities."

Section 2 of Executive Order 13792 establishes seven criteria for reviewing national monument designations or expansions since January 1, 1996, either 1) where the designation or the designation

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<sup>1</sup> 82 Fed. Reg. 22016 (May 11, 2017).

<sup>2</sup> 82 Fed. Reg. 20429 (May 1, 2017).

<sup>3</sup> Act of June 8, 1906, ch. 3060, 34 Stat. 225, codified at 54 U.S.C. ch. 3203.

after expansion exceeded 100,000 acres or 2) “where the Secretary determines that the designation or expansion was made without adequate public outreach and coordination with relevant stakeholders.” The review is to determine whether each designation or expansion “conforms to the policy set forth in section 1 of the order.” At the conclusion of this review, you are to “formulate recommendations for Presidential actions, legislative proposals, or other appropriate actions to carry out that policy.”<sup>4</sup>

Twenty-seven national monuments are listed in the Notice of Opportunity for Public Comment, including Marianas Trench and four other marine national monuments that are also subject to review by the National Oceanic and Atmospheric Administration pursuant to Executive Order 13795, “Implementing an America-First Offshore Energy Strategy.”<sup>5</sup> Defenders firmly believes that none of America’s national monuments should be revoked, reduced in size or opened to nonconforming uses, including Marianas Trench and the 26 other (marine) national monuments identified for administrative review.

Marianas Trench Marine National Monument protects unique and invaluable scientific, biological and ecological resources that can provide immeasurable social and economic benefits to the Commonwealth of the Northern Mariana Islands and people across the United States. Home to a diversity of marine life, including numerous imperiled species, these public waters, submerged lands, coral reefs and rare geological formations merit the protection provided as a marine national monument, a designation that was made fully consistent with the Antiquities Act and the policy articulated in Executive Order 13792.

The president lacks the legal authority to revoke or diminish a national monument and should additionally refrain from seeking legislative action or taking any other action to undermine the designation. Defenders of Wildlife therefore urges that your report should not include any recommendations to alter the size or status of Marianas Trench Marine National Monument.

Thank you for your attention to these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'RD', followed by a horizontal line.

Robert G. Dreher  
Senior Vice President, Conservation Programs

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<sup>4</sup> 82 Fed. Reg. 22,016 (May 11, 2017).

<sup>5</sup> 82 Fed. Reg. 20815 (May 3, 2017).



## **PROCLAMATION OF MARIANAS TRENCH MARINE NATIONAL MONUMENT WAS LEGAL AND APPROPRIATE UNDER THE ANTIQUITIES ACT**

### **The Antiquities Act Imposes Few Requirements Restricting the President’s Authority to Designate National Monuments**

In the Antiquities Act of 1906, Congress chose to implement the general policy of protecting “historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest” on federal lands by affording the president broad power to designate national monuments by proclamation.<sup>6</sup>

In designating national monuments under Antiquities Act, the only limits on the president’s authority are that: (1) the area must contain “historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest”; (2) the area must be “situated on land owned or controlled by the Federal Government”; and (3) “[t]he limits of the parcels shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.”<sup>7</sup>

Beyond these requirements, the president is afforded extensive discretion to protect federal lands and waters under the Antiquities Act. If Congress had sought to limit the type or size of objects that could be reserved under the Antiquities Act, the text of the statute would have reflected that limitation. Instead, as federal courts have repeatedly held, the plain language of the Antiquities Act bestows vast discretionary authority upon the president to select both the type and size of an object to be protected. For example, in rejecting a challenge to President Clinton’s designation of Grand Staircase-Escalante National Monument premised on the argument that the legislative history of the Act demonstrated Congress’ intent to protect only man-made objects, the reviewing court stated:

This discussion, while no doubt of interest to the historian, is irrelevant to the legal questions before the Court, since the plain language of the Antiquities Act empowers the President to set aside “objects of historic or scientific interest.” 16 U.S.C. § 431. The Act does not require that the objects so designated be made by man, and its strictures concerning the size of the area set aside are satisfied when the President declares that he has designated the smallest area compatible with the designated objects’ protection. There is no occasion for this Court to determine whether the plaintiffs’ interpretation of the congressional debates they quote is correct, since a

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<sup>6</sup> 54 U.S.C. § 320301(a) (2012).

<sup>7</sup> *Id.* § 320301(a), (b).

court generally has recourse to congressional intent in the interpretation of a statute *only when the language of a statute is ambiguous*.<sup>8</sup>

Before passing the Antiquities Act of 1906, Congress had considered other antiquities bills that set forth a clearly defined list of qualifying “antiquities.”<sup>9</sup> An earlier version of the Antiquities Act—considered immediately before the final Act—also would have made reservations larger than 640 acres only temporary.<sup>10</sup> Rather than place limitations on the president’s authority, however, the final version of the Act expanded executive discretion by adding the phrase “other objects of historic or scientific interest” to the list of interests that may be protected as national monuments.<sup>11</sup>

The addition of this language to the Act has significant implications for how it is administered. Former National Park Service Chief Historian Ronald Lee recognized that “the single word ‘scientific’ in the Antiquities Act proved sufficient basis to establish the entire system of ... national monuments preserving many kinds of natural areas.”<sup>12</sup> By the time the Federal Lands Policy and Management Act of 1976 (“FLPMA”) was enacted, 51 of the 88 national monuments that had been established “were set aside by successive Presidents ... primarily though not exclusively for their scientific value.”<sup>13</sup>

### **“Scientific Interests” Have Included Biological Features Since the Earliest National Monument Designations**

The designation of national monuments for scientific interests is not a recent phenomenon. For more than 100 years, national monuments have been established for the “scientific interests” they preserve. These values have included plants, animals, and other ecological concerns. In 1908, for instance, President Theodore Roosevelt designated Muir Woods National Monument because the “extensive growth of redwood trees (*Sequoia sempervirens*) ... is of extraordinary scientific interest and importance because of the primeval character of the forest in which it is located, and of the

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<sup>8</sup> *Utah Ass’n of Cty. v. Bush*, 316 F. Supp. 2d 1172, 1186 n.8 (D. Utah 2004) (emphasis added) (citation omitted); see also *Mt. States Leg. Found. v. Bush*, 306 F.3d 1132, 1137 (D.C. Cir. 2002) (affirming the president’s broad discretionary authority to designate natural, landscape-scale objects of historic or scientific interest).

<sup>9</sup> H.R. 12447, 58th Cong. § 3 (1904), reprinted in National Park Service, History of Legislation Relating to The National Park System Through the 82d Congress: Antiquities Act App. A (Edmund B. Rogers, comp., 1958) [hereinafter History of Legis.].

<sup>10</sup> See S. 5603, 58th Cong. § 2 (1905), reprinted in History of Legis.

<sup>11</sup> S. 4698, 59th Cong. § 2 (1906), reprinted in History of Legis.

<sup>12</sup> Ronald F. Lee, The Antiquities Act of 1906 (1970), reprinted in Raymond H. Thompson, *An Old and Reliable Authority*, 42 J. OF THE S.W. 197, 240 (2000).

<sup>13</sup> *Id.*

character, age and size of the trees.”<sup>14</sup> President Roosevelt also established Mount Olympus National Monument because it “embrace[d] certain objects of unusual scientific interest, including numerous glaciers, and the region which from time immemorial has formed summer range and breeding grounds of the Olympic Elk (*Cervus roosevelti*), a species peculiar to these mountains and rapidly decreasing in numbers.”<sup>15</sup>

President Roosevelt was not alone in utilizing the Antiquities Act’s broad authority to protect ecological marvels. For example, Presidents Harding, Roosevelt, Truman, and Eisenhower all subsequently expanded Muir Woods National Monument for the same reasons it was originally designated.<sup>16</sup> Likewise, in designating Papago Saguaro National Monument in 1914, President Wilson’s proclamation highlighted that the “splendid examples of the giant and many other species of cacti and the yucca palm, with many additional forms of characteristic desert flora [that] grow to great size and perfection . . . are of great scientific interest, and should, therefore, be preserved.”<sup>17</sup>

Further, in 1925, President Coolidge designated nearly 1.4 million acres as Glacier Bay National Monument because

the region [was] said by the Ecological Society of America to contain a great variety of forest covering consisting of mature areas, bodies of youthful trees which have become established since the retreat of the ice which should be preserved in absolutely natural condition, and great stretches now bare that will become forested in the course of the next century.<sup>18</sup>

Similarly, President Hoover enlarged Katmai National Monument “for the purpose of including within said monument additional lands on which there are located features of historical and scientific interest and for the protection of the brown bear, moose, and other wild animals.”<sup>19</sup>

President Franklin D. Roosevelt designated Channel Islands National Monument, in part, for the “ancient trees” it contained.<sup>20</sup> President Kennedy expanded Craters of the Moon National Monument to include “an island of vegetation completely surrounded by lava, that is scientifically

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<sup>14</sup> Proclamation No. 793, 35 Stat. 2174 (1908).

<sup>15</sup> Proclamation No. 896, 35 Stat. 2247 (1909).

<sup>16</sup> Proclamation No. 1608, 42 Stat. 2249 (1921); Proclamation No. 2122, 49 Stat. 3443 (1935); Proclamation No. 2932, 65 Stat. c20 (1951); Proclamation No. 3311, 73 Stat. c76 (1959).

<sup>17</sup> Proclamation No. 1262, 38 Stat. 1991 (1914).

<sup>18</sup> Proclamation No. 1733, 43 Stat. 1988 (1925).

<sup>19</sup> Proclamation No. 1950, 47 Stat. 2453 (1931).

<sup>20</sup> Proclamation No. 2281, 52 Stat. 1541 (1938).

valuable for ecological studies because it contains a mature, native sagebrush-grassland association which has been undisturbed by man or domestic livestock.”<sup>21</sup>

### **Federal Courts Have Confirmed the President’s Authority to Determine the Meaning of “Scientific Interests”**

The broad objectives of the Antiquities Act, coupled with the vast deference afforded to the president in specifying a monument’s purpose, compel courts to uphold presidential determinations of what constitute “objects” and “scientific interests” when those findings are challenged.<sup>22</sup> Beginning with a challenge to the designation of the Grand Canyon National Monument in 1920, the Supreme Court has promoted an expansive reading of the president’s discretion to determine which “scientific interests” may be protected. In its analysis, the Supreme Court simply quoted from President Roosevelt’s proclamation to uphold the presidential finding that the Canyon “is an object of unusual scientific interest.”<sup>23</sup>

In *Cappaert v. United States*, the Supreme Court upheld President Truman’s exercise of authority to add Devil’s Hole to the Death Valley National Monument by relying upon the designation’s objective of preserving a “remarkable underground pool,” which contained “unusual features of scenic, scientific, and educational interest.”<sup>24</sup> In his proclamation, President Truman’s noted “that the pool contains ‘a peculiar race of desert fish ... which is found nowhere else in the world’ and that the ‘pool is of ... outstanding scientific importance ...’”<sup>25</sup> In its analysis, the Supreme Court acknowledged that “the language of the Act . . . is not so limited” as to preclude the president from exercising his broad discretion to protect such unique “features of scientific interest.”<sup>26</sup> As a result, the Supreme Court ultimately held that “[t]he pool in Devil’s Hole and its rare inhabitants are ‘objects of historic or scientific interest.’”<sup>27</sup>

Similarly, in upholding the designation of Jackson Hole National Monument, the district court of Wyoming found that

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<sup>21</sup> Proclamation No. 3506, 77 Stat. 960 (1962).

<sup>22</sup> See *Utah Ass’n of Clys. v. Bush*, 316 F. Supp. 2d 1172, 1179 (D. Utah 2004) (“[T]here have been several legal challenges to presidential monument designations ... Every challenge to date has been unsuccessful.”).

<sup>23</sup> *Cameron v. United States*, 252 U.S. 450, 455–56 (1920) (quoting Proclamation No. 794, 34 Stat. 225 (1908)).

<sup>24</sup> *Cappaert v. United States*, 426 U.S. 128, 141 (1976) (internal quotations omitted) (quoting Proclamation No. 2961, 3 C.F.R. § 147 (1949-1953 Comp.)).

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.* at 142 (emphasis added) (citing *Cameron v. U.S.*, 252 U.S. 450, 455–56 (1920)).

plant life indigenous to the particular area, a biological field for research of wild life in its particular habitat within the area, involving a study of the origin, life, habits and perpetuation of the different species of wild animals ...[all] constitute matters of scientific interest within the scope and contemplation of the Antiquities Act.<sup>28</sup>

Likewise, when ruling on a challenge to the millions of acres that President Carter set aside as national monuments in Alaska, the district court of Alaska concluded that “[o]bviously, matters of scientific interest which involve geological formations or which may involve plant, animal or fish life are within this reach of the presidential authority under the Antiquities Act.”<sup>29</sup> The court also found that the Act protected a broad range of natural features, including the ecosystems of plant and animal communities relied upon by the Western Arctic Caribou herd.<sup>30</sup>

Recently, Giant Sequoia National Monument was challenged on grounds that it protects objects that do not qualify under the Act.<sup>31</sup> In rejecting that argument, the circuit court noted that “other objects of historic or scientific interest may qualify, at the President’s discretion, for protection as monuments. Inclusion of *such items as ecosystems and scenic vistas* in the Proclamation did not contravene the terms of the statute by relying on nonqualifying features.”<sup>32</sup>

In addition, one court found that the designation of the Cascade-Siskiyou National Monument legitimately protects “scientific interests” within the meaning of the Act, because the Monument is

a “biological crossroads” in southwestern Oregon where the Cascade Range intersects with adjacent ecoregions ... the Hanford Reach National Monument, a habitat in southern Washington that is the largest remnant of the shrub-steppe ecosystem that once dominated the Columbia River basin ... and ... the Sonoran Desert National Monument, a desert ecosystem containing an array of biological, scientific, and historic resources.<sup>33</sup>

## **There Are No Restrictions on the Size of the Objects That May be Designated as National Monuments**

As the court in *Wyoming v. Franke* recognized: “What has been said with reference to the objects of historic and scientific interest applies equally to the discretion of the Executive in defining the area

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<sup>28</sup> *Wyoming v. Franke*, 58 F. Supp. 890, 895 (D. Wyo. 1945).

<sup>29</sup> *Anaconda Copper Co. v. Andrus*, 14 Env’t Rep. Cas. (BNA) 1853, 1855 (D. Alaska 1980).

<sup>30</sup> *Id.*

<sup>31</sup> *Tulare County v. Bush*, 306 F.3d 1138, 1140–41 (D.C. Cir. 2002).

<sup>32</sup> *Id.* at 1142 (emphasis added) (internal quotations omitted).

<sup>33</sup> *Mt. States Leg. Found. v. Bush*, 306 F.3d 1132, 1133–34 (D.C. Cir. 2002) (citations omitted).

compatible with the proper care and management of the objects to be protected.”<sup>34</sup> In other words, the determination of “the smallest area compatible with the proper care and management of the objects to be protected” is almost entirely within the president’s authority.

The Supreme Court honored this principle in *Cameron v. United States* by finding that President Theodore Roosevelt was authorized to establish the 800,000-acre Grand Canyon National Monument.<sup>35</sup> Since then, courts have been exceedingly hesitant to infringe upon the president’s broad discretion in determining the “smallest area” possible encompassed by a monument—including the 1.7 million-acre Grand Staircase-Escalante National Monument.<sup>36</sup>

Courts, moreover, are even less likely to disturb the president’s factual determinations when a proclamation contains the statement that the monument “is the smallest area compatible with the proper care and management of the objects to be protected.”<sup>37</sup> Beginning in 1978, presidents have included this declaration in all proclamations establishing or enlarging national monuments.<sup>38</sup>

### **Designating National Monuments in U.S. Waters is Well Within the President’s Discretionary Authority Under the Antiquities Act**

The Antiquities Act does not limit the president’s authority to designate only those lands owned by the United States in its capacity as sovereign; rather, the Act allows the president to reserve as national monuments “objects of historic or scientific interest that are situated on land owned *or controlled* by the Federal Government . . . .”<sup>39</sup> “Although the Antiquities Act refers to ‘lands,’” the Supreme Court has consistently “recognized that it also authorizes the reservation of waters located on or over federal lands.”<sup>40</sup> Further, as discussed above, the Supreme Court has specifically rejected

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<sup>34</sup> 58 F. Supp. 890, 896 (D. Wyo. 1945).

<sup>35</sup> 252 U.S. 450, 455–56 (1920).

<sup>36</sup> *Utah Ass’n of Cty. v. Bush*, 316 F. Supp. 2d 1172, 1183 (D. Utah 2004) (“When the President is given such a broad grant of discretion as in the Antiquities Act, the courts have no authority to determine whether the President abused his discretion.”).

<sup>37</sup> See, e.g., *Mt. States Leg. Found.*, 306 F.3d at 1137; *Tulare County v. Bush*, 306 F.3d 1138, 1142 (D.C. Cir. 2002).

<sup>38</sup> Including the determination that each national monument is confined to “the smallest area compatible with the proper care and management of the objects to be protected” began with President Carter (Proc. Nos. 4611–4627), and was continued by Presidents Clinton (Proc. Nos. 6920, 7263–66, 7317–20, 7329, 7373–74, 7392–7401), G.W. Bush (Proc. Nos. 7647, 7984, 8031), and Obama (Proc. Nos. 8750, 8803, 8868, 8884, 8943–47, 8089, 9131, 9173, 9194, 9232–34, 9297–99, 9394–96, 9423, 9465, 9476, 9478, 9496, 9558–59, 9563–67).

<sup>39</sup> 54 U.S.C. § 320301(a) (2012) (emphasis added).

<sup>40</sup> *United States v. California*, 436 U.S. 32, 36 n.9 (1978); see also *Cappaert v. United States*, 426 U.S. 128, 138–42 (1976) (holding that a monument designation implicitly includes a reservation of those waters necessary to effectuate the monument’s purposes).

the argument that the Antiquities Act cannot be utilized to protect wildlife or its habitat on federally controlled lands.<sup>41</sup>

Thus, the question of whether the president may designate as national monuments those lands and waters within either the territorial seas (from three to 12 miles offshore) or the exclusive economic zone (EEZ) (from 12 to 200 miles offshore) turns only upon whether the United States exercises a quantum of “control” sufficient to satisfy the Antiquities Act’s plain language. Although no court has addressed the question of the requisite measure of “control” necessary under the Antiquities Act’s plain language, Black’s Law Dictionary defines “control” as “to exercise restraining or directing influence over; regulate; restrain; dominate; curb; to hold from action; overpower; counteract; govern.”<sup>42</sup> Under this plain meaning of “control,” it becomes clear that the jurisdiction exercised by the United States over its waters is more than sufficient to support the designation of marine national monuments under the Antiquities Act.

A. The President Has Ample Authority to Establish National Monuments in the United States’ Territorial Seas

1. *Jurisdictional Framework in the Territorial Seas*

In its plainest terms, the territorial sea is a narrow band of ocean that parallels the length of a nation’s coastline (or, “baseline”).<sup>43</sup> According to the United Nation’s Convention on the Law of the Sea (“UNCLOS”), “[t]he sovereignty of a coastal State extends, beyond its land territory and internal waters . . . to an adjacent belt of sea, described as the territorial sea.”<sup>44</sup> Subject only to exceptions touching upon ‘innocent passage,’ “the coastal state has the same sovereignty over its territorial sea, and over the air space, sea-bed, and subsoil thereof, as it has in respect of its land territory.”<sup>45</sup> As a concomitant to that sovereignty, “the coastal State may extend the reach of its domestic legislation

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<sup>41</sup> *Cappaert*, 426 U.S. at 141 (stating that protection “of a peculiar race of desert fish,” and the habitat upon which it depends, is a valid exercise of the President’s authority under the Antiquities Act).

<sup>42</sup> *Control*, Black’s Law Dictionary (4th ed. 1951).

<sup>43</sup> Baselines may be defined in several ways depending upon *in situ* coastal features, however, “the normal baseline for measuring the breadth of the territorial sea [and exclusive economic zone] is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.” United Nations Convention on the Law of the Sea Art. 5, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS], <https://treaties.un.org/doc/publication/unts/volume%201833/volume-1833-a-31363-english.pdf/>.

<sup>44</sup> *Id.* at Art. 2(1).

<sup>45</sup> Restatement (Third) of The Foreign Relations Laws of the United States § 512.

to the limits of its territorial sea and enforce provisions of that legislation against its own citizens and foreigners.”<sup>46</sup>

Domestically, “[t]he President has the authority to extend or contract the territorial sea pursuant to his constitutionally delegated power over foreign relations.”<sup>47</sup> Under customary international law, every coastal nation “has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from [its] baselines.”<sup>48</sup> Up until recent history, however, the United States claimed only a three-mile territorial sea.<sup>49</sup> In 1988, President Ronald Reagan proclaimed that “[t]he territorial sea of the United States henceforth extends to 12 nautical miles from the baselines of the United States determined in accordance with international law.”<sup>50</sup> In extending the nation’s territorial sea “to the limits permitted by international law,” President Reagan sought to “advance the national security and other significant interests of the United States.”<sup>51</sup>

In 1954, Congress passed the Submerged Lands Act (“SLA”).<sup>52</sup> The relevant portion of the SLA conveyed to the various states all federal title in lands beneath navigable waters up to three miles seaward of the baseline.<sup>53</sup> In addition, the SLA also “confirmed” that all “natural resources of that portion of the subsoil and seabed of the Continental Shelf lying seaward” of the three miles granted to the various states fell squarely under the control of “the jurisdiction and control” of the United

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<sup>46</sup> Michael Reed, *National and International Jurisdiction and Boundaries*, in *Ocean and Coastal Law and Policy* 10 (Donald C. Baur *et al.* eds., 2d ed., 2015).

<sup>47</sup> *Helman v. Alcoa Global Fasteners, Inc.*, 637 F.3d 986, 993 (9th Cir. 2011).

<sup>48</sup> UNCLOS, *supra* note 43, at Art. 2. Although the United States is not a signatory to UNCLOS, “[a] treaty can constitute evidence of customary international law ‘if an overwhelming majority of States have ratified the treaty, and those States uniformly and consistently act in accordance with its principles.’” *United States v. Salad*, 908 F. Supp. 2d 730, 734 (E.D. Va. 2012) (alteration in original) (quoting *Flores v. S. Peru Copper Corp.*, 414 F.3d 233, 256 (2d Cir. 2003)). Further, “with the exception of its deep seabed mining provisions, the United States has consistently accepted UNCLOS as customary international law for more than 25 years.” *Id.* (quoting *United States v. Hasan*, 747 F. Supp. 2d 599, 635 (E.D. Va. 2010)). See also *The Paquete Habana*, 175 U.S. 677, 700 (1900) (“where there is no treaty and no controlling executive or legislative act or judicial decision, resort must be had to the customs and usages of civilized nations . . .”).

<sup>49</sup> See, e.g., Carol Elizabeth Remy, *U.S. Territorial Sea Extension: Jurisdiction and International Environmental Protection*, 16 *Fordham Int’l L.J.* 1208, 1219–20 (1992) (discussing the state of U.S. jurisdiction in the territorial seas prior to Proclamation No. 5928).

<sup>50</sup> Proclamation No. 5928, 3 C.F.R. § 547 (1989).

<sup>51</sup> *Id.*

<sup>52</sup> 43 U.S.C. §§ 1301–1315 (2012).

<sup>53</sup> *Id.* § 1311.



States.<sup>54</sup> Thus, as a general matter, the United States remains sovereign in the portion of its territorial sea between three and twelve miles as measured from the baseline.

2. *The ‘Control’ Exercised by the United States in Its Territorial Seas is More Than Sufficient to Support the Designation of Marine Monuments*

As highlighted above, the U.S. retains the same sovereignty “over its territorial seas, and the air space, sea-bed, and subsoil thereof, as it has in respect of its land territory.”<sup>55</sup> Indeed, the Supreme Court has consistently recognized that “the United States has paramount sovereign authority over submerged lands beneath the territorial sea.”<sup>56</sup> With respect to national monument designations specifically, the Supreme Court has also held that “[i]t is clear, after all, that the Antiquities Act empowers the President to reserve submerged lands.”<sup>57</sup>

In addition to these express holdings by the Supreme Court, federal legislation also demonstrates the expansive control exercised by the U.S. over its territorial seas. For instance, in 1998, Congress passed the Coast Guard Authorization Act, which explicitly adopted President Reagan’s 1988 Proclamation and extended federal shipping and safety regulations into the U.S.’s territorial seas.<sup>58</sup> These regulations, amplified by the U.S.’s attendant sovereign authority over its territorial seas, serves to demonstrate that Congress exercises sufficient—if not exclusive—“restraining or directing influence” under the Antiquities Act’s plain meaning. Consequently, there cannot be any serious doubt as to the president’s authority to “establish a national monument under the Antiquities Act within the territorial sea from 3–12 miles seaward from the baseline.”<sup>59</sup>

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<sup>54</sup> *Id.* § 1302.

<sup>55</sup> Restatement (Third) of The Foreign Relations Laws of the United States § 512.

<sup>56</sup> *United States v. Alaska*, 521 U.S. 1, 35 (1997) (citing *United States v. California*, 332 U.S. 19, 35–36 (1947); *United States v. Louisiana*, 339 U.S. 699, 704 (1950); *United States v. Texas*, 339 U.S. 707, 719 (1950)).

<sup>57</sup> *State of Alaska v. United States*, 545 U.S. 75, 103 (2005) (citing *United States v. California*, 436 U.S. 32, 36 (1978)).

<sup>58</sup> See Coast Guard Authorization Act of 1998, Pub. L. No. 105-383, § 301, 112 Stat. 3411 (1998) (amending multiple U.S. Code provisions to provide that: “‘Navigable waters of the United States’ includes all waters of the territorial sea of the United States as described in Presidential Proclamation No. 5928 of December 27, 1988”).

<sup>59</sup> Administration of Coral Reef Resources in the Northwest Hawaiian Islands, 24 Op. O.L.C. 183, 192 (2000).

3. *The 1988 Proclamation Savings Clause Does Not Limit the U.S.’s Sovereign Authority to Protect Marine Resources in Its Territorial Seas*

Some commentators have argued that a savings clause in the 1988 Proclamation, stating that it did not “extend[] or otherwise alter[] existing Federal or State law or any jurisdiction, rights, legal interests, or obligations derived therefrom,”<sup>60</sup> limits the Antiquities Act’s applicability within the territorial seas.<sup>61</sup> However, this argument is legally flawed because, as set forth in an Opinion by the Department of Justice’s Office of Legal Counsel (“OLC”), the broad and unqualified terms of the Antiquities Act are precisely the kind that remain unaffected by the Proclamation’s savings clause.<sup>62</sup>

As counseled by the OLC, the relevant consideration in determining whether the Proclamation’s savings clause applies to a given statute turns on “whether Congress intended for the jurisdiction of any existing statute to include an expanded territorial sea.”<sup>63</sup> Of course, any analysis of congressional intent in this context must begin with an examination of the plain language of the statute in question.<sup>64</sup> Yet where the geographical reach of “territorial sea” is left undefined, “further inquiry into the purpose and structure of a particular statute” is required to determine whether Congress “intended the term to refer to the three miles that history and existing practice had defined” or whether it “intended the statute’s jurisdiction to always track the extent of the United States’ assertion of territorial sea under international law.”<sup>65</sup> Notably, this analytical framework has been endorsed and adopted by two separate U.S. Circuit Courts of Appeal.<sup>66</sup>

Although no court has addressed the issue with respect to the Antiquities Act specifically, its expansive terms support the proposition that Congress did not intend to leave the statute frozen in time. Rather than utilizing cabined terms such as “territorial sea,” the Antiquities Act paints with a broad brush by granting the president the authority to designate any “lands owned or controlled” by

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<sup>60</sup> Proclamation No. 5928, 3 C.F.R. § 547 (1989).

<sup>61</sup> John Yoo & Todd Gaziano, Am. Enter. Inst., Presidential Authority to Revoke or Reduce National Monument Designations 12-14 (2017).

<sup>62</sup> 24 Op. O.L.C. at 191.

<sup>63</sup> *Id.* at 188 (internal quotations omitted) (quoting Legal Issues Raised by Proposed Presidential Proclamation To Extend the Territorial Sea, 12 Op. O.L.C. 238, 253 (1988)).

<sup>64</sup> *Id.*

<sup>65</sup> *Id.* at 188, 189 (internal quotations omitted) (quoting Legal Issues Raised by Proposed Presidential Proclamation To Extend the Territorial Sea, 12 Op. O.L.C. 238, 253–54 (1988)).

<sup>66</sup> See *In re Air Crash off Long Island*, 209 F.3d 200 (2d Cir. 2000) (utilizing OLC’s analysis to determine that the Death on the High Seas Act, 46 U.S.C. §§ 30301–30308, remained unaffected by the 1988 Proclamation’s savings clause); *Helman v. Alcoa Global Fasteners, Inc.*, 637 F.3d 986, 992 (9th Cir. 2011) (“According to the OLC, in determining whether a Presidential Proclamation affects a particular statute, one must determine whether Congress ‘intended’ the statute to be so affected.”).

the United States.<sup>67</sup> Accordingly, the OLC found that, based on the principal conservation purposes, straightforward structure, and unqualified language of the Statute,

Congress intended for the reach of the Antiquities Act to extend to any area that at the particular time the monument is being established is in fact “owned or controlled” by the U.S. Government, even if it means that the area covered by the Act might change over time as new lands and areas become subject to the sovereignty of the nation.<sup>68</sup>

In sum, Congress’ broad intent to allow the president to designate as national monuments *any* lands controlled by the federal government necessarily extends to those lands beneath the territorial sea.<sup>69</sup>

Empirically, the OLC’s conclusion finds historical precedent in President Kennedy’s designation of Buck Island Reef National Monument in 1961.<sup>70</sup> Although the monument was established within three miles of the U.S. Virgin Islands’ baseline, it nonetheless reserved lands that were not owned by the U.S. in 1906 when the Antiquities Act was enacted.<sup>71</sup> Consequently, the Buck Island Reef National Monument stands “for the underlying principle that when the United States gains control over lands and areas that it did not control in 1906, that land is nonetheless covered by the Antiquities Act.”<sup>72</sup>

B. Under the Antiquities Act’s Plain Language, the President May Establish National Monuments in the United States’ Exclusive Economic Zone

The question of whether the president may lawfully designate national monuments within its EEZ again turns on whether the U.S. exercises a sufficient quantum of control necessary to satisfy the Antiquities Act’s broad language. Here, the inescapable conclusion is that certain sovereign rights, coupled with exclusive jurisdiction and the concomitant authority to protect against environmental degradation, affords the U.S. the requisite measure of “directing influence” necessary to support the designation of a marine monument in its EEZ.

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<sup>67</sup> 54 U.S.C. § 320301(a) (2012).

<sup>68</sup> Administration of Coral Reef Resources in the Northwest Hawaiian Islands, 24 Op. O.L.C. 183, 191 (2000).

<sup>69</sup> *Id.* at 191–92.

<sup>70</sup> Proclamation No. 3443, 3 C.F.R. § 152 (1959–1963).

<sup>71</sup> 24 Op. O.L.C. at 191.

<sup>72</sup> *Id.*

### 1. *Jurisdictional Framework in the Exclusive Economic Zone*

The EEZ represents a compromise between traditionally maritime nations, which sought extensive freedom of navigation on the oceans, and those nations interested in protecting their coastal resources from intrusive exploration.<sup>73</sup> As defined by UNCLOS, “[t]he exclusive economic zone is an area beyond and adjacent to the territorial sea,” which “shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.”<sup>74</sup> Within the EEZ, “the coastal State has [exclusive] *sovereign rights* for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoils . . . .”<sup>75</sup> Subject to de minimis limitations, UNCLOS also confers exclusive jurisdiction in the EEZ on coastal nations to regulate “marine scientific research . . . [and] the protection and preservation of the marine environment.”<sup>76</sup>

Acting “in accordance with the rules of international law,” President Reagan established the United States’ current 200-mile EEZ in 1983.<sup>77</sup> In claiming that EEZ, the U.S. endeavored to “advance the development of ocean resources and *promote the protection of the marine environment*, while not affecting other [States’] lawful uses of the zone . . . .”<sup>78</sup> The “lawful uses” specifically identified by UNCLOS and President Reagan’s proclamation were limited to “freedom[] of navigation, overflight” and “the laying of submarine cables and pipelines . . . .”<sup>79</sup> Thus, absent interference with these identified uses, “[w]ithin the Exclusive Economic Zone, the United States has . . . sovereign rights for the purpose of . . . conserving and managing natural resources, both living and non-living,” as well as exclusive “jurisdiction with regard to . . . protection and preservation of the marine environment.”<sup>80</sup>

### 2. *The United States Exercises a Quantum of Control Over Its Exclusive Economic Zone Sufficient to Support Reservations Under the Antiquities Act*

In its EEZ, the United States exerts the requisite quantum of control necessary to support the designation of national monuments under the Antiquities Act for several reasons. First, by the plain terms of UNCLOS, the United States retains sovereign and exclusive rights over the exploration, exploitation, conservation, and management of all natural resources found within its declared EEZ.<sup>81</sup>

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<sup>73</sup> See Reed, *supra* note 45, at 11.

<sup>74</sup> UNCLOS, *supra* note 43, at Arts. 55., 57.

<sup>75</sup> *Id.* at Art. 56 (emphasis added).

<sup>76</sup> *Id.*

<sup>77</sup> Proclamation No. 5030, 3 C.F.R. § 22 (1984).

<sup>78</sup> *Id.* (emphasis added).

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> UNCLOS, *supra* note 43, at Art. 56.

Indeed, Congress exercises those rights with respect to fisheries through the Magnuson-Stevens Fishery Conservation and Management Act, which explicitly provides that “the United States claims, and will exercise . . . sovereign rights and exclusive fishery management authority over all fish, and all Continental Shelf fishery resources, within the exclusive economic zone.”<sup>82</sup>

Likewise, certain sovereign rights afforded by customary international law also entitle the U.S. to “take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with” international law.<sup>83</sup> Here too, Congress exerts these jurisdictional controls over the U.S. EEZ through domestic legislation such as the Jones Act, which places certain ownership and operating restrictions on vessels engaged in coastwise trade.<sup>84</sup>

Second, the United States controls its EEZ through the exercise of a species of the right-to-exclude under customary international law. UNCLOS provides that coastal nations may contract with others to grant excess fishing rights in the coastal State’s EEZ *only after* “the coastal State does not have the capacity to harvest the entire allowable catch . . . .”<sup>85</sup> The coastal State’s contractual fishing rights, combined with its sovereign right to conserve living marine resources, imply a unique measure of exclusionary control over economic endeavors within a given EEZ.

Third, as a practical matter, a coastal State’s expansive control over its own EEZ is generally defined by exclusion. In this context, the freedom of navigation and overflight and the freedom to lay submarine cables are the only definitive freedoms beyond a coastal State’s “control.”<sup>86</sup> While these exclusions leave a coastal State with something less than total sovereignty in its EEZ, the residual authority is nevertheless extensive. Importantly, absolute sovereignty over a given tract of land is not a necessary predicate to the designation of a national monument. As evidenced by the relevant

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<sup>82</sup> 16 U.S.C. § 1811(a) (2012).

<sup>83</sup> UNCLOS, *supra* note 43, at Art. 73.

<sup>84</sup> 46 U.S.C. § 55102 (2012); *see also id.* § 55110 (providing that § 55102 “applies to the transportation of valueless material or dredged material, regardless of whether it has commercial value, from a point in the United States or on the high seas within the exclusive economic zone, to another point in the United States or on the high seas within the exclusive economic zone”).

<sup>85</sup> UNCLOS, *supra* note 43, at Art. 62.

<sup>86</sup> UNCLOS, *supra* note 43, at Art. 58 (“In the exclusive economic zone, all States . . . enjoy . . . the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms . . .”).

presidential proclamations, marine national monuments may accomplish the purposes for which they were created without abrogating the control exercised by the United States.<sup>87</sup>

Fourth, under UNCLOS and customary international law, the United States possesses broad—and in certain cases, obligatory—authority to protect the marine environment within its EEZ. For instance, one identified purpose of UNCLOS is provide for the conservation of “natural resources of the sea-bed and subsoil of the super-adjacent waters.”<sup>88</sup> To that end, “coastal state[s] are] obligated to ensure, through proper conservation and management measures, that living resources in the exclusive economic zone are not endangered by over-exploitation.”<sup>89</sup> As a result, the United States is afforded the requisite power and control necessary to protect the natural marine resources within its EEZ against exploitation and extraction. Consistent with that authority, the Antiquities Act—and its focus on curbing over-exploitation—is a valid exercise of the U.S.’s jurisdiction under international law.

Beyond concerns regarding over-exploitation, UNCLOS also grants additional authority to coastal States “to prevent, reduce and control pollution of the marine environment by dumping.”<sup>90</sup> Accordingly, UNCLOS provides that “[d]umping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping . . . .”<sup>91</sup> As a result, Congress exercises this authority through the Act to Prevent Pollution from Ships, which subjects all vessels to certain environmental controls “while in the navigable waters or the exclusive economic zone of the United States.”<sup>92</sup>

Finally, Congress has tacitly approved the establishment of national monuments in the U.S. EEZ through recurring appropriations and legislative silence. As the Supreme Court counseled in *Alaska S.S. Co. v. United States*, courts should be “slow to disturb the settled administrative construction of a

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<sup>87</sup> Each presidential proclamation designating national monuments in U.S. waters includes a provision explicitly integrating applicable international law. *See* Proc. No. 8335, 74 Fed. Reg. 1,557, 1,560 (Jan. 6, 2009) (Marianas Trench Marine National Monument); Proc. No. 8336, 74 Fed. Reg. 1,565, 1,569 (Jan. 6, 2009) (Pacific Remote Islands Marine National Monument); Proc. No. 8337, 74 Fed. Reg. 1,577, 1,579 (Jan. 6, 2009) (Rose Atoll Marine National Monument); Proc. No. 9496, 81 Fed. Reg. 65,159, 65,164 (Sept. 21, 2016) (Northeast Canyons and Seamounts Marine National Monument); Proc. No. 9478, 81 Fed. Reg. 60,227, 60,231 (Aug. 26, 2016) (Papahānaumokuākea Marine National Monument).

<sup>88</sup> UNCLOS, *supra* note 43, at Art. 61.

<sup>89</sup> Restatement (Third) § 514 cmt. f.

<sup>90</sup> UNCLOS, *supra* note 43, at Art. 210.

<sup>91</sup> *Id.*

<sup>92</sup> 33 U.S.C. § 1902 (2012).

statute,” particularly where “it has received congressional approval, implicit in the annual appropriations over a period of [several] years.”<sup>93</sup>

Likewise, in the context of the executive’s power over the public domain, congressional silence has long been understood to equate to tacit approval of executive action. For instance, in analyzing the propriety of federal land withdrawals made by President Taft in response to dwindling oil reserves, the Supreme Court—without citing explicit statutory authority—found that:

The Executive, as agent, was in charge of the public domain; by a multitude of orders extending over a long period of time, and affecting vast bodies of land, in many States and Territories, he withdrew large areas in the public interest. These orders were known to Congress, as principal, and in not a single instance was the act of the agent disapproved. Its acquiescence all the more readily operated as an implied grant of power in lieu of the fact that its exercise was not only useful to the public, but did not interfere with any vested right of the citizen.<sup>94</sup>

In contradistinction to the withdrawals made by President Taft, however, the designation at issue here is made under the color of an explicit congressional grant of authority. Consequently, where Congress has not acted to limit the president’s authority to designate national monuments in the U.S. EEZ, such designations must be considered to bear a congressional seal of approval.

### **Only Congress Has the Authority to Revoke or Reduce the Size of a National Monument Designation**

Executive Order 13792 instructs the Interior Secretary to “review” national monuments designated or expanded under the Antiquities Act and “include recommendations for Presidential actions.”<sup>95</sup> In a press briefing on this order, Secretary Zinke stated that the it “directs the Department of Interior to make recommendations to the President on whether a monument should be rescinded, resized, [or]<sup>96</sup> modified.” However, any such actions taken by the president would be unlawful: only Congress has the authority to rescind, reduce, or substantially modify a national monument.

The president’s powers regarding management of public lands are limited to those delegated to him by Congress. While the Antiquities Act of 1906 provides the president the power to “declare” and

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<sup>93</sup> 290 U.S. 256, 262 (1933).

<sup>94</sup> *United States vs. Midwest Oil Co.*, 236 U.S. 459, 475 (1915).

<sup>95</sup> Exec. Order No. 13,792, 82 Fed. Reg. 20,429 (May 1, 2017).

<sup>96</sup> Press Briefing on the Executive Order to Review Designations Under the Antiquities Act, Ryan Zinke, Sec’y of the Interior (Apr. 25, 2017), <https://www.whitehouse.gov/the-press-office/2017/04/25/press-briefing-secretary-interior-ryan-zinke-executive-order-review>.

“reserve” national monuments, it does not grant him authority to rescind, resize, modify, or otherwise diminish designated national monuments.<sup>97</sup>

The Property Clause of the U.S. Constitution<sup>98</sup> gives Congress “exclusive” authority over federal property,<sup>99</sup> in effect making “Congress[] trustee of public lands for all the people.”<sup>100</sup> “The Clause must be given an expansive reading, for ‘(t)he power over the public lands thus entrusted to Congress is without limitations.’ ”<sup>101</sup> Congress may, of course, delegate its authority to manage these lands to executive agencies or the president,<sup>102</sup> as it did in the Antiquities Act.

In the Antiquities Act, Congress only delegated to the president the broad authority to *designate* as national monuments “historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest”—an authority limited only by the requirement that such reservations be “confined to the smallest area compatible with the proper care and management of the objects to be protected.”<sup>103</sup> Conspicuously absent from the Act, however, is language authorizing *any* substantive changes to national monuments once they have been established.

The omission of language granting the president the authority to rescind, reduce, or modify national monuments is intentional. Without it, an implicit congressional grant of these authorities cannot be read into the Antiquities Act.<sup>104</sup> If Congress intended to allow future presidents to rescind or reduce existing national monument designations, it would have included express language to that effect in the Act. Congress had done just that in many of the other public land reservation bills of the era.<sup>105</sup>

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<sup>97</sup> 54 U.S.C. § 320301(a), (b).

<sup>98</sup> U.S. Const. art. IV, § 3, cl. 2.

<sup>99</sup> See, e.g., *Utah Power & Light Co. v. United States*, 243 U.S. 389, 404 (1917).

<sup>100</sup> *United States v. City & Cty. of San Francisco*, 310 U.S. 16, 28 (1940).

<sup>101</sup> *Kleppe v. New Mexico*, 426 U.S. 529, 539–40 (1976) (quoting *San Francisco*, 310 U.S. at 29).

<sup>102</sup> *United States v. Grimand*, 220 U.S. 506, 517 (1911); *Cameron v. United States*, 252 U.S. 450, 459–60 (1920); *Utah Ass’n of Cty. v. Bush*, 316 F. Supp. 2d 1172, 1191 (D. Utah 2004) (upholding Grand Staircase–Escalante National Monument) (citing *Yakus v. United States*, 321 U.S. 414 (1944)).

<sup>103</sup> 54 U.S.C. § 320301(a)–(b) (2012).

<sup>104</sup> *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1060 (D.C. Cir. 1995) (refusing “once again, to presume a delegation of power merely because Congress has not expressly withheld such power.”).

<sup>105</sup> See National Forest Organic Act of 1897, Act of June 4, 1897, 30 Stat. 1, 34, 36 (authorizing President “to *modify* any Executive order that has been or may hereafter be made establishing any forest reserve, and by such modification may *reduce* the area or *change the boundary lines* of such reserve, or *may vacate altogether* any order creating such reserve.”) (emphasis added) (repealed in part by Federal Land Policy and Management Act of 1976 (FLPMA), Pub. L. 94-579, Title VII, § 704(a), Oct. 21, 1976; National Forest Management Act of 1976, 16 U.S.C. § 1609(a)); Pickett Act, Act of June 25, 1910, c. 421, § 1, 36 Stat. 847 (executive withdrawals were



Furthermore, Congress considered a bill that would have authorized the president to restore future national monuments to the public domain, which passed the House in 1925, but was never enacted.<sup>106</sup> Logically, that effort would have been redundant if such authority already existed under the Act. The Antiquities Act thus demonstrates that Congress chose to constrain the president's authority not by limiting his ability to designate or expand national monuments, but by withholding the power to rescind, reduce, or modify monuments once designated or expanded.

For nearly eighty years, the federal government's position has been that the president lacks the authority to rescind, repeal, or revoke national monuments. Of course, if the president lacks such authority, it follows that the secretary lacks the authority to rescind, repeal, or revoke national monuments as well.<sup>107</sup> In 1938, U.S. Attorney General Homer Cummings concluded that "[t]he Antiquities Act ... authorizing the President to establish national monuments, does not authorize him to abolish them after they have been established."<sup>108</sup> The Attorney General Opinion went on to state:

The grant of power to execute a trust, even discretionally, *by no means* implies the further power to undo it when it has been completed. A duty properly performed by the Executive under statutory authority has the validity and sanctity which belong to the statute itself, and, unless it be within the terms of the power conferred by that statute, the Executive can no more destroy his own authorized work, without some other legislative sanction, than any other person can. To assert such a principle is to claim for the Executive the power to repeal or alter an act of Congress at will.<sup>109</sup>

Despite the apparent contradiction to this passage, and without addressing its legality or providing much discussion, this Attorney General's Opinion also recognized that "the President from time to time has diminished the area of national monuments established under the Antiquities Act."<sup>110</sup> However, none of these Presidential actions that reduced the size of national monuments has ever been challenged in court. Perhaps more importantly, there have been no attempts by the president

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"temporary," only to "remain in effect until revoked by him or by an Act of Congress.") (repealed by FLPMA § 704(a)).

<sup>106</sup> H.R. 11357, 68<sup>th</sup> Cong. (1925).

<sup>107</sup> *Cf. Utah Ass'n of Cty. v. Bush*, 316 F. Supp. 2d 1172, 1197 (D. Utah 2004) ("Because Congress only authorized the withdrawal of land for national monuments to be done in the president's discretion, it follows that the President is the only individual who can exercise this authority because only the President can exercise his own discretion.").

<sup>108</sup> Proposed Abolishment of Castle Pickney National Monument, 39 Op. Atty. Gen. 185, 185.

<sup>109</sup> *Id.* at 187 (emphasis added) (quoting 10 Op. Atty. Gen. at 364).

<sup>110</sup> *Id.* at 188. *See also* National Monuments, 60 Interior Dec. 9 (1947) (concluding that the president is authorized to reduce the area of national monuments by virtue of the same provision of Act).

or the secretary to rescind, resize, modify, or otherwise diminish designated national monuments since the enactment of FLPMA.<sup>111</sup>

In FLPMA, Congress not only repealed nearly all sources of executive authority to make withdrawals except for the Antiquities Act,<sup>112</sup> but also overturned the implied executive authority to withdraw public lands that the Supreme Court had recognized in 1915 as well.<sup>113</sup> FLPMA's treatment of the Antiquities Act was designed, moreover, to “specifically *reserve to the Congress the authority to modify and revoke withdrawals* for national monuments created under the Antiquities Act.”<sup>114</sup>

Consequently, the authority Congress delegated to the president in the Antiquities Act is limited to the designation or expansion of national monuments. Where a President acts in accordance with that power, the designation is “in effect a reservation by Congress itself, and . . . the President thereafter [i]s without power to revoke or rescind the reservation . . . .”<sup>115</sup> Thus, as the district court in *Wyoming v. Franke* summarized, where “Congress presumes to delegate its inherent authority to [the president], . . . the burden is on the Congress to pass such remedial legislation as may obviate any injustice brought about [because] the power and control over and disposition of government lands inherently rests in its Legislative branch.”<sup>116</sup>

## MARIANAS TRENCH MARINE NATIONAL MONUMENT

President George W. Bush established Marianas Trench Marine National Monument (Marianas Trench Monument or “Monument”) in 2009 through Presidential Proclamation 8335.<sup>117</sup> The Monument protects 95,216 square miles of ocean environments in the Mariana Archipelago, east of the Philippines. Monument designation and management are divided into three units. The Department of the Interior, through the U.S. Fish and Wildlife Service (FWS), and in consultation with the Department of Commerce, administers the Volcanic Unit (submerged lands within 1 nautical mile of 21 designated submerged volcanic sites) and the Trench Unit (extensive, submerged lands encompassing the Mariana Trench); the Department of Commerce, through the National Oceanic and Atmospheric Administration (NOAA), has primary management authority for fisheries in waters within the Islands Unit (the waters and submerged lands around the three northernmost Mariana Islands).

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<sup>111</sup> Pub. L. 94-579 (Oct. 21, 1976), codified at 43 U.S.C. § 1701 *et seq.*

<sup>112</sup> *Id.* at Title II, § 204, Title VII, §704(a).

<sup>113</sup> *Id.*; *United States v. Midwest Oil Co.*, 236 U.S. 459 (1915).

<sup>114</sup> H.R. REP. 94-1163, 9, 1976 U.S.C.C.A.N. 6175, 6183 (emphasis added).

<sup>115</sup> Proposed Abolishment of Castle Pickney National Monument, 39 Op. Atty. Gen. 185, 187 (1938) (citing 10 Op. Atty. Gen. 359, 364 (1862)).

<sup>116</sup> 58 F. Supp. 890, 896 (D. Wyo. 1945).

<sup>117</sup> Proclamation 8335, 74 Fed. Reg. 1557 (Jan. 12, 2009).

The Volcanic and Trench units of the Monument were added to the National Wildlife Refuge System in 2009, as Mariana Arc of Fire and Mariana Trench national wildlife refuges, respectively. They conserve some of the most unique geological features and biological resources in the world and in the Refuge System, the only network of federal lands and waters dedicated to wildlife conservation. Encompassing 566 refuges with at least one in every U.S. state and territory, the Refuge System is essential to protecting our nation's astounding diversity of wildlife, supports innumerable recreational and educational opportunities and generates billions of dollars in local, sustainable economic revenue. Replete with unusual life forms and unexplored habitats, Mariana Arc of Fire and Mariana Trench refuges are exceptional wildlife refuges.

The marine environment of Marianas Trench Monument contains objects of great historic and scientific interest. Only recently have scientists visited the incredible depths of the Monument, discovering previously unknown biological, chemical and geological wonders. Their expeditions have confirmed the presence of some of the deepest living fishes in the world, a tremendous diversity of marine life and numerous uncounted and undescribed species from every phylum.<sup>118</sup> NOAA plans to continue conducting comprehensive oceanographic and ecological surveys of the Monument's unique coral reefs, unusual habitats and lifeforms.<sup>119</sup> Much scientific study still remains to fully explore and understand the ecological relationships, and oceanographic and geological phenomena of the area. The designation provides a unique opportunity to determine scientific benchmarks and references for comparing protected and unprotected areas in terms of climate change, and the ability for species to survive in extremely harsh conditions. Both the known and potential scientific findings and important marine resources within Marianas Trench Monument clearly demonstrate that President Bush was well within his discretion under the Antiquities Act in designating the monument.

### **Marianas Trench Marine National Monument Protects Sensitive Ecosystems, Habitats and Geological Features of Significant Historic and Scientific Interest**

The proclamation establishing Marianas Trench Monument describes in great factual detail the unique ecosystems, geological formations and chemical environment at the Monument that support a diverse assemblage of marine species and rare biological communities of high ecological value.<sup>120</sup> The Monument comprises 21 submerged volcanoes, one of only two natural liquid carbon dioxide sites in the world, and a vast almost completely unexplored submarine canyon, the deepest place on

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<sup>118</sup> NOAA Fisheries. "Marianas Trench Marine National Monument" (webpage); available at [https://www.pifsc.noaa.gov/monuments\\_science/marianas\\_trench\\_marine\\_national\\_monument.php](https://www.pifsc.noaa.gov/monuments_science/marianas_trench_marine_national_monument.php).

<sup>119</sup> U.S. Fish and Wildlife Service. "Marianas Trench Marine National Monument" (factsheet); available at [https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf). [FWS factsheet].

<sup>120</sup> Proclamation 8335.

Earth.<sup>121</sup> It safeguards these extraordinary habitats and provides for marine life that is adapted to each habitat type. Courts have upheld that the Antiquities Act provides the President with the discretion to protect ecosystems, ecosystem features and large habitats. For example, in *Tulare v. Bush* the court found that inclusion of ecosystems within the Proclamation “did not contravene the terms of the statute by relying on nonqualifying features.”<sup>122</sup> As described below, the biological, ecological and geological features found in Marianas Trench Monument qualify as objects of scientific and historic interest meriting protection under the Antiquities Act.

### *Mariana Trench*

The Trench Unit of the Monument protects the crescent-shaped Mariana Trench, stretching 940 nautical miles long by 38 nautical miles wide within the U.S. Exclusive Economic Zone and containing the deepest known points in the global ocean, deeper than the height of Mount Everest above sea level.<sup>123</sup> The Mariana Trench was created geologically when the Pacific Plate plunged beneath the Philippine Sea Plate into the Earth’s mantle. It includes more than 50,000 unexplored acres and is recognized by the international scientific community as the oldest geological place on the ocean floor.<sup>124</sup>

### *Undersea Mud Volcanoes and Thermal Vents*

The Volcanic Unit of the Monument protects an arc of 21 undersea mud volcanoes and thermal vents, representing the only place in the world with huge hydrogen-releasing mud volcanoes. This area supports unusual life forms in some of the harshest conditions imaginable. The hydrothermal vents release highly acidic and boiling water with temperatures that can reach up to 572 degrees Fahrenheit. The species that survive here show an incredible resistance to temperature extremes. The vents release hydrogen sulfide and other minerals that become important components of the food chain when they are consumed by barophilic bacteria, which are then consumed by other microorganisms that are the basis of a vast marine food web.<sup>125</sup>

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<sup>121</sup> U.S. Fish and Wildlife Service. “Mariana Arc of Fire National Wildlife Refuge” (webpage); available at [https://www.fws.gov/refuge/Mariana\\_Arc\\_of\\_Fire/about.html](https://www.fws.gov/refuge/Mariana_Arc_of_Fire/about.html) [Arc of Fire webpage]; FWS factsheet.

<sup>122</sup> *Tulare Cnty. v. Bush*, 306 F.3d at 1142.

<sup>123</sup> Proclamation 8335; FWS factsheet.

<sup>124</sup> U.S. Fish and Wildlife Service. “Mariana Trench National Wildlife Refuge” (webpage); available at [https://www.fws.gov/refuge/Mariana\\_Trench/about.html](https://www.fws.gov/refuge/Mariana_Trench/about.html).

<sup>125</sup> Mariana Arc of Fire webpage.

### *Champagne Vent and Sulfur Cauldron*

The Volcanic Unit also protects other unique features of the Monument, including the Champagne Vent and Sulfur Cauldron. The Champagne Vent, located at the Eifuku submarine volcano more than one mile below sea level, produces almost pure liquid carbon dioxide, a phenomenon observed at only one other site on Earth. The world's only convecting pool of liquid sulfur, dubbed the Sulfur Cauldron, exists at the Daikoku submarine volcano. The only other known location of molten sulfur is on a moon of the planet Jupiter.<sup>126</sup>

### *Coral Reefs*

The Island Unit of the Monument protects rare reef habitats that support marine biological communities dependent on basalt rock formations, unlike those throughout the remainder of the Pacific. These coral reef ecosystems are among the most biologically diverse in the Western Pacific and safeguard a wide variety of unexplored seamount and hydrothermal vent life. They comprise the most diverse assemblages of stony corals in the Western Pacific, including more than 300 species, the greatest number of any reef area in U.S. waters.<sup>127</sup> Three of the coral species found in the Monument are listed as threatened under the Endangered Species Act. The reef habitats in the Monument support a multitude of apex predators, some of the largest reef fish biomass in the Mariana Archipelago and are vital to the long-term study of tropical marine ecosystems.<sup>128</sup>

### *Maug Crater Lagoon*

The submerged caldera at the island of Maug represents yet another rare phenomenon found within the Monument. Maug Crater is one of only a few known places on Earth where photosynthetic and chemosynthetic communities co-exist. The caldera is 820 feet, an unusual depth for lagoons. The lava dome in the center of the crater rises to within 65 feet of the water's surface. Hydrothermal vents along the side of the dome release acidic water at scalding temperatures adjacent to a coral reef that ascends to the sea surface, replete with microbial mats and tropical fish.<sup>129</sup>

### *Marine Waters*

The waters of the Monument are rich with marine life, sheltering a diversity of permanent, seasonal and transient species. Fish concentrate at the underwater volcanoes, drawing apex predators. The

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<sup>126</sup> Mariana Arc of Fire webpage.

<sup>127</sup> FWS factsheet.

<sup>128</sup> Proclamation 8335.

<sup>129</sup> Mariana Arc of Fire webpage.

benthic bottoms of the Monument also safeguard a variety of species, including rare lifeforms suited to darkness, extreme temperatures and high pressure in the deep sea.<sup>130</sup>

### **Marianas Trench Marine National Monument Protects Rare and Imperiled Marine Species of Significant Historic and Scientific Interest**

Fish and wildlife qualify for protection as objects of historic and scientific interest under the Antiquities Act. Marianas Trench Monument provides vital habitat for a variety of rare and endemic fish and wildlife, including imperiled species listed under the Endangered Species Act (ESA).

#### *Fish*

More than 400 diverse fish species are found in the waters of and around the Marianas Trench Monument, from some of the deepest living fish species to tropical reef fish.<sup>131</sup> Pelagic species include blue marlin, sharks, mahi mahi, sharks, spearfish, sailfish and wahoo.<sup>132</sup> One area in the Island Unit of the Monument contains the highest density of sharks anywhere in the Pacific. These waters of the northern islands of the Archipelago support the greatest amounts of large fish biomass in the Mariana Islands. Species such as the rare bumphead parrotfish, which has been depleted throughout much of its range and is listed as threatened by the International Union for Conservation of Nature, thrive here.<sup>133</sup>

#### *Marine Mammals*

Many species of whales and dolphins are found in the waters of the Monument, including three local species protected under the ESA: the sperm whale, humpback whale and sei whale. Other cetaceans include short-finned pilot whales, pygmy killer whales, Byrde's whales, Cuvier's beaked whales, spinner dolphins, bottlenose dolphins, pantropical spotted dolphins, striped dolphins, Risso's dolphins, and rough-toothed dolphins.<sup>134</sup> All of these marine mammals are protected under the Marine Mammal Protection Act.

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<sup>130</sup> U.S. Fish and Wildlife Service. "Mariana Trench Marine National Monument" (webpage); available at [https://www.fws.gov/refuge/Mariana\\_Trench\\_Marine\\_National\\_Monument/wildlife\\_and\\_habitat/](https://www.fws.gov/refuge/Mariana_Trench_Marine_National_Monument/wildlife_and_habitat/). [FWS Monument webpage].

<sup>131</sup> U.S. Fish and Wildlife Service. 2017. Marianas Trench Marine National Monument, Northern Islands Submerged Lands Transfer to the Commonwealth of the Northern Mariana Islands, Final Environmental Assessment and Finding of No Significant Impact (January 2017), p. 16. [FWS EA].

<sup>132</sup> FWS Monument webpage.

<sup>133</sup> FWS factsheet.

<sup>134</sup> FWS Monument webpage.

### *Reptiles*

The Monument safeguards imperiled sea turtles, including the endangered green turtle and endangered hawksbill.<sup>135</sup> These rare turtles rely on both foraging and migratory habitat preserved by the Monument.

### *Seabirds*

More than two dozen species of seabirds inhabit the area around Marianas Trench Monument, and may utilize its waters for foraging. Three such species are listed under the Endangered Species Act and all migratory species are protected under the Migratory Bird Treaty Act.

### *Invertebrates*

More than one hundred species of macroinvertebrates, including sea urchins, crabs, gastropods and abalone have been documented in the Islands Unit of the Monument alone.<sup>136</sup> Cusk eels, anglerfish, pelagic sea cucumbers, squat lobsters, shrimp and arthropods that exhibit deep-sea gigantism have all been found in the Monument.

### *Xenophyophores*

During a 2011 research expedition to the Mariana Trench, scientists documented the deepest known existence of xenophophores or “giant amoebas,” single-celled, sponge-like animals that live exclusively in deep sea environments. Studies show that these species are likely to resist high doses of heavy metals<sup>137</sup>. They are just one example of the many amazing discoveries in deep-sea biology that we may find in the Monument.

### *Imperiled Species*

At least 17 species listed under the ESA may occur within or around the monument. They may be permanent residents of the Monument (such as corals), or may only exhibit transient use of the Northern Islands waters at certain times of the year, as with some whale and bird species.<sup>138</sup>

ESA-listed Species That Use Marianas Trench Marine National Monument		
Common Name	Scientific Name	Federal ESA Status
Hawaiian petrel	<i>Pterodroma sandwichensis</i>	Endangered

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<sup>135</sup> FWS Monument webpage.

<sup>136</sup> FWS EA, p. 16.

<sup>137</sup> FWS Monument webpage.

<sup>138</sup> FWS EA, p. 20.

ESA-listed Species That Use Marianas Trench Marine National Monument		
Common Name	Scientific Name	Federal ESA Status
Newell's shearwater	<i>Puffinus auricularis</i>	Threatened
Short-tailed albatross	<i>Phoebastria albatrus</i>	Endangered
Blue whale	<i>Balaenoptera musculus</i>	Endangered
Fin whale	<i>Balaenoptera physalus</i>	Endangered
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered
Sei whale	<i>Balaenoptera borealis</i>	Endangered
Sperm whale	<i>Physeter macrocephalus</i>	Endangered
Green sea turtle	<i>Chelonia mydas</i>	Threatened
Hawksbill turtle	<i>Eretmochelys imbricata</i>	Endangered
Leatherback turtle	<i>Dermochelys coriacea</i>	Endangered
Loggerhead sea turtle	<i>Caretta caretta</i>	Endangered
Olive ridley sea turtle	<i>Lepidochelys olivacea</i>	Threatened
Scalloped hammerhead shark	<i>Sphyrna lewini</i>	Threatened
Needle coral	<i>Seriatopora aculeata</i>	Threatened
No common name coral	<i>Acropora globiceps</i>	Threatened
Blunt coral	<i>Acropora retusa</i>	Threatened

**The Size and Protections Afforded Marianas Trench Marine National Monument are Necessary for the Proper Care and Management of Marine Species and Ecosystems of Historic and Scientific Interest**

The biological requirements and function of species and habitats in Marianas Trench Monument require both the size designated and the protections President Bush provided the area almost a decade ago. The size was narrowly tailored not to exceed the smallest area compatible with the proper care and management of the objects to be protected. The area within the Monument's boundaries supports a diverse and increasingly rare assemblage of fish and wildlife as compared to other areas within the Western Pacific. It preserves an extraordinary part of our planet that extends from shallow water reef ecosystems to uncommon geological formations and the deepest depths of ocean habitat. The monument proclamation provides for the proper care and management of these exceptionally important and unique resources. Altering its configuration or management would remove lawful protections for the species, natural features and fragile ecosystems—objects of historic and scientific interest—that the monument was established to conserve.

Scientists recommend protecting 30 percent of the world's oceans to fulfill an intergenerational legacy of ocean resource sustainability; at present, less than three percent of the world's oceans are



protected.<sup>139</sup> Existing uses of Marianas Trench Monument are appropriately limited to scientific exploration and research, public education programs, traditional access by indigenous people, recreational fishing where it does not harm the Monument, and programs for monitoring and law enforcement.<sup>140</sup> Current management will not only provide essential research for understanding comparatively little known marine ecosystems, but also ensure the area serves as a marine reserve for conserving and restoring fish stocks for the benefit of current and future generations.

Numerous scientific studies demonstrate that well-designed and strictly enforced marine reserves increase the density, diversity and size of fish, invertebrates and other organisms vital to wildlife conservation, as well as to recreational and commercial fishing.<sup>141</sup> Growth of fish biomass in fully protected areas on average increases to four times than in fished areas. Reserves also safeguard more apex predators, many of which are rare or absent from unprotected areas.<sup>142</sup> The Monument's ability to conserve and restore highly fished predatory species (e.g., sharks, grouper, lobster, etc.) restores key ecological functions and species interactions that can have strong cascading effects on lower trophic levels.<sup>143</sup>

## CONCLUSION

Marianas Trench Marine National Monument protects invaluable natural resources that hold immeasurable social, scientific and ecological value for Polynesians and citizens across the United States. There is no question that these public waters warrant the protections provided under the Antiquities Act and that the designation is both consistent with the law as well as the policy set forth in section 1 of Executive Order 13792. The President lacks the legal authority to revoke or diminish a national monument and should additionally refrain from seeking legislative action or take any other action to undermine this designation.

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<sup>139</sup> O'Leary B.C., M. Winther-Janson, J.M. Bainbridge, J. Aitken, J.P. Hawkins, and C.M. Roberts. 2016. Effective coverage targets for ocean protection. *Conservation Letters* 9(6): 1-6.

<sup>140</sup> FWS factsheet.

<sup>141</sup> Edgar G.J., R.D. Stuart-Smith, T.J. Willis, et al. 2014. Global conservation outcomes depend on marine protected areas with five key features. *Nature* 506(7487): 216-220; B.S. Halpern and R.R. Warner. 2002. Marine reserves have rapid and lasting effects. *Ecological Letters* 5(3): 361-366; S. Lester and B. Halpern. 2008. Biological responses in marine no-take reserves versus partially protected areas. *Marine Ecology Progress Series* 367: 49-56; S.E. Lester, B.S. Halpern, K. Grorud-colvert, et al. 2009. Biological effects within no-take marine reserves : a global synthesis. *Marine Ecology Progress Series* 384: 33-46.

<sup>142</sup> Halpern, B.S. 2003. The impact of marine reserves: do reserves work and does reserve size matter? *Ecological Applications* 13(1 SUPPL.).

<sup>143</sup> Myers R., J.K. Baum, T.D. Shepherd, S.P. Powers and C.H. Peterson. 2007. Cascading effects of the loss of apex predatory sharks from a coastal ocean. *Science* 315(5820): 1846- 1850; P.J. Mumby, A.R. Harborne, J. Williams, et al. 2007. Trophic cascade facilitates coral recruitment in a marine reserve. *Proc. Nat'l Acad. Sci.* 104(20): 8362-8367; G.J. Edgar, N.S. Barrett, R.D. Stuart-Smith. 2009. Exploited reefs protected from fishing transform over decades into conservation features otherwise absent from seascapes. *Ecological Applications* 19(8): 1967-1974.

**The Humane Society of the United States ▪ Center for Biological Diversity  
Whale and Dolphin Conservation**

Monument Review, MS-1530  
U.S. Department of the Interior  
1849 C Street NW  
Washington, DC 20240  
Submitted Via: [www.regulations.gov](http://www.regulations.gov)

*Attn: Randall Bowman*

July 10, 2017

**Re: The Review of Five Marine National Monuments Designated or Expanded Since 1996  
under the Antiquities Act of 1906: DOI-2017-0002**

Dear Mr. Bowman,

On behalf of the members and constituents of The Humane Society of the United States, Whale and Dolphin Conservation, and the Center for Biological Diversity, we are submitting these comments to request that there be no changes to the designation or area protected in the Marine National Monuments (MNM) that are under review [82 Fed. Reg. 22016, May 11, 2017]. The monuments targeted under this current review include: Marianas Trench MNM, Northeast Canyons and Seamounts MNM, Pacific Remote Islands MNM, Papahānaumokuākea MNM, and Rose Atoll MNM. As we discuss below, this so-called “review” process of existing national monuments is invalid because it implies that the Secretary or the President could change existing monuments, which they cannot. Moreover, these areas were appropriately designated and there is continued need to protect these areas and the valuable and vulnerable marine life that depend on them and to do so at their currently designated size.

The Antiquities Act of 1906 (the Act) provides for presidential declaration and reservation of public lands, including oceans. Sixteen presidents from both parties have created national monuments under the Act to protect visually dramatic, culturally significant, scientifically important, and highly vulnerable land and ocean landscapes. There are more than 150 monuments on land and sea that are protected for future generations thanks to the vision of past presidents. Their foresight deserves to be honored and their designations maintained.

On its website, the National Oceanographic and Atmospheric Administration (NOAA) estimates that, in total, the four Pacific MNM (Marianas Trench, Pacific Remote Islands, Rose Atoll and Papahānaumokuākea) encompass over 330,000 square miles. Another 4,900 square miles of ocean are protected in the Northeast Canyons and Seamounts MNM. These protected areas provide enormous benefits to marine flora and fauna as well as to current and future generations of ocean ecotourists and both commercial and recreational fisheries.

**HSUS et al. Comments on Review of 5 Marine National Monuments: 82 Fed. Reg. 22016**

DOI-2021-08 00840

If the designations of these historically and scientifically significant MNMs were to be rescinded, such an action would not only be unprecedented, but unlawful as well. Any power that the President has must stem from either the Constitution or an act of Congress. *See Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 585 (1952). As the Constitution explicitly grants Congress, rather than the President, authority over federal lands, the only power the President has in this arena is that delegated by Congress. *See* U.S. Const. art IV, § 3, cl. 2. Congress, through the Antiquities Act, permits a president to designate “objects of historic and scientific interest,” as national monuments, including reserving parcels of land. 54 U.S.C. § 320301(a), (b). But the Act does *not* provide explicit authority for the President to rescind such designations, and the purpose of the Act—to protect lands in perpetuity—would be undermined by reading an implied right of rescission into the statute. *See Proposed Abolishment of Castle Pinckney Nat’l Monument*, 39 Op. Atty. Gen. 185, 186-67 (1938), (“[I]f public lands are reserved by the President for a particular purpose under express authority of an act of Congress, the President is thereafter without authority to abolish such reservation.”); *see also Chamber of Commerce of U.S. v. U.S. Dep’t of Agric.*, 459 F. Supp. 216, 221 (D.D.C. 1978) (holding that only where it is necessary for effective execution of a statute should a court imply a particular grant of power to achieve that end).

In contrast, Congress contemporaneously enacted several other similar statutes, choosing to allow for revocation in *those* statutes but *not* in the Antiquities Act. *Compare* Antiquities Act, 54 U.S.C. § 320301(b), *with* Pickett Act, Pub. L. No. 303, 36 Stat. 847 (1910) (repealed 1976) (authorizing the President to reserve lands for specified purposes “until revoked by him of an Act of Congress), Forest Service Organic Act of 1897, ch. 2, 30 Stat. 34 (1897) (codified as amended at 16 U.S.C. § 475 (2006)) (authorizing the President to “reduce the area or change the boundary lines of such reserve, or [to] vacate altogether any order creating such reserve.”). In fact, when Congress passed the Federal Lands Policy and Management Act in 1976, repealing the Pickett Act and others, but preserving the Antiquities Act, Congress confirmed that the Executive “shall not . . . modify or revoke any withdrawal creating national monuments under chapter 3203 of Title 54.” 43 U.S.C. § 1714(j).

We oppose any attempt to diminish or revoke MNMs and the executive order which lead to this call for comments and “review” of MNMs. The request for public input cannot legitimate future unlawful actions and will not distract the public from the administration’s intent to undermine protections for historic, cultural, and scientific objects and resources in our oceans.

We offer comments, first on the general benefits of protected marine reserves and then on the benefits of each of the five MNM for which comments are solicited in this notice.

## **General Comments on the Benefits of Marine Protected Areas**

A growing body of literature substantiates significant benefits that accrue from marine protected areas, including studies that were undertaken in some of the very areas for which comments are sought. In general, and so long as the protected area is sufficiently sized, these marine protected areas (MPA) maintain biodiversity that contributes to ecosystem health and healthy fisheries, they provide refugia in which fish can reproduce, spawn and grow to their adult size, ultimately

increasing fishery catches in surrounding fishing areas; and they support local economies and local cultures that depend on healthy oceans.

### MPAs maintain biodiversity that contributes to healthy and more sustainable ecosystems

A large body of peer-reviewed, scientific literature supports the value of marine protected areas in maintaining biodiversity, key to a healthy ocean system. By excluding fishing effort, which generally targets larger fish near the top of the food chain, there are ripple effects down through that food web since top predators and omnivores provide stability to the community structure. A no-take area may well show more immediate effect on otherwise targeted fish species, though effects on other lower trophic level species may take longer to stabilize and adequately document.<sup>1</sup>

One study of effects of marine reserves in New Zealand concluded that “networks of fully protected areas are a powerful tool, capable of conserving biodiversity, and maintaining stable and fully functional marine communities across a landscape.”<sup>2</sup> Moreover, the study authors concluded that “[t]hese results are an important example of the value of spatial networks of no-take marine reserves for the regional maintenance of intact and fully functional ecosystems at the landscape scale.”<sup>3</sup>

In the Caribbean, MPAs were shown to have enhanced the recovery of coral reefs by preventing the overfishing of herbivorous fishes that keep the substrate free for new coral recruits.<sup>4</sup> Healthy coral reefs themselves provide sheltered habitat for larval fish to grow. Moreover, in a study of a marine reserve off Africa, six years after its establishment, both herbivorous and piscivorous fish were found to be more abundant inside a marine reserve than outside, whereas no difference existed prior to the reserve.<sup>5</sup> Additionally, within 6 years of its establishment, the spillover of fish inside this reserve into fished areas outside the reserve was detected in the herbivorous fish, although it was not as strongly seen in the piscivorous group as a result of highly concentrated fishing effort just outside the reserve.

This positive effect on both the biodiversity of a reserve and its clear effect on fish communities outside of the reserve has been documented in the U.S. as well. One seminal study focused on the effects of a closed, protected area off Merritt Island Florida, put in place for security at the nearby Kennedy Space Center. Authors of the study found that “[g]iven the high fecundity of most marine organisms and recent evidence for limited distance of larval dispersal, it is likely that reserves can both maintain their own biodiversity and service nearby non-reserve areas. In

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<sup>1</sup> Babcock, R., N. Shears, A. Alcala, N. Barrett, G. Edgar, K. Lafferty, T. McClanahan, and G. Russ. 2010. Decadal trends in marine reserves reveal differential rates of change in direct and indirect effects. *Proceedings of the National Academy of Sciences* 107:18256–18261. At: <http://www.pnas.org/content/107/43/18256.full>

<sup>2</sup> Wing, S. and L. Jack. 2013. Marine reserve networks conserve biodiversity by stabilizing communities and maintaining food web structure. *Ecosphere*. Volume 4, Issue 11. Available at: <http://onlinelibrary.wiley.com/doi/10.1890/ES13-00257.1/pdf>

<sup>3</sup> Id.

<sup>4</sup> da Silva IM, Hill N, Shimadzu H, Soares AMVM, Dornelas M (2015) Spillover Effects of a Community-Managed Marine Reserve. *PLoS ONE* 10(4): At: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0111774>

<sup>5</sup> Id.

particular, spillover of larger organisms and dispersal of larvae to areas outside reserves can lead to reserves sustaining or even increasing local fisheries. “<sup>6</sup>

In a discussion of the value of MPA’s, famed conservationist David Suzuki has summarized that “MPAs have been shown to increase the density of organisms within their boundaries, increase the average size of organisms, and increase the numbers of many exploited species. One benefit of MPAs is to return the protected ecosystem to its pre-exploited state, providing a baseline by which to judge the effectiveness of management in surrounding area.”<sup>7</sup>

MPAs provide refugia in which fish can reproduce, spawn and grow to their adult size, ultimately increasing fishery catches in surrounding fishing areas

As mentioned above, the Merritt Island closed area has been of enormous benefit to fisheries outside of its boundaries. A major study of the value of the reserve to abundance of valuable adult fish found outside of the reserve concluded that

“the value of this reserve for the adjacent recreational fishery [was] assessed by examination of the number of record-size (‘trophy’) fish caught by recreational fishers. The area enclosing 100 km to the north and south of the reserve was found to provide 62% of record-size black drum, 54% of red drum and 50% of spotted sea trout. The area considered comprises only 13% of the Florida coast, and the habitats found in the Merritt Island National Wildlife Refuge are also found in many other parts of Florida.

Since the mid-1980s most Florida data for black drum and red drum have been recorded from the vicinity of the Merritt Island Refuge. Fish tagging studies show that these species move out of the reserve and into surrounding waters, and this, together with the reported record sizes, is evidence for substantial spillover of these fish from the reserve into the adjacent recreational fishery.”<sup>8</sup>

Studies examining the effect of no-take reserves have repeatedly shown their contribution to increasing fish biomass outside of the reserves. One longitudinal review found that “positive effects of reserve protection on the biomass, numerical density, species richness, and size of organisms within their boundaries which are remarkably similar to those of past syntheses despite a near doubling of data.”<sup>9</sup> This study also found, among other things, that these results do not appear to be an artifact of reserves being sited in better locations; they do not appear to be driven by displaced fishing effort outside of reserves; and, “contrary to often-made assertions, reserves have similar if not greater positive effects in temperate settings, at least for reef ecosystems.” The authors summarized that “despite considerable variability, positive responses

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<sup>6</sup> Halperin B. and R. Warner. 2003 Matching marine reserve design to reserve objectives. Proceedings of the Royal Society. Lond.. V. 270, pp 1871–1878. At:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1691459/pdf/14561299.pdf>

<sup>7</sup> Marine Protected Areas. Undated. At: <http://www.davidsuzuki.org/issues/oceans/science/marine-planning-and-conservation/marine-protected-areas/>

<sup>8</sup> Roberts, C.M., Bohnsack, J.A., Gell, F., Hawkins, J.P., & Goodridge, R.. 2001. Effects of marine reserves on adjacent fisheries. Science, 294, 1920–1923(2001) At: <http://www.ecotips.com.mx/Bioconservacion/Robertsetal.pdf>

<sup>9</sup> Lester SE, Halpern BS, Grorud-Colvert K, Lubchenco J., et al. 2009. Biological effects within no-take marine reserves: a global synthesis. Mar Ecol Prog Ser 384:33–46. <https://doi.org/10.3354/meps080>, Abstract at: <http://www.int-res.com/abstracts/meps/v384/p33-46/>

are far more common than no differences or negative responses, validating the potential for well-designed and enforced reserves to serve as globally important conservation and management tools.”

Fisheries research has substantiated the value of no-take reserves in preserving large, fecund female fish who can ensure productivity for the species, thereby creating healthier, profitable and sustainable commercial fisheries. One study with NOAA authors summarized that “[a] growing body of knowledge dictates that fisheries productivity and stability would be enhanced if management conserved old-growth age structure in fished stocks, be it by limiting exploitation rates, by implementing slot limits, or *by establishing marine reserves, which are now known to seed surrounding fished areas via larval dispersal*. Networks of marine reserves are likely to be the most effective means of ensuring that pockets of old-growth age structure survive throughout the geographic range of demersal species.”<sup>10</sup> [emphasis added] In supporting the reproductive health of fish populations, MPAs (including these MNMs) ensure healthy ecosystems.

#### MPAs support local economies and local cultures that depend on healthy oceans

One study of reef fish fishery in Hawai’i concluded that, although “the MPA network displaced fishing effort, fisher socioeconomic well-being was not compromised, likely because they expanded their operating range and favorable market factors helped offset potential economic losses. Our findings are relevant because they help clarify how MPA networks alter spatial fishing behavior and impact the well-being of small-scale fishers.”<sup>11</sup>

NOAA itself has documented that MPAs help recover fish stocks and a spill-over effect resulting in enhancing the value and/or profitability to fisheries of an increased catch. In one report on the effect of these areas, NOAA cites a study showing that “fish left the no-take MPA as it became too crowded and competition for food and shelter increased. In the Philippines, there was a 3 to 4.5-fold increase in fish biomass in no-take MPAs in the 18 years after they were established (Alcala 2005). In areas outside the no-take MPA, trap and gillnet catches increased by about 27% over this same time period, suggesting that spillover of fish out of the MPA was probably occurring.”<sup>12</sup> There is a clear economic benefit to fisheries from the continuation of nearby sizeable reserves in which fishing is not allowed.

With regard to small-scale fisheries, including recreational fishing, the importance of the spill-over effect of reserves has been shown in increasing catches—both in size and quantity. If marine reserves are to benefit these fishermen, enough fishes must leave the reserve, where they can be caught, to compensate for the amount of fishes ‘lost’ to reserve closures. Indeed, research

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<sup>10</sup> Hixon, M, D. Johnson and S. Sogard. 2014. BOFFFFs: on the importance of conserving old-growth age structure in fish populations. ICES Journal of Marine Science. 71 (8) 2171-2185. At: <https://academic.oup.com/icesjms/article/71/8/2171/748104/BOFFFFs-on-the-importance-of-conserving-old-growth>

<sup>11</sup> Stevenson, T, B. Tissot and W. Walsh, 2014. Socioeconomic consequences of fishing displacement from marine protected areas in Hawaii. Biological Conservation. 160 .pp. 50-58. At: <https://static1.squarespace.com/static/530822a2e4b01885d3152185/t/5745ff62e707ebae3e330e6d/1464205162065/Stevenson+et+al+2013.pdf>

<sup>12</sup> NOAA. undated: “MPA Science Brief: What Does the Science Say? Do Fish Swim Out Of Marine Protected Areas?” At: [http://marineprotectedareas.noaa.gov/pdf/helpful-resources/dofishswim\\_inoutmpas.pdf](http://marineprotectedareas.noaa.gov/pdf/helpful-resources/dofishswim_inoutmpas.pdf)

since the 1990's has continued to demonstrate that this effect can be significant because fishermen are often seen to "fish the edge" of a reserve. Following analysis of fishing around a marine sanctuary in Florida, researcher found that in the "Florida Keys National Marine Sanctuary all fishermen saw a net increase in catch value after the creation of the Sambos reserve, but the net increase in catch value was 44% higher for fishermen who fished near the reserve relative to fishermen who fished elsewhere in the Sanctuary (Leeworthy 2001). Everyone appeared to benefit from the reserve; those people fishing closest to the reserve benefited the most."<sup>13</sup>

### Size of the Marine Reserve Matters

One of the initial determinations on which comments are being sought asks whether the size of each of the protected areas is the "smallest area compatible with the proper care and management of the objects to be protected."<sup>14</sup> We believe strongly that the evidence supports the need to maintain these MNM at their currently designated sizes, with no size reduction. As we have noted above, there is a strong potential benefit to maintaining protected areas large enough to protect old growth fish and allow a spill-over effect outside the reserve. Moreover, research has found that "the strongest positive effects of management in fully no-take reserves and very little benefit of partial reserves or effort-based management."<sup>15</sup>

Moreover, studies of marine reserves worldwide have shown that they can serve this function only so long as they constitute a significant portion of the total stock area of fish species afforded protection.<sup>16</sup> The authors of one major scientific review of the functioning of marine reserves concluded that this effect is most pronounced in areas where there has been overfishing (which characterizes most fish stocks in New England). These same authors cite the longstanding closure of George's Bank of New England in which some stocks with faster growth potential (such as sea scallops) increased 14-fold over 4 years, stating "[s]ignificantly, scallop recruitment to areas outside the reserve has increased and become more dependable, sustaining an active fishery."<sup>17</sup> Properly sized reserves continue to show economic benefits.

Moreover, the health of the large nesting bird colonies within many of the MNM depends on adequate forage in surrounding waters. This forage base is, as discussed above, better guaranteed by a no-take area that assures healthy species compositions and size ranges of fish communities. No changes to extant boundaries should be made without benefit of prior research to show that there is no ecosystem value lost by reducing a currently protected area.

The precise size of reserves may be subject to some debate but, research tells us that "[t]he primary factor determining optimal reserve size is dispersal, both adult and larval. If reserves are

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<sup>13</sup> Op. Cit. Note 6

<sup>14</sup> Fed. Reg. at 22016

<sup>15</sup> Op Cit note 2, Wing and Jack.

<sup>16</sup> Op Cit note 6 Halperin. The authors state that "successful networks of fisheries reserves require that sufficient numbers of larvae be exported outside the protected areas (Hastings & Botsford 1999; Mangel 2000), and suggest that marine reserves can provide this function as long as they constitute a significant portion (model estimates generally range between 20% and 50% set asides) of the total stock area."

<sup>17</sup> Id.

too small, most if not all of the adults and larvae will leave the reserve, making within-reserve populations unable to sustain themselves.”<sup>18</sup> Therefore, calls to shrink reserve sizes may actually undermine the benefit to the point that the value of the reserve itself becomes questionable. Only focal research can definitively put to rest questions about whether extant reserve size can be reduced without obviating the benefit of maintaining a healthy breeding stock that can “seed” outside areas. The review of MNM in this federal register notice does not propose this sort of study as the basis for evaluating appropriate sizes of reserves.

## **Comments on Specific MNM**

Our general comments above are pertinent to all the currently designated MNM. These areas maintain biodiversity that contributes to ecosystem health and health fisheries; they provide refugia in which fish can reproduce, spawn and grow to their adult size, ultimately increasing fishery catches in surrounding waters; and they support local economies and local cultures that depend on healthy marine wildlife and their ocean habitats. That said, we offer comments for each of five MNM regarding unique aspects or benefits to each of the areas to which this request for comments pertain.

### Northeast Canyons and Sea Mounts: Atlantic Ocean

This more recently designated area is the only MNM in the Atlantic. It has a total area of a little over 4,900 square miles, and protects several underwater seamounts (Bear, Mytilus, Physalia, and Retriever Seamounts) as well as three submarine canyons in the edge of the continental shelf (Oceanographer, Lydonia, and Gilbert).

The Northeast Canyons and Sea Mounts MNM, 150 miles off the southern coast of New England, was created on Sept. 15, 2016. Among its important physical features, the monument contains extinct undersea volcanoes and canyons that are deeper than the Grand Canyon and peaks higher than Mount Washington. Moreover, within this MNM are the only four seamounts in U.S. waters of the Atlantic Ocean. The walls of these canyons are covered with deep-water corals (some of them estimated to be over a century old), many found nowhere else on earth. The colorful invertebrate marine life in the cold-water canyons also includes as graceful and dramatic anemones and sponges and flitting schools of shrimp. Sometimes analogized to the Serengeti, wildlife abounds. Endangered sperm and fin whales ply its waters as do several species of dolphins, sharks, endangered sea turtles, tunas and other top oceanic predators there to feed on an abundance of plankton and the small fish and squid that the area supports. Above the surface, an enormous diversity of seabirds also feed in its rich, undeveloped waters.

The integrity of these canyons and their unique and fragile communities of flora and fauna is vulnerable to damage by commercial activities including oil and gas exploration and drilling, and the use of many types of commercial fishing gear. A 2017 review published in *Frontiers in Marine Science* determined that canyons are “keystone structures” which support fisheries,

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<sup>18</sup> Op Cit note 6 Halperin...



enhance carbon sequestration and storage, provide nursery and refuges sites for marine life and enhance transport of materials to deep-sea environments<sup>19</sup>.

There is broad public support for this monument. A 2016 opinion poll conducted by Edge Research, a non-partisan firm, found that 80% of people in the nearby states of Massachusetts and Rhode Island supported permanent protection of these ocean areas and this support crossed political affiliation.<sup>20</sup>

In its final form, the proposed monument boundaries were reduced in response to concerns from the fishing industry; and the proclamation permits commercial fishing for red crab and American lobster to continue in the monument for 7 years past the designation date in order to provide for transition to the use of other areas.

Data from NOAA indicate that the area captured within the boundaries of the monument is among the least fished areas in the Northeastern United States, with fish catches of swordfish, tuna, whiting, squid, mackerel and butterfish comprising less than 1.5% of the catch along our Atlantic Coast.<sup>21</sup> According to the data, only approximately 6 part time lobster fishing vessels out of the more than 3,000 federally permitted vessels targeting lobster are affected by this designation and these vessels may fish elsewhere as well.<sup>22</sup> And only one full-time and one part-time fishing vessel target red crab in this area.<sup>23</sup> Catch limits are not affected by this designation, there is simply a small area that will be protected for future generations. The value of this area to

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<sup>19</sup> Ulla Fernandez-Arcaya, Eva Ramirez-Llodra, Jacopo Aguzzi, A. Louise Allcock, Jaime S. Davies, Awantha Dissanayake, Peter Harris, Kerry Howell, Veerle A. I. Huvenne, Miles Macmillan-Lawler, Jacobo Martín, Lenaick Menot, Martha Nizinski, Pere Puig, Ashley A. Rowden, Florence Sanchez, Inge M. J. Van den Beld. Ecological Role of Submarine Canyons and Need for Canyon Conservation: A Review. *Frontiers in Marine Science*, 2017; 4 At: <http://journal.frontiersin.org/article/10.3389/fmars.2017.00005/full>

<sup>20</sup> Edge Research July 11 2016. Memo: Poll Results on Designating National Monument in New England Ocean Waters. At: [http://www.clf.org/wp-content/uploads/2016/07/Edge\\_Research\\_Memo\\_NE\\_Ocean\\_Protection\\_Survey.pdf](http://www.clf.org/wp-content/uploads/2016/07/Edge_Research_Memo_NE_Ocean_Protection_Survey.pdf). Note there was majority support for protecting these areas from economic exploitation including fishing, drilling and mining.

<sup>21</sup> See: [http://www.nmfs.noaa.gov/sfa/hms/-related\\_topics/bycatch/documents/fseis\\_final\\_section\\_6.pdf](http://www.nmfs.noaa.gov/sfa/hms/-related_topics/bycatch/documents/fseis_final_section_6.pdf); NOAA Fisheries, Final Amendment 7 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan ("Amendment 7"), at 213, 455 (2014) AND note that, from 2012-2014, catch of each of these latter fish species from all of statistical area 525, of which the monument area is only a small part, ranged from 0-7% of annual catch for the entire region. See: MAFMC & NMFS, Specifications and Management Measures For: Atlantic Mackerel (2016-2018, Including River Herring and Shad Cap); Butterfish Mesh Rules; and Longfin Squid Pre-Trip Notification System (PTNS), August 24, 2015

<sup>22</sup> Whitmore, K., et al., Characterization of the offshore American lobster and Jonah crab trap fishery in Lobster Conservation Management Area 3 in and around the Southern New England and Georges Bank canyons, April 20, 2016, Updated July 5, 2016 ("ASMFC Offshore Lobster Survey"). Available at [https://www.nrdc.org/sites/default/files/media-uploads/3d-160705\\_asmfc\\_canyons\\_report.pdf](https://www.nrdc.org/sites/default/files/media-uploads/3d-160705_asmfc_canyons_report.pdf); J. Eilperin, Washington Post, "Obama designates the first-ever marine monument off the East Coast, in New England", September 15, 2016, <https://www.washingtonpost.com/news/energy-environment/wp/2016/09/15/obama-to-designate-the-first-ever-marine-monument-off-the-east-coast-in-new-england/>

<sup>23</sup> MAFMC, Deep Sea Corals Workshop Summary, April 2015, at 24, available at <https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/55841da8e4b0b65f09fd0562/1434725388108/DSC+Workshop+Summary.pdf>.

commercial fisheries is extremely limited but its value to unique marine wildlife and scientific study is incalculable.

This MNM meets the original objectives of the Antiquities Act, including by being the smallest area compatible with protecting the monument's highly significant scientific, ecological, and geologic features. The monument's final boundaries were shaped through processes of public and stakeholder consultation that took over a year. Its boundaries should not be modified and its resources must remain protected.

### Mariana Trench MNM: Pacific Ocean

This MNM was created Jan. 6, 2009 by President Bush shortly before leaving office. Located among a strong of 14 volcanic islands in the Mariana Archipelago, it encompasses 95,216 square miles. The MNM contains three units: the Islands Unit, the Volcanic Unit and the Trench Unit. It is our understanding that, when it was designated, the Interior Secretary placed the Mariana Trench and Volcanic Units within the National Wildlife Refuge System and delegated his management responsibility to the U.S. Fish and Wildlife Service (FWS). The Secretary of Commerce, via NOAA, has primary management responsibility for fishery-related activities in the waters of the Islands Unit.

This MNM includes the Marianas Trench, which extends 36,000 feet below sea level. This remarkable area is cloaked in perpetual darkness with a temperature is just a few degrees above freezing. The water pressure at the bottom of the trench is a crushing eight tons per square inch—about a thousand times the standard atmospheric pressure at sea level. It is also home to the largest mud volcanoes on Earth. In the trench is a hydrothermal vent known as Champagne, which produces almost pure liquid carbon dioxide—one of only two such sites known in the world. It is also home to the Sulfur Cauldron, which produces a phenomenon so rare, the only other pool of molten sulfur that has been located was found on one of Jupiter's moons. The monument's biologically diverse waters also support unique corals, fascinating deepwater fish and a large population of sharks.

This area of the Pacific provides not only a unique habitat for creatures found nowhere else on earth but, as ocean acidification increases, this hot and acid environment that is created in the volcanic unit can provide scientists an opportunity to predict the future changes likely to occur in coral reef communities in the face of ocean warming. The volcanic unit contains unusually adapted life forms that exist in some of the harshest conditions one might imagine, with species surviving in the midst of hydrothermal vents producing highly acidic boiling water. The FWS has stated that the “area contains the greatest diversity of seamount and hydrothermal vent life yet discovered.”<sup>24</sup>

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<sup>24</sup> US Fish and Wildlife Service: Marianas Trench Marine National Monument Fact Sheet at: [https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf)

Also in this area is the Sirenia deep which drops about 6.5 miles beneath the ocean's surface and is the deepest point of the Mariana Trench MNM. It is largely unexplored terrain with untold secrets of deep ocean life that remain to be revealed.

The waters and submerged lands in this MNM encompass the coral reef ecosystem of the three northernmost islands of the Commonwealth of the Northern Mariana Islands which are home to amazing diversity of marine life including sharks, rays, and more than 300 species of stony corals—more than any other US reef area.<sup>25</sup> Moreover, the northern islands have “the highest large fish biomass in the Mariana Islands. The rare bumphead parrotfish – the largest parrotfish species – thrives in these waters. The species has been depleted throughout much of its range and is included on the IUCN Red List of Threatened Species.”<sup>26</sup> Additionally, the FWS and NOAA are developing a management plan for the Mariana Trench MNM that will continue to allow traditional access by indigenous persons, scientific exploration and research, and consideration of recreational fishing so long as it does not detract from the monument.

It is vital that this unique ecosystem be preserved without changes to its boundaries or current uses.

#### Rose Atoll MNM: Pacific Ocean

This MNM in the South Pacific Ocean was created on January 6, 2009 by President Bush. When designated, it protected nearly 13,400 square miles in the Pacific, including the Rose Atoll, a small Samoan island, the easternmost Samoan island in the southernmost point of the United States. The Rose Atoll Wildlife Refuge, created in 1973, lies with its boundaries. Rose Atoll is one of the smallest atolls in the world and includes two low sandy islets, Rose and Sand, located on a coralline algal reef.<sup>27</sup> It presents an ideal site for studying effects of ocean temperature changes and changes in sea level and their effects on tropical marine life.

The area is home to delicate, rose-colored corals that helped form the reef and provided the basis for the name of the atoll. The surrounding waters also support an abundance of rare and endangered marine animals and seabirds, including the largest number of nesting turtles in American Samoa, giant clams, parrotfishes, sharks, several species of whales and at least 17 species of nesting birds.

The Rose Atoll MNM was created to help protect the pristine coral reef ecosystem around this very remote part of American Samoa. The MNM includes a diamond-shaped island that provides habitat for rare species of nesting petrels, shearwaters, and terns. These bird colonies gave the Atoll its Samoan name, “Motu o Manu,” literally meaning “island of seabirds.” Approximately 97 percent of the seabird population of American Samoa resides on Rose Atoll.<sup>28</sup> The two islands at Rose Atoll have also provided key information about the range and status of sea turtles. Green

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<sup>25</sup> USGS 3/2009 Soundwaves Newsletter at: <https://soundwaves.usgs.gov/2009/03/outreach.html> and see Fn 20

<sup>26</sup> Op Cit. note 24

<sup>27</sup> USFWS. Undated. Rose Atoll Marine National Monument Fact Sheet: Available at: <https://www.fws.gov/roseatollmarinemonument/RAMNM%20brief.pdf>

<sup>28</sup> Id.

turtles (ESA threatened) and endangered hawksbill turtles nest here and satellite tags have shown that there is dispersal from these islands and migration to and from American Samoa and French Polynesia and other Pacific Island nations.<sup>29</sup> This research on turtles confirms that “seeding” the ocean from protected areas is important not only to fish but to higher order marine life as well and this particular MNM research is key to understanding and protecting internationally endangered species.

NOAA has itself found that “[f]ew relatively undisturbed islands remain in the world and Rose Atoll is one of the last remaining refuges for the seabird and turtle species of the Central Pacific.”<sup>30</sup> President Bush clearly saw the value of preserving this pristine coral reef ecosystem and there is no valid reason to alter either the existence or size of this MNM.

### Pacific Remote Islands MNM

This MNM, located in the central Pacific was created on January 6, 2009 by President Bush and then enlarged September 25, 2014, by President Obama. It encompasses 490,000 square miles that includes Wake, Baker, Howland, and Jarvis islands; Johnston and Palmyra atolls; and Kingman Reef. The designation and expansion have been critical to ensuring that there are sufficient numbers and sizes of protected areas in the Pacific so as to ensure adequate conservation of fish and other marine life. In turn, this large protected area results in a spillover effect into other areas that can seed future generations of marine life. Beyond its role in ensuring vital ecosystem functions, there are key historic sites in these islands that deserve protection.

With regard to their historic importance, it was Howland Island on which Amelia Earhart planned to land prior to her mysterious disappearance and a beacon on the island is named in her honor. Wake Island was an important stopover for both commercial and military trans-Pacific flights since well before World War II. During that war, bloody battles were fought over both Midway and Wake Atolls. Wake was overtaken by Japanese soldiers from 1941-1945 with several bloody battles fought over its control. The battle for Midway, whose 75<sup>th</sup> anniversary passed this year, is rated by the U.S. Armed Forces History Museum as one of the five most important battles in the Pacific theater during WW II.<sup>31</sup> These islands and their hallowed beaches stand as monuments to a costly U.S. defense of freedom.

In addition to human history, these islands are an important laboratory for the study of natural history. NOAA itself recognizes that these islands offer a unique and important opportunity for study of climate change at the equator, far from population centers. The coral skeletons in the

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<sup>29</sup> Id.

<sup>30</sup> NOAA. Undated. Rose Atoll Marine National Monument. At: [http://www.fpir.noaa.gov/MNM/mnm\\_roseatoll.html](http://www.fpir.noaa.gov/MNM/mnm_roseatoll.html)

<sup>31</sup> Top Five WWII Battles in the South Pacific Theater. 5/2/2012. Armed Forces History Museum. At: <http://armedforcesmuseum.com/top-five-wwii-battles-in-the-south-pacific-theater/>

islands have recorded the earth's climatic history for millennia.<sup>32</sup> This study allows a baseline by which we can track changes in both physical and biological resources as we go forward in time.

The USGS has written of this area that it contains “some of the most pristine and spectacular coral reefs in the world [and] it includes habitat for nesting seabirds and migratory shorebirds; unique trees, grasses, and birds adapted to life at the Equator; and rare sea turtles, whales, and Hawai’ian monk seals. These isolated specks of land and rich marine ecosystems are almost completely undisturbed by humankind. As part of the Pacific Remote Islands Marine National Monument, they will be ideal laboratories for scientific research.”<sup>33</sup>

Moreover, according to the FWS, “The seven atolls and islands included within the monument are farther from human population centers than any other U.S. area. They represent one of the last frontiers and havens for wildlife in the world, and comprise the most widespread collection of coral reef, seabird, and shorebird protected areas on the planet under a single nation’s jurisdiction.”<sup>34</sup>

This MNM is one of the world’s largest marine conservation areas and considered one of the last refuges for a host of fish and marine mammals including sea turtles, dolphins, whales, pearl oysters, giant clams, sharks, parrotfishes and large groupers as well as for pearl oysters, giant clams and agile coconut crabs. The fish biomass at these islands is estimated to be double that found in the larger MNM of Papahānaumokuākea.<sup>35</sup>

NOAA itself has found that “the Pacific Remote Islands contain some of the most pristine coral reefs in the world, and Monument status ensures these special areas are conserved.”<sup>36</sup> We agree. There should be no change to the designation or size of the area afforded protection in the MNM.

### Papahānaumokuākea MNM

This impressive monument in the Pacific Ocean northwest of Hawai’i was created June 15, 2006 by President Bush and enlarged Aug. 26, 2016 by President Obama. It is 583,000 square miles in size. An impressive one quarter of the 7,000 species of marine animals and seabirds that live in the monument are found nowhere else on earth.<sup>37</sup> This includes the last of the Hawai’ian monk seals, nesting colonies of 14 million seabirds, representing 22 species that breed and nest there. Moreover, the land areas in the MNM also provide a home for four species of bird found

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<sup>32</sup> NOAA undated: The National Marine Monument Program: The Pacific Remote Islands Marine National Monument. At: [http://www.fpir.noaa.gov/MNM/mnm\\_prias.html](http://www.fpir.noaa.gov/MNM/mnm_prias.html)

<sup>33</sup> Id. Note 20 <https://soundwaves.usgs.gov/2009/03/outreach.html>

<sup>34</sup> USFWS. Undated Pacific Remote Islands Marine National Monument. Fact Sheet. At: [https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/PRIMNM%20brief\(2\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/PRIMNM%20brief(2).pdf)

<sup>35</sup> Id.

<sup>36</sup> National Marine Monument Program: The Pacific Remote Islands Marine National Monument. At: [http://www.fpir.noaa.gov/MNM/mnm\\_prias.html](http://www.fpir.noaa.gov/MNM/mnm_prias.html)

<sup>37</sup> NOAA/ USFWS. Undated About: Papahānaumokuākea Marine National Monument. At: <http://www.papahanaumokuakea.gov/about/>

nowhere else in the world, including the world's most endangered duck, the Laysan duck.<sup>38</sup> The waters protected in this MNM contain breeding and birthing grounds for humpback whales and are home to blue whale and numerous species of dolphins and small whales including the ESA-listed false killer whale.

The expansion of the MNM boundaries in 2016 increased protections for important habitats such as seamounts and submerged reefs, and provided protection highly migratory species that forage beyond the original border of 50 nautical miles. Our ability to explore deeper oceans around the islands has given us a broad understanding of the connectedness of communities such that it is clear that the original boundary of the monument was indeed not the minimum size required to protect the biological and historical resources of the Northwestern Hawai'ian Islands, as the Antiquities Act requires. Its enlargement helped fulfill that mandate of the Antiquities Act.

This large MNM has been used to help identify the importance of larval flow of fish outside of monument areas and into adjacent exploited areas. One study documented that larval fish dispersal occurred “at higher resolution than conventional indirect means,” with the authors stating that they “detected dispersal distances up to 184 km, which is a substantially greater distance than previously detected using other direct methods.”<sup>39</sup> Moreover, these authors found that “[t]he identification of connectivity between distant reef fish populations on the Island of Hawai'i demonstrates that human coastal communities are also linked: management in one part of the ocean affects people who use another part of the ocean. Understanding connections at all levels is the foundation for truly effective ecosystem-based management.”<sup>40</sup>

With regard to the importance of this area for human use, the islands and waters within this MNM hold a sacred place in native Hawai'ian history. The name Papahānaumokuākea was somewhat recently given by Hawai'ian cultural practitioner and is a combination of Hawai'ian words akua meaning Papa or earth mother, and Wākea or sky father.<sup>41</sup> Two of the larger islands in the region are Mokumanamana and Nihoa. Both islands are mentioned in Hawai'ian oral traditions. On Mokumanamana there are nearly thirty-five heiau, the largest concentration of sacred sites in Hawai'i. Mokumanamana is a sacred place for ceremonies. It marks the northernmost limit of the rising and setting of the sun. Native Hawai'ians referred to this as Ke Ala Polohiwa a Kāne, or The Black Shining Road of Kāne. (aka Tropic of Cancer.) Nihoa is the first Hawai'ian island that the goddess Pele visited in her search for an appropriate home. Nihoa has eighty-eight cultural sites.<sup>42</sup>

This MNM too has tremendous significance in recent human history. Norman Mineta, former cabinet member under both Presidents Clinton and Bush, wrote an eloquent opinion editorial<sup>43</sup>

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<sup>38</sup> Id.

<sup>39</sup> Christie MR, Tissot BN, Albins MA, Beets JP, Jia Y, Ortiz DM, et al. (2010) Larval Connectivity in an Effective Network of Marine Protected Areas. PLoS ONE 5(12): e15715. At: <https://doi.org/10.1371/journal.pone.0015715>

<sup>40</sup> Id.

<sup>41</sup> See: meaning of Papahānaumokuākea. Papahānaumokuākea Marine National Monument. NOAA/USFWS. At: <http://www.papahanaumokuakea.gov/about/meaning.mp3>

<sup>42</sup> This information on the importance to native culture can be found summarized at the Educational Unit on Living Hawaiian Culture at: [http://www.kumukahi.org/units/ka\\_honua/paeaina/papahanaumokuakea](http://www.kumukahi.org/units/ka_honua/paeaina/papahanaumokuakea)

<sup>43</sup> Norman Mineta. Marine monuments protect ocean, honor war sacrifices

discussing the importance of President Clinton's creation of the Northwest Hawai'ian Islands Coral Reef Ecosystem Reserve, followed by President Bush's use of executive authority to declare the same area the Papahānaumokuākea Marine National Monument, that was in turn recently expanded by President Obama. With the recent expansion, this monument now includes the war-torn wreck of the Yorktown and other sacred remains from the Battle of Midway. Mineta opined that marine monuments such as this remind us that preserving this ecosystem also memorializes the sacrifices of war. In that letter, he urged the Trump administration to continue this protection.

Concerns have surfaced that this protected area may result in economic harm to fisheries. This claim has been widely refuted both by data indicating the very limited commercial fishing effort in the expanded area as well as biological information on the importance of refugia in seeding and maintaining healthy fish stocks for fisheries outside of the boundaries of the protected area.

The Office of Hawaiian Affairs has itself documented that official records from the Hawai'i longline fleet show that in recent years, as little as 5% of the fleet's catch comes from the area granted additional protection. Moreover, the Hawai'i longline fleet will continue to fish to meet established quotas for bigeye tuna. The National Marine Fisheries Service set the 2016 quota for the Hawai'i longline fleet at 3,554 metric tons (approximately 7.8 million pounds) in the Western and Central Pacific. These quotas are not affected by the placement of marine protected areas and, as previously noted, there is sparse effort in this area.<sup>44</sup> Moreover, traditional subsistence fishing continues to be allowed in the MNM.

The expanded boundaries create an important area for commercially valuable bigeye tuna and other fish species to mature and reproduce. Other vulnerable species such as sharks, turtles, and seabirds that are caught as bycatch in the Northwest Hawai'ian Islands are also protected in the expanded area.

The designation and amendment of boundaries in Papahānaumokuākea were accomplished under both Republican and Democrat presidents. The protection of the area and its expansion was widely supported by local peoples and their elected officials.<sup>45</sup> The boundary of this widely

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May 21, 2017. At: <http://www.staradvertiser.com/2017/05/21/editorial/island-voices/remembering-midway-marine-monuments-protect-ocean-and-honor-sacrifices-of-war/>

<sup>44</sup> Office of Hawaiian Affairs. 2016. FAQs on Proposed Papahānaumokuākea Expansion at:

<https://www.oha.org/ExpansionFAQs> Prior years showed approximately 95% of the fishing effort of the Hawaii-based longline fleet taking place outside of the monument boundaries. See: National Oceanic and Atmospheric Administration, Hawaii Longline Logbook Summary Reports, Pacific Island Fisheries Science Center (January–December 2014, 2013, and 2012), <http://www.pifsc.noaa.gov/fmb/reports.php>.

<sup>45</sup> The expansion was applauded by persons and groups such as U.S. Senator Brian Schatz of Hawai'i, the CEO of the Office of Hawaiian Affairs; William Aila Jr., a native Hawaiian and former Director of Hawaii's Department of Land and Natural Resources, and Sol Kaho'ohalahala, a seventh-generation Hawaiian from the island of Lanai and a member of the Northwestern Hawaiian Islands Native Hawaiian Cultural Working Group which is administratively under the Monument Management Board for the MNM. The Working Group itself voted to support the expansion. See: Discover Magazine 8/25/2016 At; <http://blogs.discovermagazine.com/science-sushi/2016/08/25/obama-goes-big-expansion-of-papahanaumokuakea-marine-monument-makes-it-the-worlds-largest-marine-protected-area/#.WVz0ulEpDDcand>

supported protected area that benefits all should not be altered to satisfy the outcry of a vocal few.

## **Comments on Secretarial Considerations**

The Federal Register notice specifically requests comments on a number of points that the Secretaries will take into consideration:

- (i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;
- (ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;
- (iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;
- (iv) the effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;
- (v) concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;
- (vi) the availability of Federal resources to properly manage designated areas; and
- (vii) such other factors as the Secretary deems appropriate.

As we have substantiated above, the areas designated are the product of lengthy discussions and negotiations with stakeholders and do not exceed the smallest area required to achieve the objectives of the designation (factor i). All of the MNM areas are of considerable scientific interest, and some (e.g., the Pacific Remote Islands MNM and Papahānaumokuākea MNM) protect areas of considerable historic interest as well (factor ii). By protecting important fish, bird, marine mammal and marine reptile habitat in the MNM boundaries, these areas benefit federally managed waters inside, but notably those outside, of the MNMs by seeding fish and wildlife populations, providing opportunities near and far for wildlife viewing and thereby increasing commercial and recreational benefit and enjoyment both inside and outside of the MNM (factor iii and factor iv). We wish to point out that a number of these monuments, quite notably Papahānaumokuākea, were widely supported by state and tribal/native governments with interests in their protection (factor v). Many of these monuments enjoy joint management by state and federal agencies and resources have been sufficient to date—though additional resources can only improve management (factor vi).

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<https://www.schatz.senate.gov/press-releases/schatz-urges-administration-to-engage-with-hawaii-constituents-on-papahānaumokuākea-marine-national-monument>



## Conclusion

So important are the extant marine national monuments that, in the wake of the announcement of this review, over 500 scientists signed a letter to members of the House of Representatives' Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard and to all members of the U.S. Senate Committee on Commerce, Science, and Transportation calling on the U.S. government to maintain existing ocean protections and to increase protections for diverse habitats across all biogeographic regions of U.S. ocean waters. They also cited a 2001 consensus statement from the National Center for Ecological Analysis and Synthesis that outlined the striking ecological benefits for marine life within and outside of strongly-protected reserves and the effects of ecological networks in its "Scientific Consensus Statement on Marine Reserves and Marine Protected Areas."<sup>46</sup> Scientists around the globe have recognized the importance of protected marine areas. The U.S. government should not weaken extant protections.

Marine protected areas have been studied both in the United States and globally. Given time to do their important work, they have been shown to "protect sedentary species such as shellfish, reef fish and rockfish, they can also help protect migratory species such as salmon and cod through the protection of key spawning and rearing grounds and migration corridors."<sup>47</sup> Moreover, countless studies have shown that they both increase density of the species within their boundaries and increase both the number and the average size of these species, including those typically exploited by fisheries.

Fears by regulated fishing communities often focus on the lack of opportunity to fish in these closed areas without recognizing the benefits of the protection that are afforded by proactive and permanent spatial closures that benefit the reproductive capacity of old-growth fish which are key to seeding sustainable fisheries in both the near and long term. Moreover, fishing effort in the areas under review is documented to be extraordinarily small relative to the broader area used by the fisheries.

More than ever, technology has increased our access to and use of marine monuments. Fishing, tourism, and marine science and technology have all grown up around this increased use. However, unless we manage our oceans sustainably, unwise uses can alter, threaten or even destroy the very marine processes and ecosystems on which all life depends. Fisheries have declined even in the face of quotas and management, and global fish catches have been declining since the 1990's. Marine reserves help protect vulnerable but vital breeding, nursery and feeding habitats and help in restoring healthy populations of marine life. Their protection can generate economies through both tourism and marine science as well as thriving fishing economies built on the spillover effect from reserves. In many reserves—particularly those in the Pacific—key cultural heritage and historic sites are preserved for future generations.

The current system of marine national monuments should not be rescinded or altered either by reducing the current protections afforded the waters they protect or by reducing the size of the MNM. Creation and management of MNMs are already the product of robust public input and

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<sup>46</sup> See statement at:

[https://marine-conservation.org/media/filer\\_public/filer\\_public/2014/05/22/nceas\\_marine\\_reserves\\_consensus\\_statement.pdf](https://marine-conservation.org/media/filer_public/filer_public/2014/05/22/nceas_marine_reserves_consensus_statement.pdf)

<sup>47</sup> Op Cit Note 8

any attempt to use this “review” process to revoke or undermine the substantial protections afforded by MNMs would be unlawful.

Thank you for the opportunity to comment.

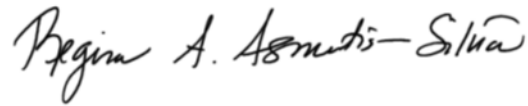
Sincerely,

A handwritten signature in black ink that reads "Sharon B. Young". The signature is written in a cursive, flowing style.

Sharon B. Young  
Marine Issues Field Director  
*The Humane Society of the United States*

A handwritten signature in blue ink that reads "Kristen Monsell". The signature is written in a cursive, flowing style.

Kristen Monsell  
Staff Attorney  
*Center for Biological Diversity*

A handwritten signature in black ink that reads "Regina A. Asmutis-Silva". The signature is written in a cursive, flowing style.

Regina Asmutis-Silva  
Executive Director, NA  
*Whale and Dolphin Conservation*

Before the  
U.S. DEPARTMENT OF THE INTERIOR  
Washington, D.C.

*In the Matter of*

Review of Certain National Monuments  
Established Since 1996

Docket No. DOI-2017-0002

**COMMENTS OF  
THE NORTH AMERICAN SUBMARINE CABLE ASSOCIATION**

The North American Submarine Cable Association (“NASCA”) urges the Secretary of the Interior (the “Secretary”) to recommend pursuant to Executive Orders 13792 and 13795 that the President modify the designations for the Marine National Monuments (“MNM”) expressly to permit installation and repair of submarine telecommunications cables critical to the U.S. economy and U.S. national security.<sup>1</sup> Submarine cables—which have long been designated as critical infrastructure, as they carry almost all U.S. intercontinental telephone, data, and Internet traffic—traverse most MNMs. Nevertheless, all but one of the existing MNM designations fail to authorize expressly the installation, maintenance, and repair of submarine cables. The omission of such authorizations threatens to render much more expensive and even threaten the viability of new submarine cables due to the high equipment and installation service costs for routing around MNMs, some of which cover massive areas of the Pacific Ocean. That omission

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<sup>1</sup> Department of the Interior, Office of the Secretary, Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment, 82 Fed Reg. 22,016 (May 11, 2017) (“Notice”).

also threatens to render submarine cable repairs more expensive and less timely, thereby impairing the continuity of U.S. communications. Regardless of any changes in the MNM boundaries, NASCA urges the Secretary to recommend that the designations (other than that for the Northeast Canyons and Seamounts MNM) be modified expressly to permit submarine cable installation, maintenance, and repair.

## **I. BACKGROUND**

### **A. Importance of Submarine Cables**

Contrary to popular perception, approximately 99 percent of U.S. intercontinental telephone, data, and Internet traffic travels by submarine cable—a percentage that has increased over time. Submarine cables provide higher-quality, more reliable and secure, and less expensive communications than do communications satellites. Submarine cables also provide the principal connectivity between the contiguous United States and Alaska, Hawaii, American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands. The U.S. territorial sea, exclusive economic zone (“EEZ”), and outer Continental Shelf (“OCS”) contain significant existing submarine cable infrastructure, and more is planned. According to the Federal Communications Commission (“FCC”), 63 in-service submarine cable systems traverse these areas, and at least 9 more have been announced or are currently under construction.<sup>2</sup>

Submarine cables play a critical role in ensuring that the United States can communicate domestically and internationally, thus supporting the commercial and national security endeavors of the United States and its citizens. Because of their critical importance to U.S. economic and national security interests, submarine cables have long been designated as critical infrastructure

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<sup>2</sup> See Federal Communications Commission, *Submarine Cable Landing Licenses at Licensed Cables*, <https://www.fcc.gov/research-reports/guides/submarine-cable-landing-licenses>

by the U.S. Government.<sup>3</sup> Submarine cables support U.S.-based commerce abroad, and provide access to Internet-based content, a substantial proportion of which is located in the United States, as evidenced by international bandwidth buildout. The U.S. Federal Reserve estimates that submarine cables globally carry an excess of \$10 trillion a day in transactions, a significant portion of which are transactions occurring in the United States.<sup>4</sup> Moreover, the Society for Worldwide Interbank Financial Telecommunication (“SWIFT”) network uses submarine cables to transmit financial data to more than 8,300 member financial institutions throughout the world.<sup>5</sup> Many of these member institutions reside in the United States and are central parts of the U.S. economy, not to mention sizeable employers of U.S. residents. The European Central Bank noted in a recent report that:

Undersea fiber-optic cables provide a competitive advantage to financial centers located near oceans, like Singapore, because they are directly connected to the Internet backbone, at the expense of landlocked cities like Zurich. By one estimate, cable connections have boosted the share in global turnover of London, the world’s largest trading venue, by as much as one third.<sup>6</sup>

Submarine cables also carry the vast majority of U.S. Government traffic, as the U.S. Government does not generally own or operate its own submarine cable systems.

Submarine cables—which are the diameter of a garden hose—are laid and repaired by cable ships built specifically for cable-related operations. These ships use a variety of remotely-

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<sup>3</sup> See Presidential Policy Directive – Critical Infrastructure Security and Resilience, PPD-21 (Feb. 12, 2013), [www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil](http://www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil); See Department of Homeland Security, Communications Sector-Specific Plan (2010), [www.dhs.gov/xlibrary/assets/nipp-ssp-communications-2010.pdf](http://www.dhs.gov/xlibrary/assets/nipp-ssp-communications-2010.pdf).

<sup>4</sup> Michael Sechrist, *New Threats, Old Technology*, Harvard Kennedy School, 9 (Feb. 2012), <https://citizenlab.org/cybern norms2012/sechrist.pdf>.

<sup>5</sup> *Id.* at 9-10.

<sup>6</sup> European Central Bank, *The international role of the Euro*, at 37 (July 2017).

operated vehicles, sea plows, lines, and grapnels for manipulating cable and repeaters beyond the ship. In deep-sea areas, cable is typically surface-laid, resting on the seabed surface.

Although damage to submarine cables is rare, it is typically caused by commercial fishermen, vessel anchors, hurricanes, underwater landslides, and seismic events such as earthquakes. Timely repairs are critical given the economic and national-security significance of traffic carried by these cables. Consequently, maintenance providers and cable ships must be prepared to respond rapidly with continuously-qualified personnel, vessels on stand-by, and appropriate equipment.

Scientific research has long demonstrated that submarine cable installation and repair activities and submarine cable materials are environmentally benign.<sup>7</sup> Damage to a submarine cable does not result in the release of harmful substances into the marine environment, as it carries light over glass fibers.

## **B. NASCA**

NASCA is the principal non-profit trade association for submarine-cable owners, submarine-cable maintenance authorities, and prime contractors for submarine-cable systems operating in North America. NASCA's members include:

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<sup>7</sup> *Submarine Cables and the Oceans: Connecting the World*, United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) Biodiversity Series No. 31, at 29-37 (UNEP-WCMC and ICPC, 2009) ("UNEPWCMC-ICPC Report"), available at <https://www.unep-wcmc.org/resources-and-data/submarine-cables-and-the-oceans--connecting-the-world>; Federal Communications Commission, *Implementation of the National Environmental Policy Act of 1969, Report & Order*, 49 FCC.2d 1313, 1321 (1974) (finding that "although laying transoceanic cable obviously involves considerable activity over vast distances, the environmental consequences for the ocean, the ocean floor, and the land are negligible. In shallow water, the cable is trenched and immediately covered; in deep water, it is simply laid on the ocean floor. In the landing area, it is trenched for short distance between the water's edge and a modest building housing facilities."); Federal Communications Commission, *1998 Biennial Regulatory Review—Review of International Common Carrier Regulations, Report & Order*, 14 FCC Rcd. 4909, 4938 (1999).

- Alaska Communications System
- Alaska United Fiber System Partnership, a subsidiary of General Communication, Inc.
- Alcatel Submarine Networks
- Apollo Submarine Cable Ltd., a subsidiary of Vodafone
- AT&T Corp.
- C&W Networks
- Global Cloud Xchange
- Global Marine Systems Ltd.
- GlobeNet Cabos Submarinos America, Inc.
- Hibernia Atlantic
- Level 3 Communications, LLC
- Office of Posts and Telecommunications French Polynesia
- PC Landing Corp.
- Rogers Communications
- Southern Cross Cable Network
- Sprint Corporation
- Tata Communications (America) Inc.
- Tyco Electronics Subsea Communications LLC
- Verizon Business

NASCA serves both as a forum and advocacy organization for its members' interests. NASCA's members own and operate the vast majority of active submarine cable systems landing in the United States, and support thousands of jobs in the United States.

## **II. ALL BUT ONE OF THE EXISTING MNM DESIGNATIONS FAIL TO ACCOUNT FOR SUBMARINE CABLES**

Most MNM designations and implementing regulations fail to account for existing or future submarine cables. Although all MNM designations other than that for the Rose Atoll MNM permit navigation, overflight, and other lawful uses under international law, only the Northeast Canyons and Seamounts MNM expressly authorizes submarine cable installation and maintenance. The boundaries of the Northeast Canyons and Seamounts MNM, however, are not unique in encompassing active submarine cables. As shown in Table 1 below, active submarine

cables traverse most of the MNMs and provide critical connectivity between U.S. states and territories and between the United States and key trading partners and allies.

**TABLE 1: Submarine Cables in Marine National Monuments**

<b>MNM</b>	<b>Name of Active Submarine Cable System Traversing the MNM</b>	<b>U.S. States and Territories and Countries Connected</b>
<b>Marianas Trench</b>	Asia-American Gateway	California, Hawaii, Guam, Brunei, Hong Kong, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
	Australia-Japan Cable	Guam, Japan, and Australia
	HANTRU-1	Guam and the U.S. Army Garrison Kwajalein Atoll in the Republic of the Marshall Islands
	SEA-US	California, Hawaii, Guam, the Philippines, and Indonesia
<b>Northeast Canyons and Seamounts</b>	Flag Atlantic-1 North	New York and England
	Flag Atlantic-1 South	New York and France
	TAT-14	New Jersey, Denmark, England, France, Germany, and the Netherlands
<b>Pacific Remote Islands</b>	Asia-American Gateway (possibly)	California, Hawaii, Guam, Brunei, Hong Kong, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
	SEA-US (possibly)	California, Hawaii, Guam, the Philippines, and Indonesia
<b>Expanded Pacific Remote Islands</b>	Asia-American Gateway	California, Hawaii, Guam, Brunei, Hong Kong, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
	SEA-US	California, Hawaii, Guam, the Philippines, and Indonesia
<b>Papahānaumokuākea</b>	none known	
<b>Expanded Papahānaumokuākea</b>	Asia-American Gateway	California, Hawaii, Guam, Brunei, Hong Kong, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
	Japan-U.S. Cable Network	California, Hawaii, and Japan
	SEA-US	California, Hawaii, Guam, the Philippines, and Indonesia
<b>Rose Atoll</b>	none known	



Certain of the MNM designations also prohibit activities in which submarine cable operators engage or could be deemed to engage, including anchoring and dredging<sup>8</sup> and placement of structures or materials (other than scientific instruments) on submerged lands.<sup>9</sup>

### **III. THE SECRETARY SHOULD RECOMMEND THAT THE PRESIDENT MODIFY THE MNM DESIGNATIONS EXPRESSLY TO AUTHORIZE SUBMARINE CABLE INSTALLATION, MAINTENANCE, AND REPAIR**

Under criterion (vii) of Executive Order 13792 (“such other factors as the Secretary deems appropriate”), on which the Department of the Interior has sought comment in connection with the related review under Executive Order 13795 and consultation with the Department of Commerce,<sup>10</sup> the Secretary should consider and find that the existing MNM designations (other than for the Northeast Canyons and Seamounts MNM) impair the ability of submarine cable operators to install and maintain submarine cables. The Secretary should recommend that the President modify the MNM designations expressly to authorize submarine cable installation, maintenance and repair.

#### **A. Express Authorization of Submarine Cable Installation and Repair Would Serve U.S. Economic and National Security Interests**

To avoid undue harm to U.S. economic and national security interests, NASCA urges the Secretary to recommend that the MNM designations (other than the one for the Northeast Canyons and Seamounts MNM) be modified expressly to permit submarine cable installation, maintenance, and repair. Specifically, the Secretary should recommend that the President

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<sup>8</sup> See Presidential Proclamation 8031 (Papahānaumokuākea MNM); Presidential Proclamation 9478 (Expanded Papahānaumokuākea MNM); Presidential Proclamation 9496 (Northeast Canyons and Seamounts MNM).

<sup>9</sup> Presidential Proclamation 9478 (Expanded Papahānaumokuākea MNM); Presidential Proclamation 9496 (Northeast Canyons and Seamounts MNM).

<sup>10</sup> Notice, 82 Fed. Reg. at 22,017.

modify the MNMs consistent with Presidential Proclamation 9496 and the language regarding prohibited activities in the with respect to the Northeast Canyons and Seamounts MNM, which prohibits in pertinent part:

Drilling into, dredging, or otherwise altering the submerged lands, or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands, *except for* scientific instruments *and constructing or maintaining submarine cables*.

For new submarine cables, the existing MNM designations threaten to foreclose the most efficient and safest routes for new submarine cables. The cost of routing around an MNM such as the Expanded Papahānaumokuākea could impose tens of millions of dollars in additional equipment and installation services costs, thereby increasing the cost of connectivity to customers and, ultimately, consumers. Those costs could even render a new system entirely uneconomic.

NASCA further urges the Secretary to make such a recommendation in order to ensure the continuity and security of communications on submarine cables, as well as timelier repair and restoration. Prohibitions or restrictions on submarine cable repair could greatly impair connectivity within the United States and between the United States and the rest of the world.

**B. The MNM Designation Language Regarding Lawful Uses Under International Law Is Insufficient**

Although all of the MNMs other than the Rose Atoll MNM authorize navigation, overflight, and lawful uses under international law, those provisions provide insufficient protection for submarine cable installation and maintenance, as they could easily be interpreted to exclude submarine cable installation and maintenance. The fact that the Northeast Canyons and Seamounts MNM expressly authorizes submarine cable installation and maintenance while other others do not could be interpreted that such activities are prohibited in the other MNMs.

Moreover, the U.S. Government has a history of construing those international law protections to permit significant restrictions on submarine cable installation and maintenance in U.S. national marine sanctuaries beyond the U.S. territorial sea.

NASCA believes that U.S. treaty obligations and customary international law (as observed by the United States) guarantee the freedom to install and maintain submarine cables in the U.S. exclusive economic zone<sup>11</sup> and on the U.S. continental shelf.<sup>12</sup> To avoid any potential misinterpretation, NASCA also believes that the MNM designations should expressly permit submarine cable installation and maintenance.

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<sup>11</sup> Law of the Sea Convention, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force on Nov. 16, 1994) (“UNCLOS”), at art. 58(1) (“In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines.”). The United States, under President Reagan, recognized these freedoms starting in 1983, even though the United States has never ratified the UNCLOS (it signed only in 1994) and even though the Convention did not enter into force for those states that had ratified it until 1994. Presidential proclamations by Presidents Reagan and Clinton expressly stated that the establishments of an EEZ and a contiguous zone, respectively, did not infringe on the high-seas freedoms to lay and repair submarine cables. *See* Presidential Proc. No. 5030, 48 Fed. Reg. 10,605 (Mar. 10, 1983) (“Pres. Proc. No. 5030”) (establishing the U.S. EEZ); Presidential Proclamation No. 7219, 64 Fed. Reg. 48,701 (Aug. 2, 1999) (establishing the U.S. contiguous zone).

<sup>12</sup> UNCLOS arts. 79(1) (“All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article”), 79(5) (“When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.”); Geneva Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, T.I.A.S. 5578, 499 U.N.T.S. 311 (entered into force definitively for the United States on June 10, 1964) at art. 4 (“Subject to its right to take reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources, the coastal State may not impede the laying or maintenance of submarine cables or pipe lines on the continental shelf.”). *See also* UNCLOS, art. 78(2) (“The exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.”).

## CONCLUSION

For the reasons stated above, NASCA urges the Secretary to recommend that the MNM designations be modified expressly to permit installation and maintenance of submarine cables.

Respectfully submitted,



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*Counsel for the North American  
Submarine Cable Association*

July 10, 2017

May 25, 2017

To: Ryan Zinke, Secretary of the Interior

From: W. Douglas Knowles, Ph.D.

Copies to:

National Parks Conservation Association [npca@npca.org](mailto:npca@npca.org)

Sierra Club [information@sierraclub.org](mailto:information@sierraclub.org)

The Nature Conservancy [ghenrich-koenis@tnc.org](mailto:ghenrich-koenis@tnc.org)

Conservation Lands Foundation [info@conservationlands.org](mailto:info@conservationlands.org)

New York Times [public@nytimes.com](mailto:public@nytimes.com)

EarthJustice [info@earthjustice.org](mailto:info@earthjustice.org)

I am writing to **support the continuation of the National Monument** status as currently established for the Monuments under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.

I have visited most of the Monuments in the Continental USA and my personal experiences are listed for each one.

I discuss each of the 26 Monuments in turn, presenting evidence for each of the items listed in the Notice of Review. Finally, I present a list of Google Maps Street View virtual tours of the Monuments, including some underwater SCUBA tours.

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## **Introduction**

I am writing to **support the continuation of the National Monument** status as currently established for the Monuments under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.

Once a President has proclaimed a national monument on federal land, later Presidents or Congresses may want to abolish, diminish, or otherwise change the monument. Congress has clear authority to do so, largely under the Property Clause of the U.S. Constitution, which provides that “Congress shall have Power to ... make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States.” Congress has used its authority to abolish or to remove acreage from national monuments on several occasions.

... Presidential authority may be more constrained. No President has ever abolished or revoked a national monument proclamation, so the existence or scope of any such authority has not been tested in courts. However, some legal analyses since at least the 1930s have concluded that the Antiquities Act, by its terms, does not authorize the President to repeal proclamations, and that the President also lacks implied authority to do so. (Emphasis added) Under this view, once a President has applied the Antiquities Act to protect objects of historic or scientific interest, **only Congress can undo that protection...**

No President has attempted to abolish a previously established national monument by proclamation. Thus, there has been no definitive judicial interpretation whether such action would be authorized under the Antiquities Act. However, a number of legal analyses, since at least the Franklin Roosevelt Administration, have agreed that a presidential proclamation of a national monument under the Antiquities Act **may be undone only by Congress.** (Emphasis added)

Source: Congressional Research Service Report R44687 Antiquities Act: Scope of Authority for Modification of National Monuments, November 14, 2016, by Alexandra M. Wyatt, Legislative Attorney [http://www.law.indiana.edu/publicland/files/national\\_monuments\\_modifications\\_CRS.pdf](http://www.law.indiana.edu/publicland/files/national_monuments_modifications_CRS.pdf)

The question of the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected” requires consideration of the geologic, cultural, and ecological extent of interrelated systems to be protected within each monument. For example:

The islets, reefs, and atolls that make up the NWHI [Northwestern Hawaiian Islands] cannot be considered as isolated units; nor can the NWHI be considered in isolation from the main Hawaiian Islands. These systems are intimately linked and affect one another. Major sources of connectivity include oceanic and atmospheric processes, passive transport of biota and nutrients via currents and upwelling, active transport of animals through movement and migration, and the dynamics of population groups. The study of energy flow through the system

by understanding trophic relationships and food webs is also a primary component of this theme. These factors are major drivers of the health, productivity and resilience (the ability of ecosystems to absorb and recover from change) of these ecosystems. Understanding the major processes that affect and connect the components of the NWHI and how these managed ecosystems affect the surrounding areas is fundamental to effective management of the Monument.

The principles that define ecological processes and connectivity operate in all parts of the world, regardless of local climate or condition. For example, nutrient transfer occurs in all communities. However, the specific types of processes that dominate in a given location are influenced by local and global climatic conditions. Current research on the ways in which climate change affects ecological processes includes the effect of sea temperatures on ENSO, and the unexpected balancing effect of the Pacific Decadal Oscillation (Hilbish et al. 2010); the effects of climate change on trophic transfer (Eriksson-Wiklund et al. 2009); and changes in distribution and abundance of key species, with subsequent community effects (Cheung et al. 2009, 2010). The physical, chemical, and biological perturbations that are initiated by climate change are expected to have an increasingly negative effect on marine resources around the world, as well as on the human populations that are linked to those resources economically and culturally (Halpern et al. 2008). A similar analysis of anticipated impacts at the Monument concluded that processes related to climate change posed the greatest threat to coastal and nearshore resources (Selkoe et al. 2008).

Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.) Emphasis added.

#### Economic Benefits of Our Protected Lands

Permanently protecting our shared public lands will not only secure a variety of environmental benefits - such as habitat for endangered and rare species -- but it will also ensure that future generations continue to have opportunities for backcountry recreation, scenic vistas and other important natural wonders that attract people and keep them coming back to our nation's wild places. Those opportunities and amenities translate into positive economic impacts for local communities through business and real estate investments, recreation and tourism spending, and the jobs and income earned that -- in the absence of those amenities -- might otherwise accrue elsewhere.

#### Business Appeal<sup>i</sup>

Studies have shown that protected public lands are one of several key quality-of-life factors influencing business owners when determining the location of their offices and attracting a talented workforce. In addition, the presence of these protected public lands can also help communities diversify local economies that had been stagnant due to over-reliance on declining resource extraction industries.



- Business owners decide to locate their offices near protected public lands due to scenic amenities, rural character of towns, and proximity to wildlife-based recreation. These reasons far outrank labor costs and tax incentives.<sup>ii</sup>
- A study of 113 rural Western Counties found that wilderness is linked with higher growth in investment income and entrepreneurial activity.<sup>iii</sup>
- Wilderness and other protected lands have helped counties diversify their economies that had been stagnant due to overreliance on declining resource extraction industries.<sup>iv</sup>

#### Catalyst for Recreation & Tourism Industry<sup>v vi</sup>

In 2010, an estimated 5.9 million tourists visited BLM lands in Nevada and had an economic impact of \$283.6 million dollars.

Every year, millions of Americans spend time outdoors. When people visit public lands for camping, hunting, bird watching and other recreation activities, they frequently spend money in local communities on lodging, meals, gear, licenses, and other necessary expenditures. Without wild public lands, this slice of the economic pie would shrink. According to Outdoor Industry Foundation, active recreation -- such as hiking, hunting, camping, and rafting -- contributes significantly to the U.S. economy.

#### A Glance at the Numbers: The Active Outdoor Recreation Economy<sup>vii</sup>

- Contributes \$730 billion annually to the economy
- Supports nearly 6.5 million jobs
- Generates \$289 billion annually in retail sales and services
- Creates \$88 billion in annual state and national tax revenue
- Community & Economic Development

Wilderness and other protective designations have been shown to increase local tourism and to attract new residents who treasure the quality of life that preserved lands provide. This high quality of life and sense of place are also key elements in keeping existing businesses and talented young people in the area. This preservation is crucial for maintaining a vibrant community and healthy economy.

- The presence of wilderness and other wild lands draws residents and new economic activity that has a substantial positive impact on local economies.<sup>viii</sup>
- From 1970 to 2000, individual income in more remote rural counties with protected lands grew more than 60 percent faster than similar counties without any protected lands.<sup>ix</sup>

<sup>i</sup> Mesquite Chamber of Commerce 2011. Development tab. Available at: <http://www.mesquite-chamber.com> .

<sup>ii</sup> Johnson, J.D. and R. Rasker. 1995. The Role of Economic and Quality of Life Values in Rural Business Location. *Journal of Rural Studies* 11(4): 405-416.

<sup>iii</sup> Holmes, F. P. and W.E. Hecox. 2004. Does wilderness impoverish rural regions? *International Journal of Wilderness*. 10(3): 34- 39.

<sup>iv</sup> Lorah, P.A. 2000. Population growth, economic security, and cultural change in wilderness counties. In: McCool, Stephen F.;

Cole, David N.; Borrie, William T.; O’Loughlin, Jennifer. *Wilderness Science in a Time of Change Conference—*. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 230-237.

<sup>v</sup> BLM 2011. The BLM: A Sound Investment for America. Available at:  
<http://www.blm.gov/wo/st/en.html> .

<sup>vi</sup> Economic impacts are the jobs, income, tax revenue and other fiscal benefits that accrue to local communities and are very important reasons to protect some public lands from development.

<sup>vii</sup> Outdoor Industry Foundation, *Active Outdoor Recreation Economy Report*, 2006. Available at  
[http://www.outdoorindustry.org/research.php?action=detail&research\\_id=26](http://www.outdoorindustry.org/research.php?action=detail&research_id=26) .

<sup>viii</sup> Lorah, P.A. 2000.

<sup>ix</sup> Sonoran Institute 2004, *Prosperity in the 21st Century West - The Role of Protected Public Lands*.

Source: Friends of Nevada Wilderness

[http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572077/document Econ Benefits of Protected Public Lands.pdf?1366572077](http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572077/document_Econ_Benefits_of_Protected_Public_Lands.pdf?1366572077) (Accessed May 18, 2017.)

## **Bears Ears National Monument Utah**

I am writing to **support the continuation of the National Monument** status as currently established for Bears Ears National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

I have personally visited the Bears Ears area. I found it to be a fascinating and awe-inspiring region. I greatly value the personal growth and regeneration that I experienced here. It is clearly a region of extreme value to the Native Tribes and Pueblos, as evidenced by their years of efforts to protect this area and centuries of respect for the region. The designation as National Monument will certainly increase the amount of tourism and visitation to the region, more than offsetting any *potential* decrease of private use.

President Trump’s ordered a “review all monuments created since 1996 to determine if they were created without “public outreach and proper coordination.” However, the Bears Ears National Monument was created after decades of advocacy and many public meetings in the region and in Washington, DC, over the past two years. The effort to protect Bears Ears was very long, very public, and very robust. To say that it needs review to determine if the proper outreach was conducted is an outrage and nothing more than pretext to withdraw Bears Ears from monument protection altogether.”

Source: STAND FIRM FOR BEARS EARS <http://www.narf.org/2017/04/narf-stands-firm-bears-ears-national-monument-designation/>

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

This Monument was created to encompass the region of religious, archeological, ecological and geographic importance.

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

Lands within the Bears Ears region are among the most culturally significant in the country. The area is world renowned for the integrity and abundance of cultural and archaeological resources.

The Bears Ears cultural landscape is known to contain more than 100,000 cultural and archaeological sites, making it the most significant unprotected archaeological area in the United States. Perhaps nowhere in the United States are so many well-preserved cultural resources found within such a striking and relatively undeveloped natural landscape.

Cedar Mesa has archaeological site densities that rival and perhaps exceed those found within many nearby national parks and monuments.

Since time immemorial, multiple indigenous cultures have inhabited, crossed, and built civilizations on these lands. At the Lime Ridge Clovis site, western archaeologists have found evidence of Paleoindian occupation dating to as early as 11,000 B.C., though Native peoples trace their history here back much farther. Clovis sites are some of the earliest scientific evidence archaeologists have of the occupation of North America. The archaeological record indicates widespread use between 6000 B.C. and 500 B.C. by Archaic peoples. Archaeologists say the heaviest occupation of the Bears Ears region was during the Basketmaker (500 B.C. to A.D. 750) and Pueblo (AD 750-AD 1290) periods. During these times, Ancestral Puebloan people left very large numbers of archaeological sites ranging from small lithic scatters to large highly complex village sites. Other well known archaeological areas from these periods include Mesa Verde, Canyon de Chelly, and Chaco Canyon.

While the region is internationally known for its visually stunning cliff dwellings, the majority of the area's archaeology is not found in the canyon systems. Instead, the mesa tops are covered with great houses, ancient roads, underground pit houses, villages, and shrines. To the untrained eye, these archaeological features can sometimes be hard to recognize, but their importance to science, as well as Tribal descendants is immense.

The majority of these sites have never been inventoried or studied by western archaeologists, and their preservation is important to all the peoples of the world. More than just a library of

human history, this place remains vital to tribal communities across the Colorado Plateau as a place of subsistence, spirituality, healing, and contemplation. To learn about the threats to these sacred sites, [click here](#).

Navajo and Ute peoples also lived across much of the Bears Ears region, leaving very old hogans, sweat lodges, tipi rings, and rock art panels. Navajo, Ute, and Paiute travelers also used formalized trails to travel across the landscape seasonally for hunting and ceremonies.

Quote from Jim Enote, Pueblo of Zuni:

“This place is a part of the history of all the Native peoples in this region. It’s like a book for us, and when many tribes have a chapter in this book, it tells us a lot about why we are the way we are. But it’s also part of the history of the peoples of the United States and the world. I believe that tribal peoples of this region shouldn’t be the only ones to take responsibility for protecting the cultural resources; they belong to everyone, and everyone should take responsibility for protecting them.”

Source: CULTURAL & ARCHAEOLOGICAL SIGNIFICANCE <https://bearscoalition.org/proposal-overview/archaeological-significance/> (accessed May 12, 2017).

The process of designating Bears Ears as a National Monument was long and extensive.

#### TIMELINE

##### 2009

- March: President Obama signs Senator Bennett’s Washington County Lands Bill. Many counties throughout Utah request inclusion in the next bill.
- March: Utah Tribal Leaders Association begins regular discussions on how best to engage in future land-use negotiations to advance Native American interests on public lands. (UTL Agenda-6-25-09, 8-6-09, 11-12-09)

##### 2010

- February: Senator Bennett initiates land-use planning initiative in San Juan and seven other counties in Utah. An intensive and collaborative land-use negotiation process ensues that involves dozens of organizations that meet every few weeks for six months.
- May: Kenneth Maryboy invites Mark Maryboy and Gavin Noyes, Utah Program Director for Round River, to help develop a plan to represent Utah Navajo interests in the Bennett process. Mark serves as a consultant and community liaison to a small team of land planning experts and prioritizes the opinions of grassroots people, elders and the inclusion of all Tribes throughout the region.

- May: June-August: All seven Navajo Chapter Houses in Utah approve resolutions of support for Mark and other leaders to carry out ancestral mapping of lands and development of the Bears Ears proposal in San Juan County.
- June: Utah Navajo leaders initiate a 2 ½ year-long cultural mapping effort including Navajo elder interviews, data collection, and policy research, studying co-management, as well as local state, and federal policies.
- August: Utah Navajo leaders approve a draft proposal in advance of Senator Bennett’s deadline. This proposal was not released or made public because Senator Bennett’s time in office expired before the bill could be introduced (Bennett was defeated at his state Republican convention)
- October: Second round of elder interviews initiate to collect more detailed information about Native American cultural uses in San Juan County.

#### 2011

- March: Utah Navajo cultural interviews are complete.
- April: The “Navajo Lands of Interest” (NLOI) pre-proposal map is widely distributed throughout Utah and in Washington DC. Leaders from all sides express strong support for Utah Navajos in advancing interests regarding their ancestral lands.
- July: UDB releases a book describing Native American interests to the public; 8,000 copies are distributed throughout Utah and in Washington DC. (Copies are available by emailing [utahdinebikeyah@gmail.com](mailto:utahdinebikeyah@gmail.com)) Major press events are held in Bluff and Salt Lake City and the President of the Navajo Nation weighs in with his office’s support. The book helps generate significant recognition that Native Americans have a right to engage in conservation of this region, a concept with which most Utahans seem unfamiliar.
- July: Navajo Nation President Ben Shelley asks Secretary Salazar in a letter to protect Bears Ears as a National Monument because it is one of our country’s “Crown Jewels.”
- September: Formal land planning initiates for the Bears Ears region by the leadership of Navajo Nation Division of Natural Resources.
- October: UDB signs an MOU with the Navajo Nation to formalize development of the Bears Ears proposal.

#### 2012

- January: Utah Dine Bikeyah Board of Directors is set and organization launches to provide guidance on proposal development, conducts regular ceremonies and holds community/ house meetings to discuss the Bears Ears project with their communities.

- February: Navajo Nation President and UDB present UDB book and NLOI map to the Utah State Legislature. Many Utah officials express support for the Native American effort to protect spiritual sites on public lands within the Bears Ears landscape.
- March-December: Navajo Nation and UDB engage San Juan County Commissioners in discussions to pursue a collaborative County-wide Joint Planning process, assuming that Congressional leaders would initiate a new planning process.
- July: Congressman Bishop begins informal meetings with governments and stakeholders. Neither Tribes nor UDB are listed as early participants.
- August: During several meetings, UDB tells San Juan County Commissioners Phil Lyman and Bruce Adams of its goal to seek protection for Bears Ears area either as a NCA through the legislative process, or as a NM through the Antiquities Act. They express a desire to participate in developing a joint legislative position spanning Native and non-Native interests.
- October: San Juan County Commissioner Phil Lyman invites UDB Board Members to his office and tells them that Native Americans “lost the war” and shouldn’t be commenting on public lands issues, much like he doesn’t tell the Scottish government what to do after his ancestors left Scotland. UDB carries out its own research and learns that Native Americans have every right to engage in public land planning.
- December: The Navajo Nation and San Juan County sign a Memorandum of Agreement to undertake Joint Planning for all public lands in San Juan County. The identified purpose of Joint Planning is to create a shared vision supported by commissioners and the Navajo Nation.

#### 2013

- January: The Navajo Nations and UDB complete Bears Ears data collection and analysis. Navajo Nation decision-makers utilize this data to make policy decisions.
- January: Navajo/San Juan County Economic Development Committee forms under Joint Planning agreement.
- February: Bishop Public Lands Initiative launches and the Navajo Nation and UDB is invited to participate. Congressman Bishop does not list the Ute Mountain Ute, San Juan Paiute, or Tribes outside of Utah as early participants. (See Letter from Congressman Bishop to Utah Dine Bikeyah, 2/15/13, launching Public Lands Initiative).
- April: UDB and the Navajo Nation spoke to the entire group at length and gave a one hour presentation on the proposal origins. We walked through the four prongs of the proposal including; NCA boundaries, wilderness proposal, regions proposed for co-management, and access needs (including firewood, herb collection, hunting, and ceremonial-use) We made a proposal like this to local, state, federal officials and the public at approximately 25 subsequent meetings. Congressmen Bishop and Chaffetz had staff at approximately half of these meetings.

The Navajo Nation proposal did not result in any response from the Utah congressional delegation or substantive discussions.

- April 17th: The Navajo Nation presents its proposal to San Juan County, State of Utah officials, and Utah Congressional delegation at Monument Valley. Discussion of Bears Ears proposal lasts for over two hours. (See SJC NCA Supporting Maps 3/28/13, and Navajo Nation Press Release and UDB Press Release, 8/9/13) The Navajo Nation proposal did not result in any response from the Utah congressional delegation or substantive discussions.
- May 2013- March 2015: UDB and the Navajo Nation made a total of four trips to Washington DC. We always met with the Utah Congressmen, including Representatives Bishop, Chaffetz, and Senator Hatch. When we visited, we always delivered a two page description of the proposal and offered a large map of the Bears Ears proposal. We always discussed the four prongs of the proposal including; NCA boundaries, wilderness proposal, regions proposed for co-management, and access needs (including firewood, herb collection, hunting, and ceremonial-use) We did not receive any substantive responses.
- May: Joint Planning meetings are put on hold while San Juan County develops its internal proposal. San Juan County questions the legitimacy of the Navajo Nation proposal. (See letter from UDB to SJC on 5/21/13)
- July: Navajo Nation submits the Bears Ears proposal for Bishop's August, 2013 deadline. San Juan County does not respond to the Navajo proposal prior to this deadline and does not publicly submit a position to Congressman Bishop.
- August: Congressional leaders organize field trips including one led by UDB and hold public hearings in San Juan County. At the public hearing, San Juan County residents sling racist insults at Native American attendees. The Utah delegation does not intervene and subsequently, Native Americans stop attending public meetings in northern communities of San Juan County. (Letter from UDB to Congressman Bishop sent on 8/12/15 details this event and the negative impact it had on race relations in SJC.)
- September: Bishop's legislative deadline passes without Congressional action.

#### 2014

- January: Commissioner Lyman selects individuals to join the San Juan County Citizen Lands Committee.
- May: Commissioner Lyman leads an armed militia on an all-terrain vehicle ride into sacred Recapture Canyon trespassing into an area closed to motorized vehicles.
- June: Joint Planning agreement between Navajo Nation and San Juan County expires and San Juan County is unresponsive to UDB letters regarding Joint Planning agreement.



- July: UDB formally asks SJC and its newly formed Citizens Lands Council to respond to the Bears Ears proposal by August 15 so that parties can understand the likelihood of creating a shared proposal, or determine if a National Monument request should be made (See UDB to SJC letter 7/9/14). San Juan County does not respond, except by phone to communicate that they will engage with the Bears Ears proposal on their own timeline once SJC's proposal is complete.
- August: Navajo Utah Commission unanimously adopts a resolution of support (Resolution NUCAUG-616-14) endorsing the permanent protection of lands in San Juan County, UT as a National Conservation Area or National Monument. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.
- September: UDB conducts outreach to new Navajo Nation officials and Tribes throughout southwest.
- September: Hopi Tribal Chairman Herman Honanie sends a letter of support for the permanent protection of the Bears Ears landscape to the Utah Congressional Delegation.
- September: Ute Mountain Ute request renaming of proposal. UDB drops the proposal name "Utah Diné Bikéyah" and replaces it with "Bears Ears."
- September: UDB reports to Secretary Jewell on the inability of Native Americans in SJC to obtain any kind of response to its conservation proposal, even after 18 months of diligent effort. (See UDB letter to Secretary Jewell 9/19/14)
- September: Six of seven Navajo Chapter Houses in Utah adopt resolutions of support for Bears Ears
- September: Utah Congressional delegation asks San Juan County to include the Navajo Nation in its legislative proposal development process and to deliver one or more positions by the end of the year.
- October: San Juan County confirms its July agreement to include Bears Ears proposal in SJC list of alternatives for its public process.
- October: San Juan County proposes five Open Houses in Oljato, Bluff, Blanding, Monticello, and LaSal to hear local preferences for land-use alternatives. Only one meeting is scheduled in a Native community. UDB offers to convene additional meetings on reservation, provide translation skills, and create radio ads to ensure people hear about event. SJC agrees and asks UDB to partner on Open Houses. SJC also asked UDB to run the open house at the Navajo Mountain community without representation from SJC due to the travel cost, and provides UDB chairman, Willie Grayeyes, with copies of maps of alternatives.
- October: UDB delivers Bears Ears GIS layer package of the Bears Ears proposal to San Juan County. On March 4th, 2015 this same layer package is sent to Casey Snyder and Cody Stewart from Congressman Bishop and Governor Herbert's offices.

- October: UDB delivers Bears Ears GIS layer package of the Bears Ears proposal to San Juan County. On March 4th, 2015 this same layer package is sent to Casey Snyder and Cody Stewart from Congressman Bishop and Governor Herbert's offices.
- October: San Juan County excludes Bears Ears proposal from its list of land- use alternatives for its public process. UDB asks why the County has asked it to partner on Native outreach if the County is not including the Native proposal for Bears Ears.
- October: SJC adds one Open House in the Aneth community (on-reservation), but fails to run radio ads, send flyers to Chapter Houses, or even obtain the mailing addresses for hundreds of San Juan County residents who retrieve their mail at PO Boxes in Arizona. Consequently, Native American turn-out was low at San Juan County Open Houses (25-35 people total).
- November: UDB organizes seven Town Hall Meetings to ensure that all Native American communities in Utah have the ability to submit comments to the PLI process. UDB conducts outreach by running radio ads and posting flyers at Chapter House. 250-350 Native community members attend discussions.
- November: All Pueblo Council of Governors unanimously adopts a resolution of support (Resolution No. 2014-17) endorsing the protection of the Greater Cedar Mesa Landscape in San Juan County, UT. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.
- December: Bears Ears proposal wins 64% of support from San Juan County residents during public process. Alternative B that San Juan County eventually adopts receives two comments of support, or less than 1% of total.
- December: Navajo Nation and UDB representatives go to Washington, DC and report again to the Utah congressional delegation that San Juan County is not responsive to the Native American proposal in the legislative process.
- December: UDB is told by SJC that it may no longer participate in Bishop's PLI. (See letter from UDB to SJC on 12/13/14)
- December: Bishop's informal legislative deadline passes without Congressional action.

## 2015

- January: San Juan County Commissioner Rebecca Benally replaces Commissioner Kenneth Maryboy as County representative for the majority Navajo district.
- January: Phil Lyman tells UDB that it has no standing in San Juan County and rejects UDB's request to participate in Citizens Lands Council. Lyman says he represents Utah Navajos as Chairman of the San Juan County Commission and challenges UDB's ability to represent Navajo people. UDB explains that its MOU with the Navajo Nation and resolutions of support from Utah

Chapter Houses gives it the authority to represent local land-use desires. UDB sends a letter to Congressmen Bishop and Chaffetz asking to work.

- January: Navajo Nation seeks guidance from Congressman Bishop on how to engage in the PLI. No substantive response is received. (See NN letter on 1/30/15, also see UDB handout to SJC on 2/3/15)
- February: The entire Utah Congressional delegation sends a letter to stakeholders and Tribes announcing the upcoming release of a map and legislative language for PLI on March 27. Areas of “collaborative agreement” are listed as priority designations. (See letter sent on 2/4/15)
- February: Hualapai Tribal Council unanimously adopts a resolution of support (Resolution No. 06-2015) endorsing the Bears Ears Conservation Proposal. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.
- February: Navajo Nation President Ben Shelley asks Utah Governor Herbert to support Tribes in protecting the Bears Ears landscape. Governor responds that the Nation needs to get its proposal to Congressman Bishop and Chaffetz “as soon as possible.” (See UDB letter on 2/9/15)
- February: UDB informs Congressmen Bishop and Chaffetz that it has tried and failed to re-engage with San Juan County and its Citizens Lands Council and wants to be included in PLI. UDB requests a meeting directly with Congressional staff to discuss critical issues that need to be detailed prior to the March 27 release of draft legislative language. (See UDB letter on 2/9/15) No substantive response is received from the Congressional offices, but assurances are given by phone that UDB and Native American interests will be included.
- February: Due to Congressional pressure, San Juan County invites the Navajo Nation, Ute Mountain Ute, and UDB to try to negotiate a shared position through a series of future meetings. A new legislative deadline is set for March 27. (PLI letter from Utah Congressional delegation 2/4/15)
- February: White Mesa Community of the Ute Mountain Ute joins UDB and appoints Mary Jane Yazzie as a Board Member to include Ute perspective in Bears Ears proposal.
- March: At the urging of San Juan County Commissioners, and without consulting Tribes or informing UDB, the Utah State Legislature passes HB 393, which undermines major portions of the Bears Ears proposal by designating it as an “Energy Zone.” This bill aims to streamline development and declares grazing, energy and mineral development to be the “highest and best use” of public lands.
- March: Navajo Nation Council unanimously adopts a resolution of support endorsing the designation of Bears Ears as a National Conservation Area or National Monument. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.

- UDB travels to Washington D.C. and details negotiation process options with Congressman Chaffetz staff by drawing on maps with markers.
- UDB presents a revised Bears Ears wilderness proposal to Congressman Chaffetz staff and San Juan County during negotiation meeting that better accommodates for firewood collection.
- April: Bishop imposed legislative deadline passes without Congressional action.
- March, April, & May: Four negotiation meetings are held between San Juan County, Tribes and stakeholder groups. These meetings have strong representation from Native American leaders and residents, but meetings are poorly run. For example agendas are never prepared, a neutral facilitator is not provided (SJC always leads), and parties are not asked to bring anything new to the table (See UDB letter to Congressman Bishop/ Chaffetz 7/8/15)
- April: Commissioner Lyman convicted of illegal trespass in his 2014 ATV ride. (See SL Tribune 5/1/15)
- April-May: The Wall Street Journal, New York Times, Salt Lake Tribune and others feature the Bears Ears proposal and the PLI.
- May: UDB and supporting organizations send letter to Representative Bishop and Chaffetz indicating what they will support/ oppose in a legislative proposal.
- May: The Bears Ears website surpasses its goal of 10,000 petition signatures of support only four weeks after launching.
- May: Congressman Chaffetz staff inform the Navajo Nation that legislation will be introduced in July, 2015.
- June: All Pueblo Council of Governors sends a letter to the UT Congressional Delegation and the Obama Administration clarifying that their earlier resolution of support (Resolution No. 2014-17) endorsing the protection of the Greater Cedar Mesa Landscape should be considered support for the Bears Ears Conservation Proposal.
- June: Negotiations between the SJC Citizen Lands Council, UDB, and the Navajo Nation fail to produce any results. Furthermore, at the final meeting, neither UDB nor the Tribes are invited to attend. They are told that the SJC Commissioners did not require any further information to make its final decision. (Letter from UDB to Chaffetz 7/9/15)
- June: SJC Citizens Lands Council votes on a final proposal to SJC Commissioners without input or participation from Ute, Navajo, San Juan Paiute Tribes or UDB.
- July: Congressman Chaffetz' office assures UDB Board Members that Native American interests will be heard by Congressman Bishop prior to release of Draft language. Chaffetz

agrees to “consider” including Tribes outside of San Juan County. UDB asks know the degree to which Chaffetz will support Bears Ears by early Sept. (Letter from UDB to Chaffetz 7/9/15)

- July: Chairman Chappoose of the Uintah and Ouray Ute Indian Reservation Tribal Business Committee sends a letter of support for the Bears Ears conservation proposal. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.
  - July: Bears Ears Inter-Tribal Coalition formalizes its leadership to advance the Bears Ears Proposal and meets with federal officials from Washington DC at Bears Ears.
  - July: With the addition of the Hopi, Zuni, Ute Mountain Ute, and Ute Indian Tribes; 25 tribal governments now endorse designating Bears Ears as either a National Conservation Area or National Monument through official letters and resolutions of support.
  - July: Bishop imposed legislative deadline passes without Congressional action.
  - July: UDB organizes a Bears Ears panel discussion with Ute Mountain Ute, Congressman Chaffetz and Governor Herbert’s PLI representatives at Utah’s Annual Native American Summit in Provo, Utah. Sixty people attend. At this conference, Navajo Nation President Russell Begaye also asks conference attendees to support Tribes in protecting Bears Ears. No substantive follow-up discussions occur with Utah officials after this conference.
  - August: Chairman Heart of the Ute Mountain Ute Tribe sends a letter of support for the Bears Ears Conservation Initiative. Copies are provided to the UT Congressional Delegation and relevant members of the Obama Administration.
  - August: San Juan County Commissioners unanimously adopt Citizens Lands Council recommendations.
  - August: Five Tribes of the Bears Ears Inter-tribal Coalition requests a formal meeting with Congressman Chaffetz and Bishop and inclusion prior to the release of draft language. (See letter sent on 8/5/15)
  - August: Congressman Chaffetz, Utah officials, and San Juan County Commissioners meet with the Navajo Nation President Begaye and suggests that Native American interests are well represented by San Juan County officials. The President points to the tally of local comments received in 2014 and asks how this could be the case. Commissioner Benally offers no explanation.
  - August: UDB meets with Congressman Chaffetz’s staff and informs them that the opportunity to negotiate with UDB has ended and that Tribes are now in charge.
- Staff agrees to reach out to the Bears Ears Inter-tribal Coalition to set up a meeting.

- August: On August, 5, 2005, Alfred Lomahquahu and Eric Descheenie, Co-Chairs of the Bears Ears Inter-Tribal Coalition, write Congressmen Bishop and Chaffetz a three-page letter. The letter details the current situation and requests a meeting in order to discuss the Tribe's proposal and to "work with you towards meaningful conservation legislation on an accelerated time line." This does result in any substantive discussions. (See letter sent on 8/5/15)

Source: Timeline of Tribal Engagement in Protection <http://www.bearscoalition.org/wp-content/uploads/2015/10/Timeline-of-Tribal-Engagement-in-Protection.pdf> (Accessed May 12, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The new national monument is 1.35 million acres in size, including about 1 million acres of public land managed by the Bureau of Land Management and 290,000 acres managed by the US Forest Service. The monument will be managed by these two agencies, who will undergo a joint planning process that kicks off in January 2017 with public open houses.

In a historic move, the Bears Ears National Monument will recognize Native American traditional and historical knowledge through means of a Commission. The Bears Ears Commission will consist of one elected officer from the Hopi Nation, Navajo Nation, Ute Mountain Ute Tribe, Ute Indian Tribe of the Uintah Ouray, and Zuni Tribe, designated by the officers' respective tribes. The expertise of the Bears Ears Commission will help further the proclamation's directive to provide access to members of Indian tribes to traditional and culture use of the land including the collection of plants and firewood.

To allow for local guidance and input, the monument managers will establish an Advisory Committee that will include State and local governments, tribes, recreational users, local business owners, and private landowners.

President Obama's proclamation recognizes the layered history of Bears Ears and future opportunities for archaeological and paleontological study. It also gives a nod to the many activities that we enjoy in the area like hiking, rock climbing, hunting, backpacking, canyoneering, whitewater rafting, mountain biking, and horseback riding. To manage motorized and non-motorized vehicles in the monument,

To manage motorized and non-motorized vehicles (mountain bikes) in the monument, managers will create a transportation plan to designate which roads and trails will be open to motorized and non-motorized use. This will allow OHV use on routes that are currently designated as open to motorized vehicles. New roads or trails for motorized vehicles will only be allowed for public safety or cultural resource protection.

Like all National Monuments, federal lands in Bears Ears are withdrawn from new mining, energy development, and grazing, and existing valid rights and leases will be honored.

Tribes and Pueblos with cultural ties to Bears Ears:

- Navajo Nation
- Hopi Tribe
- Ute Mountain Ute Indian Tribe
- Uintah and Ouray Ute Indian Tribe
- White Mountain Tribe and Jicarilla Apache Tribe
- San Juan, Kaibab, & Utah Paiute Tribes
- White Mountain and Jicarilla Apache
- Hualapai Tribe
- Pueblos of Acoma, Cochiti, Isleta, Jemez, Laguna, Nambe, Ohkay Owingeh, Picuris, Pojoaque, Sandia, San Felipe, San Ildefonso, Santa Ana, Santa Clara, Santo Domingo, Taos, Tesuque, Ysleta Del Sur, Zia and Zuni.

Source: <https://www.friendsofcedarmesa.org/about-the-bears-ears-national-monument/>  
(Accessed May 12, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

What does the monument protect?

- Hundreds of thousands of archaeological sites
- One of the most spectacular and unspoiled archaeological landscapes in North America
- Thousands of ancient artworks, including what may be the oldest rock image in North America
- Cliff dwellings, great houses, pueblos, shrines, standing stone towers, cathedral-like caves and rock shelters
- Burials and sacred artifacts belonging to our ancestors
- Ancient Chacoan roads still visible for miles on the landscape
- A rich history of continuous cultural presence going back over ten thousand years

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

“The Trump administration’s review of Bears Ears is extremely disappointing because Bears Ears is one of the most important places to Indian Country and the Tribes fought hard to ensure that this sacred area was protected,” said John Echohawk, Executive Director of the Native American Rights Fund (NARF).

Source: : STAND FIRM FOR BEARS EARS <http://www.narf.org/2017/04/narf-stands-firm-bears-ears-national-monument-designation/>

Protection of all these sacred sites is critically important to Native American people. Ongoing looting, grave robbing, vandalism, and destruction of cultural sites are acts that literally rob Native American people of spiritual connections, as well as a sense of place and history.

Native American connections to Bears Ears aren't just about protecting the past. Many Native Americans visit the area on a regular basis for ceremonies and to connect with their ancestors. The Navajo Nation and the White Mesa Ute Reservation border Bears Ears on the south and east, respectively. Navajo and Ute people frequent the land to collect herbs and medicine, forage for food (such as piñon nuts), gather firewood for heating and ceremonial use, and to hunt game. Because of these ongoing traditional uses, proper management of Bears Ears' native plants and wildlife is paramount to Native American people. Tribal people depend on the Bears Ears region as both their medicine cabinet and their pantry – for food, shelter, and healing, as well as for their spiritual sustenance.

Source: <https://bearscoalition.org/proposal-overview/ancestral-and-modern-day-land-users/>

“We have already spoken, and with overwhelming unity we have asked for Bears Ears to be protected. Local Navajo communities have the sovereign support of the Navajo Nation government and we understand that other tribes are similarly supporting their grassroots people. What we have said, and continue to say, is this: It is time to protect Bears Ears.”

– Herman Daniels Jr., Navajo Nation Council Member

Archaeological sites damaged by looting and neglect cannot be healed. They will never regenerate. But the damaged sites can be mitigated through stewardship, through education, and through shared appreciation. In the case of archaeology, prevention is the only medicine that will heal the People. Spiritual leaders will bring healing to the mesas and canyons, and as children visit the homes and special places of the ancient ones, the bonds to the past will be strengthened, and a new future will come to these places of the past.

Source: [http://www.bearscoalition.org/wp-content/uploads/2016/03/Bears-Ears-bro.sm .pdf](http://www.bearscoalition.org/wp-content/uploads/2016/03/Bears-Ears-bro.sm.pdf) (Accessed May 12, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No comment.



*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

“The cultural resources here, the petroglyphs, the structures, all of this, is evidence of the Native people who lived in and passed through the Bears Ears. It provides a link to our ancestors, from long ago. This cultural information is important for all Native people. This is why tribes have set aside any differences and come together: if this information is lost, it’s lost forever. It is devastating to think of that loss. We must protect Bears Ears”

– Octavius Seowtewa, Zuni Elder

Source: <https://bearscoalition.org/proposal-overview/ancestral-and-modern-day-land-users/>

## **Basin and Range National Monument Nevada**

I am writing to **support the continuation of the National Monument** status as currently established for Basin and Range National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

The Basin and Range National Monument is an unspoiled area rich in Native American cultural artefacts. Continued protection of this area allows research that will help us understand how use of the landscape changed from relatively wet Paleoindian times to drier Archaic through historic times and how Native American cultures adapted to this change.

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

Four major topographic areas representing diverse ecosystems are located within the BRNM: Garden Valley in the northwest, the Golden Gate Range running north-south through the center, Coal Valley in the southeast, and the Worthington Range in the west. Areas within and adjacent to the BRNM have already been recognized for their intact natural and cultural resources; the BRNM would encompass the Weepah Spring Wilderness Area (WA) in the Seaman Range along its eastern boundary and be flanked by three other units of the BLM's National Landscape Conservation System: the Worthington Mountains WA to the west, Mount Irish WA to the south, and Big Rocks WA to the southeast.

Source: Cultural Resources in the Proposed Basin and Range National Monument, Lincoln and Nye Counties, Nevada, Prepared by Rebecca H. Schwendler, Ph.D. Technical Report No. 15-22, PaleoWest Archaeology, 2460 West 26th Avenue, Denver, Colorado 80211.

<http://www.protectbasinandrange.org/wp-content/uploads/2015/03/Basin-and-Range-cultural-resources-report1.pdf> (accessed May 12, 2017)

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

This is the land of the Southern Paiute, the Western Shoshone, and their ancestors, all of whom have much to teach us about human adaptations to a highly challenging environment. The proposed Basin and Range National Monument is a study in contrasts between jagged mountain ranges and flat basin valleys, each of which hosts very different ecosystems and offers people diverse suites of hard-won resources. During the early, relatively wet Paleoindian period lakes formed in the valleys and food was comparatively abundant. However, since the advent of arid modern climatic conditions during the subsequent Archaic period, prehistoric hunter-gatherers, protohistoric tribes, and even modern ranchers have had to move between ecosystems to access as many different resources as possible in order to survive. Native American trails that wind through the area are both literal and figurative reminders of these interconnections between the basins and ranges.

Only about two percent of the Basin and Range National Monument has been investigated for archaeological resources but the resulting picture is one of regular seasonal movements by hunter-gatherers throughout prehistory and protohistory. In contrast, adjacent regions with more water and desirable prehistoric trade goods, such as turquoise, supported farming and more permanent settlement. Euro-American endeavors in mining, farming, and ranching have been short-lived or low intensity because of the area's harsh environment. As a result of this lack of modern development, the cultural resources of the Basin and Range National Monument remain largely intact and provide a rich body of information about prehistoric and protohistoric

life in one of the more challenging areas of the Basin and Range province. Future systematic study by professional archaeologists would help us to better understand when, where, and how people moved between ecosystems, how they managed to eke out a living here for 13,000 years, and how they viewed and interacted with people in more resource-rich regions beyond the Basin and Range province.

Despite the Basin and Range National Monument’s challenging environment, its cultural resources include:

- Scatters of chipped stone and tools left by hunter-gatherers during the Paleoindian, Archaic, and Late Prehistoric periods
- Thousands of rock art images concentrated in the Mount Irish Archaeological Site and the National Register of Historic Places-listed White River Narrows Archaeological District
- Native American trails connecting basin and range ecosystems
- Ruins of irrigation features from short-lived homesteading and farming
- Mine shafts, prospect pits, and waste rock piles from the Worthington/Freiberg Mining District and the Mount Irish area
- Michael Heizer’s monumental artwork “City” which is separate from but surrounded by the Basin and Range National Monument

#### WHY PROTECT CULTURAL RESOURCES IN THE BRNM?

Although only a few hundred prehistoric and historic archaeological resources have been formally recorded within the BRNM, this previous work suggests that hundreds or thousands more resources are present. Designating the BRNM for federal protection would help to preserve this quintessential Basin and Range area for future in-depth study. Investigation of a significantly larger proportion of the BRNM would help us understand how use of the landscape changed from relatively wet Paleoindian times to drier Archaic through historic times. It would also help us understand whether and how people here interacted with groups in more resource-rich areas such as the Pahrnagat and Moapa valleys.

Source: Cultural Resources in the Proposed Basin and Range National Monument, Lincoln and Nye Counties, Nevada, Prepared by Rebecca H. Schwendler, Ph.D. Technical Report No. 15-22, PaleoWest Archaeology, 2460 West 26th Avenue, Denver, Colorado 80211.

<http://www.protectbasinandrange.org/wp-content/uploads/2015/03/Basin-and-Range-cultural-resources-report1.pdf> (accessed May 12, 2017)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The National Conservation Lands include National Monuments and National Conservation Areas, Wilderness and Wilderness Study Areas, Wild and Scenic Rivers, National Scenic and Historic

Trails. These nationally significant lands embody freedom, discovery and unique outdoor experiences.

The National Conservation Lands ensure our clean air and water, while protecting critical habitat for our wildlife. Most National Conservation Lands areas are open to hunting and fishing, and offer some of America's best places for sportsmen to carry on outdoor traditions.

This collection of protected public lands also protects and preserves America's sacred sites and cultural history. From ancient Puebloan cultures of 1,000 years ago to Spanish, Mexican, Native American and American settler histories from recent centuries, the National Conservation Lands represent a complete tour of the history of the American West. Our American military history is also preserved in places like California's Fort Ord National Monument.

Source: Friends of Basin and Range National Monument

<http://www.protectbasinandrange.org/about-basin-and-range/the-national-conservation-lands/>  
(accessed may 12, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

By examining BRNM cultural resources in their larger regional context we can also better understand the interplay between prehistoric hunter-gatherers and farmers. Although the BRNM itself contains little water and supported only small bands of hunter-gatherers from Paleoindian to historic times, the area is surrounded by valleys that were inhabited by prehistoric farmers and traders. For example, the Pahrnagat Valley located about 30 miles to the south and the Moapa Valley located about 100 miles to the southeast contain significantly more water than the BRNM, allowing prehistoric Native Americans in these valleys to grow domesticated crops including corn, beans, and squash, although they continued to use wild plants and animals, as well. Some tribal people in those same valleys continued to grow domesticated crops, including wheat introduced by Euro-Americans, into the Protohistoric and Historic periods (Crabtree and Ferraro 1980). Relatively permanent settlement, food surpluses, and task specialization were related to the development of the economically and socially complex prehistoric society in southern Nevada and adjacent areas that archaeologists call the Virgin Anasazi, named for the Virgin River.

Source: Cultural Resources in the Proposed Basin and Range National Monument, Lincoln and Nye Counties, Nevada, Prepared by Rebecca H. Schwendler, Ph.D. Technical Report No. 15-22, PaleoWest Archaeology, 2460 West 26th Avenue, Denver, Colorado 80211.

<http://www.protectbasinandrange.org/wp-content/uploads/2015/03/Basin-and-Range-cultural-resources-report1.pdf> (accessed May 12, 2017)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

From hunting in our Basin and Range National Monument to whitewater rafting and catching trophy brown trout in Colorado's Browns Canyon National Monument to world-class rock climbing in Nevada's Red Rock Canyon National Conservation Area (NCA) to coastal camping and hiking on the black sand beaches of California's King Range NCA, the recreational opportunities afforded by the National Conservation Lands are unmatched—and they support the tourism and recreation economies of many rural Western communities.

Source: Friends of Basin and Range National Monument

<http://www.protectbasinandrange.org/about-basin-and-range/the-national-conservation-lands/>

(Accessed May 12, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No comment

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The lands, rivers and trails within the National Conservation Lands have been designated for protection, but they are also incredibly vulnerable. They face abuse from reckless oil and gas drilling and irresponsible off-road vehicle use. They are subject to looting, vandalism and neglect from underfunding. Working together we can reduce these threats with on-the-ground work, partnerships and advocacy.

Threats to these lands also come from Congressional (and Presidential) attacks on the Antiquities Act—a bedrock conservation law that has been used by 16 Presidents—8 from each party—to protect our nation's heritage. Many of our national monuments and national parks would not exist today if they had not been protected under the Antiquities Act.

Source: Friends of Basin and Range National Monument

<http://www.protectbasinandrange.org/about-basin-and-range/the-national-conservation-lands/>

(accessed May 12, 2017.)



## **Berryessa Snow Mountain National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for Berryessa Snow Mountain National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

"The designation of this unique area (Berryessa Snow Mountain) as a national monument will help preserve the region's natural splendor for future generations. The national monument will provide continued recreational opportunities and will bring enhanced visitation. This is a great example of how we can protect our environment and support our local economy." -- Bill Dodd, California State Assembly member

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

This Monument was created to encompass the region of religious, archeological, ecological and geographic importance.

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

The area features 5,000-year-old archaeological sites and is recognized as an Archeological District on the National Register of Historic Places; during the area's rich history four different Native American tribes called this special place home.

Source: The Berryessa Snow Mountain Region Explore the Undiscovered Landscape  
<http://www.berryessasnowmountain.org/wp-content/uploads/2017/02/General-Factsheet-2015.pdf>

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The Berryessa Snow Mountain region of northern California is one of the most biologically diverse, yet least known regions of the state. Located less than one hundred miles from the Sacramento and Bay Area metropolitan regions, the area is a dazzling outdoor wonderland rich in unique natural features and loaded with recreational opportunities. Visitors can find California's second-largest population of wintering bald eagles, float the thrilling rapids of wild and scenic Cache Creek, witness herds of wild Tule elk, and catch a glimpse of black bears. Opportunities for hiking, camping, botany, birding, hunting, and horseback riding abound. The area stretches over 100 miles from blue oak woodlands near Putah Creek in the south to the sub-alpine habitat of Snow Mountain Wilderness to the north.

The Berryessa Snow Mountain region is an intact ecological treasure that requires one management plan, rather than fragmented efforts from multiple agency jurisdictions.

Source: <http://www.berryessasnowmountain.org/>

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Protecting this area will:

- Protect the lands so the area's wildlife and rare plants can thrive
- Support local businesses by encouraging additional tourism
- Continue livestock grazing, commercial outfitter and guide services and mining on existing claims
- Allow future generations to continue enjoying these lands and the natural and recreational resources they provide forever.

Source: The Berryessa Snow Mountain Region Explore the Undiscovered Landscape  
<http://www.berryessasnowmountain.org/wp-content/uploads/2017/02/General-Factsheet-2015.pdf>

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

#### Local Involvement

As a protected area, these lands will be open to everyone, which means that everyone must take responsibility for protecting them.

There are many supporters of the BSM NM and many people will benefit from the designation. Supporters of the designation include over 80,000 individuals, 200+ local businesses, mountain bicycling groups, OHV groups, equestrians, sports-men groups, local elected officials and chambers of commerce, many more outdoor recreation and conservation groups, and the State of California.

Source: : The Berryessa Snow Mountain Region Explore the Undiscovered Landscape  
<http://www.berryessasnowmountain.org/wp-content/uploads/2017/02/General-Factsheet-2015.pdf>

#### Quotes from Community Leaders

Cecilia Aguiar-Currey, Winters Mayor  
(916) 837-0199 [cecilia@cityofwinters.org](mailto:cecilia@cityofwinters.org)

"The Berryessa Snow Mountain National Monument is an enormous victory for our region. This area is often referred to as our "wild backyard," and I am delighted that these lands are now protected permanently. Another benefit to protecting this amazing landscape is increased visibility, which will be advantageous to our local economies. This designation will encourage more visitation. Those passing through to these lands are likely to stop for a bite to eat, and some might want to stay an extra day to take in the scenery and enjoy the services and amenities offered by our local communities."

Bill Dodd, California State Assembly member  
707-287-7249, [bill@billdodd.com](mailto:bill@billdodd.com)

"The designation of this unique area as a national monument will help preserve the region's natural splendor for future generations. The national monument will provide continued recreational opportunities and will bring enhanced visitation. This is a great example of how we can protect our environment and support our local economy."



John Pickerel, Owner of Buckhorn Steakhouse  
(530) 795-4503 jrpickerel@buckhornsteakhouse.com

“As a local business owner, I am thrilled to see President Obama take action to protect the Berryessa Snow Mountain National Monument. It will help our local economy and give local businesses more opportunities to thrive. Protecting these lands safeguards the region’s natural resources and wildlife habitat and will enhance recreational opportunities for everyone. It will encourage tourism particularly along scenic Highway 128 from Winters to Napa and create a desirable place for people to live and work.”

Don Amador, Western Representative for the Blue Ribbon Coalition

“I am proud to support the Berryessa Snow Mountain National Monument because it will forever safeguard the trails and recreational opportunities that so many people, including myself, enjoy. Congressman Thompson worked hard to give all stakeholders a place at the table by forging partnerships, listening to community concerns, and making sure everyone’s input was included in the legislation leading up to this designation. I appreciate President Obama listening to our community and taking action to protect this spectacular place. ”

Anthony Farrington, Lake County Supervisor

“The Berryessa-Snow Mountain region provides easily-accessible opportunities for those living in Sacramento and the Bay Area to come up for a weekend and enjoy the recreation that this area has to offer. The benefits of such protection will extend far beyond the land itself to the surrounding areas, bringing new visitors to our communities as they take advantage of our recreational opportunities.”

Reno Franklin, Chairman, Kashia Pomo Tribe and former Chair of National Association of Tribal Historic Preservation Officers

"The Berryessa Snow Mountain National Monument brings with it the opportunity to forever protect thousands of the most beautiful lands that California has to offer. The rich history, rare natural resources and unique cultural landscape are a treasure that must be protected for future generations to enjoy. The administration needs to champion more collaborative preservation projects like this. Ones where there is a group effort of tribal communities, local communities, environmental groups, elected state and federal officials and local, state and federal agencies that all support the shared group vision of this National Monument."

Craig McNamara, Walnut Farmer & Land Owner

“As a farmer, my livelihood depends on land and water. Without either, I’m out of business, which is why it is especially important to me to do all I can to conserve. Healthy landscapes and clean water is part of what makes Northern California such a special place to live and work, which is why I support the new Berryessa Snow Mountain National Monument.”

Linda Reiff, President and Chief Executive Officer, Napa Valley Vintners

“Napa Valley Vintners understand that water is the lifeblood of any agricultural community. Without protected sources of clean water, particularly given the current scarcity in California, agriculture becomes untenable. This is why protecting the Berryessa-Snow Mountain National Monument is so important to those who depend on the waters this designation will protect.”

Chris Wood, CEO and president of Trout Unlimited

“TU members and California sportsmen are proud to have played a role in protecting this California crown jewel, and preserving fishing and hunting opportunity for future generations in the many streams and lakes that support outstanding fishing for trout and bass,” said Chris Wood, CEO and president of Trout Unlimited. “Thank you, President Obama for protecting this amazing landscape, and ensuring that future generations of sportsmen will have access to clean water and intact habitat that support excellent fishing and hunting opportunities.”

Sara Husby, Executive Director, Tuleyome

“We are ecstatic that President Obama has recognized the importance of protecting these special lands,” said Sara Husby, Executive Director for Tuleyome - the regional conservation organization that spearheaded the protection efforts. “Together with our congressional champions and the many, many supporters of the Berryessa Snow Mountain region we got this done. I am overjoyed.”

Source: Berryessa Snow Mountain Media Center <http://www.berryessasnowmountain.org/bsm-media-center/> and <https://docs.google.com/document/d/1GN3I7dE1zMPKxkrOFykHy2d-kiz35WIFjWEIEJi7N-l/edit?usp=sharing> (access May 12 2017)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No comment

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

#### Recreation Opportunities

Whether it's hunting turkeys along Cache Creek or photographing Tule Elk near Cowboy Camp, the Berryessa Snow Mountain region offers something for everyone. The whitewater rapids of Cache Creek draw people from across the state.

Along oak-dotted hillsides and rushing creeks lies a trail system which attracts residents and tourists who love driving ORVs, hiking, horseback riding or mountain biking.

#### Rare Plants and Animals

The region is also home to a wide variety of native and rare plants such as Sargent's cypress and serpentine willow. The Berryessa Snow Mountain region provides habitat for dozens of iconic California birds and animals. Bald and golden eagles, black bears, mountain lions and herds of wild tule elk call the region home.

As one of the largest regions of relatively undisturbed public lands in California, it provides space for these animals to live and the freedom to roam.

#### Scenic Wonders

The Berryessa Snow Mountain region is a dazzling wonderland rich in natural

Features including waterfalls and lakes, rocky outcrops with views of Sacramento far in the distance. Standing on the Fiske Peak, visitors have an awe inspiring view of the region. Local residents and tourists alike are wowed by the 80 foot high Zim Zim waterfall. In some areas steeply uplifted rocks testify to the violent past of tectonic head-butting that gave the area its shape.

No matter which way you turn, these lands are an amazing testament to the natural beauty of California and they deserve to be protected for future generations.

## **Canyons of the Ancients National Monument Colorado**

I am writing to **support the continuation of the National Monument** status as currently established for Canyons of the Ancients National Monument Colorado under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

The 176,056-acre (Canyons of the Ancients) national monument’s 6,000 Ancestral Puebloan cliff dwellings and rock paintings and 20,000 archaeological sites draw more than 30,000 visitors a year to rural Cortez.

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Canyons of the Ancients National Monument was designated in 2000, protecting at least 6,000 distinct structures, and more than 20,000 archaeological sites in a landscape that has the highest density of cultural sites in the nation. SJCA worked with partners and community

members to develop a robust management plan that preserved the integrity of the landscape and its unique cultural history.

Source: San Juan Citizens Alliance <http://www.sanjuancitizens.org/public-lands>

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

The Anasazi, or Ancestral Puebloan culture was centered on the Four Corners area, flourishing between AD 300 and 1300, and the most abundant relics are found in a broad band towards the north of the region, approximately between Durango in Colorado and the Colorado River in Utah...

Canyons of the Ancients National Monument...contains partly wooded mesas and relatively shallow, branched canyons, over an area of 20 by 25 miles, in far southwest Colorado adjoining Utah. Within are four detached units of Hovenweep National Monument, preserving partly restored dwellings, but apart from three other places (the pueblos of Lowry, Painted Hand and Sand Canyon), all ancient sites in Canyons of the Ancients are unrestored, and unmarked. Over 6,000 sites have been recorded, and a larger number are believed still to await discovery. The majority are not obviously recognizable as a relic - perhaps just a low depression or an overgrown pile of stones, yet there are still plenty of visible ruins, and many interesting places can be viewed by off-trail exploration.

Ancient Sites: The national monument is crossed by several paved roads and a greater number of unpaved routes (see map), though nearly all of the canyons and mesa edges are inaccessible by vehicle, reached only by cross-country hiking, and hence the vast majority of the preserve is rarely visited. Locations of the undeveloped sites are not publicized, in order to prevent possible damage were large numbers of people to visit, though staff at the visitor center (the Anasazi Heritage Center, 3 miles west of Dolores along Hwy 184) can advise about specific locations.

Source: Canyons of the Ancients National Monument  
<http://www.americansouthwest.net/colorado/canyons-of-the-ancients/national-monument.html> (Accessed May 12, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Public input is a big part of how the Canyons of the Ancients is managed today. Almost immediately after it became a national monument, key stakeholders went to work on an official Management Plan.

Elected local leaders, landowners, oil and gas representatives, conservationists, archaeologists, federal agencies and others spent a decade putting together the rules that would not only protect the thousands of relics and historical sites, but would also protect existing uses – even when it came to carbon dioxide drilling, livestock grazing and recreation.

Mark Pearson recently returned to take the helm as executive director of the San Juan Citizens Alliance. Pearson said the management plan is a testament to the fact that a monument designation can protect what it was meant to protect, while still allowing for modern uses.

Source: “Hickenlooper: Canyons of the Ancients likely not part of Trump’s national monument review” Denver Post <http://www.denverpost.com/2017/04/28/trump-national-monument-review-canyons-of-the-ancients/>

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The Monument proclamation was necessary to protect the area’s significant cultural and natural resources from vandalism and looting, rampant oil and gas development, and destructive grazing practices. Over the next few years and with significant public input the Bureau of Land Management (BLM) drafted the Monument’s management plan. San Juan Citizens Alliance and our members were heavily involved, ensuring that the voices and desires of the community were reflected in the final 2010 plan.

In the decade after designation, Montezuma County experienced strong economic growth. Between 2000-2008, population and jobs grew by 5% and 10%, respectively. Travel and tourism grew to represent about a quarter of the county’s economy (See Headwater Economic study). The proclamation has not impaired natural resource extraction outside the Monument’s boundaries.

Canyons of the Ancients National Monument belongs to all Americans, but locals have fought for its protection and management. It’s where we hike, bike, wonder and imagine an era before such protections were necessary. We are proud to share it with the peace of mind that these irreplaceable resources will be protected.

Source: San Juan Citizen Alliance <http://www.sanjuancitizens.org/canyons-ancients-canm>  
(Accessed May 12, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The 176,056-acre (Canyons of the Ancients) national monument’s 6,000 Ancestral Puebloan cliff dwellings and rock paintings draw more than 30,000 visitors a year to rural Cortez. (Colorado Governor John) Hickenlooper pointed to the 2015 Longwoods International tourism report



(<http://industry.colorado.com/research/longwoods-international>) that showed 23 percent of the state’s vacationers visited a national or state park.

“Public lands protection is a key driver to our outdoor recreation industry,” Hickenlooper wrote.

The governor’s Office of Economic Development and International Trade last year reported the state’s outdoor recreation economy stirred \$34 billion in economic activity and supported 313,000 jobs.

Recreation spending, according to the office’s 2016 annual report, generated \$994 million in state and local tax revenue.

“More than that, our public lands are a fundamental part of our identity as Coloradans and as Americans” Hickenlooper wrote.

Source: “Hickenlooper: Canyons of the Ancients likely not part of Trump’s national monument review” Denver Post <http://www.denverpost.com/2017/04/28/trump-national-monument-review-canyons-of-the-ancients/>

*(vi) The availability of Federal resources to properly manage designated areas; and*

No comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

From the beginning, the protection of Canyons of the Ancients National Monument has been a citizen-led effort. The San Juan Citizens Alliance participated extensively during creation of the Monument’s management plan, submitting a suggested Citizens Management Plan in 2002. We defended Canyons of the Ancients National Monument from expanded oil and gas drilling, and advocated for quiet, backcountry recreation until the final plan was issued in 2010.

Citizen involvement ensured the Canyons of the Ancients National Monument’s management plan adequately balanced resource protection, transportation, recreation, and existing land-use rights. As a direct result of citizen engagement in the management plan drafting process, CANM protects resources on a landscape scale. It looks at how cultural sites relate to one another and how natural resources are connected.

Consistent with the requests of citizens, Canyons of the Ancients National Monument kept open and manages many trails for hikers, backpackers, and mountain bikers. Sand Canyon is one of the most popular trails, luring locals and tourists alike with access to diverse cultural sites and scenic canyons.

When designated, the area was already home to three Wilderness Study Areas. Citizens nominated an additional 5,223 acres through the management planning process, for a total over 30,000 acres. These Wilderness Study Areas include Cross Canyon, Cahone Canyon, and

Squaw/Papoose Canyon. Another 7,826 acres were set aside as Research Natural Areas to be managed for their research values.

## **Carrizo Plain National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for Carrizo Plain National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

My sister visited the Carrizo Plain National Monument during the super-bloom in March 2017. Her fantastic photos were clear personal evidence of the irreplaceable value of this Monument. The super bloom was a vivid example of the amazing power of the natural world. The prehistoric Native archeological sites are of immense cultural value as well.



*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

This Monument was created to encompass the region of religious, archeological, ecological and geographic importance.

The Carrizo Plain National Monument is jointly managed by The Nature Conservancy, California Department of Fish and Wildlife, and The Bureau of Land Management. The size, object, resources, cultural values, isolation, and relatively undisturbed nature distinguish the Carrizo Plain National Monument as a critical location to implement long-term conservation, preservation and restoration of vanishing San Joaquin Valley flora and fauna. The CPNM is adjacent to and also includes important California Department of Fish and Wildlife ecological reserves that provide significant linkages of landscape, habitat and species to the Monument. The CPNM also includes the Caliente Mountain Wilderness Study Area that surrounds the highest peak in San Luis Obispo County.

Source: Friends of the Carrizo Plain <http://carrizo.org/> (Accessed May 12, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

The Carrizo Plain National Monument contains hundreds of significant cultural sites. These include everything from prehistoric Native American campsites that are as much as 10,000 years old to 19th century homesteads, some which were farmed and ranched into recent times. Many of the Carrizo sites have been listed on the National Register of Historic Places. The values of the spectacular Painted Rock site are obvious, but other important cultural sites also add to our understanding of life on the Carrizo, even if they may not immediately appear significant at first glance. Old farm buildings, machinery and implements, fence posts, water troughs and even historical period dump sites represent aspects of a way of life we are trying to preserve.

The Carrizo Plain National Monument lies primarily within the historical territory of the Chumash people. During prehistoric and contact times, the Chumash occupied the Channel Islands and coastal region of California from Malibu Canyon to San Luis Obispo and as well as the immediate inland areas. The Salinian, who lived north of the Chumash along the coast to the Salinas Valley, and inland within the Coast Range, also visited the Carrizo, as did the Yokuts who lived in the San Joaquin Valley to the east. The presence of pictograph sites like Painted Rock and other Native American spiritual sites on the Carrizo Plain indicate that this region has long held special values to these people. Their descendants continue to revere these places and visit them to conduct ceremonies and rituals.

The sandstone formation at Painted Rock has long drawn the attention of Carrizo Plain visitors. About 3,000 – 4,000 years ago, Native Americans began to paint their sacred images within the alcove of the rock. Not surprisingly, the power of this place continues to enthrall, and it still receives many visitors today.

Unfortunately, the attraction and accessibility of the site have also drawn the attention of peoples who didn't appreciate the significance of the pictographs, or rock paintings, created by earlier Native Americans. The site sustained significant damage due to vandalism over the last century as a result. Measures have been taken to repair some of the damage but what has been lost can never be reclaimed. Management of the site is focused upon protection, preservation, public education and research, while respecting the Native American values of this sacred site.

Source: BLM Charrizo Plain National Monument

[https://www.blm.gov/nlcs\\_web/sites/ca/st/en/prog/nlcs/Carrizo\\_Plain\\_NM/heritage.html](https://www.blm.gov/nlcs_web/sites/ca/st/en/prog/nlcs/Carrizo_Plain_NM/heritage.html)

(Accessed May 12, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The largest single native grassland remaining in California.

Spectacular panoramic landscapes, a diversity of wildlife comparable to Africa's Serengeti, the highest concentration of threatened and endangered wildlife in California—these are the irreplaceable assets of the Carrizo Plain National Monument.

The Carrizo Plain stretches for 250,000 acres along the base of the Temblor Mountains, 60 miles east of San Luis Obispo. Its vast grasslands, as well as woodland habitats and vernal pools, sustain 15 of California's threatened and endangered plants and animals.

Here may rest the future of such species as the California jewel flower, San Joaquin kit fox, mountain plover, blunt-nosed leopard lizard, pronghorn antelope and giant kangaroo rat.

The Carrizo Plain is also the largest protected habitat along the Pacific Flyway, making it a birder's paradise in winter. In spring, Carrizo's rolling grasslands thrill wildflower enthusiasts with a breathtaking assortment of blooms.

#### THINKING BIG

In 1988, The Nature Conservancy partnered with the U.S. Bureau of Land Management and the California Department of Fish and Game to undertake an ambitious project of acquiring and managing this great expanse of land.

Through cooperative effort, the initial 82,000-acre parcel not only grew to its current quarter-million acreage, it garnered federal support, becoming a national monument in 2001.

#### LANDMARK RESOURCE MANAGEMENT PLAN AND CONSERVATION STRATEGIES

The partners worked tirelessly to develop a stewardship plan for this vast area. The resulting resource management strategy uses an innovative set of protocols to maintain and increase the populations of threatened and endangered species.

The Carrizo Plain project also represents a prime platform for scientific research. Together with our partners we have implemented cutting-edge conservation approaches, such as the use of satellite technology to track the vitally important giant kangaroo rat, a keystone species without which the ecosystem would collapse.

Source: The Nature Conservancy “Carrizo Plain National Monument”

<https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/california/placesweprotect/carrizo-plain.xml> (Accessed May 12, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Orange, yellow and purple wildflowers painted the hills of the Tremblor Range, April 6, 2017 at Carrizo Plain National Monument near Taft, California. After years of drought an explosion of wildflowers in southern and central California is drawing record crowds to see the rare abundance of color called a super bloom.

Carrizo Plain National Monument, a five-hour drive from San Francisco, has possibly this season's best floral display and over the weekend, Facebook and Instagram were filled with images from the park, a vast stretch of grassland.

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

No comment.

*(vi) The availability of Federal resources to properly manage designated areas; and*

No comment.

(vii) *Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*



(Photo by U.S. Bureau of Land Management)

Carrizo Plain National Monument, an out-of-the-way grassland and dry lake bed in a remote area east of San Luis Obispo, has erupted with wildflowers. Nature lovers and birders know this beauty spot, and now, thanks to this year's "super bloom," a record number of visitors are discovering it too.

"The Valley floor has endless expanses of yellows and purples from coreopsis, tidy tips and phacelia, with smaller patches of dozens of other species," Bureau of Land Management wilderness specialist and photographer Bob Wick wrote on the agency's Flickr page. "Not to be outdone, the Temblor Range is painted with swaths of orange, yellow and purple like something out of a storybook. I have never seen such a spectacular array of blooms. Ever."

Source: "What you need to know about the 'super bloom' at Carrizo Plain National Monument" LA Times April 7, 2017 <http://www.latimes.com/travel/deals/la-tr-california-wildflowers-carrizo-plain-national-monument-20170406-story.html> (Accessed May 12, 2017.)



## **Cascade Siskiyou National Monument Oregon**

I am writing to **support the continuation of the National Monument** status as currently established for Cascade Siskiyou National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

My sister lives in Ashland Oregon and hikes and camps in Cascade Siskiyou National Monument regularly. She frequently tells me how much this area means to her personally. In addition to the cultural and historical value of the area, it is a rich and beautiful wilderness area. Continued protection of this Monument is a great treasure for the American people.

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

On January 12, 2017, President Barack Obama expanded the Cascade Siskiyou National Monument by 48,000 acres. This expansion was necessary because the original boundaries of the Monument were insufficient to protect the "Objects of Interest" that the Monument was established to protect.

As summarized in a 2011 scientific report on this topic, there are several important reasons why existing boundaries are unlikely to sustain the ecological integrity of this area: (Frost, E., D. Odion, P. Trail, J. Williams, J. Alexander, B. Barr, R. Brock, D. DellaSala, P. Hosten, S. Jessup, F. Lang, M. Parker, J. Rossa, D. Sarr and D. Southworth. 2011. Cascade-Siskiyou National Monument Boundary Study: Identification of Priority Areas for Monument Expansion. 14 pp.)

- Many special-status plant and animal populations referenced in the Monument's proclamation, as well as high quality examples of the area's unique plant communities, remain outside existing boundaries, where they are vulnerable to incompatible management;
- Some existing boundaries have no ecological basis (e.g., the Oregon-California state line, incomplete watersheds), which over time, may compromise the integrity of the Monument;
- Climate change in the region is altering the ranges of plants and animals that are the focal points for conservation, in some cases pushing them outside of currently protected areas;
- The human population of southwest Oregon is growing rapidly. As a result, more areas immediately adjacent to the Monument are facing increased development or intensive land use pressures (e.g., logging, residential expansion, water diversions) that are likely to undermine long-term persistence of the Monument's biological resources.

Without additional conservation investment, available scientific evidence suggests that some of the most valuable biological resources both within and immediately adjacent to the Monument are at high risk of irreversible degradation and loss.

Given these significant and overarching concerns, it is our professional opinion that expansion of the Monument is necessary for the area's extraordinary values to be sustained over the long term. Specifically, we endorse including five carefully selected areas of adjoining BLM and other public lands within the Monument, as recommended by the scientists' 2011 boundary report and detailed in an updated summary of these areas. Proposed additions described in this report:

- were identified using an interdisciplinary, science-based process;
- contain many biological "Objects of Interest" that were highlighted in the Monument proclamation;
- play a vital role in maintaining ecological integrity of the landscape the Monument was established to protect, and;
- improve habitat connectivity with nearby federal lands, a factor that is critical for sustaining populations of wide-ranging species.

Perhaps most importantly, expansion of the Monument to include these proposed additions will significantly increase the ability of native plants and animals to adapt to a changing climate, an issue that was not considered when initial Monument boundaries were created, but that will become critical to biodiversity conservation in the coming decades.

**Scientists that Contributed to the 2011 Cascade-Siskiyou Monument Boundary Study**

(Affiliations for identification purposes only)

Pepper Trail, Ph.D., Ornithologist, Ashland, OR

Dennis Odion, Ph.D., Vegetation Ecologist, Southern Oregon University, Ashland, OR

Jack Williams, Ph.D., Chief Scientist, Trout Unlimited, Medford, OR

Evan Frost, M.Sc., Conservation Biologist, Wildwood Consulting, Ashland, OR

Steve Jessup, Ph.D., Botanist, Southern Oregon University, Ashland, OR

Darlene Southworth, Ph.D., Professor (Emeritus), Department of Biology, Southern Oregon University, Ashland, OR  
Frank Lang, Ph.D., Professor (Emeritus), Department of Biology, Southern Oregon University, Ashland, OR  
Richard Brock, M.Sc., Senior Botanist, Siskiyou BioSurvey LLC, Ashland, OR  
Paul Hosten, Ph.D., Terrestrial Ecologist, Kualapu'u, HI  
Dominick DellaSala, Ph.D., Chief Scientist, Geos Institute, Ashland, OR  
Michael Parker, Ph.D., Aquatic Ecologist, Department of Biology, Southern Oregon University, Ashland, OR  
Daniel Sarr, Ph.D., Ecologist, Flagstaff, AZ  
Scott Hoffman Black, M.Sc., Ecologist and Executive Director, Xerces Society, Portland, OR  
Jeannine Rossa, M.Sc., Aquatic Ecologist, Ecolink Consulting, Kualapu'u, HI  
Brian Barr, M.Sc., Fisheries Biologist, Gold Hill, OR

**Additional Scientists in Support of Cascade-Siskiyou Monument Expansion**

David A. Perry, Ph.D., Professor (Emeritus), Department of Forest Science, Oregon State University, Corvallis, OR  
Gary Tabor, Ph.D., Conservation Scientist, Center for Large Landscape Conservation, Bozeman, MT  
Arthur J. Boucot, Ph.D., Distinguished Professor of Geology, Oregon State University, Corvallis, OR  
Jack W. Sites, Jr., Ph.D., Professor of Biology/Curator of Herpetology, Brigham Young University, Provo, Utah  
Calvin Maginel, M.Sc. (candidate), Department of Natural Resources, University of Missouri, Columbia, MO  
Thomas Rooney, Ph.D., Professor, Department of Biological Sciences, Wright State University, Dayton, OH  
Gary Roemer, Ph.D., Professor, Dept. of Fish, Wildlife & Conservation Ecology, NM State University, Las Cruces, NM  
William D. Anderson, Jr., Ph.D., Professor (Emeritus), Marine Biology, College of Charleston, Charleston, SC  
Ke Chung Kim, Ph. D., Professor (Emeritus), and Former Director, Center for Biodiversity Research, Pennsylvania State University, University Park, PA  
Jay Lininger, M.Sc., Senior Scientist, Center for Biological Diversity, Ashland, OR  
Vicky Meretsky, Ph.D., Professor of Conservation Biology, Indiana University, Bloomington, IN  
Michael J. Vandeman, Ph.D., Conservation Biologist, San Francisco Bay Area, CA  
George Wuerthner, M.Sc., Senior Scientist, Foundation for Deep Ecology, San Francisco, CA  
Mitchell M. Johns, Ph.D., Professor of Soil Science, California State University-Chico, Chico, CA  
Melissa Savage, Ph.D., Associate Professor, (Emeritus), Department of Geography, University of California, Los Angeles, CA  
James H. Marden, Ph.D., Professor, Department of Biology, Penn State University, University Park, PA  
Sandra Mardonovich, M.Sc.(candidate), Department of Botany, Miami University, Oxford, OH  
D. Scott Samuels Ph.D., Professor of Biological Sciences, University of Montana, Missoula, MT  
Peter Bahls M.Sc., Fisheries Biologist, Northwest Watershed Institute, Port Townsend, WA  
Peter B. Moyle, Ph.D., Distinguished Professor, Dept. of Wildlife, Fish, & Conservation Biology, University of California, Davis, CA

Wayne D. Spencer, Ph.D., Director of Conservation Assessment, Conservation Biology Institute, San Diego, CA  
Paul Schaeffer, Ph.D., Associate Professor, Department of Biology, Miami University, Oxford, OH  
F. Stuart Chapin III, Ph.D., Professor (Emeritus), Department of Biology, University of Alaska, Fairbanks, AK  
Stephen G. Weller, Ph.D., Professor, Dept. of Ecology and Evolutionary Biology, University of California-Irvine, Irvine, CA  
Vicki Tripoli, Ph.D., Biologist, Moorpark, CA  
Douglas J. Frederick, Ph.D., Professor, Dept. of Forestry & Environment Sciences, North Carolina State Univ., Raleigh, NC  
Gary K. Meffe, Ph.D., Adjunct Professor, Dept. of Wildlife Ecology & Conservation, University of Florida, Gainesville, FL  
Bitty Roy, Ph.D., Professor, Department of Biology / Smithsonian Research Associate, University of Oregon, Eugene, OR  
Don Waller, Ph.D., John T. Curtis Professor, of Botany and Environmental Studies, University of Wisconsin, Madison, WI  
Gustav Paulay, Ph.D., Professor, Department of Zoology, University of Florida, Gainesville, FL  
Richard O. Bierregaard, Ph.D., Research Associate, Academy of Natural Sciences, Drexel University, Philadelphia, PA  
Matthew Rubino, M.Sc., Conservation Biologist, Dept. of Applied Ecology North Carolina State University Raleigh, NC  
Robin Salter, Ph.D., Associate Professor of Biology, Oberlin College, Oberlin, OH  
Dina Roberts, Ph.D., Professor Department of Biology, The Evergreen State College, Olympia, WA  
Rachel E. Golden, M.Sc., Department of Environmental Science and Public Policy, George Mason University, Arlington, VA  
Phil Myers, Ph.D., Professor (Emeritus), Dept. of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI  
Peter F. Brussard, Ph.D., Professor (Emeritus), Department of Biology, University of Nevada, Reno, NV  
Jesse Ford, Ph.D., Professor, Department of Fisheries and Wildlife, Oregon State University, Corvallis, OR  
Craig W. Benkman, Ph.D., Professor, Department of Zoology and Physiology, University of Wyoming, Laramie, WY  
Malcolm K. Cleaveland, Ph.D., Professor (Emeritus), Department of Geosciences, University of Arkansas, Fayetteville, AR  
Rick Van de Poll, Ph.D., Principal Ecosystem Management Consultants, Center Sandwich, NH  
Glenn R. Stewart, Ph.D., Professor (Emeritus), Biological Sciences Department, California State Polytechnic University, Pomona, CA  
Bruce G. Baldwin, Ph.D., Professor, Department of Integrative Biology, University of California, Berkeley, CA  
David Janos, Ph.D., Professor, Department of Biology and Cooper Fellow, University of Miami, Coral Gables, FL  
Robert Michael Pyle, Ph.D., Lepidopterist and Founder, The Xerces Society, Portland, OR  
Jon Rhodes, Ph.D., Hydrologist, Planeto Azul Hydrology, Portland, OR  
Jon Evans, Ph.D., Professor of Biology, The University of the South, Sewanee, TN



Erik Jules, Ph.D., Professor, Department of Biological Sciences, Humboldt State University, Arcata, CA  
Daphne Stone, Ph.D., Botanist, Biodiversity Research Collective, Eugene, OR  
Trygve Steen, Ph.D., Professor, Department of Environmental Studies, Portland State University, Portland, OR  
Jason Clark, M.S., Senior Botanist, Siskiyou BioSurvey LLC, Ashland, OR  
David Olson, Ph.D., Conservation Earth Consulting and Biodiversity & Wildlife Solutions, Washington, DC  
Craig C. Downer, Ph.D., Wildlife Ecologist, Andean Tapir Fund, Minden, NV  
Robert L. Beschta, Ph.D., Professor, (Emeritus), Forest Ecosystems and Society, Oregon State University, Corvallis, OR  
Dennis Murphy, Ph.D., Adjunct Research Professor, University of Nevada, Reno  
Thomas Michael Power, Ph.D., Professor (Emeritus), Dept. of Economics, The University of Montana, Missoula, MT  
Reed F. Noss, Ph.D., Provost's Distinguished Research Professor, Department of Biology, University of Central Florida, Orlando, FL  
Rowan J. Baker, MS, Independent Environmental Consultant, Portland, OR  
David J. Berg, Ph.D., Professor, Department of Biology, Miami University, Oxford OH  
Raymond A. Saumure, Ph.D., Herpetologist and Director, WildFauna, Las Vegas, NV  
Karen Stone, Ph.D., Professor, Department of Biology, Southern Oregon University, Ashland, OR  
Douglas A. Miller, Ph.D., Professor, Department of Geography, Penn State University, University Park, PA  
William Bridgeland, Ph.D., Wildlife Biologist, Bandon, OR  
Susan Harrison, Ph.D., Professor, Dept. of Environmental Science & Policy, University of California, Davis, CA  
Gordon H. Orians, Ph.D., Professor (Emeritus), Department of Biology, University of Washington, Seattle, WA  
Frito Dolisca, Ph.D., Forest Resource Policy and Conservation, Orange, NJ  
Stephen C. Trombulak, Ph.D., Professor, Department of Biology, Middlebury College, Middlebury, VT  
Sam Rich, M.Sc., Conservation Land Manager, Wild Restoration LLC, Seattle, WA  
Barry R. Noon, Ph.D., Professor, Dept. of Wildlife & Conservation Biology, Colorado State University, Fort Collins, CO  
Jeff Wells, Ph.D., Senior Scientist, Boreal Songbird Initiative, Seattle, WA

Source: RE: Recommended Expansion of the Cascade-Siskiyou National Monument May 28, 2015 [http://media.wix.com/ugd/93b739\\_8b109b376d0748fe96fbc8faa2e7aa9a.pdf](http://media.wix.com/ugd/93b739_8b109b376d0748fe96fbc8faa2e7aa9a.pdf) (Accessed May 15, 2017.)

In addition, science-based expansion of the Cascade-Siskiyou National Monument is formally endorsed in writing by:

- The Ashland Chamber of Commerce board (June 2015)
- The Talent Chamber of Commerce board (July/August 2016)
- The Ashland City Council (June 2015)
- The Talent City Council (August 2016)
- The Mayor of Ashland (March /July 2016)
- The Mayor of Talent (August 2016)

- Local Oregon state Representative Peter Buckley (July 2015)
- Local Oregon state Senator Alan Bates (August 2015; deceased August 2016)
- Private landowners accounting for over 14,000 acres within the general scientists' recommended monument expansion area (2015 and 2016)

Source: CASCADE SISKIYOU EXPANSION PROJECT <http://www.expandcascadesiskiyou.org/>  
(Accessed May 15, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

#### Land of Unique Biodiversity

At the spectacular collision of the Cascade and Siskiyou Mountains lies a region of transition, contrast and renowned biodiversity. The region provides vital connectivity between the Cascade Mountains, the Siskiyou Mountains, the Coast Ranges of Oregon and California, the high deserts of eastern Oregon, and the interior valleys of southern Oregon and northern California. In essence, the Cascade-Siskiyou region ties together the major plant communities and ecoregions of the west. The mountains are an intriguing mosaic of grasslands, oak woodlands, juniper scrub, chaparral, dry pine forests, moist fir forests, meadows, glades, wetlands, springs and volcanic rock outcrops.

#### ONE-OF-A-KIND VALUES

- Over 130 species of butterfly, rivaling almost any other location in the United States
- Many archaeological and historical sites are also found throughout the CSNM, providing clues to Native American use of the area.
- Portions of the historic Applegate Trail, the more southern California branch of the Oregon trail.
- Elk, possibly Pika (unique!)

#### RARE AND ENDEMIC SPECIES

- *Calochortus greenei*, Green's Mariposa Lily
- *Limnanthes floccosa* ssp. *Bellingeriana*, Bellinger's meadowfoam
- *Oncorhynchus mykiss gairdnerii*, redband trout
- *Polites mardon*, Mardon Skipper
- *Rana muscosa*, Yellow legged frog
- *Rana pretiosa*, Oregon Spotted Frog
- *Fritillaria gentneri*, Gentner's fritillary

Source: CASCADE SISKIYOU EXPANSION PROJECT <http://www.expandcascadesiskiyou.org/>  
(Accessed May 15, 2017.)

Cascade-Siskiyou is "an ecological wonder."

At the nexus of the Cascade, Siskiyou and Klamath mountain ranges in southern Oregon lies a stretch of wildlands that President Bill Clinton once called "an ecological wonder." Indeed, the existing Cascade-Siskiyou National Monument, designated by the latter using the Antiquities Act, was the first monument whose protection was motivated specifically by the need to preserve biodiversity. Within its boundaries lie several distinct types of terrain, ranging from grassland to mixed conifer and white fir forests, harboring elk, black bears and a dizzying array of birds.

But thanks to the effects of climate change, plants and animals that call these ranges home will have a harder time finding the resources they need to survive. Connecting and expanding protection for this area should help alleviate this. Sens. Jeff Merkley and Ron Wyden previously proposed that the monument be expanded with tracts to the northeast, northwest and immediately south of the monument, dipping slightly below the state line into California. President Obama's proclamation makes good on that goal.

The expansion will encompass the entire Cascade-Siskiyou region, help fill in a patchwork of various federal jurisdictions and bridge the gap between Bureau of Land Management (BLM) and U.S. Forest Service land, preserving connected natural corridors so that wildlife can migrate to find the right food and other resources to survive in an era of climate change.

In October 2016, Sen. Merkley held a public meeting with Deputy Secretary of the Interior Mike Connor to hear from community members about the proposed national monument expansion. Afterward Sen. Merkley called on Oregonians to submit comments about how they wanted the Cascade-Siskiyou National Monument area protected. Wilderness Society supporters' input helped to broaden conservation measures for one of the most remarkable places in the U.S.

Cascade-Siskiyou preserves a small but complex landscape

More than one-third of the existing Cascade-Siskiyou National Monument is protected as federal wilderness, a stretch where Oregon's eastern desert joins with fir woodland, wildflower-sprayed meadows and rocky canyons. Wildlife in the area includes elk, bobcats, river otters and about 200 different bird species. It's no wonder this was seen as an ideal place to designate a national monument in the year 2000.

Expanding the monument to protect the Cascade-Siskiyou region more completely will help wildlife thrive and preserve outstanding outdoor recreation opportunities for all Americans.

Source: The Wilderness Society <http://wilderness.org/blog/obamas-expansion-cascade-siskiyou-national-monument-protects-biodiversity> (Accessed May 15, 2017.)

Two hundred and two bird species have been reported from the Monument. In addition to its importance to particular species of concern, including Northern Spotted Owl, Great Gray Owl,

Peregrine Falcon, and Willow Flycatcher, the Monument is remarkable for the array of birds that are near their range limit in the area. This list includes northern limits of Blue-gray Gnatcatcher and California Towhee, western limits of Canyon Wren and Black-billed Magpie, eastern limits of Hermit Warbler and Band-tailed Pigeon, and southern limits of Ruffed Grouse and Rufous Hummingbird. The tremendous array of habitats in the Monument provide for great diversity in vertebrate fauna (Pepper Trail, Birds of the Cascade-Siskiyou National Monument).

Source: National Audubon Society of Portland <http://audubonportland.org/local-birding/iba/iba-map/cascade> (Accessed May 15, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Of course, there are plenty of fantastic outdoor experiences, too. Highlights include Pilot Rock, the basalt stub of an ancient volcano that is popular among technical rock-climbers; 19 miles of the hallowed Pacific Crest Trail ready for hikers of all experience levels; hunting and angling; and, in the winter, cross-country skiing and other seasonal sports.

Expanding the monument to protect the Cascade-Siskiyou region more completely will help wildlife thrive and preserve outstanding outdoor recreation opportunities for all Americans. We salute President Obama for using the Antiquities Act to protect this national treasure for future generations, and ask that you help us protect the law so it can save the next wild wonder too.

Source: The Wilderness Society <http://wilderness.org/blog/obamas-expansion-cascade-siskiyou-national-monument-protects-biodiversity> (Accessed May 15, 2017.)

“The Cascade-Siskiyou National Monument represents some of the most iconic public lands in Oregon,” said (Oregon) Governor (Kate) Brown. “We’ve worked hard for decades in Oregon to preserve the natural wonders and diverse habitats of our public lands, and ensure they remain in public hands. These lands support countless businesses and communities across the state, as well as a thriving outdoor industry that contributes to the Oregon economy. As Oregonians, we will continue fighting to protect our public lands for the benefit of future generations.”

Extensive public input was considered in the 2017 expansion of the Cascade-Siskiyou National Monument. In October, Oregon’s US Senator Jeff Merkley hosted a public meeting in Southern Oregon with the Deputy Secretary of the Interior for the Obama Administration to gather local input. Hundreds of Oregonians, including local elected leaders and representatives of local tribes, attended the meeting, and more than 100 individuals testified. Jackson and Klamath counties held additional meetings to gather public input, and provided that input to President Obama. Senator Merkley’s office also collected written input from thousands of Oregonians for

more than a month following the public meeting, and submitted those written comments to the president. During the written comment process, Senator Merkley's office received 4,313 comments supporting the expanded monument and 1,175 comments in opposition. This extensive local input helped inform President Obama's decision, and the boundaries of the monument expansion were tailored to address specific local concerns.

"By expanding the Cascade Siskiyou National Monument, we not only help to mitigate the effects of climate change, but also benefit our recreation and tourism industry which serves as a substantial part of our economy," said Talent (Oregon) Mayor Darby Stricker.

"The Ashland City Council passed a resolution in support of expanding the Cascade Siskiyou National Monument to underscore the broad local support for our local public lands and to enhance the Monument's economic contribution to our community," said Ashland Mayor John Stromberg. "Preserving Southern Oregon's biodiverse natural beauty for future generations is a critical contribution of the Monument expansion. Ashland's local business leaders, elected officials and the majority of our local citizens value and treasure our expanded National Monument."

"The Klamath Tribes continue to support the original designation of the Cascade-Siskiyou National Monument and the recent expansion," said Don Gentry, Chairman of the Klamath Tribal Council. "Our people have significant historic and current ties to this area. The Monument provides vital protections for diverse ecological values of this unique and important area as well protections for our traditional, religious, and cultural uses."

"The Cascade-Siskiyou National Monument is a biological treasure, including a unique form of redband trout found only in Jenny Creek. Recent expansion of the Monument was critical to protect Jenny Creek and its watershed. This expansion will pay dividends for Oregon and American sport fishermen for countless years to come," said Dr. Jack Williams, Senior Scientist for Trout Unlimited.

"Without the Antiquities Act and the Cascade-Siskiyou National Monument that was created seventeen years ago under the authority of this act, I would not have a thriving business. My kids would have less bright futures. My community would be less vibrant," said Diarmuid MaGuire, owner of the Green Springs Inn. "I own a destination establishment, including a restaurant and lodging, on the Green Springs in the Southern Cascades not far from Ashland, Oregon. Since the establishment of the Monument, I have built nine vacation rental cabins on 150 acres of former Boise timberland. Together with the unique, protected ecosystems that surround us, the cabins attract visitors from the I-5 corridor, from San Diego through Victoria, BC, as well as Europe and Asia. My business grows every year. The expanded Monument is a resource of immeasurable value to me, my rural neighbors and the many guests whom we welcome each year."

Many of America's most beloved national parks, including Grand Canyon, Yosemite, and Olympic National Parks, began as national monuments established under the Antiquities Act. In the bipartisan, 111-year history of the Antiquities Act, the creation or expansion of a national monument has never been undone through executive action.

Source: OREGON LEADERS, JOINED BY DIVERSE GROUP OF LOCAL STAKEHOLDERS, URGE PROTECTION OF CASCADE-SISKIYOU NATIONAL MONUMENT, by US Senator for Oregon Jeff Merkley <https://www.merkley.senate.gov/news/press-releases/oregon-leaders-joined-by-diverse-group-of-local-stakeholders-urge-protection-of-cascade-siskiyou-national-monument> (Accessed May 15, 2015.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The expansion will encompass the entire Cascade-Siskiyou region, help fill in a patchwork of various federal jurisdictions and bridge the gap between Bureau of Land Management (BLM) and U.S. Forest Service land, preserving connected natural corridors so that wildlife can migrate to find the right food and other resources to survive in an era of climate change.

The Cascade-Siskiyou National Monument sits at the intersection of the Cascade, Klamath and Siskiyou mountain ranges, home to a huge diversity of plant, animal and butterfly species. It was originally established by President Bill Clinton in June, 2000.

The additional 65,000 acres would be within an area of more than 100,000 acres of private and public land, similar to the patchwork makeup of the existing monument. Like the roughly 19,000 acres of private land already inside Cascade-Siskiyou, the 34,000 acres of private land inside the boundaries of the proposed expansion would remain private.

Most of the land included in the Cascade-Siskiyou expansion is already federally managed by the Bureau of Land Management ...

Merkley told Bradshaw that handling of grazing allotments will get a lot of attention if the expansion goes through, and assured him that the monument status is flexible in such cases.

His arguments came in front of a mostly friendly audience in Ashland, where the majority of a crowd of roughly 400 – many clad in blue "Oregon is Monumental" T-shirts – supported the proposal.

"The Cascade-Siskiyou area, where three mountain ranges converge creating a unique and spectacular landscape seen nowhere else in the world, merits the attention that the community gave it today," Merkley told the crowd. "I hope the Administration uses this input to develop a plan worthy of this special place."

Source: CASCADE-SISKIYOU NATIONAL MONUMENT MIGHT DOUBLE IN SIZE

<https://www.merkley.senate.gov/news/in-the-news/cascade-siskiyou-national-monument-might-double-in-size>

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

No comment

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

With towering fir forests, sunlit oak groves, wildflower-strewn meadows, and steep canyons, the Cascade-Siskiyou National Monument is an ecological wonder, with biological diversity unmatched in the Cascade Range. This rich enclave of natural resources is a biological crossroads--the interface of the Cascade, Klamath, and Siskiyou ecoregions, in an area of unique geology, biology, climate, and topography.

The monument is home to a spectacular variety of rare and beautiful species of plants and animals, whose survival in this region depends upon its continued ecological integrity. Plant communities present a rich mosaic of grass and shrublands, Garry and California black oak woodlands, juniper scablands, mixed conifer and white fir forests, and wet meadows. Stream bottoms support broad-leaf deciduous riparian trees and shrubs. Special plant communities include rosaceous chaparral and oak-juniper woodlands. The monument also contains many rare and endemic plants, such as Greene's Mariposa lily, Gentner's fritillary, and Bellinger's meadowfoam.

The monument supports an exceptional range of fauna, including one of the highest diversities of butterfly species in the United States. The Jenny Creek portion of the monument is a significant center of fresh water snail diversity, and is home to three endemic fish species, including a long-isolated stock of redband trout. The monument contains important populations of small mammals, reptile and amphibian species, and ungulates, including important winter habitat for deer. It also contains old growth habitat crucial to the threatened Northern spotted owl and numerous other bird species such as the western bluebird, the western meadowlark, the pileated woodpecker, the flammulated owl, and the pygmy nuthatch.

The monument's geology contributes substantially to its spectacular biological diversity. The majority of the monument is within the Cascade Mountain Range. The western edge of the monument lies within the older Klamath Mountain geologic province. The dynamic plate tectonics of the area, and the mixing of igneous, metamorphic, and sedimentary geological formations, have resulted in diverse lithologies and soils. Along with periods of geological



isolation and a range of environmental conditions, the complex geologic history of the area has been instrumental in producing the diverse vegetative and biological richness seen today.

One of the most striking features of the Western Cascades in this area is Pilot Rock, located near the southern boundary of the monument. The rock is a volcanic plug, a remnant of a feeder vent left after a volcano eroded away, leaving an outstanding example of the inside of a volcano. Pilot Rock has sheer, vertical basalt faces up to 400 feet above the talus slope at its base, with classic columnar jointing created by the cooling of its andesite composition.

The Siskiyou Pass in the southwest corner of the monument contains portions of the Oregon/California Trail, the region's main north/south travel route first established by Native Americans in prehistoric times, and used by Peter Skene Ogden in his 1827 exploration for the Hudson's Bay Company.

Source: Proclamation 7318—Establishment of the Cascade-Siskiyou National Monument, June 9, 2000 by William J. Clinton, President of the United States

<http://www.presidency.ucsb.edu/ws/?pid=62322> (Accessed May 15, 2017.)

## **Craters of the Moon National Monument Idaho**

I am writing to **support the continuation of the National Monument** status as currently established for Craters of the Moon National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM



*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

Attempts to protect the monument's watershed from livestock trespass and contamination, and its mule deer from hunters and poachers have frustrated managers from the time of establishment. The main point of contention is that the northern boundary does not run along the entire ridgeline of the Little Cottonwood drainage. Except for a small portion, the hydrographic divide does lie within the boundary. But the boundary line follows section lines rather than topographical lines, and posted or not, it has not been readily identifiable on hillsides. And for this reason, the boundary has been a source of confusion for sheepherders and hunters. Over the years, monument officials have proposed a number of solutions: enclose the entire divide within the monument, fence either the divide or the boundary, or realign the boundary along the ridge crest itself....

In 1986 Superintendent Robert E. Scott, deeming that the monument had exhausted its options, submitted a proposal to amend the northern boundary, placing it along the hydrographic divide and fencing it. Similar to Contor's 1965 proposal, Scott's would accomplish the same goals; it called for a land exchange with the Bureau of Land Management, adding 210 acres and deleting 315 around the northern sections. Motivated by livestock trespass, the proposal was presented as the best solution after decades of conflict. Although illegal hunting might increase it was manageable by comparison. For this proposal "will protect the quality of the Monument's water supply and create a more manageable boundary for both the National Park Service and the Bureau of Land Management."

Approved by Pacific Northwest Regional Director Charles Odegaard and the Washington office, the proposal was sent to the Department of the Interior on January 20, 1988. While the document received the approval of the agencies, private land owners, and politicians involved, it joined the larger issues of water rights adjudication and park designation. Until these issues are solved, the proposal remains on hold (as of 1992)...

The limited historical documentation surrounding its designation suggests that Craters of the Moon did not experience the monument-park type of tactical maneuvering. There is no evidence that the monument's establishment was embroiled in controversy. The government carved the area's boundaries out of a remote, uncharted section of the public domain deemed economically worthless. Moreover, the area's characteristics fell within the guidelines of the Antiquities Act. The volcanic phenomena were compressed within a small geographic range. Simply put, Craters of the Moon was a monument to geology.

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, WA [https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

Opposition by cattle interests and hunters to a simple expansion plan led to a compromise of having the addition become a national preserve in 2002 (which allows hunting, not ordinarily permitted in national parks and monuments in the U.S.).

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

The monument preserves around 53,500 acres of volcanic formations and lava flows on the northern rim of the Snake River Plain in southcentral Idaho. A desolate yet sublime landscape that could only be described as "weird," the monument has never failed to inspire, if not evoke ambivalent responses from even its most ardent supporters left speechless by the unusual lava terrain. As with anything unusual, a better understanding of the volcanic region increased the appreciation of its national significance. The monument's founding document reflected this trend, stating that Craters of the Moon's purpose was to preserve "a remarkable fissure eruption," its associated features, all of which were of scientific and educational value and general interest, contained in a "weird and scenic landscape peculiar to itself." For nearly seventy years, it has been the challenge of the National Park Service to manage this weird and beautiful place, to protect its scenic, natural, and historic resources, while providing for the educational needs and enjoyment of the visiting public...

Evidence of human occupation in the proximity of the monument dates to ten thousand years before present. Yet archaeological sites within the monument suggest that it was not until thirty-five hundred years ago that small bands of hunters and gatherers, the Northern Shoshoni and Bannock, occupied parts of the area. Even then, they did so only during their annual summer migrations, their passage marked by trails of polished lava and cairns. Many of the known sites are composed of stone windbreaks and rock rings--used perhaps for hunting blinds, religious purposes, or temporary shelters. Artifacts such as tools, arrowheads, and projectile points are strewn throughout the lava flows. From this evidence, it is believed that indigenous peoples entered the lavas to forage and hunt in small groups and stayed only short periods of time. Restricted to what the volcanic environment offered, they concentrated mostly in the northwestern section of the monument where travel was easier and resources more abundant. Until Euro-American settlement wiped out or drove off most of the wildlife near the monument, Indians hunted and lived among bison, elk, wolf, grizzly and black bear, cougar, and bighorn sheep.

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, Washington

[https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

Some animals are unique to Craters of the Moon and the surrounding area. Subspecies of Great Basin pocket mouse, pika, yellow pine chipmunk, and yellow-bellied marmot are found nowhere else in the world. Lava tube beetles and many other cave animals are found only in the lava tubes of eastern Idaho.

### Special Status Animal Species known or likely to occur in the Monument

			Status		
SPECIES					
		BLM		Idaho	USFWS
MAMMALS					
Merriam's Shrew ( <i>Sorex merriamii</i> )	#			S	
Gray wolf ( <i>Canis lupus</i> )		T		T	C
Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )		S		S	C
Western small-footed myotis ( <i>Myotis ciliolabrum</i> )		W			
Long-eared myotis ( <i>Myotis evotis</i> )		W			
California myotis ( <i>Myotis californicus</i> )		S		S	
Fringed myotis ( <i>Myotis thysanodes</i> )		S		S	
Long-legged myotis ( <i>Myotis volans</i> )		W			
Yuma myotis ( <i>Myotis yumanensis</i> )		W			
Western pipistrelle ( <i>Pipistrellus hesperus</i> )	#	W		S	
Pika ( <i>Ochotona princeps</i> )					CC
Pygmy rabbit ( <i>Brachylagus idahoensis</i> )	^	S		S	C
Kit fox ( <i>Vulpes macrotis</i> )	^	S		S	
Piute ground squirrel ( <i>Spermophilis mollis</i> )		S		S	
BIRDS					
Trumpeter Swan ( <i>Cygnus buccinators</i> )	**	S		S	
Northern Pintail ( <i>Anas acuta</i> )	**			S	
Lesser Scaup ( <i>Aythya affinis</i> )	**			S	
Eared Grebe ( <i>Podiceps nigricollis</i> )					CC
Westen Grebe ( <i>Aechmophorus occidentalis</i> )	**			S	
White-faced Ibis ( <i>Plegadis chihi</i> )	**	S		S	
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	*	S		T,S	C,CC
Northern Goshawk ( <i>Accipiter gentilis</i> )	**	S		S	
Ferruginous Hawk ( <i>Buteo regalis</i> )		S		S	CC
Swainson's Hawk ( <i>Buteo swainsoni</i> )		W		S	CC
Golden Eagle ( <i>Aquila chrysaetos</i> )					CC

Prairie Falcon ( <i>Falco mexicanus</i> )		S		
Merlin ( <i>Falco columbarius</i> )	**		S	
Peregrine Falcon ( <i>Falco peregrinus</i> )		S	E,S	C,CC
Dusky Grouse ( <i>Dendrogapus obscurus</i> )		W		
Greater Sage-grouse ( <i>Centrocercus urophasianus</i> )		S		CC
Columbian Sharp-tailed Grouse ( <i>Tympanuchus phasianellus columbianus</i> )		S	S	
Sandhill Crane ( <i>Grus canadensis</i> )			S	
Wilsons's Phalarope ( <i>Phalaropus bicolor</i> )	**	W	S	
Long-billed Curlew ( <i>Numenius americanus</i> )		W	S	CC
California Gull ( <i>Larus californicus</i> )	**		S	
Franklin's Gull ( <i>Larus pipixcan</i> )	**		S	
Short-eared Owl ( <i>Asio flammeus</i> )		W	S	
Western Burrowing Owl ( <i>Athene cunicularia</i> )		W	S	
Flammulated Owl ( <i>Otus flammeolus</i> )			S	CC
Calliope Hummingbird ( <i>Stellula calliope</i> )		S		CC
Lewis' Woodpecker ( <i>Melanerpes lewis</i> )		S	S	CC
Red-naped Sapsucker ( <i>Sphyrapicus nuchalis</i> )		W		
Williamson's Sapsucker ( <i>Sphyrapicus thryoides</i> )	**	S		CC
Cordilleran Flycatcher ( <i>Empidonax occidentalis</i> )		W		
Hammond's Flycatcher ( <i>Empidonax hammondi</i> )		S		
Willow Flycatcher ( <i>Empidonax traillii</i> )	**	S		CC
Olive-sided Flycatcher ( <i>Contopus borealis</i> )		S		CC
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )		S	S	CC
Pinyon Jay ( <i>Gymnorhinus cyanocephalus</i> )		W	S	CC
Juniper Titmouse ( <i>Baeolophus ridgwayi</i> )	#		S	
Sage Thrasher ( <i>Oreoscoptes montanus</i> )		W		CC
Green-tailed Towhee ( <i>Pipilo chlorurus</i> )		W		CC
Grasshopper Sparrow ( <i>Ammodramus savannarum</i> )		W	S	
Brewer's Sparrow ( <i>Spizella breweri</i> )		S	S	CC
Sage Sparrow ( <i>Amphispiza belli</i> )		S		CC
Black-throated Sparrow ( <i>Amphispiza bilineata</i> )		S		
Brewer's Blackbird ( <i>Euphagus cyanocephalus</i> )		W		
Cassin's Finch ( <i>Carposdacus cassinii</i> )		W		CC
Black Rosy-finch ( <i>Leucosticte atrata</i> )			S	CC
<b>REPTILES &amp; AMPHIBIANS</b>				
Western night snake ( <i>Hypsiglena torquata</i> )	#	S		
Short-horned Lizard		S		
Western toad ( <i>Bufo boreas</i> )	^	S		
<b>INVERTEBRATES</b>				
A Cave Obligate Harvestman ( <i>Speleomaster lexi</i> )			S	
A Cave Obligate Harvestman ( <i>Speleomaster pecki</i> )			S	
A Cave Obligate Mite ( <i>Flabellorhagidia pecki</i> )			S	
Idaho dunes tiger beetle ( <i>Cicindela arenicola</i> )	#	S	S	

Blind cave leiodid beetle ( <i>Glacicavicola bathysciodes</i> )		S	S	
A spur-throat grasshopper ( <i>Melanoplus digitifer</i> ) #			S	
A Grasshopper ( <i>Argiacris amissuli</i> ) #			S	
Idaho pointheaded grasshopper ( <i>Arolophitus pulchellus</i> )	#	S	S	
Gillette's Checkerspot ( <i>Euphydryas gillettii</i> ) #			S	

#### BLM

T = Species listed as threatened under US Endangered Species Act

S = Bureau of Land Management Sensitive Species; includes species listed as BLM Type 2 through 4 Sensitive Species List Dated May 2004.

W = Watch list species: Type 5 sensitive species that are not BLM otherwise classified but current population or habitat information suggests that the species may warrant sensitive species status in the future. List Dated May 2004.

#### Idaho

E = Endangered under Idaho State Threatened and Endangered Species Conservation Law T = Threatened under Idaho State Threatened and Endangered Species Conservation Law S = Species of Greatest Conservation Need as listed in the Idaho Comprehensive Conservation Strategy (IDFG 2006)

\*\* = birds found at Craters of the Moon only as migrants. These species neither breed or winter here.

# = Have not yet been identified at Craters but likely to occur based on habit requirements and nearby records in Idaho CDC database

^ = Previously recorded at CRMO but no records in 10 or more years

\* = Bald Eagle formally reclassified as recovered on 9 July 2007. Was previously listed as Threatened. Minimum five year monitoring period starts 10 July 2007 and is of high interest to USFWS during this period.

#### USFWS

CC = Species of Conservation Concern

E = Listed as an Endangered species

T = Listed as a threatened species

C = is a candidate for listing as threatened or endangered or the USFWS is conducting a status review for listing

Revised March 2009

Source: National Park Service <https://www.nps.gov/crmo/learn/nature/animals.htm> (Accessed May 15, 2017.)

Active as recently as 2,000 years ago, the Craters of the Moon lava field is the largest young basaltic lava field in the lower 48 states. The lava field contains a remarkable and unusual diversity of exquisitely preserved basaltic volcanic features.

The Great Rift is the deepest known land-based open volcanic rift in the world, and is nearly all contained within the park. It is also one of the longest volcanic rifts in the continental United States.

Craters of the Moon National Monument contains more than 500 kipukas, or isolated vegetation communities surrounded by lava, largely undisturbed by modern human activity. These communities are key benchmarks for scientific study of long-term ecological change in sagebrush steppe ecosystems.

The combination of harsh, young volcanic terrain and extremes of a high desert climate have produced a diversity of habitats where plant succession is easily observed and where wildlife display remarkable adaptations that allow them to survive.

As one of the first two simultaneously designated wilderness areas in the national park system, Craters of the Moon National Monument is also the largest remaining area within the Snake River Plain that retains wilderness character.

There are three separate units that comprise Craters of the Moon: the NPS monument and preserve, and the BLM monument, encompassing more than 733,000 acres of undeveloped federal land. This State of the Park Report addresses the NPS lands.

Clean air offers visitors expansive scenic views of the high desert and surrounding mountains, which change dramatically with the seasons and from day to the dark night skies.

For thousands of years, many different people have explored, used, and pondered this vast "weird and scenic landscape." Some even avoided it. Members of the Shoshone-Bannock Tribe and the descendants of those who passed this way on Goodale's Cutoff on the Oregon Trail retain enduring human connections to the landscape. CRMO continues to inspire these lasting impressions.

Source: National Park Service <https://www.nps.gov/stateoftheparks/crmo/>

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Although there is little evidence about the extent of public activity and exploration of Craters prior to the early 1920s, Paisley's services suggest that residents from the surrounding communities were beginning to view the region for its scenic and recreational values. With the advent of automobiles, the lava formations were more accessible, and more people drove to see them using Goodale's Cutoff, now a primitive road linking Arco with Hailey. One account describes a Sunday outing by a "party of Arcoites [who] visited the ancient craters and their surroundings, viewing the scenes where the Devil and Mother Earth cut up 'high jinks' when she was young and gay and giddy." The popularity of the area was not restricted to sightseers alone. For leading the group was someone other than Paisley. Era Martin, the nephew of Frank Martin, was the designated guide. His ranch adjoined the present monument's northern boundary, and his knowledge of the lava beds was acute, his "interest in its curiosities...contagious."

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, WA [https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

(The Monument) is reached by U.S. Highway 20-26-93 running through the monument's northwestern corner, which connects an otherwise isolated area with several major population centers in southern Idaho: Twin Falls, Idaho Falls, and Pocatello. Offering a two-hour drive from these locations, the highway also routes tourists between Yellowstone National Park and the region of Sun Valley and the Sawtooth National Recreation Area. The monument attracts a majority of its summer visitors from vacationers en route to these and points beyond.

Locally, the monument traverses land in two counties. Blaine County, comprising 13,361 acres of the monument, contains the tourist destination of Sun Valley. Butte County, in which the remaining 40,184 acres lie, is more rural, and includes Arco, the nearest town to the monument. Arco, the county seat, is eighteen miles northeast of the area and, with approximately twelve hundred residents, offers a full range of services. It is considered the major gateway town for the monument. Of the lands surrounding the monument nearly all are under Bureau of Land Management jurisdiction, and are used for sheep and cattle grazing, and mining; those lands south of the highway and adjacent to the monument fall under the BLM's Great Rift Wilderness Study Area classification...

As stated in President Calvin Coolidge's proclamation of May 2, 1924, the purpose of Craters of the Moon is to preserve an area of unusual scientific and educational value and general interest which contains a remarkable fissure eruption together with its associated volcanic cones, craters, rifts, lava flows, caves, natural bridges, and other phenomena characteristic of volcanic action; and...contains many curious and unusual phenomena of great educational value and has a weird and scenic landscape peculiar to itself...

#### GEOLOGIC SIGNIFICANCE

Established as a natural monument, Craters of the Moon preserves some of the world's best examples of basaltic volcanism in a small geographic area. It is also just a small section of the much larger geologic province of the Snake River Plain, and represents some of the plain's most recent eruptions, binding the monument's geologic story with the Snake River Plain's. Beginning nearly fifteen million years ago, volcanic activity formed the plain as lava flow after lava flow emerged from the earth through linear cracks. These openings and the concentration of volcanic formations along them developed volcanic rift zones. They are common across the Snake River Plain, occurring at weakened sections of the earth's crust from which magma under pressure erupted. Craters of the Moon National Monument lies atop the Great Rift, the plain's most extensive rift zone. Designated a national natural landmark in 1971, it runs for some sixty miles from northwest to southeast, and from one and a half to five miles in width. The rift is the

source of over sixty lava flows, twenty-five cinder cones, and eight eruptive vents that make up the Craters of the Moon Lava Field.

The monument encloses thirteen miles of the rift, the northern corner of the Craters of the Moon Lava Field, and most of the field's cones and fissures. The lavas exposed here are young, formed during eight eruptive periods from fifteen thousand to two thousand years ago. Lasting about one thousand years and occurring in cycles of about two thousand years, the volcanic eruptions were quiet rather than explosive; basaltic lava contained less silica than rhyolitic lava which, for example, was responsible for the violent eruption of Mount Saint Helens in 1980. At Craters of the Moon, frothy fountains of lava spewed from gashes in the earth, building cinder cones and conical vents. As eruptions subsided, molten rock was pumped out in smaller and more localized flows, until all activity ceased. Yet Craters of the Moon is by no means dead; geologists predict another eruption in the next thousand years.

Three types of lava flows are found in the monument: pahoehoe, aa, and blocky. Pahoehoe, a Hawaiian term meaning "ropey," covers more than half of the monument. Its fluid consistency formed rivers of lava that hardened into relatively smooth, glossy surfaces that, while sometimes flat, are often twisted, rolling, or coiled. Hawaiian for "rough," aa flows formed mostly when pahoehoe flows cooled and thickened, and are anything but smooth, owning sharp, jagged surfaces. A type of aa lava, yet containing more silica, blocky lava is thick and often dense, smooth and glassy. Among the other features found in the monument are cinder cones, spatter cones, vents, fissures, rafted blocks, lava tubes, and tree molds. Visually, the lavas are variegated. Blacks, dark browns, and grays, oxidized reds, yellows, and pahoehoe's iridescent shades of blue and green meet the eye.

Finally, and perhaps most important, the monument's geologic significance was recognized prior to scientific advances that have accurately dated the flows and exposed the area's relationship to the Snake River Plain. Research, in the process of revealing the secrets of the Great Rift, has only increased the monument's significance.

## RESOURCES

In addition to its volcanic landscape the monument encompasses around four thousand acres of the foothills of the Pioneer Mountain Range in its northern unit. Together these lands support a variety of natural and cultural resources.

Although the monument's high desert environment appears lifeless, fauna and flora are surprisingly diverse. While not overly abundant, they are well adapted to survive in the semi-arid climate, having developed ways to resist and evade heat, aridity, and wind. Nearly fifty mammal and 150 bird species have been cataloged. The most common are mule deer, coyote, yellow-bellied marmot, golden-mantled ground squirrel, yellowpine chipmunk, mountain bluebird, Clark's nutcracker, violet-green swallow, and raven. In addition, more than two thousand insects, eight reptiles, and one amphibian have been identified.



Similarly, vegetation is varied, even though the majority of the monument's surface is composed of barren lava flows, and plant life is exposed to the monument's severe conditions. More than three hundred plant species are native to Craters of the Moon. Cinder cones support, among other things, limber pine, antelope bitterbrush, and dwarf buckwheat. Lava flows, varying in age and habitat, support lichens, syringa, tansybush, rubber rabbitbrush, cinquefoil, and wire lettuce. Wildflowers such as the monkeyflower, blazing star, bitterroot, paintbrush, and arrow-leaved balsamroot clothe the seemingly barren landscape in short bursts of color. In the watershed of the northern unit, Douglas-fir, quaking aspen, mountain snowberry, sagebrush, and riparian vegetation are found. *The monument also has some unique types and areas of vegetation. Nearly a quarter of the monument is covered by shrub steppe vegetation, a type once common to Idaho and now rare. Craters of the Moon also contains kipukas, islands of vegetation existing in older lava flows and encircled by younger flows; many of them, the Carey Kipuka in particular, protect remnants of relatively pristine vegetation* (my emphasis.)

Scarcity of surface water is inherent to Craters of the Moon. Waterholes are scattered throughout the area in lava depressions. Insulated in lava cavities, ice and snow can be found throughout the year. The presence of water, frozen or thawed, in the semi-arid environment and hot summer months presents a strange and unique phenomenon. Something of a mystery, waterholes have unknown origins. Some pools have decreased significantly, while others have dried up entirely. Although undependable for human consumption, the waterholes are important for wildlife.

Air quality is one of the monument's primary resources. The Clean Air Act of 1977 classified the monument's wilderness area, 43,243 acres, as a class I airshed, mandating active management by park staff to protect against deterioration. The remaining airshed is class II.

Although the monument is known more for its natural resources, cultural resources compose an important if less understood and documented aspect of management. Numerous archaeological sites have been recorded within the monument. They consist mainly of sparsely scattered surface artifacts and quarry sites. Further research will determine their significance, as more intensive study of the entire monument occurs.

There are also a few historic sites and structures of interest. Listed in the National Register of Historic Places, Goodale's Cutoff, a section of the Oregon Trail, crossed the northern unit of Craters of the Moon. However, little fabric remains, and assessment of the trail's importance awaits future study. Most structures that might be historic today were removed during the Mission 66 program. Only a log comfort station and warehouse remain of this earlier era. Over fifty years of age, and somewhat altered and deteriorated, they have yet to be evaluated for the National Register...

In the economically stable period of the early 1970s, the proposal (to enlarge the Monument and covert it to a National Park) did not gain strong public support. Agricultural communities surrounding the lava monument were doing well financially, and added tourist dollars from a

national park did not seem to strike any chords. By the mid-1980s, times had changed. Some rural towns were slumping, and tourism and the idea of a park in the lavas resurfaced with fervor. From 1985 to the early 1990s, expansion and national park status gained its most powerful thrust in the monument's history, culminating in another NPS study and legislation introduced into Congress. The 1980s' movement reflected the earlier creation period. It spawned the formation of a committee dedicated to the cause, maintained an economic interest in tourist income, and enlisted state congressional support.

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, WA [https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The limited historical documentation surrounding its designation suggests that Craters of the Moon did not experience the monument-park type of tactical maneuvering. There is no evidence that the monument's establishment was embroiled in controversy. The government carved the area's boundaries out of a remote, uncharted section of the public domain deemed economically worthless. Moreover, the area's characteristics fell within the guidelines of the Antiquities Act. The volcanic phenomena were compressed within a small geographic range. Simply put, Craters of the Moon was a monument to geology...

In the economically stable period of the early 1970s, the proposal did not gain strong public support. Agricultural communities surrounding the lava monument were doing well financially, and added tourist dollars from a national park did not seem to strike any chords. By the mid-1980s, times had changed. Some rural towns were slumping, and tourism and the idea of a park in the lavas resurfaced with fervor. From 1985 to the early 1990s, expansion and national park status gained its most powerful thrust in the monument's history, culminating in another NPS study and legislation introduced into Congress. The 1980s' movement reflected the earlier creation period. It spawned the formation of a committee dedicated to the cause, maintained an economic interest in tourist income, and enlisted state congressional support...

Endorsed by local chambers of commerce, the park movement reached the state level in March 1987 when the Idaho State Legislature memorialized the "U.S. Congress to redesignate Craters of the Moon National Monument as Craters of the Moon National Park." [91] As the 1987 resolution shows, the state as well recognized the economic benefits a park would generate through increased tourism. The economic downturn of the period and the welling of state pride with the approaching 1990 centennial altered past aversions to creating a park in Idaho. Redesignation would not only give the state its first national park, but also would create "more

publicity for Idaho and thereby attract more tourists to the State." As a result, all communities would benefit...

At the hearings (May 19990, no consensus was achieved. Ostensibly, Stallings' bill seemed to satisfy many of the park proponents and traditional resource users. It expanded the monument and created the state's first national park. At the same time, it remained sensitive to grazing and hunting interests, allowing both to continue in the preserve and grazing in the additions to the park. Groups interested in expanding the monument into a national park welcomed Stallings' legislation (and NPS alternatives) citing a variety of reasons: the economic benefits from tourism and highway expansion, the state recognition associated with a national park, the protection afforded by park status (since some thought that the Park Service had worked harder to keep these uses out of parks than monuments) and the natural treasures deserving that protection. Generally, park supporters believed that the monument was worthy of the park title simply because it was a remarkable area, and it was time the Park Service recognized this fact and time that Idaho, with all its natural wonders, had a national park.

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, WA [https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

"Today, we open to the public for another year a different type of national monument. This is a scene of desolation, it is true, but it was not manufactured by shot and shell. It was created by terrific winds that whirled out of space over a boiling earth. It was created by the settling of the earth's crust into its final shape hundreds of thousands of years ago.

Time has no reckoning here--only the works the Creator put here forever show us the wonders of the firmament. This park is aptly named Craters of the Moon. It is a weird spot, yet beautiful. Its mysteries half revealed in laval ridges are the mysteries of a celestial birth, the origin of the planet. Now the roarings are stilled and the lava no longer flows. But the spirit of the place remains, impressive and awesome beyond anything constructed by man."

Governor Clarence A. Bottolfson, on Opening Day, May 7, 1939

Source: Craters of the Moon National Monument, Idaho: Administrative History, by David Louter 1992, National Park Service, Cultural Resources Division, Pacific Northwest Region, Seattle, WA [https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992\\_AdminHistCraters-2-4web.pdf](https://www.nps.gov/crmo/learn/historyculture/upload/Louter1992_AdminHistCraters-2-4web.pdf) (Accessed May 15, 2017.)

## **Giant Sequoia National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for Giant Sequoia National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

I first visited Giant Sequoia National Monument area in 1958 as a child with my parents. I still remember the magnificent awe-inspiring grandeur of these fantastic trees. I was fascinated by the history of the early American settlers and travelers through the area. This trip was my introduction to the National Parks, Forests, and Monuments. The significance of this area was a major influence on my life forever after.

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

The Giant Sequoia National Monument is an exceptionally popular national treasure, containing approximately two-thirds of all of the giant sequoia trees in the world. Most of the world's remaining giant sequoias are located in the adjacent Sequoia National Park. The Monument was established by Presidential proclamation on April 15, 2000. The Proclamation designated over 300,000 acres of the Sequoia National Forest as a national monument to be managed "to protect and enhance its natural values." In addition to protecting the magnificent giant sequoia groves, the Proclamation also cited the importance of protecting other ecosystem values, including habitat for the rare and imperiled Pacific Fisher.

The rare and threatened Pacific Fisher relies on the Giant Sequoia National Monument to provide important habitat. However, the Fisher's declining population could eventually be forced to extinction under the current Monument management plan due to logging in their habitat. Disturbances allowed under the Proclamation can cause severe habitat reduction and increased predation

Source: Sierra Forest Legacy

[https://www.sierraforestlegacy.org/FC\\_ProjectsPlans/PPP\\_GiantSequoiaNationalMonument.php](https://www.sierraforestlegacy.org/FC_ProjectsPlans/PPP_GiantSequoiaNationalMonument.php) (Accessed May 15, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

The Giant Sequoia National Monument is located within the Sequoia National Forest in south-central California and encompasses approximately 327,769 acres of federal land managed by the U.S. Department of Agriculture, Forest Service (USFS). *Giant sequoias are the largest trees on earth and are among the oldest.* (Emphasis added.) Heights of 300 feet and diameters of 30 feet are not uncommon for giant sequoias, and their ages commonly range from 2,000 to 3,000 years (only bristlecone pines are older). Although once widespread, giant sequoias are now found naturally only on the western slopes of the Sierra Nevada in central California.

The Monument was created in 2000 from about one quarter of the forest within the Sequoia National Forest to forever protect the Giant Sequoia groves and their surrounding ecosystems from the logging-oriented management practices currently governing our National Forests. As stated in the Presidential Proclamation creating the Monument, monument status was necessary "to counteract the effects of a century of fire suppression and logging" that had occurred within Sequoia National Forest and to increase protection for the objects and species within the Monument. The Proclamation directs that the Monument lands are not within the



timber base, commercial logging is not to occur within the Monument, and trees within the Monument are not to be removed except in extraordinary circumstances.

Source: Sequoia Forest Keepers

[http://www.sequoiaforestkeeper.org/protecting\\_the\\_monument.aspx](http://www.sequoiaforestkeeper.org/protecting_the_monument.aspx) (Accessed May 15, 2017.)

The fight to protect the giant sequoias of California's Sierra Nevada range began in the late 1800s, when Sierra Club founder John Muir sought and won the establishment of Sequoia National Park. Over one hundred years later, President Clinton established the Giant Sequoia National Monument to protect nearly half the giant sequoias left in existence. Yet these groves of towering trees are still threatened. The Sierra Club has listed the Giant Sequoia National Monument as one of the 52 most important places to protect in the next 10 years.

Thousands of hikers, campers, horseback riders, anglers, hunters, and skiers visit the Giant Sequoia National Monument each year. These magnificent forests provide essential habitat for the California spotted owl, Pacific fisher, and myriad other plants and animals....

"These magnificent giant Sequoia forests are found nowhere else on earth," explained Bruce Hamilton, Sierra Club Conservation Director. "It makes no sense for the Bush administration to sacrifice such a spectacular national treasure. It also happens to be illegal."

Giant Sequoia National Monument boasts one half of all the Sequoia redwoods in the world, with most of the remainder found in the adjacent National Park. The popularity and awe-inspiring beauty of the Sequoia forest and its wildlife led President Bill Clinton permanently protect the forest as a National Monument under the Antiquities Act. Earlier, President George Bush Sr. had proclaimed the Sequoia groves off limits to commercial logging.

Source: Sierra Club <http://vault.sierraclub.org/ca/sequoia/Monument/> (Accessed May 15, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The process to designate the Giant Sequoia National Monument included many years of extensive vetting of local stakeholder interests and a careful review of the public natural values of the land managed by the Forest Service on our behalf, spanning across both Republican and Democratic presidencies. As early as July 1992, President George H. W. Bush visited these forests and issued a proclamation to protect the sequoia groves from mining and timber production, and require that they be maintained as natural areas.

In short, the process determined, and the national monument designation confirmed, that the giant sequoia groves and the surrounding forests that sustain them, are globally unique and should be protected to the highest standard. To call for a review of Giant Sequoia National Monument decades later threatens to undermine the conservation that many worked so hard to secure.

However, whether by lifting the moratorium on federal coal leases or laying the groundwork to extract fossil fuels from our protected federal park lands, many economists agree that these policies will not increase jobs or foster energy independence.

Rather, these choices reflect a philosophical shift in the perceived value and purpose of our shared public lands. Our public lands not only protect ecosystems, but support cultural sustainability, education, local and regional economies, and public health. Research ([external link](#)) shows that national monuments and other public lands increase neighboring property values, attract new investment in gateway communities, and support job growth providing a substantial economic engine to regional economies.

Although Muir Woods National Monument is not under review under the terms of this order, it is a clear example of how valuable a national monument can be for the public. Muir Woods is likely the most well-known national monument, and it was one of the first established under the Antiquities Act in 1908. Last year alone, the park hosted over 1.1 million people from around the world. According to the National Park Service ([external link](#)), the Golden Gate National Recreation Area, which contains Muir Woods, supports 7,574 jobs with an economic output of over \$730 million in 2016.

The long-term economic benefits of national monuments are particularly compelling when considered alongside the broader value they provide. Giant Sequoia National Monument and the neighboring Sequoia National Forest shelter nearly one-half of our planet's remaining giant sequoia — a redwood species and the world's largest tree. The Monument protects 33 ancient sequoia groves visited by thousands of families each year. People come from around the globe to stand in awe under the largest living things on Earth — trees that can live to be more than 3,000 years.

The monument is less than a three-hour drive from the 18 million people of the greater Los Angeles metropolitan area and is adjacent to the Tule River Indian Reservation, providing recreational, cultural, and economic resources that are important to the Tribe. Most fundamentally, sequoia forests are truly spectacular, and in their stunning beauty and unimaginable longevity, they are inspirational icons of the American landscape. As Save the Redwoods League researchers have discovered, ancient sequoia and their relatives, the coast redwoods, are critical in the fight against climate change. Ancient forests of both species store more climate-altering carbon than any other forest type on the planet. Weakening their protection would be an egregious and unacceptable step in the wrong direction.

Source: Save the Redwoods League <https://www.savetheredwoods.org/blog/executive-order-threatens-national-monuments/> (Accessed May 15, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Giant sequoias are literally the most monumental of species - trees, in John Muir's words, of "singular majesty." The largest exceed thirty feet in trunk diameter, and reach higher than the Statue of Liberty, base pedestal and all, higher indeed than the top of the U.S. Capitol Building dome. The oldest specimens have stood for over three thousand years. They are widely considered the largest of all living things on the face of the Earth.

Millions of years ago, members of the sequoia family grew across North America. Today the giant sequoia's range is confined to a narrow strip in the central and southern Sierra Nevada, the storied montane spine of California. They survive in some 75 groves, according to a recent congressionally authorized study (the Sierra Nevada Ecosystem Project (SNEP) Report, published by the University of California), towering above the other conifers with which they coexist. About a third of these groves lie within Sequoia and Kings Canyon National Parks, but the majority - 38 - are found in the adjoining Sequoia National Forest. Others are in scattered ownership, including state lands, other federal management, an Indian reservation, and private holdings.

The old growth ecosystem that giant sequoias naturally occur within and depend upon also supports a number of rare wildlife species. Historically, the giant sequoia belt was California condor country and, indeed, the last condor captured in the wild was found nesting in a sequoia, halting efforts to log the grove (temporarily). The region is home to California spotted owls, elusive wolverines, and vanishing Pacific fishers, all plausible nominees for listing as threatened or endangered. Other rare or sensitive wildlife that frequent the greater sequoia ecosystem include the American marten, the northern goshawk, and the mountain lion. Surviving populations of mountain yellow-legged frogs and other hard-pressed Sierra Nevada amphibians also occur there, as do protected fish like the Kern River Rainbow Trout and Volcano Creek Golden Trout. The vicinity is also home to the greatest density of rare and endemic plants in the entire, diverse Sierra Nevada.

National forest lands in this ecosystem share a border with the Tule River Indian Reservation and are rich in sites of cultural and archeological importance, including Yokuts ancestral lands and much of the Tubatulabal Nation. Among the more outstanding are pictographic rocks and caves found near Deer Creek Mill, Capinero Creek, and Dennison Peak. Other locations of great significance include Slate Mountain and the Moses roadless areas. Historical sites with remnants of early Euroamerican settlement activity also occur throughout much of the ecosystem.

Mighty and enduring though they are, giant sequoias are in trouble. Alteration of the natural fire regimen that promotes seedling germination has in many places interfered with regeneration.



Whole generations of young trees have been lost because seeds failed to sprout. Where seedlings do take root, they are stressed by the ozone pollution that rises from the Central Valley and concentrates along western slopes of the Sierra Nevada. The trees' immense stature belies a shallow and vulnerable root system, with the young trees particularly susceptible to injury and soil compaction by heavy equipment, vehicles, concentrated foot traffic, and construction. Lacking a tap root, giant sequoias also need a reliable source of year-round subsurface water in a region with little summer rainfall; they suffer when logging in their watersheds reduces and diverts groundwater flows.

Virtually none of the giant sequoia groves in Sequoia National Forest, and little of the surrounding forest ecosystem, have permanent preservation status. The groves themselves are not currently being directly logged. However, that could change under another administration, and already timber sales are in the works for the near-by forest. The existing (1988) forest management plan directs "[m]anage giant sequoia groves with the objective of perpetuating the species, preserving the old growth 'specimen' trees, and producing a sustained yield of saw timber." A 1990 Mediated Settlement Agreement of administrative challenges to the forest plan committed the national forest to developing a giant sequoia management plan and prohibited commercial logging of the groves, at least pending its adoption. This sequoia-specific management plan has never been produced, however, and the MSA does not bar logging for the "forest health" rationales that increasingly are used with even large scale Forest Service timber sales. Commercial sale of giant sequoias themselves on any Forest Service and Bureau of Land Management land is effectively prohibited through September 30, 2000, by an appropriations bill rider. And pursuant to a 1992 presidential proclamation, the Department of Interior has proposed to withdraw the actual groves on the Sequoia National Forest from mining and mineral leasing eligibility (the proclamation also prohibits managing the groves for "timber production" but does not ban logging if other reasons are asserted).

The National Park Service manages its part of the greater sequoia ecosystem much more conservatively. NPS uses prescribed fire in developed areas of the park, to reestablish the natural fire patterns critical to giant sequoia regeneration. The agency goes so far as to rake flammable materials from the trunks of some well known trees prior to burns, but generally does not rely on "forest health" intervention, let alone logging, in managing ecological processes. NPS also has an active program, including removing buildings, to protect soil resources from compaction and other damage.

Source: Sierra Club <http://vault.sierraclub.org/ca/sequoia/Monument/Proposal.htm> (Accessed May 15, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Although proposals to halt timber sales on national forests typically raise "economic" objections, those would be particularly inapt in this case. Timber sales from the Sequoia National Forest have dropped to low levels in recent years, down from 85 million board feet in 1991 to under 7 million in 1999, forestwide (including areas outside the proposed monument). The region's largest industries, still growing, are construction and recreation. The Sequoia National Forest already has more recreation visitors annually than Sequoia and Kings Canyon National Parks. And its logging program has been historically one of the biggest money losers in the national forest system. In 1993, Representative Brown estimated that annual losses from the forest's timber sales ran to \$8 million annually...

Other elements of the designation include:

- Inholdings - monument status of surrounding land not to be used as a reason for condemnation; willing-seller acquisitions of inholdings and abutting land to be managed as part of the monument.
- Existing leases and special use permits - not affected by the designation, and monument status not to be used by any federal agency as a reason to terminate or refuse renewal.
- Existing water and (if any) treaty rights - not affected; unappropriated water rights reserved as necessary to protect the purposes of the monument; managing agency directed to cooperate with other authorities to secure such additional water as needed for those purposes.
- Mining and minerals - withdrawn (subject to valid existing rights) from all forms of entry, location, leasing, or other disposition, except exchanges to further the protective purposes of the monument.
- Roads - limited to those in existence at time of designation; off-road vehicle use may be permitted, limited to existing roads (whether open to highway vehicles or not) and in accordance with a transportation plan.
- Science advisory panel - a panel of scientists chosen equally by the National Academy of Sciences, California Academy of Sciences, and applicable Secretary, to draft an ecosystem plan deciding ecological issues left open by the proclamation, including restoration of previously logged areas and plantations, use of herbicides and pesticides, and whether continued grazing interferes with restoration of more natural fire regimens and damages riparian functions.

Source: Sierra Club <http://vault.sierraclub.org/ca/sequoia/Monument/Proposal.htm> (Accessed May 15, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

What is taller than the Statue of Liberty, over three thousand years old, and more than thirty feet in diameter? You guessed it. The Giant Sequoias, the largest trees on earth. Millions of years ago members of the Sequoia family grew across much of North America. Today they are found only on the western slope of the southern Sierra Nevada.

On February 15 President Clinton proposed creation of a Sequoia National Monument to protect the Giant Sequoias found in Sequoia National Forest. Although some of the sequoias are protected in Sequoia National Park, half of them are found in Sequoia National Forest where they have no long term legal protection from logging. In the 1980s the Forest Service clearcut some of the groves and removed everything but the giant old monarch trees. They were left towering over piles of logging slash, bare dirt, and ashes, a scene of utter devastation. With a lawsuit the Sierra Club got the logging in the groves themselves stopped, but the Forest Service is still logging the surrounding forests.

A walk through a Giant Sequoia Grove is a humbling experience. The immense size and rugged beauty of the trees is overwhelming. Staring up into the canopy of these behemoths and realizing some of them were 1000 year old giants at the birth of Christ, puts things into perspective. It should be a no brainer that these trees deserve the best protection we can give them.

We know that the Sequoias are part of the larger old growth ecosystem of the surrounding Sierra conifer forests. Many rare and sensitive wildlife species such as California spotted owls and Pacific fisher live in the ecosystem. The nest of the last California condor chick hatched in the wild was located in a cavity in a Giant sequoia. It was discovered while the forest surrounding its nest was being clear cut! The scientific community that knows the most about these trees and their ecosystem readily admits that we need to know much more to assure their survival as we know them today. And yet the Forest Service continues to log in the forest around the groves.

For almost ten years legislation has been before Congress to give the sequoias and their ecosystem permanent protection. Congressman George Brown from southern California, who was the chief sponsor of the legislation, unfortunately passed away last summer. Now the President has stepped in to finish what he started. He has given the Forest Service sixty days to report back to him with a recommendation based upon George Brown's bill. If the Monument follows the design of the Brown bill, approximately 400,000 acres would be protected from logging, road building, off road vehicles, and other destructive influences upon the sequoias.

When the Sierra Club's honorary President, Dr. Edgar Wayburn, received the Presidential Medal of Freedom last summer he asked President Clinton to take action to protect the sequoias. In 1911 John Muir wrote, "Walk in the Sequoia woods at any time of the year and you will say they are the most beautiful and majestic forests on earth."

Source: Sierra Club <http://vault.sierraclub.org/ca/sequoia/Monument/PressRelease.html>  
(Accessed May 15, 2017.)

## **Gold Butte National Monument Nevada**

I am writing to **support the continuation of the National Monument** status as currently established for Gold Butte National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

(Las Vegas conservationist Alan) O’Neill said Obama’s action Wednesday fills in the “void” between Lake Mead and the Grand Canyon, granting well-deserved protection for what he called “one of the greatest landscapes we have in the West.”

The monument will serve as a connection between Lake Mead National Recreation Area and the Grand Canyon-Parashant National Monument, protecting a wildlife corridor for desert bighorn sheep, mountain lions and the threatened Mojave Desert tortoise, said Christy Goldfuss, managing director at the White House Council on Environmental Quality.

Source: Las Vegas Review Journal, President Obama declares Gold Butte a national monument, Dec. 28, 2016 <https://www.reviewjournal.com/local/local-nevada/president-obama-declares-gold-butte-a-national-monument/> (Accessed May 16, 2016.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Native Americans have been dependent on the Gold Butte area for over 3,000 years. This traditional travel zone is filled with stories of the past through artifacts and ancient writings. Areas of habitation dot the landscape: rock shelters with blackened roofs, middens of charcoal soil littered with broken pottery, and rock tools.

Roasting pits, or agave ovens, are circular mounds of white rock up to 25 feet in diameter. The rocks turn white after heating and are tossed to the edge outlining the ovens continuous use. There are still ovens in the Gold Butte area with the grinding stones (metate and mano) lying about as if waiting for reuse.

Archaeologists estimate over 2,000 sites within the Gold Butte complex. Rock art is found throughout the sandstone area of the central Gold Butte Complex. It can be found “billboard” style with panels up to 90 feet long; a few rock art panels show generations of use. Now present generations stand by these drawings and theorize the meaning of these messages. Hopefully, this will continue for generations to come.

The Southern Nevada Public Lands Management Act (SNPLMA) funded an archaeology study that was completed at the end of the 2007. The scope of this work included research from random surveys of habitat type, surveys of known sites, several excavations, rock art documentation, and an historic report including an oral history document. Under this same funding a biological study was approved and initiated in 2008. The results of this extensive archaeological survey will help the BLM and stakeholders decide the best management practices for the sensitive cultural resource in the Gold Butte area.

Gold Butte is fortunate to have many caring residents in the surrounding communities. There are approximately 30 site stewards for the area through the State Historic Preservation Office’s Nevada Site Stewardship Program. Stewards monitor sensitive archaeological and historical sites and report any damage or changes to the area. Unfortunately, the reports go to a file at the BLM field office and there is rarely followup by Agency personnel or law enforcement. Of all the areas in Clark County, Gold Butte receives the most reports, and the most reports of damage.

The volunteer site stewardship program is the only on the ground management presently in Gold Butte to protect cultural resources. There is an empty kiosk as you enter the area, no rules, no education, and no interpretation to promote public awareness of the importance of these irreplaceable resources.

It is heart breaking for many concerned citizens to see the destruction taking place. Rock Art is scratched out, on, and over, and shot at.

Areas once littered with pottery sherds and pieces of rock tools have all disappeared. Metates, manos, and arrowheads, all of scientific importance, are vanishing. Rock shelters and habitation sites are sifted through and dug out by those looking for artifacts. ATV tracks cross agave pits churning the blackened earth. Once elusive sites are now driven right up to, crushing plants and creating new routes; changing this landscape forever. Indeed, we are losing this irreplaceable resource at an alarming rate.

Mining is thought to have begun in the 1700's when the Spanish left remnants of their efforts in the form of arrastras. An arrastra is a large flat rock hollowed out over which a donkey would drag another rock to crush the ore. There are four known arrastras in the Gold Butte townsite area.

In the 1800's mica was being mined and shipped from the area. Gold was discovered in 1906 and by 1907 Gold Butte was booming with a speculated population of 2,000. By 1909 the boom went bust and the post office was removed from the townsite of Gold Butte. Mining continued in the area as the Grand Gulch copper mine produced much of the needed copper for World War 1. The wagon trails that carried the copper to the St. Thomas railroad spur can still be followed to this day. The wagon masters' signatures in wagon wheel axle grease tell the story on the sandstone walls of Mud Wash.

Ranching in the Mojave Desert was certainly an arduous task in the early 1900's. Yet, the hard work of pioneers carved out corrals, water improvements, and fencing. The historic corral at Horse Springs is a wonderful example of early pioneer ingenuity. Short on wood, the corral is set back against a rise and rocks were used to create its walls. The wood that was used in the corral still stands, a weathered character its own. To direct the herd to the corral a rock wall was built up the hillside. An incredible piece of history only Gold Butte holds.

The depression era Civilian Conservation Corps (CCC) also left their mark on Gold Butte. There are a long series of stone check dams in Windmill Wash south of Bunkerville. At Whitney Pockets, a CCC camp was established to build a dam to catch rain water for ranching.

Left behind in this camp are storage rooms built into the sandstone alcoves. Interestingly, this is all built within a Native American habitation site. Today this is the focal point of the recreation in Gold Butte, with the heaviest camping and off-roading in the area. It is also the richest in

history. Through education and interpretation, Friends of Gold Butte believes these past and present resources can be protected and enjoyed.

Unfortunately, there is no information for visitors to explain the importance of our pioneer history. An excellent example of the importance of interpretation at these sites is the effect of one small sign at the CCC storage room at Whitney Pockets. One of the walls had been torn down for a fire ring and graffiti scrawled inside the alcove covers the wall. After a sign was placed showing what the site looked like several years ago, the damage stopped. Interestingly, visitors are trying to rebuild the side that was torn down. Through National Conservation Area designation, interpretation and protection of these sites is possible. Friends of Gold Butte has the interested membership to work on such volunteer projects and is looking forward to this opportunity.

There are many examples of loss of historical artifacts in Gold Butte. The arrastra set in shrubs hidden for many years. When the fire of 2005 burned the area and it was uncovered, in just a few weeks some of the more valuable artifacts surrounding the arrastra were gone. This same area has a corral from the 1930's associated with colorful characters such as Bill Garrett, Art Coleman, and "Crazy Eddie" Bounsall. Many locals recognize these names and can tell vivid stories of their life in the desert. Recently, the wooden boards of the loading shoot were sawed off and used for firewood. To those that enjoy local history and discovering the past, this is an unnecessary loss.

Gold Butte represents a broad landscape of rugged terrain with an extensive system of braided shallow washes. These washes contain "caliche caves" often used as burrows by desert tortoise, burrowing owls, and heat tolerant reptiles. Rocky outcrops are home to Bighorn Sheep, Mountain Lion, and Golden Eagle aeries.

Higher mountain "pygmy forests" of Pinion and Juniper are home to many species of birds.

Creosote, bursage, and beavertail cactus dominate the landscape of the lower elevations of the Mojave Desert scrub. This habitat is critical to desert tortoise for burrows among the creosote roots, and for kit fox dens. The rocky slopes are valuable to bighorn sheep. Desert kangaroo rats and pocket mice depend on the creosote seed for food. In turn, they become prey to species of snakes and birds such as the western Diamondback Rattlesnake and the Loggerhead Shrike.

Joshua trees, blackbrush, gambles oak, and manzanita create a mid elevation mixed desert scrub on the upper bajada and higher slopes. The Joshua trees are home to the Scotts Oriole and Desert night lizard. Blackbrush is a valuable browse to bighorn sheep and nesting for Brewers Sparrow. Mid-elevation rocky outcrops are habitat for Ringtails and chuckwalla.

The upper slopes of the mountains have pinion-juniper woodlands mixed with cliffrose and serviceberry. These montane woodlands are generally found between 5,000 and 8,000 feet of



elevation. This habitat is particularly important for its structure for birds and bats to use for nesting and roosting. The serviceberry is excellent browse for deer.

The peak of the Virgin Mountains is a unique biological transition zone for the Mojave, Great Basin, and Sonoran regions. The stands of Douglas fir represent the southern most occurrences in Nevada. In addition to Douglas fir there are forests of ponderosa pine and white fir as well as the only known pocket of Arizona Cypress in Nevada.

Presently, there is no on the ground management to protect the biological resources of Gold Butte. There is an empty kiosk as you enter the area. The public is unaware of the status or importance of this area as there are neither posted rules nor education.

The biggest threat is irresponsible off road vehicle use that destroys habitat and cultural resources. ATV's establish new routes with just a few riders. Areas are identified and cairned to establish these new routes. At Whitney Pockets, what were once a few small camp areas have become large areas that are denuded of vegetation with dozens of fire rings. There are no facilities for this type of heavy visitation and human waste is a problem.

The most alarming trend is the use of live Joshua trees as firewood. Trees older than our constitution are pulled from the ground and branches chopped from those still standing and burned. Yes, it is a renewable resource, but not in our lifetime.

Source: Friends of Gold Butte <http://www.friendsofgoldbutte.org/about/cultural-resources/>  
(Accessed May 18, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

A Mesquite Chamber of Commerce survey found that owners highlighted anticipated community growth and quality of life as the major reasons for locating their businesses in Mesquite.

#### Economic Benefits of Our Protected Lands

Permanently protecting our shared public lands will not only secure a variety of environmental benefits -- such as habitat for endangered and rare species -- but it will also ensure that future generations continue to have opportunities for backcountry recreation, scenic vistas and other important natural wonders that attract people and keep them coming back to our nation's wild places. Those opportunities and amenities translate into positive economic impacts for local communities through business and real estate investments, recreation and tourism spending, and the jobs and income earned that -- in the absence of those amenities -- might otherwise accrue elsewhere.



### Business Appeal<sup>i</sup>

Studies have shown that protected public lands are one of several key quality-of-life factors influencing business owners when determining the location of their offices and attracting a talented workforce. In addition, the presence of these protected public lands can also help communities diversify local economies that had been stagnant due to over-reliance on declining resource extraction industries.

- Business owners decide to locate their offices near protected public lands due to scenic amenities, rural character of towns, and proximity to wildlife-based recreation. These reasons far outrank labor costs and tax incentives.<sup>ii</sup>
- A study of 113 rural Western Counties found that wilderness is linked with higher growth in investment income and entrepreneurial activity.<sup>iii</sup>
- Wilderness and other protected lands have helped counties diversify their economies that had been stagnant due to overreliance on declining resource extraction industries.<sup>iv</sup>

### Catalyst for Recreation & Tourism Industry<sup>v vi</sup>

In 2010, an estimated 5.9 million tourists visited BLM lands in Nevada and had an economic impact of \$283.6 million dollars.

Every year, millions of Americans spend time outdoors. When people visit public lands for camping, hunting, bird watching and other recreation activities, they frequently spend money in local communities on lodging, meals, gear, licenses, and other necessary expenditures. Without wild public lands, this slice of the economic pie would shrink. According to Outdoor Industry Foundation, active recreation -- such as hiking, hunting, camping, and rafting -- contributes significantly to the U.S. economy.

### A Glance at the Numbers: The Active Outdoor Recreation Economy<sup>vii</sup>

- Contributes \$730 billion annually to the economy
- Supports nearly 6.5 million jobs
- Generates \$289 billion annually in retail sales and services
- Creates \$88 billion in annual state and national tax revenue
- Community & Economic Development

Wilderness and other protective designations have been shown to increase local tourism and to attract new residents who treasure the quality of life that preserved lands provide. This high quality of life and sense of place are also key elements in keeping existing businesses and talented young people in the area. This preservation is crucial for maintaining a vibrant community and healthy economy.

- The presence of wilderness and other wild lands draws residents and new economic activity that has a substantial positive impact on local economies.<sup>viii</sup>

- From 1970 to 2000, individual income in more remote rural counties with protected lands grew more than 60 percent faster than similar counties without any protected lands.<sup>ix</sup>

<sup>i</sup> Mesquite Chamber of Commerce 2011. Development tab. Available at: <http://www.mesquite-chamber.com>.

<sup>ii</sup> Johnson, J.D. and R. Rasker. 1995. The Role of Economic and Quality of Life Values in Rural Business Location. *Journal of Rural Studies* 11(4): 405-416.

<sup>iii</sup> Holmes, F. P. and W.E. Hecox. 2004. Does wilderness impoverish rural regions? *International Journal of Wilderness*. 10(3): 34- 39.

<sup>iv</sup> Lorah, P.A. 2000. Population growth, economic security, and cultural change in wilderness counties. In: McCool, Stephen F.;

Cole, David N.; Borrie, William T.; O'Loughlin, Jennifer. *Wilderness Science in a Time of Change Conference—*. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 230-237.

<sup>v</sup> BLM 2011. The BLM: A Sound Investment for America. Available at: <http://www.blm.gov/wo/st/en.html>.

<sup>vi</sup> Economic impacts are the jobs, income, tax revenue and other fiscal benefits that accrue to local communities and are very important reasons to protect some public lands from development.

<sup>vii</sup> Outdoor Industry Foundation, Active Outdoor Recreation Economy Report, 2006. Available at [http://www.outdoorindustry.org/research.php?action=detail&research\\_id=26](http://www.outdoorindustry.org/research.php?action=detail&research_id=26) .

<sup>viii</sup> Lorah, P.A. 2000.

<sup>ix</sup> Sonoran Institute 2004, Prosperity in the 21 st Century West - The Role of Protected Public Lands.

Source: Friends of Nevada Wilderness

[http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572077/document Econ Benefits of Protected Public Lands.pdf?1366572077](http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572077/document_Econ_Benefits_of_Protected_Public_Lands.pdf?1366572077) (Accessed May 18, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The designation closes the area to any extractive operations such as mining or gas and oil development. Since the proclamation applies only to existing federal lands, private land in the area is not subject to the designation. Gold Butte National Monument is subject to existing

rights, including water rights, according to the proclamation, and does not establish any new rights of way unless deemed necessary for the maintenance of the monument.

Actual changes at Gold Butte, at least initially, are expected to be minimal absent a management plan and with nothing in the proclamation prohibiting existing uses.

“This designation honors valid existing rights, including tribal access and traditional collection of plants and firewood, off-highway vehicle recreation, hunting and fishing ... military training operations and utility corridors,” Leah Duran, public affairs specialist for the Department of the Interior, says.

Source: The Spectrum (Part of the USA Today Network)

<http://www.thespectrum.com/story/news/local/mesquite/2017/02/02/gold-butte-story/97379270/> (Accessed May 18, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Poll: 71% of Nevadans Support Designating Gold Butte as a National Monument. Read the results [here](#) and to view the poll survey, [click here](#).

Protecting our National Treasures: Local letter to the editor in Las Vegas newspaper warns that we're running out of time to protect Gold Butte.

Little Finland: Isolated and Awesome by Tom Garrison

In August 2015, partner organization Friends of Gold Butte released an extensive damage report documenting damage to sensitive cultural and wildlife habitat sites throughout the Gold Butte area. Read the full report [here](#).

In May 2010, the Clark County Commission overwhelmingly voted to support the Gold Butte National Conservation Area with Wilderness (Text of Clark County's resolution supporting Gold Butte);

Also in May 2010, the Moapa Band of Paiute Indians passed a resolution supporting protection of Gold Butte;

The Mesquite City Council passed Resolution #649 in support of Gold Butte (October 2009);

Source: Friends of Nevada Wilderness [http://www.nevadawilderness.org/gold\\_butte](http://www.nevadawilderness.org/gold_butte) (Accessed May 18, 2017.)

May 15, 2012

TO: Interested Parties

FROM: Bob Moore, More Information, Inc.

2130 SW Jefferson St. Ste. 200, Portland, OR 97201 Phone 503.221.3100 Fax 503.221.9861  
PO Box 86, Annapolis, MD 21404 Phone 410.216.9856 ☎ Fax 410.216.9857

RE: Clark County Voter Survey

This memo includes results from a Moore Information Inc. telephone survey conducted April 21-22, 2012 among a representative sample of 325 likely voters in Clark County, Nevada. The potential sampling error is plus or minus 5.5% at the 95% confidence level.

#### Voter Attitudes about Gold Butte Protection

Clark County voters favor protecting additional public lands in Nevada as wilderness by a better than two-to-one margin (63% favor/27% oppose). Moreover, a specific proposal that would designate Gold Butte as a national conservation area is favored by a 66-20% margin when voters hear the following description:

“The Gold Butte proposal would change the way some public lands are managed in the Gold Butte region of Nevada near Valley of Fire State Park, south of Mesquite. The proposed changes in how these lands are managed, or overseen, include conserving the most pristine areas in the region as wilderness. The proposal would also create a national conservation area surrounding these wilderness areas. The non-wilderness lands within the broader national conservation area would be managed primarily for conservation but would allow for a wider range of recreational uses such as off-road vehicle and mountain biking use, without closing any roads.”

This proposal, which would create a national conservation area with wilderness designation, is popular throughout the entire county, and among men and women of all ages. Further, it is favored by a wide margin of Republicans and Democrats alike, as well as Independent voters. In addition, the Gold Butte proposal finds majority support among those who utilize Nevada’s public lands for recreational purposes such as hiking and camping, mountain and road biking, fishing and hunting and off-road vehicle recreation activities.

Majorities in all subgroups favor a national conservation area with wilderness designation for the Gold Butte area after hearing more about the proposal, including Republicans (57-29%), Democrats (72-15%) and Independents (69-16%). In addition, the proposal is more widely supported by voters age 18-54 (76-14%) than it is among voters age 55 and older (53-30%). Among voters who recreate on Nevada public lands, support for designating the Gold Butte area as a national conservation area with wilderness is also favored by wide margins, including voters

who occasionally or frequently use Nevada public lands for hiking and camping (68-21%), mountain and road biking (75-18%), fishing and hunting (66-25%) and off-road vehicle recreation activities (73-23%).

Voters are also positive when asked if they would be more likely or less likely to vote for a candidate who supported the proposal to designate the Gold Butte area as a national conservation area with wilderness. By a two-to-one margin, voters are more likely to support a candidate who supports a proposal to designate the Gold Butte area as a national conservation area with wilderness, but for roughly a third, this information would not impact their vote today.

Source: Friends of Nevada Wilderness

[http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572084/document\\_ClarkCnty\\_Wilderness\\_Memo\\_May\\_15.pdf?1366572084](http://d3n8a8pro7vhmx.cloudfront.net/nevadawilderness/pages/71/attachments/original/1366572084/document_ClarkCnty_Wilderness_Memo_May_15.pdf?1366572084)

The journey to achieve protection started with the administrative designation of Gold Butte as an Area of Critical Environmental Concern by the Bureau of Land Management in 1998, recognizing the nationally significant historic, cultural, wildlife and scenic values of the area.

In 2002, Gold Butte received two designated Wilderness areas – Jumbo Springs and Lime Canyon. Wilderness was a great step but did not address management issues, like preventing the accelerated destruction of important biological and cultural resources, in the 350,000 acres that make up Gold Butte.

In early 2003, Friends of Gold Butte was formed to bring together advocates who were fighting for the area's permanent protection.

The legislative history for protecting Gold Butte dates back to 2008 when Nevada representatives including Congresswoman Shelley Berkley (H.R. 7132), Congressman Steven Horsford (H.R. 2276), Congresswoman Titus (H.R. 856), and Senator Harry Reid (S. 1054 & 199) to permanently protect Gold Butte.

In February of 2015 a public meeting was held to talk about Southern Nevada public lands issues and Congresswoman Titus stood for hours listening to more than 300 constituents talk about their support for protecting Gold Butte.

In July 2015, hundreds of Nevadans joined with elected officials and national business leaders for a public rally at Zappos.com in downtown Las Vegas in support of protecting Gold Butte as a national monument. Speakers included Assemblyman Elliot Anderson, Las Vegas City Councilman Ricki Barlow, North Las Vegas City Councilman Isaac Barron, Brad Tomm from Zappos and Kirsten Blackburn from KEEN.

In the November of 2015, Congresswoman Titus hosted a tele-town hall where hundreds of community members listened to the result of and asked question about the Applied Analysis'

research, illustrating the economic benefits to Southern Nevada if Gold Butte was permanently protected.

Senator Reid in 2016 cited a strong desire to protect Gold Butte during the last year of his term and has been advocating with the administration to get this done via the Antiquities Act. This point was accentuated by a passionate floor speech delivered on April 7th highlighting recent damage at Gold Butte and the need for executive action and his August 18th press conference.

Source: Friends of Gold Butte <http://www.friendsofgoldbutte.org/history-of-protection/>  
(Accessed May 18, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

In southeast Nevada lies a landscape of contrast and transition, where dramatically chiseled red sandstone, twisting canyons, and tree-clad mountains punctuate flat stretches of the Mojave Desert. This remote and rugged desert landscape is known as Gold Butte.

The Gold Butte area contains an extraordinary variety of diverse and irreplaceable scientific, historic, and prehistoric resources, including vital plant and wildlife habitat, significant geological formations, rare fossils, important sites from the history of Native Americans, and remnants of our Western mining and ranching heritage. The landscape reveals a story of thousands of years of human interaction with this harsh environment and provides a rare glimpse into the lives of Nevada's first inhabitants, the rich and varied indigenous cultures that followed, and the eventual arrival of Euro-American settlers. Canyons and intricate rock formations are a stunning backdrop to the area's famously beautiful rock art, and the desert provides critical habitat for the threatened Mojave desert tortoise.

Gold Butte's dynamic environment has provided food and shelter to humans for at least 12,000 years. Remnants of massive agave roasting pits, charred remains of goosefoot and pinyon pine nuts, bone fragments, and projectile points used to hunt big horn sheep and smaller game serve as evidence of the remarkable abilities of indigenous communities to eke out sustenance from this unforgiving landscape. Visitors to Gold Butte can still see ancient rock shelters and hearth remnants concealed in the area's dramatic Aztec Sandstone formations. This brightly hued sandstone is the canvas for the area's spectacular array of rock art, depicting human figures, animals, and swirling abstract designs at locations like the famed Falling Man petroglyph site and Kohta Circus. Pottery sherds and other archaeological artifacts scattered throughout the landscape reveal the area's role as a corridor for the interregional trade of pottery, salt, and rare

minerals. These world-renowned archaeological sites and objects are helping scientists to better understand interactions between ancient cultural groups.

By the time Spanish explorers arrived in the region in the late eighteenth century, the Gold Butte area was home to the Southern Paiute people, who to this day, retain a spiritual and cultural connection with the land and use it for traditional purposes such as ceremonies and plant harvesting. Hunters and settlers of European descent followed the explorers, and, by 1865, Mormon pioneers had built settlements in the region.

These newcomers grazed livestock and explored Gold Butte's unique geology in pursuit of mining riches. Their activities left behind historic sites and objects that tell the story of the American West, including the Gold Butte townsite, a mining boomtown established in the early 1900s, but mostly abandoned by 1910. Several building foundations and arrastas -- large flat rocks used for crushing ore -- remain at the townsite today. Settlers built corrals out of wood or stone, some of which are still standing in the Gold Butte area, including one near the Gold Butte townsite and one at Horse Springs, along the Gold Butte Scenic Byway. In the 1930s, the Civilian Conservation Corps was put to work in the area, leaving behind a variety of historic features including a dam and remnants of a camp in the Whitney Pockets area, in the northeastern region of Gold Butte.

The Gold Butte landscape that visitors experience today is the product of millions of years of heat and pressure as well as the eroding forces of water and wind that molded this vast and surreal desert terrain. Rising up from the Virgin River to an elevation of almost 8,000 feet, the Virgin Mountains delineate the area's northeast corner and provide a stunning backdrop for the rugged gray and red desert of the lower elevations. Faulted carbonate and silicate rock form the ridges and peaks of this range, which are regularly snow-covered in winter and spring, while the southern region of Gold Butte is laced with a series of wide granitic ridges and narrow canyons. These broad landscape features are dotted with fantastical geologic formations, including vividly hued Aztec Sandstone twisted into otherworldly shapes by wind and water, as well as pale, desolate granitic domes. An actively-expanding 1,200 square-meter sinkhole known as the Devil's Throat has been the subject of multiple scientific studies that have enhanced our understanding of sinkhole formation.

The Gold Butte landscape is a mosaic of braided and shallow washes that flow into the Virgin River to the north and directly into Lake Mead on the south and west. Several natural springs provide important water sources for the plants and animals living here. The arid eastern Mojave Desert landscape that dominates the area is characterized by the creosote bush and white bursage vegetative community that covers large, open expanses scattered with low shrubs. Blackbrush scrub, a slow-growing species that can live up to 400 years, is abundant in middle elevations. Both creosote-bursage and blackbrush scrub vegetation communities can take decades or even centuries to recover from disturbances due to the long-lived nature of the plant species in these vegetative communities and the area's low rainfall. These vegetation

communities are impacted by human uses, invasive species, wildfires, and changing climates. Gypsum deposits are a distinctive aspect of the Mojave Desert ecosystem and result in soil that contains physical and chemical properties that stress many plants, but also support endemic and rare species. For example, the sticky ringstem, Las Vegas buckwheat, and Las Vegas bearpoppy are unique plants that rely on gypsum soil; the populations in Gold Butte are some of only a handful of isolated populations of these species left in the world. Other rare plants in Gold Butte include the threecorner milkvetch and sticky wild buckwheat, which are sand-dependent species, as well as the Rosy two-tone beardtongue and the Mokiak milkvetch. Scattered stands of Joshua trees, an emblem of the Mojave Desert, dot the landscape along with Mojave yucca, cacti species, and chaparral species, among others.

The often snowcapped peaks of the Virgin Mountains in the northeastern corner of Gold Butte stand in stark contrast to the desolate desert landscapes found elsewhere in the area. Due to their elevation of almost 8,000 feet, these mountains exhibit a transition between ecosystems in the southwest. At the highest points of the Virgin Mountains, visitors can hike through Ponderosa pine and white fir forests, and visit the southernmost stand of Douglas fir in Nevada. In this area, visitors are also treated to a rare sight: the Silver State's only stand of the Arizona cypress. The lower to middle elevations of the area are home to stands of pinyon pine, Utah juniper, sagebrush, and acacia woodlands, along with occasional mesquite stands. By adding structural complexity to a shrub-dominated landscape, these woodlands provide important breeding, foraging, and resting places for a variety of creatures, including birds and insects, and support a number of plant species.

Gold Butte also provides habitat for a number of wildlife species. It has been designated as critical habitat for the Mojave desert tortoise, which is listed as threatened under the Endangered Species Act. These slow-footed symbols of the American Southwest rely on the creosote-bursage ecosystem that is widespread here. A generally reclusive reptile, the Mojave desert tortoise uses the protective cover of underground burrows to escape extreme desert conditions and as shelter from predators.

Other amphibians and reptiles also make their homes in Gold Butte. For example, once considered extinct and now a candidate species for listing under the Endangered Species Act, the relict leopard frog has been released into spring sites in the area in a collaborative effort by local, State, and Federal entities to help revive this still very small population. The banded Gila monster, the only venomous lizard in the United States, has also been recorded in Gold Butte. Many other reptile species -- including the banded gecko, California king snake, desert iguana, desert night lizard, glossy snake, Great Basin collared lizard, Mojave green rattlesnake, sidewinder, Sonoran lyre snake, southern desert horned lizard, speckled rattlesnake, western leaf-nosed snake, western long-nosed snake, and western red-tailed skink -- also have populations or potential habitats in the area.



The Gold Butte area serves as an effective corridor between Lake Mead and the Virgin Mountains for large mammals, including desert bighorn sheep and mountain lions. Smaller mammals in Gold Butte include white-tailed antelope squirrel, desert kangaroo rat, and the desert pocket mouse. Several species of bat, including the Pallid bat, Allen's big-eared bat, western pipistrelle bat, and the Brazilian free-tailed bat, are also found here, as well as the northern Mojave blue butterfly.

Bald and golden eagles, red-tailed and Cooper's hawks, peregrine falcons, and white-throated swifts soar above Gold Butte. Closer to the ground, one can spot a variety of birds, including the western burrowing owl, common poorwill, Costa's hummingbird, pinyon jay, Bendire's thrasher, Virginia's warbler, Lucy's warbler, black-chinned sparrow, and gray vireo. Migratory birds, including the Calliope hummingbird, gray flycatcher, sage sparrow, lesser nighthawk, ash-throated flycatcher, and the Brewer's sparrow, also make stop-overs in the area. These birds, and a variety of other avian species, use the diversity of habitats in the area to meet many of their seasonal, migratory, or year-round life cycle needs.

In addition to providing homes to modern species of plants and wildlife, the area shows great potential for continued paleontological research, with resources such as recently discovered dinosaur tracks dating back to the Jurassic Period. These fossil trackways were found in Gold Butte's distinctive Aztec Sandstone and also include prints from squirrel-sized reptilian ancestors of mammals.

The protection of the Gold Butte area will preserve its cultural, prehistoric, and historic legacy and maintain its diverse array of natural and scientific resources, ensuring that the historic and scientific values of this area, and its many objects of historic and of scientific interest, remain for the benefit of all Americans.

Source: President Barack Obama, Presidential Proclamation Establishment of the Gold Butte National Monument, December 28, 2016 <https://obamawhitehouse.archives.gov/the-press-office/2016/12/28/presidential-proclamation-establishment-gold-butte-national-monument> (Accessed May 16, 2017.)

## **Grand Canyon-Parashant National Monument Arizona**

I am writing to **support the continuation of the National Monument** status as currently established for Grand Canyon-Parashant National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Grand Canyon-Parashant. Located in the northwest corner of Arizona, this remote area receives a fraction of the number of Grand Canyon visitors but protects over a million acres of land with similar cultural, geological, and scenic values.

Much of the monument remains unexplored, with only five percent of the protected land having been surveyed. You can see remnants of ranching, mining, and timber cutting at sites like Tassi Ranch, Nixon Sawmill, and Pa's Pocket Line Shack. But human history here dates back much further. Thousands of archaeological sites—petroglyphs, artifacts, agave roasting pits, pueblos—document the cultures and lifestyles of the Ancestral Puebloan and Southern Paiute cultures. The monument's name derives from an early translation of a Paiute family name "Parashonts," meaning "elk or large deer standing in water."

The "Grand Canyon" part of the monument's name refers to the watershed. Adjacent to the west end of the Colorado River, the monument is an important part of Grand Canyon's hydrology. Tributaries lead into the Colorado River, and many springs, including Tassi and Pakoon, lie within monument boundaries. These are fantastic places to visit; lush vegetation provides a stark contrast to the surrounding arid lands. Plant life in Grand Canyon-Parashant National Monument is diverse, reflecting a 6,000-foot elevation range. Joshua trees and century plants grow at lower elevations, stepping up to piñon pine and juniper woodlands, to higher-elevation ponderosa pine forests.

The monument stands at an important intersection of three distinct ecoregions—the Basin and Range Province, the Mohave Desert, and the Colorado Plateau converge within its boundaries to create a varied and interesting landscape. This highly faulted topography contains canyons, mountains, cinder cones, and basalt flows that are the adventurer's dream. The Grand Wash Cliffs, Mt. Trumbull, and Mt. Dellenbaugh provide excellent hiking opportunities. Today, the National Park Service and Bureau of Land Management co-manage several national monuments, but Grand Canyon-Parashant was the first protected area to share leadership between these two organizations. If you go well prepared, you will find this rugged monument embodies the spirit of the West and awaits your exploration!

Source: The Grand Canyon Trust <https://www.grandcanyontrust.org/grand-canyon-parashant-national-monument> (Accessed May 18, 2017.)

Grand Canyon-Parashant includes the following wilderness areas:

- Grand Wash Cliffs Wilderness
- Mount Logan Wilderness
- Mount Trumbull Wilderness
- Paiute Wilderness (part)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

So far, a 2005 expedition to examine 24 caves in the park has produced two new species of millipede, the first barklouse discovered in North America, a whole new genus of cricket and four new cricket species.

Source: Wikipedia [https://en.wikipedia.org/wiki/Grand\\_Canyon-Parashant\\_National\\_Monument](https://en.wikipedia.org/wiki/Grand_Canyon-Parashant_National_Monument) (Accessed May 18, 2017.)

Northern Arizona University

<https://news.nau.edu/tiny-bug-found-in-grand-canyon-region-cave-suggests-big-biodiversity/>  
<http://stage.news.nau.edu/nau-researchers-chirping-over-discovery-of-new-cricket-genus/>  
<https://news.nau.edu/discovery-of-new-cave-millipedes-casts-light-on-arizona-cave-ecology/>  
(Accessed May 18, 2017.)

Dark Sky Monitoring

After receiving an International Night Sky Province designation in 2013, Parashant National Monument began efforts at long duration starlight monitoring. The first park unit to custom design software and instruments for measuring starlight, Parashant has erected three remote, solar-powered stations that use photometric instruments to measure the illumination for stars in lux units.

Rehabilitating Mojave Desert Ecosystem

Efforts to restore the Mojave Desert ecosystem after catastrophic fires include regenerating native plant species and suppressing invasive species. The threatened Mojave Desert tortoise and the iconic Joshua Tree both stand to benefit from this important rehabilitation. Rebuilding the natural Mojave Desert and providing healthy habitat for threatened species will help to ensure that fewer new restrictions apply to land use in the future.

Vegetation Mapping

A comprehensive vegetation mapping project will display species and locations of various trees, shrubs, forbs, grasses and cacti across the NPS portion of Parashant National Monument. Maps will enable visitors and researchers to locate particular species, like the aspen tree or the beavertail cactus, with ease. Data collected will provide a baseline for tracking how plant species change in response to changing environmental conditions.

Invasive Plant Monitoring

This ongoing attempt to learn the locations and population sizes of invasive plant species involves collecting transect data and vegetation mapping. Since invasive species like cheat grass play a dangerous role in the fire cycle, this data has serious implications for preserving

ecosystem health. It may also increase public awareness of the role people play in the accidental spread of invasive plant species.

#### Caves

The largely wild and undisturbed dry caves of the Monument represent time capsules that harbor items like ice age fossils, cultural artifacts, unique wildlife and geologic features. Research is focused on biodiversity, fossils and microbial crusts. The precious resources within caves help deepen our understanding of climate change and the natural history of the Southwest.

#### Bat Research

Bats are carefully caught in mist nets to identify species, gender, age and health. So far, third party researchers collecting baseline data have identified nearly 20 bat species, including six sensitive species. Information gathered helps assess the health of Parashant bat populations, an indicator of overall ecosystem health.

Source: National Park Service <https://www.nps.gov/para/learn/scienceresearch.htm> (Accessed May 18, 2017.)

The public lands administered by the Grand Canyon-Parashant National Monument contain cultural resources that are important to our understanding of both recorded history and prehistory - the time before written history. These resources represent a priceless heritage, which should be protected for future generations.

The human legacy of the Arizona Strip is found in the archaeological and historical sites which remain. And yet, historic and prehistoric sites on the monument are largely unknown because less than ten percent of the monument has ever been surveyed. In many areas, visitors cannot take a step without finding some indication of past human life.

The monument has a history that begins more than 13,000 years ago with prehistoric Native Americans called the PaleoIndians. Remnants of the once-extensive Archaic, Puebloan (Anasazi) and Southern Paiute cultures are found on the monument. Mining activities, timber cutting and settlement by farmers and ranchers began by the 1870's. Today, ranching operations have survived the march of time.

#### Prehistory

Travel in remote Arizona Strip country brings with it the chance to discover ancient cultures once living or passing through this region as long as 13,000 years ago. Established in part for its magnificent cultural resource values, the Grand Canyon-Parashant National Monument is a testament to the lifestyle of early residents here. Among the finds are the region's petroglyphs

(pecked or incised figures on rock) and pictographs (painted figures), leaving behind a resource for cultural identification, scientific exploration and visitor appreciation.

#### Petroglyphs

One of the largest known petroglyph sites on the Arizona Strip is Nampaweap. Walk the half-mile canyon trail to see hundreds of images pecked into the surface of large basalt boulders. Petroglyphs were made by pecking the surface of rock to expose the lighter colors underneath. An early method used a hand stone to strike the rock, resulting in a rudimentary figure. Later, two stones were used like a hammer and chisel, giving the artist the ability to peck images with greater detail.

Archaeologists classify rock elements into categories. Some of the elements at Nampaweap include: anthropomorphs, human-like figures; zoomorphs, animal-like figures; and, abstract designs. Anthropomorphs typically have arms and legs, even fingers and toes. Bighorn sheep, snakes and lizards are common zoomorph figures. Abstract elements include circles, spirals and various combinations of lines.

#### Interpretation

Scientists do not know the meaning of the petroglyphs. Researchers are working with native peoples to gain insight. It is possible that some images were made for religious purposes, while others may have marked a trail, commemorated an event, tracked the seasons, told a story or represented families or clans.

#### Logging

The Ponderosa pine forests on the Strip have a logging history dating back to the early 1870's. Timber removed from the Mount Trumbull area of the Monument was used to build the Mormon Temple in St. George, Utah. Timbers were hauled from Mt. Trumbull over the Temple Trail, a distance of nearly 70 miles. Logging actively occurred in the area until the 1960s at more than a dozen sawmills.

The first mineral venture on the Arizona Strip can be traced to 1872, when two packers discovered a little "color" in the sand at the mouth of Kanab Creek. Word of the gold discovery soon reached the outside, via the newly installed telegraph at Pipe Springs, and miners poured into the region. The gold was too fine to be profitable; however, the influx of outsiders breached the isolation of the Mormon communities and stimulated the local economy.

#### Mining

Although gold was never an important commodity on the Arizona Strip, copper was more abundant and periodically profitable. In the early 1870's, the Bentley Mining District was formed. A group of men from St. George, Utah established an official claim on the Grand Gulch



Mine in 1873, which ultimately became the most prominent mine in the region. However, profitable exploration of the ore, said to be "the richest ever produced by a copper mine in the Territory," was hampered by isolation and the long haul to a railhead. Mules initially packed in tools and supplies until a wagon road opened to St. George.

In 1906, a 54-mile long wagon road was constructed, connecting the mine to St. Thomas, Nevada, now under water at Lake Mead. It took freight teams a week to make the round trip. Between 8 to 12 tons of ore were hauled each trip at a value of \$10.00 a ton. The drop in copper prices following World War I caused the mine to shut down for two decades; it was reopened for a brief time during and following World War II.

The mine's main buildings burned in 1955, and by 1958 the mine was abandoned, although it was reworked in the early 1960s, and again during the uranium boom in the 1970s. Today, some relatively complete buildings and structures still stand, including a bunkhouse and adobe smelter. Some structures and equipment are on private land.

#### Ranching

Livestock grazing has held an important place in history on the Arizona Strip since the 1850's.

The first noted cattle operation, within what is today the Grand Canyon-Parashant National Monument, was established by the Whitmore family in an area near Oak Spring on the flanks of Mt. Logan. In 1879, the Canaan Company established a dairy ranch at Oak Grove. Other settlers followed suit, and as cattle herds expanded, overgrazing and misuse of water resources resulted.

In 1883, declining profits prompted the Canaan Company to sell the Oak Grove ranch to Benjamin F. Saunders. Initially, he concentrated his investments in the Shivwits region, but expanded his holdings eastward. His entry marked the beginning of this region's cowboy era and the reign of cattle barons. Saunders sold his Parashant claims to Preston Nutter, a wealthy Utah cattleman. By 1900, Nutter had acquired control of almost all of the Arizona Strip, with an estimated 25,000 cattle, maintaining his dominance until his death in 1936.

Before federal regulation limited the number of livestock permitted on public lands, ranchers ran in excess of 100,000 head of cattle. Additionally, in the 1930's sheep men grazed more than a quarter-million head of sheep. As was the case in much of the west, conflict rose as both pursued the limited forage and water. The passage of the Taylor Grazing Act in 1934 gave order and federal administrative authority to public grazing lands, preventing overgrazing and bringing stability to the livestock industry dependent upon the public range.

Today, there are 117 cattle permit holders on Arizona Strip public lands administered by the BLM and NPS. Where there were once more than 100,000 head of cattle, permits are now issued for 15,000 cows and no sheep. Grazing remains an important component of the multiple-use management in Grand Canyon-Parashant National Monument. For the new generation

however, ranching is a sideline, a labor of love performed on weekends and days off while the regular paycheck is earned in town. Few full-time residents live in this remote area today.

Source: BLM

[https://web.archive.org/web/20170127083933/https://www.blm.gov/az/st/en/prog/blm\\_special\\_areas/natmon/gcp/cultural.html](https://web.archive.org/web/20170127083933/https://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/gcp/cultural.html) (Accessed May 18, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

No comment.

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Nearby parks:

Lake Mead National Recreation Area offers huge lakes for boaters, swimmers, and fishermen while its desert rewards hikers, photographers, and sightseers.

Pipe Spring National Monument serves as a water oasis for American Indians, Mormon ranchers, and includes historic forts, gardens, and a ridge trail.

Utah's first national Park, Zion offers hiking, camping, backpacking, climbing, and more, making it a popular summer vacation spot for families and adventurers.

Offering rim to rim hiking, donkey rides, and whitewater rafting, Grand Canyon National Park is a hugely popular national park destination.

Source: National Parks Foundation <https://www.nationalparks.org/explore-parks/grand-canyon-parashant-national-monument> (Accessed May 18, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Today, there are 117 cattle permit holders on Arizona Strip public lands administered by the BLM and NPS. Where there were once more than 100,000 head of cattle, permits are now issued for 15,000 cows and no sheep. Grazing remains an important component of the multiple-use management in Grand Canyon-Parashant National Monument. For the new generation however, ranching is a sideline, a labor of love performed on weekends and days off while the regular paycheck is earned in town. Few full-time residents live in this remote area today.



Source: BLM

[https://web.archive.org/web/20170127083933/https://www.blm.gov/az/st/en/prog/blm\\_special\\_areas/natmon/gcp/cultural.html](https://web.archive.org/web/20170127083933/https://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/gcp/cultural.html) (Accessed May 18, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

Where the West Stays Wild

Parashant provides a sense of solitude to those who venture into its isolated domain. The Monument's expansive landscape encompasses a chronicle of natural and cultural history that is just waiting to be discovered. For those prepared and equipped to explore the largely undeveloped landscape, a trip into the Parashant is a journey into the wild.

Source National Park Service <https://www.nps.gov/para/index.htm> (Accessed May 18, 2017.)

## **Grand Staircase-Escalante National Monument Utah**

I personally visited this National Monument last summer. I was only able to visit a very small portion of the area, but it is a true national treasure that protects many significant historic, cultural, geological and ecological wonders. The Highway 12 corridor is one of my favorite roads in the country.

I am writing to **support the continuation of the National Monument** status as currently established for Grand Staircase-Escalante National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

This Monument was created to encompass the region of religious, archeological, ecological and geographic importance.

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Since 2000, numerous dinosaur fossils over 75 million years old have been found at Grand Staircase-Escalante.

In 2002, a volunteer at the Monument discovered a 75-million-year-old dinosaur near the Arizona border. On October 3, 2007, the dinosaur's name, *Gryposaurus monumentensis* (hook-beaked lizard from the monument) was announced in the *Zoological Journal of the Linnean Society*. *G. monumentensis* was at least 30 feet (9.1 m) long and 10 feet (3.0 m) tall, and has a powerful jaw with more than 800 teeth.[3][4] Many of the specimens from the Kaiparowits Formation are repositied at the Natural History Museum of Utah in Salt Lake City.

#### Willis Creek in the Grand Staircase

Two ceratopsid (horned) dinosaurs, also discovered at the Monument, were introduced by the Utah Geological Survey in 2007. They were uncovered in the Wahweap formation, which is just below the Kaiparowits formation where the duckbill was extracted. They lived about 80 million or 81 million years ago. The two fossils are called the Last Chance skull and the Nipple Butte skull. They were found in 2002 and 2001, respectively.[5] Both were later identified as belonging to *Diabloceratops*. [6]

In 2013 the discovery of a new species, *Lythronax argestes*, was announced. It is a tyrannosaur that is approximately 13 million years older than *Tyrannosaurus*, named for its great resemblance to its descendant. The specimen can be seen at the Natural History Museum of Utah.

Humans didn't settle permanently in the area until the Basketmaker III Era, somewhere around AD 500.[7] Both the Fremont and ancestral Puebloan people lived here; the Fremont hunting and gathering below the plateau and near the Escalante Valley, and the ancestral Pueblos farming in the canyons. Both groups grew corn, beans, and squash, and built brush-roofed pithouses and took advantage of natural rock shelters. Ruins and rock art can be found throughout the Monument.

The first record of white settlers in the region dates from 1866, when Captain James Andrus led a group of cavalry to the headwaters of the Escalante River. In 1871 Jacob Hamblin of Kanab, on his way to resupply the second John Wesley Powell expedition, mistook the Escalante River for the Dirty Devil River and became the first Anglo to travel the length of the canyon.

In 1879 the San Juan Expedition crossed through the Monument on their way to a proposed Mormon colony in the far southeastern corner of Utah. Traveling on a largely unexplored route, the group eventually arrived at the 1200-foot (400 m) sandstone cliffs that surrounded Glen Canyon. They found the only breach for many miles in the otherwise vertical cliffs, which they named Hole-in-the-Rock. The narrow, steep, and rocky crevice eventually led to a steep sandy

slope in the lower section and eventually down to the Colorado River. With winter settling in, the company decided to go forward, down the crevice, rather than retreat. After six weeks of labor, including excavation and the use of explosives to shift rock, they rigged a pulley system to lower their wagons and animals down the resulting road and off the cliff. There they built a ferry, crossed the river and climbed back out through Cottonwood Canyon on the other side.

Source Wikipedia [https://en.wikipedia.org/wiki/Grand\\_Staircase-Escalante\\_National\\_Monument](https://en.wikipedia.org/wiki/Grand_Staircase-Escalante_National_Monument) (Accessed May 18, 2017.)

GSENM has a nationally significant conservation role for the Bureau and nationally significant programs, managed by resource specialists, in paleontology, archaeology, biology, botany, ecology, history, wildlife, planning and environmental coordination, range management, realty, recreation, soil, air and water, wilderness, and visual resources.

Hummingbird and Bat Study: The Monument continued a long-term study of bats and hummingbirds. In addition to noting species, weight, and key measurements on the hummingbirds, the staff scientists have also initiated a study of the plant species utilized by these birds. Pollen swabs show the variety of plants visited by hummingbirds, including golden current and other native species critical for pollinators. The trapping program identified four species caught in three locations and habitats: Calf Creek (desert riparian), Escalante interagency office (pinyon-juniper and developed), and Wildcat Ranger Station (Mountain meadow). Partners in this project are Hummingbird Monitoring Network, BLM (GSENM), Dixie National Forest, and Fishlake National Forest.

Cougar Predation: The GSENM cougar predation study tracked a male collared with a GPS transmitter in June of 2013. During the 2014 field season, the cougar's movements and all of his kills were monitored through April, 2014. Preliminary data suggest a large home range of nearly 400 square miles. Kills by the cougar varied from 3-4 per week during deer fawning and elk calving season to less than one per week during winter months. GSENM hopes to continue this study by collaring two more cougars this year.

#### Paleontological Objects and Resources

The monument includes world class paleontological sites. The Circle Cliffs reveal remarkable specimens of petrified wood, such as large unbroken logs exceeding 30 feet in length. The thickness, continuity and broad temporal distribution of the Kaiparowits Plateau's stratigraphy provide significant opportunities to study the paleontology of the late Cretaceous Era. Extremely significant fossils, including marine and brackish water mollusks, turtles, crocodilians, lizards, dinosaurs, fishes, and mammals, have been recovered from the Dakota, Tropic Shale and Wahweap Formations, and the Tibbet Canyon, Smoky Hollow and John Henry members of the Straight Cliffs Formation. Within the monument, these formations have produced the only evidence in our hemisphere of terrestrial vertebrate fauna, including mammals, of the Cenomanian-Santonian ages. This sequence of rocks, including the overlaying Wahweap and

Kaiparowits formations, contains one of the best and most continuous records of Late Cretaceous terrestrial life in the world.

The Monument's paleontological resources are becoming better known to the greater research community as a result of 15 years of BLM sponsored collaborative, interdisciplinary research. During that time, teams from more than two dozen museums and universities have documented thousands of new fossil sites. From these sites many truly world class fossils have been collected including over twenty new species of dinosaur, giant alligators, turtles, fish, mammals, and a spectacular fossil tropical flora. The result has been that the expectations of the Proclamation have actually been exceeded, placing GSENM in the unique position as the most diverse and significant southern Laramidian terrestrial Cretaceous locality, that rivals the importance of the Dinosaur Provincial Park World Heritage site in Alberta, Canada. Monument finds are causing the research community to revise long held ideas on Cretaceous dinosaur diversity and ecology and serve as a touchstone for most new hypotheses on these topics. The 634 page Indiana University Press technical volume "At the Top of the Grand Staircase-The Late Cretaceous of Southern Utah" was released early in FY14 (October 2013). It summarizes much of what was known as of 2010. However, many new significant finds, including new kinds of dinosaurs, have been made even since that volume was released. The Kaiparowits Formation (76-74 million years old) consistently produces spectacular fossil finds of all types, but the Wahweap, Tropic, Straight Cliffs and other formations (see Management Recommendations, below) have also yielded many highly significant sites. Jurassic and the Triassic strata also contain significant resources, but at a much lower volume.

#### Cultural Resources (Archaeological and Historic) Objects and Resources

Archeological inventories carried out to date show extensive use of places within the monument by ancient Native American cultures. The area was a contact point for the Anasazi and Fremont cultures, and the evidence of this mingling provides a significant opportunity for archeological study. The cultural resources discovered so far in the monument are outstanding in their variety of cultural affiliation, type and distribution. Hundreds of recorded sites include rock art panels, occupation sites, campsites and granaries. Many more undocumented sites that exist within the monument are of significant scientific and historic value worthy of preservation for future study.

The monument is rich in human history. In addition to occupations by the Anasazi and Fremont cultures, the area has been used by modern tribal groups, including the Southern Paiute and Navajo. John Wesley Powell's expedition did initial mapping and scientific field work in the area in 1872. Early Mormon pioneers left many historic objects, including trails, inscriptions, ghost towns such as the Old Paria townsite, rock houses, and cowboy line camps, and built and traversed the renowned Hole-in-the-Rock Trail as part of their epic colonization efforts. Sixty miles of the Trail lie within the monument, as does Dance Hall Rock, used by intrepid Mormon pioneers and now a National Historic Site.

Cultural resources on GSENM include both historic and prehistoric sites, as named in the Proclamation. The cultural resource program also addresses Traditional Cultural Properties (TCP), Native American Sacred Sites, and cultural landscapes. Several potential TCP have been identified by the Paiute, but have not yet been finalized.

### Current Science Projects

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Archaeological Inventory and Monitoring (part of Assistance Agreement L11AC20222: NLCS GSENM Archaeological Assessment Project)	The purpose of this project is to gather baseline data on the archaeological sites and distributions within GSENM, as well as monitoring the conditions of these sites.	archaeology, history, monitoring	Jerry Spangler, Colorado Plateau Archaeological Alliance	Report in preparation	\$19,147
Meadow Canyon Archaeological Inventory (part of Assistance Agreement L11AC20222: NLCS GSENM Archaeological Assessment Project)	The purpose of this inventory is to characterize the archaeology in the vicinity of the Meadow Canyon Pollen Core so that data from the core can be used in conjunction with historic and prehistoric use of the landscape.	archaeology, paleo-environments, palynology, botany, climate change	Jerry Spangler, Colorado Plateau Archaeological Alliance	Report in preparation (NOTE: funds for this project lumped with those for "Archaeological Inventory and Monitoring"-- same Assistance Agreement)	\$0
Lake Pasture Archaeological Inventory (part of Assistance Agreement L11AC20222: NLCS GSENM Archaeological Assessment Project)	The purpose of this inventory is to characterize the archaeology in the vicinity of the Meadow Canyon Pollen Core so that data from the core can be used in conjunction with historic and prehistoric use of the landscape.	archaeology, paleo-environments, palynology, botany, climate change	Jerry Spangler, Colorado Plateau Archaeological Alliance	Research in progress (NOTE: funds for this project lumped with those for "Archaeological Inventory and Monitoring"-- same Assistance Agreement)	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Identification and collection of Penstemon taxa native to Utah for diversification, documentation, and genotyping studies	Purpose: To produce a Penstemon field guide for Utah, and to gain a better understanding of the genetic diversity of Penstemon within Utah.	botany	Mikel R. Stevens, Brigham Young University Plant and Wildlife Sciences Department	Research in progress; one public presentation at GSENM	\$0
Baseline Inventory of Bryophytes of GSENM (Assistance Agreement L14AC00275)	This proposal will examine questions/issues dealing with (1) what species of bryophytes occur within the GSENM?, (2) where are the “hot spots” of bryophyte diversity within the GSENM?, and (3) characterizing rare, regionally disjunct, or new species to science within the GSENM.	botany, bryophyte, inventory, taxonomy, diversity	Lloyd Stark, University of Nevada-Las Vegas	Project initiated in FY14	\$38,000
Scent-mediated diversification of evening primrose (Onagraceae) flowers and moths across western North America	This project will examine the role of floral scent in the diversification of a model plant-pollinator-enemy system in the western North American evening primroses (Onagraceae), focusing on how chemically-mediated interactions between flowering plants, pollinators, and enemies affect diversification at population, species, and higher levels.	botany, ecology, plant ecology, pollination	Dr. Krissa Skogen, Jeremie Fant, Rick Overson, Tania Jogesh, Matt Rhodes, Evan Hilpman: Chicago Botanic Garden	Research in progress; annual report submitted	\$0
Special Status Species: Threatened and endangered	Annual monitoring and surveying of three federally listed plant species. Ute Ladies'-	botany, endangered species	Amber Hughes, GSENM	Research in progress	\$10,000

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
species monitoring (L11AC20161)	tresses, Jones' Cycladenia, and Kodachrome bladderpod. Monitoring is used to detect trend and surveys occur to find unknown population sites				
Seeds of Success	Seeds of Success (SOS) was established in 2001 by the Bureau of Land Management (BLM) in partnership with the Royal Botanic Gardens, Kew Millennium Seed Bank (MSB) to collect, conserve, and develop native plant materials for stabilizing, rehabilitating and restoring lands in the United States. The initial partnership between BLM and MSB quickly grew to include many additional partners, such as botanic gardens, arboreta, zoos, and municipalities. These SOS teams share a common protocol and coordinate seed collecting and species targeting efforts. SOS is a vital part of the Native Plant Materials Development Program.	botany, native plants, restoration	Amber Hughes, GSENM	Research in progress	\$16,138
Phylogeography and evolution of <i>Mentzelia cronquistii</i> (Loasaceae) and the <i>Mentzelia</i>	This project will explore how geographic and topographic complexity shape migration routes, gene	botany, plant speciation	Dr. Larry Hufford and Joseph Grissom, Washington State	Research in progress	\$0



Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
marginata complex	flow, and plant speciation on the Colorado Plateau through a study of the geographic patterning of genetic diversity in the Mentzelia marginata complex.		University; Wendy Hodgson, Desert Botanical Garden, Phoenix, AZ		
Learning from native 'winners'	Purpose: to identify native species and populations that can perform well in degraded sites and potentially facilitate succession to diverse native communities	botany, restoration	Andrea Kramer et al, Chicago Botanic Garden	Research in progress; annual report submitted	\$0
BLM Utah rare plant research and ex-situ conservation of plant species	The purpose for this project is to conduct ex-situ conservation through seed collection and long-term storage of threatened, endangered, candidate, BLM sensitive and native species in southwestern and other areas of Utah. Seed collected will be stored as long-term ex-situ conservation germ plasm at both Red Butte Garden and CGRP in Fort Collins. If seed numbers allow, a small portion will be used to conduct non-destructive seed viability and propagation studies.	botany, seed conservation	Rita Reisor, Red Butte Garden, University of Utah	Research in progress	\$0
USDA Forest Service National Forest Inventory and Analysis program	Purpose: To conduct forest inventory at selected locations throughout the Monument to determine: status and	ecology, forestry, forest ecology, forest inventory	Maryfaith Snyder, USDA Forest Service Rocky Mountain Research	Research in progress	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	trends in forest area and location; species, size, and health of trees; total tree growth, mortality, and removals by harvest; wood production and utilization rates by various products; and forest land ownership.		Station, Interior West Forest Inventory and Analysis		
Paleoecology study of the GSENM	Assistance Agreement L11AC20143	ecology, paleo-ecology, paleo-environment, cultural resources	Scott Anderson, Northern Arizona University and Ken Cole, USGS	Research in progress	\$23,829
untitled	Purpose: To test the hypothesis that habitat near or at ecological potential will show significantly reduced impacts from the expected effects of climate change.	ecology, plant ecology, climate change	Jim Catlin, Wild Utah	Research in progress; annual report submitted	\$0
Ecological effects of stream drying under climate change in the Upper Colorado River Basin	The purpose of the proposed research is to examine the effects of reduced low flow stream on riparian plant communities. Researchers will sample riparian plant communities along a hydrologic gradient (perennial to intermittent) to develop statistical relationships between flow parameters and biotic responses to help predict biotic changes under climate change-driven stream drying.	ecology, plant ecology, climate change, hydrology, geomorphology	Lindsay Reynolds et al, USGS	Project completed; final report submitted	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Restoration Studies (and dust collection study)	Determines what mechanisms of disturbance creates the greatest opportunity for success in restoration processes. Dust collection study is designed to collect data on soil loss from disturbed sites.	ecology, restoration, soil, erosion	Raymond Brinkerhoff, GSENM; UPCD; Color Country District BLM; Utah Cooperative Extension Service; NRCS	Research in progress	\$8,500
Untitled	The purpose of this project is to study weathering processes and their products in the Navajo Sandstone, and to compare them with those in Japan and related areas in Asia with different geologic and climate settings.	Geochemistry, weathering	Hirokazu Yoshida, Nagoya University	Project initiated in FY14	\$0
Geomorphology and geochronology of andesitic boulder deposits in the Escalante Canyons section of GSENM	This project will study the andesitic boulder deposits around the southern Boulder Mountain and Aquarius Plateau piedmont, including the effect that andesitic boulder gravels have on modern river incision rates.	geology	David Marchetti and Amy Ellwein, Western State Colorado University; Scott Hynek and Thure Cerling, University of Utah	Research in progress	\$0
Late Triassic Wood Ichnology	Purpose: To study a series of previously unknown Triassic-age insect borings in petrified wood from Chinle Formation in the Wolverine Petrified Forest.	geology	Eric Roberts, James Cook University School of Earth and Environmental Sciences, Queensland, Australia (formerly with Southern	Project Terminated due to relocation of PI to Australia	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
			Utah University)		
Chronostratigraphic delineation of the muddy Entrada Sandstone in central Utah using the $^{40}\text{Ar}/^{39}\text{Ar}$ method to date juvenile ashes; a sequence stratigraphic study	This project will construct a sequence stratigraphic model for the muddy portion of the Entrada Sandstone to correlate deformation in the Entrada to the proposed “Elko Orogeny” using $^{40}\text{Ar}/^{39}\text{Ar}$ dating and chemical analyses	geology	Toby Dossett, BYU	Research in progress	\$0
untitled	This project will focus on the biotic recovery after the end-Permian mass extinction (252 Ma ago) in order to better understand patterns and processes of diversity dynamics during the Early Triassic	geology, geochemistry	Arnaud Brayard et al, Centre National de la Recherche Scientifique, France (National Center for the Scientific Research)	Research in progress; no field work in FY14	\$0
untitled	Purpose: To study various iron-oxide rich concretions using petrography and SEM, and to measure the orientation of more pipe-like concretions that define the flow direction and geochemical evolution of a paleoaquifer.	geology, geochemistry	David B. Loope, University of Nebraska Department of Geosciences	Research in progress; annual report submitted; publication of one book chapter; one paper submitted to peer-reviewed journal (accepted pending minor modification); one public presentation at GSENM	\$0
Early Laramide influenced Sedimentary patterns along the East Kaibab Monocline.	The purpose of this project is to examine the geology of the East Kaibab Monocline, especially with respect to sag ponds.	geology, sedimentology	Dr. Ed Simpson, Kutztown University of Pennsylvania, Department of Physical	Two scientific publications in FY2014. Annual Report submitted.	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
			Sciences and Dr. Mike Wizevich, Central Connecticut State University		
Upper Paleozoic and lower to middle Mesozoic eolian quartzarenites on the western Colorado Plateau Province	This project will study quartzarenites from upper Paleozoic and lower to middle Mesozoic lithostratigraphic units of mainly eolian origin on the western Colorado Plateau Province in southwestern Utah. Several specific eolian stratification types (wind-ripple, sandflow, and grainfall strata—where preserved in the Lower Jurassic Navajo Sandstone, Middle Jurassic Page Sandstone, particularly the Thousand Pockets Tongue and Leche-e Member and eolian beds in the Middle Jurassic Entrada Sandstone) will be sampled. Textural attributes will be compared with eolian calcarenites from the Bahamas.	geology, sedimentology	Dr. Mario Caputo, San Diego State University & California State Polytechnic University, Pomona	Research in progress	\$0
The Permian-Triassic boundary and the Early Triassic in Transcaucasian pelagic sections	This project will examine early Triassic microbialites to determine mode of deposition (abiotic, microbially-control, or microbially-induced), and to characterize	geology, sedimentology	Kirk Johnson, Denver Museum of Nature and Science	Results presented at conference. Technical publication in early FY2014.	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	the relationship between microbialite occurrence and oceanic conditions at deposition.				
NSF Earth Life Transitions (ELT) Project: Perturbation of the Marine Food Web and Extinction During the Oceanic Anoxic Event at the Cenomanian/Turonian Boundary	The purpose of this project is to test for evidence of ocean acidification during the OAE 2 event. This permit authorizes the team to drill a hole in the Tropic Shale to collect samples of unaltered bivalves, snails, and ammonites for analysis.	geology, sedimentology, paleobiology	Brad Sageman (Northwestern U); Mark Leckie (UMass-Amherst); Tim Bralower, Mike Arthur, Matt Fantle, and Lee Kump (Pennsylvania State U); Mick Follows, Julio Sepulveda; (Massachusetts Institute of Technology)	Core was drilled summer of FY2014. Samples currently undergoing analysis.	\$0
Soft Sediment Deformation and Injectites in the Jurassic Carmel Formation, Southern Utah: Implications for Reservoir Characterization, and Geomorphic Features on Mars	This study will examine a well-exposed example of numerous injectites/clastic pipes in the Jurassic Carmel Formation south of Big Water, Utah and to compare them to similar pipes along the White House Trailhead road, South of the Paria Contact Station. The objectives are to: characterize the sedimentology, mineralogy, and diagenesis of the pipes; map population clusters; measure size hierarchies; and examine spatial	geology, sedimentology, paleo-shorelines	Dr. Marjorie Chan, University of Utah	Research In Progress; annual report submitted; one MS thesis defended (Steve Pinta)—final thesis in prep; two abstracts submitted for professional conferences	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	relationships of regional tectonics, faulting, and relation to paleoshorelines.				
EarthScope Program	Purpose: To install one GPS monument in GSENM as part of a network of 33 sites in the southwest to study the crustal motion and deformation of the Colorado Plateau and the transition zones with the northern and southern Basin and Range.	geology, seismology	Cornelius Kreemer, University of Nevada Reno Nevada Bureau of Mines and Geology	Research in progress; annual report submitted	\$0
Ash-bed geochronology of Cretaceous sediments in the Grand Staircase Escalante National Monument	Purpose: To date Cretaceous stage boundaries, key fossil sites and Ocean Anoxic Events using ash from various Cretaceous strata, including the Tropic Shale, Dakota, Wahweap, Straight Cliffs and Kaiparowits formations.	geology, stratigraphy, dating	Kirk Johnson, Denver Museum of Nature and Science	Ash samples were analyzed in late FY2013. Publication on results forthcoming.	\$0
Paleomagnetic Survey of Late Cretaceous Strata – Kaiparowits Plateau, Utah (L08AC13131)	Purpose: To refine the temporal characterization of late Cretaceous strata through magnetostratigraphic analysis and its correlation to the Global Geomagnetic Polarity Time Scale (GPTS) in order that the hundreds of fossil localities currently known can be accurately placed in time. Field collection of rock samples to analyze at the UC	geology, stratigraphy, dating	L. Barry Albright III, University of North Florida Department of Physics	Scientific publication to be submitted in FY2015. Annual report submitted.	\$430

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	Berkeley Geochronology lab for remnant magnetism to determine polarity and age.				
Facies analysis, correlation, and reservoir prediction in nonmarine–shallow marine strata: Cretaceous Straight Cliffs Formation, Utah	Purpose: To document fluctuating marginal marine successions, explain facies variation in correlative nonmarine strata, and address the possible primary factors driving development of sequence and stratigraphic architecture (e.g., tectonic and eustatic controls).	geology, stratigraphy, deposition	Cari Johnson, University of Utah Department of Geology and Geophysics	Research in progress; annual report submitted; two papers to peer-reviewed journals in review, one paper to peer-reviewed journal in press; web site developed (Rocks to Models: r2m.utah.edu); eight presentations at professional society meetings	\$0
Stratigraphy, sedimentology and taphonomy of Upper Cretaceous strata in the Kaiparowits Basin	This project will resolve the temporal, taphonomic, paleogeographic, and paleoenvironmental framework of the Upper Cretaceous Kaiparowits, Wahweap, and Straight Cliffs formations by: 1) developing a chronostratigraphic record from volcanic ashes; 2) making paleoenvironmental interpretations from invertebrate and ichnological fossils; and 3) analyzing paleosols and associated fluvial and paludal sediments.	geology, stratigraphy, paleo-environments	Dr. Eric Roberts, James Cook University, Queensland, Australia; NOTE: connected with paleo project with Leif Tapanila, Idaho State U (Assistance Agreement L12AC20541)	Research in progress	\$0



Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Ground Water Study to Inventory and Map Water Wells in the Grand Staircase Escalante National Monument (L10PG00902)	The USGS, Utah Water Science Center, will complete an update of the water well inventory was done in 2000 - 2001. The area of coverage will be same as the previous inventory, to include the entire GSENM as well as the lands adjacent to the GSENM on the north side in the vicinity of the town of Boulder, and the lands on the west side of the monument in the vicinity of the town of Escalante. The inventory will include 1) review and completion of missing data elements in the existing inventory (where additional data is available), 2) updating the inventory data base with all new wells drilled since the last inventory, and 3) the inventory of wells will be mapped into GIS coverage, so that individual wells can be reviewed for relevant information, such as date drilled, total depth drilled, producing aquifer, producing yield, screened interval, etc. Approximately 12 data attributes will be selected to comprise the well data, and will be selected by mutual	hydrology, ecology	Bert Stolp, USGS Utah Water Science Center	Currently funded phase of research completed; final report and geodatabases submitted	\$14,754

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	agreement with USGS and BLM.				
BLM Assessment, Inventory and Monitoring (AIM) Project (Assistance Agreement L13AC00126)	This project will collect data on land health for the Utah pilot implementation project of BLM's national Assessment, inventory and Monitoring (AIM) strategy. The study will follow a probabilistic (random, stratified) sampling design developed in conjunction with USDA ARS Jornada Experimental Range. Data will be collected in accordance with AIM standard methods (MacKinnon, W.C., J.W. Karl, G.R. Toevs, J.J. Taylor, M. Karl, C.S. Spurrier, and J.E. Herrick. 2011. BLM core terrestrial indicators and methods. Tech Note 440. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.).	land health	Jerry Keir, Great Basin Institute	Research in progress; annual report and datasets submitted	\$124,440
Toward an integration of historical and contemporary data to inform assessment, monitoring, and decision-making on the Grand Staircase-Escalante National	Purpose: to conduct a retrospective study of existing vegetation assessment and monitoring data and to compare the results of that study with anticipated results under the AIM strategy. This study will: a) evaluate the	landscape ecology, land health, range assessment, range monitoring	Brett Dickson, Northern Arizona University	Research in progress; preliminary results submitted	\$11,687

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Monument (Assistance Agreement L13AC00249)	representativeness of existing GSENM vegetation monitoring data previously sampled using both probabilistic and non-probabilistic designs; b) summarize and compare methodologies used to collect these data in a rigorous analytical framework; and c) evaluate the potential for integration of these data into the stratified probabilistic design to be developed through the application of the AIM strategy for land health assessment on GSENM.				
Cretaceous Paleobotanical Heritage Resource Inventory/Specimen Protection (L11AC20100)	Purpose: To inventory Cretaceous paleobotanical resources in the Kaiparowits Plateau region. Ground inventory for significant plant fossils using GPS technology, field notes, and photographs to document resource location/condition. Significant specimens are collected to preserve them. Collected specimens are stabilized and prepared for long term curation by volunteers at the DMNS.	paleobotany	Dr. Ian Miller, Denver Museum of Nature and Science.	Research in progress; annual report submitted. One scientific publication (book chapter)	\$6,000

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Kaiparowits Basin Project-Invertebrate Survey (L12AC20541)	Survey of Invertebrate Molluscan diversity and correlation of ecological disparity with environmental facies.	Paleontology (invertebrate), paleo-environment	Drs. Lief Tapanila, Idaho State University, and Eric Roberts, James Cook University School of Earth and Environmental Sciences, Australia.	Research in progress	\$235
Freshwater molluscan diversity and paleoecology of the Kaiparowits Fm.	Intensive sampling of freshwater molluscs in a variety of sedimentary facies should allow for characterization of ecological preferences of each species. This in turn will help refine paleoecological models for all Late Cretaceous fossil taxa.	Paleontology (invertebrate), paleo-environment.	Dr. Lief Tapanila, Idaho State University	Research in progress; annual report submitted	\$1,200
Middle Jurassic mammalian diversity.	Inventory of Middle Jurassic age rocks for primitive therians.	Paleontology (vertebrate)	Dr. Brian Davis, Missouri Southern State University	Research in progress; annual report submitted	\$0
Cretaceous marine vertebrate diversity.	Inventory of Tropic Shale outcrops mostly for marine reptiles, but also for fish and the rare dinosaur.	Paleontology (vertebrate)	Dr. David Gillette, Museum of Northern Arizona, with Dr. Beck Schmeisser, Norbert College.	Research in progress; annual report submitted	\$0
Utah BLM State Monitoring	New long term trend monitoring designed to make data collection uniform across the state	range management	Utah State BLM, Univ. of Arizona	Research in progress	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
GSENM-Recreation Experience Baseline Study (L12AC20566)	This study is designed to facilitate social science research aimed at understanding recreation experiences at Grand Staircase-Escalante National Monument (GSENM). Project uses focus groups, conducted in face-to-face sessions as well as via web-based sessions, to determine interests and expectations of recreationists, desired outcomes, setting characteristic preferences, sense of place, and tolerance for changes such as crowding and physical setting changes. Focus groups have been conducted with local residents, commercial guides, local officials, and members of the tourism support industries in the area. Data collection has been aided by audience polling technology and the BLM project lead has assisted in populating the focus groups, developing the scripts, and securing locations and times for the focus group sessions. Phase 1 was conducted in 2013 and studied the Hole in the Rock area; Phase 2 was	recreation experience, visitor experience, sense of place, user preferences	Dr. Tim Casey, Colorado Mesa University	Research in progress; annual report submitted	\$30,000

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	conducted in 2014 and studied the Grand Staircase region.				
Baseline Acoustic Monitoring at GSENM (assistance Agreement L14AC00078)	This agreement was initiated in 2014 to conduct baseline acoustic monitoring at GSENM to determine current soundscape conditions and develop a better understanding of how natural sound and noise affect visitor experience and monument resources.	recreation, acoustics, visitor experience	Britton Mace, Grant Corser, Larissa Reynolds, Shelly Ewen, Jennifer Anderson, Cassi Hoffmeister, Stuart Clements, Alex Vittum-Jones, Glenn Beacham and Kaitlin Potter: Southern Utah University, Dept. of Psychology	Research in progress; Three sets of monitoring equipment were loaned to GSENM in Sept 2014 by NPS. Training on deployment, data collection, extraction, data analysis and reporting was conducted by NPS Natural Sounds Office. Training attended by PI, 8 student research assistants and 8 GSENM staff. PI and research assistants check equipment every two weeks and download data once per month. Planning, site selection, and scoping were conducted with GSENM staff, the PI, research assistants, and NPS personnel. Equipment deployed along Calf Creek and Deer Creek Trails and in the Dry Fork Canyons area. Data sets consisting of 25 days of complete acoustic	\$14,886

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
				recordings and decibel measurements were collected at these three locations over a three month period.	
Research to Evaluate Visitor Capacity of the Dry Fork slot canyons and within the Calf Creek watershed and analysis of existing data (Interagency Agreement IGO with Aldo Leopold Wilderness Research Institute)	This research will rely primarily on existing data from two locations to determine visitor experience and resource conditions that are needed for future backcountry management related to day-use and implementation of a SRMA or SMA An initial internal BLM workshop to look at visitor capacity will kick off in the spring of 2015.	wilderness study areas, visitor experience, visitor capacity, day-use, resource impacts	Dr. David Cole	Research beginning in spring 2015	\$20,000
Big Horn Sheep Connectivity Study	Determines sheep movement across the monument to identify populations and genetics	wildlife, animal ecology, habitat connectivity, climate change, bighorn sheep	Ryan Monello, National Park Service; also Oregon State University, Utah Dept of Wildlife Resources	Research in progress	\$0
Cougar Connectivity Study	GSENM is the last area to be studied on the Colorado Plateau. Determines the movement and ranges of cougars	wildlife, animal ecology, habitat connectivity, climate change, cougar, mountain lion	David Mattson, USGS; also NPS and Utah Division of Wildlife Resources	Research in progress	\$8,500

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
Bat population and pollen study	Identifys species, movement, and populations; sample pollinators to identify the various types of pollen and where it came from	wildlife, bats, ecology, zoology, botany	Terry Tolbert, GSENM; also volunteers, Dixie National Forest, BCNP	Research in progress	\$2,000
Hummingbird migration study	Banding and tracking migration of the different species of humming birds and their importance to pollinization.	wildlife, humming-birds, botany	Terry Tolbert, GSENM; also volunteers, Dixie National Forest, BCNP	Research in progress	\$12,000
Pronghorn Location Monitoring	Tracking the migration, reproduction, and forage use of five different populations of pronghorn.	wildlife, zoology, animal ecology, Pronghorn	Cameron McQuivey, GSENM; also Utah Department of Wildlife Resources, volunteers	Research in progress	\$8,500
Global Survey and Inventory of Camel Spiders (Arachnida, Solifugae)	The purpose of the proposed research is to collect and inventory camel spider diversity in sites near the type localities of species previously collected and largely known only from historical records. Specimens will be used for both a higher level phylogenetic analysis of Solifugae, for a phylogenetic analysis of the Eremobatidae, and to investigate the taxonomy, ecology, behavior, and morphology of the group.	zoology, animal ecology, arachnids	Paula Cushing, Denver Museum of Nature and Science	Research in progress	\$0
Estimating Occupancy Rates, Reproductive Effort and Effects	Purpose: This research project involves studying the prey dynamics of the	zoology, animal ecology, Mexican	David W. Willey, Montana State	Research in progress	\$0



Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
of Recreation on Mexican Spotted Owls in Southern Utah	threatened Mexican Spotted Owl in the Monument. The objective of this project is to develop a long-term (i.e., >10 year) monitoring study concerning trends in prey abundance and factors that influence spotted owl population dynamics in the Monument. A second objective of this research will be to assess the effects of climate changes on both spotted owls and their primary prey.	Spotted Owl, endangered species	University Department of Ecology		
A study of American Black Bears ( <i>Ursus americanus</i> ) on the Paunsaugunt Plateau, Utah	This project will to identify the movements of black bears on the Paunsaugunt Plateau in relation to centers of human activity and anthropogenic food sources, including: documenting movement, association with anthropogenic food sources, annual reproduction and survival data, evaluating methods for aversively conditioning food-conditioned bears.	zoology, animal ecology, wildlife, behavioral ecology	Dr. Tom Smith, Brigham Young University, Wildlife and Wildlands Conservation Program	Research in progress; quarterly progress reports submitted	\$0
untitled	This project will conduct a taxonomic revision and provide an identification key for the New World species of <i>Heliophila</i> .	zoology, arthropods, bees	Michael Orr, Terry Griswold, Harold Ikerd, Skyler Burrows, Jonathan Koch, Zachary	Research In progress; annual report submitted	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
			Portman, Joan Meiners, David Denlinger, Emily Sadler, Zachary Valois: Utah State University, Dept of Biology and USDA-ARS National Pollinating Insect Collection		
Habitat and Biodiversity Monitoring Using Terrestrial Arthropod Surveys	This project seeks to search for and collect a new moth species in the genus <i>Plagiomimicus</i> (Noctuidae, Amphipyridae), conduct a general sampling of moths, and search for and collect a new subspecies (possible new species) of butterfly diurnally (net) in the genus <i>Euphilotes</i> (Lycaenidae).	zoology, ecology, animal ecology, lepidoptera, arthropods	Paul Opler and David Wikle, Colorado State University	Research in progress; annual report submitted; one publication in a peer-reviewed journal	\$0
untitled	Purpose: To conduct bird surveys and surveys for tamarisk beetle in the Escalante-Grand Staircase National Monument.	zoology, ecology, ornithology, invertebrate zoology	Jason Beason, Rocky Mountain Bird Observatory	Research in progress	\$0
Diversity and distribution of GSENM Lepidoptera (butterflies)	This project will develop a baseline inventory of the Lepidoptera (primarily butterflies) of GSENM, with emphasis on	zoology, Lepidoptera	Dr. Richard Zweifel	Research in progress; annual report submitted	\$0

Project Name	Project Description	Project Key Words	Principal Investigator	Project Status/ Accomplishments	BLM Contributed Funds (FY14)
	diversity and distribution. It is expected to provide data with which other studies can be compared. Other arthropods will also be collected and documented as the opportunity presents itself.				
Diversity of insect populations with a focus on systematic biology and life history of Southwestern moth species	This project is part of ongoing research exploring insect diversity on public lands in Texas, New Mexico, Arizona and Utah. It focuses on moths in the family Geometridae in an effort to gain insight into the taxonomic position and host plant associations of selected species in the genus <i>Nemoria</i> .	zoology, Lepidoptera	John W. Gruber, Friends' Central School and Jason D. Weintraub, Academy of Natural Sciences of Philadelphia	Research in progress	\$0

Source: Grand Staircase-Escalante National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/ut/grand\\_staircase-escalante/nlcs\\_mgrs\\_report.Par.61629.File.dat/GSENM\\_Manager\\_Report\\_FY2014\\_draft1-25-2015.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/ut/grand_staircase-escalante/nlcs_mgrs_report.Par.61629.File.dat/GSENM_Manager_Report_FY2014_draft1-25-2015.pdf) (Accessed May 18, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

In the latter part of FY13 GSENM launched a planning effort to prepare a Livestock Grazing Monument Management Plan Amendment with an associated Environmental Impact Statement (EIS). Environmental Management and Planning Solutions Inc. (EMPSi) was hired in September 2013 to write the EIS; the Notice of Intent to initiate the planning effort was published in early FY14. The Plan Amendment will make land use-level decisions associated with livestock grazing, including lands available or not available for livestock grazing, forage currently available on an

area-wide basis for livestock grazing and available for anticipated future demands, and guidelines and criteria for future allotment-specific adjustments. The Environmental Impact Statement will analyze the effects of all alternatives on the Monument's resources.

Visitor Center Management and Visitation: Despite the loss of the Monument's lead Park Ranger to retirement, and vacancies in visitor contact staffing at Escalante that were not filled until midyear, GSENM was able to provide exceptional front desk visitor services at four Visitor Centers and to support visitor contact in the backcountry during a record year for visitation. Annual visitation numbers reached an all-time high of 878,000 visitors counted in the RMIS system and 139,078 visitors welcomed at GSENM Visitor Centers. Sites with highest increases in visitation include Lower Calf Creek Falls (32,800), Devil's Garden (24,667), Dry Fork Trail (21,331), Sheffield Road (12,659) and Toadstools Trailhead (16,104). Visitor Center totals for FY14: Big Water, 22,978; Cannonville, 25,919; Escalante, 50,851; Kanab, 39,330.

Backcountry Use: GSENM issued 2,490 backcountry permits for 7,461 visitor use days, and 9,687 campground or day use permits, for 25,643 visitor use days. GSENM conducted 1,130 backcountry patrols. A total of 3,339 visitors were contacted, 2,388 vehicles were counted, 289 trailheads were serviced, 35 permits were issued in the field, and 982 campsites were monitored. GSENM installed 12 new boundary signs.

Source: Grand Staircase-Escalante National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/ut/grand\\_staircase-escalante/nlcs\\_mgrs\\_report.Par.61629.File.dat/GSENM\\_Manager\\_Report\\_FY2014\\_draft1-25-2015.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/ut/grand_staircase-escalante/nlcs_mgrs_report.Par.61629.File.dat/GSENM_Manager_Report_FY2014_draft1-25-2015.pdf) (Accessed May 18, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Scenic Byway 12 Foundation Partnership: The Scenic Byway 12 Foundation, of which GSENM is a primary partner, hired Zion's Bank Public Finance to conduct a yearlong study to determine the economic impact of Scenic Byway 12 being designated an All American Road. The final report was released in July 2014 and revealed that Scenic Byway 12 generated \$12.75 million in spending in Garfield and Wayne Counties in 2013...

Education, Outreach, and Interpretation

Native Plant Restoration Project: GSENM's Hands-on-the-Land (HOL)/ Take-it-Outside (TIO) initiative sponsored a fieldtrip for 32 Kanab High School Natural Resources (KHS) students. Students learned how to establish frequency transects, identify native plants, and document Sage Grouse occupancy. This project was highlighted by PBS's "This American Land" series in 2014 <http://www.thisamericanland.org/lesson-plans/restoring-native-plants> . Unfortunately, due to changes in class scheduling, KHS will no longer be able to continue project activities.

Therefore, GSENM and KHS have agreed to end KHS's involvement in the project, but GSENM will continue the project at Old Corral Spring in partnership with the Kaibab Paiute Tribe and the Intergovernmental Internship Cooperative (IIC). As part of the Hands on the Land sponsored program, Teacher on Public Land, Megan Miles created new curriculum on climate change that is expected to be field-tested at Kanab Middle School in FY 2015.

Discovery Trunks: GSENM and Grand Staircase Escalante Partners (GSEP) updated 5 of the Paleontological Discovery Trunk curriculum units to match changes in Utah standardized curriculum objectives and restocked activity supplies for both the Archaeological and Paleontological Discovery Trunks. GSENM and Grand Staircase Escalante Partners (GSEP) staff utilized both trunks as part of in-school presentations, public outreach events, and school fieldtrips to GSENM visitor centers. As part of their Environmental Education outreach efforts, GSEP in cooperation with GSENM created a Paleontological "Fossils on Display" Touch Table with real and reconstructed fossils and artifacts as a supplemental teaching tool to be utilized primarily for school groups.

Traveling Exhibits: GSENM's and Grand Staircase Escalante Partners' (GSEP) traveling exhibits were highlighted at several regional school assemblies, public outreach events, visitor centers, and public venues. Three travelling exhibits were adopted by the BLM's Washington Office for their public outreach efforts. *Lythronax argestes* and *Teratophoneus curriei* were displayed as part of a larger exhibit on North American Tyrannosaurus at the Natural History Museum on the National Mall which drew an estimated 11,000 visitors. The third exhibit was retained by the WO on a long term loan and is displayed prominently at the BLM offices at Main Interior. GSENM also supported an exhibit at the National Turkey Federation Conference in Nashville, Tennessee with new exhibit elements, posters, and handouts, and supplied a dinosaur cast and exhibit materials to the BLM Utah State Office for the Outdoor Retailers Expo in Salt Lake City, Utah.

Youth Educational Outreach: GSENM and GSEP staff coordinated and provided 39 presentations about paleontology, archaeology, wildlife, botany, geology, and history for 2,163 students and other youth as part of assemblies, in-class presentations, visitor center fieldtrips, and organized educational activities including the Escalante River Watershed Partnership Youth Conservation Corp training, Native American Kwiyaumuntsi Youth Camp, Southern Utah University Intergovernmental Internship Cooperative End of Year Gathering, and Panguitch High School Science Fair. As part of the Hands on the Land sponsored program, Teacher on Public Land, Megan Miles created new curriculum on climate change that will be field-tested at Kanab Middle School in FY 2015.

Local and Regional Event Support: GSENM co-sponsored the Audubon Society Christmas Bird Count (CBC), a BLM Hands on the Land/Take it Outside event, with the BLM Kanab Field Office (KFO) in partnership with the Audubon Society, Bryce Canyon NP, Glen Canyon NRA, Pipe Spring NM, Grand Staircase Escalante Partners, Glen Canyon Natural History Association, Dixie/Arizona

Strip interpretive Association, Bryce Canyon Natural History Association, and Kane, Garfield, Page, and Fredonia Schools. At area schools, GSENM and KFO staff set up bird feeders, distributed bird identification materials, and provided in-class presentations to 120 local students. Over 2,000 students participated in the event identifying and collecting bird and migration data. In addition, GSENM and KFO sponsored 3 CBC events located in Boulder, Kanab, and Escalante drawing 200 regional residents.

As part of Paiute Youth Day event activities, Paiute Elders gave two presentations on the Paiute culture and demonstrations on coppicing willows to five all Native American Youth Conservation Corp (YCC) members and 26 tribal youth and partner participants who practiced coppicing willows and cut willows to build a traditional Paiute dwelling for the subsequent Timeless Traditions of the Southern Paiutes event. One educational handout was created for the event.

Native American culture was also highlighted at the Timeless Traditions of the Southern Paiutes event. 20 visitors were invited to participate and learn about the Paiute Culture, along with eight BLM staff. Six tribal elders gave two presentations on traditional native plant uses and Paiute cultural history as part of the event. In addition, IIC supplied 26 youth work crews members to provide facility maintenance and constructed a traditional Paiute dwelling as an exhibit for the visitor center. One publication and an interpretive sign on coppicing were also created for the event.

Other events supported by GSENM included an Earth Day Festival and poster contest for local students drawing over 400 participants; a National Public Lands Day Event for 250 participants; Western Legends Round-Up Festival drawing 700 participants; Escalante Canyons Art Festival/ Everett Ruess Days attracting 500 people; Bryce Canyon National Park Geology Festival drawing 500 participants; Leave it to Beaver Festival attracting 200 people; Get Outside Day Event delighting 150 people; Color Country Wilderness Festival for 50 participants; and two Big Water Dinosaur Festivals. GSENM participated in the second annual Big Water Dinosaur Festival in September in partnership with Big Water City, Kane County Office of Tourism, Glen Canyon Natural History Association (GCNHA), and Grand Staircase Escalante Partners (GSEP). As part of the event, GSENM hosted two exhibits featuring seven Paleontological Traveling Exhibits, including GSEP's *Nasutoceratops titusi*. In addition, GCNHA hosted two evening paleontology presentations and GSENM sponsored two field-trips to a dinosaur excavation site in support of the event. The combined activities drew over 1,050 people.

Walks and Talks Lecture Series and Other Presentations: GSENM staff, researchers, and guest lecturers presented formal public outreach programs on topics such as archaeology, geology, botany, dinosaurs, and history. GSENM staff also provided formal and informal presentations on paleontology, archaeology, range, wildlife, and stewardship at GSENM visitor centers, professional meetings, workshops, seminars, and trainings. Altogether, GSENM provided 138 presentations and fieldtrips for 4,270 participants.

In FY14, GSENM produced 82 information signs, interpretive panels, posters, news releases, and support publications. In addition, ten 20-minute radio shows about GSENM programs and goals were broadcast in Page, Arizona to a radio audience that included the Navajo Reservation and southern Utah. More than 50 news releases were generated and 90+ news queries from local, regional and national media were answered. In addition, GSENM's cooperating organization Glen Canyon Natural History Association launched the long awaited GSENM Cottonwood Road Geology Guide.

Wilderness 50th Anniversary Year: The Monument led or co-hosted 15 community and on-site events which included three ranger-led hikes in the Monument's wilderness study areas, showings of evening wilderness movies (and popcorn), and four well-attended presentations by various speakers. Four new exhibits including a timeline of eligible, proposed and designated wilderness lands managed by the Monument as well as Dixie National Forest and Glen Canyon NRA were initiated by an interagency team of GSENM-BLM, USFS and NPS park rangers. The exhibits included a map used by visitors to show their favorite home wilderness as well as an on-going journal that captured visitor's thoughts and impressions of the meaning of wilderness. A culminating highlight of the year was two evening performances at the Escalante High School. "Delighted" audiences of more than 100 local residents and out of the area visitors saw living history performances featuring Naturalist John Muir and President Teddy Roosevelt conversing about conservation and preservation on public lands, and Muir alone recounting his harrowing adventures in the western wilds. The living history presentations were made possible by special funding from the National BLM Wilderness Program Office featuring professional actors, Lee Stetson as John Muir and Allan Sutterfield as Teddy Roosevelt. Partners and organizations supporting these efforts include Glen Canyon Natural History Association, City of Kanab, the Earthfest committee, and the Escalante Arts Festival.

Escalante Ranger-Led Evening Programs: A new series of ranger-led talks in campground settings was started in the Escalante Interagency Visitor Center in 2014. There were 12 evening programs given at GSENM-Calf Creek Campground by two BLM park rangers and 8 programs given at Escalante Petrified Forest State Park by two NPS/USFS rangers.

Paleontology: Early in the year (October, 2013) Indiana University Press published "At the Top of the Grand Staircase-The Late Cretaceous of Southern Utah," edited by GSENM paleontologist Alan Titus. The 624-page volume is a comprehensive look at what was known about GSENM Cretaceous geology and paleontology as of 2010 and is the first technical overview of the subject ever published. A portion of the proceeds from book sales at Visitor Centers come back to GSENM to fund paleontological research.

Source: Grand Staircase-Escalante National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/ut/grand\\_staircase-escalante/nlcs\\_mgrs\\_report.Par.61629.File.dat/GSENM\\_Manager\\_Report\\_FY2014\\_draft1-25-2015.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/ut/grand_staircase-escalante/nlcs_mgrs_report.Par.61629.File.dat/GSENM_Manager_Report_FY2014_draft1-25-2015.pdf) (Accessed May 18, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

#### Partnerships

The Monument's extensive research, outreach, and educational programs were supported by more than 50 active partnerships in 2014. These included the Monument's non-profit friends group, Grand Staircase Escalante Partners, as well as private foundations, academic institutions and individual researchers, regional and statewide partnerships, and interagency partnerships.

Grand Staircase Escalante Partners (GSEP): Grand Staircase Escalante Partners (GSEP), a 501(c)(3) non-profit friends group, began working with the Monument in 2008. In FY14, major accomplishments included a renewed focus on four key programs: education and native plants, archaeological site stewardship, paleontological lab coordination and outreach, and the Escalante River watershed restoration project. The first three programs are supported primarily through assistance agreements with BLM; the Escalante River work is supported through a major grant to GSEP from the Walton Family Foundation, plus another six grantors. The Site Steward program involved 30 volunteers monitoring site conditions at more than 60 archaeological sites on both the GSENM and Kanab Field Office lands. The Paleo Lab program was supported by 12 regular volunteers; this program also developed a travelling discovery trunk for K-12 educational outreach. Other accomplishments included school programs, constructing "Discovery Trunks" for educational outreach, developing a travelling exhibit program focused on paleontological specimen casts, and support for five major community-based resource-focused "festival-style" events including the Big Water Dinosaur Festival, Kanab Amazing Earthfest, Bryce Canyon NP Geology Festival, Escalante Canyons Arts Festival, and Boulder Heritage Festival. GSEP generated approximately 14,600 hours of volunteer and staff time in support of the Monument in FY14.

Mike Satter, Education Committee Chair, Grand Staircase Escalante Partners, at the Bryce Canyon National Park Geology Festival.

The Escalante River Watershed Partnership (ERWP): The ERWP, created in 2009 to bring together efforts to control Russian olive, monitor the spread and effects of the tamarisk leaf beetle, and improve the management of resource usage of the Escalante River watershed, has over 30 partners, including local landowners, local business owners, city and county municipalities, non-profit organizations, conservation corps, and federal and State land agencies. The ERWP aims to restore and maintain the natural ecological conditions of the Escalante River and its watershed and involve local communities in promoting and implementing sustainable land and water use practices. ERWP uses the best available science, community input and adaptive management methods to make sound decisions. In FY14, ERWP fielded an 8-person Utah Conservation Corps crew and supported a Great Old Broads volunteer



trip and a Wilderness Volunteers trip. Altogether, the partnership treated 132 acres; retreated 525 acres; and monitored 584 acres.

Great Basin Institute and AIM Implementation: In FY14, GSENM extended its long-term collaboration with the Great Basin Institute (GBI) to implement the Bureau's Assessment, Inventory, and Monitoring (AIM) protocol on the Monument. GBI crews located and initiated new monitoring stations; the stratified sampling design focused on ecological sites critical to ecosystem function on the Monument.

In addition to stewardship and restoration-focused initiatives, GSENM also maintains nearly 4 dozen active research programs with academic institutions and individuals. These programs are identified individually in Section 4 of this report.

GSENM also works closely with the Utah Partners for Conservation and Development (UPCD) and the Utah Division of Wildlife Resources. (UDWR) UPCD brings together natural resource-oriented agencies and organizations committed to providing solutions to conservation issues. In FY14, UPCD and ERWP partnered with GSENM to eradicate Russian olive along the Escalante River.

Glen Canyon Natural History Association (GCNHA): GSENM continued its strong partnership with GCNHA. This group works with the Monument to stock and staff the book and gift shops in our four visitor centers, and also works with GSENM to assist with temporary and seasonal staffing needs at these centers. In 2014, a new assistance agreement was awarded. Six hosted workers were hired to staff information desks at visitor centers. One Monument Recreation Planner serves as the Program Officer and works as liaison for issues related to books and retail items and attends monthly board meetings of GCNHA year-round.

Utah Scenic Byway 12 Foundation: The Monument also continued its close association with the Utah Scenic Byway 12 Foundation. In FY14, in addition to collaborating on wayside exhibits and interpretive projects, the foundation sponsored a study of the economic impact of All American Road designation for the byway. The final report found that the byway designation resulted in \$12.75 million in spending in Garfield and Wayne Counties in 2013.

Southern Utah University, Department of Psychology: In 2014, a new Assistance Agreement was initiated to conduct baseline acoustic monitoring Monument-wide. September, 2014 was the kick-off for the agreement with initial training conducted on equipment deployment, data collection, equipment extraction, data analysis and reporting presented by the Natural Sounds Program (NPS) for 6 SUU student assistants, the project lead and principal investigator, Professor Britt Mace, and 8 BLM staff. Sound monitoring equipment was deployed at three sites for 25 day periods: Lower Calf Creek, Deer Creek and Dry Fork. Two Monument Backcountry Park Rangers and One Monument Outdoor Recreation Planner worked with the university team.

Colorado Mesa University, Natural Resources Center: In 2014, GSENM worked with Colorado Mesa University to implement the second phase of a project to establish the recreation experience baseline for areas of the Monument that receive increasing levels of recreational use. This phase focused on the Cottonwood and Skutumpah Roads with on-site and web-based focus group participation.

Aldo Leopold Wilderness Research Institute/Rocky Mountain Research Station, US Forest Service: A new interagency agreement was established under Service First Agreement Authority to analyze existing visitor capacity in the Calf Creek watershed and the Dry Fork slot canyons.

SUU-IIC Partnership: Administered by Southern Utah University's (SUU) Harry Reid Outdoor Engagement Center, the Intergovernmental Internship Cooperative (IIC) coordinates work- and project-based internship and service learning projects to serve southern Utah and northern Arizona by matching the needs of state and federal land and resource management agencies with University students, educators, and young people seeking meaningful land management and education opportunities. Through this cooperative effort, IIC promotes professionalism in land stewardship and creates opportunities to learn about, contribute to, and benefit from land management and resource conservation.

IIC is a unique and diverse group of partners working together for a common purpose. Apart from SUU, members include: Bureau of Land Management Color Country District, Arizona Strip District, and Grand Staircase-Escalante National Monument; National Park Service Bryce Canyon National Park, Zion National Park, Cedar Breaks National Monument, Pipe Spring National Monument, and Grand Canyon-Parashant National Monument; Bureau of Indian Affairs (BIA) Southern Paiute Agency; U.S. Forest Service Dixie National Forest; Natural Resources Conservation Services Cedar City Field Office; Utah Department of Natural Resources Division of Parks and Recreation, Division of Wildlife Resources, and Division of Forestry, Fire and State Lands; Paiute Indian Tribe of Utah and Kaibab Band of Paiute Indians; Utah and Arizona Departments of Work Force Services; and Dixie State University. Through an Assistance Agreement, the IIC partnered with GSENM to provide three internships for regional students in recreation and range management, and five Native American youth as part of a Corp work crew participating in the Old Corral Spring Project. The crew treated one acre.

Utah Partnership for Conservation and Development (UPCD) and the Utah Division of Wildlife Resources (UDWR): Partnership projects with UPCD and UDWR were monitored and reviewed for implementation success and completeness. Several restoration projects have additional phases planned for 2015. The 2014 monitoring showed UPCD projects were improving and implementation success is increasing overall.

#### Volunteers

The Monument sponsored 120 volunteers (including 8 youth volunteers) and 55 hosted workers in FY14. These volunteers and Hosted Workers preformed a total of 33,888 duty hours to our

programs, with a monetary value of \$738,420. Volunteers were recruited and managed through several Monument programs, including our Site Steward heritage stewardship initiative, our watershed restoration work, and the paleontology laboratory. Several organized volunteer groups donated time and effort to the Monument in FY14, including Great Old Broads for Wilderness, Wilderness Volunteers, Utah Backcountry Volunteers, and the Grand Staircase Escalante Partners.

The GSENM camp host program provided daily guidance at Calf Creek, the Monument's busiest recreation site; we had 8 volunteers work a total of 1,854 hours at the Calf Creek trailhead and campground. The Escalante River Watershed partnership (ERWP) also continues in collaboration with Grand Staircase Escalante Partners, our non-profit friends group. The ERWP organized several volunteer activities in 2014. We had several groups including Local ATV and Backcountry Horseman's, come together in an effort to finish a recreational staging area for Equestrian and ATV use in the Nephi Pasture. A total of 28 Volunteers donated 168 hours, finishing with a grand opening of a new multiuse Nephi Pasture recreation staging area.

Source: Grand Staircase-Escalante National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/ut/grand\\_staircase-escalante/nlcs\\_mgrs\\_report.Par.61629.File.dat/GSENM\\_Manager\\_Report\\_FY2014\\_draft1-25-2015.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/ut/grand_staircase-escalante/nlcs_mgrs_report.Par.61629.File.dat/GSENM_Manager_Report_FY2014_draft1-25-2015.pdf) (Accessed May 18, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

Grand Staircase-Escalante National Monument spans nearly 1.9 million acres of America's public lands. From its spectacular Grand Staircase of cliffs and terraces, across the rugged Kaiparowits Plateau, to the wonders of the Escalante River Canyons, the Monument's size, resources, and remote character provide extraordinary opportunities for geologists, paleontologists, archeologists, historians, and biologists in scientific research, education, and exploration.

The vast landscapes of the Grand Staircase-Escalante National Monument offer visitors a variety of recreational opportunities for a wide range of users. From the solitude of lonesome canyons to the excitement of winding, rugged backways, the Monument is truly a treasure.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/ut/st/en/prog/nlcs\\_new/GSENM\\_NM.html](https://www.blm.gov/nlcs_web/sites/ut/st/en/prog/nlcs_new/GSENM_NM.html) (Accessed May 18, 2017.)

## **Hanford Reach National Monument Washington**

I personally have visited Hanford Reach area several times. This is an awe-inspiring region demonstrating the contrast between arid high desert and the riparian area of the Columbia River.

I am writing to **support the continuation of the National Monument** status as currently established for Hanford Reach National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: US Dept. of Energy

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

In establishing the monument, Clinton described it as “a biological treasure,” containing “an irreplaceable natural and historic legacy, preserved by unusual circumstances.” Because the

area is so big, and was kept free of people for so long, “it is one of the most important wildlife and ecological refuges left in eastern Washington” (Dietrich, 106). The heart of the monument is the Reach, where more than 80 percent of the Columbia’s remaining wild fall chinook salmon spawn. The surrounding shrub and grassland steppes support a rich and diverse community of plants, insects, and animals. More than two-thirds of the shrub-steppe ecosystem that once covered central and southeastern Washington and north central Oregon has been lost to development, and invasive plants have degraded much of the rest. The most pristine portions of what is left are located within the monument.

The C-shaped monument curls around the Hanford Site, which remains off limits to the public. The Reach itself and much of the shoreline is open to public access year-round. The “River Corridor Unit” is one of six management units in the monument. The Fish and Wildlife Service shares jurisdiction over some of the units with the Department of Energy, the Washington Department of Fish and Wildlife, and the Bureau of Land Management.

The largest of the units is the 77,000-acre Fitzner-Eberhardt Arid Lands Ecology (ALE) Reserve, named in honor of Hanford scientists Richard E. Fitzner and Lester B. Eberhardt (both killed in a plane crash in 1992). Access is limited to approved ecological researchers. However, the public can enjoy sweeping views of a starkly beautiful landscape from State Route 240, which runs along the northern edge.

The southeast edge of the reserve is bordered by Rattlesnake Mountain. At 3,600 feet, this is the highest point in the Columbia Basin. When plutonium was being produced at the Hanford Site, Rattlesnake Mountain was used for communication and security purposes. Army anti-aircraft defense installations, including a Nike missile silo, were located here in the 1950s. The missile site was deactivated in 1961, but traces can still be seen on the lower slope, along with communication and observation buildings on the summit.

North of the reserve is the 9,100-acre McGee Ranch-Riverlands Unit, which includes former agricultural lands, homesteads, and townsites. Overgrazing by livestock as early as the 1880s suppressed the natural grasses in this area. Anti-aircraft artillery batteries were established on the unit’s eastern edge in the early 1950s. Although the installation was decommissioned and dismantled a decade later, its footprint can still be seen.

The Saddle Mountain Unit consists of 32,000 acres bordering the north shore of the Reach. Designated a National Wildlife Refuge in 1971, it includes the Saddle Mountain Lakes, a large area of irrigation wastewater impoundments. Although tempting both to migrating waterfowl and to anglers, the lakes are contaminated with herbicides and pesticides. Partly for that reason, the Fish and Wildlife Service has closed the area to public access.

The 57,000-acre Wahluke Unit is arguably the most stunning section of the monument, featuring sagebrush steppes, shifting sand dunes, and soul-stilling views of the Reach. The river in this area is dotted by shallow islands and flanked by the spectacular White Bluffs. These cliffs

of clay, nearly 400 feet tall in places, are eroding at the rate of more than 25 feet a year, partly because of irrigation runoff. Controlling the erosion of the White Bluffs is one of the most pressing challenges facing the agencies charged with managing the monument.

Source: History Link.org <http://www.historylink.org/File/7438> (Accessed May 18, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

While many national wildlife refuges protect remnants of America’s history, none are as rich, varied and complete as Hanford.

The unique and fortuitous circumstances (establishment of the Hanford Nuclear Reservation during World War II) that preserved the area since 1943 also created a unique set of cultural resources with contextual integrity that may no longer exist anywhere else in the region. These remnants of past human culture and activity are invaluable and irreplaceable keys to former life ways and behavior patterns. Unfortunately, some of the resources, such as the historic town sites, homesteads and other structures, as well as Native American traditional use areas and aboriginal occupation areas, were destroyed before and during establishment and operation of the Hanford Nuclear Reservation. However, there is little doubt that without the inadvertent protection of the area through its restricted public use, many of these resources would have been damaged or obliterated.

Protection of these cultural resources—including tangible portions of sites such as artifacts, features, structures, natural resources and landscapes (e.g., traditional use and sacred areas), as well as oral and written records—is paramount to management of the Monument. In addition to the preservation of the physical geography, the Native American ethnology and oral traditions, and the Euro-American written and oral histories, are the threads that tie together the story of the cultural landscape. The opportunity to meld this interaction between the scientific data and the human story is a critical element to support the protection of the cultural resources in the Monument. Inheriting this resource brings an obligation to the FWS not only to manage the Monument for the protection and preservation of these heritage resources but also to enhance their value through public education.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/Cultural\\_Resources/](https://www.fws.gov/refuge/Hanford_Reach/Cultural_Resources/) (Accessed May 18, 2017.)

One of the major landmarks within the Monument, the White Bluffs, is the upper component of the Ringold Formation, which dates to between three and eight million years ago. The formation is composed of a 1,000-foot thick deposit of interbedded lacustrine and fluvial silts, sands and conglomerate, with some paleosol remnants. The source of the sediments is unknown, although

ideas about their origination include the Clearwater/Salmon drainage system from Idaho, the Pend Oreille River in northeastern Washington, and an ancestral Columbia River.

Regional uplifting about three million years ago resulted in the present upper Columbia River down cutting through about 600 feet of the Ringold Formation to its present elevation of 300 feet. This last erosional event has exposed a multitude of vertebrate and some invertebrate fossils in the Ringold Formation. Of particular note are rhinoceros and anadromous salmonid fossils from the late Miocene.

The subsequent White Bluffs component of the formation contains even more fossils, including 27 species of mammals alone. Among the fauna found are rodents, lizards, frogs, turtles, fish, rabbits, bears, canids, cats, ground sloths, peccaries, deer, mastodons, camels, horses and zebras. Of particular interest is the nature of the fish species found (primarily warm-water species, such as catfish and sunfish) and those not found (salmonids), supporting the theory of two separate river systems during the Miocene. The river system responsible for the White Bluffs deposit may not have been connected to the Pacific Ocean, hence the lack of anadromous fish remains.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/Geology/Paleontology.html](https://www.fws.gov/refuge/Hanford_Reach/Geology/Paleontology.html) (Accessed May 18, 2017.)

In addition to the fossils found in the White Bluffs, petrified wood can be found in the Saddle Mountains, Umtanum Ridge, and Yakima Ridge. Scatterings of petrified wood can also be found in the Dry Creek and Cold Creek drainages.

For centuries and into today, the Columbia River—"Chiawana" (Big River)—and its tributaries were the lifeblood of Native Americans in the Columbia Basin, providing food, water, travel corridors, trading routes and religious beliefs.

For thousands of years people have depended on the Hanford Reach of the Columbia River to survive in the desert environs of the Columbia Basin. As early as 10,000 years ago, the ancestral inhabitants of today's Wanapum People, Yakama Nation, Confederated Tribes of the Colville, Confederated Tribes of the Umatilla Reservation and the Nez Perce fished, hunted and collected a variety of natural resources in the area. The abundant salmon were complimented by upland roots, seeds and game. Seasonal gathering of resources such as spring roots or fall Chinook salmon required moving 'camps' often. Tule (bulrush) mats were draped over willow poles for temporary shelter. In winter, shallow oval pits were dug and poles covered with tule, willow or hides for more permanent 'housepit' villages along the Reach. Even today, Native Americans gather the tules for making house coverings, sleeping mats and other household uses.



Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford Reach/Cultural Resources/Native Americans.html](https://www.fws.gov/refuge/Hanford_Reach/Cultural_Resources/Native_Americans.html)

Accessed May 18, 2017.)

#### Waves of Commerce

The land comprising the Monument has an unusual and colorful provenance. The history of the Hanford Reach is the history and fulfillment of “Manifest Destiny.” The early exploration of the area began with fur trappers in the early 19th century, shortly after Lewis and Clark ventured through the confluence of the Columbia and Snake Rivers just south of the Monument in 1804. David Thompson of the Northwest Company is the first documented explorer to pass through the Hanford Reach in 1811 on his way down the Columbia River in search of furs and trading possibilities. Other fortune seekers soon followed.

The discovery of gold in Idaho and Canada in the 1860s expanded the use of the Mid-Columbia and heralded beginnings of permanent development. The White Bluffs Road, likely first an Indian trail, became part of a travel system linking the river and the Caribou Trail on the north side of the Saddle Mountains. A ferry crossing on the White Bluffs Road began operation in 1859, making the road the hub of transportation and the scene of many cattle drives and wild horse roundups for the region. A small, transitory community emerged on the east bank of the river at the White Bluffs Road ferry crossing; White Bluffs became a bustling supply depot for unloading goods shipped by river on steamboats onto wagons for overland distribution to gold discoveries in British Columbia, Idaho and Montana. Those same steamboats carried the gold out to the coast. Remnants of the White Bluffs Road are visible in parts of the Monument to this day.

Gold fever struck the local region as well, with activity along the Ringold, Vernita and other river shorelines in the Hanford Reach. By the 1870s, Chinese miners were also working the placer gravels.

As the need for supplies—especially food—grew, agriculture and stock-raising activities increased. Around 1870, scattered homesteads appeared along the river banks, struggling to farm and raise stock. The native bunchgrass steppe, mild winters and open range provided a perfect environment for grazing, which attracted cattlemen from other areas. Still standing on the Monument from this time period is a log cabin built about 1894, at the ferry landing, which served as a blacksmith shop and possible living quarters.

Permanent settlement commenced in earnest in the late 1880s and 90s, with scattered homesteads locating near water sources, primarily the river. Promises of irrigation just after 1900 spurred spirits and growth in White Bluffs, Hanford and Wahluke settlements. The Hanford Ditch built in 1907 carried water from pumping stations along the river to anxious farmers. Several pumping stations remain in the Monument today. The arrival of the spur line of the



Milwaukee Road in 1913 brought more families. Settlement continued until the Depression in the 1930's but times were tough.

#### The River as a Regional Economic Engine

The Columbia River was a driving force for development. From the time the first explorers passed through the area, the river was the logical transportation corridor and remained the avenue to transport goods and people for nearly a century until the railroads arrived. The river was the key to settlement, providing transportation via steam-driven freighters and numerous ferries to the settlements of Wahluke, Vernita, Richmond, White Bluffs, Hanford and Ringold. More importantly, water for crops was critical, so irrigation companies formed. The development of several irrigation and land companies, supported in part by outside capital, provided the impetus to true settlement and town sites development. By 1907 the most significant irrigation development in the Hanford Reach, the Hanford Irrigation and Land Company, began construction of a major, twelve-mile ditch from the Allard Pumping Station near Coyote Rapids to the Hanford and White Bluffs communities.

The anticipation of profits provided incentives for Seattle-area developers to invest in the area. The success of the venture brought the first significant regional recognition to this unknown area, based primarily on the area's mild climate, readily available and level land, perfect growing conditions for early crops, and irrigation. Orchards replaced other crops and livestock as the profitable commodity. The marketing of the new real estate and fruit crops resulted in railroad connections by 1913 with a spur line to Hanford from the Chicago, Milwaukee and St. Paul Railroad, which provided the link for shipping products to coastal markets. The rail lines also benefitted farmers through quicker receipt of supplies and equipment. Ironically, the rail lines resulting from irrigation changed the Columbia River's role as a transportation corridor; by the 1920s, steam freighters had nearly vanished from the river.

For over two decades, the towns of Hanford and White Bluffs grew and prospered. The White Bluffs area was selected as a soldiers' home location after WWI; many of these ex-soldiers provided labor to established farmers. Advertisement through the realty companies and railroad land agents attracted nearly 500 families, many fleeing the Midwest in the 1920s and 30s looking for new starts. The Depression years reduced prosperity as a result of lower crop values, but many families could at least continue their own existence through subsistence farming and local economic systems. The First National Bank of White Bluffs remained open, and presumably solvent, throughout the lean years, not closing until 1942.

#### From Agriculture to Atomic Bombs

In 1943 these towns and the entire area changed forever. The entry of the United States into World War II and the race to develop an atomic bomb led to a search for a suitable place to locate plutonium production and purification facilities. In 1943, the War Department (later to become the Department of Defense) went in search of a remote, sparsely populated, easily

defensible, geologically stable site with plenty of cool water, abundant energy (from hydropower dams on the Columbia River), and a moderate climate in order to build plutonium production reactors in secret. The United States Army Corps of Engineers selected a site near the isolated desert towns of White Bluffs and Hanford. Following site selection, the War Department acquired land through condemnation of private lands and purchase of any private lands within the basin formed by Rattlesnake Mountain and the Saddle Mountains. The Atomic Energy Commission, a precursor to the Department of Energy (DOE), then established and ran the Hanford Site (then known as the Hanford Engineering Works).

The Manhattan Project, designed to build the atomic bombs of WWII, required removal of all residents of White Bluffs and Hanford. Although some of the buildings became offices and residences for a short time, most were eventually removed along with crops, orchards and landscaping. At its essence, the “progress” of the atomic age helped to turn the landscape back in time, at least on the borderlands that make up the Monument.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/Cultural\\_Resources/History.html](https://www.fws.gov/refuge/Hanford_Reach/Cultural_Resources/History.html) Accessed May 18, 2017.)

The history of Hanford is the history of the atomic age, both the promising and the chilling. Although we no longer think in terms of the “Cold War” of the 1960s and 70s, the threat of nuclear destruction that Hiroshima and Nagasaki brought to the world hangs with us today, part of the legacy of Hanford.

Although the Hanford Site was initially established as a component of U.S. involvement in WWII, following the end of the war, it became a key factor in a new “war”—the Cold War. While the roots of the Cold War can be traced back to at least the early 1900's, the end of WWII marked the beginning of an escalation in the world power struggle between communism and capitalism. (This is, of course, an oversimplification of what the Cold War was all about. One starting point to learn more about the causes of the Cold War can be found on The History Guide web site at [www.historyguide.org/europe/lecture14.html](http://www.historyguide.org/europe/lecture14.html) .) What is interesting about the Hanford Site is that, in addition to fueling the Cold War arms race, key events in the Cold War can be traced here. In March of 1947, the Truman Doctrine brought the U.S. firmly into the Cold War, marking a period of greatly increased defense spending and involvement in world events. This resulted in a higher demand for Hanford plutonium and began a period of rapid construction on the Hanford Site, which continued through the middle of 1949 when the formation of NATO and other events led to the feeling that the U.S. and its allies were in a position of power, and ‘threats’ from the Soviet Union were somewhat abated.

However, in September of 1949, the Soviet Union successfully tested its own nuclear weapon, well ahead of when American scientists thought it would have the capability. This led to President Truman ordering the expansion of atomic plants, as well as research into the

hydrogen bomb—bombs using plutonium from Hanford. This second round of rapid expansion at Hanford lasted through 1955.

The third round of expansion at Hanford began with the election of Dwight Eisenhower as President. President Eisenhower was concerned about the level of military spending and was able to significantly cut spending, especially on conventional forces and equipment. One reason he felt that spending could be cut was through the development of the "massive retaliation" policy, i.e., through the threat of massive nuclear bombing being delivered by the newly developed long-range ballistic missiles.

So, as you look down the river at the various generations of reactors, you can see world events unfolding—the Truman Doctrine, the formation of NATO, the end of the American policy of 'isolationism,' the Marshall Plan, the invasion of South Korea by North Korea, the rise of Mao Tse-tung and Nikita Khrushchev, the space race and the launching of Sputnik, the period of "McCarthyism," the spy trials of Alger Hiss and Julius and Ethel Rosenberg, the eras of "massive retaliation" and "mutually assured destruction, and many other world-changing events. All of these are etched into the banks of the Hanford Reach.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/Cultural\\_Resources/Cold\\_War.html](https://www.fws.gov/refuge/Hanford_Reach/Cultural_Resources/Cold_War.html) Accessed May 18, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Since the Hanford Reach became a national monument in 2000 (see "From Manhattan Project to National Monument" sidebar), more and more hikers are discovering that what they thought would be a desolate part of the state is actually thriving with fauna and flora. Thanks to being withdrawn from the public for decades and remaining in a relatively natural state, the Hanford Reach represents one of the last large undeveloped and uncultivated parts of the Columbia Plateau. One of the driest parts of the state (annual rainfall averages 7 inches), the Hanford Reach is a harsh but fragile environment. Tread softly. And be sure you're well prepared with ample water and sun protection.

Source Washington Trails Association <http://www.wta.org/go-hiking/hikes/white-bluffs-north> (Accessed May 18, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The Hanford Reach National Monument is managed as part of the Mid-Columbia River National Wildlife Refuge Complex. A National Wildlife Refuge Complex is an administrative grouping of two or more refuges, wildlife management areas or other refuge conservation areas that are primarily managed from a central office location. Refuges are grouped into a complex structure because they occur in a similar ecological region, such as a watershed or specific habitat type, and have a related purpose and management needs. Typically, a project leader or complex manager oversees the general management of all refuges within the complex and refuge managers are responsible for operations at specific refuges. Supporting staff, composed of administrative, law enforcement, refuge manager, biological, fire, visitor services, and maintenance professionals, are centrally located and support all refuges within the complex.

Other refuges in the Mid-Columbia National Wildlife Refuge Complex include: Cold Springs NWR near Hermiston, Oregon; Columbia NWR near Othello, Washington; Conboy Lake NWR at the southern foot of Mt. Adams in Washington; McKay Creek NWR near Pendleton, Oregon; McNary NWR near Pasco, Washington; Toppenish NWR near Toppenish, Washington; and Umatilla NWR near Boardman, Oregon.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/About\\_Complex.html](https://www.fws.gov/refuge/Hanford_Reach/About_Complex.html) (Accessed May 18, 2017.)

Unassuming, looking a bit like a long-abandoned steel factory, B Reactor is a testament to both the ingenuity of man and his fractious nature.

While not actually part of the Monument, the B Reactor lies just outside its boundaries, and many potential access points lie on or cross the Monument.

Nine reactors eventually were built on the Hanford Nuclear Reservation in response to various world events (e.g., the launching of Sputnik by the Soviet Union). The B Reactor was the first—there was no A Reactor at Hanford—and was built as part of weapons development in World War II and in response to concerns over German development of nuclear capability (later learned to be unfounded).

Built in just 13 months, B Reactor was the first full-scale reactor in the world, producing weapons-grade plutonium. Plutonium from the B Reactor was used in the world's first nuclear explosion, July 16, 1945, at the Alamogordo Bombing and Gunnery Range in New Mexico.

B Reactor plutonium was used in the "Fat Man" bomb dropped on Nagasaki, Japan, on August 9, 1945. Fat Man, exploding in a 20 kiloton blast, devastated more than two square miles of the city and caused approximately 45,000 immediate deaths and as many as 150,000 total. Japan sued for peace five days later.

As a result of its history and the fact that it was the "first" in many categories, the B Reactor has received many designations. Current designations:

- National Historic Mechanical Engineering Landmark (American Society of Mechanical Engineers 1976)
- National Register of Historic Places (National Park Service 1992)
- Nuclear Historic Landmark (American Nuclear Society 1993)
- National Civil Engineering Landmark (American Society of Civil Engineers 1994)
- National Historic Landmark (National Park Service 2008)

Because of its historical importance and contributions to world events, there is a significant movement to preserve this landmark. The National Park Service has studied the B Reactor and determined that it should be preserved as part of a national historical park. Legislation to create just such a park is working its way through Congress.

Source: U.S. Fish and Wildlife Service

[https://www.fws.gov/refuge/Hanford\\_Reach/Cultural\\_Resources/B\\_Reactor.html](https://www.fws.gov/refuge/Hanford_Reach/Cultural_Resources/B_Reactor.html) (Accessed May 18, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Sen. Maria Cantwell, D-Wash., ranking member of the Senate Energy and Natural Resources Committee... criticized the anticipated attempt to roll back national monument status for public lands during a speech on the floor of the Senate Tuesday morning....

Obama used his power under the Antiquities Act to permanently preserve more land and water using national monument designations than any other president. The land is generally off limits to timber harvesting, mining and pipelines, and commercial development....

Cantwell said the expected Trump order is a pretext to attack the designation of Bears Ears, which covers more than 1 million acres of land that is sacred to Native Americans and is home to tens of thousands of archaeological sites, including ancient cliff dwellings.

But the impending order also threatens other national monument designations, including the San Juan Island and the Hanford Reach national monuments in Washington state, she said.

"Time and time again, the Trump administration is pushing for policies that are harmful to our recreation economy, a disaster for our pristine places and setting a terrible precedent for future conservation efforts," she said.

In Washington state, the outdoor recreation economy generated \$22.5 billion in consumer spending and \$1.6 billion in state and local tax revenue. Nationwide the industry is responsible

for 7.6 million jobs in the United States, an increase of 1.5 million jobs in the last few years, Cantwell said, citing information released Tuesday by the Outdoor Industry Association.

Since the Antiquities Act was signed into law by Theodore Roosevelt in 1906, eight Democrat presidents and eight Republic presidents have designated 140 national monuments, Cantwell said. Nearly half of all national parks, including the Grand Canyon and Olympic National Park, were initially protected as national monuments.

Cantwell called the possible rollback of national monument designations illegal. The National Parks Conservation Association, after retaining a law firm to study the issue, agrees that the president has no power to abolish a national monument.

The designation of the Hanford Reach National Monument in 2000 was announced by Vice President Al Gore during a visit to Richland.

“These lands are among America’s treasures, and we owe it to future generations to preserve them,” he said.

The local national monument includes 195,000 acres that nearly surround central Hanford. Much of the land was once a security zone around the Hanford nuclear reservation that had remained largely undisturbed since 1943.

There was Tri-City-area criticism in 2000, including by the chairman and chairwomen of the Benton, Franklin and Grant county commissions. They said there was no imminent threat to the Hanford Reach and that local interests should be involved in decisions about the land’s management.

The Columbia River remains the biggest draw of the monument, with boats thick on the water from Vernita to the White Bluffs during fishing season. Parts of the monument have been open for hunting deer, upland birds such as pheasants and quail, and waterfowl including ducks, coots and geese.

A substantial portion of the monument, including Rattlesnake Mountain, remains closed to the public.

Source: Yakima Herald Status of Hanford Reach National Monument could be challenged, Apr 26, 2017, [http://www.yakimaherald.com/news/state\\_news/status-of-hanford-reach-national-monument-could-be-challenged/article\\_af284aa8-2a9a-11e7-8208-3f7f1c437ef3.html](http://www.yakimaherald.com/news/state_news/status-of-hanford-reach-national-monument-could-be-challenged/article_af284aa8-2a9a-11e7-8208-3f7f1c437ef3.html) (Accessed May 18, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

Protected by Presidential Proclamation in 2000 under the American Antiquities Act, the Monument is a place of sweeping vistas and stark beauty, of towering bluffs and delicate flowers. Wildlife abounds in this harsh landscape—rare is a trip along the river that doesn't produce mule deer, coyotes, bald eagles, great blue herons, or white pelicans. A large elk herd hides in the canyons, and incredibly, porcupines are a common sight. Rare plants defy the desert, wind and heat. Beautiful spring wildflower displays delight the visitor who ventures into the field.

The Monument is also a reminder of our history as a nation. Plutonium reactors stand along the river, remnants of WWII and the Cold War. Plutonium from B Reactor fueled "Fat Man," the atomic bomb dropped on Nagasaki, Japan, on August 9, 1945. No longer in production, these reactors are now being dismantled, and the lands and waters cleaned.

So, whether you're interested in history, sightseeing, wildlife, hunting, fishing, or just enjoying a bit of time away from the bustle of everyday life, the Hanford Reach National Monument has something to offer you. But don't come expecting a lot of visitor facilities—they don't exist. You'll be experiencing the Monument on its own terms.

Source: U.S. Fish and Wildlife Service [https://www.fws.gov/refuge/Hanford\\_Reach/About.html](https://www.fws.gov/refuge/Hanford_Reach/About.html)  
(Accessed May 18, 2017.)



## **Ironwood Forest National Monument Arizona**

I am writing to **support the continuation of the National Monument** status as currently established for Ironwood Forest National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Ironwood Forest National Monument, ecologically rich region of the Sonoran Desert, southern Arizona, U.S., about 25 miles (40 km) northwest of Tucson. It was established in 2000 and covers approximately 200 square miles (520 square km), encompassing portions of the Sawtooth, Waterman, Silver Bell, and Roskrige mountains. Saguaro National Park is just east, and the Tohono O’odham Indian Reservation forms much of the southern and western boundaries.

Source: Encyclopædia Britannica <https://www.britannica.com/place/Ironwood-Forest-National-Monument> (Accessed May 19, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

### Special Features

Ragged Top Mountain is the biological and geological crown jewel of the national monument. Several endangered and threatened species live here, including the Nichols Turk’s head cactus



and the lesser long-nosed bat. The national monument also contains habitat for the cactus ferruginous pygmy owl. The desert bighorn sheep dwelling in the region are the last viable population indigenous to the Tucson basin. The area holds abundant rock art sites and other archaeological objects of scientific interest. Humans have inhabited the area for more than 5,000 years. More than 200 sites from the prehistoric Hohokam period (600 A.D. to 1440 A.D.) have been recorded in the area.

Source: BLM

[https://web.archive.org/web/20130702145000/http://www.blm.gov/az/st/en/prog/blm\\_special\\_areas/natmon/ironwood.html](https://web.archive.org/web/20130702145000/http://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/ironwood.html) (Accessed 5/19/2017.)

#### Science

The exceptional quality and diversity of the desert habitats contained within the IFNM - along with its proximity to major research institutions including the University of Arizona- make the Monument an excellent location for multidisciplinary research. IN FY 2014, the following research efforts took place to improve public and BLM understanding of Monument resources.

Kelsey Yule from the University of Arizona is investigating “Species interactions involving the common Sonoran Desert parasitic plant, desert mistletoe”. The study began in FY 13 and will conclude in FY 17. Key words for that study are: Sonoran riparian and scrub communities, *Phoradendron californicum*, *Prosopis*, *Parkinsonia*, *Acacia*, *Olneya*, multiple mutualistic partners, Ironwood Forest National Monument.

Matt Rowe from Michigan State University included the Monument in a sampling trip this summer for his investigation into the neurology of *Hadrurus arizonensis* (desert hairy scorpion).

Monica Ge of the University of Arizona is testing a hypothesized genetic basis of the female-biased sex ratio of gynodioecious population of *Bursera microphylla* found on Waterman Mountain. The project began in FY 14 and will conclude in FY 18.

Anthoney Baniaga, PhD candidate at the University of Arizona, is looking at the regeneration of *Selaginella arizonica* post-fire in the Ironwood Forest National Monument. A small lightning-caused fire in July 2011 provides a unique opportunity to document growth rates, which are underdocumented for all species in the genus. His study was scheduled to conclude at the end of calendar year 2014.

Abigail Tobin of Northern Arizona University is investigating the effects of bat gates on bats at abandoned mines in the Tucson Field Office, including the IFNM, through May 2016. The study includes testing mock gates of varied designs, in order to better inform future management of cave-dwelling bat species.

Long term monitoring of the population dynamics of Nichol Turk's Head Cactus has been taking place on the Monument for over ten years, and is planned to continue. The Nichol Turk's Head Cactus Working Group maintains a website with updated information on their activities.

#### Future Science Opportunities

During geological surveys of the Monument, an area with Mesozoic formations was identified. In other NLCS units within the Tucson Field Office, those same formations have been shown to contain vertebrate fossils. The Museum of the Southwest is interested in conducting surveys of those formations on the IFNM for fossils, but has not been able to secure funding for the project. This project has been submitted in BLM funding proposals....

#### Threatened, Endangered, and Special Status Species

The Monument is home to species federally listed as threatened or endangered, including the Nichols Turk's head cactus and the lesser long-nosed bat. The desert bighorn sheep in the Monument may be the last viable population indigenous to the Tucson basin and is a special status species in Arizona. Protection goals for these objects are to maintain a natural range of variation in vegetation communities to support rare species, and to prevent avoidable loss of special status species...

#### Rock Art Sites and Archaeological Objects of Scientific Interest

The area holds abundant rock art sites and other archaeological objects of scientific interest. Humans have inhabited the area for more than 5,000 years. Protection goals for these objects are to reduce threats and resolve conflicts from natural or human-caused deterioration of rock art and other prehistoric sites, Archeological Districts on the National Register of Historic Places, artifacts, and remnants of Mission Santa Ana.

There are some impacts to known archaeological sites from soil erosion and some damage to rock art sites from humans. These impacts are being monitored at 5 sites annually, plus additional sites opportunistically, and actions to prevent further degradation are ongoing.

Source: BLM, Ironwood Forest National Monument Manager's Annual Report FY 2014  
[www.nps.history.com/publications/blm/ironwood-forest/mgr-rpt-2014.pdf](http://www.nps.history.com/publications/blm/ironwood-forest/mgr-rpt-2014.pdf)

Taking its name from one of the longest living trees in the Sonoran Desert, the 129,000-acre Ironwood Forest National Monument safeguards an incredible landscape recognized for its rugged scenery and serving as a biological anchor point for conserving some of our rarest flora and fauna.

Among the dramatic mountain backdrops are the area's last remaining population of Desert Bighorn Sheep. Mesquite, palo verde, creosote, and dense stands of Saguaro cacti blanket the valley floor beneath mountain ranges named Silver Bell, Waterman, Sawtooth, and the iconic Ragged Top Mountain.

For over 5,000 years, humans have inhabited the Monument and discovering these sites is possible for those willing to look closely. Three Archaeological Districts – Los Robles, the Mission of Santa Ana de Chiquiburitac, and Cocoraque Butte – are listed on the National Register of Historic Places.

Source: Friends of Ironwood Forest <https://ironwoodforest.org/> (Accessed May 19, 2017.)

#### Natural History of Ironwood Forest National Monument major areas

##### Avra Valley

This valley just west of the Santa Cruz River borders the eastern edge of the IFNM. Some valley agriculture occurs, but natural areas of IFNM are dominated by Velvet Mesquite trees and Creosote bushes. A total of 246 plant taxa are recorded in this Sonoran Desert scrubland. Blue Paloverde and large Velvet Mesquite trees with an occasional Desert Hackberry and Wolfberry are common along the major washes as well as a diversity of lush bushes. Prickly Pear Cacti and Burroweed may be common in overgrazed areas, with abundant spring flowers.

##### Roskruge Mountains

This is a long range oriented south to north in the southern part of IFNM. Its main body extends south of the IFNM where its maximum altitude is 3,717'. A total of 327 taxa of plants are recorded and 21 taxa are unique in IFNM to this area. This is the only area in which an Organ Pipe Cactus occurs. Typically found west and south into Baja California, one large old OPC represents the second most easterly found plant of this species in the U.S. Some of the largest ironwood trees are found in these mountains.

##### Pan Quemado Mountains

The “burnt bread mountains” are a small range near the southeastern border of IFNM east southeast of the Waterman Mountains. Two of the 276 plant taxa here are unique to IFNM.

##### Waterman Mountains

These complex mountains, with considerable limestone, lie south of the larger Silver Bells. A total of 312 plant taxa are recorded with 17 that are found in IFNM only here including Desert Agave, Yellow Trumpet-bush of tropical affinity, Canotia (one of three Arizona plants called Crucifixion Thorn that are more common below the Mogollon Rim), and Turk’s Head Cactus (Nicol’s variety here is on the endangered species list). The Elephant Tree (of Baja California and Sonora Mexico) reaches its eastern-most U.S. limit here.

##### Silver Bell Mountains

Only the eastern slopes of these largest mountains in the area are in IFNM. Its western slopes are outside the monument and heavily altered by the copper mining operation that started at

the end of the 19th century. The highest elevation here is 4,195'. Plant taxa number 332 (56% of those in IFNM) with 7 plants unique in IFNM found only here. Until 1984 there was a permanent water stream in the Silver Bells but extensive mining killed the source which has no doubt affected both plant and animals distributions, especially frogs. The Arizona (Banana) Yucca is found as well in a rare vegetation association, a Jojoba plant chaparral, on the north slope of the Silver Bell Mountains.

#### Ragged Top

This iconic peak, at 3907' and its smaller adjacent Wolcott Peak contain some of the most interesting plants and animals. There are 410 plant taxa (69% of the IFNM flora) including a few Shrub Live Oaks and a tropical plant of the four o'clock flower family, *Pisonia capitata*, found nowhere else in the U.S. A herd of Desert Mountain Bighorn Sheep occur here and these range south into the Silver Bell and Waterman Mountains. The Chuckwalla and Desert Iguana reach their southeastern distributional limit here. The Desert Tortoise is common here and on several adjacent mountain slopes such as the Waterman, Silver Bell and West Silver Bell Mountains.

The low hills north of Ragged Top have 252 plant taxa but only one unique species, an exotic weed. Ironwood, Saguaro, Foothill Paloverde, and many cholla species dominate the slopes as elsewhere in IFNM.

#### West Silver Bell Mountains

These mountains west of the main Silver Bell Mountains are relatively low (2947'). They have 213 plant taxa but only one unique species, a grass.

#### Sawtooth Mountains

These mountains extend along the northwestern edge of the monument and are not easily accessible from Avra Valley roads. They are very dry (only 9" per year) with 323 taxa including 22 unique to IFNM. A distinctive sand-hills area and its associated biota occur near the northwest border of IFNM.

#### Aguirre Valley

This valley occurs to the west of the Sawtooth Mountains south to the Silver Bells. It has 165 taxa, including one unique species, a barrel cactus (*Ferocactus emoryi*).

Source: Friends of Ironwood Forest <https://ironwoodforest.org/about/the-monument/nature> (Accessed 5/19/2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

#### Visitor Activities

Primitive camping, hiking, mountain biking, wildlife and plant viewing, horseback riding, photography, sightseeing, wildflower viewing in spring, hunting, birdwatching, fossil and geologic sightseeing, historic and archaeological sites....

In more modern times, the area was a source of minerals and continues to support active mining operations today.

Source: BLM

[https://web.archive.org/web/20130702145000/http://www.blm.gov/az/st/en/prog/blm\\_specia%20l\\_areas/natmon/ironwood.html](https://web.archive.org/web/20130702145000/http://www.blm.gov/az/st/en/prog/blm_specia%20l_areas/natmon/ironwood.html) (Accessed 5/19/2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

No comment.

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

#### Public Issues and Concerns

The travel route designations were established concurrently with the RMP to accommodate access for the allowable uses of Monument lands, as well as to protect Monument objects from potential impacts related to the use, maintenance and operation of the access routes. Appendix B of this document lists the specific RMP travel management decisions with access-related needs, issues and concerns, as well as the implementation strategies, best management practices, and specific on-the-ground actions that would be undertaken to achieve the travel management goals and objectives established in the RMP.

Several public stakeholder meetings and individual interviews were conducted in June - August 2013 to gather input for developing the implementation plan. Holders of existing authorizations (grazing leases, ROWs, communication sites, Special Recreation Permits), representatives of the Tohono O'odham Nation, US Border Patrol (Tucson and Casa Grande Sectors), BLM Gila District law enforcement rangers, Arizona Game and Fish Department (AGFD), United States Air Force, Friends of Ironwood Forest, Pima County, and recreational users provided information on their access needs. The input included information on the condition of routes and on the specific type and frequency of access needed. This information would be used to ensure route maintenance

and administrative access needs are adequately accommodated while making provisions for public use and protecting Monument objects.

Key implementation planning issues to achieve compliance with the Monument Proclamation, and with the access and resource protection decisions of the RMP, and issues identified by the public include:

- Implementation of transportation route designations identified in the RMP and changing current access and use patterns;
- Accommodating vehicle access for administrative purposes while providing for non-motorized public use of administrative routes;
- Connection of the Monument transportation system to the Interstate, State and County public highway system;
- Drainage and erosion problems on Monument Roads and Primitive Roads is affecting usability and access purpose of designated routes;
- The need to establish standards for consistent maintenance and/or improvement of Roads and Primitive Roads;
- Legal access acquisition needed to allow BLM maintenance and public use on routes essential for the Monument's transportation system across non-Monument lands;
- Implementation of route closures and use restrictions;
- Enforcement of designations and use restrictions;
- Funding for implementation efforts.

The issues above are listed in no particular order. The proposed plan was shaped by these issues.

Source: BLM, "Ironwood Forest National Monument Travel Management Plan and Environmental Assessment" Tucson Field Office, July 2014 [https://eplanning.blm.gov/epl-front-office/projects/nepa/36800/49124/53433/Draft\\_IFNM\\_TMPandEA\\_Draft.pdf](https://eplanning.blm.gov/epl-front-office/projects/nepa/36800/49124/53433/Draft_IFNM_TMPandEA_Draft.pdf)

The Approved Resource Management Plan presents direction for management of the Ironwood Forest National Monument (IFNM), which has taken into consideration comments received by other governmental agencies, public organizations, tribal entities, and interested individuals. The ROD/Approved RMP provides a framework for long-term protection of monument objects while allowing authorized uses, recreation activities, and scientific studies that are consistent with the protection of the objects of the monument.

Source: BLM  
<https://web.archive.org/web/20130702213308/http://www.blm.gov/az/st/en/prog/planning/ironwood.html> (Accessed 5/19/2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The monument preserves a significant stand of desert ironwood trees (*Olneya tesota*), a species endemic to the Sonoran Desert. The ironwood was named for the extreme density of its wood; it can reach 45 feet (14 metres) in height and live for more than 800 years. It serves as a “nurse plant,” providing forage and nesting sites for animals and protection from sun and frost to cactus and other plants growing beneath it. Native human inhabitants of the desert also used it for food and medicine.

Ironwood Forest is composed of semidesert grassland and desert upland habitats and supports saguaro, paloverde, cholla, ocotillo, mesquite, and creosote in addition to ironwood. It provides habitat for some 675 species of animals, including the desert bighorn sheep and a variety of birds and reptiles as well as endangered species such as the desert tortoise and the cactus ferruginous pygmy owl. Ragged Top Mountain is home to an especially rich diversity of species. In addition to its biological resources, the monument preserves rock art and archaeological sites recording human habitation over the past 5,000 years. More than 200 sites, notably Cocoraque Butte, hold ruins of prehistoric villages, pottery, and petroglyphs dating to the period of the Hohokam culture (500–1450 ce). The area is culturally important to the Tohono O’odham (formerly Papago) and Hopi peoples. No visitors’ facilities are available, but hunting and camping are allowed. The land is primarily used for grazing cattle.

Source: Encyclopædia Britannica <https://www.britannica.com/place/Ironwood-Forest-National-Monument> (Accessed May 19, 2017.)



## **Mojave Trails National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for Mojave Trails National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

A vast array of national treasures are protected by the Mojave Trails National Monument. These treasures include:

- A portion of California's largest cactus garden;
- Pisgah Lava Flow—the most researched area in North America for the effects of volcanism on evolution;
- Amboy Crater—a National Natural Landmark;



- Sleeping Beauty Valley—the last intact valley representing the West Mojave plant associations;
- Cady Mountains—one of the best areas in the Mojave to see bighorn sheep;
- Afton Canyon—the Mojave River flows year-round amid colorful canyon walls;
- Marble Mountains Fossil Beds—site of 550 million-year-old fossils of trilobites, which were among the first animals on earth with eyes and skeletons;
- Wildlife and recreational corridors that connect two national parks and 13 wilderness areas—a refuge for campers and explorers, bighorn sheep, desert tortoises, and fringe-toed lizards.

Source: The Wildlands Conservancy

[http://www.wildlandsconservancy.org/conservation\\_mojave.html](http://www.wildlandsconservancy.org/conservation_mojave.html) (Accessed May 19, 2017.)

Mojave Trails National Monument ... links Joshua Tree National Park with the Mojave National Preserve, creating a land bridge of safety for migrating wildlife such as the desert bighorn sheep. Wilderness areas abut much of the new monument, increasing its value as a wildlife corridor. Its designation as a national monument will also limit large energy developments within its confines...

The heart of the monument, some feel, is Sleeping Beauty Valley. Situated between the Cady Mountains, and Kelso Dunes and Bristol Mountains Wildernesses, the valley is an almost untouched example of Mojave ecology and is probably the most scenic part of Mojave Trails. It contains an immense range of biological life as the western Mojave desert zone combines with the eastern Mojave in the valley. The valley is named for Sleeping Beauty Mountain, which has a ridge formation that looks like a sleeping woman. Broadwell Dry Lake, sometimes called Tonopah Lake, lies at the center of the valley. The Wildlife Conservancy says, "The valley provides critical linkage between northern and southern populations of desert tortoise, and it is also home to an unusual, and perhaps ancient, plant called the crucifixion thorn, a species believed by some scientists to live as long as 10,000 years. "

Source: Desert USA <http://www.desertusa.com/desert-california/mojave-trails-national-monument.html> (Accessed May 19, 2017.)

One of North America's most unique landscapes, the Mojave Desert is home to vital wildlife habitat, unspoiled desert vistas, and an incredible slice of American history. Mojave Trails is the connective tissue linking Mojave National Preserve to Joshua Tree National Park and existing Wilderness Areas, providing habitat for sensitive wildlife and pristine scenery. It contains irreplaceable archeological and cultural sites including sacred Native American trails and trade routes.

Source: Campaign for the California Desert <http://californiadesert.org/project/mojave-trails-national-monument/> (Accessed May 19, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Spanning 1.6 million acres, more than 350,000 acres of previously congressionally-designated Wilderness, the Mojave Trails National Monument is comprised of a stunning mosaic of rugged mountain ranges, ancient lava flows, and spectacular sand dunes.

The monument will protect irreplaceable historic resources including ancient Native American trading routes, World War II-era training camps, and the longest remaining undeveloped stretch of Route 66. Additionally, the area has been a focus of study and research for decades, including geological research and ecological studies on the effects of climate change and land management practices on ecological communities and wildlife.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/ca/st/en/prog/nlcs/Mojave\\_Trails.html](https://www.blm.gov/nlcs_web/sites/ca/st/en/prog/nlcs/Mojave_Trails.html) (Accessed May 19, 2017.)

Mojave Trails contains a host of fascinating features, both geological and historical. Pisgah Crater is located on the western side of the monument, just south of I 40 and west of the town of Ludlow. It's the most accessible of the the Lavic Lake volcanic field's four cinder cone volcanoes in the area. It was once mined by the Mount Pisgah Volcanic Cinders Mine for pumice so the top is not as regularly shaped as Amboy Crater, also contained within the monument.

An undeveloped stretch of America's most classic and beloved highway, Route 66, connects to the I 40 near Ludlow and runs through the central part of the monument, providing access to 103 miles of scenic areas. Travelers can experience driving the iconic road that early 20th century travelers once relied upon as the main, and most direct route from east to west. Some of the old cafés that fed travelers are still standing, like Roy's Café. Some are even operational, like the Bagdad Café.

The Marble Mountains and Ship Mountains are located in Mojave Trails National Monument. The Marble Mountains' Mojave desert habitat hosts the desert tortoise and the golden eagle. There is a fossil bed collecting area famous for trilobites as well as a rockhounding location where green epidote, dolomite, chrysocolla, chalcedony, serpentine, marble, garnet and specular hematite, iron and kyanite, chalcedony crystals, geodes and gold have been found. The Ship Mountains, so called because they look like a ship sailing across the flat desert surrounds, are known for pastel colored opalite...

Remnants of World War II desert training centers, Camp Iron Mountain and Camp Ibis are contained in Mojave Trails. Facing the need to train soldiers for combat in North Africa, the Desert Training Center was set up in 1942 with General George S. Patton Jr. as its first commander. Camp Iron Mountain is said to be the best preserved.

Source: Desert USA <http://www.desertusa.com/desert-california/mojave-trails-national-monument.html> (Accessed May 19, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Following decades of local input and leadership from Senator Dianne Feinstein, today's designation's will enhance the region's economic activity by attracting visitors, increasing tourism, and ensuring public access for hiking, camping, hunting, fishing, rock climbing and other outdoor recreation activities for generations to come. Permanent protection for the three new national monuments is strongly supported by local governments, tribes, business groups, elected officials, community leaders, and a variety of stakeholders including faith leaders, sportsmen, historians, conservationists and others. Additionally, the designations complement an ongoing planning process for renewable energy development on public lands in the California desert and furthers the longstanding work with public land managers and local communities to protect these lands for future generations.

Source: The White House, Office of the Press Secretary, February 12, 2016  
<https://obamawhitehouse.archives.gov/the-press-office/2016/02/12/fact-sheet-president-obama-designate-new-national-monuments-california> (Accessed May 19, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The proposed Mojave Trails National Monument includes the longest undeveloped stretch of historic Route 66, a major economic driver for surrounding communities.

Visitors from around the world flock to explore The Mother Road and experience a slice of America's bygone heritage. This quintessential American icon was recognized as one of the "15 Must-See Endangered Cultural Treasures" by Smithsonian Magazine.

Source: Campaign for the California Desert <http://californiadesert.org/project/mojave-trails-national-monument/> (Accessed May 19, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The designation of Mojave Trails National Monument will safeguard natural, historic, recreational and scenic features from industrial development. It will also ensure that these public lands remain open to outdoor recreation, hunting, grazing, and traditional uses, as well as enhance visitor services and facilities.

In addition, the designation of Mojave Trails National Monument will generate more awareness of this incredible area and bolster gateway communities, promoting tourism and economic opportunity in the surrounding cities and towns.

Source: Campaign for the California Desert <http://californiadesert.org/project/mojave-trails-national-monument/> (Accessed May 19, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The monument, which encompasses sand dunes, lava flows and craggy mountains, surrounds a large section of private land where the water company Cadiz Inc. has been trying for over a decade build a controversial groundwater pumping project. The project stalled in 2002, but has recently been revived by the Trump administration's Bureau of Land Management.

Cadiz spokeswoman Courtney Degner said the company has no position on the monument review but hopes all local voices and opinions are respected in the process. The company's website says Cadiz does oppose the way the monument was created. "In our view, a locally-developed, Congressional solution ... is greatly preferred by the local, affected communities and is more likely to be successful over the long-term than a unilateral presidential action." the website says.

Cadiz could get a serious ally in the Department of Interior if natural resources attorney David Bernhardt is confirmed next week as deputy Secretary of Interior. His law firm would gain \$3 million if the project wins federal approval, according to the Center for Western Priorities.

Segura worries the water project could dry up springs and seeps within the national monument that are important for bighorn sheep and other desert wildlife.

"Where they're drawing the water from extends far beyond the actual project area," she said.

Closer to LA, supporters of the San Gabriel Mountains National Monument are also concerned about the Trump Administration's review.

Omar Gomez, the chair of the San Gabriel Mountains Forever Coalition, says because the mountains are the source of much of greater Los Angeles' local drinking water supply, it is critical to maintain a high level of protection. He is particularly concerned about a possible increase in prospecting and mining.

Ron Kliewer, who represents the mining advocacy group Public Lands for the People, filed a public comment indicating he would like to see all California monuments with significant mineral potential, including the San Gabriel Mountains and Mojave Trails, overturned.

Source: 89.3 KPCC Southern California Public Radio

<http://www.scpr.org/news/2017/05/12/71752/trump-is-reviewing-6-california-national-monuments/> (Accessed May 19, 2017.)

## **Organ Mountains-Desert Peaks National Monument New Mexico**

I am writing to **support the continuation of the National Monument** status as currently established for Organ Mountains-Desert Peaks National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The boundary of the monument is, in accordance with the Antiquities Act, confined to the smallest area compatible with proper care and management of objects to be protected. In all, the national monument encompasses close to 500,000 acres of land in three units. The lands are



a diverse mix of Chihuahuan desert grasslands, sky island peaks, seasonal streams, rare native cacti, dramatic canyons, and historical remains. Some of the lands in the national monument extend south from Las Cruces and are divided by a major highway named after former New Mexico Senator Pete Domenici. The other portions of the proposal are found northeast and northwest of Las Cruces....

Before the Spanish started north on the Camino Real trail, the Organ, Robledo, Uvas, and Potrillo Mountains overlooked centuries of civilization in what would become the Mesilla Valley. Generations of Native Americans from the Jornada Culture and streams of Spanish settlers were watched over by the dramatic granite pinnacles of the Organ Mountains. Their fresh springs offered precious water, and their rugged yet productive land sheltered game of all types. These tall, jagged, and wild mountains, known also as Sierra de Los Organos, are today the backdrop to the community of Las Cruces, New Mexico, home to more than 100,000 people and part of New Mexico's fastest growing region. It is a hub for new businesses and a magnet for retirees, participating in the so called "amenity migration" towards greater quality of life....

Despite this abundance of wildlands, wildlife, and natural beauty, these lands are under constant threat from a wide range of modern-day activities. From urban sprawl to potential mining for rare earth minerals; from proposals for energy development to an explosion of off-road vehicles, these lands are under siege and need the protections that only a National Monument can provide. To create the level of support necessary to achieve this goal, a coalition of business, religious, conservation, and sportsmen's groups was established in 2005 to work once again to achieve the protection for these areas that many have sought for more than forty years....

Special-status animal species occurring in the Organs are the peregrine falcon, an Organ Mountain species of the Colorado chipmunk, and four species of endemic mollusks. Rare plants found here include *Agastache cana*, grayish-white giant hyssop, *Draba stanleyi*, Standley's whitlow grass, *Escobaria organensis*, Organ Mountain pincushion cactus, *Hymenoxys vaseyi*, Vasey's bitterweed, and *Salvia summa*, supreme sage. Five endemic plants species are found in the Organs: *Agastache pringlei* var. *verticillata*, Organ Mountain giant hyssop, *Castilleja organum*, Organ Mountain paintbrush, *Oenothera organensis*, Organ Mountain evening primrose, *Perityle cernua*, nodding cliff daisy, and *Scrophularia laevis*, Smooth figwort. Additional rare plants that likely occur in the area include *Escobaria sneedii* var. *sneedii*, Sneed's pincushion cactus, *Peniocereus greggii* var. *greggii*, night-blooming cereus, *Hexalectris spicata* var. *arizonica*, Arizona coralroot, and *Silene plankii*, Plank's campion. The diverse plant life also includes black grama grasslands; mixed cactus and desert shrubs; montane shrublands with sumac, mountain mahogany, and Wright's silktassel; oak, pinyon, and juniper woodlands; and small pockets of ponderosa pine forest....

Protection of large natural areas is particularly important for long-term preservation of biological diversity. Each unit is an important component in the larger complex of wildlands in

the Greater Potrillo Mountains area. This area's proximity to northern Mexico adds to its ecological significance. The Greater Potrillo Mountains Complex forms a biotic link between species in northern Mexico and those in the southwestern United States. The area's naturalness and large size also contributes to its significance for wildlife. Raptors are common, especially during the winter. Golden eagles, great-horned owls, and Swainson's hawks nest here, and peregrine falcons have also been reported. Extensive grasslands in the area provide important habitat for grassland birds that have declined in recent years. This includes potential habitat for Aplomado falcons. Other species that forage and live in the area include pronghorn, mule deer, quail, jackrabbits, and occasional migrating ducks on ephemeral ponds. A high diversity of bats are found in the complex, and melanistic forms of mammals and reptiles occur on the lava flows. The Great Plains narrow-mouth toad has been reported immediately to the south of the West Potrillo Mountains and can be expected to occur here. A rare mollusk is also found in the area.

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument. <https://www.organmountains.org/the-monument/> (Accessed May 21, 2017.)

Letter to the President from Diverse Scholars

July 8, 2013

Dear President Obama —

As historians, archeologists, geographers, and cultural preservation experts, we write to express our strong support of protecting the Organ Mountains-Desert Peaks region as a new Bureau of Land Management National Monument. Possessing such nationally unique resources as the Butterfield Trail, Billy the Kid's Outlaw Rock, Geronimo's Cave, Kilbourne Hole, and Aden Lava Flow, the Organ Mountains-Desert Peaks region is an international treasure, characterized by unique and irreplaceable natural and cultural resources. We are confident that supporting the conservation of the Organ Mountains-Desert Peaks assets will protect our rich cultural heritage for generations to come, and be a beacon for those eager to explore one of the most beautiful and historically rich regions of the American Southwest.

There are 243 known archaeological sites within the proposed Monument boundaries. According to a recent cultural and historical report, there could easily be more than five thousand archaeological sites, most of which have not been recorded or studied yet. The result of this interaction between both pre-historic and historic native and non-native peoples with these lands has resulted in a unique and irreplaceable cultural landscape. The past and current use of these lands by native peoples from the area and its continued importance in their modern lives attest to its significance as a traditional cultural property.

In addition to the unique features listed above, the proposed Organ Mountains-Desert Peaks Monument also includes stunning petroglyph and pictographs, sites associated with El Camino

Real, the Gadsden Purchase with Mexico that gave the Continental United States its final form, New Deal-era Civilian Conservation Corps projects, and rare World War II aerial targets.

Evidence from Paleo-Indian, pre-historic, pre-European, Spanish Colonial, classic Western, World War II and modern history combine to weave an unrivaled tapestry of pre, early, and contemporary and American history and culture. In addition to protecting our shared cultural patrimonio, native wildlife and habitats, including threatened and endangered species of plants and animals, will also flourish as a result of the Monument designation.

We have an amazing opportunity to protect and promote these singular treasures as a National Monument. Doing so will leave a lasting legacy for our region, and indeed our country. Please continue in the bipartisan tradition of protecting America's most unique lands and historical sites by joining with us to support establishing the Organ Mountains-Desert Peaks National Monument in 2013.

Dr. Troy Ainsworth  
Executive Director, El Camino Real de Tierra Adentro Trail Association

Pat Beckett  
Author & Archaeologist/Historian

Marglyph Berrier  
Secretary of the New Mexico Rock Art Council

Dr. Christopher Brown  
Professor of Geography

Tom Carroll  
Former Superintendent of Salinas National Monument (NPS retired)

Dr. Miriam S. Chaiken  
Professor of Anthropology

Dr. W. Thomas Conelly  
Professor of Cultural Anthropology

David Chavez  
Board of Mesilla Valley Preservation Alliance

Dr. Paul Deason  
Member of the Doña Ana County Archeology Society



Dr. Pete Eidenbach  
Author and Professor of Archeology

Jean Fulton  
Public Historian and Former Executive Director of the El Camino Real de Tierra Adentro Trail Association

Billy G. Garrett  
Doña Ana County Commissioner and Former Deputy General Superintendent Gateway National Recreation Area (NPS Retired)

Cynthia R. Garrett  
Former Superintendent Statue of Liberty National Monument and Ellis Island (NPS Retired)

George Hackler  
Author of The Butterfield Trail of New Mexico, Past President of the Mesilla Valley Historical Society

Dr. Jon Hunner  
Professor of New Mexico History

Eric Leifeld  
Board Member of the Mesilla Valley Preservation Incorporated

Alex Mares  
Anthropologist and Southwest Tribal Liaison

Dr. Dwight T. Pitcaithley  
Former Chief Historian National Park Service (NPS Retired)

Rebecca Proctor  
New Mexico Professional Archeologist

Polly Shaafsma  
Author, Archeologist, and Renown Southwest Rock Art Expert

Mary Kay Shannon  
Board Member of Doña Ana County Historical Society

LeRoy Unglaub  
Southern New Mexico Rock Art Research

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument. <https://www.organmountains.org/supporters/letter-to-the-president-from-diverse-scholars/> (Accessed May 21, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Within the Organ Mountains, archaeological sites include the La Cueva rock shelter, which was professionally excavated in the 1970’s. This excavation provided a significant number of artifacts and data on prehistoric cultures that have inhabited the cave, some as long ago as 7,000 years. The Peña Blanca rock shelters were professionally excavated in the 1980’s and contained what were determined to be the earliest known cultivated corn in the US.

Archaeological and historic resources are also rich in the Sierra de las Uvas Mountains Complex. At least 20 historic and prehistoric sites are known to occur within or adjacent to the Robledo Mountains WSA, including some of the earliest known prehistoric habitation sites in southern New Mexico. Also included are several undisturbed pothouse villages, two Lithic Indian sites in Horse Canyon, and at least two excellent petroglyph sites in the Sierra de las Uvas. More prehistoric sites likely exist, but no comprehensive survey has taken place.

Evidence of pre-Columbian Indian habitation exists in caves in the East Potrillo Mountains. A Classic Mimbres Pueblo located in the region has the highest concentration of bird bones of any known Mimbres site. Several undisturbed El Paso Phase structures have also been found in the West Potrillo Mountains.

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument. <https://www.organmountains.org/the-lands/pre-historicarcheological-resources/> (Accessed May 21, 2017.)

#### Archeological Resources:

The Monument’s landscape contains the archaeological remains of a diverse human history resulting from over 10,000 years of occupation. Artifacts common to the area include rock art, ceramics, and basket fragments, which tell of a rich cultural heritage. Remnants of ancient dwellings, including those at La Cueva and a ten room pueblo in the Robledo Mountains, attest to the people who once called this area home.

#### Historical Resources:

The Organ Mountains-Desert Peaks landscape contains the evidence of recent historical activities through numerous objects spanning the 19th and 20th centuries. The Dripping Springs Resort contains several structures supporting a getaway for famous and average persons that

were repurposed over time for use as a sanatorium. Baylor Pass is a landmark through which soldiers passed during civil war battles. Lookout Peak was the site of a heliograph station the military used to transmit Morse Code messages during western campaigns. The Butterfield Trail passes through the Monument, and a stage stop was located here. Outlaw Rock contains the inscription of Billy the Kid. The most recent historical sites in the Monument include bombing targets which were used to train WWII pilots.

#### Biological & Ecological Resources:

The Monument is located within the Chihuahuan Desert ecoregion. Some of the plants found here are rare or endemic and include the Organ Mountain evening primrose, Organ Mountains giant hyssop, Organ Mountains paintbrush, Organ Mountains pincushion cactus, Organ Mountain figwort, Organ Mountains scaleseed, night-blooming cereus, Plank's Catchfly, nodding cliff daisy, and likely the endangered Sneed's pincushion cactus. Plant species and plant communities important for contributing to the ecological diversity within the Monument include Chihuahuan grasslands, ponderosa pine stands, small riparian ecosystems, and desert shrub communities. The quality and proximity of these ecosystems are important resources for ecological research. The ecosystems of the Organ Mountains-Desert Peaks support a wide variety of wildlife, from common animals to more rare and sensitive species. Though too numerous to list in their entirety, a description of notable species includes mountain lions and mule deer, raptors, including the Organ Mountains chipmunk, migratory song birds, a large variety of reptiles, birds such as Gambel's quail, ladder-backed woodpecker, Scott's oriole, and cactus wren, as well as many species of bats. One of several species of rare terrestrial snails, the Organ Mountain talus snail, is endemic to the Organ Mountains.

#### Geological Resources:

The Monument has long been an area of geological studies of sedimentation and stratigraphy, as well as a setting for research on the formation of desert soils. The Organ Mountains are a steep, angular mountain range with rocky spires of Precambrian granite and metamorphic basement rock that jut majestically above the Chihuahuan Desert floor to an elevation of 9,000 feet. The range derives its name from the needle-like spires that resemble the pipes of an organ. The Desert Peaks are characterized by steeply rising desert mountains from flat plains, and include the Robledo Mountains, which exhibit sedimentary deposits of scientific interest, Sierra de Las Uvas Mountains, and Doña Ana Mountains exhibiting peaks of monzonite. The Potrillo Mountains area is a volcanic landscape of cinder cones, lava flows, and craters. Numerous volcanic cinder cones jut out prominently from otherwise broad desert plains. Volcanic features of the Potrillo Mountains include the Aden Lava Flow, Kilbourne Hole, which exhibits Olivine glass, and Hunt's Hole.

#### Paleontological Resources:

The paleontological resources in the Monument are predominantly Permian Age fossil material, but include other discoveries as well. The primary paleontological resources include the fossilized tracks of ancient animals (associated with the adjacent Prehistoric Trackways National Monument; Shelter Cave in the Organ Mountains, which includes fossil remnants of ancient ground sloths, birds, and voles; and Aden Crater lava tube in the Potrillo Mountains area, which contained the fossil remains of a giant ground sloth.

Source: BLM, Organ Mountains-Desert Peaks National Monument Manager's Annual Report FY 2014.

[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/nm/programs/nlcs/organ\\_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/nm/programs/nlcs/organ_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf) (Accessed May 21, 2017.)

#### Historical Resources

##### Structures or Noteworthy Events that Occurred on the Landscape

The Potrillo Mountains complex is home to a human history that began with Paleo-Indian peoples between eight and twelve thousand years ago. The climate was much wetter then, and nomadic Paleo-Indian peoples used the Potrillo grasslands in pursuit of big game like now extinct Giant Ground Sloths and Four Horned Antelope. Early, Middle, and Late Archaic peoples followed, with the Mimbres Pueblo culture following them. Preserved Mimbres Pueblo sites are preserved in Indian Basin, and further archaeological study of the area promises more discoveries of both habitations and also clues regarding the region's role part of well traveled trade routes.

The Potrillo Complex has a rich Hispanic heritage. Known as the Malpais, or "rough country" in Spanish, this lava has served vital roles for both Hispanic and Mestizo culture since the early 18th century. By that time, residents of Ciudad Juarez and also smaller settlements north along the Rio Grande used the Potrillo Mountains for hunting—a practice that still continues today. Numerous herds of Pronghorn Antelope, Desert Mule Deer, and even Desert Bighorn Sheep lured area hunters away from the valley floor and into the Potrillos. In fact, the area was a hunter's paradise. Increased heat from the black lava rock allowed grasses to remain green later into the winter. Depressions held water and offered increased vegetation. Hispanic use of the Potrillos for hunting continues to this day, with sportsmen pursuing Desert Mule Deer, Javelina, and both Gambel's and Scaled Quail. Desert Bighorn were extirpated in 1900 when 40 Bighorn were killed and shipped to Deming, NM. Also at the turn of the century, Pancho Villa is reputed to have crossed into the Potrillo Mountains. Pancho Villa Tank in the western Potrillo Mountains bears witness to this tumultuous yet formative time in southwestern history.

The Organ Mountains were first documented in 1598 when Don Juan de Oñate noted them in his journal during the maiden voyage over the Camino Real. For 300 years the Camino Real del Adentro was the sole route north from Mexico City to interior lands, connecting it to innumerable settlements throughout New Mexico. Local landmarks marking the “Royal Road to Interior Lands”, like Paraje Robledo and Robledo Peak are current places in the Robledo Mountains and part of the Organ Mountains-Desert Peaks National Monument. Both are named for Pedro Robledo, who drowned on that initial expedition underneath the peak that bears his name. Pedro Robledo’s descendants, including cultural icon and former Democratic State Representative J. Paul Taylor still live in the Mesilla Valley.

#### CAMINO REAL DEL ADENTRO

The Camino Real del Adentro is one of 19 National Historical Trails. Its significance to Hispanic settlement throughout New Mexico and the entire Southwest cannot be underestimated. A renewed interest in the Camino Real is driving community projects along the entire length of its route. Southern New Mexico and in particular Las Cruces are leaders in this field. Local community organizations like Las Esperanzas are recognizing sections of the trail in their community, recovering and showcasing rare artifacts, and celebrating the the living history of the Camino Real del Adentro.

Evidence in caves near Peña Blanca and La Cueva shows human habitation and usage of the Organ Mountains stretched back 8-12 thousand years, to the Paleo-Indian peoples who left Folsom points behind. Desert Archaic and the melding of the Mimbres and Jornada cultures have also left their marks, including both pictographs and petroglyphs. Native peoples continue to use the Organs to this day, with local Puebloan tribes from Ysleta del Sur and the Piro-Manso-Tiwa gathering sotol and yucca along the verdant Organ Mountain slopes for use in Catholic ceremonies that retain strong Native influences.

Don Juan de Oñate was the first recorded Hispanic admirer of Los Organos, but many generations have followed in his footsteps. Passes in the Organ Mountains allowed travel to El Paso salt flats that were important to local communities and served as a flashpoint in struggles for increased Hispano rights. Mining camps employed local residents, and natural resource use focused on hunting.

A late 19th century resort, Van Patten’s Mountain Camp, was built in the Organ Mountains and provided relief from summer heat for residents and travelers alike. It was later purchased and repurposed into a sanatorium by Dr. Nathan Boyd. Today the buildings remain in remarkable condition, and receive thousands of recreational visits every year from tourists and local residents alike. Also home to the famous Cox Ranch begun by W.W. Cox, the Organ Mountains now overlook White Sands Missile Range and Fort Bliss in addition to the rapidly growing population of Las Cruces and the Mesilla Valley. Presently, the Organ Mountains are a critical cultural resource to the growing Mesilla Valley population. Historic use by Hispanic families has been passed down through generations and has strengthened local connections to the land.

The Sierra de Las Uvas complex has a rich cultural history that is still visible today. Paleo-Indian peoples left behind evidence, including a Folsom point, in a Robledo Mountain cave. Extensive rock art resources adorn canyon walls throughout the Sierra de Las Uvas and Broad Canyon. In a few areas, the co-location of Jornada and Mimbres culture rock art along with the Gaan dancers of the Apache people speak to the area's status as a Native crossroads.

#### BUTTERFIELD STAGECOACH ROUTE

The Apache presence drove the construction of nearby forts by early Hispanic and Anglo settlers. One, Fort Mason (sometimes referred to as Mason's Fort) was a stop on the Butterfield Stage route, which delivered passengers and all of the Western territory's mail for a brief period from 1857 to 1861. The Fort's remains are still visible, and partial walls stood through the late 1960's. Nearby Massacre Peak was commemorated for the killing of over 20 stage riders by Apache warriors. Western lore is layered throughout the region, with the Rough and Ready Butterfield Stage stop just a few miles to the east. The National Monument includes a full 22 miles of the Historic Butterfield Trail. The entire route through the proposal is visible from the air and sections remain identifiable from ground level.

Geronimo, proper name Goyakla, was a known visitor to the Mesilla Valley. A cave in the Robledo Mountains bears his name, where stories say that Geronimo led a group escaping from pursuing cavalry. Upon seeing the Apache band enter the cave, the pursuers stopped and waited for the provision-less Apache to emerge. They never did, due to a legendary second entrance that hidden from the watchful pursuers but let the Apache ride west to the Black Range.

Billy the Kid also made his presence known in the Mesilla Valley through inscriptions on Outlaw Rock. In this part of the Robledo Mountains the Kid, real name William Bonney, hid with other notorious outlaws and stole cattle when the soldiers from Fort Selden were elsewhere. Billy the Kid is heavily commemorated in Las Cruces and Mesilla where he was once imprisoned. The connection from the Mountains to Main Street with Billy the Kid significantly increases the historical appeal of the area and adds prestige to the National Monument.

The Sierra de Las Uvas Complex is also renowned hunting area that receives heavy local usage. Much comes from Hispanic residents whose families have hunted in the mountains and canyons for many generations. Also, the strong native stands of sotol and different varieties of yucca make the Sierra de Las Uvas a prime gathering area for plants used in both traditional native ceremonies and in processions like the Easter Procession and Tortugas Feast Days that draw thousands of area residents.

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument. <https://www.organmountains.org/the-lands/historical-resources/> (Accessed May 21, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The Organ Mountains-Desert Peaks National Monument was established to protect significant prehistoric, historic, geologic, and biologic resources of scientific interest, and includes four areas: the Organ Mountains, Desert Peaks, Potrillo Mountains, and Doña Ana Mountains.

The Organ Mountains are a steep, angular mountain range with rocky spires that jut majestically above the Chihuahuan Desert floor to an elevation of 9,000 feet. This picturesque area of rocky peaks, narrow canyons, and open woodlands ranges from Chihuahuan Desert habitat to ponderosa pine in the highest elevations. Located adjacent to and on the east side of Las Cruces, this area provides opportunities for photography, hiking, horseback riding, mountain biking, camping, and wildlife viewing.

The Desert Peaks include the Robledo Mountains, Sierra de las Uvas, and Doña Ana Mountains, characterized by desert mountains rising steeply from flat plains.

The Potrillo Mountains are the most remote section of the Monument located a distance to the southwest from Las Cruces, and is comprised of a volcanic landscape of cinder cones, lava flows, and craters.

The Doña Ana Mountains have extensive pedestrian trails, equestrian trails, mountain bike trails, rock climbing routes, and some limited routes available for motorized use.

Source: BLM, Organ Mountains-Desert Peaks National Monument Manager's Annual Report FY 2014.

[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/nm/programs/nlcs/organ\\_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/nm/programs/nlcs/organ_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf) (Accessed May 21, 2017.)

These lands are currently managed by the Bureau of Land Management (BLM). They contain eight Wilderness Study Areas, six of which have been administratively protected since 1980. The Organ Mountains Desert Peaks National Monument is still managed by the BLM, and management does not limit uses such as hiking, camping, horseback riding, and hunting. Grazing will continue consistent with applicable laws and regulations.

Source: BLM, Organ Mountains-Desert Peaks National Monument Manager's Annual Report FY 2014.

[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/nm/programs/nlcs/organ\\_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/nm/programs/nlcs/organ_mountains-desert/documents.Par.20184.File.dat/Organ%20Mountains%202014%20Manager%20Report.pdf) (Accessed May 21, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

No comment.

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

#### **Organ Mountains-Desert Peaks Supporters**

The national monument designation came in response to the local community following an open and public process. Over the past decade, several bills to protect areas within the monument had been introduced in Congress. In January 2014, Interior Secretary Sally Jewel, Senators Udall and Heinrich held a listening session with the local community.

The designation had broad support from the local community, Native American and Hispanic leaders, business leaders, sportsmen, veterans, ranchers, faith leaders, archaeologists and numerous local elected leaders.

#### Local Governments

All Pueblo Council of Governors

City of Las Cruces

Town of Mesilla

City of El Paso

Doña Ana County Commission

Ysleta del Sur Pueblo

Fort Sill Apache Tribe

Sportsmen and women groups

Backcountry Hunters and Anglers

Doña Ana County Associated Sportsmen

El Paso del Norte German Shorthair Pointer Club

Mesilla Valley Longbeards

Mule Deer Foundation, Las Cruces Chapter

NMSU Student Subunit of the American Fisheries Society

New Mexico Quail, Inc.

New Mexico Wildlife Federation

Theodore Roosevelt Conservation Partnership

Trout Unlimited, Enchanted Circle Chapter

Trout Unlimited, Gila Chapter



Trout Unlimited, Truchas Chapter  
Southwest Consolidated Sportsman  
Sunland Brittany Club  
Wild Turkey Sportsmen's Association  
The Wildlife Society, New Mexico State University Chapter

Faith Leaders

Pastor Juan Acevedo, Centro Familiar Cristiano Assemblies of God, Anthony  
Rev. Andres Alava, St. Anthony Catholic Church, Anthony  
Rev. Vincent Petersen OFM, Our Lady of Guadalupe Catholic Church, Tortugas  
Deacon Lou Roman, Chancellor Diocese of Las Cruces  
Rabbi Larry Karol, Temple Beth-El, Las Cruces  
Rev. Brian Guerrini SSCC, Our Lady of Grace, Artesia  
Rev. Gorton Smith, First United Methodist, Roswell  
Rev. Wayne Hawkins, Iglesia del Pueblo Presbyterian, Las Cruces  
Rev. Nancy Anderson, Pastor Emeritus Unitarian Universalist, Las Cruces  
Rev. Linda Mervine, First Christian Church Disciples of Christ/UCC, Las Cruces  
Rev. Eleazar Perez, San Martin de Porres Catholic Church, Sunland Park  
Harvey Daiho Hilbert, Roshi Zen Buddhist  
Rev. Gabriel Rochelle, St. Anthony of the Desert Orthodox, Las Cruces  
Bishop Ricardo Ramirez OSB, Diocese of Las Cruces  
Rev. Jim Lehman, Holy Family Ecumenical Catholic, Las Cruces  
Rev. Carol L. Tuck, United Methodist Church, Las Cruces  
Rev. Ron Booker, Lutheran, Las Cruces  
Rev. Dalen Fuller Rogers, Unitarian Universalist Church, Las Cruces  
Father Manuel Ibarra, Our Lady of Guadalupe, Hobbs  
Father Tom Smith OFM, Holy Cross Retreat Center, Las Cruces  
Sister Michele Theres Gothro, Holy Family Ecumenical Catholic, Las Cruces  
Rev. Suzanne Redford-Campbell, Unitarian Universalist, Las Cruces  
Sister Maria Isabel Galbe, Sisters of the Assumption, Chaparral  
Sister Maria Theresa Nguyen, Sisters of the Assumption, Chaparral  
Sister Evelyn Strahl, Sisters of the Assumption, Chaparral  
Sister Diana Wauters, Sisters of the Assumption, Chaparral  
Beatriz Ferrera, Baha'i, Las Cruces  
Deacon Jesus Herrera, Our Lady of Guadalupe, Immaculate Conception Parish, St. Catherines,  
Pecos Valley  
Rev. Paul R. Miller, Honorably Retired Presbyterian Minister, Sierra Blanca Presbytery  
Rev. Alejandro Reyes, Parochial Vicar, Holy Cross, Doña Ana County

[October 2013 letter to President Obama](#)

Organizations

Audubon New Mexico  
Boys and Girls Club of Las Cruces  
Chihuahuan Desert Conservation Alliance  
Children's Reading Foundation of Doña Ana County  
Citizens' Task Force for Open Space  
Communities in Action and Faith (CAFé)  
Conservation Lands Foundation  
Corporation of Our Lady of Guadalupe in Tortugas  
District 29 Heritage Tourism Advisory Committee (El Paso)  
El Camino Real de Tierra Adentro Trail Association (CARTA)  
El Paso Heritage Alliance  
Environment New Mexico  
Family Pride Foundation  
Franklin Mountain Wilderness Coalition  
Friends of Organ Mountains-Desert Peaks  
Great Old Broads for Wilderness  
Groundwork Doña Ana  
Hispano Round Table of New Mexico  
Las Alturas Neighborhood Association  
Las Cruces Chapter World Wildlife Fund  
Las Cruces Convention and Visitors Bureau  
Las Cruces Green Chamber of Commerce  
League of United Latin American Citizens (LULAC)  
League of Women Voters of Greater Las Cruces  
Mesilla Valley Audubon Society  
Mesilla Valley Kiwanis Club  
Native Plant Society  
New Energy Economy  
New Mexico Green Chamber of Commerce  
New Mexico Wilderness Alliance  
New Warrior Mountain Biking Club  
The Pew Charitable Trusts  
Partnership for Responsible Business  
Picacho Hills Neighborhood Association  
Precious Desert Cooperative  
The Sierra Club

Shalam Colony and Oahspe Museum  
 Southwest Environmental Center  
 The Wilderness Society  
 Vet Voice Foundation

Businesses

1st Class Detailing	Blue Heron, LLC	Desert Woman
ABC Printing	Boudreau Jewelers &	Botanicals
Able Signs Co.	Gallery	Dharmahouse
Alan Ramirez, Aflac	Camunez Law Firm	Diamond Products
Alhambra	Carlos' Bakery	Dominguez Farms
American Graffiti	Casa Mexicana Tile	Downtown Desert Yoga
Andrew Hewes	Casa Serena Landscape	Dr. Daniel Allan, MD
Enterprises	Designs, LLC	Dulceria Guadalajara
Apex Roofing	Castillos Mobile	Earthwise Strategies and
Aralia Art Gallery	Mechanic	Design
Archery Hut	Catholic Charities of the	Egan Construction
Art Obscura: Art &	Diocese of Las Cruces	E.J. Mediation Services
Collectibles Superstore	Chicano Programs NMSU	Enchanted Gardens
Art Schobey Interactive	Classic New Mexico	Enchanted Spirit
Arte de Romero	Homes	Journeys
Ashley Furniture	Clemente Taxidermy	Energetic Nutrition
Athletic Outfitters	Coldwell Banker Trails	Enrique's Mexican Food
Autos Exclusivos	West Realty	Express Gold Buyers
Avalos Vision	ColorTyme	Express Gold Buyers #2
Avian Design	Create a Cake	Farm & Fiddle
Avp Consulting	Crystal Blue Karaoke &	Farmers and Crafts
BR Neptune	DJ	Market of Las Cruces
Baca's Funeral Chapels	CW McHann, Inc dba	Forever Nutrition
of Las Cruces	River Ranch Market	Foxwood, Inc.
Barb's Flowerland Inc.	Daniel Allan, MD	Franchise Law Team
Barnett's Harley-	Dario Gomez Bail Bonds	Freeing the Heart
Davidson	De La Vega's Pecan Grill	Free Flow Massage, LLC
Bayou Seco	Deason Consulting	Finish Line Car Audio &
Becks Coffee	Delicias Café	Tint
Bank of the Rio Grande	Del Valle Printing and	Full Circle Health Center
Bank of the West	Design	Full Circle Heritage
Better Life Natural Pet	Desert Habitat Designs	Services
Foods	Desert Vision Tinting,	G. Sandoval
Birdman Disc Golf	LLC	Construction

Glitz Salon	Lois Duffy Art	Natura Design and
Globosocks, LLC	Los Amigos	Consulting
Gone Hunting Taxidermy	Lowe's Las Cruces	Navarro Research &
Grassroots Press	Lucky Bastard Tattoos	Engineering, Inc.
GreenMoney Journal &	Major Wildlife Studio	New Mexico Health
Greenmoney.com	Malooly's Flooring	Connections
Greenworks	Company	Nopalitos Restaurants
Grey Horse General	Mane Atraction Styling	Northern Lights
Builders LLC	Salon	On Sale Tires and
Grindal & Romero	Marlo Properties, LLC	Accessories
Insurance Inc	Martin Tire	One Hour Cleaners
Happy Dog	Mass Art LLC	One Live Nutrition
High Desert Brewing	Massage Therapy	Paws Cause High Desert
Company	Training Institute	Humane Society Thrift
HFHT	Matts & Co. Accounting	Shop
Housing Support, Inc.	Professionals, LLC	Pep Boys
Ichiban Nutrition	McCullough & Associates	Perez Market
Investment	Medina Plumbing	Pool Tech Plus, Inc.
Management Associates,	Melissa J. Reeves, PC	Positive Energy Solar
Inc.	Attorney at Law	Pro Nails and Spa
Joe Lujan Farms	Meliscor Designs	Putnam-Pritchard /
JWelles & Associates,	Meraz Painting	Nubu Design
LLC	Milagro Community Care	Quail Acres
Kate Theisen	Milagro's Café	Ramirez Tires
Ken Stinnett	Mother McCaul's	Rawson Self Storage
Photography	Mutt Hutt	Redemption Tattoo
Kicker Company	MVS Studios	Relham LLC
Kosh Solutions	Nambé, Inc.	REThink Real Estate
La Clinica de Familia	Nancy Simmons,	Reviver Printing
La Fuente Restaurant	Proofreader/Editor	RFC Construction
La Milpa	New Dimensions Art	Ricardo's Barber Shop
La Tierra Mineral Gallery	Works	RiffRaff Jewellery
Las Cruces Academy	New Mexico Specialized	Rio Associates
Las Cruces KOA	Wildlife Services	Robledo Vista Nursery
Campground	New Mexico State	ROCKTENN Corp.
Las Cruces Mental	Outdoor Programs	Roper's Kar Wash &
Health Center	Nico Photography	Lubricator
Lightning Computer	Nip 'n' Tuck	Russin Reporting, LLC
System	NM Arrowhead	Rustic Furniture Store
Lilley Law Offices	Outfitters	Sal's TV & VCR Service
Local Solutions	Murray Hotel	Sandia Hearing Aids

Sandoval Construction	Suncrest Publications	Tres Thermal Imaging
Santa Fe Bar & Grill	SunSpot Solar LLC	Tres Vaqueros Original
Santa Fe Properties	Studio X	and Custom
The Shed	Sunland Park Grocery	Copperworks
Security Finance	Susand Gilliland Co	Triple L Ink Graphic
Silver City Arts & Cultural	T.T. Shipping	Design
District	Taos Disc Golf Club	Tu Media Group
Simon's Café	Teriyaki Chicken House	Twirl
Smart Living Team @	The Bean	Valley Muffler
Steinborn & Assoc. Real	The Copier Guy	Water Lady
Estate	The Elegant Junque	Wellness Improvements
Smart Solar Living, LLC	Shopee	Experts
Snobiz Santa Teresa	The Great Conversation	West End Art Depot
Social Enterprise	The Gold Guys LLC	Williams Design Group,
Associates	The Holly Company &	Inc.
Solar Smart Living	Finance New Mexico	Wok'N World
Sorg Consulting	The Marshall Plan	Wright Jewelers
Sounds Unique	The Recycle Couple	Wynn Consulting
Southern Glam Women's	Theater Group New	Solutions
Boutique	Mexico	Zucos Barber Shop
Spirit Winds	TimeSprings, Inc.	Yin Yoga with Deidra
Sun & Earth, Inc.	Toucan Market	

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument.  
<https://www.organmountains.org/supporters/community-conservation-supporters/> (Accessed  
May 21, 2017.)

#### Hispano Leaders Support

Hispano leaders from across New Mexico want to protect the Organ Mountains – Desert Peaks  
Region.

Letter of Support for the National Monument to President Obama and the New Mexico Senators

January 18, 2012

The Honorable Barack Obama  
President of the United States  
The White House

1600 Pennsylvania Avenue  
Washington, DC 2005

Senator Jeff Bingaman  
703 Hart Senate Office  
Washington, DC 20510

Senator Tom Udall  
110 Hart Senate Office  
Washington DC 20510

As Hispano leaders in New Mexico, a state that leads the nation with a 46.3% Hispanic population, we are writing to convey our strong support for the protection of the environmentally, culturally, and historically rich landscapes of the Organ Mountains-Desert Peaks region in Doña Ana County, New Mexico. Hispano culture and presence in New Mexico is and has always been closely connected to our states rich public lands. These areas provide our families and communities with recreation, hunting, traditions and so much more. Throughout time, they have also brought travelers and tourists, and with them economic development. As such, protecting these natural treasures is an important priority to us, and to our future.

No place in New Mexico has the abundance of rich and nationally unique Chihuahuan Desert lands than Doña Ana County. Whether it's the famous Organ Mountains that outline the town of Las Cruces and the historic Camino Real Trail or the Sierra de las Uvas Mountains that house thousands of Native American petroglyphs and pictographs that lie on canyon walls from earlier civilizations, these lands call for national protection. In turn, our country would be so much richer preserving both the unique southwestern landscape and its incredible western history.

Since the first settlers started north on the Camino Real, lands like the Sierra de Las Uvas, Doña Ana, Robledo, and Organ Mountains have played large roles in Hispano life and culture. Hunting and traditional gathering activities continue to this day, and bind generations of Hispano families together. Surging interests amongst Hispanic sportsmen also means more families are taking to our wilderness in pursuit of desert mule deer, quail, and javelina in Doña Ana County.

Fortunately, President Obama and Congress have the power to protect lands cherished by the Hispanic and American community. Well beyond their importance to the Hispanic community, the Mountains of Doña Ana County include important nationally unique historical resources including the Camino Real and the Butterfield Stagecoach trail, Geronimo's Cave and Robledo Peak, Billy the Kid's "Outlaw Rock," and countless archeological sites. Some of these lands have been given interim protection as Wilderness Study Areas, while others remain vulnerable to a variety of threats.

Recent polls demonstrate New Mexicans strongly support protecting these lands, with the highest support amongst the Hispanic population and the community of Las Cruces. I believe

now is the time for action to protect the unique Organ Mountain – Desert Peaks region and secure our rich cultural heritage, natural resources, and economic potential of Southern New Mexico forever.

Sincerely,

Governor Jerry Apodaca (1975-1979)

Attorney General Patricia Madrid (1999-2007)

Land Commissioner and Mayor of Albuquerque Jim Baca (1983–1986, 1991–1993), (1997-2001)

House Majority Leader Ken Martinez, Grants

State Auditor Hector Balderas, Wagon Mound

Mayor of Mesilla Nora Barraza, Doña Ana County

Mesilla Trustee Jesus Caro

Mayor of Las Cruces Ken Miyagishima

State Senator Mary Jane Garcia, Doña Ana County

Las Cruces City Councilor Olga Pedroza

Las Cruces City Councilor Miguel Silva

Las Cruces Public Schools, Board Member Maria Flores

Albuquerque City Council Vice-President Ray Garduño

State Representative Antonio Lujan, Doña Ana County

State Representative Joni Gutierrez, Doña Ana County

State Representative J Paul Taylor, Doña Ana County (1987-2005)

Doña Ana County Commissioner Oscar Vasquez Butler (2002-2010)

Doña Ana County Commissioner Dolores Saldaña – Caviness

Doña Ana County Commissioner Leticia Benavidez

State Senator Eric Griego, Albuquerque

Martin Chavez, Mayor of Albuquerque (1993-1997, 2001-2009)

State Representative Miguel P. Garcia (House Labor Committee Chair), Albuquerque

State Representative Rick Miera (House Education Committee Chair), Albuquerque

State Representative Antonio “Moe” Maestas, Albuquerque

San Miguel County Commissioner John Olivas

State Representative Rudy Martinez, Grant County

New Mexico Wildlife Federation President Ray Trejo, Deming

Paul Martinez, Past President of LULAC, New Mexico

Jessica Martinez, Past National President of LULAC Youth

Kent Salazar, National Wildlife Federation Board Member

LULAC, New Mexico

LULAC, Las Cruces

Anthony Women’s Intercultural Center

CAFE (Communities of Action and Faith)

Latino Sustainability Institute

Mesquite Community Action Committee

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument. <https://www.organmountains.org/supporters/hispano-leaders-support/> (Accessed May 21, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

Las Cruces, New Mexico (April 26, 2017) – President Donald J. Trump signed an Executive Order on Wednesday that could threaten the Organ Mountains-Desert Peaks National Monument. The order “directs the Department of the Interior to review prior monument designations and suggest legislative changes or modifications to the monument proclamations.”

Efforts to protect federal public lands in Doña Ana County began in the early 1970s, with community support growing steadily over decades. Legislation to protect the area was first introduced by Republican Senator Pete Domenici in 2005, with subsequent bills introduced until President Obama designated the area as a national monument in 2014 after Congress was unable to move legislation. More than a dozen local government support resolutions passed during this time.

“As Mayor of the New Mexico’s second largest city, I have seen first-hand the dramatic benefits created from the Organ Mountains-Desert Peaks National Monument. In just the last year visitation to the Monument has more than doubled. It has garnered international attention and really helped put our City on the map. We have even created a new “Monuments to Main Street” celebration to promote exciting new tours in the Monument and boost tourism. It would be tremendously shortsighted to undermine our National Monument,” said Mayor of Las Cruces Ken Miyagishima.

“The Organ Mountains-Desert Peaks National Monument celebrates so much of the history and tourism that Mesilla is known for. From hideouts used by Billy the Kid and Geronimo to the famous Butterfield Stagecoach Trail, the Organ Mountains-Desert Peaks protects thousands of years of history in our region. Any reduction of this special monument would undermine our rich legacy, and the tourism that we are growing because of it.” said Town of Mesilla Mayor Nora Barraza.

The Executive Order represents not only a threat to the protection of the lands and cultural sites within the Organ Mountains-Desert Peaks National Monument, but a negative potential impact to surrounding communities and small businesses that have benefitted from it. New business and tourism opportunities connected to National Monument have been created including the City of Las Cruces’s new “Monuments to Main Street” promotion. Tourists have visited the



monument from across the world since its establishment, contributing to the 102% increase in visitation in the last year alone. Las Cruces was recently included in Lonely Planet's "Top 10 Places to Visit," due in large part to the Organ Mountains-Desert Peaks National Monument.

"Our community celebrated after our spectacular lands and cultural treasures were protected through national monument designation," said Rafael Gomez, Tribal Councilman from the Ysleta del Sur Pueblo. "For years we had been working with our elected officials to protect our culture and way of life, and we were able to do so, thanks to the Antiquities Act. Any effort to change the Organ Mountains-Desert Peaks National Monument would go against the will of our people."

A recent study found that outdoor recreation alone drives a \$887 billion economy and supports 7.6 million jobs. Additionally, numerous studies have shown that communities located near monuments and other protected public lands have stronger economies, and that the outdoor and recreational opportunities they provide increase residents' quality of life, making areas near monuments more attractive to new residents, entrepreneurs and small businesses, and investment.

Since it was signed by President Theodore Roosevelt in 1906, the Antiquities Act has been used on a bipartisan basis by the majority of U.S. presidents (16, 8 Republicans and 8 Democrats) to protect America's most iconic natural, cultural, and historic places including: Río Grande del Norte, White Sands, Gila Cliff Dwellings, and more.

Groups representing sportsmen, cultural heritage organizations, evangelicals, conservation, recreation businesses, historic preservation, and many others all oppose efforts to undermine the Antiquities Act because of the widespread historic, cultural, and natural treasures that have been protected through its use.

"Protected public lands like Organ Mountains-Desert Peaks National Monument have always been a source of strength and resilience for veterans returning from war," said Nate Cote, past commander, Disabled American Veterans Chapter 10. "Our shared natural heritage is ingrained in our American ideals, and an attack on our lands and waters is an attack on our values. I fought for our country, I fought to protect Organ Mountains-Desert Peaks as a national monument, and I would do it again without hesitation."

The public overwhelmingly supports national parks, monuments, and public lands and oceans. A 2014 Hart Research poll showed that 90% of voters supported Presidential proposals to protect some public lands and waters as parks, wildlife refuges and wilderness. In the 2017 Conservation in the West poll, only 13% of western voters supported removing protections for existing monuments while 80% supported keeping them in place.

In Doña Ana County, a broad coalition of Hispanic leaders, veterans, Native Americans, sportsmen, small business owners, faith leaders, conservationists, and local elected officials

have worked to preserve, and now protect, the Organ Mountains-Desert Peaks National Monument.

Contact: Ben Gabriel, [ben@organmntnfriends.org](mailto:ben@organmntnfriends.org), (575) 639-4384

Source: New Mexico Wilderness Alliance, Organ Mountains Desert Peaks National Monument.  
<https://www.organmountains.org/news/southern-new-mexico-stands-up-to-president-trumps-attack-on-organ-mountains-desert-peaks-national-monument/> (Accessed May 21, 2017.)

## **Rio Grande del Norte National Monument New Mexico**

I am writing to **support the continuation of the National Monument** status as currently established for Rio Grande del Norte National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Lying between the San Juan Mountains and Sangre de Cristo Mountains, this area is also an important area for wintering animals, and provides a corridor by which wildlife move between the two mountain ranges.

Source: Conservation Lands Foundation <http://conservationlands.org/conservationlands/rio-grande-del-norte-national-monument> (Accessed May 21, 2017.)

The renowned trout fishing in the Río Grande and its tributaries draws anglers from across the country. Abundant wildlife, including Rocky Mountain bighorn sheep, mule deer, Rocky Mountain elk, pronghorn, and antelope, attract hunters and wildlife watchers. The river also provides habitat for the recently-reintroduced North American river otter. The area provides habitat for Gunnison's prairie dog, ringtail, black bear, coyote, red fox, cougars, and bobcats.

Source: Taos.org <http://taos.org/what-to-do/landmark-sites/rio-grande-del-norte-national-monument/>

Ute Mountain tops out at 10,093 feet, the highest point in the monument. ..From the top, you can see most of the new monument, including its most prominent feature, the Rio Grande Gorge, a deep canyon extending from the Colorado state line down to Pilar.

“That is really the most dramatic feature of the new monument,” says Tefft. “We’ve got the whole gorge included. There’s river rafting, fly-fishing, hot springs and the highest suspension bridge in the country.”

The national monument designation does not affect existing roads in the area, most of which are dirt or gravel tracks crisscrossing the wide plateau west of the gorge to U.S. 285. Hunting, fishing, hiking, biking, and collecting piñon nuts and firewood are all still allowed out there...

“It’s very remote,” Tefft says. “The area west of the gorge is accessible by dirt road, but you need a good vehicle — not necessarily a four-wheel-drive, but something with clearance. I’ve been back up in there for two days and never saw another person. That means there’s no one to help you if you get a flat tire or get stuck in mud or snow. So if you’re going to go, be prepared.”

#### FLORA, FAUNA AND GEOLOGY

The monument also includes some critical wildlife habitat and is home to large herds of pronghorn and elk. It contains extensive archaeological sites with elaborate petroglyphs, several old volcanoes, and thousands of acres of big sagebrush plateau. Those expanses of big sagebrush — *Artemisia tridentata*, actually a relative of the sunflower — are quite possibly the best place on the planet to be during a summer rainstorm, when you can breathe in the incredible woody-sweet scent of sagebrush when it gets wet.

Certainly the great river is the key recreational feature of the new monument, but geologically it is only a small part of the Taos Plateau and the inactive volcanoes that rise out of it. Nearby domed San Antonio Mountain, which arches gently to the west of Ute Mountain, is also an extinct volcano, as are several other nearby peaks included in the monument: Cerro de la Olla, Cerro Montoso and Cerro del Aire. This area of Northern New Mexico has been quite

geologically active, as the Rio Grande actually flows along a continental rift — the Rio Grande Rift — where North America is ever so slowly pulling apart. (Yes, we might be two continents in a few million years.) That rift also created volcanic activity in the area, some relatively recently.

Most of the volcanoes in the region were active between 1.8 and 4 million years ago, and the Rio Grande itself cuts through millions of years of geological history. That history can be seen in the canyon walls, making it worth your while to ask about your river guide's geological knowledge of the region before you schedule a rafting trip. As the canyon crosses into New Mexico from Colorado, it is about 150 feet deep, but at points along its next 100-mile course to the south, the gorge is as deep as 800 feet. Just north of Taos, you can hop into the river at John Dunn Bridge to run the Class 5 whitewater challenge known as the "Taos Box" — New Mexico's biggest whitewater — but many stretches of the Rio are peaceful or dotted with riffles and little rapids, perfectly suited to kids and those who might be more interested in sightings of river otters and bighorn sheep than tumbling over burly volcanic rocks.

There are more than 100 springs (cold, warm and hot) along the Rio Grande, and several well-known hot springs are in the canyon bottom near Taos. Both Manby (Stagecoach) Hot Springs and Black Rock Springs are within a quick walk from the rim down into the gorge along well-worn paths. (Warning: Swimsuits are optional out here.) To reach Stagecoach Springs, head toward the Taos Gorge Bridge and turn right onto Tune Road just before the bridge, then follow the lefts to the parking area. Black Rock Springs is near the John Dunn Bridge west of Arroyo Hondo. There are petroglyphs in the vicinity of both hot springs — modern humans aren't the only ones who enjoy a bone-warming soak. Some lesser-known springs exist as well, but you have to find someone willing to tell you where they are.

The Rio Grande del Norte Monument offers dozens of trail hikes, both rugged and tame. The Wild Rivers Recreation Area within the monument has several trails; on many Saturdays during the summer season, BLM staff will lead hikes here. The BLM and visitor centers have fliers specific to hiking Ute Mountain that describe the dirt roads that bring you close to the mountain, from the west and north sides, and details on other hiking options.

Source: "Rio Grande Del Norte National Monument" The Santa Fe New Mexican, Santa Fe, NM. May 5, 2014. [http://www.santafenewmexican.com/magazines/bienvenidos/rio-grande-del-norte-national-monument/article\\_47c1633e-0239-5dfd-a755-a8d706278b86.html](http://www.santafenewmexican.com/magazines/bienvenidos/rio-grande-del-norte-national-monument/article_47c1633e-0239-5dfd-a755-a8d706278b86.html)

*(ii) whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest";*

This area has attracted human activity since prehistoric times. Evidence of ancient use is found throughout the area in the form of petroglyphs, prehistoric dwelling sites, and many other types of archaeological sites. More recent activity includes abandoned homesteading from the 1930s.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/nm/st/en/prog/NLCS/RGDN\\_NM.html](https://www.blm.gov/nlcs_web/sites/nm/st/en/prog/NLCS/RGDN_NM.html)  
(Accessed May 21, 2017.)

The Orilla Verde Recreation Area is located within the Río Grande Del Norte National Monument and along the Río Grande Wild and Scenic River. Nestled along the banks of the Río Grande and within the steep-walled Río Grande Gorge, the campgrounds in this area offer nearby access to the river.

The elevation along the river is 6,100 feet and the steep canyon rises 800 feet from the river to the Gorge rim. Gentle waters with occasional small rapids flow through Orilla Verde, providing an ideal setting for many recreational activities. Because of the dramatic changes in elevation and the diversity of plant life, Orilla Verde draws many species of animals, including raptors (such as eagles and hawks), songbirds, waterfowl, beaver, cougar, ringtail, mule deer, and more. The Río Grande also has attracted humans since prehistoric times. Evidence of ancient peoples is found throughout the Recreation Area in the form of petroglyphs on the rocks and many other types of archaeological sites.

Source: BLM <http://blm-egis.maps.arcgis.com/apps/MapJournal/index.html?appid=ea1cae2d6e8f459cb1152521e7231060&webmap=22bf75ea3746499db9c45a1276de79f4> (Accessed May 21, 2017.)

The Rio Grande del Norte is at the heart of one of the oldest continually habituated landscapes on the continent. This is an area that is not only stunning, it also has played a role in shaping the cultures for centuries and is an integral part of our community – and economy – today.

Source: Rio Grande del Norte Coalition <http://www.riograndedelnorte.org/> (Accessed May 21, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The Red River Wild and Scenic River, located within the Río Grande del Norte National Monument, is designated Wild and Scenic for its lower 4 lower miles before it joins with the Río Grande. Flowing out of the Sangre de Cristo Mountains of New Mexico, the Red River was the head of a smaller Río Grande of ancient times. Scientists believe that some 400,000 years ago, a closed drainage basin with no outflow existed in the San Luis Valley to the north in Colorado. With changes causing the region to become wetter, the lake within this basin overflowed to the south and drained into the Red River. The volume of water continued to increase as it cut through the earth, forming the modern Río Grande Gorge we know today. As a result, the Red

River became a tributary and the headwaters of the Río Grande repositioned to central Colorado.

The Wild Rivers Recreation Area is on the mesa above the Red River. Exceptional views of the confluence of the Río Grande and Red River is found at the La Junta overlook in the Wild Rivers Recreation Area.

The Río Grande Wild and Scenic River, located within the Río Grande del Norte National Monument, includes 74 miles of the river as it passes through the 800-foot deep Río Grande Gorge. Flowing out of the snowcapped Rocky Mountains in Colorado, the river journeys 1,900 miles to the Gulf of Mexico. Here the river flows in a rugged and scenic part of northern New Mexico. The river was made a part of the National Wild and Scenic River System in 1968; among the first eight rivers Congress designated as Wild and Scenic. The river gorge is home to numerous species of wildlife, including big horn sheep, river otter, and the Río Grande cutthroat trout.

The Río Grande Wild and Scenic River provides a wide variety of recreational opportunities, luring anglers, hikers, artists, and whitewater boating enthusiasts. Two developed recreation areas are located along the river: Wild Rivers on the north and Orilla Verde in the south. In addition to these scenic recreation areas, a spectacular vista of the gorge is seen from the High Bridge Overlook where highway 64 crosses.

Source: BLM <http://blm-egis.maps.arcgis.com/apps/MapJournal/index.html?appid=ea1cae2d6e8f459cb1152521e7231060&webmap=22bf75ea3746499db9c45a1276de79f4> (Accessed May 21, 2017.)

The Rio Grande del Norte offers myriad opportunities for recreation and solitude. Areas within the Gorge offer prized opportunities for whitewater boating, climbing, bird watching, relaxing, and enjoying the scenic beauty. Other popular activities in the Rio Grande del Norte include hiking, camping, horseback riding, wildlife viewing, and stargazing.

Source: The Rio Grande del Norte One Hundred New Mexicans Speak for a Legacy <http://www.riograndedelnorte.org/wp-content/uploads/2012/06/Rio-Grande-del-Norte-book-05-08-12.pdf>

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

President Obama could also use his authority under the Antiquities Act to designate federal public lands in the Rio Grande del Norte as a national monument. This would allow continued vehicle access and public uses including hunting, fishing, mountain biking, livestock grazing, and firewood gathering. It would also protect these lands from new oil and gas drilling, mining, and

other development, ensuring that future generations of Americans have the opportunity to enjoy the Rio Grande del Norte as we do today.

Healthy public lands are crucial to a healthy New Mexico economy, attracting tourists who keep area cash registers ringing. These wild areas are known nationwide for hunting and fishing, and New Mexico's hunters and anglers together spend \$326 million annually pursuing these sports and support some 8,000 jobs.

More than 100 local businesses support permanent protection for the Rio Grande del Norte, as do the Hondo Mesa Community Association and Latino Sustainability Institute. Other supporters include the Taos Chamber of Commerce, the Mora Valley Chamber of Commerce, the San Antonio del Rio Colorado Land Grant, and the Taos County Commission....

The Rio Grande Gorge is New Mexico's Grand Canyon. This area attracts visitors from around the world, who come for the spectacular scenery and the unique blend of desert and mountain ecology. For outfitters and guides like me, this translates into sustainable economic development that benefits our entire community.

Stuart Wild, Outfitter, Wild Earth Llama Adventures, Questa...

My family ethic is to honor and live in concert with these wide open spaces in which our wild game roam. As a sixth generation from northern New Mexico, traditional uses like hunting are key to preserving this fundamental tradition that stems back to my great great great grandfather!

John Olivas, Managing Partner and Owner, JACO Outfitters, LLC  
Mora County Commissioner, District 2, Holman

This land is amazing. There's rock climbing, rafting, hunting and fishing everywhere. It's fantastic.

Tomas Medina, Ski Tech, Taos

The Rio Grande del Norte supports a unique suite of flora and fauna species that is an essential part of the wildlife habitat. Preserving this area would protect an important wildlife migration corridor.

Matt Gould, Graduate Research Assistant with New Mexico State University, Sangre de Cristo and Sacramento Mountains Black Bear Project, Las Cruces

I've been a river guide on the Rio Grande for 21 years. This place is my livelihood, and I'd like it to remain as majestic as it is today.

Billy Miller, Big River Raft Guide, Embudo

Rafting on the Rio Grande offers a fantastic view of the native vegetation here, like the marvelous hedgehog cacti. This place is too glorious and serene to go unprotected.



Andy and Iris Lehrman, Rafters Visiting Taos, Santa Fe

The mountains of the Upper Rio Grande Watershed sustain our communities in many ways. Our family has enjoyed backpacking, collecting edible plants, snowshoeing and skiing. The precious water is integral to it all. We have one opportunity to protect and preserve this irreplaceable resource.

Chris Pieper, Science Teacher and Business Owner, Mudd-N-Flood Mountain Shop, Taos

Source: The Rio Grande del Norte One Hundred New Mexicans Speak for a Legacy  
<http://www.riograndedelnorte.org/wp-content/uploads/2012/06/Rio-Grande-del-Norte-book-05-08-12.pdf>

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The establishment of the Rio Grande del Norte National Monument was the culmination of years of public outreach and community participation, and overwhelming support from the Taos community, including ranchers and sportsmen, land grant heirs and acequia associations, local outfitters and guides, as well as local and tribal governments...

Now a part of our National Conservation Lands, the Rio Grande del Norte National Monument was established as a result of input from the local community, sportsmen, ranchers, small business owners and people across northern New Mexico.

Source: Rio Grande del Norte Coalition <http://www.riograndedelnorte.org/> (Accessed May 21, 2017.)

The Rio Grande del Norte National Monument designation has been good for business in Taos County.

According to the New Mexico Green Chamber of Commerce, visitors and revenue increased after the monument designation:

- 40% increase in visitors in less than one year since the Rio Grande del Norte National Monument designation
- 21% increase in Town of Taos Lodgers' Tax Revenue
- 8.3% increase in gross receipts revenue from the "Accommodations and Food Service" sector in Taos County

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.



*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The Río Grande Wild and Scenic River, located within the Río Grande del Norte National Monument, includes 74 miles of the river as it passes through the 800-foot deep Río Grande Gorge. Flowing out of the snowcapped Rocky Mountains in Colorado, the river journeys 1,900 miles to the Gulf of Mexico. Here the river flows in a rugged and scenic part of northern New Mexico. The river was made a part of the National Wild and Scenic River System in 1968; among the first eight rivers Congress designated as Wild and Scenic. The river gorge is home to numerous species of wildlife, including big horn sheep, river otter, and the Río Grande cutthroat trout.

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Source: BLM <http://blm-egis.maps.arcgis.com/apps/MapJournal/index.html?appid=ea1cae2d6e8f459cb1152521e7231060&webmap=22bf75ea3746499db9c45a1276de79f4> (Accessed May 21, 2017.)

Foreword: The Rio Grande del Norte in all its Splendor

Why have New Mexicans come out in such great numbers to support the preservation of the Rio Grande del Norte?

Is it because the economic health of our state depends on the preservation of our pristine lands? Is it because water is so critical to our survival? Is it because, very simply, we love this land?

Our reason for speaking out for the Rio Grande del Norte encompasses all of these issues and more. Those of us who have been here understand: northern New Mexico draws one in. The land itself inspires a profound engagement with the natural world, a more holistic ethic, an intelligent humility toward our place in nature.

The Rio Grande del Norte is a national treasure. It is here that we find the iconic landscapes that for centuries have shaped our nation's vision of the West. Biologically diverse and spectacular, this swath of wilderness spanning 236,000 acres through rich wildlife habitat offers a paradise for backcountry hiking and fishing, an outstanding place for observing nature in all of its splendor, and a refuge offering solitude and spiritual rejuvenation.

Significant tourism revenues flow from this area in a state where tourism is the economic spine. A \$6.1 billion industry, tourism statewide generates \$764 million in tax revenues and is the

largest private sector employer in New Mexico. The Rio Grande del Norte's unspoiled landscape is an important attraction, a chief reason why people travel here from across the country and around the world. Our wilderness attracts hunters, photographers, birdwatchers, artists, anglers and other river enthusiasts, and more. Here, people from all over bask in our wilderness, fish in our waters, and renew their spirits, losing themselves in this magnificent landscape.

Traditional land uses also provide economic sustenance for our community. For generations our people have hunted and raised livestock here. The gathering of piñon nuts and firewood preserve tradition and provide jobs. Dan Barrone, a Taos County Commissioner and owner of a local lumber yard, tells us that "75% of Taoseños use firewood to heat their homes." In addition, he says, "Lumber from this area provides material for building fences, sheds, and ceilings." Stewardship efforts associated with these lands also provide jobs that support many families.

Beyond economics, there is the issue of water. New Mexico is a desert state and these lands are a vital watershed. Water is a matter of life and death here. Any loss, no matter how small, is a fighting matter. Rudolfo Anaya, one of our most celebrated Chicano writers and author of *Bless Me, Ultima*, grew up along the Pecos River. "A river runs through my soul," he writes. For years he has been supporting efforts to care for the Rio Grande and its tributaries because they are so vital to our existence.

The Rio Grande runs through all of our souls.

Science teaches us that species are interdependent, and there is ample evidence of this here. Elk, pronghorn, bald eagles, peregrine falcons, and other wildlife form essential threads in the Rio Grande del Norte's ecological blanket.

If these lands were harmed, our community would be devastated. New Mexico would be severely impacted—economically, environmentally, spiritually—with demoralizing consequences. This is why so many of us are speaking out to protect these lands—because our survival depends upon it.

What do we mean by survival? In part, we mean maintaining our economic well-being. But for us, the voices here in this book, along with thousands of others—families that live on this land and people who make their livelihood here—survival transcends economics, transcends simple questions of resources, transcends even the natural capacity of humans to attach themselves to nature, to land.

Our connection to this land signifies something so precious as to be irreplaceable. Here, our lifestyle, traditions, and culture are all tied to the land. The Rio Grande del Norte is our refuge, our home, our spirit. In short, it is us.

What price can be put on learning to select piñon deep in the forest near Ute Mountain, guided by the knowing eye of your grandmother? Or watching a bald eagle fetch food for her nest in the basalt walls of the Rio Grande Gorge? Or walking the Gorge's rim in the glow of one of our

spectacular sunsets, while listening to the rush of river water 800 feet below? Our children watch thunderstorms stride across the horizon like a giant letting down its hair. One of my most profound memories is of getting my first deer under those unsullied skies.

This life, this way of being with the land, is a privilege—not in the way we talk about privilege in contemporary America, but an ancient idea of privilege. Footsteps in the silent forest, the cool river water on one's fingertips, the scales of freshly caught trout shining in the sun, the red tail hawk's nest high in a cottonwood. These are the treasures that transcend time, technology, and material gain. They nurture, they soothe, they sustain, they heal. They are the bedrock of our identity; they are ours to enjoy and to protect. We are wedded to the land; our lives are biocentric.

The fountain of youth sought by early Spanish Conquistadores was never found. Maybe they didn't look in the right place. Because there is a magical, healing fountain of rejuvenation here in these lands, and it is there for everyone.

People will organize and vote to protect their livelihood, but they will fight still harder to protect their spiritual values and culture. Here in this book, we offer the words of some of those individuals for whom this land is vital. These people—ranchers, sportsmen, artists, and children—understand that this land holds within it a power far greater than themselves.

If you have not been to our land, we invite you to come visit. You will be renewed, rested in your soul, and filled with profound tranquility. Perhaps you will be blessed with the view of a heron or eagle; perhaps an antelope will leave you breathless with wonder. Perhaps your imagination will be sparked by petroglyphs, or you will be intrigued by mystery and the handiwork of our ancestors.

If you see a human being at all, it will only be a solitary fisherman at peace with himself, a couple of hikers, joyful and renewed, or a family gathering firewood. You will be overwhelmed by the magnificence of the landscape and the grandeur of the silence and solitude. You will be filled with reverence and love for the beauty of our Mother Earth. You will know what is meant by "a state of grace."

Imagine, now, this beautiful place strip-mined, eroded and contaminated. Imagine a world without such places, a world where the animals have disappeared, where the trees have been razed, where there is no silence, where nature has been sacrificed for the chimera of profit. In this world, our humanity is diminished. Money and technology leave us hungry, longing for meaning, for inspiration, for the very experiences that make life worth living. Imagine living with the knowledge that, under your watch, an irreplaceable treasure, a community's connection to the past and the future, were irrevocably ruined—for you, your children, and all your descendants.

We New Mexicans love our land. Our passion for our Mother Earth is in our blood; our roots and our ancestors are buried in Her. Listen to us! As you hold this book in your hands, you will hear just a few of these voices—urgent, proud, and concerned—speaking out for this land that is more than land, this priceless swath of our beautiful Mother Earth.

In the words of Dr. Chellis Glendinning, we urge you, “Look at this book with an eye to the future.”

Anita Rodriguez, Ranchos de Taos Artist, Writer

Source: The Rio Grande del Norte One Hundred New Mexicans Speak for a Legacy

<http://www.riograndedelnorte.org/wp-content/uploads/2012/06/Rio-Grande-del-Norte-book-05-08-12.pdf>

## **Sand to Snow National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for Sand to Snow National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

I personally lived in the Los Angeles area for 15 years and frequently visited and hiked and camped in The San Bernardino Mountains. They are a region of unusual natural beauty, wildlife, and wilderness that provide a very much needed respite from the “civilization” of the Los Angeles basin.

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

#### Habitat Linkages — an Ecological Social Network

The Sand to Snow National Monument is an incredibly diverse protected area with a wide range of ecosystems ranging from lowland Mojave and Colorado deserts, riparian forests, creosote bush scrub and woodlands, fresh water marshes, Mediterranean chaparral and alpine conifer forests. Hundreds of springs rise to the surface at South Fork Meadows, the origin of the South Fork of the Santa Ana River.

The San Geronio Wilderness contains large un-fragmented habitat areas with no roads, and serves as an important habitat linkage area between the San Bernardino and San Jacinto mountain ranges.

The area has been important to biological and ecological research, as well as studies of climate and land use change, and the impact of fire and invasive species management. The area has a remarkable species richness that makes it one of the most biodiverse areas in southern California.

Twelve federally listed threatened and endangered animal species live in this dramatic landscape, which is also famous for its oases frequented by over 240 species of birds. The area is home to the southern-most stand of Quaking Aspen trees and habitat for the California spotted owl. There are also two research natural areas, one with relatively undisturbed vegetation that provides excellent wildlife habitat including one of the highest densities of black bear habitats in Southern California.

Source: US Forest Service <https://www.fs.fed.us/visit/sand-to-snow-national-monument>

#### PRESERVING BIODIVERSITY

The monument is located in the San Bernardino Mountains, the most botanically diverse mountain range of its size in North America. Plant life in the San Bernardinos is influenced by its location at the convergence of three distinct ecosystems: coastal to the west, Mojave Desert to the east, and Sonoran Desert to the south. Millions of years of glacial expansion and recession deposited more than 1,600 plant species in these mountains, dispersing them throughout diverse niches on the north and south aspects of peaks that rise more 11,000 feet from the desert floor. Plant communities representing Mojave and Sonoran deserts, chaparral, oak woodland, coniferous forest, and alpine ecosystems makes Sand to Snow the most botanically rich national monument in the United States.

Source: The Wildlands Conservancy

[http://www.wildlandsconservancy.org/conservation\\_sand.html](http://www.wildlandsconservancy.org/conservation_sand.html) (Accessed May 21, 2017.)

It protects a wildlife corridor connecting the San Bernardino National Forest/San Gorgonio Wilderness area, Joshua Tree National Park, and the Bighorn Mountain Wilderness area.

Source: DesertUSA <http://www.desertusa.com/desert-california/sand-to-snow-national-monument.html> (Accessed May 21, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

[Sand to Snow National Monument] includes 154,000 acres, stretching from the Sonoran Desert floor to San Gorgonio Mountain, elevation 11,500 feet. The monument protects more than 240 species of birds and 12 threatened or endangered animals and provides a recreational haven for more than 24 million people. More than 100,000 acres of the monument had earlier been designated wilderness by Congress.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

Sand to Snow National Monument is an ecological and cultural treasure and one of the most biodiverse areas in southern California, supporting more than 240 species of birds and twelve threatened and endangered wildlife species.

Home to the region’s tallest alpine mountain that rises from the floor of the Sonoran desert, the monument also will protect sacred, archaeological and cultural sites, including an estimated 1,700 Native American petroglyphs.

The striking diversity of lands within this monument is breathtaking – they are filled with the stories of ancient peoples, soaring mountain peaks, critical wildlife corridors and rich biological diversity. They also offer a wide variety of recreation opportunities for urban populations living close to the shadows of these majestic mountain peaks – the San Gorgonio Mountain region serves as an important recreational hub for 24 million people living within a two-hour drive of the area.

These unique and impressive characteristics sparked the President’s use of the Antiquities Act of 1906 to establish the Sand to Snow National Monument.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/ca/st/en/prog/nlcs/Sand-to-Snow.html](https://www.blm.gov/nlcs_web/sites/ca/st/en/prog/nlcs/Sand-to-Snow.html) (Accessed May 21, 2017.)

### Sacred Heritage — Where “The People Who Came Before” Visited

Several Indian tribes of Southern California considered San Geronio Mountain one of their sacred places. The Serrano and Cahuilla Indian people lived at the base of San Geronio Mountain, and came to the mountains to gather food, medicinal plants, basket making material and to hunt deer and other animals. The San Geronio Pass served as a major trade route that led from Arizona to the California coast.

The Cahuilla Indian people from Palm Springs talked about “the people who came before.” It was said that these ancient ancestors could fly, and San Geronio Mountain was one of several sacred peaks in Southern California where the ancient ancestors visited. The Luiseño Indian people, whose territory lies 50 miles to the south, considered San Geronio Mountain sacred and the older brother of Mount San Jacinto; both peaks were considered among the first born of Earth Mother.

In the late 1700s, Spanish missionaries built Rancho San Geronio, the easternmost outpost of the San Gabriel Mission. After the Holcomb Valley gold rush of 1860, ranchers used the area for grazing sheep, horses, and cattle. Old driveways, watering holes, and campsites remain a part of the landscape today. Although not particularly successful, many miners prospected in the southeastern portions of the San Bernardino Mountains. Evidence still remains in the form of old cabins, mine shafts, prospecting pits and refuse deposits.

By the mid-1920s, drastic changes had occurred, and the area began attracting 75,000 to 100,000 people annually to the San Bernardino Mountains for recreation and outdoor enjoyment. It was during this time that the movement to protect this unique area began.

Source: US Forest Service <https://www.fs.fed.us/visit/sand-to-snow-national-monument>  
(Accessed May 21, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Featuring thirty miles of the world famous Pacific Crest National Scenic Trail, the area is a favorite for camping, hiking, hunting, horseback riding, photography, wildlife viewing, and even skiing.

Source BLM [https://www.blm.gov/nlcs\\_web/sites/ca/st/en/prog/nlcs/Sand-to-Snow.html](https://www.blm.gov/nlcs_web/sites/ca/st/en/prog/nlcs/Sand-to-Snow.html)  
(Accessed May 21, 2017.)



*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Recreation – from Backpacking to Stargazing

The San Geronio Wilderness on the San Bernardino National Forest is the number one visited wilderness in Southern California, attracting over 50,000 annual visits to this wild area.

The Sand to Snow National Monument includes 30 miles of the 2,600-mile Pacific Crest Trail. The area is well known in the hiking community for the “Nine Peaks Challenge” a grueling all-day 27-mile hike that gains over 8,300 feet in elevation across nine peaks. Cross country skiers enjoy the San Geronio Mountains in the winter.

A series of preserves owned by the Wildlands Conservancy are managed for public access and serve as entry points from the north, south, and east of the monument. Visitors enjoy camping, hiking, backpacking, climbing, horse packing, bird watching, hunting, fishing, stargazing, mountain biking, and extraordinary opportunities for solitude.

Local communities within the monument area offer rental cabins, private organizational camps and restaurants. Forest Falls sits at the base of the San Geronio Wilderness and hosts two very popular Forest Service trailheads leading into the San Geronio Wilderness, a large day use area and nearby waterfalls attract many visitors. The community of Angelus Oaks also features the popular San Bernardino Peak trailhead.

Source US Forest Service <https://www.fs.fed.us/visit/sand-to-snow-national-monument> (Accessed May 21, 2017.)

Sand to Snow is located in an area within a two hour drive of major southern California population areas. Many areas of the new monument surround smaller urban communities such as Pioneertown that could also take advantage of the recreational opportunities and respite that the new designation will help to implement. Wildlands Conservancy estimates 18.5 million people could access the area for hiking, climbing, camping, horseback riding, hunting, geocaching, skiing, wildlife viewing, and other activities.

Source: DesertUSA <http://www.desertusa.com/desert-california/sand-to-snow-national-monument.html> (Accessed May 21, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

For communities of residents in places like Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms, the national monument designation is pure elation for what it means for



conservation as link between the San Bernardino Mountains and Joshua Tree National Park, said Frazier Haney, conservation director for Joshua Tree-based Mojave Desert Land Trust.

“We worked to have this designation for seven years,” Haney said, in an interview prior to the monument sign dedication.

It is an idea whose time has come,” Haney said in a prior interview.

The new Sand to Snow National Monument was part of a package proposed by Sen. Dianne Feinstein, D-Calif., that also included the Mojave Trails and Castle Mountains national monuments. Obama used the Antiquities Act to approve all three Friday.

The Sand to Snow National Monument designation will give more businesses in the region, along Highway 62, an opportunity to capitalize on the anticipated more than two million visitors to Joshua Tree National Park, Haney said.

And pull in some of their own, said Meg Foley, a board member of the Morongo Valley Chamber of Commerce.

While there are solid plans now for how to capitalize on the new monument designation, Foley said she is confident local businesses will be finding ways to capitalize on the neighboring desert lands’ new status for years to come.

Source: “Morongo Valley unveils Sand to Snow National Monument sign” San Bernardino County Sun 02/16/2016 <http://www.sbsun.com/environment-and-nature/20160216/morongo-valley-unveils-sand-to-snow-national-monument-sign> (Accessed May 21, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

30 miles (48 km) of the Pacific Crest National Scenic Trail pass through the monument. The headwaters of the Santa Ana River, Whitewater River, Morongo Creek, and San Gorgonio River are within it. The park protects a significant wildlife corridor and landscape linkage between the San Bernardino National Forest/San Gorgonio Wilderness area, Joshua Tree National Park, and Bighorn Mountain Wilderness area.

Source: Wikipedia [https://en.wikipedia.org/wiki/Sand\\_to\\_Snow\\_National\\_Monument](https://en.wikipedia.org/wiki/Sand_to_Snow_National_Monument) (Accessed May 21, 2017.)

#### A RECREATIONAL WONDERLAND

Sand to Snow National Monument is a four-season recreational wonderland for millions of Southern California residents. Opportunities range from snow shoeing the backcountry ice fields

of Mount San Geronio to fly fishing the headwaters of the Santa Ana River, world-class bird-watching in Big Morongo Canyon, rugged hiking along dozens of well-maintained trails (including 25 miles of the Pacific Crest National Scenic Trail), and photographing seemingly endless vistas.

The peaks and ridges of Sand to Snow National Monument provide an unforgettable backdrop to the daily lives of millions of people, emanating visual solace and beckoning us all with the call of its wilderness. Hikers, hunters, and inspiration-seekers alike are the beneficiaries of the spectacular landscapes that this national monument protects. Regardless of your pastime, this land is yours now—and forever.

Source: Wildlands Conservancy [http://www.wildlandsconservancy.org/conservation\\_sand.html](http://www.wildlandsconservancy.org/conservation_sand.html) (Accessed May 21, 2017.)

## **San Gabriel Mountains National Monument California**

I am writing to **support the continuation of the National Monument** status as currently established for San Gabriel Mountains National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: US Forest Service

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected";*

Snow-capped in winter, the San Gabriels provide an "island of green" for 15 million people who live within 90 minutes of it. This 346,000-acre landscape provides 70 percent of the open space for Los Angelenos and 30 percent of their drinking water.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

Sheep Mountain Wilderness is home to rare and endangered mountain yellow-legged frogs, Nelson's bighorn sheep and California spotted owls. We are working to protect thousands of additional acres in this area, including the upper slopes of Los Angeles County's tallest peak, Mount Baldy (or Mount San Antonio), and tributary canyons of the San Gabriel River.

Cucamonga Wilderness includes some of Southern California's last remaining islands of subalpine wilderness, where huge sugar pines reach upward and Nelson's bighorn sheep graze. We want this protected area to include more land spanning rugged slopes and canyons of the upper Lytle Creek watershed.

San Gabriel Wilderness' north-facing slopes include some of the area's largest forests of big cone Douglas fir and live oaks. We are working to expand it and include part of the San Gabriel River's West Fork watershed, an important water source and popular trout fishing spot.

Condor Peak features some of the most scenic wilderness quality lands in the range. Additionally, the namesake endangered bird has been sighted in the area. By protecting new wilderness here, we will preserve scenic areas such as Fox and Condor Peaks, Trail Canyon and Fox Canyon.

Castaic is a jewel in the forest northeast of Castaic Lake. By creating a new wilderness area here, we will preserve Fish Canyon, which is home to dramatic red rock canyons, lush riparian areas, vernal pools, a trout-filled creek, a portion of the Pacific Crest Trail and Red Mountain.

Wild and Scenic River protections would ensure that these streams remain wild:

East, West and North Forks of the San Gabriel River include rugged river areas – some with rare and endangered fish populations - as well as popular and easily reached recreation sites. The West Fork has a national bikeway, fishing platforms for disabled users and catch-and-release trout streams. We are working for protection of 25.6 miles of the largest watershed in the range, which is a source of drinking water for Los Angeles County.

San Antonio Creek flows through an impressive alpine canyon, studded with big cone Douglas fir, on the lower slopes of Mt Baldy. The canyon offers vast forest views and the spectacular 75-foot San Antonio Falls is easily accessible from a campground. We want to preserve four miles of this creek.

Middle Fork Lytle Creek supports a naturally reproducing rainbow trout population that is popular with fishermen. The steep canyons are home also home to Nelson's bighorn sheep. We want to protect 5.5 miles of this creek, which provides access to the scenic Cucamonga Wilderness.

Little Rock Creek will have its scenery and habitat kept intact if we protect 20.2 miles starting in the Pleasant View Ridge Wilderness, and tumbling down to the high desert below. The upper portion is popular with hikers and home to endangered mountain yellow-legged frogs, while lower segments support endangered arroyo toads.

Source: The Wilderness Society <http://wilderness.org/san-gabriel-mountains> (Accessed May 21, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

The Angeles National Forest is an irreplaceable natural resource that provides Los Angeles County with 70% of its open space more than one-third of its drinking water. The forest serves as critical habitat for many endangered and sensitive plants and animals including the Nelson's Bighorn sheep, California condor, mountain lion, spotted owl and the mountain yellow-legged frog. The mountains also help clean the region's polluted air and defend against climate change by retaining polluting carbon gases.

Source: San Gabriel Mountains Forever <https://sangabrielmountains.org/the-place/> (Accessed May 21, 2017.)

The San Gabriel Mountains contains some of the greatest biodiversity in the country, including four wilderness areas – Magic Mountain, Pleasant View Ridge, San Gabriel, and Sheep Mountain – and unique geological features such as the San Andreas Fault. Other highlights are:

The rivers of the San Gabriel Mountains not only provide drinking water but are vital in the support of native fish, animals and plants and provide critical habitat for threatened or endangered species such as the California condor, mountain yellow-legged frog, arroyo chub fish and Nelson's bighorn sheep.

The chaparral and oak woodland are just some of the vegetation that represent a portion of the rare Mediterranean ecosystem found in only 3 percent of the. The area also provides suitable habitat for 53 Forest Service Sensitive Plants and as many as 300 California-endemic species that only grow in the San Gabriel Range. Scientific Discovery

Science and research have been and continue to be an integral part of the monument area, most notably the Mount Wilson Observatory and the San Dimas Experimental Forest.

Edwin Powell Hubble, working from the Mount Wilson Observatory, is credited with making some of the most striking discoveries in modern astronomy, such as concluding that distant stars were really galaxies. That finding forever changed the way astronomers looked at the skies.

The San Dimas Experimental Forest, established in 1933, contains some of the earliest and longest records from continuously monitored, experimental watersheds in the U.S. It is the only research forest in Southern California, and many of the facilities were constructed by the depression-era Civilian Conservation Corps and Work Projects Administration labor programs. In 1976, the United Nations Educational, Scientific and Cultural Organization's Man and the Biosphere Program recognized the San Dimas Experimental Forest as a "Biosphere Reserve."

#### Human dimension

The monument holds evidence of more than 8,000 years of human history, including more than 600 archeological sites, three of which are on the National Register of Historic Places, as well as ruins of old cabins and the Mount Lowe Railway.

Source: US Forest Service <https://www.fs.fed.us/visit/san-gabriel-mountains-national-monument> (Accessed May 21, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The 17,084 acre Condor Peak Proposed Wilderness Area is among the most spectacular landscapes in the San Gabriel Mountains. Located in the Lower and Upper Big Tujunga watersheds, it rises dramatically from under 2000 feet to over 6000 feet near Mt. Gleason and the Pacific Crest Trail. Its high country is anchored by Fox and Condor Peaks and the Mendenhall Ridge. In addition to rugged peaks, it features dramatic canyon country, lush streams, vernal pools, and abundant waterfalls. The Great Falls of Fox Canyon is a series seven spectacular waterfalls, one of which is a hundred feet high. The Condor Peak Proposed Wilderness Area helps clean our air and supply Los Angeles with drinking water. It provides critical habitat for many unique plants and animals.

The proposed wilderness area offers urban residents the chance to connect with nature and escape the noise and congestion of city life. Wilderness makes a great neighbor for nearby foothill communities. On weekends you can see families from areas such as Sunland Tujunga making the scenic two-mile hike trek to picnic beside the vernal pools above Trail Canyon Falls. The Condor Peak area offers many opportunities for solitude in a natural setting and a variety of recreational experiences, especially along the spectacular Condor Peak and Trial Canyon trails.

Along the way you will see hikers, picnickers, photographers, equestrians, wildlife watchers and peak baggers. The Great Falls of Fox Canyon is frequented by rappelling groups. Those who frequent the area just might catch a glimpse of area's namesake bird—the California condor—as it makes its triumphant return...

#### Exploring the San Gabriel Mountains: Hiking and Biking Trails

From a paved bikeway with creekside views, to spectacular hiking locations, there are many ways to get outside and enjoy all the San Gabriels have to offer. Here are just a few of the many popular hiking and biking trails visitors can explore.

- West Fork National Bikeway
- East Fork Trail
- San Antonio Creek Falls Trail
- Middle Fork Lytle Creek Trail

#### WEST FORK NATIONAL BIKEWAY

The West Fork National Bikeway parallels more than eight miles of the West Fork San Gabriel River. Following a gated paved road, the Bikeway is a favorite of families who want to wade and picnic along the banks of the West Fork, fly fishers who stalk the stream's wily trout, and bicyclists who enjoy a rare, relatively flat, and paved bike route in the National Forest backcountry. In addition, there are three fishing access points that lead off from the trail and overlook the West Fork, offering a fishing experience to the handicapped. In addition to its outstanding recreational opportunities and incredible scenery, the West Fork provides habitat for rare native fishes, including the endangered Santa Ana sucker.

The first few miles of the Bikeway are heavily used by the public, particularly on summer weekend days. But the further up the paved trail you go, the more likely that you will be enjoying this beautiful streamside trail in relative solitude. About 7 miles upstream of the trailhead, Glenn Camp provides camping for backpackers and cyclists. Disabled people may also obtain a permit to drive in and camp. Just upstream of Glenn Camp is Cogswell Dam and Reservoir. Flows from the dam are managed to maintain the West Fork's excellent catch and release trout fishery.

Both the lower West Fork, which is paralleled by the Bikeway, and the upper West Fork upstream of Cogswell Reservoir are proposed for federal Wild & Scenic River protection by San Gabriel Mountains Forever. In addition, we are proposing an addition to the existing San Gabriel Wilderness that encompasses the north slope of the West Fork Canyon.

Source: San Gabriel Mountains Forever <https://sangabrielmountains.org/the-place/> (Accessed May 21, 2017.)

The National Monument is the heaviest used area on the Angeles National Forest, which receives more than 4 million visitors per year. This number is expected to increase now that the

area has been designated a national monument. Hiking, biking, horseback riding, off-highway vehicle use, fishing, hang-gliding, hunting and picnicking are just a few of the recreational activities on the monument.

- In a region with limited open space, the mountains are the backyard for many highly urban and culturally diverse communities. National monument designation will also vastly enhance recreational access, interpretive and environmental education and bolster already strong partnerships between the Forest Service and neighboring communities.

Source: US Forest Service <https://www.fs.fed.us/sites/default/files/media/2014/41/san-gabriel-fact-sheet.pdf> (Accessed May 21, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Each year, more than five million visitors come to enjoy the clear and cold rivers, pine forests, and chaparral hills. L.A. County's 2016 needs assessment found that more than half of the population does not live within half a mile of a park. The San Gabriel Mountains represent an untapped resource for millions of underserved Angelenos to connect with nature, learn about cultural and natural history, and be physically active.

Source: San Gabriel Mountains Forever <https://sangabrielmountains.org/the-place/> (Accessed May 21, 2017.)

Soaring high above the Los Angeles Basin, the San Gabriel Mountains also are working lands that provide Angeleños 70 percent of their available open space and 30 percent of their drinking water. The monument serves as the backyard to the nation's second-largest urban center...

Mount Baldy Center adjacent to the monument helps to educate 8,000 students and teachers each year in environmental education and includes a 1920s schoolhouse, reproductions of a gold-mining camp and a Native-American (Tongva-Gabrielino) village.

Source: US Forest Service <https://www.fs.fed.us/visit/san-gabriel-mountains-national-monument> (Accessed May 22, 2017.)

#### Partnerships

Management - of resources and facilities - would be impossible without the dozens of partners and their continued commitment towards financial support through donations and grants and even greater support through their time to actively work on projects.

Continuing partnership agreement with City of Azusa for management of the San Gabriel Canyon Gateway Center. The City also funded \$1 million for construction of the Center.



After the 2009 Station Fire, many partners came forward to help with recovery and restoration, including NFF, Disney and South Coast Air Quality District, who have donated more than \$1.9 million in support of the effort. The reforestation project resulted in a carbon sequestration pilot project to capture and store 730,417 metric tons of carbon. The Forest Service has committed to 100 years of maintenance in the area. To date, 626,778 trees have been planted on 3,284 acres and replanted 321,832 trees on 1,749 acres within carbon demo units.

Cattle Canyon Project - a five-year collaboration between the Watershed Conservation Authority and partners is a pilot project addressing resource management along portions of the East Fork of the San Gabriel River. The program provides valuable job training experience for area youth. A \$725,000 grant from the State of California is supporting the project and its goal to improve habitat and enhance recreation quality. In its second year, the project is doing interpretive outreach, environmental education and conducted a visitor survey to identify site improvements with the assistance of stakeholders.

More than 1,000 active land use permits, including utility companies, provides opportunities for discussion about additional investments in ecological restoration, including chaparral restoration, noxious weed eradication and forest health efforts.

Continued work and service with special use permit holders with an emphasis on recreation, including Mt. Baldy Ski Lifts and Burro Canyon Shooting Park, both of which are in the San Gabriel Mountains Monument area.

San Gabriel Canyon Super Sweep collaboration with the California Trail Users Coalition annually involves more than 200 volunteers assisting recreation staff cleaning all forks of the San Gabriel River. The event helps improve habitat for threatened and sensitive native fish species.

Many organized groups and partners have been instrumental in trail maintenance and improvement in the area, including the Boy Scouts of America, Sierra Club, International Mountain Bicycling Association, Concerned Off Road Bicyclists Association, Pacific Crest Trail Association, Community Hiking Club and William S. Hart High School.

San Gabriel District Environmental Education Program serves over 8,500 students annually. Over the past five years, the San Gabriel Mountains Heritage Association has contributed approximately \$10,000 to the program.

The LA County Fair Outdoor Recreation display, “America’s Great Outdoors,” has been a collaboration between the Forest Service, Bureau of Land Management, Los Angeles County Fire, LA Fair officials and many volunteers for the past four years. With more than 1 million visitors to the LA County Fair each year, this provides a great opportunity to showcase the San Gabriel Mountains Monument area.



The San Gabriel Mountains provides an island of greenspace and natural resources in Southern California. Drawing hundreds of thousands of visitors, it faces both urban and natural challenges - from trash and vandalism to increased erosion and damage to water resources.

To manage these demands, the Angeles and San Bernardino National Forests embarked on an extremely successful and powerful partnership with four area Conservation Corps - California, Los Angeles, San Gabriel Valley and Urban - to address critical and ongoing maintenance needs in the San Gabriel Mountains area.

#### Crew Information

The San Gabriel Mountains Crews work year round, with opportunities after school and on weekends, in contrast to traditional crews which are summer only.

Crews consist primarily of diverse, underprivileged youth from nearby urban areas.

The program provides a unique outdoors experience working with a natural resource agency.

For many this is their first experience in a forest.

Crewmembers gain valuable work experience through the program.

#### Relationship Value

The relationship between the Forest Service and the San Gabriel Mountains Crews is synergetic:

The Forest Service's success in maintaining the facilities and sustaining the natural resources in this area is due to the continued dedication and hard work of the crewmembers.

Crewmembers report that the work they do at this location is not only very rewarding for them, but also instills a sense of pride and accomplishment for them and their families.

The San Gabriel Mountains provide a unique environment, naturally and socially. It is an area enjoyed by many and where ongoing investment and help from volunteers, partners, appropriations, grants and agreements will be necessary to balance the needs of the people and the landscape.

The responsible management of this area will maintain the ability for youth and communities to connect with and be inspired by this special and truly remarkable area. And the Forest Service looks forward to the meeting the challenges of managing this treasured National Monument in the years to come.

Source: US Forest Service "San Gabriel Mountains Monument Area 5 Years of Accomplishments"  
<https://www.fs.fed.us/sites/default/files/media/2014/41/san-gabriel-accomplishments.pdf>

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

November 2, 2016

FOR IMMEDIATE RELEASE

Contact: Mike McNutt SGMCC Communication Committee Chair 661-456-1041 (w)

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Monument Collaborative Delivers Consensus Built Management Plan Comments to Forest Service

Los Angeles, CA – In 2015, President Barack Obama declared the San Gabriel Mountains a national monument. This designation allowed for special protection of this historic mountain range where activities such as camping, boating, hiking, hunting, horseback riding, biking, and the use of off-road vehicles in designated areas have created opportunities to enjoy nature and seek seclusion away from city life.

The U.S. Forest Service (USFS) is currently working to develop a Monument Management Plan, per the National Monument Proclamation, to ensure that the natural, spiritual, historical, and recreational integrity of the newly protected San Gabriel Mountains National Monument is properly managed to allow for the balance of nature and human activity.

After gathering input from a wide range of diverse stakeholders and deliberating extensively, the Collaborative took a final vote last Thursday, October 27, 2016, with representatives reaching an “all in” mantra as they agreed to consensus comments to submit to the USFS for the development of the Monument Management Plan.

San Gabriel Mountains Forever (SGMF) worked for over ten years to secure additional protections and improved visitor services for the San Gabriel Mountains and we are encouraged by what has been accomplished by the NFS and many partners to date. We are proud to be working with the Collaborative to achieve mutual objectives by requesting that the Management Plan include specific objectives with a timeline and a monitoring plan in order to meet the intent of President Obama's proclamation for the San Gabriel Mountains National Monument, particularly as it relates to access for all and visitor services said Omar Gomez, Program Director for COFEM and Chair of San Gabriel Mountains Forever.”

The San Gabriel Mountains Community Collaborative is a diverse group made up of approximately 44 community interests (including academic, business, civil rights, community, conservancies, cultural, environmental, environmental justice, ethnic diversity, education, youth, state and local government, Native American, public safety, recreation, special use permit holders, land lease holders, transportation, utilities, and water rights holders). The Collaborative's purpose is to “Represent the general public by integrating diverse perspectives

to identify, analyze, prioritize and advocate for values, resources, investments, management objectives and implementation practices that sustainably benefit all communities throughout the region, the Angeles National Forest and the San Gabriel Mountains National Monument.”

“Working in such a large group where opinions and diversity regarding passion for the mountain range exist, has been both a wonderful learning experience and a magnificent accomplishment, said Joe Lyons, Councilperson, City of Claremont. “Our goal to provide plausible, reasonable, protective, and actionable comments to the USFS has been rewarding.

“The Council for Watershed Health is pleased to be part of a community-driven, consensus-based approach for informing a management plan for the San Gabriel Mountains National Monument. The Monument provides numerous regional benefits from a watershed health perspective. The Collaborative is doing some important work to ensure multiple perspectives are considered and the resources equitably shared by all,” said Chris Solek, Council for Watershed Health.

Dianne Erskine Hellrigel, Community Hiking Club, stated “The Community Collaborative has been working since the San Gabriel Mountains National Monument was proclaimed by President Obama. This collaborative has been exploring all points of view from a very diverse group of people. We are working towards the best possible management plan for the Monument to ensure sustainable recreation, higher protections for all the species that live there as well as the protection for things of historical importance and heritage sites.”

“The San Gabriel Mountains have always been available to explore and take adventures to unique experiences that you will not find in the city,” said Edward Belden, Southern California Associate for the National Forest Foundation. “It is our goal to ensure that the Monument is well-managed for the clean water, scenic vistas, abundant habitat, and recreational resources it provides.”

The National Forest Foundation is the convener and facilitator of the Collaborative group.

The consensus comments sent to the USFS will be instrumental in the development of the Monument Plan. As the process continues to develop, the SGMCC will continue to collaborate with the NFS to ensure that the best possible Plan is approved and adopted for implementation.

For more information about the Monument or the SGMCC, please visit:

[www.nationalforests.org/who-we-are/regional-offices/california-program/sangabrielmountains](http://www.nationalforests.org/who-we-are/regional-offices/california-program/sangabrielmountains)

Source: “Monument Collaborative Delivers Consensus Built Management Plan Comments to Forest Service,” San Gabriel Mountains Forever

<https://www.nationalforests.org/assets/blog/SGMCC-Press-Release-11.1.16.pdf>

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

On Oct. 10, 2014, President Barack Obama designated 346,177 acres of existing federal lands as the San Gabriel Mountains National Monument, the eighth national monument under Forest Service management.

The recently designated national monument covers 342,177 acres of the Angeles National Forest and 4,002 acres of neighboring San Bernardino National Forest. The area is within 90 minutes of 15 million people in the Los Angeles Basin.

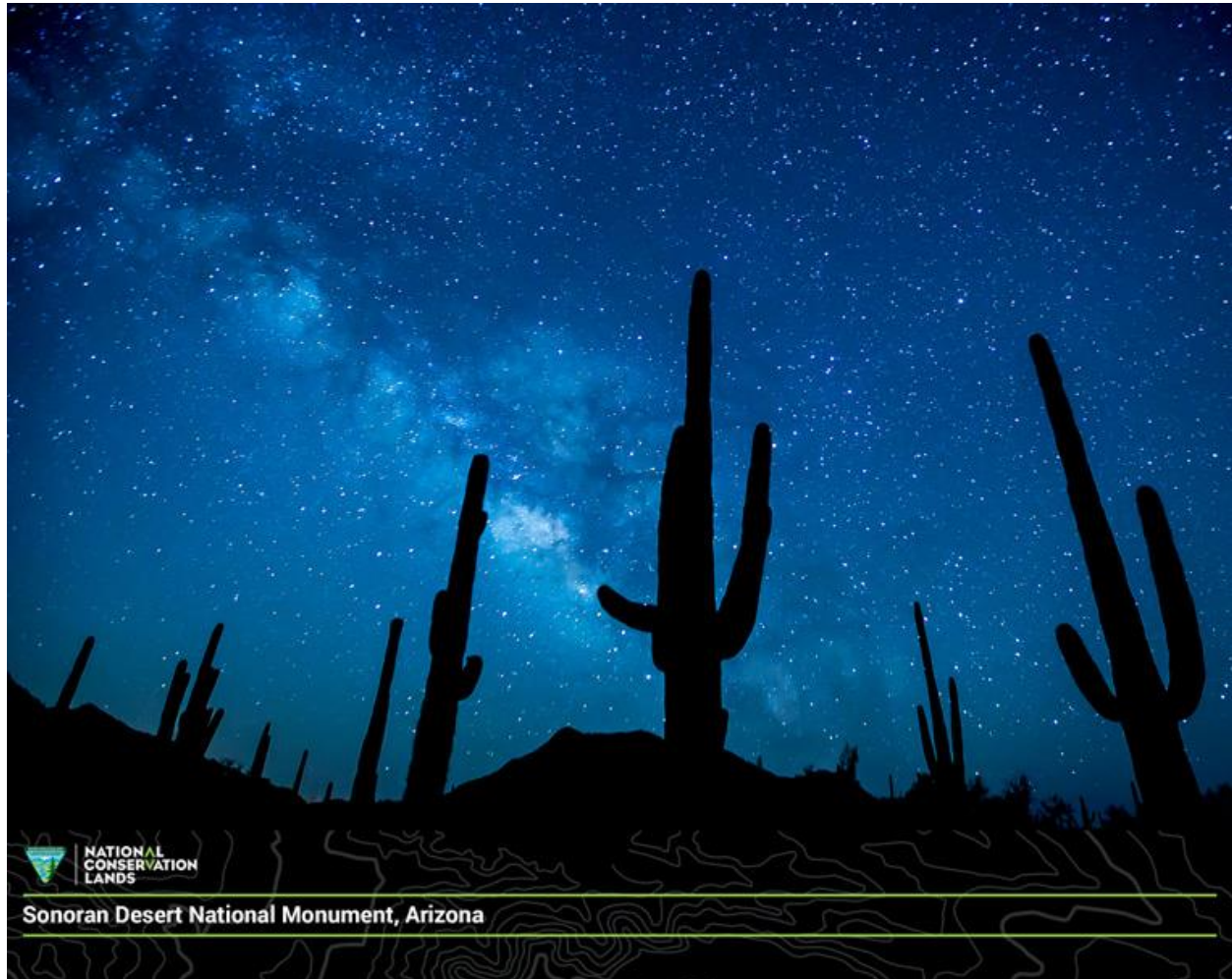
The designation will help ensure these lands remain a benefit for all Americans through rock art that provides a glimpse into ancient civilizations, an observatory that brought the world the cosmos, and thousands of miles of streams, hiking trails and other outdoor recreation opportunities.

Soaring high above the Los Angeles Basin, the San Gabriel Mountains also are working lands that provide Angeleños 70 percent of their available open space and 30 percent of their drinking water. The monument serves as the backyard to the nation's second-largest urban center.

Source: US Forest Service <https://www.fs.fed.us/visit/san-gabriel-mountains-national-monument> (Accessed May 21, 2017.)

## **Sonoran Desert National Monument Arizona**

I am writing to **support the continuation of the National Monument** status as currently established for Sonoran Desert National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The rich diversity, density, and distribution of plants in the Sand Tank Mountains area of the Monument is especially striking and can be attributed to the management regime in place since the area was withdrawn for military purposes in 1941. In particular, while some public access to

the area is allowed, no livestock grazing has occurred for nearly 50 years. To extend the extraordinary diversity and overall ecological health of the Sand Tanks [sic] Mountains area, land adjacent and within biological resources similar to the area withdrawn for military purposes should be subject to a similar management regime to the extent possible.

Source: BLM Sonoran Desert National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf) (Accessed May 22, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

It encompasses 487,000 acres of the most biologically diverse desert in North America. It includes three mountain ranges – the Maricopa, Sand Tank and Table Top Mountains -- as well as the Booth and White Hills and forests of distinctive saguaro cactus.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

The Sonoran Desert National Monument is a magnificent example of untrammeled Sonoran Desert landscape. The area encompasses a functioning desert ecosystem with an extraordinary array of biological, scientific, and historic resources. The most biologically diverse of the North American deserts, the Monument consists of distinct mountain ranges separated by wide valleys, and includes large saguaro cactus forest communities that provide excellent habitat for a wide range of wildlife species... The endangered acuna pineapple cactus is also found in the Monument...

The Monument also contains many significant archaeological and historic sites, including rock art sites, lithic quarries, and scattered artifacts. Vekol Wash is believed to have been an important prehistoric travel and trade corridor between the Hohokam and tribes located in what is now Mexico. Signs of large villages and permanent habitat[ation] sites occur throughout the area, and particularly along the bajadas of the Table Top Mountains. Occupants of these villages were the ancestors of today's O'odham, Quechan, Cocopah, Maricopa, and other tribes. The Monument also contains a much used trail corridor 23 miles long in which are found remnants of several important historic trails, including the Juan Bautista de Anza National Historic Trail (NHT), the Mormon Battalion Trail, and the Butterfield Overland Stage Route.

Source: BLM Sonoran Desert National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf) (Accessed May 22, 2017.)

Juan Bautista de Anza, Captain of the Royal Presidio at Tubac, Sonora, (now southern Arizona), set out on an important expedition in the fall of 1775. This journey had its meager beginnings in the Mexican towns of Culiacán and Horcasitas, where tradesmen and their families joined the company. Viewed in Colonial New Spain as an important colonizing effort, Anza provided military escort for more than 240 people and 1,000 head of livestock moving from Tubac to San Francisco, California. This was an expedition of more than 2,700 miles, with most of the company mounted on horseback and other pack animals. Anza is credited with opening an overland route from Sonora to the missions and settlements of Alta California, and recording valuable information on his exploration of the San Francisco Bay area as an excellent harbor for further Spanish use.

Although the Anza Trail began in Culiacán, the portion of route established between Nogales, Arizona and San Francisco, California was designated by Congress as a National Historic Trail in 1990. The National Park Service (NPS) administers the trail, but works in partnership with federal, state, and local government agencies, as well as private landowners who manage or own lands along the trail route.

Other historic expeditions or events, including the Butterfield Stage, Mormon Battalion, and pioneer travelers to the 1849 gold rush, followed portions of the Anza Trail. The Painted Rock Petroglyph Site provides visitors the opportunity to view an ancient archaeological site containing hundreds of symbolic and artistic rock etchings, or “petroglyphs,” produced centuries ago by prehistoric peoples. There are also inscriptions made by people who passed through during historic times. The Sears Point prehistoric cultural site near the Anza Trail is a very special area that lies at a crossroad of historical events and prehistoric cultures. It embraces a wide array of archaeological sites, including rock alignments, cleared areas, intaglios, petroglyphs, and aboriginal foot trails.

Source: BLM “Juan Bautista de Anza National Historic Trail”

[https://web.archive.org/web/20170127040032/https://www.blm.gov/az/st/en/prog/blm\\_speci\\_al\\_areas/hist\\_trails/anza.html](https://web.archive.org/web/20170127040032/https://www.blm.gov/az/st/en/prog/blm_speci_al_areas/hist_trails/anza.html) (Archived by The Internet Archive Wayback Machine January 27, 2017. Accessed May 22, 2017.)

#### Science

Recreation Impact Monitoring. Conducted in partnership with Northern Arizona University, this project began in 2003 with the goal of identifying and monitoring impacts from recreation activities on the Sonoran Desert National Monument. The monument has been inventoried to establish a baseline of recreation impacts, and these sites have been monitored to detect changes over time. The next milestone is the development of management standards to which the monument would be adaptively managed under a “Limits of Acceptable Change” concept that responds to deviations from the established management standards.



Remote Sensing. Conducted in partnership with Northern Arizona University, this project began in 2010 with the goal of developing technical specifications and protocols for effectively using remote sensing technologies to identify, measure, and monitor impacts to the Sonoran Desert National Monument. The project initially focused on impacts resulting from illegal smuggling activities; however, it is now broadening its approach to the development of baseline image data, travel inventory and management, vegetation mapping, and other innovative studies.

Wildlife Corridor Validation. Conducted in partnership with the Arizona Game and Fish Department, this project began in 2011 with the goal of validating Geographic Information System (GIS) derived wildlife movement corridors used in land use planning with actual wildlife movements in the field. The project captured two mountain lions and fitted them with satellite enabled tracking collars. These lions have since perished; however, initial results were highly interesting and seem to indicate that at least one GIS modeled wildlife movement corridor was validated by actual movements in the field. The project expects to field more tracking collars in FY2014 and FY2015.

Source: BLM Sonoran Desert National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf) (Accessed May 22, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

#### Roads

Interstate 8 is the main highway through the Sonoran Desert National Monument, and exits 151, 144 and 140 allow access to the backcountry via a network of rough tracks. Another entrance route is the little traveled Maricopa Road (AZ 238) between Maricopa and Gila Bend, which parallels a railway, running between the two sections of the Maricopa Mountains. Apart from these two, only dirt roads cross the desert, all of which may require 4WD in some places or at some times of year. Besides the obvious dangers due to the remoteness, rough terrain, spiky plants and extreme summer temperatures, the area is also affected smuggling and illegal immigration, but despite the emptiness, the desert is not completely undeveloped as there are several maintained trailheads in the pre-existing wilderness areas, and BLM rangers now patrol the back roads quite regularly.

#### The South - Vekol Valley Road

Exit 144 of I-8 is the main entrance to the national monument, and from here quite a good gravel track (Vekol Valley Road) heads south, past a BLM welcome sign, and along the wide



plains of Vekol Valley - sandy, level land bearing scattered bushes, palo verde trees and cacti. To the east are the Table Top Mountains, rising to a high point of 4,374 feet at Table Top itself, a flat topped volcanic summit, and one of the few locations with a recognised trail. The trailhead is reached by taking a left turn 6.8 miles from the interstate then driving another 4.5 miles along a rather rougher track, and has a small parking area plus a three site primitive campground. The trail is 3.5 miles (one-way), climbs over 2,000 feet and has panoramic views over the surrounding desert. One other maintained path (Lava Flow Trail) traverses the western slopes of the mountains, in places over basalt rocks and lava, though mostly over dry washes and through bushy flatland. It has three trailheads, one along the Table Top road, the other two reached from side tracks of Vekol Valley road. On west side of Vekol Valley are the cactus-covered White Hills, which are quite close to the road and so are good for short off-trail explorations, then beyond are the much larger Sand Tank Mountains, most of which are owned by the military and require a permit to explore.

#### The South - Freeman Road

A little further west, I-8 exit 140 is the start of another long, rough route (Freeman Road) into the monument backcountry, leading to various sites in the White Hills and the Sand Tank Mountains. There is also a short, disused gravel track running parallel to the interstate and about half a mile from it, which makes a perfect place to camp - out of direct sight from the highway, and overlooking large areas of roadless saguaro forest. The land nearby is flat apart from a small solitary summit (Lost Horse Peak) one mile south, reachable by an easy walk across the open, stony ground followed by a short climb up the rocky slopes. The top of the peak is well defined so there is nothing to block the 360-degree view over the surrounding mountains and plains.

#### The North

The section of Sonoran Desert National Monument north of the interstate encloses the two ranges of the Maricopa Mountains, and is bordered by AZ 85 to the west and Little Rainbow Valley in the northeast. Besides the desert and mountain scenery, this contains a section of the Anza National Historic Trail, and like the southern portion, has two recognised paths (the 6 mile Brittlebush Trail and the 9 mile Margie's Cove Trail), both in the Northern Maricopa Mountains Wilderness. The Southern Maricopa Mountains Wilderness is the most remote in the national monument, with no trails or 4WD tracks.

Source: The American Southwest

[http://www.americansouthwest.net/arizona/sonoran\\_desert/national\\_monument.html](http://www.americansouthwest.net/arizona/sonoran_desert/national_monument.html)

(Accessed May 22, 2017.)

### Hiking

The monument offers many opportunities to explore and discover the secrets of the Sonoran Desert and includes three wilderness areas, the North Maricopa Mountains Wilderness, the South Maricopa Mountains Wilderness, and the Table Top Wilderness. These wilderness areas offer excellent opportunities for solitude and unconfined recreation. The North Maricopa Mountains Wilderness has two hiking and equestrian trails, the 9-mile Margie's Cove Trail and the 6-mile Brittlebush Trail. The Table Top Wilderness also has two hiking and equestrian trails, the 7-mile Lava Flow Trail and the 3-mile Table Top Trail. A section of the Juan Bautista de Anza National Historic Trail crosses the national monument. This congressionally designated trail parallels the Butterfield Overland Stage Route, the Mormon Battalion Trail, and the Gila Trail. A four-wheel-drive accessible route follows the trail corridor for approximately 10 miles through the national monument.

### Historic Sites

The national monument has no developed camping facilities. BLM's Painted Rock Campground is located approximately 26 miles west of Gila Bend, AZ. Lodging is available in Casa Grande and Gila Bend, approximately 25 miles west of the Vekol Road interchange on Interstate 8.

### Hunting

Big game hunting for Mule Deer, wild turkey, Pronghorn, and Bighorn Sheep occurs each year in Arizona. The hunts are administered by the Arizona Game and Fish Department and cooperatively occur on Bureau of Land Management (BLM) administered public lands.

### Off Highway Vehicles

Motorized and mechanized vehicles, including bicycles must remain on existing routes and are not permitted in the wilderness areas. Some roads in at the monument, however, require high clearance, four-wheel-drive vehicles.

Source: Oh Ranger.com <http://www.ohranger.com/sonoran-desert> (Accessed May 22, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

A section of the Juan Bautista de Anza National Historic Trail crosses the national monument. This congressionally designated trail parallels the Butterfield Overland Stage Route, the Mormon Battalion Trail, and the Gila Trail. A four-wheel-drive accessible route follows the trail corridor for approximately 10 miles through the national monument.

Source: Sonoran Desert National Monument  
<http://www.sonorandesertfriends.org/about/region/> (Accessed May 22, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Education, Outreach, and Interpretation

Education and outreach conducted by monument staff included presentations at Operation ROAM law enforcement briefings, work crew orientations, gatherings of volunteers such as boy scout troops and others involved in clean-up projects; tours of the monument for various Washington and State office officials, and meetings with other agencies. During fiscal year 2014 the Sonoran Desert National Monument brochure was republished in a slightly edited version and is the monument's primary means of providing information to the public.

As discussed above, the BLM has entered into a partnership agreement with Tread Lightly! to develop an education and outreach program to recreational target shooters in south-central Arizona. This project has yielded the development of new brochures, posters, and billboards conveying a "Respected Access is Open Access" message fine-tuned for this recreation community. Additional projects under consideration include point-of-sale distribution of educational materials, radio public service announcements, and additional stakeholder meetings.

The Sonoran Desert National Monument Park Ranger engages the public on a weekly basis to provide information, education, directions, and regulatory information on a wide variety of topics to a diverse group of visitors.

Source: BLM Sonoran Desert National Monument Manager's Annual Report FY 2014  
[https://www.blm.gov/nlcs\\_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf](https://www.blm.gov/nlcs_web/sites/style/medialib/blm/az/pdfs/nepa/library/nlcs/14.Par.787.95.File.dat/SDNM-14.pdf) (Accessed May 22, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The Sonoran Desert National Monument contains magnificent examples of untrammelled Sonoran Desert landscape. This National Monument is the most biologically diverse of the North American deserts, and the monument captures a significant portion of that diversity. The most striking aspect of the plant community within the monument is the extensive saguaro cactus forest. The monument contains three distinct mountain ranges, the Maricopa, Sand Tank and Table Top Mountains, as well as the Booth and White Hills, all separated by wide valleys. The monument also contains three Congressionally designated wilderness areas and many significant archaeological and historic sites, and remnants of several important historic trails. Visits to the Sand Tank Mountains, located south of Interstate 8, requires a Barry M Goldwater Range permit. The permit is free, but requires the recipient to watch a 13 minute safety video.

Permits are valid for one year, from July 1 through June 30 of the following year. Permits can be obtained in person at BLM's Arizona State Office and Lower Sonoran Field Office. Motorized and mechanized vehicles, including bicycles must remain on existing routes. Drinking water is not available, so visitors are reminded to bring plenty of their own water. Vehicles should be in good working order, have a full fuel tank of gas and full size spare tires. The main access routes and washes are prone to heavy seasonal rains and flash floods. Cellular phones do not work in many areas of the national monument.

Source: Recreation.gov

<https://www.recreation.gov/recreationalAreaDetails.do?contractCode=NRSO&recAreaId=3110>

(Accessed May 22, 2017.)

## **Upper Missouri River Breaks National Monument Montana**

I am writing to **support the continuation of the National Monument** status as currently established for Upper Missouri River Breaks National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The Upper Missouri River Break National Monument contains a spectacular array of biological, geological, and historical objects of interest. From Fort Benton to the Charles M. Russell National Wildlife Refuge, the monument spans 149 miles of the Upper Missouri River, the

adjacent Breaks country, and portions of Arrow Creek, Antelope Creek, and the Judith River. The monument includes six wilderness study areas, the Cow Creek Area of Critical Environmental Concern, segments of the Lewis and Clark National Historic Trail and the Nez Perce National Historic Trail, the Fort Benton National Historic Landmark, a watchable wildlife area and the Missouri Breaks Back Country Byway. In 1976, Congress designated the Missouri River segment and corridor in this area a National Wild and Scenic River. The area has remained largely unchanged in the nearly 200 years since Meriwether Lewis and William Clark traveled through it on their epic journey. Within the monument you can float the river, fish, hike, hunt, drive for pleasure, find a little solitude, enjoy a sense of exploration in a remote setting or simply marvel at the variety of natural beauty.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/mt/st/en/prog/nlcs\\_new/UMRB\\_NM.html](https://www.blm.gov/nlcs_web/sites/mt/st/en/prog/nlcs_new/UMRB_NM.html) (Accessed May 22, 2017.)

Archaeological and historical sites, historic landscapes and legal traditional public uses will be preserved to the extent practical and consistent with other Monument goals.

The BLM will seek to preserve the objects of the Monument for the benefit of scientific and sociocultural use for present and future generations.

The primary objectives are to properly manage the cultural resources under BLM jurisdiction through a systematic program of identification and evaluation, and to reduce the level of conflict between cultural resources and other land and resource uses. All cultural resources within the area are segregated into management objectives. These objectives include managing for information potential, public values and conservation.

Cultural resources that contain significant information on the prehistory and history of the area will be managed for their information potential. These are cultural properties consisting of artifacts and features on the surface or buried that have the potential to yield important information.

Cultural resources that possess sociocultural, educational and recreational attributes will be managed for their public values. These include cultural resources associated with traditional American Indian cultural values, and prehistoric or historic cultural properties that exhibit interpretive and/or recreational potential. Managing cultural properties used by American Indians will focus on avoiding uses incompatible with traditional values.

Special or unique cultural resources will be managed for their public values and conservation. These include cultural properties that contain sensitive prehistoric religious features such as medicine wheels or burials; cultural properties of a nature that would not permit current archaeological technology to adequately investigate the property; and cultural properties that are rare in the area.

The BLM will authorize archaeological and historical investigations. Prehistoric sites will be evaluated and then monitored, protected or excavated based on their scientific value and what they can add to knowledge and interpretation of the Monument. Historic sites will be evaluated and then monitored or maintained based on their historic value, the attraction they have for visitors and their use as safety shelters.

Some potential cultural sites for interpretation include Decision Point; Eagle Creek; the Murray/PN dugout; Hagadone, Middleton, Ervin, Gist, Cable, and Nelson homesteads, Gilmore cabin; Nez Perce Trail; and sites associated with the Lewis and Clark Expedition. Other possible interpretive sites and topics could include prehistoric sites and the steamboat era on the Missouri River.

The BLM will evaluate all proposed actions, initiated or authorized by the BLM, for federal and nonfederal cultural resources. The BLM will determine, based on inventory and evaluation data, whether the proposed action will impact important cultural resources and, if necessary, take steps to avoid or mitigate possible impacts.

The BLM will consult with American Indian tribes when its actions have the potential to affect areas of concern to the practitioners of traditional religions. The activities of concern are those that might degrade the visual or aesthetic nature of an area, or cause the loss of plant species or other resources important to American Indians. The BLM is required to consult with traditional religious practitioners on policies and procedures to ensure they are considered when implementing agency actions.

Source BLM “Upper Missouri River Breaks National Monument Approved Resource Management Plan”

[https://web.archive.org/web/20150905151423/http://www.blm.gov/mt/st/en/fo/lewistown\\_filed\\_office/um\\_rmp\\_process/rod.html](https://web.archive.org/web/20150905151423/http://www.blm.gov/mt/st/en/fo/lewistown_filed_office/um_rmp_process/rod.html) (Archived by The Internet Archive Wayback Machine from Sept 25, 2015, Accessed May 22, 2017.)

The amount of land included in the monument must be sufficient to provide wildlife corridors and to minimize the disruption of wildlife movement by roads.

Ecological Effects of a Transportation Network on Wildlife  
A Spatial Analysis of the Upper Missouri River Breaks National Monument

#### Report Highlights

The spectacular Upper Missouri River Breaks National Monument in north-central Montana, along the Wild and Scenic Upper Missouri River, was established to preserve the area's outstanding ecological, scientific, and cultural values -- from its remote and undeveloped character and archaeological and historic sites to its remarkable wildlife, geologic, and paleontological resources.

Presidential Proclamation 7398, which designated the monument, requires the Bureau of Land Management (BLM) to develop a transportation plan as a component of the resource management planning process. The transportation plan is critical to protection of the monument's unique attributes. Although this monument appears to be a wild, relatively untrammelled place, hundreds of years of human travel and recreation, cattle grazing, mining, and hunting have carved innumerable roads, vehicle trails, and other linear transportation features across the landscape. Given their impacts on habitat quantity and quality, the spread of invasive plants, wildlife mortality, soil erosion, air quality, restoration projects, and archaeological and cultural sites, these transportation features must be carefully managed and minimized in accordance with the monument's preservation purpose. The immediate need to resolve transportation issues in this monument cannot be overstated. It reflects a key management challenge facing the BLM in other national monuments and conservation areas that the agency manages across the country.

Spatial analysis techniques can greatly assist the BLM and the public in the design of a transportation plan that minimizes impacts on the ecological and cultural resources of protected areas, while still allowing adequate access. Spatial analysis is predicated on the recognition that roads, vehicle trails, and other linear transportation features must be managed as a cohesive and interwoven system embedded within a landscape and not as a disjointed aggregation of individual access points.

This report presents three landscape fragmentation analysis methods that the BLM can -- and should -- use to plan ecologically viable transportation networks. The methods include density analysis of existing transportation network features, buffer analysis to examine the effect zone of the transportation network, and core area analysis to identify habitat that remains unaffected by the transportation network. We applied these analyses to Upper Missouri River Breaks and, in this report, discuss the implications of the results for management of the monument, emphasizing potential impacts on wildlife.

We found that wildlife populations are threatened by landscape fragmentation attributable to existing transportation features. Forty percent of occupied elk habitat in the monument is laced with routes at a density of 0.8 miles/mile<sup>2</sup>. Scientific literature indicates that elk habitat is completely lost at this density. Nearly 100 percent of land in the monument is within two miles of a route. It is known that Greater Sage-grouse within two miles of features constructed by people, including routes, have lower nest initiation rates. More than 86 percent of the 791-mile<sup>2</sup> monument lies within one mile of a transportation feature, leaving just 111 miles<sup>2</sup> available as potential habitat for wildlife.

The results of our analyses point out the need for route closures to mitigate current and potential impacts of the transportation network on the monument's resources. This report does not make specific route closure recommendations, but it does present a list of actions to ensure



that the transportation plan will enhance, not degrade, the values of the monument. Our recommendations include:

The BLM must develop a transportation plan as a key element of the monument's Resource Management Plan, emphasizing protection of the objects of interest articulated in the proclamation and key resources that provide an overall measure of the monument's health and integrity. The transportation plan should consist of two components: (1) a baseline transportation network and (2) an adaptive ecosystem management framework to guide all future transportation management decisions.

In developing the baseline transportation network, the BLM should conduct a habitat fragmentation analysis that overlays spatial data for objects of scientific and historic interest listed in the monument's proclamation and other key resources with transportation analysis layers similar to those generated for this report. "Wildcat" routes and roads or other transportation features that have adverse impacts on the objects and resources or otherwise cause unnecessary or undue degradation of the landscape must be closed.

Relevant literature concerning the impacts of routes on wildlife should be used to aid interpretation of the results of the habitat fragmentation analysis.

All routes designated as open should be geographically distributed in a manner that reduces habitat fragmentation and human contact with sensitive resources to an acceptable minimum threshold.

Once routes are identified for closure, the Resource Management Plan should include a detailed route closure and restoration strategy. Plan implementation should be consistent with the adaptive ecosystem management framework and include enforceable timelines and a stated commitment to devote a portion of staff time and annual budgets to restoration of closed routes.

Spatial analysis, using mapping software and up-to-date ecological data, is a manageable and essential part of crafting transportation plans that protect wildlife and recreation opportunities and other ecological, scientific, and cultural values. The use of spatial planning analysis in Upper Missouri River Breaks National Monument clearly demonstrates the dramatic impacts of the existing transportation network by illustrating how the network causes fragmentation of critical wildlife habitat. This important information can help guide the BLM and the public in making informed choices for transportation management. We believe it is essential for the BLM to incorporate spatial analysis as a standard step in transportation management planning.

Source: The Wilderness Society "Ecological Effects of a Transportation Network on Wildlife: A Spatial Analysis of the Upper Missouri River Breaks National Monument"

<http://wilderness.org/resource/ecological-effects-transportation-network-wildlife-spatial-analysis-upper-missouri-river> (Accessed May 22, 2017.)



*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

It includes 377,000 acres along a 149-mile stretch of the Upper Missouri River and contains a segment of the Lewis and Clark National Historic Trail “as remote and nearly as undeveloped as it was in 1805.” Home to elk, bighorn sheep, antelope, hawks, prairie falcon and golden eagles, the monument also encompasses six wilderness study areas, a section of the Nez Perce National Historic Trail, the Ft. Benton National Historic Landmark, and the Cow Creek Island Area of Critical Environmental Concern.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

This is rich habitat for deer, pelicans, geese, ducks, eagles, and many other birds. There are four Lewis and Clark campsites, including their camp at the mouth of the Marias River, the site of an extremely important decision point for the captains, and which they named Decision Point - the location of a BLM interpretive site that is easily accessed from the Upper Missouri by canoers. Several important fur trading posts, most notably the American Fur Company’s Fort McKenzie, were located on this stretch of the river.

Considered by many to be the most spectacular stretch of the Upper Missouri River, this is also the most popular. Stephen Ambrose, in his Lewis and Clark book, *Undaunted Courage*, described the White Cliffs as “one of the most beautiful places on Earth”.

Along this stretch of the Upper Missouri floaters pass three Lewis and Clark campsites, Indian habitation sites - where tipi rings and petroglyphs can be still seen, , and several still-standing homestead buildings dating to the 1900’s.

Adventurous floaters can take a vigorous climb up to the “Hole-In- The-Wall”, and there are abundant hiking opportunities from all of the BLM designated campsites in the White Cliffs.

No longer meandering in nature, the river follows a relatively straight course, and has cut a spectacular 800 foot-deep canyon through the white-colored Eagle Sandstone, which forms breath-taking 300 foot high cliffs. Unusual formations called “pedestal rocks”, resembling large toadstools, are common, and in many places are so numerous as to form “gardens”. The sandstone cliffs contain an intricate labyrinth of dark brown-colored veins, called dikes and sills, some over 20 feet thick, that were formed by the injection of hot magma. These dikes and sills are highly resistant to erosion, and frequently form spectacular vertical walls. Geologists who visit this area consider it to contain textbook examples of landforms produced by intruding magma. Captain Meriwether Lewis was awe-struck by this area, and in a lengthy journal entry described “scenes of visionary enchantment”.

Occupying a 1000 foot deep canyon, this rugged stretch of the river is the wildest and the least traveled, making it a personal favorite of ours. Combined with the White Cliffs section it makes

an excellent 6 day trip, which we consider to be the premier extended experience on the Upper Missouri.

Hundreds of thousands of acres of spectacularly beautiful public lands flank the river, providing innumerable hiking opportunities - the best hiking in the entire 149 miles of river. There are 6 BLM Wilderness Study Areas. Many old homestead buildings are found here, as well as some important sites in the Upper Missouri's steamboat history, and five Lewis and Clark campsites. The Nez Perce National Historic Trail crosses this stretch of the Upper Missouri. Captain Clark's first view of the Rockies site is an awe-inspiring place to visit in the wild Bullwhacker Creek area, a 5 mile hike back from the river.

Excellent opportunities to view herds of Rocky Mountain Bighorn Sheep exist in some locations and elk are sometimes seen. The dominant rocks are those of the Judith River Formation (70 million years old), which is made up of strong, thin layers of sandstone, and alternating thick layers of weak siltstone and shale. This combination produces the landform known as badlands - or "The Missouri Breaks", where erosion has run rampant and produced hauntingly beautiful scenery. There are spectacular examples of geologic faults. Some locations contain dinosaur bone beds (which are protected by federal law), and are the destination for some of our hikes. The banks of the river do not support many groves of trees, and shady campsites are more scarce. The tops of the "breaks" are covered with Ponderosa Pine. This segment ends at the downriver boundary of the Upper Missouri River Breaks National Monument and the Upper Missouri National Wild and Scenic River.

Source: Upper Missouri River Guides <http://www.uppermissouri.com/segments.htm> (Accessed May 22, 2017.)

#### Wilderness Study Areas

##### Cow Creek WSA

This WSA covers 34,050 acres on the north side of the Missouri River. Of this total, 21,590 acres were recommended as suitable for wilderness designation. The size of the area, opportunities for solitude and primitive recreation, and the attractiveness of the setting combine to provide excellent wilderness quality. A diversity of recreational opportunities makes this area excellent for primitive recreational use, and a four-mile long sheer wall of sandstone is an outstanding scenic feature.

##### Woodhawk WSA

This WSA covers 4,800 acres on the north side of the Missouri River. More than 90 percent of the WSA is within the UMNWSR corridor, located in a very rugged portion of the Missouri Breaks. None of this WSA was recommended for wilderness designation because of the combination of small size and configuration of the WSA which are affected by offsite sights and sounds and have a high potential for natural gas development. This WSA does contain isolated

areas that offer outstanding opportunities for solitude, but does not contain outstanding primitive recreation opportunities.

#### Stafford WSA

The WSA covers 10,200 acres on the north side of the Missouri River. Approximately 5,060 acres along the southern boundary of the WSA lay within a wild segment of the UMNWSR corridor. None of this WSA was recommended for wilderness designation due to a variety of resource conflicts and manageability concerns including a high potential for natural gas development. The WSA contains few opportunities for outstanding solitude and primitive recreation. However, the area is very scenic and rugged, combining steep slopes with narrow ridges.

#### Ervin Ridge WSA

The WSA is on the south side of the Missouri River and contains 5,150 acres. Just over 3,900 acres are within the UMNWSR corridor. None of this WSA was recommended as suitable for wilderness designation due to the high potential for natural gas development and the potential for wilderness management conflicts. The small size of this area, along with terrain that opens to major off-site influences just beyond its boundaries, limits the opportunities for outstanding solitude to isolated areas in the deeper drainages. The area also lacks outstanding opportunities for primitive recreation, the scenic quality is lacking for designation.

#### Dog Creek WSA

This 8,100-acre WSA is on the south side of the Missouri River. About 3,500 acres of the WSA are within the UMNWSR corridor. None of the WSA was recommended as suitable for wilderness designation due to a combination of the unit's small size, the a cherry-stemmed road running through the WSA, and several resource conflicts. It has a high potential for natural gas reserves. The WSA does not contain outstanding primitive and unconfined recreational opportunities, but does have colorful broken topography. It also contains several prehistoric occupation sites. During the steamboat era, woodhawkers (wood cutters) cut timber to fuel steamboats plying the Missouri River. Chief Joseph's Nez Perce Indians probably traversed the area in their attempt to escape to Canada in 1877.

#### Antelope Creek WSA

The WSA covers about 12,350 acres on the north side of the Missouri River. Of this total, 9,600 acres were recommended for wilderness. This WSA offers outstanding opportunities for solitude and provides a diversity of primitive recreational opportunities such as hiking, photography, hunting, and rock climbing. The area is rich in historical significance, including Kid Curry's outlaw hideaway.

Source: Friends of the Missouri Breaks Monument <https://missouribreaks.org/the-breaks/management/> (Accessed May 22, 2017.)

## HISTORY OF THE BREAKS

As a route of western expansion, the Missouri River had few equals. Lewis and Clark spent three weeks, from May 24 through June 13, 1805, exploring the segment that is now the Upper Missouri National Wild & Scenic River. Today this portion is considered to be the premier component of the Lewis & Clark National Historic Trail. Captain Clark wrote about the badlands saying, “This country may with propriety, I think, be termed the Deserts of America, as I do not conceive any part can ever be settled, as it is deficient in water, timber, and too steep to be tilled.” Of the White Cliffs, Captain Lewis wrote, “The hills and river cliffs, which we passed today exhibit a most romantic appearance . . .” and described “ . . . elegant ranges of lofty freestone buildings, having their parapets well stocked with statuary . . .” and “. . . seems of visionary enchantment (sic) . . .” They spent days at the mouth of the Marias River trying to resolve the dilemma of which river to follow.

During the years following the passage of the Lewis and Clark Expedition, the Blackfeet Indians showed such an uncompromising hatred for Europeans that the Blackfeet effectively prevented the penetration of their territory by trappers. The American Fur Company was finally successful in opening the upper river to trade in 1831. In that year they established Fort Piegan at the mouth of the Marias River. The following year they moved eight miles up river and established Fort McKenzie. In 1844, McKenzie was abandoned and operations were moved down river to the mouth of the Judith River, and Fort Chardon was established. In 1845, Fort Chardon was abandoned and Fort Lewis was established a few miles above Fort Benton. In 1846, Fort Lewis was abandoned and they moved a few miles down river and established Fort Clay. At a Christmas party in 1850, Fort Clay was renamed Fort Benton.

The confluence of the Judith and Missouri Rivers was the setting for two important peace councils. In 1846, Catholic missionaries Father Pierre-Jean de Smet and Father Nicholas Point celebrated Mass for the Flathead and Blackfeet tribes to pacify relations between these traditional enemies. In 1855, Washington Territorial Governor Isaac Stevens conducted a treaty council with the Blackfeet, Flathead, Gros Ventre and Nez Perce. This treaty established boundaries and provided for railroads, roads, telegraph lines and military post access across what is now northern Montana.

The fur trade era stimulated the first extensive use of the Missouri River as an avenue of transportation. Keelboats, mackinaws, bullboats and canoes plied the upper river bringing trade items and returning with a wealth of furs. The vast amounts of capital to be obtained encouraged steamboat captains to brave the treacherous Missouri. Steamboats arrived on the scene in 1859, and Fort Benton was established as the head of navigation in 1860. The steamboats arrived just in time to supply the gold camps in southwest Montana and northern Idaho. Before commercial steamboat traffic disappeared from the scene in 1891, supplies unloaded in Fort Benton were being freighted as far west as Fort Walla Walla in Washington and north to the Great Slave Lake in the Northwest Territories.

The railroad reached Fort Benton in 1887. The last commercial steamboat arrived there in 1890. By then the buffalo had disappeared from the plains to be replaced by livestock. Fort Benton changed from being a river port to an agricultural supply center. Homesteaders began arriving in large numbers around 1910.

Following the breakout of war in Idaho, nearly 800 Nez Perce (men, women, children and the elderly) spent a long and arduous summer fleeing U.S. Army troops, first east toward Crow allies in Montana, and then north toward refuge in Canada. They crossed the Missouri River near Cow Island, which is now within the Monument, and continued up Cow Creek until they were within forty miles of the Canadian border. Thinking they were safe, they paused for a short time to rest after their arduous journey of over 1,000 miles. However, the Army troops caught up with them at what is now the Bear Paw Battlefield north of the Monument. Following a five-day battle and siege, the Nez Perce ceased fighting at Bear Paw on October 5th, 1877, in which Chief Joseph gave his immortal speech: "From where the sun now stands, I will fight no more forever."

Source: Friends of the Missouri Breaks Monument <https://missouribreaks.org/the-breaks/history/> (Accessed May 22, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

#### Multiple Use Activities

##### Auto/Motorcycle

The Missouri Breaks Back Country Byway traverses one of the most geologically unique and historically significant areas in Montana. The Byway begins at the community of Winifred, 38 miles north of Lewistown on Montana Highway 236. The Missouri Breaks National Back Country Byway consists of gravel roads and unsurfaced roads that become totally impassable when wet. For more information and a map visit <http://russell.visitmt.com>.

##### Camping

There are both developed and dispersed campsites throughout the monument.

##### Fishing

Fishing is allowed in designated areas. Please obey posted signs.

##### Hiking

Ten designated hiking trails explore several portions of the Upper Missouri River Breaks. Paths bring visitors to homesteads and through riverbeds and ridges with remarkable views. Follow

the Lower Bullwhacker Trail for a 7-mile round-trip hike into Bullwhacker Coulee. This coulee is a streambed containing fossils along its banks and bighorn sheep on its hillsides. The Gist River Homestead Trail is 4.9 miles round-trip and brings you to the Gist Overlook for spectacular views of the Breaks. Hikers can also venture down the route to the historic Gist Homestead. For details on all 10 hikes visit [missouribreaks.org/hikes.html](http://missouribreaks.org/hikes.html).

#### Historic Sites

An interpretive center is located in Fort Benton, Montana, and interprets the grandeur and wonder of Upper Missouri National Wild and Scenic River and the Upper Missouri River Breaks National Monument. From hands-on exhibits and special educational programs to a relaxing riverside walking trail, the facility tells about the area's cultural and natural history.

#### Hunting

Hunting is allowed in accordance with Montana state regulations.

#### Wildlife Watching

The Upper Missouri River corridor is a designated Watchable Wildlife site. It has some of the largest bighorn sheep and elk herds in the continental United States. Cliff faces provide perching and nesting habitat for many raptors. The river and surrounding uplands provide habitat for 49 species of fish, 60 species of mammals, 233 species of birds and 20 species of reptiles and amphibians.

Source: Oh Ranger.com <http://www.ohranger.com/upper-missouri-river-breaks> (Accessed May 22, 2017.)

#### *(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The Upper Missouri River Breaks National Monument (UMRBNM) covers roughly 375,000 acres of BLM-administered public land in central Montana. These lands hold a spectacular array of plant life, wildlife, unique geological features, endless recreational opportunities and significant historical and cultural values. The rugged landscape has retained much of its unspoiled character over the centuries and, as a result, offers outstanding opportunities for solitude and dispersed recreation. In some areas, the BLM lands are intermingled with State of Montana lands and private property. The monument designation applies only to the BLM-managed lands. Landowner permission is required prior to using private property for any activity. A permit is required for recreational use of state lands.

Source: National Geographic Upper Missouri River Breaks National Monument <https://yellowstone.natgeotourism.com/content/upper-missouri-river-breaks-national-monument/yel320301bd2ec22a4d6> (Accessed May 22, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

How will Monument management be integrated with other agency and community plans?

The BLM has a strong commitment to work with other agencies and communities in managing the Monument. Coordination with state agencies that have jurisdiction over resources within the Monument is essential for effective management. These agencies include Montana Fish, Wildlife and Parks, and the Montana Department of Natural Resources and Conservation.

Monument objectives call for a significant portion of visitor services related to the Monument to be located in the surrounding communities rather than within the Monument. In order to do this, a good working relationship with local tourism and service providers must be developed and maintained. Agreements with the local counties and communities for coordinating activities and needs such as planning, transportation, emergency services (i.e., search and rescue), law enforcement, infrastructure and tourism need to be explored.

Leave private land out of the Monument.

The Proclamation designating the Monument applies to “all lands and interests in lands owned or controlled by the United States within the boundaries of the area described on the map . . . .” The BLM has no jurisdiction over private land and minerals.

Chinook-Blaine County Comprehensive Plan (1979)

The comprehensive plan provides information on population, projected land needs for residential growth, land use, public facilities, natural resources, and land use problems. The plan also provides land use policy recommendations for land use, public investments, and local governmental administrative policy changes.

Source BLM “Upper Missouri River Breaks National Monument Approved Resource Management Plan”

[https://web.archive.org/web/20150905151423/http://www.blm.gov/mt/st/en/fo/lewistown\\_filed\\_office/um\\_rmp\\_process/rod.html](https://web.archive.org/web/20150905151423/http://www.blm.gov/mt/st/en/fo/lewistown_filed_office/um_rmp_process/rod.html) (Archived by The Internet Archive Wayback Machine from Sept 25, 2015, Accessed May 22, 2017.)

This 149-mile stretch of river, plus 585 square miles of adjacent BLM land where the northern plains crumble into a fractal-like network of coulees and canyons, is the Upper Missouri River Breaks National Monument. And that 2001 monument designation, I’m told, is the reason the cottonwoods are now being planted.

President Clinton’s proclamation, in a few pages of sweeping prose, describes the “objects” this monument is to protect: plentiful bighorn sheep and other wildlife, traces of history left by numerous Native tribes and the Lewis and Clark expedition, riverside cottonwood ecosystems and more. The proclamation also laid out the terms of protection, including withdrawal of all

monument lands from future oil and gas leasing and a new travel plan to manage motorized traffic. But — in a nod to local input — it permitted continued grazing and hunting.

The BLM's management plan, released in 2008, made so few changes that it even garnered the support of the Missouri River Stewards, a local group of ranchers who had opposed the monument designation. But it drew opposition from the Friends of the Missouri Breaks Monument — the nonprofit group organizing the cottonwood planting — and other conservation groups, who argued that the plan was too lax on roads and airstrips. As a result of their lawsuit, settled in 2013, the BLM is moving ahead with plans to close about 200 miles of backcountry routes.

But tensions remain. Even though the proclamation allows grazing, the Western Watersheds Project, an aggressive grazing reform group, argues that the BLM actually has authority to restrict it in order to protect monument "objects," like the threatened cottonwoods. That group's lawsuit is ongoing.

Glenn Monahan, who has guided this stretch of river for 20 years, has amassed evidence that livestock are primarily responsible for the decline of the cottonwoods and other vegetation. He also thinks livestock have caused a drop in the number of river visitors, from roughly 5,000 in 2009 to 3,000 in 2014. He's counted as many as 1,360 cattle along a 46-mile stretch of river popular with floaters, and he and his guides carry shovels for scraping cow patties from campsites. Although the BLM says it plans to erect fences around some campsites, Monahan thinks the agency should go much further, removing cattle from the river entirely. "This is now a national monument," he says, "and we need to start asking, 'What is the highest use of this land?' "

This is why the 120-odd landowners within the monument still largely resent the monument — not for what it's done, but for what it might do. Ron Poertner, a leader of the Missouri River Stewards, sees the Western Watersheds Project lawsuit as an ominous sign of things to come: increased public attention and scrutiny over local grazing practices. "We're always waiting for the other shoe to drop," he says.

Hugo Tureck, who has a ranch on the edge of the Breaks and helped found the Friends in 2001, told me that he sees the monument staying pretty much the way it is, maybe with slightly stricter grazing in the future. But one thing has changed: "(This area) now has a stage presence that it never had before," he says. "That's what a national monument means."

Back on the grassy bank, we place each slender cottonwood cutting in a hole along with a watering pipe, tamp in a slurry of dirt, river water and rooting hormone, and erect a ring of wire fence to keep out cows. Dark clouds build over the white cliffs, spit rain and then clear to blue sky. I ask Rick Pokorny, who was born and raised in the Breaks, why he's here. "To plant trees, because they need to be planted," he says.



Source: High Country News “Controversy lingers at Missouri Breaks in Montana” May 25, 2015 <http://www.hcn.org/issues/47.9/john-podesta-legacy-maker/monumental-changes-1> (Accessed May 22, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The Upper Missouri River Breaks National Monument in Central Montana protects a landscape remarkably unchanged since the Lewis and Clark expedition passed through it 200 years ago. Whether it remains that way depends on how the Monument is managed, and the management blueprint is now underway. The Wilderness Society and its conservation partners have been working to ensure that the management plan provides a strong framework for protecting the monument's exceptional values.

Unchanged Since Lewis and Clark

What is now the Upper Missouri River Breaks National Monument may be the single remaining place along their route that Lewis and Clark would still recognize today. The Monument remains rich in the sweep of its scenery, its history and its wildlife. Its 377,000-plus acres encompass river bottoms and upland breaks and provide intact habitat for 230 bird species and 60 mammal species, deer, elk, pronghorn, bighorn sheep among them.

Keep it Wild!

A measure of the Monument's remaining wildness is the fact that it includes six wilderness study areas and the rugged Bullwhacker area that many consider to be the heart of the Breaks. The Wild and Scenic Missouri River generally bounds the Monument on the west and it extends to the Charles M. Russell National Wildlife Refuge on the east. The Monument is still wild, remote and beautiful; the management plan must keep it that way.

Threats to the existence and protection of Upper Missouri River Breaks

The Monument is threatened by a variety of issues ranging from boundary adjustments to oil and gas development. Today, the oil and gas industry is lobbying to explore within the Upper Missouri River Breaks Monument. This is despite the fact that the Monument's boundaries intentionally excluded the largest area with oil and gas potential and that the Monument Proclamation language specifically recognized the right to explore for oil and gas on the 60,000 acres within the Monument that are under valid lease.

## Standards for Management

Throughout the management plan process, we will insist that the final Resource Management Plan (RMP) must:

- Preserve and restore the Monument's wild, undeveloped character. A plan that achieves this goal will simultaneously protect all the other resources for which the monument was set aside.
- Provide for a Monument transportation system that relies on science to determine road retention and closure and the protection of natural and historic resources. There are too many roads in the Monument today and too little management of motorized use. The RMP should include solid provisions for monitoring and enforcement.
- Protect the Monument's wilderness study areas and other wildlands and core areas and set out a program and timeline for inventorying additional lands that may qualify as wilderness.
- Ensure that wildlife habitat is protected and restored. To enforce critical wildlife habitat and to foster the health of native trees and plants, BLM Standards and Guidelines for grazing leases should be monitored and enforced. The plan should provide for greatly reducing "hot season" grazing in riparian areas and for protecting wildlife in the uplands.

## Transportation Effects on the Monument's Wildlife and Other Resources

Wilderness Society report presents compelling evidence that the current transportation network in the Upper Missouri River Breaks National Monument has had a significant impact on wildlife populations and other fragile resources across the landscape.

Source: The Wilderness Society, Upper Missouri Breaks National Monument, <http://web.archive.org/web/20060710211831/http://www.wilderness.org/WhereWeWork/Montana/breaks.cfm> (Archived by the Internet Archive Wayback Machine on July 14, 2006, Accessed May 22, 2017.)

## **Vermilion Cliffs National Monument Arizona**

I am writing to **support the continuation of the National Monument** status as currently established for Vermilion Cliffs National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: BLM

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Spatial analysis techniques can greatly assist the BLM and the public in the design of a transportation plan that minimizes impacts on the ecological and cultural resources of protected areas, while still allowing adequate access. Spatial analysis is predicated on the recognition that roads, vehicle trails, and other linear transportation features must be managed as a cohesive and interwoven system embedded within a landscape and not as a disjointed aggregation of individual access points.

This report presents three landscape fragmentation analysis methods that the BLM can -- and should -- use to plan ecologically viable transportation networks. The methods include density analysis of existing transportation network features, buffer analysis to examine the effect zone of the transportation network, and core area analysis to identify habitat that remains unaffected by the transportation network. We applied these analyses to Upper Missouri River Breaks and, in this report, discuss the implications of the results for management of the monument, emphasizing potential impacts on wildlife.

Source: The Wilderness Society “Ecological Effects of a Transportation Network on Wildlife: A Spatial Analysis of the Upper Missouri River Breaks National Monument”

<http://wilderness.org/resource/ecological-effects-transportation-network-wildlife-spatial-analysis-upper-missouri-river> (Accessed May 22, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Created Nov. 9, 2000 by President Clinton northeast of the Grand Canyon in Arizona. Described at the time as a “geological treasure,” this expanse of 293,000 acres contains spectacular trails and vistas along trails that climb from 3,100 to 7,100 feet. Its centerpiece is the Paria Plateau, a “grand terrace” that lies in the center of multi-colored stair-step rock strata. The monument is also home to endangered California condors hatched in a captive breeding program and released into Vermilion Cliffs.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

The legacy of the Arizona Strip is found in the high concentration of archaeological and historical sites which remain. And yet, historic and prehistoric sites on the Arizona Strip are largely unknown because only 1% of the Strip has ever been surveyed. Rumors of Spanish gold and remnants of old stone cabins ask unanswerable questions. In many areas you can't take a step without finding some indication of past human life.

The Arizona Strip has a rich, but little-documented history. Its record begins more than 12,000 years ago with prehistoric Native Americans called the PaleoIndians. Remnants of the once-extensive Puebloan (Anasazi) and Southern Paiute cultures are found throughout the Strip. Spanish and Mexican forays into the area occurred in 1776 and along the Old Spanish Trail during the 1820's and 1830's. Mining activities, timber cutting and settlement by farmers and ranchers began by the 1870's. Later, the Civilian Conservation Corps created or improved many of the access roads and other structures. The communities of Mt. Trumbull, Wolf Hole and Little Tanks are now ghost towns. Names like Poverty Mountain, Hungry Valley, Last Chance Spring, Death Valley and Tombstone Canyon attest to the rough life of the pioneers. What little knowledge BLM has gathered comes from cultural surveys for projects or oral histories, stories and anecdotes related by older citizens of the area - a rapidly diminishing resource.

As more people discover the Strip, vandalism increases. More survey and research is necessary to record the information before these resources disappear completely. The Arizona Strip cultural resources program focuses on protection of cultural resources by working actively with Arizona Site Stewards and pro-active law enforcement; and by providing education about cultural resources to local amateur archaeological societies in Fredonia and St. George, school classes, the Natural Resources Camp and Sierra Club Service Groups.

Source: BLM “Vermilion Cliffs Nat'l Monument Cultural & Historic Sites” [https://web.archive.org/web/20170127084654/https://www.blm.gov/az/st/en/prog/blm\\_speci\\_al\\_areas/natmon/vermilion/cultural.html](https://web.archive.org/web/20170127084654/https://www.blm.gov/az/st/en/prog/blm_speci_al_areas/natmon/vermilion/cultural.html) (Archived by the Internet Archive Wayback Machine on Jan 27, 2017. Accessed May 22, 2017.)

California condors were placed on the federal Endangered Species list in 1967. Only 22 condors were known to remain in 1982, while today the world population exceeds 400, with over 225 condors living in the wild. Approximately 75 condors reside in the Vermilion Cliffs National Monument. In Arizona, reintroduction is being conducted under a special provision of the Endangered Species Act that allows for the designation of a nonessential experimental population. Under this designation (referred to as the 10(j) rule) the protections for an endangered species are relaxed, providing greater flexibility for management of a reintroduction program.

Since December of 1996, program personnel have released condors every year. Each condor is fitted with radio transmitters and is monitored daily by field biologists.

Source: BLM Condor Viewing in the Vermilion Cliffs National

<https://web.archive.org/web/20170127081424/https://www.blm.gov/az/st/en/prog/recreation/watchable/condors.html> (Archived by the Internet Archive Wayback Machine on Jan. 27, 2017. Accessed on May 22, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Multiple Use policy

Recreation Opportunities

Trails

The Vermilion Cliffs National Monument contains geologic treasures, including the Paria Canyon and Coyote Buttes. Both these areas are nationally known for outstanding hiking opportunities.

Paria Canyon offers a five-day wilderness backpacking experience amid narrow water-sculpted canyons, towering 3,500 feet. Coyote Buttes is a popular sandstone area covered with fragile rock formations. Note: A permit is required for Coyote Buttes North (the Wave), Coyote Buttes South, and overnight trips within the Paria Canyon. The Coyote Buttes North is recommended for experienced hikers who obtain a required permit. Visits to the area require special planning and awareness of potential hazards, such as rugged and unmarked roads, extreme heat, deep sand, and flash floods.

Trail Links

- Buckskin Gulch Trail
- Coyote Buttes Trailheads
- Paria Canyon Trail
- Soap Creek Trail

- White House Trail
- Wire Pass Trail

#### Camping

#### Historic Sites

Primitive camping opportunities abound on the monument. However, visitors need to be well prepared for all camping and weather conditions. Some common-sense camping tips include, using existing campsites and staying at least 200 feet away from springs. In addition, be sure to pack out trash, including food scraps and human waste bags.

#### Campground Links

- Stateline Campground
- Whitehouse Campground

#### Wildlife Viewing

Wildlife is abundant on the monument, enhancing viewing opportunities for bighorn sheep, California condors and mule deer. Other species found on the monument are desert tortoise, rattlesnakes and venomous reptiles, and invertebrates.

Source: BLM Recreation Opportunities Vermillion Cliffs National Monument

[https://www.blm.gov/nlcs\\_web/sites/az/st/en/prog/NLCS/VC\\_NM/VC\\_recreation\\_opportunities.html](https://www.blm.gov/nlcs_web/sites/az/st/en/prog/NLCS/VC_NM/VC_recreation_opportunities.html) (Accessed May 23, 2017.)

#### Hunting

Almost all public lands in Arizona are open to lawful hunting under state regulations. Three Game Management Units (GMUs) have been established on the Arizona Strip by the Arizona Game and Fish Department. They are: GMU 12B, which includes BLM and tribal lands on the Arizona Strip from Kanab Creek east to the Colorado River and south to the Kaibab National Forest; GMU 13A, which includes all lands on the Arizona Strip from the Hurricane Cliffs east to Kanab Creek and south to the Colorado River; and GMU 13B, which includes all lands from the Nevada border east to the Hurricane Cliffs and south to the Colorado River. Each of the GMUs is bordered on the north by the State of Utah. You are responsible for knowing where the boundaries are.

Source: BLM Vermillion Cliffs National Monument

[https://web.archive.org/web/20170127080646/https://www.blm.gov/az/st/en/prog/blm\\_special\\_areas/natmon/vermilion/hunting.html](https://web.archive.org/web/20170127080646/https://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/vermilion/hunting.html) (Archived by the Internet Archive Wayback Machine on Jan. 27, 2017. Accessed on May 23, 2017.)

## Camping

### White House Campground

A rustic campground located on the Paria River at 4,300 feet (1,311 meters) in elevation adjacent to the White House Trailhead. This campground is frequently used as the endpoint of a trip through Buckskin Gulch or the beginning of a trip through Paria Canyon, in the Paria Canyon-Vermilion Cliffs Wilderness and the Paria Project Area which is a 53-mile system of connected canyons.

### Location

White House Campground is located in south central Utah in the Kanab Field Office adjacent to Vermilion Cliffs National Monument.

### Visitor Activities

Used by hikers, backpackers, or for photography and wildlife viewing. The ideal travel seasons are spring, summer and fall. Winter conditions can be cold and snowy with the potential of the Paria River being frozen solid. The campground and trailhead are open year round, weather and road conditions permitting.

### Special Features

Exploration of the Paria Narrows and the Paria Canyon corridor.

### Stateline Campground

Stateline camp site From Page, AZ, drive west on Highway 89 for 34 miles (55 kilometers). Drive past the BLM Ranger Station and the road to the White House trailhead. Turn left onto House Rock Valley Road. This road is compacted dirt. The Stateline Campground is 9.3 miles (14.9 kilometers) down this dirt road. It is one mile south of the Wire pass Trailhead.

From Kanab, UT, drive east on Highway 89 for 38 miles (61 kilometers). Turn right onto House Rock Valley Road. This road is compacted dirt. The Stateline Campground is 9.3 miles (14.9 kilometers) down this dirt road. It is one mile south of the Wire pass Trailhead.

### Lee's Ferry Campground

The Lee's Ferry Campground is managed by the National Park Service, Glen Canyon National Recreation Area.

From Page, AZ, drive south on Highway 89 for 25 miles (40 kilometers). Turn right (north) onto Highway 89A and continue for 14 miles (22.5 kilometers). Cross over the Colorado River and pass the Navajo Bridge Interpretive Center on your right. Watch for the Glen Canyon National Recreation Area entrance on your right.

From Kanab, UT, drive east on Highway 89 for 73 miles (117 kilometers) to Page, AZ. Follow the above directions from Page.

Hiking and Camping Information:

Open year round

Located within the Glen Canyon National Recreation Area

A campground is available in the Glen Canyon National Recreation Area

Dispersed Camping Opportunities

If the above campgrounds are full, dispersed camping is allowed on BLM lands on the Arizona side of the border. Please use existing disturbed areas and do not drive off-road. On the Utah side of the border, the White House Campground/Trailhead, and the Wire Pass and Buckskin Gulch Trailheads and surrounding areas are located in the Grand Staircase Escalante National Monument. Please check with them for dispersed camping opportunities in the area.

Source: BLM Vermillion Cliffs National Monument Campgrounds

<https://web.archive.org/web/20170127093430/http://www.blm.gov/az/st/en/aro/rls/main/paria/campgrounds.html> (Archived by the Internet Archives Wayback Machine on Jan 27, 2017.

Accessed on May 23, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

No comment.

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

Publication in the Federal Register of the Notice of Intent (NOI) to prepare a management plan and environmental impact statement (EIS) for the Monument on April 24, 2002, initiated a 90-day public scoping and comment period. Following this, the BLM published a newsletter and held 11 open houses in 2002 to encourage public input on the future management of the Monument. Ten cooperating agencies and a dozen other Federal and state agencies provided information and input into development of the Monument management plan. From all this input, the BLM developed four conceptual alternatives that were presented to the public via newsletters and five open houses. These preliminary alternative public meetings were held in 2003. A 90-day public comment period on the Draft Plan/EIS was initiated on December 16, 2005 followed by release of the Proposed Plan/Final EIS (FEIS) on March 2, 2007. Information from these meetings, the Cooperating Agencies and interested state and Federal agencies, and the public was then used to develop this Approved Plan.



## ISSUES USED TO DEVELOP ALTERNATIVES

One of the most important outcomes of the scoping process was the identification of significant issues to be addressed in the Approved Plan. For planning purposes, an “issue” is defined as a matter of controversy, dispute, or general concern over resource management activities, the environment, or land uses. In essence, issues help determine what decisions were made and analyzed in the Proposed Plan/FEIS.

Based on the scoping comments received and their subsequent analysis and evaluation, five major planning issues were identified as being within the scope of this planning effort, which were then addressed and analyzed in the associated EIS. All of these issues centered on the larger question of just how much human activity should be allowed while still providing the mandated level of resource protection. The five issues are presented below, followed by a short description of why each is significant and the management decisions that they required.

### Issue 1: How will transportation and access be managed?

Transportation and access (i.e., travel management) emerged from the scoping process as the primary issue for the public, and is closely tied to the other issues addressed. Some people believed closing a number of routes and limiting vehicular access would provide the best protection of Monument values. Others thought all existing routes should remain open for recreational and resource uses.

The Monument proclamation specifically calls for a transportation plan to address road and needed travel management to protect Monument resources. The information on travel management presented in this Approved Plan will be used to develop a transportation plan for the Monument within three to five years after the Record of Decision (ROD) accompanying this Approved Plan has been signed. Route inventories of the Monument were completed and used as baseline data for trail and travel management planning. Travel management implementation decisions and associated maps can be found in Chapter 2 and in Appendix K.

### Issue 2: How will areas with wilderness characteristics be managed?

A number of individuals and groups voiced their concern for protecting areas with wilderness characteristics in the Monument. Many brought up the concept of additional wilderness designations during the public scoping period. Some felt that additional wilderness designations in the Monument would be the best way to protect resources, particularly those identified in the Monument proclamations. Others were not in favor of additional wilderness designations because they felt such actions would prevent the majority of visitors from accessing the remote sections of the Monument, especially those that enjoy motorized forms of recreation. Such arguments, however, are outside the scope of the EIS for this Approved Plan as only Congress has the authority to designate new wilderness areas.

The BLM historically has had the authority to inventory, assess, and recommend suitable public lands as wilderness study areas (WSAs); however, recent guidance clarified that this authority expired in 1991. With the passage of FLPMA in 1976, the BLM had 15 years to inventory and identify lands suitable for designation as wilderness by Congress. That inventory and review was completed in 1991 and submitted to Congress in 1993. Many of the WSAs identified Bureau-wide are still managed today under an Interim Management Policy (IMP). With the passage of the Arizona Wilderness Act of 1984, any WSAs in Arizona not included as part of a statutory wilderness by Congress were “released” by Congress from the IMP. The Monument contains no WSAs from that 15-year period.

In 2001, the BLM issued new policies in the Wilderness Inventory and Study Procedure Handbook (H-6310-1). The handbook reiterated the BLM’s authority to inventory, assess, and designate public lands as WSAs. These lands would then be available at any time for Congress to consider for designation as wilderness areas. The state of Utah and others challenged the authority of the Department of the Interior (DOI)/BLM to designate and manage new (post 1993) WSAs as wildernesses, arguing that the BLM completed the wilderness suitability process for public lands with the submission of recommendations to Congress in 1993. In the ensuing Utah Wilderness Settlement (April 2003), the DOI/BLM agreed that FLPMA does not allow identification or protection of new WSAs after 1993. In 2003, the BLM formally rescinded the Wilderness Inventory and Study Procedures Handbook. Therefore, in this planning process, additional BLM lands cannot be considered or recommended for designation as WSAs.

In September 2003, the BLM provided new guidance in Instruction Memorandum (IM) 2003-274 and IM 2003-275, Change 1. Specifically, IM 2003-274, Implementation of the Settlement of Utah v. Norton Regarding Wilderness Study, applied the terms of the Utah Wilderness Settlement Bureau-wide. Additionally, IM 2003-275, Change 1, Consideration of Wilderness Characteristics in Land Use Plans, provides guidance for planners and the public for assessing areas that may exist in essentially natural condition, or landscapes where the opportunities to experience solitude or engage in primitive and unconfined recreation may be outstanding. IM 2003-275, Change 1, also provides guidance for making decisions about maintaining these values where they are reasonably present or have sufficient value and need, and are practical to manage. The “non-impairment standard” of FLPMA Section 603 and the BLM IMP for WSAs are not applied as measures to protect naturalness, solitude, and primitive recreation. Such decisions for areas managed for wilderness characteristics are discussed in Chapter 2.

### Issue 3: How will Monument resources be protected?

The proclamation designating the Monument identified an array of scientific, natural, and historic objects to be protected. There are various ways of achieving this mandate, including maintenance of acceptable existing conditions, educating visitors, restricting access, setting research priorities, and restoring degraded environmental conditions. Decisions about which approaches were used are detailed in Chapter 2.

Issue 4: How will livestock grazing on the Monument be addressed?

The Monument proclamation states that laws, regulations, and policies followed by the BLM in issuing and administering livestock grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the Monument. The scoping process identified livestock grazing as an issue for a number of people. Comments ranged from eliminating all livestock grazing in the Monument to supporting all grazing Vermilion Cliffs activities. Those in the middle supported eliminating livestock grazing only in environmentally sensitive areas.

All land uses, including livestock grazing, were incorporated into the concept of overall environmental health. Modifications to current grazing are detailed in Chapter 2.

Issue 5: How will people's recreation activities be managed?

Lands in the Monument are used for a variety of recreational activities, including exploring, sightseeing, hiking, backpacking, camping, hunting, off-highway vehicle use on designated routes, and mountain bike riding. Given growth projections for communities in the southwestern U.S. and the increased participation of people in recreation pursuits on public lands over time, ineffective management of visitor activities is recognized as potentially having profound environmental effects on Monument lands. These possible effects, along with potential user conflicts, make appropriate management of these activities crucial to protecting Monument resources.

During the scoping process, the public frequently referred to the important relationship between the remoteness of the Monument and the quality of visitor experiences. The Special Recreation Management Areas (SRMAs) and Recreation Management Zones (RMZs) in Chapter 2 of the Approved Plan detail how land managers decided where and what types of recreation-tourism markets should be targeted for more structured types of recreation opportunities. They also decided what kinds of custodial management are needed for unstructured, dispersed recreation found in the Extensive Recreation Management Areas (ERMAs).

Decisions, such as where and what kind of interpretation and signage to provide, how to minimize potential user conflicts, and what types of recreation settings should be maintained in specific areas, are important elements addressed in Chapter 2. For identified markets, Chapter 2 includes more specific decisions for various recreation management zones that address maintaining or enhancing the public benefits, experiences, and activities and settings each zone provides.

ISSUES ADDRESSED IN OTHER PARTS OF THE EIS

In addition to the five issues identified during public scoping, the planning team identified an additional management concern that also needed to be addressed to consider the local

communities and human use in the Monument. This concern is presented below, and followed by a short description of why it is significant and the management decisions that support them.

Management concern: How will the human factors in the Monument be considered?

While the focus of management plans is on the area's natural and cultural resources and on the uses of these resources, the human or social factors must also be considered. While uninhabited, a number of small homes and businesses are located along the Monument boundary at the base of the Vermilion Cliffs along U.S. Highway 89A in the vicinity of Marble Canyon. These homes and businesses depend upon public lands for deriving certain economic, personal, family, community, and environmental benefits. Other communities including Page and Fredonia, Arizona, and Kanab and Big Water, Utah, are also closely connected to the public lands in the Monument.

Public safety is also a concern. Sections in Chapter 2 on health and safety; recreation; and air, soil, and water detail management approaches to assist with public safety.

Rapid population growth on private lands in the region will also affect the natural and cultural resources and future uses of the Monument. Decisions in Chapter 2 address actions necessary to maintain or protect the resources and uses in the Monument. Monitoring and adaptive management will assist the BLM in modifying some uses, if conditions exceed acceptable levels. Management approaches that will be used in the Monument to address rapid population growth are detailed in Chapter 2.

#### No Livestock Grazing in the Monument

Proclamation 7374 for the Monument states, "Laws, regulations, and policies followed by the BLM in issuing and administering grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the Monument." Based on this proclamation provision, a no-livestock grazing alternative would not meet the purpose and need of this Approved Plan, nor would it meet BLM's principle of multiple use and sustained yield (FLPMA Sec. 302 (a), see also FLPMA Sec. 102(7)) or provisions of the Taylor Grazing Act.

#### No Routes in the Monument

Some public comments proposed closing all routes in the Monument to protect Monument objects; however, the proclamation noted, "outstanding biological objects have been preserved by remoteness and limited travel corridors." The Secretary of Interior was thus able to recommend the area for Monument designation because of the remoteness, lack of easy road access, and condition of the resources to be protected. Closing all routes in the Monuments is thus not vital to protect Monument resources. The Secretary also directed the BLM to prepare a transportation plan for the Monument, which presupposes the need for maintaining at least some open roads. The need for access by the public and those holding valid existing rights and other existing authorizations further made the decision to close all roads unreasonable.

This Approved Plan directly involved American Indian tribal governments by providing strategies for the protection of recognized sacred and traditional uses and sites. The lifestyles of area residents including the activities of grazing, hunting, other resource uses, and recreation are recognized in the Approved Plan. Much of the Monument's historic value is connected with ranching operations, both past and present. Any new visitor centers considered will be located outside the Monument and generally within existing communities.

This Approved Plan sets forth a framework for managing recreation and commercial activities in order to produce a variety of beneficial outcomes gained through safe and enjoyable visitor experiences and activities that require appropriate natural and community landscapes.

The Approved Plan used the Standards for Rangeland Health and Guidelines for Grazing Management to ensure appropriate grazing practices are followed to protect Monument values, watershed integrity, and habitats for plant and wildlife species on public lands. The Approved Plan considered public input, interests, and values; past and present uses of public land and adjacent land; public benefits of providing goods and services; environmental impacts; social and economic values; public safety; and ecosystem restoration.

Source: BLM Vermilion Cliffs Nat'l Monument ROD & Approved RMP 2008

[https://web.archive.org/web/20170204010450/https://www.blm.gov/az/st/en/info/nepa/environmental\\_library/arizona\\_resource\\_management/verm\\_ROD.html](https://web.archive.org/web/20170204010450/https://www.blm.gov/az/st/en/info/nepa/environmental_library/arizona_resource_management/verm_ROD.html) (Archived by the Internet Archive Wayback Machine on Feb 4, 2017. Accessed on May 22, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The monument has some of the most spectacular trails and vistas in the world. This remote and unspoiled monument is a geologic treasure, containing a variety of diverse landscapes that include the Paria Plateau, Vermilion Cliffs, Coyote Buttes, and Paria Canyon. Elevations range from 3,100 to 7,100 feet. The monument is also home to a growing number of California condors, an endangered species. Each year, condors hatched and raised in a captive breeding program are released in the Vermilion Cliffs National Monument. Visits to the monument require special planning and awareness of potential hazards, such as rugged and unmarked roads, poisonous reptiles and insects, extreme heat or cold, deep sand, and flash floods. Most roads require a four-wheel drive-high clearance vehicle due to deep sand.

Source: BLM [https://www.blm.gov/nlcs\\_web/sites/az/st/en/prog/NLCS/VC\\_NM.html](https://www.blm.gov/nlcs_web/sites/az/st/en/prog/NLCS/VC_NM.html) (Accessed May 22, 2017.)

## Tours of The Paria Canyon Wilderness / Vermilion Cliffs National Monument

The Paria Canyon Wilderness / Vermilion Cliffs Area is arguably the most photographic scenery in Southern Utah/Northern Arizona. That's no small feat! Dreamland Safari offers more tours and combinations in the Paria Canyon Wilderness than anyone else. Let Dreamland guide you on an adventure that dreams are made of!

### THE WAVE TOUR



The Wave Tour guides you through one of the most photographed, visually surreal, and world-renowned geologic formations in the Southwestern United States. Until a few decades ago only a handful of people knew about the Wave in North Coyote Buttes of the Paria Canyon Wilderness on the border of Utah and Arizona. Today there is a lottery to determine who gets in. Phenomenon is the word. Nothing else does it justice.

The undulating strata and spectrum of colors found in the sandstone walls of the Wave date back to the Great Pangean Desert of the Jurassic Period about 160-180 million years ago. Wind and water erosion carves, smooths, and reveals the layers of sand left here in great dunes and then compacted and mineralized (colors) into stone. While the Wave is a smooth, polished bowl of striped wind-swept sandstone, the same exotic rock is displayed in numerous forms, shapes, colors, and patterns throughout the guided hike to the Wave in North Coyote Buttes.

### THE WAVE WITH WIRE PASS SLOT CANYON TOUR



Capture the beams of light and the water-sculpted curves deep in this stunning chasm, the Wire Pass Slot Canyon. This is our normal "Wave Tour" with a bonus: The Wire Pass Slot Canyon. It is aptly named. It is very, very narrow and fairly deep as well. Tighten your boot straps for a little more hiking! Follow the Wire Pass Slot Canyon to the dramatic confluence of the Buckskin Gulch, the longest slot canyon in the World. See an eerie rock art panel left behind here by the Anasazi up to 1000 years ago.

### WHITE POCKET TOUR



White Pocket Tour Guests say it is as if they have entered a fantasy landscape on an alien planet. That's just how striking the natural rock features are to behold. Our guides will show you some of the best angles for photography. Our White Pocket Tour in extreme Northern Arizona guides you through a gnarled expanse laid bare right at the transition between the white and reddish orange sandstone. It has twists, multi-

color striations of white, yellow, red, orange, and pink, pock marks and pools that sometimes fill with water, mushroom like protrusions, strange bulges that look like brains, polygonal fracturing, and wave-like features. The processes that have given yield to these bizarre rock formations stump even expert geologists. Some think that the area was liquefied in an ancient earthquake which distorted the sandstone layers while they were still soft, before they were buried under the oceans for 100 million years and turned to stone under the enormous heat and pressure.

#### SOUTH COYOTE BUTTES TOUR



To call the South Coyote Buttes Tour a consolation prize for Paria Canyon runners-up is a discredit to this photographer's playground. It pulls you in with tantalizing possibilities around every rock. Like its counterpart to the North, which contains the Wave, South Coyote Buttes Tour in the Paria Canyon Wilderness is a vast expanse of colorful slickrock sandstone with lots of sand in between. The stone has been eroded by wind and water over Eons into a myriad of forms. The minerals seeping and collecting along concentration gradients give the rock it's sharply defined colored layers often packed within millimeters of each other. Wander and scramble in search of the best angles amongst the vibrant striations, weird hoodoos and buttes, balancing rocks, Moqui marbles, beehives, swirls, teepees, delicate and elaborate fins, mini arches, and more. South Coyote Buttes Tour is broken into two main sections Paw Hole and Cottonwood Cove, accessed through deep sand roads in the Remote Paria Plateau which rests above the Vermillion Cliffs National Monument. Both are remarkable for photography with never-ending compositions. Both are visited on the South Coyote Buttes Tour.

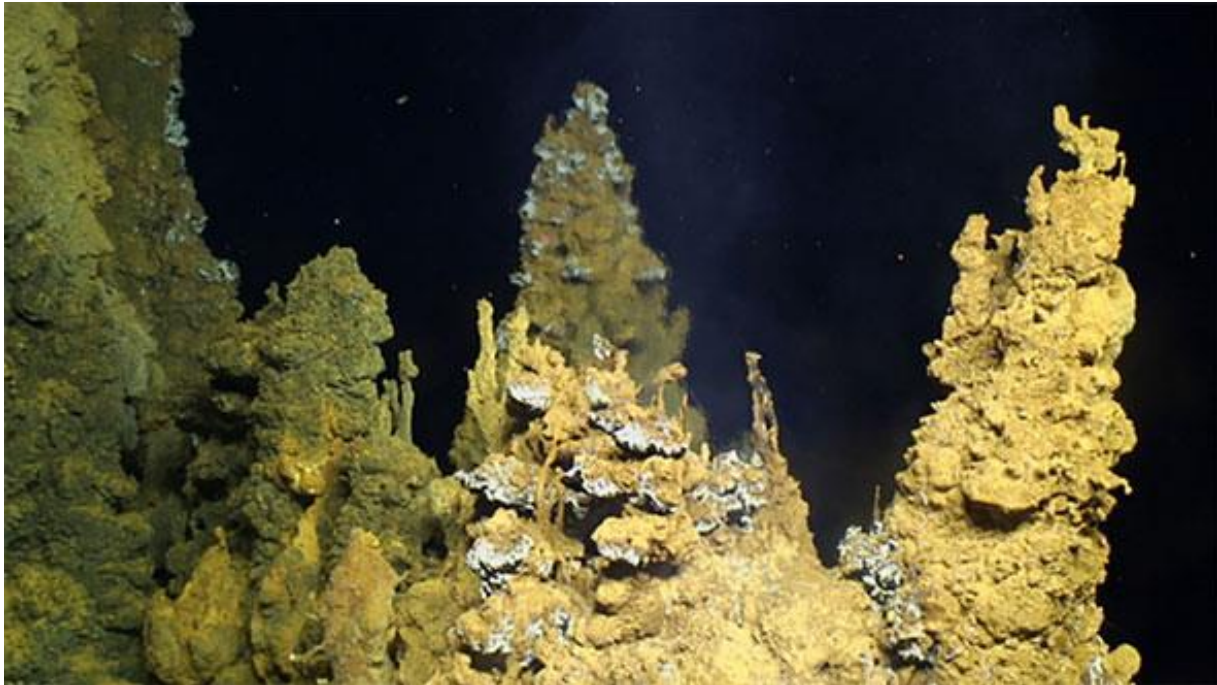
#### DAY TOURS

- Kanab Tours
- MYSTICAL SLOT CANYON TOUR
- MYSTICAL SLOT CANYON W/ WHITE WAVE TOUR
- SLOT CANYON PHOTOGRAPHY BONANZA TOUR

Source: Dreamland Safari Tours <http://www.dreamlandtours.net/day-tours/tours-of-the-paria-canyon-vermillion-cliffs-national-monument/> (Accessed May 23, 2017.)

## **Marianas Trench National Monument CNMI/Pacific Ocean**

I am writing to **support the continuation of the National Monument** status as currently established for Marianas Trench National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: NOAA

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The islets, reefs, and atolls that make up the NWHI cannot be considered as isolated units; nor can the NWHI be considered in isolation from the MHI. These systems are intimately linked and affect one another. Major sources of connectivity include oceanic and atmospheric processes, passive transport of biota and nutrients via currents and upwelling, active transport of animals through movement and migration, and the dynamics of population groups. The study of energy flow through the system by understanding trophic relationships and food webs is also a primary component of this theme. These factors are major drivers of the health, productivity and resilience (the ability of ecosystems to absorb and recover from change) of these ecosystems. Understanding the major processes that affect and connect the components of the NWHI and



how these managed ecosystems affect the surrounding areas is fundamental to effective management of the Monument.

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Mariana Trench National Monument... encompasses 95,216 square miles in the Mariana Archipelago, a string of 14 volcanic islands in the Northern Mariana islands. It includes the Marianas Trench, which extends 36,000 feet below sea level, and the largest mud volcanoes on Earth. The Sulfur Cauldron – a phenomenon so rare, the only other pool of molten sulfur that has been located is on one of Jupiter’s moons. The monument’s biologically diverse waters also support unique corals and a large population of sharks.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

#### Objects of Scientific Interest

The President established the monument under the authority of the Antiquities Act of 1906, which protects places of historic or scientific significance. Only recently have scientists visited the realm of the monument, observing previously unknown biological, chemical, and geological wonders of nature.

The Mariana Trench is the deepest place on Earth, deeper than the height of Mount Everest above sea level. It is five times longer than the Grand Canyon and includes some 50,532,102 acres that are virtually unknown to humans.

The Volcanic Unit – an arc of undersea mud volcanoes and thermal vents – supports unusual life forms in some of the harshest conditions imaginable. Here species survive in the midst of hydrothermal vents that produce highly acidic and boiling water.

The Champagne vent, found at the NW Eifuku volcano, produces almost pure liquid carbon dioxide, one of only two known sites in the world. A pool of liquid sulfur at the Daikoku submarine volcano is unique in all the world. The only other known location of molten sulfur is on Io, a moon of the planet of Jupiter.

In the Islands Unit, unique reef habitats support marine biological communities dependent on basalt rock foundations, unlike those throughout the remainder of the Pacific. These reefs and waters are among the most biologically diverse in the Western Pacific and include the greatest diversity of seamount and hydrothermal vent life yet discovered. They also contain one of the most diverse collections of stony corals in the Western Pacific, including more than 300 species, higher than any other U.S. reef area.

The submerged caldera at Maug is one of only a few known places in the world where photosynthetic and chemosynthetic communities of life co-exist. The caldera is some 1.5 miles wide and 820 feet deep, an unusual depth for lagoons. The lava dome in the center of the crater rises to within 65 feet of the surface. Hydrothermal vents at about 475 feet in depth along the northeast side of the dome spew acidic water at scalding temperatures near the coral reef that quickly ascends to the sea surface. Thus, coral reefs and microbial mats are spared much of the impact of these plumes and are growing nearby, complete with thriving tropical fish. As ocean acidification increases across the Earth, this caldera offers scientists an opportunity to look into the future and ensure continuation of coral reef communities.

The coral reef ecosystems within the Islands Unit have high numbers of apex predators, larger than anywhere else along the Mariana Archipelago. One site has the highest density of sharks anywhere in the Pacific, even higher than those of the remote islands of the Central Pacific.

Similarly, these northern islands have the highest large fish biomass in the Mariana Islands. The rare bumphead parrotfish – the largest parrotfish species – thrives in these waters. The species has been depleted throughout much of its range and is included on the IUCN Red List of Threatened Species.

Source: US Fish and Wildlife Service “Marianas Trench Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf) (Accessed May 23, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

This vast and unique area is perhaps the most spectacular part of the Ring of Fire that encircles most of the Pacific Ocean. It has many secrets to yield and many potentially valuable lessons that can benefit the rest of the world. NOAA research expeditions will continue to lead comprehensive oceanographic and ecological surveys of coral reefs in the Islands Unit.

The Fish and Wildlife Service and NOAA are working with the CNMI government, Department of Defense, Department of State, U.S. Coast Guard, and others to develop a monument management plan.

The plan will provide for public education programs, traditional access by indigenous persons, scientific exploration and research, consideration of recreational fishing if it will not detract from the monument, and programs for monitoring and enforcement. A draft plan will be made available for public review and comment.

Source: US Fish and Wildlife Service “Marianas Trench Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf) (Accessed May 23, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The Secretary of Commerce, through the National Oceanic and Atmospheric Administration (NOAA), has primary management responsibility for fishery-related activities in the waters of the Islands Unit.

Source: US Fish and Wildlife Service “Marianas Trench Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf) (Accessed May 23, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The Secretaries [of the Interior and of Commerce] have established a Mariana Trench Monument Advisory Council to provide advice and recommendations on the development of management plans and management of the monument. The Council currently includes three officials of the CNMI [Commonwealth of the Northern Mariana Islands] government and one representative each from the Department of Defense and the U.S. Coast Guard.

Source: US Fish and Wildlife Service “Marianas Trench Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf) (Accessed May 23, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).



Source: US Fish and Wildlife Service

*Soft corals and tropical fish at the summit of East Diamante volcano, nicknamed by scientists as the "Aquarium."*

The Mariana Trench is the deepest place on Earth, deeper than the height of Mount Everest above sea level. It is five times longer than the Grand Canyon and includes some 50,532,102 acres that are virtually unknown to humans.

The Volcanic Unit – an arc of undersea mud volcanoes and thermal vents – supports unusual life forms in some of the harshest conditions imaginable. Here species survive in the midst of hydrothermal vents that produce highly acidic and boiling water.

The Champagne vent, found at the NW Eifuku volcano, produces almost pure liquid carbon dioxide, one of only two known sites in the world. A pool of liquid sulfur at the Daikoku submarine volcano is unique in all the world. The only other known location of molten sulfur is on Io, a moon of the planet of Jupiter.

In the Islands Unit, unique reef habitats support marine biological communities dependent on basalt rock foundations, unlike those throughout the remainder of the Pacific. These reefs and waters are among the most biologically diverse in the Western Pacific and include the greatest diversity of seamount and hydrothermal vent life yet discovered. They also contain one of the



most diverse collections of stony corals in the Western Pacific, including more than 300 species, higher than any other U.S. reef area.

Source: Source: US Fish and Wildlife Service “Marianas Trench Marine National Monument” [https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Mariana\\_Trench\\_Marine\\_National\\_Monument/Documents/MTMNM%20brief%205-24-2012.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Mariana_Trench_Marine_National_Monument/Documents/MTMNM%20brief%205-24-2012.pdf) (Accessed May 23, 2017. Emphases added.)

## **Northeast Canyons and Seamounts National Monument Atlantic Ocean**

I am writing to **support the continuation of the National Monument** status as currently established for Northeast Canyons and Seamounts National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: obamawhitehouse.archives.gov

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

Created Sept. 15, 2016 by President Obama in the Atlantic Ocean, 150 miles off the southern coast of New England. It encompasses 4,913 square miles along the continental shelf and beyond. The monument contains extinct undersea volcanoes and canyons deeper than the Grand Canyon. Canyon walls are covered with deep-water corals, anemones and sponges. Kemp’s ridley sea turtles and sperm, fin and sei whales are among the marine life protected.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

Canyons cut deep into the geological continental shelf and slope throughout the mid-Atlantic and New England regions. They are susceptible to active erosion and powerful ocean currents that transport sediments and organic carbon from the shelf through the canyons to the deep ocean floor. In Oceanographer, Gilbert, and Lydonia canyons, the hard canyon walls provide habitats for sponges, corals, and other invertebrates that filter food from the water to flourish, and for larger species including squid, octopus, skates, flounders, and crabs. Major oceanographic features, such as currents, temperature gradients, eddies, and fronts, occur on a large scale and influence the distribution patterns of such highly migratory oceanic species as tuna, billfish, and sharks. They provide feeding grounds for these and many other marine species.

The New England Seamount Chain was formed as the Earth's crust passed over a stationary hot spot that pushed magma up through the seafloor, and is now composed of more than 30 extinct undersea volcanoes, running like a curved spine from the southern side of Georges Bank to midway across the western Atlantic Ocean. Many of them have characteristic flat tops that were created by erosion by ocean waves and subsidence as the magma cooled. Four of these seamounts—Bear, Physalia, Retriever, and Mytilus—are in the United States Exclusive Economic Zone. Bear Seamount is approximately 100 million years old and the largest of the four; it rises approximately 2,500 meters from the seafloor to within 1,000 meters of the sea surface. Its summit is over 12 miles in diameter. The three smaller seamounts reach to within 2,000 meters of the surface. All four of these seamounts have steep and complex topography that interrupts existing currents, providing a constant supply of plankton and nutrients to the animals that inhabit their sides. They also cause upwelling of nutrient-rich waters toward the ocean surface.

The Federal lands and interests in lands reserved consist of approximately 4,913 square miles, which is the smallest area compatible with the proper care and management of the objects to be protected.

Source: President Barack Obama “Proclamation 9496 of September 15, 2016. Northeast Canyons and Seamounts Marine National Monument”

<https://www.federalregister.gov/documents/2016/09/21/2016-22921/northeast-canyons-and-seamounts-marine-national-monument> (Accessed May 23, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

These areas are home to deep-sea coral ecosystems with rich biodiversity and unique species. Additionally, these geographic features result in oceanographic conditions that concentrate pelagic species, including whales, dolphins, and turtles; and highly migratory fish such as tunas, bullfish, and sharks. A large number of birds also rely on this area for foraging. The purpose of the proposed monument designation is to protect these fragile and largely pristine deep-sea habitats, and species, and ecosystems. Designating the monument ensures continuing and expanded protection of the area for future generations.

Both areas have been the sites of active scientific exploration, investigation, and discovery by oceanographic researchers. The New England seamounts have been found to have many rare and native species, several of which are new to science and known to live nowhere else on Earth. Recently, the National Oceanic and Atmospheric Administration’s research vessel Okeanos Explorer identified 15 species of coral in the area that had not been previously reported.

Source: Department of the Interior <https://www.doi.gov/pressreleases/secretaries-pritzker-jewell-applaud-presidents-designation-northeast-canyons-and> (Accessed May 23, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

We are not aware of any substantiated commercial fishing losses resulting from designation of the Northeast Canyons and Seamounts National Monument. The monument’s deep and rugged canyon and seamount areas were historically some of the least fished in the U.S. Atlantic and not unusually important for any fishery. The six to eight red crab and lobster vessels active in the monument area have been provided a seven year grace period. Because the monument does not affect catch limits or allocations, other types of fishing effort, such as the small amount of trawling that occurred in the shallowest portion of the monument, have likely been relocated to other areas. The canyon and inter-canyon area in the original monument proposal was also reduced by almost 60 percent to leave out the relatively more active trawling areas. Finally, it is important to point out that the monument may ultimately enhance regional fisheries as protected areas elsewhere have been shown to increase catch of species such as lobster in adjacent areas.

The monument's effects on commercial fishing activities are limited to the following:

Lobster: According to one press account, only one lobster vessel fishes exclusively in the monument's canyons (and that vessel's captain stated that he will retire within the seven year grace period). Other information indicates that approximately six lobster vessels use the monument area at least some of the time. These vessels may use other areas as well (the offshore lobster fishery is active in and around dozens of other Atlantic canyons as well as other New England offshore waters). To put these vessel numbers in perspective, there are more than 3000 federal permitted lobster vessels overall (and more than 10,000 state licensed vessels).

Red crab: One full-time vessel and one part-time vessel fish for red crab in and between the monument's three canyons. Both vessels also fish in dozens of other canyons between Hudson Canyon and the U.S.-Canada maritime border—and the fishery as a whole utilizes canyon and inter-canyon areas extending all the way down to North Carolina. The monument's canyons are also located in the red crab fishery's least productive area with the vast majority of red crab landings from outside the monument area.

Swordfish and tuna: Pelagic longlining primarily targeting swordfish and tuna occurred in the monument area prior to designation. The monument area, however, constituted significantly less than one percent of the total area actively fished and provided less than one percent of the fleet's 2006-2012 average annual revenues. At the request of members of the fishery, the area between the canyons and seamounts was excluded from the monument to provide a transit corridor along the continental shelf break.

Squid, butterfish, mackerel and whiting: The monument area is generally too deep and rugged for the bottom trawls used in this fishery. Prior to designation, bottom trawling was prohibited in two of the three canyons to protect deep sea corals, although some sporadic trawling still occurred in the shallowest margins of the monument above the canyon heads. Importantly, the fisheries for these species are concentrated elsewhere in the region: the monument area is estimated to have contributed less than one percent of total catch for this fishery historically.

Source: Natural Resources Defense Council, March 2017.

<https://www.nrdc.org/sites/default/files/ne-canyons-seamounts-monument-fishing.pdf>

(Accessed May 23, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

"This Monument will help fishing communities. The science shows that protected ocean areas have resulted in more abundant fish populations that spill over the boundaries where they can be caught by fishermen. The Northeast Canyons Monument will also protect vital wintering and foraging habitat for endangered Atlantic puffins and many resident and migrating marine



mammals.” --- Zack Klyver, Naturalist for the Bar Harbor Whale Watch Company, who grew up in a coastal Maine fishing family

Source: EarthJustice <http://earthjustice.org/news/press/2017/defending-the-atlantic-s-only-marine-national-park-from-commercial-fishing> (Accessed May 23, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The monument designation comes after significant engagement with local communities and fishermen.

Commercial fishing, with the exception of a seven-year phase out for existing permits of the red crab fishery and the American lobster fishery, and other resource extraction activities will be prohibited within the monument boundaries. Additionally a 60-day grace period is in effect to ensure an orderly transition for all fisheries (other than red crab and American lobster) that are prohibited in the monument. Noncommercial fishing, such as recreational fishing, will be allowed in the expansion area by permit, as will scientific research.

Source: Department of the Interior <https://www.doi.gov/pressreleases/secretaries-pritzker-jewell-applaud-presidents-designation-northeast-canyons-and> (Accessed May 23, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

Was there a need to act now to protect the Coral Canyons and Seamounts?

Yes.

With technology advancements, the deep ocean is becoming more accessible than ever to oil and gas exploration and industrial fishing.

If these marine reserves are not placed under permanent protection now, they are at risk of being destroyed by resource extraction activities, such as bottom-scouring fishing gear. With these areas will go some of our best hopes for restoring ecosystems that have been devastated by overfishing and development.

The white tentacled sea anemone shown here would take over 200 years to bounce back from disturbance like bottom trawling. Cashes Ledge has unusually high diversity and density of bottom-living animals, including sea anemones, encrusting sponges, bryozoans and sea squirts..

Source: EarthJustice “The Coral Canyons and Seamounts & New England’s Undersea Treasures” <http://earthjustice.org/features/explainer-marine-national-monument> (Accessed May 23, 2017.)

## **Pacific Remote Islands National Monument Hawaii**

I am writing to **support the continuation of the National Monument** status as currently established for Pacific Remote Islands National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: US Fish and Wildlife Service

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The seven atolls and islands included within the monument are farther from human population centers than any other U.S. area. They represent one of the last frontiers and havens for wildlife in the world, and comprise the most widespread collection of coral reef, seabird, and shorebird protected areas on the planet under a single nation’s jurisdiction.

Source: US Fish and Wildlife Service “Pacific Remote Islands Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/PRIMNM%20brief\(2\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/PRIMNM%20brief(2).pdf) (Accessed May 23, 2017.)

This collection of interconnected refuges has over geological and recent history served as key stepping stones for the colonization and dispersal of species between the eastern and western, and the northern and southern Pacific Ocean. Some of these refuges are also unique in that they benefit from localized upwelling from the Equatorial Undercurrent, and others serve as destinations for additional species transported from the western Pacific by the Equatorial Countercurrent.

Source: US Fish and Wildlife Service “Pacific Remote Islands Marine National Monument”  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/PRIMNM%20brief\(2\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/PRIMNM%20brief(2).pdf) (Accessed May 23, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Created January 6, 2009, by President Bush and enlarged September 25, 2014, by President Obama in the central Pacific Ocean. It encompasses 490,000 square miles that includes Wake, Baker, Howland, and Jarvis islands; Johnston and Palmyra atolls; and Kingman Reef. It is one of the world’s largest marine conservation areas and considered one of the last refuges for a host of fish and marine mammals including sea turtles, dolphins, whales, pearl oysters, giant clams, sharks, parrotfishes and large grouper.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

These areas represent the last refugia for fish and wildlife species rapidly vanishing from the remainder of the planet, including sea turtles, dolphins, whales, pearl oysters, giant clams, coconut crabs, large groupers, sharks, humphead wrasses, and bumphead parrotfishes. Fish biomass at these islands is remarkable and double that found in Papahānaumokuākea Marine National Monument, and orders of magnitude greater than the reefs near heavily populated islands. Expansive shallow coral reefs and deep coral forests, with some corals up to 5,000 years old, are found here. These small dots of land in the midst of the ocean are vital nesting habitat for millions of seabirds and resting habitat for migratory shorebirds. This collection of interconnected refuges has over geological and recent history served as key stepping stones for the colonization and dispersal of species between the eastern and western, and the northern and southern Pacific Ocean. Some of these refuges are also unique in that they benefit from localized upwelling from the Equatorial Undercurrent, and others serve as destinations for additional species transported from the western Pacific by the Equatorial Countercurrent...

Kingman is known to be the most undisturbed coral reef within the U.S., complete with a greater proportion of apex predators than at any other studied coral reef ecosystem in the world.

Kingman Reef's lagoon one was an overnight stop on the Pan American Airways clipper route. Palmyra hosted a 6,000-man Naval Air Station in World War II, complete with dock and airfield. Palmyra Atoll has one of the best remaining examples of *Pisonia grandis* forest found in the Pacific, and a large diversity of fish species (418 species). Many nationally and internationally threatened, endangered, and depleted species thrive at Palmyra and Kingman, including sea turtles, pearl oysters, giant clams, reef sharks, coconut crabs, fishes, and dolphins.

Large schools of rare melon-headed whales reside off both atolls, and a potentially new species of beaked whale was recently described. Palmyra supports 11 nesting seabird species, including the third largest red-footed booby colony in the world, the largest black noddy colony in the Central Pacific, and large numbers of bristle-thighed curlews.

Source: US Fish and Wildlife Service "Pacific Remote Islands Marine National Monument"  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/PRIMNM%20brief\(2\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/PRIMNM%20brief(2).pdf) (Accessed May 23, 2017.)

After the Guano mining era of the 1800s, Howland, Baker and Jarvis Islands, located in the Phoenix and Line Islands archipelagos, sat relatively unnoticed until the 1930s when they became desirable stop-over points for commercial air travel between Hawai'i and Australia.

Then, as World War II intensified and the Japanese Empire advanced across the Pacific, establishing ownership proved to be of great importance. In order to establish the three islands as U.S. territories, President Franklin D. Roosevelt understood the U.S. needed to colonize them with permanent residents. In other words, the U.S. needed to prove that people were residents of the islands, living and sleeping on the islands for at least one solid year. It was necessary to find individuals who could survive for months at a time in the isolated and harsh conditions of Howland, Baker, and Jarvis. Representatives from the U.S. Bureau of Air Commerce suggested that the best group of people from which to recruit were young Hawaiian men due to the stereotypical belief that they could handle the harsh environment of the South Pacific better than other groups....

In the 1930s and early 1940s young men that attended or graduated from high school in Hawai'i ... not only survived but also thrived and proved to be an important part in the United States' continued possession of Howland, Baker and Jarvis Islands.

Source: US Fish and Wildlife Service "A Story of the Hui Panalā'au of the Equatorial Pacific Islands"  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/hui%20panalaau.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/hui%20panalaau.pdf) (Accessed May 23, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

The Monument is cooperatively managed by the Secretary of Commerce (NOAA) and the Secretary of the Interior (U.S. Fish and Wildlife Service), with the exception of Wake and Johnston Atolls, which are currently managed by the Department of Defense. National Wildlife Refuges also exist at each of the islands within the Monument, with Howland, Baker, and Jarvis designated as Refuges in 1974; Johnston in 1926; and Kingman and Palmyra in 2001.

Source: NOAA "The Pacific Remote Islands Marine National Monument"  
[http://www.fpir.noaa.gov/MNM/mnm\\_prias.html](http://www.fpir.noaa.gov/MNM/mnm_prias.html) (Accessed May 23, 2017.)

These Refuges are important to amateur radio operators throughout the world because Howland and Baker Islands are considered a "country" (call sign KHI) and Jarvis Island along with Palmyra Island are another "country" (call sign KH5). "Hams" collect contacts with different countries much the same as bird watchers collect life lists. Due to the great expense required to visit these islands, the Refuge depends on cost sharing with the amateur radio operators to visit these Refuges. In 1989, Forsell began working with a group to plan an expedition to Jarvis Island in the spring of 1990.

Source: US Fish and Wildlife Service "Pacific Remote Islands Marine National Monument: Narrative Report: 1989: Calendar Year"  
<https://ecos.fws.gov/ServCat/DownloadFile/8208?Reference=8457> (Accessed May 23, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

The Nature Conservancy of Hawai'i manages a small research camp at Palmyra Atoll for the Palmyra Atoll Research Consortium. Through this consortium of ten institutions from the United States and New Zealand, scientists conduct research pertaining to biodiversity, conservation, natural history, ecosystem restoration, marine ecosystem dynamics, biogeochemistry, climate dynamics, and atmospheric processes.

Source: US Fish and Wildlife Service "Pacific Remote Islands Marine National Monument"  
[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument/Documents/PRIMNM%20brief\(2\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Remote_Islands_Marine_National_Monument/Documents/PRIMNM%20brief(2).pdf) (Accessed May 23, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

None known.

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

The islands have no indigenous inhabitants. Wake has a population of ca. 125 military personnel and contractors. Johnston Atoll had a peak population of 1,100 military and civilian contractor personnel in 2000, but it was evacuated by 2007. Since 2010, volunteer biologists staff the island in groups of 5. Four to twenty Nature Conservancy and U.S. Fish and Wildlife staff live at Palmyra Atoll. The four other islands are usually uninhabited.

Public entry to the islands is by special-use permit from U.S. Fish and Wildlife Service, and is generally restricted to scientists and educators. Only Wake Island, Palmyra Atoll and Johnston Atoll have serviceable runways; Jarvis, Baker and Howland Islands had airstrips in earlier times but they have since been abandoned and are no longer operational.

Source: Wikipedia Pacific Remote Islands Marine National Monument  
[https://en.wikipedia.org/wiki/Pacific\\_Remote\\_Islands\\_Marine\\_National\\_Monument](https://en.wikipedia.org/wiki/Pacific_Remote_Islands_Marine_National_Monument) (Accessed May 25, 2017.)

See the US Fish and Wildlife Service Photo Album of the Pacific Remote Islands Marine National Monument <https://www.flickr.com/photos/usfwspacific/sets/72157645505061863/>

See the US Fish and Wildlife Service Johnston Atoll NWR Photo Album  
<https://www.flickr.com/photos/usfwspacific/albums/72157624806306646>



## **Papahānaumokuākea National Monument Hawaii**

I am writing to **support the continuation of the National Monument** status as currently established for Papahānaumokuākea National Monument which is under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: US Fish and Wildlife Service

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The islets, reefs, and atolls that make up the NWHI [Northwestern Hawaiian Islands] cannot be considered as isolated units; nor can the NWHI be considered in isolation from the main Hawaiian Islands. These systems are intimately linked and affect one another. Major sources of connectivity include oceanic and atmospheric processes, passive transport of biota and nutrients via currents and upwelling, active transport of animals through movement and migration, and the dynamics of population groups. The study of energy flow through the system by understanding trophic relationships and food webs is also a primary component of this theme. These factors are major drivers of the health, productivity and resilience (the ability of ecosystems to absorb and recover from change) of these ecosystems. Understanding the major

processes that affect and connect the components of the NWHI and how these managed ecosystems affect the surrounding areas is fundamental to effective management of the Monument.

The principles that define ecological processes and connectivity operate in all parts of the world, regardless of local climate or condition. For example, nutrient transfer occurs in all communities. However, the specific types of processes that dominate in a given location are influenced by local and global climatic conditions. Current research on the ways in which climate change affects ecological processes includes the effect of sea temperatures on ENSO, and the unexpected balancing effect of the Pacific Decadal Oscillation (Hilbish et al. 2010); the effects of climate change on trophic transfer (Eriksson-Wiklund et al. 2009); and changes in distribution and abundance of key species, with subsequent community effects (Cheung et al. 2009, 2010). The physical, chemical, and biological perturbations that are initiated by climate change are expected to have an increasingly negative effect on marine resources around the world, as well as on the human populations that are linked to those resources economically and culturally (Halpern et al. 2008). A similar analysis of anticipated impacts at the Monument concluded that processes related to climate change posed the greatest threat to coastal and nearshore resources (Selkoe et al. 2008).

Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

A fourth of the 7,000 species of marine animals and seabirds that live in the monument are not found anywhere else. This includes the last of the Hawaiian monk seals, as well as blue whales and short-tailed albatrosses.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

Exploring the Sunken Heritage of Midway Atoll: Honoring the Legacy of the 75th Anniversary of the Battle of Midway

From May 2 - May 16, 2017 scientists will embark on an expedition to a tiny atoll in the Northwestern Hawaiian Islands to explore for sunken artifacts related to the historic Battle of Midway, one of the most decisive U.S. victories of World War II.

This research will add an important maritime heritage component to what is known of the broader history of World War II in the Pacific. Archival research identifies at least 31 plane crashes within three miles of Midway Atoll, which is now Midway Atoll National Wildlife Refuge



and Battle of Midway Memorial, a part of Papahānaumokuākea Marine National Monument (PMNM). Additional aircraft losses are reported by survivors who describe loss locations based on their first-hand experience. Of these 31 aircraft reported lost, 22 were American and 9 were Japanese. All are considered war graves.

“This unique opportunity to explore the seafloor at Midway Atoll for World War II sunken aircraft sites associated with the Battle Midway will occur in advance of the 75th Anniversary Commemoration of the Battle on June 4-7,” said Kelly Keogh, NOAA Office of National Marine Sanctuaries (ONMS) Maritime Archaeologist for PMNM. “The Battle of Midway is often referred to as the turning point of the war in the Pacific.”

This project focuses on the exploration of sunken aircraft lost in shallow waters within three miles of Midway Atoll, where the famous air battle took place. The broader naval (or ship-based) engagement of the Battle of Midway took place approximately 180 miles northwest of Midway Atoll in deeper waters, where various aircraft carriers were lost, including the USS Yorktown and the Japanese Kaga, Akagi, Hiryu and Soryu, as well as hundreds of planes, one Japanese destroyer and one American cruiser. This battleground became part of PMNM when President Obama expanded the boundaries of the Monument in August of 2016.

Supported by NOAA’s Office of Exploration and Research (OER) and conducted in collaboration with ONMS/PMNM, National Park Service’s Submerged Resources Center, East Carolina University, and the U.S. Fish and Wildlife Service, this project aims to raise awareness and honor the legacy of the brave men who helped to turn the tide in the Pacific during the course of the Battle of Midway...

Source: “Exploring the Sunken Heritage of Midway Atoll: Honoring the Legacy of the 75th Anniversary of the Battle of Midway” Papahānaumokuākea Marine National Monument <http://www.papahanaumokuakea.gov/news/midway-expedition.html> (Accessed May 24, 2017.)

Formal scientific research has been ongoing in the NWHI for over 300 years and has undergone four historical phases (Grigg 2004). The discovery/naturalist phase was marked by massive sample collection followed by a second phase of synthesis. A third discovery and data collection phase was characterized by the use of new instrumentation and technology. Finally, the fourth and current phase is marked by another period of synthesis. The Science Plan aims to provide the information required to effectively implement the Monument Management Plan. The NWHI consist of a complex assemblage of natural resources in relatively undisturbed condition compared with the MHI and many other marine based ecosystems in the world (Friedlander et al. 2005). Protecting the health and integrity of these resources is a key priority for resource managers. Effective management decisions related to both resource use and protection must be based on reliable information on the biological characteristics of the organisms and habitats, their ecological relationships and an understanding of the natural temporal variations that characterize their ecosystems. In addition, the Monument represents a unique opportunity to improve management decision making, to advance management-driven ecosystem science

through research on ecosystem components and processes, and to develop models and other tools to predict ecosystem responses to natural and anthropogenic perturbations, such as climate variability and change, in the absence of confounding factors of human uses and pressures. The Science Plan characterizes research needs and activities to achieve these goals over the next 15 years, and outlines priorities for the next 5 years (2011 to 2015)...

The NWHI is home to at least 40 endangered or threatened species from five different groups. The status and research in each group is summarized below.

**Hawaiian Monk Seal:** The Hawaiian monk seal population is in decline, with only about 1,200 monk seals remaining. (ONMS 2009) Modeling predicts that the species' population will fall below 1,000 animals by the year 2012. In spite of more than two decades of efforts to manage, study, and recover the species, actions to date have not been sufficient to produce a recovering population (Antonelis et al. 2006; Parrish and Abernathy 2006). The monk seal metapopulation can be divided into six major and two smaller subpopulations in the NWHI and one in the MHI (Littnan et al. 2009). Variability in population dynamics among the subpopulations is attributed to both natural environmental conditions and human disturbance (NMFS, 2007). French Frigate Shoals currently supports the largest monk seal colony in the NWHI, but this subpopulation is expected to decline in the next few years because of imbalances in the age structure (Littnan et al. 2009). Recent work by Schultz and her colleagues at HIMB demonstrated weak population structure in the monk seal, suggesting that individuals may be relocated from one area to another without compromising genetic structure (HIMB 2009). Meyer and Holland of HIMB are investigating predation by the Galapagos shark (*Carcharhinus galapagensis*) on Hawaiian monk seal pups at FFS. The study focuses on understanding seal pup predation dynamics, with attention to the potential for shark culling as a means to reduce pup mortality (HIMB 2009). Monk seals may be further threatened by increasing sea level, which may reduce available resting habitat as beaches become inundated (ONMS 2009).

**Cetaceans:** In the NWHI, sightings and acoustic recordings of baleen whales as well as smaller dolphins have been documented. Five species of baleen whales are listed as "Endangered" under the ESA, and as "Depleted" under the MMPA. In addition to these five endangered or depleted species, at least 19 other species of whales and dolphins are legally protected under the MMPA and are found in the NWHI for all or part of the year. Hawaiian spinner and bottlenose dolphins are year-round residents of the Monument.

Other species, such as the spotted dolphin and humpback whale, make use of the NWHI as part of their migratory life cycles (ONMS 2009). Johnston et al. (2007, cited in ONMS 2009) identified important wintering ground of the humpback whale in the NWHI.

Ongoing passive acoustic monitoring of ambient sounds using Ecological Acoustic Recorders (EARS) documented that Maro Reef and Lisianski Island are apparent 'hot spots' of humpback whale activity (Lammers et al. 2009, cited in HIMB 2009). Singing patterns from December through April indicate that north Pacific humpback whales overwinter at the Monument.

Separate studies have suggested that humpback whales from the Bering Sea may be breeding in an unidentified area in the central north Pacific (Calambokidis et al, 2008). The HIMB team is evaluating the acoustic records from the Monument to determine the likelihood that the MHI and the NWHI populations are continuous (HIMB 2009).

Overall, management actions and efforts to reduce the impacts to cetaceans in the NWHI have been limited, based on the sparse species information available (Andrews et al. 2006).

**Marine Turtles:** Marine turtles documented in the NWHI include the green and loggerhead (listed as threatened), and the hawksbill and leatherback (listed as endangered). Sea turtle populations have declined across the Pacific because of nesting habitat loss, harvesting eggs and turtles for commercial and subsistence purposes, and fishery interactions. Research has been conducted on the green turtle nesting population in the NWHI since 1973 and represents one of the longest time series of nesting abundance data for any sea turtle population. The Hawaiian green sea turtle stock is showing signs of recovering after more than 25 years of protecting their nesting and foraging habitats in the Hawaiian Archipelago (Chaloupka et al. 2008). About 90 percent of the green sea turtles in the Hawaiian Islands nest in the NWHI, the majority on a few islets at FFS (Balazs and Chaloupka 2006) that are now threatened by rising sea levels linked to climate change.

**Migratory Birds:** The majority of all tropical seabirds in Hawai'i nest in the Monument, and these breeders plus an equal number of species of nonbreeding seabirds transit through or forage in the waters of the Monument. Seabird colonies in the NWHI constitute one of the largest assemblages (14 million birds and 22 species) in the world. More than 95 percent of the world's Laysan and black-footed albatross nest here. Statute and policy at several levels mandate the protection and management of migratory bird populations in the Monument. International treaties, domestic legislation, executive orders, state law, and FWS policy require the conservation of these species. Breeding populations across the NWHI were last surveyed in 1984. Recent surveys focused on three islands (Midway Atoll, Laysan Island and Nihoa) show most species are stable or increasing, with the exception of red-tailed tropicbirds, which appear to be in decline at Midway Atoll due to low adult survivorship at sea (Arata et al. 2009, Klavitter et al 2009, Laniawe 2008). High-quality breeding habitat, low predation risk, and low disturbance conditions support these populations, despite the less than perfect conditions they may encounter when foraging outside the Monument (Keller et al. 2009). However, some seabirds, like the albatrosses, may be adversely affected by climate change, longline fishing, food shortages, contaminants, ingestion of plastics, and other processes beyond the boundaries of the Monument. Potential threats to seabirds within the Monument include negative interactions with introduced species, overgrowth of nesting habitat by alien plant species, loss of nesting habitat to sea level rise, and ingestion of lead-based paint chips (Keller et al. 2009). In addition, foraging seabirds are harmed by marine debris and surface pollutants (ONMS 2009).

**Endangered Birds:** Five bird species occurring in the NWHI are protected under the ESA. Three of these are songbirds: the Laysan finch (Laysan Island and Pearl and Hermes Atoll) and the Nihoa finch and the Nihoa millerbird, (both endemic to Nihoa Island). The range of the Laysan duck is the most restricted of any duck species in the world and so is especially vulnerable to extinction because of its small population size (less than 1,000 ducks). In 2004 and 2005, 42 Laysan ducks were translocated to Midway Atoll National Wildlife Refuge. The translocation was successful in establishing Laysan ducks at Midway Atoll and, as of April 2010, the population numbers approximately 473 ducks (USGS unpub. data). In 2008, endangered short-tailed albatross were observed on Kure Atoll (one), Midway Atoll (four), and Laysan Island (one).

**Plants:** Six plant species known historically from the NWHI are listed as endangered. The ohai, *Sesbania tomentosa*, is present on Nihoa and Necker Islands. *Mariscus pennatifolius* spp. *bryanni* is known only from Laysan Island. *Cenchrus agrimonoides* var. *laysanensis* was historically known from Laysan Island and Midway and Kure Atolls, but has not been seen there since about 1980. The *Amaranthus brownii* and *Schiedea verticillata* species are endemic to the NWHI and are currently restricted to Nihoa Island. The loulu fan palm is also endemic to the NWHI and historically occurred on Nihoa and Laysan. The Nihoa species, *Pritchardia remota*, is thought to be different from the now extinct Laysan species, *Pritchardia* spp. (Athens et al. 2007). The Nihoa species has been replanted on Laysan Island to replace the now-extinct Laysan species.

#### RESEARCH NEEDS AND OPPORTUNITIES

Table 2. Prioritized list of research activities needed to further understanding of habitats in the NWHI.

Research and Monitoring Activity	Average Rating	Timeframe (years)	Priority Management Need
<b>Habitats and Biodiversity</b>			
<b>Habitats</b>			
Describe intertidal zone community structure and habitat types to establish baselines.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Determine habitats utilized by protected species to further enhance their conservation and protection by maintaining or improving important habitats.	Critical	6 to 10 years	Conserving Wildlife and Habitats
Evaluate translocation potential for nonmarine avifauna and terrestrial plants and invertebrates.	Critical	10 plus years	Conserving Wildlife and Habitats

<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Use a combination of remote sensing, acoustic, optical, and diver data collection techniques to characterize and map shallow water (<30 meters) benthic habitats to establish baselines.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Use a combination of acoustic, optical, and diver data collection techniques to characterize and map deep water (>30 meters) benthic habitats to establish baselines.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Use a combination of acoustic, optical, and diver data collection techniques to describe fish and invertebrate communities in deep waters (>30 meters) to establish baselines.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Describe the community structure of deeper reefs (60-150 meters) to establish baselines.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Determine distribution of species within habitats to gain insight into how the marine ecosystem functions and what habitats are necessary for key species to prosper.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Characterize, map, and monitor for changes in the terrestrial habitats for plant, vertebrate, invertebrate and microbial species.	Medium	1 to 5 years	Conserving Wildlife and Habitats
Characterize and monitor for changes in the terrestrial plant, vertebrate, invertebrate and microbial species by habitats.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Characterize, map and monitor pelagic ecosystems to determine hotspot potentials.	Medium	6 to 10 years	Understanding and Interpreting the NWHI
<b>Habitats and Biodiversity</b>			
<b>Native species</b>			
Identify new terrestrial species and records for the NWHI to enhance knowledge and further conservation efforts.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Use a combination of optical and diver data collection techniques to collect ecosystem monitoring data, including new marine species and records for the NWHI.	Critical	1 to 5 years	Understanding and Interpreting the NWHI

<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Use a combination of optical and diver data collection techniques to collect ecosystem monitoring data, including fish reproduction, growth and size distribution data to provide the scientific basis for improved management of fish stocks and fisheries.	Medium	6 to 10 years	Understanding and Interpreting the NWHI
Use a combination of data collection techniques to collect ecosystem monitoring data, including invertebrates such as corals and lobsters.	Medium	1 to 5 years	Understanding and Interpreting the NWHI
Monitor physical and biological parameters associated with freshwater seeps and ponds.	Medium	1 to 5 years	Conserving Wildlife and Habitats
<b>Habitats and Biodiversity</b>			
<b>Specially protected species</b>			
Monitor and characterize Galapagos shark predation on Hawaiian monk seal pups at French Frigate Shoals and evaluate different techniques (i.e. deterrents, removals, translocations) to decrease pup mortality.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Develop strategies that can enhance the survival of female monk seals to increase recruitment into breeding class.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Model potential effects of climate change on terrestrial species that are either protected, dominant or keystone.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Determine diet and foraging behavior of monk seals using a variety of techniques and correlate that with ongoing prey abundance studies and environmental monitoring.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Determine important habitats (terrestrial and marine) for monk seals using a variety of observing and telemetry techniques.	Critical	1 to 5 years	Understanding and Interpreting the NWHI and Conserving Wildlife and Habitats
Examine monk seal diet to determine prey species and variation in diet and compare to other apex predators or fisheries.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Examine monk seal condition, survival, foraging behavior and diet and compare between populations of seals.	Critical	1 to 5 years	Conserving Wildlife and Habitats

<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Examine biocontaminants in blood and other tissues to determine presence and load of these chemicals and assess their impacts to monk seals.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Design and implement translocation plans (moving seals from areas of lower to areas of higher survival) to increase survival in juvenile monk seals.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Characterize and monitor populations of green turtles nesting and foraging in the NWHI through surveys, tagging, and modeling of existing data.	High	1 to 5 years	Conserving Wildlife and Habitats
Conduct studies of seabird trophic interactions and foraging and how they relate to demographic and population traits.	Medium	10 plus years	Conserving Wildlife and Habitats
Determine habitats utilized by cetaceans to further enhance their conservation and protection by maintaining or enhancing important habitats.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Conduct studies of population demography on cetaceans.	Medium	1 to 5 years	Conserving Wildlife and Habitats
<b>Habitats and Biodiversity</b>			
<b>Health and disease</b>			
Determine the presence of high risk diseases and potential catastrophic emerging diseases and develop vaccinations as appropriate.	Critical	6 to 10 years	Conserving Wildlife and Habitats
Determine the various impacts of marine diseases on host species and the surrounding community to evaluate effects at an ecosystem-wide scale to further understand impacts to biodiversity and ecosystem functioning.	Critical	6 to 10 years	Understanding and Interpreting the NWHI
Determine how marine diseases spread to find possible mitigation/eradication methods, allowing managers to maintain ecosystem health.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Investigate occurrence, severity, and impacts of diseases in populations of green turtles nesting and foraging in the NWHI.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Study disease and disease control and monitor for occurrences and outbreaks in avifauna and terrestrial plants.	Medium	6 to 10 years	Understanding and Interpreting the NWHI

Research and Monitoring Activity	Average Rating	Timeframe (years)	Priority Management Need
<b>Ecological Processes and Connectivity</b>			
<b>Oceanographic processes</b>			
Determine sources of marine primary productivity that drive food chains to better understand and protect mechanisms of ecosystem functioning.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Track tidal movements for long-term monitoring to assess large-scale changes to the environment.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Track weather information for long term monitoring to assess large-scale changes to the environment.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
<b>Ecological Processes and Connectivity</b>			
<b>Passive transport of nutrients and living resources</b>			
Use remote sensing as well as <i>in situ</i> observations and instrumentation to monitor, alert, model, and report environmental and biological phenomena influencing and associated with marine ecosystems.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
<b>Ecological Processes and Connectivity</b>			
<b>Active transport and movement of living resources</b>			
Monitor exchange of monk seals between subpopulations and the MHI using photo-id, telemetry and other techniques.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Support research to investigate movements and habitat use of predatory Galapagos sharks at French Frigate Shoals	Critical	1 to 5 years	Understanding and Interpreting the NWHI and Conserving Wildlife and Habitats
Determine what scales apex predators operate at to better understand their impacts to marine communities and how to protect these highly mobile species.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Assess marine turtle movements and migrations within the NWHI and between the MHI, Johnston Atoll, and NWHI through biotelemetry, tag returns, and sightings.	High	1 to 5 years	Understanding and Interpreting the NWHI



<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Determine home ranges of various fish species to better understand their role/function in the ecosystem, and to determine the scale at which protection is best implemented.	Medium	6 to 10 years	Understanding and Interpreting the NWHI
<b>Ecological Processes and Connectivity</b>			
<b>Population dynamics and genetic structure</b>			
Utilize genetic analyses to identify maternity of monk seal pups to increase the accuracy of reproductive rate estimates for population monitoring purposes.	Critical	1 to 5 year	Conserving Wildlife and Habitats
Use molecular tools to assess the genetic structure of marine turtle populations nesting and foraging in the NWHI and to investigate changes in population dynamics over time.	Medium	6 to 10 years	Understanding and Interpreting the NWHI
Determine if there are multiple distinct populations of cetaceans to enhance conservation and protection of these highly mobile species.	Medium	6 to 10 years	Understanding and Interpreting the NWHI and Conserving Wildlife and Habitats
Conduct studies of population demography and genetic structure on selected dominant or keystone plants, vertebrates, or invertebrates.	Medium	6 to 10 years	Understanding and Interpreting the NWHI and Conserving Wildlife and Habitats
<b>Ecological Processes and Connectivity</b>			
<b>Resilience</b>			
Use remote sensing as well as <i>in situ</i> observations and instrumentation deployed at long-term observing sites to provide time-series datasets which are utilized for the monitoring, alerting, modeling, and reporting of environmental and biological phenomena influencing and associated with coral reef fish populations.	Medium	1 to 5 years	Understanding and Interpreting the NWHI

Research and Monitoring Activity	Average Rating	Timeframe (years)	Priority Management Need
Use remote sensing as well as <i>in situ</i> observations and instrumentation deployed at long-term observing sites to provide time-series datasets which are utilized for the monitoring, alerting, modeling, and reporting of environmental and biological phenomena influencing and associated with coral reef ecosystem resilience.	Medium	1 to 5 years	Understanding and Interpreting the NWHI
<b>Human Impacts</b>			
<b>Human activities and impacts</b>			
Track and evaluate the impacts of human activities and actions on natural resources to maintain and ensure ecosystem health and function.	Critical	1 to 5 years	Managing Human Uses
Locate, investigate and evaluate effects of contamination in terrestrial and nearshore areas.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Assess effects of ongoing human use on terrestrial habitat.	Medium	10 plus years	Managing Human Uses
Determine potential impacts to natural resources resulting from human presence to regulate human activities and minimize impact to the ecosystem.	Medium	1 to 5 years	Achieving Effective Monument Operations
Investigate the integrity of known landfills and dumps to determine potential effects to surrounding habitats and biota.	Medium	1 to 5 years	Conserving Wildlife and Habitats
Use new technologies to improve the location and removal of debris at sea.	Medium	1 to 5 years	Reducing Threats to Monument Resources
Determine the effects of marine debris and evaluate its role in changes to ecosystem health and function.	Medium	6 to 10 years	Reducing Threats to Monument Resources
Determine the effects of manmade structures on nearshore and submerged habitats to evaluate its role in changes to ecosystem health and function.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Research historic disposal sites and investigate them for contamination to determine potential effects on surrounding habitats and biota.	Medium	1 to 5 years	Conserving Wildlife and Habitats
Conduct studies to determine the effects of contaminants on seabird species.	Medium	1 to 5 years	Conserving Wildlife and Habitats

<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Characterize and monitor the effects of marine debris on cetaceans in the Monument.	Medium	10 years plus	Conserving Wildlife and Habitats and Reducing Threats to Monument Resources
Investigate effects of anthropogenic iron sources on marine resources.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Examine the correlation between reproductive success and contaminant loads in marine and terrestrial species to determine effects on population structure.	Medium	1 to 5 years	Conserving Wildlife and Habitats
Study contaminant levels in birds and their habitats.	Medium	6 to 10 years	Conserving Wildlife and Habitats
Conduct risk assessment to determine safe levels of lead in soils.	Medium	1 to 5 years	Conserving Wildlife and Habitats
<b>Human Impacts</b>			
<b>Invasive species</b>			
Survey terrestrial alien/invasive species to determine presence and distribution, and impacts of these species.	Critical	1 to 5 years	Conserving Wildlife and Habitats and Reducing Threats to Monument Resources
Investigate competitive interactions between alien/invasive and native species to attempt to mitigate for current and future invasions, as well as help prioritize control efforts.	Critical	1 to 5 years	Reducing Threats to Monument Resources
Identify and map distribution of social Hymenopterans.	Critical	1 to 5 years	Reducing Threats to Monument Resources
Investigate eradication techniques for all social Hymenopterans.	Critical	1 to 5 years	Reducing Threats to Monument Resources
Determine the methods of transport, rate of spread, and habitat preferences of alien/invasive species to inform protocols to attempt to stop introductions, slow spread, or mitigate for current invasions.	Medium	1 to 5 years	Reducing Threats to Monument Resources
Develop methods to control and/or eradicate terrestrial invasive species.	Medium	1 to 5 years	Reducing Threats to Monument Resources

Research and Monitoring Activity	Average Rating	Timeframe (years)	Priority Management Need
<b>Human Impacts</b>			
<b>Climate Change</b>			
Determine how climate change affects the distribution and populations of species in the NWHI to identify sensitive areas and species.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Forecast areas or species groups that may be particularly sensitive, and determine plans for mitigation in advance.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Model the effects of sea level rise on terrestrial resources.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Forecast areas or species assemblages that may be particularly sensitive to increasing sea surface temperatures, and determine plans for mitigation in advance.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Forecast areas or species assemblages that may be particularly sensitive to rising sea levels and/or changes in currents, and determine plans for mitigation in advance.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Forecast areas or species assemblages that may be particularly sensitive to ocean acidification, and determine plans for mitigation in advance.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Model potential changes in frequency and intensity of extreme climate events	Critical	1 to 5 years	Conserving Wildlife and Habitats
<b>Indicators and Monitoring of Ecosystem Change</b>			
<b>Ecosystem and ecological process metrics and monitoring</b>			
Determine how energy and nutrients transfer through ecosystems, enabling managers to identify important habitats or food sources that drive communities.	High	1 to 5 years	Conserving Wildlife and Habitats
Determine species interactions within and between ecosystem components.	High	1 to 5 years	Conserving Wildlife and Habitats
<b>Indicators and Monitoring of Ecosystem Change</b>			
<b>Biodiversity and habitat metrics and monitoring</b>			
Determine the distribution patterns of cetacean species within the Monument boundaries.	Critical	1 to 5 years	Conserving Wildlife and Habitats

<b>Research and Monitoring Activity</b>	<b>Average Rating</b>	<b>Timeframe (years)</b>	<b>Priority Management Need</b>
Continue annual monitoring and modeling of threatened and endangered species populations to evaluate population trends and progress towards recovery.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Use a combination of optical and diver data collection techniques to gather ecosystem monitoring data for evaluation of population trends of fishes, corals and other invertebrates.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Monitor changes in the species composition and structure of terrestrial habitats.	Critical	1 to 5 years	Conserving Wildlife and Habitats
Use a combination of optical and diver data collection techniques to detect coral bleaching and/or disease outbreaks.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Track changes that occur in the deep water ecosystems (>30 meters) and evaluate how these habitats are linked to shallow reef as feeding grounds or possible areas of refuge.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Determine the most efficient and accurate statistical sampling design for the reef monitoring program to effectively survey the reefs of the NWHI efficiently, within the constraints of accessibility, to provide for accurate abundance measures for corals, fish and invertebrates and track changes in their numbers through time.	Medium	1 to 5 years	Understanding and Interpreting the NWHI
<b>Indicators and Monitoring of Ecosystem Change</b>			
<b>Human impact metrics and monitoring</b>			
Characterize and monitor terrestrial alien/invasive species.	Critical	1 to 5 years	Reducing Threats to Monument Resources
Determine the current extent of alien/invasive presence in the NWHI, and follow the populations through time to inform/enhance decisions to either attempt eradication or mitigate the effects on native species.	Critical	1 to 5 years	Reducing Threats to Monument Resources
Monitor the residual carbofuran contamination on Laysan Island.	Medium	6 to 10 years	Conserving Wildlife and Habitats

Research and Monitoring Activity	Average Rating	Timeframe (years)	Priority Management Need
<b>Modeling and Forecasting of Ecosystem Change</b>			
<b>Modeling the ecosystem and ecological processes</b>			
Understand how physical processes drive biological communities to enhance management of communities with respect to current patterns, upwelling, etc.	Critical	1 to 5 years	Understanding and Interpreting the NWHI
Understand how physical processes impact island structure and function.	Critical	1 to 5 years	Conserving Wildlife and Habitats
<b>Modeling and Forecasting of Ecosystem Change</b>			
<b>Modeling human impacts and management</b>			
Advance knowledge of possible alien species invasion locations to enhance early detection and allow for advance planning for mitigation in the case of possible invasions.	High	1 to 5 years	Reducing Threats to Monument Resources

Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.)

#### Cultural Considerations

In Hawaiian traditions, the Northwestern Hawaiian Islands are considered a sacred place, a region of primordial darkness from which life springs and spirits return after death (Kikilo 2006). Much of the information about the NWHI has been passed down in oral and written histories, genealogies, songs, dance, and archaeological resources. Through these sources, Native Hawaiians are able to recount the travels of seafaring ancestors between the Northwestern Hawaiian Islands and the main Hawaiian Islands. Hawaiian language archival resources have played an important role in providing this documentation, through a large body of information published over a hundred years ago in local newspapers (e.g., Kaunamano 1862 in Hōkū o ka Pakipika; Manu 1899 in Ka Loea Kalai'āina; Wise 1924 in Nūpepa Kuoko'a). More recent ethnological studies (Maly 2003) highlight the continuity of Native Hawaiian traditional practices and histories in the Northwestern Hawaiian Islands. Only a fraction of these have been recorded, and many more exist in the memories and life histories of kupuna.

By the time of Western European contact with the Hawaiian Islands, little was collectively known by the majority population about the Northwestern Hawaiian Islands as few traveled to these remote islands and seen them with their own eyes. Within the next century, a number of expeditions were initiated by Hawaiian ali'i to visit these islands and bring them under Hawaiian political control and ownership. The accounts of these historical expeditions were published in great detail in the newspapers from 1857 through 1894, as they related to each visit.

The sovereignty, life (ea), and responsibility (kuleana) for the entire Hawaiian Archipelago continues to exist in the hearts and minds of many Native Hawaiians. This position was recognized by the “Apology Bill” (U.S. Public Law 103-150), a joint resolution of Congress signed by the President in 1993. The Apology Bill acknowledges the wrongful role of United States’ officers in the overthrow of the Kingdom of Hawai’i and “apologizes to Native Hawaiians on behalf of the people of the United States” for the unlawful overthrow and the “deprivation of the rights of Native Hawaiians to self-determination.” It also recognizes that “the health and well-being of the Native Hawaiian people is intrinsically tied to their deep feelings and attachment to the land.”

#### Cultural Access for Native Hawaiian Practices

The Proclamation, signed by President Bush on June 15, 2006, that designated the Northwestern Hawaiian Islands as a Marine National Monument states that “a person may conduct an activity regulated by this proclamation if such activity is specifically authorized by a permit,” and in section D of the findings, permissible activities include those that “support or advance the perpetuation of traditional knowledge and ancestral connections of Native Hawaiians to the Northwestern Hawaiian Islands.” The original Reserve goals and objectives, as well as those of the, now, Monument also reinforce this position.

While subsistence, and more broadly Native Hawaiian practices, are recognized and protected in the Hawaiian Islands (Constitution of the State of Hawaii; PASH 1995), definitions differ in various marine managed areas (KIRK 2004; Constitution of the State of Hawaii). The Monument definition of Native Hawaiian practices and subsistence use is based on a review of existing definitions, the goals and objectives of the Monument and the July 2004 recommendations from the Reserve Advisory Council, which provided official comment when the region was considered the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve.

The Native Hawaiian practices and subsistence use definition for the Monument:

Native Hawaiian Practices means cultural activities conducted for the purposes of perpetuating traditional knowledge, caring for and protecting the environment, and strengthening cultural and spiritual connections to the Northwestern Hawaiian Islands that have demonstrable benefits to the Native Hawaiian community. This may include, but is not limited to, the non-commercial use of Monument resources for direct personal consumption while in the Monument.

#### Contemporary connections to the Northwestern Hawaiian Islands

Today, Native Hawaiians remain deeply connected to the Northwestern Hawaiian Islands on genealogical, cultural, and spiritual levels. Kaua’i and Ni’ihau families voyaged to these islands indicating that they played a role in a larger network for subsistence practices into the 20th century (Tava and Keale 1989; Maly 2003). In recent years, Native Hawaiian cultural

practitioners voyaged to the Northwestern Hawaiian Islands to honor their ancestors and perpetuate traditional practices. In 1997, Hui Mālama i Nā Kūpuna o Hawai'i Nei repatriated sets of human remains to Nihoa and Mokumanana that were collected by archaeologists in the 1924-25 Bishop Museum Tanager Expeditions (Ayau and Tengan 2002). In 2003, a cultural protocol group, Nā Kup'eu Paemoku, traveled to Nihoa on the voyaging canoe Hōkūle'a to conduct traditional ceremonies. In 2004, Hōkūle'a sailed over 1,200 miles to the most distant end of the island chain to visit Kure Atoll as part of a statewide educational initiative called "Navigating Change." In 2005, Nā Kupu'eu Paemoku sailed to Mokumanamana to conduct protocol ceremonies on the longest day of the year, June 21- the Summer Solstice.

Source: Papahānaumokuākea Marine National Monument, Native Hawaiian Cultural Heritage <http://www.papahanaumokuakea.gov/heritage/> (Accessed May 24, 2017.)

The unique islands and atolls of the NWHI, due to their isolation, are reserves for ecosystem diversity, and the intelligent management of their natural resources is of critical concern. The NWHI also possess a rich maritime history and special non-renewable resources...submerged maritime heritage resources, such as shipwrecks, sunken aircraft, and other archaeological sites. Such historic sites are like windows into the past. There may be as many as 60 vessels known lost among the atolls and at least 67 naval aircraft sunk in the Northwestern Hawaiian Islands, but who knows how many more have yet to be discovered.

Source: Papahānaumokuākea Marine National Monument, Maritime Heritage <http://www.papahanaumokuakea.gov/maritime/> (Accessed May 24, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Papahānaumokuākea's permitting program is designed to manage and minimize human impact, while increasing the conservation protection for Papahānaumokuākea's natural, cultural, and historic resources. In accordance with Presidential Proclamation 8031 and codifying regulations in 50 CFR Part 404, all activities in the Monument, with limited exceptions, require a permit. All activities, regardless of location within PMNM, are either prohibited (not allowed), exempted (no permit is needed), or regulated (must be considered through the Monument's joint-permitting process). For more information on the co-management structure of Papahānaumokuākea Marine National Monument, please [click here](#). Activities proposed to occur in State of Hawai'i waters (0-3 nautical miles from all emergent lands, excluding Midway Atoll) must also be approved by the State of Hawai'i Board of Land and Natural Resources. For more information on the State of Hawai'i Board of Land and Natural Resources, please [click here](#).



The following activities are prohibited in Papahānaumokuākea:

- Exploring for, developing, or producing oil, gas, or minerals within the Monument;
- Using or attempting to use poisons, electrical charges, or explosives in the collection or harvest of a Monument resource;
- Introducing or otherwise releasing an introduced species from within or into the Monument; and
- Anchoring on or having a vessel anchored on any living or dead coral with an anchor, anchor chain, or anchor rope.

The following activities are exempted from Papahānaumokuākea's permitting program:

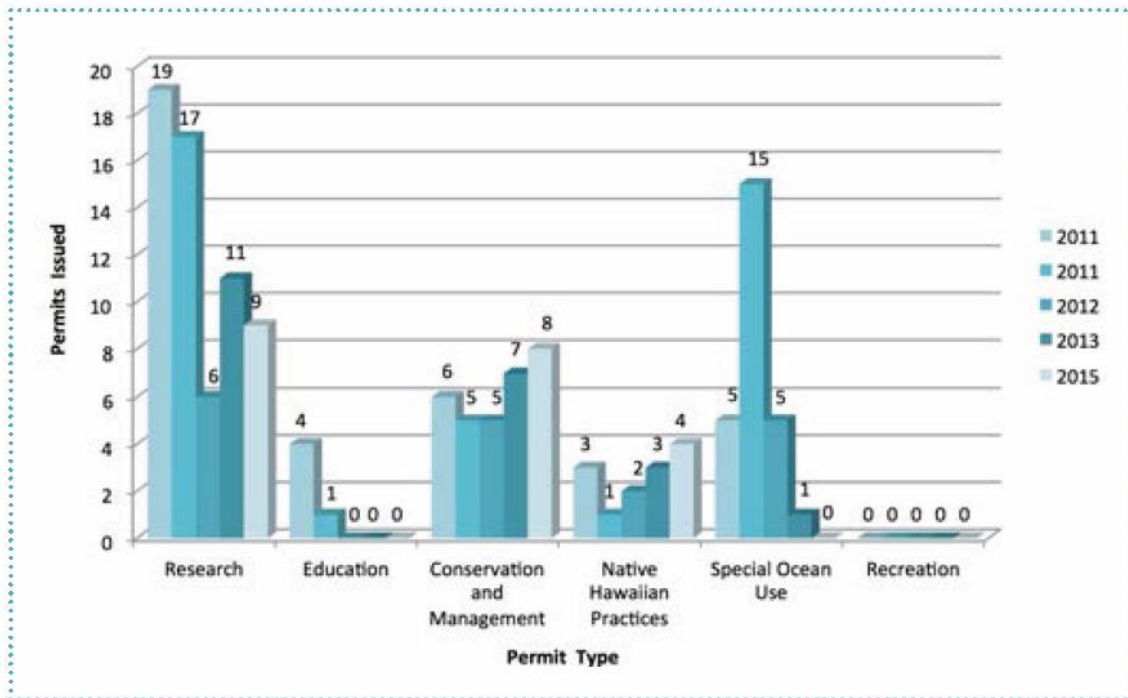
- Response to emergencies threatening life, property, or the environment;
- Law Enforcement activities;
- Activities and exercises of the Armed Forces (including the United States Coast Guard); and
- Passage without interruption. (For notification requirements when passing through the Monument, please [click here](#).)

The following activities are regulated through the Monument's permitting process:

- Further the understanding of Monument resources and qualities through research;
- Further the educational value of the Monument;
- Assist in the conservation and management of the Monument;
- Allow Native Hawaiian practices;
- Allow a special ocean use;
- Allow recreational activities within the Midway Atoll Special Management Area.

Source: Papahānaumokuākea Marine National Monument, Permitting  
<http://www.papahanaumokuakea.gov/permit/> (Accessed May 24, 2017.)

» Figure 1. Number of Monument permits issued from 2010-2015 by permit type.



Source: Papahānaumokuākea Marine National Monument “2015 Permitted Activities Report”  
[http://www.papahanaumokuakea.gov/permit/par/15\\_par\\_web.pdf](http://www.papahanaumokuakea.gov/permit/par/15_par_web.pdf)

(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;

#### Sacred Hearts Academy Annual Science Symposium

On Saturday, March 3, 2012 Papahānaumokuākea's Maritime Archaeologist Kelly Gleason participated in the Sacred Hearts Academy Annual Science Symposium for Girls, an annual free program for 5th-8th grade girls in Hawaii that focuses on science, technology, engineering and mathematics. Gleason led two 50 minute workshops for the young women where she involved the girls in interactive, hands on activities aimed at introducing the 50+ participants to some of the skills and techniques utilized in underwater archaeology field survey. Through hands on activities and an interactive presentation, Gleason was able to introduce the girls to information about Papahānaumokuākea Marine National Monument and maritime archaeology.

Source: Papahānaumokuākea Marine National Monument, Maritime Heritage  
[http://www.papahanaumokuakea.gov/maritime/sacred\\_hearts\\_symposium.html](http://www.papahanaumokuakea.gov/maritime/sacred_hearts_symposium.html) (Accessed May 24, 2017.)

In 2003, the Mokupāpapa Discovery Center (MDC) was established [in Hilo, Hawai'i] to interpret the natural science, culture and history of the Northwestern Hawaiian Islands and surrounding

marine environment. Since most people will never have the opportunity to visit these remote islands, our facility on the bayfront in Hilo, Hawai'i serves to "bring the place to the people" and spur greater public awareness of the region and ocean conservation issues.

Housed in Hilo's historic, century old Koehnen Building, Mokupāpapa features a 3,500 gallon saltwater aquarium, interactive educational exhibits, lifesize models of wildlife found in the Northwestern Hawaiian Islands, artwork inspired by those islands and Hawaiian culture, and many interpretive panels in both Hawaiian and English. The beauty of the historic Koehnen building has been preserved and refreshed to show off its majesty, including a koa wood staircase, Hawaiian hardwood floors, and high ceilings.

In our new facility, the nature and culture of the Northwestern Hawaiian Islands come alive as never before, transporting visitors to this remote ocean wilderness where predators rule the reefs, the skies teem with swooping, screeching seabirds, and the Native Hawaiian chanting of the Kumulipo (a Hawaiian creation chant) sets the mood for exploration and learning.

Source: Papahānaumokuākea Marine National Monument, Education  
<http://www.papahanaumokuakea.gov/education/center.html> (Accessed May 24, 2017.)

A total of eight schools in Hilo, Waimea and Kona did restorative work in nearby forests. Navigating Change is an education and environmental stewardship program that incorporates traditional knowledge with western science to inspire the next generation of conservation leaders. Through studying the differences between the Main Hawaiian Islands and the uninhabited islands, atolls and marine ecosystems in Papahānaumokuākea Marine National Monument, students gain a better understanding of human impacts and are empowered to restore and protect our unique natural spaces.

The field- and activity-based Teacher's Guide to Navigating Change provides the framework for inquiry-based learning to prepare students for restoration projects in their own communities. Students participate in classroom and field-based programs, such as alien algae cleanup, stream sediment studies, marine debris cleanup and forest restoration.

The Navigating Change Program brings non-profit, private, and government agencies together to help facilitate these outdoor restoration excursions for students across Hawai'i. Each year a restoration site is identified and elementary students in the surrounding community address the restoration needs for that site, using the Navigating Change Curriculum as a guide. Sites are chosen for their safety, educational value, historical significance, and the potential for community support.

With help from our partners, Navigating Change students have removed acres of invasive plants, restored thousands of endemic trees and plants to their native habitat, and continue to inspire our communities to protect and restore our island home.

Source: Papahānaumokuākea Marine National Monument, Education

[http://www.papahanaumokuakea.gov/education/nav\\_change.html](http://www.papahanaumokuakea.gov/education/nav_change.html) (Accessed May 24, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

The current management arrangements continue a long-standing tradition of active civic engagement in the protection and management of the NWHI by stakeholders from non-governmental organizations, academia, other government agencies, and the public...

The Science Plan complements two related step-down plans which are under development: A Cultural Research Plan and a Maritime Heritage Plan. The forthcoming Papahānaumokuākea Cultural Research Plan will address priorities and methodologies for Native Hawaiian cultural research within and about the NWHI. Monument management operates under the policy that natural, cultural, and historic resources have equal value, and Native Hawaiians traditionally manage all natural resources as cultural resources. Both the Natural Science and the Cultural research plans seek to address management needs and concerns within Papahānaumokuākea, and while they are drafted and reviewed separately, the Management Plan expresses a goal of ultimate integration. The forthcoming Papahānaumokuākea Maritime Heritage Plan aims to facilitate an interdisciplinary understanding of historical resource use within the Monument. Through a focus on maritime archeology, historical ecology, and Native Hawaiian heritage, the Heritage Plan links to the Natural Resources Science Plan by facilitating research that informs our understanding of how past resource use has influenced the ecosystems being managed today. ...

#### Public Review and Comment

Public scoping related specifically to the Science Plan was conducted in November of 2007. This process, along with the extensive public comment and scoping process associated with the development of the final Management Plan (TEC 2008) aided in finalization of Science Plan themes. These public review and public comment processes are done in part to satisfy related requirements contained in the National Environmental Policy Act and the State of Hawai'i's statutory environmental impact review process. In addition to these requirements, the scoping process's objectives also included:

- Helping constituencies gain a clear understanding of the purpose of the Science Plan.
- Developing preliminary focus themes for this Science Plan.
- Identifying opportunities for research that would contribute to better management of the Monument.
- Developing two-way communication with the public and science community to facilitate information sharing.

- Complying with the federal Council on Environmental Quality's, and the State of Hawai'i's Office of Environmental Quality Control's, rules and regulations to ensure stakeholder involvement throughout the planning process.

The Science Plan scoping period began with the publication of a Notice of Intent to prepare the Science Plan on November 6, 2007. The Co-Trustee agencies encouraged the public to submit comments through the conclusion of the scoping period on November 30, 2007. In addition, a public scoping meeting was scheduled in Honolulu on November 15, 2007. Prior to this meeting, advertisements were placed in local newspapers announcing the Co-Trustees' intent to prepare the Science Plan, providing the time, date, and location of the public scoping meeting, as well as the duration of the scoping comment period.

Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

National Fish and Wildlife Service Papahānaumokuākea Marine National Monument Photo Album <https://www.flickr.com/photos/usfwspacific/albums/72157624901836106>

Among the threats to Monument resources, the direct and indirect effects of climate change, including sea level rise, changing weather patterns, and ocean acidification, are significant, cross-cutting concerns. Current science suggests that climate change is likely to have profound effects on the NWHI's ecosystems and protected species; thus, understanding climate change impacts and adaptation options is reflected throughout the Science Plan. Additionally, the Monument offers a unique opportunity to understand climate variability and its impacts in the absence of confounding factors, such as human uses and pressures. The Science Plan aims to use this advantage to inform broader management efforts to support ecosystem resilience...

Accumulation of marine debris is one of the greatest anthropogenic impacts on the NWHI ecosystem. Marine debris degrades the aesthetic value of the coastal environment, creates navigational hazards, and has significant bio-ecological impacts. Thousands of albatross chicks die each year with stomachs full of small plastic debris they were fed from parents foraging throughout the Monument and the Pacific. Mortality caused by entanglement in derelict fishing gear, primarily nets, has also been documented for several mobile marine species in the NWHI, with impact on the Hawaiian monk seal being of greatest concern because of the highly endangered status of this animal (Boland and Donohue 2003; Henderson 1990, 2001). A multi-agency effort to remove and recycle derelict fishing gear and other marine debris has been in place since 1996. From 1996 to 2005, a total of 542 tons of marine debris was removed from the NWHI. In addition to removal efforts, strategic research is now focused on understanding the

dynamics of marine debris, specifically accumulation rates and locations. A recent study estimated accumulation rates to be 52 metric tons annually, due to the location of the NWHI and the debris transport driven by North Pacific gyres and frontal zones. Even if all new input of debris were stopped, existing debris in the ocean will continue to accumulate in the NWHI for years to come.



Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.)



## **Rose Atoll National Monument American Samoa**

I am writing to **support the continuation of the National Monument** status as currently established for Rose Atoll National Monument under review according to Executive Order 13792 of April 26, 2017. These comments are in response to “Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment” ID: DOI-2017-0002-0001.



Source: NOAA

*The Secretary should consider:*

*(i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed “the smallest area compatible with the proper care and management of the objects to be protected”;*

The islets, reefs, and atolls that make up the NWHI cannot be considered as isolated units; nor can the NWHI be considered in isolation from the MHI. These systems are intimately linked and affect one another. Major sources of connectivity include oceanic and atmospheric processes, passive transport of biota and nutrients via currents and upwelling, active transport of animals through movement and migration, and the dynamics of population groups. The study of energy flow through the system by understanding trophic relationships and food webs is also a primary component of this theme. These factors are major drivers of the health, productivity and

resilience (the ability of ecosystems to absorb and recover from change) of these ecosystems. Understanding the major processes that affect and connect the components of the NWHI and how these managed ecosystems affect the surrounding areas is fundamental to effective management of the Monument.

The principles that define ecological processes and connectivity operate in all parts of the world, regardless of local climate or condition. For example, nutrient transfer occurs in all communities. However, the specific types of processes that dominate in a given location are influenced by local and global climatic conditions. Current research on the ways in which climate change affects ecological processes includes the effect of sea temperatures on ENSO, and the unexpected balancing effect of the Pacific Decadal Oscillation (Hilbish et al. 2010); the effects of climate change on trophic transfer (Eriksson-Wiklund et al. 2009); and changes in distribution and abundance of key species, with subsequent community effects (Cheung et al. 2009, 2010). The physical, chemical, and biological perturbations that are initiated by climate change are expected to have an increasingly negative effect on marine resources around the world, as well as on the human populations that are linked to those resources economically and culturally (Halpern et al. 2008). A similar analysis of anticipated impacts at the Monument concluded that processes related to climate change posed the greatest threat to coastal and nearshore resources (Selkoe et al. 2008).

Source: Papahānaumokuākea Marine National Monument Natural Resources Science Plan April 2011: [http://www.papahanaumokuakea.gov/pdf/nrsc\\_plan.pdf](http://www.papahanaumokuakea.gov/pdf/nrsc_plan.pdf) (Accessed May 24, 2017.)

Unique Features: Rose Atoll remains one of the most pristine atolls in the world. The marine environment around Rose Atoll supports a dynamic reef ecosystem that is home to a diverse assemblage of marine species, many of which are threatened or endangered. One of the most striking features of Rose Atoll is the pink hue of fringing reef caused by the dominance of coralline algae, which is the primary reef-building species. Though there are roughly 100 species of stony corals, the shallow reefs are dominated by crustose coralline algae, making them distinctive from those found in other Samoan islands. The marine area provides isolated, undisturbed nesting grounds for green and hawksbill turtles and contains the largest number of nesting turtles in American Samoa. The waters within and surrounding the Rose Atoll Monument are frequented by numerous large predators such as whitetip, blacktip, and gray reef sharks, snappers, jacks, groupers, and barracudas. Species that have faced depletion elsewhere, some of which have declined worldwide by as much as 98 percent, are found in abundance at Rose Atoll, including giant clams, Maori wrasse, large parrotfishes, and blacktip, whitetip, and gray reef sharks. Humpback whales, pilot whales, and porpoise have all been spotted at Rose Atoll. There are 272 species of reef fish living within the monument area, with seven species described for the first time by scientists at Rose. Few relatively undisturbed islands remain in the world and Rose Atoll is one of the last remaining refuges for the seabird and turtle species of the Central Pacific.



Source: NOAA Rose Atoll Marine National Monument

[http://www.fpir.noaa.gov/MNM/mnm\\_roseatoll.html](http://www.fpir.noaa.gov/MNM/mnm_roseatoll.html) (Accessed May 24, 2017.)

*(ii) whether designated lands are appropriately classified under the Act as “historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest”;*

Created Jan. 6, 2009 by President Bush in the South Pacific Ocean. It protects nearly 13,400 square miles and includes the Rose Atoll, a small Samoan island and the southernmost point of the United States. Within the monument boundaries lies the Ross Atoll Wildlife Refuge, created in 1973, and home to the delicate, rose-colored corals for which the atoll was named. The surrounding waters also supports an abundance of rare and endangered marine animals and seabirds, including the largest number of nesting turtles in American Samoa, giant clams, parrotfishes, sharks, whales and 17 species of birds.

Source: National Geographic <http://news.nationalgeographic.com/2017/05/national-monument-bears-ears-artifacts-controversy/> (Accessed May 20, 2017.)

Science: The RAMNM Ecosystem Science Plan (in development) will provide an overview of the existing scientific knowledge of the RAMNM. The plan provides a framework approach for research, monitoring, and exploration associated with the RAMNM. It develops a mechanism that fosters cross-disciplinary research, linking biological, physical, and human characteristics of the RAMNM. The RAMNM Ecosystem Science Plan will aim to provide a framework for collecting "best available science" to support management of the RAMNM.

#### Recent Research

Bottomfish - From March 4 - April 13, 2016 the Life History Program scientists conducted bottomfish research in the Samoan Archipelago. The primary objective of the NOAA Pacific Islands Fisheries Science Center (PIFSC) Life History Program is to provide the basic biological and ecological information of subsistence, recreationally and commercially valuable species for stock assessment and management purposes. The more we know about a species' life history (age structure, growth rates, mortality rates, size- and age-at-sexual maturity), the more accurate are the estimates of stock status (i.e. number of fish in a local population) which, in turn, can lead to more appropriate management for sustainable fisheries. Click here to read more...

Coral Reefs - From February 17 - March 30, 2015, Coral Reef Ecosystem Program scientists conducted ecosystem surveys of fishes, benthic and coral communities, and microbes, along with the deployment of oceanographic instruments and biological installations around Tutuila, Aunu'u, Ofu-Olosega, Swains, and Ta'u Islands, and Rose Atoll....

Sea Turtles - From November 25 - December 1, 2015, PIFSC Scientists, Shawn Murakawa and Frank Parrish monitored green turtle nesting activity at Rose Atoll, American Samoa. They also

deployed 11 satellite transmitters on nesters, conducted health assessments of the turtles, and collected tissue samples for analysis. They worked with collaborators Mark MacDonald, Department of Marine and Wildlife Resources and Carlo Caruso and Ricky Misa'alefua, National Park Service who provided outstanding logistical and scientific support. Working with these partners increased the amount of work accomplished and allowed vital training and transfer of expertise between the staff. This research project has documented that green turtles leaving the nesting grounds of Rose Atoll migrate to foraging areas in Fiji, American Samoa, Vanuatu, Tahiti, the Solomon Islands, and Papua New Guinea. Average migration time is 39 days and the researchers expect all tagged turtles to have completed this year's migrations by mid-February.

Source: NOAA Rose Atoll Marine National Monument

[https://www.pifsc.noaa.gov/monuments\\_science/rose\\_atoll\\_marine\\_national\\_monument.php](https://www.pifsc.noaa.gov/monuments_science/rose_atoll_marine_national_monument.php)  
(Accessed May 24, 2017.)

#### Human History

The early Polynesians of Samoa likely visited the atoll periodically over the past millennium or more, and the atoll has a Samoan name "Motu o Manu," literally meaning "island of seabirds." The first European to see the atoll was Jacob Roggeveen on July 13, 1722. He named the atoll Vuyle Eyland, which translates roughly to "Foul or Dirty Island." Captain Louise de Freycinet later christened the isle "Rose" on October 21, 1819, after his wife who was unlawfully traveling with him at the time. The first scientist to land on the island was probably Dr. Charles Pickering, a physician naturalist who explored the atoll when the ships the Porpoise and the Vincennes of the U.S. Exploring Expedition (1838-1842) met there in 1839.

Rose Atoll has been the subject of approximately 300 papers and reports over the last century. These describe the geology, geography, biology, meteorology, and history of the area.

Rose Island has sustained only brief human habitation in recent history. In the 1860s, a short-lived attempt was made by a German firm to establish a fishing station/coconut plantation at Rose Atoll. A house was built and coconut trees were planted. After the Germans abandoned the station as unprofitable, a Samoan family stationed on Rose as caretakers continued to live there for a few years. Sand Island is a shifting sand bank and could not support human habitation. Rose Atoll was also chosen as a dive-bombing practice range during World War II. It is unclear whether or not this was implemented.

Source: NOAA Rose Atoll Marine National Monument

[http://www.fpir.noaa.gov/MNM/mnm\\_roseatoll.html](http://www.fpir.noaa.gov/MNM/mnm_roseatoll.html) (Accessed May 24, 2017.)

*(iii) the effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries;*

Management: The Monument is cooperatively managed by the Secretary of Commerce (NOAA), the Secretary of the Interior (U.S. Fish and Wildlife Service) in cooperation with the Department of State, the Department of Defense, and the Government of American Samoa. The Monument also encompasses the Rose Atoll National Wildlife Refuge and is part of the National Marine Sanctuary of American Samoa.

Source: NOAA Rose Atoll Marine National Monument  
[http://www.fpir.noaa.gov/MNM/mnm\\_roseatoll.html](http://www.fpir.noaa.gov/MNM/mnm_roseatoll.html) (Accessed May 24, 2017.)

#### Fishing

In the 1980s, the Refuge's Public Use Policy permitted fishing in the Refuge as long as the fish were released or consumed within the Refuge (USFWS 1987). However, this policy was discontinued in the early 1990s. The Refuge continues to be closed for fishing due to the small size of the lagoon and its limited fish and invertebrate community. The ecological limits of these populations make them particularly vulnerable to fishing pressure. Closure to fishing also adheres to the Monument Proclamation (which directs us to prohibit commercial fishing in the Monument), meets the Refuge's purposes, and fulfills the Governor of American Samoa's support for a no-take area to protect the coral reef ecosystem. Fishing is offered in other parts of American Samoa.

#### Environmental Education

During the 1980s and 1990s, field trips for students and teachers to the Refuge occurred. However, given the disturbance to wildlife, logistical difficulties, safety issues, and lack of available staff, such opportunities were discontinued and there is no EE currently offered at the Refuge. However, other types of EE about the Refuge are offered on Tutuila and the Manu'a Islands (see Chapter 2 regarding the future focus of EE on bringing the Refuge to the people, not bringing the people to the Refuge).

#### Interpretation/Outreach

The Service maintains a website (<http://www.fws.gov/roseatoll/>) and we have given regular talks about Rose Atoll to students at the American Samoa Community College. Prior to the 2009 tsunami, there was interpretive information about Rose Atoll and the Refuge at the National Park of American Samoa visitor center. The Service is presently working with NPS to have displays again in their new visitor center. There is also an exhibit on Rose Atoll at the Tauese P.F. Sunia Ocean Center.

Source: US Fish and Wildlife Service Rose Atoll National Wildlife Refuge

[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Reefs\\_Complex/Rose\\_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Reefs_Complex/Rose_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf) (Accessed May 24, 2017.)

*(iv) The effects of a designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries;*

Rose Atoll is part of the Territory of American Samoa and was established as a National Wildlife Refuge by cooperative agreement between the Government of American Samoa and the Bureau of Sport Fisheries and Wildlife on July 5, 1973. Public notice in the Federal Register was published April 11, 1974. On February 1, 1975,

President Gerald Ford, by Proclamation No. 4347, exempted Rose Atoll from a general conveyance of submerged lands around American Samoa to the American Samoa government. He stated the submerged lands out to 3 nautical miles around Rose Atoll would be under the joint jurisdiction of the Department of Commerce and the Department of the Interior.

Source: US Fish and Wildlife Service “Rose Atoll National Wildlife Refuge”

[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Reefs\\_Complex/Rose\\_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Reefs_Complex/Rose_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf) (Accessed May 24, 2017.)

*(v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities;*

In March 2011, 12 Manu’a community representatives, and 5 students and 5 teachers from Manu’a schools attended a trip to the Refuge. The purpose of the trip was documenting the oral history of Rose Atoll. It was sponsored by the IGC (consisting of the DMWR, the Service, ONMS, NMFS and ASDOC) and was funded by a grant from the NMFS to the DMWR. The SSI completed a report (entitled “Oral Traditions of Rose Atoll (Muliava)”), along with a bilingual brochure and DVD, to document the trip as well as the connections between the people of Manu’a and Rose Atoll (Muliava, Nu’u o Manu). The information generated from this trip will be used to produce EE and cultural interpretation materials for use by communities and outreach to the larger public.

The Refuge has no substantial impact on the local economy. There is no visitation by the general public allowed to the Refuge, so impacts to the surrounding community economies does not exist as they do for other refuges. However, permitted activities, such as research, can contribute to the local economy via purchase of supplies, contracts for transportation and personnel, housing, food, etc.

There is only one Refuge employee (a Refuge/Monument Manager) based out of Tutuila, so staff contribution to the local economy is negligible (e.g., personal expenditures such as rent, groceries, and work related expenditures such as operational supplies). Related Refuge personnel based in Honolulu, Hawai’i, sometimes assist with Refuge management and can

contribute to the local economy similar to research activities. The Fiscal Year (FY) 12 budget for the Refuge was \$291,550.

#### Summary of Public Involvement

The initial CCP planning process for the Refuge began in 2005. However, due to staff turnover and change in management, efforts did not truly get underway again until 2009. Public scoping began in the fall of 2009 with a notice in the Federal Register (November 9, 2009) and a total of three public meetings held in November 2009 at Manu'a Islands and on the Island of Tutuila. In all, over 60 people participated in these meetings. Public input was also solicited through distribution of planning updates to our mailing list. Additionally, meetings with American Samoa and Federal agencies and elected officials, villages and chiefs, community groups, non-profit organizations, and others were also held. The comments and suggestions made through this process helped further develop and refine the management alternatives for the CCP, including the preferred alternative. It also helped to identify the top priority species, groups, and communities for the Refuge. The following is a brief summary of public involvement:

- 2005 – CCP process briefing to DMWR;
- November 9, 2009 – Federal Register Notice (Vol. 74, No. 215) announcing a Notice of Intent to prepare the Draft CCP/EA and public open house meetings;
- November 2009 – Planning Update 1 announcing the official start of public scoping with public open house meetings and previewing preliminary issues and goals for CCP consideration;
- November 2009 – Public scoping meetings on Ofu Island (November 14), Ta'u Island (November 16), and on the Island of Tutuila (November 19);
- 2010–2011 – Refuge staff held specific meetings to provide updates and discuss management considerations with partners and interested parties (e.g., DMWR, Office of Samoan Affairs, etc.);
- March–April 2011– Formal letters inviting IGC members to participate sent (though briefings had been provided to individual members since 2005 even before the IGC had been formed);
- May 2011 – Planning Update 2 summarizing public scoping comments and identifying issues outside the scope of the CCP;
- March 2012 – IGC review of draft Chapter 2 (Management Actions and Alternatives);
- June 2012 – IGC review of Draft Rose Atoll NWR CCP/EA;
- Fall 2012 – Release of Draft Rose Atoll NWR CCP/EA for an extended 50-day comment period (October 9–November 27, 2012) along with Planning Update 3 to the public and partners, which included public open houses in Tutuila and the Manu'a islands and community meetings and targeted meetings with interested groups/individuals.

Distribution and notification of the opportunities above was accomplished using multiple methods including news releases, a mail/email list of over 200 people (from scoping to Draft CCP/EA) which included interested individuals, local conservation and interest groups, research

organizations, and Territorial and Federal government agencies and elected officials; community events/meetings; and CCP-specific website (<http://www.fws.gov/roseatoll/planning.html>).

The Draft CCP/EA and Final CCP reflect this extensive public involvement in all chapters as issues identified, related goals/objectives/strategies and alternatives drafted, and final management direction were shaped by the feedback received during public involvement. The following table summarizes the comments heard during public scoping and identifies where and/or how it was addressed in the Draft CCP/EA and Final CCP.

For all comments related to the Monument areas outside of the Refuge, the CCP only addresses the Refuge so these non-Refuge areas will be addressed through a later Monument planning process if necessary. The NOAA NMFS has management responsibility for fisheries outside of the Refuge area, in consultation with DOI.

Source: Fish and Wildlife Service “Rose Atoll National Wildlife Refuge Comprehensive Conservation Plan” May 2014

[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Reefs\\_Complex/Rose\\_Atoll/Documents/Chapter%205\(1\).pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Reefs_Complex/Rose_Atoll/Documents/Chapter%205(1).pdf)

*(vi) The availability of Federal resources to properly manage designated areas; and*

No Comment.

*(vii) Such other factors as the Secretary deems appropriate. 82 FR 20429-20430 (May 1, 2017).*

A Google Street View virtual tour of Rose Atoll Channel is here:

<https://www.google.com/streetview/#oceans/the-channel-at-rose-atoll-american-samoa>

In October 1993, a 120-foot Taiwanese longline fishing vessel, the F/V Jin Shiang Fa, ran hard aground and broke up within weeks on the reef on the southwest arm of the atoll. As a result of the grounding, the entire 100,000 gallons of diesel fuel aboard the vessel was discharged into the marine environment. During subsequent weeks, the fuel spread across the reef flat into the lagoon and down the seaward slope. Physical damage to the reef was also caused by wreckage and vessel debris. Supported by the ship’s insurance, limited salvage operations were attempted within a month and were successful in removing the bow section of the wreck. However, the rest of the wreck deteriorated quickly, and dissolved iron from the wreckage stimulated invasive blue-green algae and prevented natural recovery of coralline algae within the grounding area. ... In 2007, the last remaining debris was removed from the atoll, and monitoring of reef recovery will continue into the future.

Source: US Fish and Wildlife Service “Rose Atoll National Wildlife Refuge”

[https://www.fws.gov/uploadedFiles/Region\\_1/NWRS/Zone\\_1/Pacific\\_Reefs\\_Complex/Rose\\_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf](https://www.fws.gov/uploadedFiles/Region_1/NWRS/Zone_1/Pacific_Reefs_Complex/Rose_Atoll/Home/Promos/Rose%20Atoll%20NWR%20Info.pdf) (Accessed May 24, 017.)

## **Appendix I – Google Street Maps Virtual Tours of Monuments**

### **Bears Ears National Monument Utah**

<https://www.google.com/maps/place/Bears+Ears/@37.6296944,-109.8679705,3a,75y,57.48h,70.39t/data=!3m8!1e1!3m6!1s-N7zLrzK1Mtk%2FWOrupvI2Tkl%2FAAAAAAAAF40%2Fg3qUrlwD3mEjNLKJbBLSas6CHu x 4nagCLIB!2e4!3e11!6s%2F%2Fh5.googleusercontent.com%2F-N7zLrzK1Mtk%2FWOrupvI2Tkl%2FAAAAAAAAF40%2Fg3qUrlwD3mEjNLKJbBLSas6CHu x 4nagCLIB%2Fw203-h100-k-no-pi-0-ya63.64787-ro-0-fo100%2F!7i8704!8i4352!4m5!3m4!1s0x87379e6d40e01b2b:0x17b2b1e7dec4d106!8m2!3d37.6299943!4d-109.8676315>

### **Basin and Range National Monument Nevada**

<https://www.google.com/maps/place/37%C2%B055'41.0%22N+115%C2%B023'50.0%22W/@37.8254816,-115.2087549,3a,75y,126.75h,73.11t/data=!3m8!1e1!3m6!1s-P0K3547cKjc%2FV3B9 Ja Cnl%2FAAAAAAAAB9Q%2FagWO6YDfoylIAXbOTC9hMpx80xPN0CSBwCJkC!2e4!3e11!6s%2F%2Fh3.googleusercontent.com%2F-P0K3547cKjc%2FV3B9 Ja Cnl%2FAAAAAAAAB9Q%2FagWO6YDfoylIAXbOTC9hMpx80xPN0CSBwCJkC%2Fw203-h100-k-no-pi-0-ya59.499992-ro-0-fo100%2F!7i7168!8i3584!4m5!3m4!1s0x0:0x0!8m2!3d37.928056!4d-115.397222?hl=en>

### **Berryessa Snow Mountain National Monument California**

<https://www.google.com/maps/place/39%C2%B013'00.0%22N+122%C2%B046'00.0%22W/@39.302844,-122.707693,3a,75y,310.52h,94.56t/data=!3m8!1e1!3m6!1s-StGa-6yX6RQ%2FV-c-SdpSTxI%2FAAAAAAAAZsM%2FGSGWsDmiO2MmIpcDA7-g BCvIXssD0eRgCLIB!2e4!3e11!6s%2F%2Fh4.googleusercontent.com%2F-StGa-6yX6RQ%2FV-c-SdpSTxI%2FAAAAAAAAZsM%2FGSGWsDmiO2MmIpcDA7-g BCvIXssD0eRgCLIB%2Fw203-h100-k-no-pi-0-ya190.67543-ro-0-fo100%2F!7i8704!8i2756!4m5!3m4!1s0x0:0x0!8m2!3d39.216667!4d-122.766667?hl=en>

### **Canyons of the Ancients National Monument Colorado**

<https://www.google.com/maps/@37.4148043,-108.9577303,3a,75y,345.94h,76.82t/data=!3m8!1e1!3m6!1s-NVrrM4G 0bc%2FVOrPUFhHc2I%2FAAAAAAAAH!%2F!pkQxTYOJR8SH8dDdTWvZ luTWjNMx9NACJkC!2e4!3e11!6s%2F%2Fh6.googleusercontent.com%2F-NVrrM4G 0bc%2FVOrPUFhHc2I%2FAAAAAAAAH!%2F!pkQxTYOJR8SH8dDdTWvZ luTWjNMx9NACJkC%2Fw203-h100-k-no-pi-0-ya304.22653-ro-0-fo100%2F!7i8704!8i4352>





**Grand Canyon-Parashant National Monument Arizona**

<https://www.google.com/maps/place/Grand+Canyon-Parashant+National+Monument/@36.4117716,-113.6484126,3a,75y,332.5h,79.53t/data=!3m8!1e1!3m6!1s-2fyWeFT8qvA%2FVq9dC95AM4!%2FAAAAAAAAJ8%2F8AMKotGGPXAhxK-RQyknKviZJFFpLlpkgCLIB!2e4!3e11!6s%2F%2Fh6.googleusercontent.com%2F-2fyWeFT8qvA%2FVq9dC95AM4!%2FAAAAAAAAJ8%2F8AMKotGGPXAhxK-RQyknKviZJFFpLlpkgCLIB%2Fw203-h100-k-no-pi-0-ya2.499987-ro-0-fo100%2F!7i10240!8i5120!4m5!3m4!1s0x80cb88ed1dba5f79:0xbc1d64221d54b91a!8m2!3d36.4017714!4d-113.6988568!6m1!1e1?hl=en>

**Grand Staircase-Escalante National Monument Utah**

<https://www.google.com/maps/@37.4181658,-111.0432639,3a,75y,33.23h,101.5t/data=!3m8!1e1!3m6!1s-8nCNTswswJE%2FVRmIOM2e3s!%2FAAAAAAAALos%2FMkYriXd-tXkVmnpmXYmIWjDDnE7sGxZXwCjK!2e4!3e11!6s%2F%2Fh5.googleusercontent.com%2F-8nCNTswswJE%2FVRmIOM2e3s!%2FAAAAAAAALos%2FMkYriXd-tXkVmnpmXYmIWjDDnE7sGxZXwCjK%2Fw203-h100-k-no-pi-2.9999962-ya164.50002-ro-0-fo100%2F!7i7168!8i3584?hl=en>

**Hanford Reach National Monument Washington**

<https://www.google.com/maps/@46.6742864,-119.4540383,3a,75y,206.59h,80.89t/data=!3m8!1e1!3m6!1s-5xxSLREqn9o%2FWQd1mKl3aw!%2FAAAAAAAADwk%2F14zkisYZGWYKEh9xq7cHsTE9v8Hz3ufOwCLIB!2e4!3e11!6s%2F%2Fh5.googleusercontent.com%2F-5xxSLREqn9o%2FWQd1mKl3aw!%2FAAAAAAAADwk%2F14zkisYZGWYKEh9xq7cHsTE9v8Hz3ufOwCLIB%2Fw203-h100-k-no-pi-0-ya214.15465-ro-0-fo100%2F!7i8704!8i4352?hl=en>

**Ironwood Forest National Monument Arizona**

<https://www.google.com/maps/@32.3405559,-112.0686662,3a,75y,309.42h,99.19t/data=!3m6!1e1!3m4!1sH44qAAx2bXGexPVoBarqQg!2e0!7i13312!8i6656?hl=en>

**Mojave Trails National Monument California**

<https://www.google.com/maps/@34.5436821,-115.7909164,3a,75y,35.7h,96.19t/data=!3m8!1e1!3m6!1s-o0Wymo2-1ek%2FWLqRJ8tbZhl%2FAAAAAAAAIQ!%2FZfh6YJpdqg8YFUyxpill6wnQZu2dZ7-iQCLIB!2e4!3e11!6s%2F%2Fh5.googleusercontent.com%2F-o0Wymo2-1ek%2FWLqRJ8tbZhl%2FAAAAAAAAIQ!%2FZfh6YJpdqg8YFUyxpill6wnQZu2dZ7-iQCLIB%2Fw203-h100-k-no-pi-0-ya155.01044-ro-0-fo100%2F!7i7168!8i3584?hl=en>

**Organ Mountains-Desert Peaks National Monument New Mexico**

[https://www.google.com/maps/place/32%C2%B019'33.6%22N+106%C2%B033'18.0%22W/@32.3218209,-106.5807492,3a,75y,22.11h,89.83t/data=!3m8!1e1!3m6!1s-2fN\\_CWpBiGE%2FVkDvzH1WI%2FAAAAAAAAd4%2Fc54HZn73R4sRYeyl4b7jQ7do5IJhdHmvACLIB!2e4!3e11!6s%2F%2Fh6.googleusercontent.com%2F-2fN\\_CWpBiGE%2FVkDvzH1WI%2FAAAAAAAAd4%2Fc54HZn73R4sRYeyl4b7jQ7do5IJhdHmvACLIB%2Fw203-h100-k-no-pi-0-ya276.17596-ro0-fo100%2F!7i8704!8i4352!4m5!3m4!1s0x0:0x0!8m2!3d32.326!4d-106.555?hl=en](https://www.google.com/maps/place/32%C2%B019'33.6%22N+106%C2%B033'18.0%22W/@32.3218209,-106.5807492,3a,75y,22.11h,89.83t/data=!3m8!1e1!3m6!1s-2fN_CWpBiGE%2FVkDvzH1WI%2FAAAAAAAAd4%2Fc54HZn73R4sRYeyl4b7jQ7do5IJhdHmvACLIB!2e4!3e11!6s%2F%2Fh6.googleusercontent.com%2F-2fN_CWpBiGE%2FVkDvzH1WI%2FAAAAAAAAd4%2Fc54HZn73R4sRYeyl4b7jQ7do5IJhdHmvACLIB%2Fw203-h100-k-no-pi-0-ya276.17596-ro0-fo100%2F!7i8704!8i4352!4m5!3m4!1s0x0:0x0!8m2!3d32.326!4d-106.555?hl=en)

**Rio Grande del Norte National Monument New Mexico**

[https://www.google.com/maps/@36.6255722,-105.7163391,3a,75y,37.33h,90.41t/data=!3m8!1e1!3m6!1s-QFqyZqaXoDs%2FU\\_9MGU6LGPI%2FAAAAAAATLA%2F4vDT5EDUN6wW0Y9rJH9h2Lqrb5uSGAliACLIB!2e4!3e11!6s%2F%2Fh3.googleusercontent.com%2F-QFqyZqaXoDs%2FU\\_9MGU6LGPI%2FAAAAAAATLA%2F4vDT5EDUN6wW0Y9rJH9h2Lqrb5uSGAliACLIB%2Fw203-h100-k-no-pi-0-ya135.24203-ro-0-fo100%2F!7i10240!8i5120?hl=en](https://www.google.com/maps/@36.6255722,-105.7163391,3a,75y,37.33h,90.41t/data=!3m8!1e1!3m6!1s-QFqyZqaXoDs%2FU_9MGU6LGPI%2FAAAAAAATLA%2F4vDT5EDUN6wW0Y9rJH9h2Lqrb5uSGAliACLIB!2e4!3e11!6s%2F%2Fh3.googleusercontent.com%2F-QFqyZqaXoDs%2FU_9MGU6LGPI%2FAAAAAAATLA%2F4vDT5EDUN6wW0Y9rJH9h2Lqrb5uSGAliACLIB%2Fw203-h100-k-no-pi-0-ya135.24203-ro-0-fo100%2F!7i10240!8i5120?hl=en)

**Sand to Snow National Monument California**

<https://www.google.com/maps/place/Sand+to+Snow+National+Monument,+Millard+Canyon+Rd,+California/@34.0988975,-116.8242558,3a,75y,132.19h,80.48t/data=!3m8!1e1!3m6!1s-ggOinZyB2i8%2FV32N2Me-zzI%2FAAAAAAAAHkw%2FhfvnvTaWCZ0pTvI7F-1Ycv9vydhBjRDbACJkC!2e4!3e11!6s%2F%2Fh4.googleusercontent.com%2F-ggOinZyB2i8%2FV32N2Me-zzI%2FAAAAAAAAHkw%2FhfvnvTaWCZ0pTvI7F-1Ycv9vydhBjRDbACJkC%2Fw203-h100-k-no-pi-0-ya277.22607-ro0-fo100%2F!7i10240!8i5120!4m5!3m4!1s0x80db3818860172ff:0x60d3ca75211ebabf!8m2!3d34.0451923!4d-116.7739391?hl=en>

**San Gabriel Mountains National Monument California**

<https://www.google.com/maps/@34.3608145,-117.8738196,3a,75y,297.47h,80.97t/data=!3m6!1e1!3m4!1sB62dv6GDXw1hi1hRUTbsMw!2e0!7i13312!8i6656!6m1!1e1?hl=en>

**Sonoran Desert National Monument Arizona**

<https://www.google.com/maps/@32.995318,-112.4387469,3a,75y,143.85h,89.92t/data=!3m8!1e1!3m6!1s-4oiXAgTwo14%2FVN9cNjtH6WI%2FAAAAAAAACQC%2F1CY54wNQseAxdTOBuTSPEki-AozXFrSDQCJkC!2e4!3e11!6s%2F%2Fh4.googleusercontent.com%2F-4oiXAgTwo14%2FVN9cNjtH6WI%2FAAAAAAAACQC%2F1CY54wNQseAxdTOBuTSPEki-AozXFrSDQCJkC%2Fw203-h100-k-no-pi-0-ya179.87108-ro-0-fo100%2F!7i2852!8i1103?hl=en>

**Upper Missouri River Breaks National Monument Montana**

<https://www.google.com/maps/place/Upper+Missouri+River+Breaks+National+Monument/@48.028851,-110.1438349,3a,75y,51.12h,84.99t/data=!3m8!1e1!3m6!1s-Cliv-WKqOBE%2FV4mjMdOXTEI%2FAAAAAAABog%2FIFfmwZ7sKBcZIUJYZYcDOVrSseikaEh2QCLIB!2e4!3e11!6s%2F%2Fh6.googleusercontent.com%2F-Cliv-WKqOBE%2FV4mjMdOXTEI%2FAAAAAAABog%2FIFfmwZ7sKBcZIUJYZYcDOVrSseikaEh2QCLIB%2Fw203-h100-k-no-pi-0.8774844-ya25.614025-ro1.6401085-fo100%2F!7i5376!8i2688!4m5!3m4!1s0x53407c4eb65d4181:0xf057ed173e55f544!8m2!3d47.804574!4d-109.0548532!6m1!1e1?hl=en>

**Vermilion Cliffs National Monument Arizona**

Take a virtual canoe ride on the Colorado River

[https://www.google.com/maps/@36.8387086,-111.6166682,3a,75y,175.3h,76.99t/data=!3m7!1e1!3m5!1srHt3Zl0y3lXtqjFRNQyioQ!2e0!6s%2F%2Fgeo2.ggpht.com%2Fcbk%3Fpanoid%3DrHt3Zl0y3lXtqjFRNQyioQ%26output%3Dthumbnail%26cb\\_client%3Dmaps\\_sv.tactile.gps%26thumb%3D2%26w%3D203%26h%3D100%26yaw%3D279.88873%26pitch%3D0%26thumbfov%3D100!7i13312!8i6656!6m1!1e1?hl=en](https://www.google.com/maps/@36.8387086,-111.6166682,3a,75y,175.3h,76.99t/data=!3m7!1e1!3m5!1srHt3Zl0y3lXtqjFRNQyioQ!2e0!6s%2F%2Fgeo2.ggpht.com%2Fcbk%3Fpanoid%3DrHt3Zl0y3lXtqjFRNQyioQ%26output%3Dthumbnail%26cb_client%3Dmaps_sv.tactile.gps%26thumb%3D2%26w%3D203%26h%3D100%26yaw%3D279.88873%26pitch%3D0%26thumbfov%3D100!7i13312!8i6656!6m1!1e1?hl=en)

**Marianas Trench National Monument CNMI/Pacific Ocean**

<https://www.google.com/maps/@26.6088315,142.1779334,3a,75y,155.78h,63.61t/data=!3m6!1e1!3m4!1smvjAT8mMxf0r-J3pHxsN4w!2e0!7i13312!8i6656!6m1!1e1?hl=en>

**Northeast Canyons and Seamounts National Monument Atlantic Ocean**

<http://earthjustice.org/features/explainer-marine-national-monument>

**Pacific Remote Islands National Monument Hawaii**

<https://www.google.com/maps/@1.3743338,173.1462371,3a,75y,350.79h,77.72t/data=!3m8!1e1!3m6!1s-c9tr7-dKv4M%2FUlFAxwjs7zl%2FAAAAAAAG1Q%2Fg0eAF1xpD8AkRoq-1qqAzdBBDzpoVVtgCjK!2e4!3e11!6s%2F%2Fh4.googleusercontent.com%2F-c9tr7-dKv4M%2FUlFAxwjs7zl%2FAAAAAAAG1Q%2Fg0eAF1xpD8AkRoq-1qqAzdBBDzpoVVtgCjK%2Fw203-h100-k-no-pi-2.9999962-ya271.5-ro-0-fo100%2F!7i6000!8i3000!6m1!1e1?hl=en>

**Papahānaumokuākea National Monument, Hawaii,**

Laysan Island (Kauō)

<https://www.google.com/maps/@25.766707,-171.7415833,3a,75y,166.63h,62.31t/data=!3m9!1e1!3m7!1su7Zxmn0wug-JSqDVR7B4sg!2e0!7i13312!8i6656!9m2!1b1!2i33>

French Frigate Shoals (Kānemiloha'i)

<https://www.google.com/maps/@23.8710156,-166.2806236,3a,60y,263.65h,78.15t/data=!3m6!1e1!3m4!1sFdFfRfr9cJGNMTY5a4CEJg!2e0!7i13312!8i6656>

Pearl and Hermes Atoll (Holoikauaua)

[https://www.google.com/maps/@27.7897393,-175.8187607,3a,75y,322.25h,64.06t/data=!3m10!1e1!3m8!1sMCdQARlpH9Et0VVjUppWEw!2e0!6s%2F%2Fgeo3.ggpht.com%2Fcbk%3Fpanoid%3DMCdQARlpH9Et0VVjUppWEw%26output%3Dthumbnail%26cb\\_client%3Dmaps\\_sv.tactile.gps%26thumb%3D2%26w%3D203%26h%3D100%26yaw%3D269.07028%26pitch%3D0%26thumbfov%3D100!7i13312!8i6656!9m2!1b1!2i52](https://www.google.com/maps/@27.7897393,-175.8187607,3a,75y,322.25h,64.06t/data=!3m10!1e1!3m8!1sMCdQARlpH9Et0VVjUppWEw!2e0!6s%2F%2Fgeo3.ggpht.com%2Fcbk%3Fpanoid%3DMCdQARlpH9Et0VVjUppWEw%26output%3Dthumbnail%26cb_client%3Dmaps_sv.tactile.gps%26thumb%3D2%26w%3D203%26h%3D100%26yaw%3D269.07028%26pitch%3D0%26thumbfov%3D100!7i13312!8i6656!9m2!1b1!2i52)

Midway Atoll (Pihemanu)

[https://www.google.com/maps/@28.2096611,-177.365363,3a,75y,326.33h,75.88t/data=!3m6!1e1!3m4!1spti84eIFxKHzeikNaRp\\_kQ!2e0!7i13312!8i6656](https://www.google.com/maps/@28.2096611,-177.365363,3a,75y,326.33h,75.88t/data=!3m6!1e1!3m4!1spti84eIFxKHzeikNaRp_kQ!2e0!7i13312!8i6656)

### **Rose Atoll National Monument, American Samoa**

An underwater virtual SCUBA dive at the Monument

<https://www.google.com/streetview/#oceans/the-channel-at-rose-atoll-american-samoa>