Grand Canyon National Park Bison Management Plan/ Environmental Impact Statement Public Scoping Frequently Asked Questions-Updated 4/25/14

1. Why are the Bison Management Plan and Environmental Impact Statement combined? What will this plan/EIS address?

When a federal agency prepares a plan like this one, it triggers the National Environmental Policy Act of 1969 (NEPA) and must consider the environmental impacts of its proposed action, and alternatives to that proposal, before making a decision on what action to take. NEPA also requires the NPS to involve the public when making decisions with the potential for environmental impacts. In this case, the NPS has determined that an Environmental Impact Statement (EIS) should be prepared to complete the NEPA review for the bison management plan.

Regulations implementing NEPA encourage agencies to combine their NEPA and planning documents, which is what the NPS intends to do in the case of the Bison Management Plan and EIS. Each alternative presented when the draft plan/EIS is circulated for public review will represent a different 'plan' for managing bison.

When the EIS and decision-making processes are completed, the NPS will select an alternative that will become the Bison Management Plan for Grand Canyon National Park and will form the basis for NPS participation in a long-term interagency bison management strategy for the Kaibab Plateau.

2. Will changes to bison management outside the park be considered as part of this plan/EIS process?

Not at this time. The USFS/AGFD have jurisdiction for managing bison outside the park on Kaibab National Forest lands, and have valuable special expertise to offer the NPS in preparing this plan and EIS. As a result, the NPS has invited USFS/AGFD to be cooperating agencies in the NEPA process.

However, the USFS/AGFD do not intend to use this plan and EIS process to evaluate changes to their underlying agreements and planning documents which guide bison management on USFS lands. Nor does AGFD need to use a NEPA process to address things such as changes to bison hunting regulations.

Ultimately, any changes to bison management outside of the park would be at the discretion of USFS and AGFD, but would require close coordination with the NPS as the agencies work to implement a coordinated bison management strategy that meets the common goals and various mandates of each agency.

3. How does the NPS Bison Management Plan relate to the bison management activities of AGFD and USFS?

The NPS, USFS, and AGFD all have interest in cooperative bison management in the vicinity of Grand Canyon National Park. The agencies have been collaborating on research needs and administrative and operational challenges of long-term cooperative management through a Tri-Agency Working Group

established in 2008. Their work will help inform the plan/EIS process currently underway. Ultimately, the Grand Canyon National Park Bison Management Plan will provide the basis for NPS participation in a long-term interagency bison management strategy for the Kaibab Plateau. This strategy would integrate the separate activities of NPS, AGFD, and USFS and is intended to ensure bison management activities meet the various mandates of each agency. The Tri-Agency Working Group will play an important role implementing and monitoring the success of this strategy.

NPS, AGFD, and USFS will maintain management authority on lands within their respective jurisdiction. For example, even though bison management activities may be coordinated, the NPS is responsible for implementing actions at Grand Canyon National Park. Likewise, the Arizona Game and Fish Commission is responsible for implementing bison management actions on the Kaibab National Forest, in accordance with USFS planning documents and USFS/AGFD/Bureau of Land Management agreements.

4. What bison management techniques will NPS consider? Will they include the potential for shooting bison in Grand Canyon National Park? If so, who will conduct these activities, and what will happen to the bison?

At this time, the NPS is evaluating all reasonable alternatives to be carried forward for detailed analysis in the EIS. Currently, tools under consideration include the following:

- Managing access to water sources that attract bison
- Triggering bison movement and migration (e.g., deter bison from spending time in some areas, and encourage bison movement into desired areas) or to capture and relocate bison using baiting, soft handling/herding techniques, and hazing
- Managing bison abundance, including direct reduction of the population

Any management tools considered, including lethal removal, would be managed by the NPS in accordance with all applicable laws, regulations, and policies regarding such activities in national parks (See generally 36 CFR 2.2 and the park specific regulations in 36 CFR Part 7). However, public, recreational hunting is **not authorized** in Grand Canyon National Park.

If deemed appropriate, the NPS could seek assistance with any bison management activities from other government agencies, contractors, or skilled volunteers who meet certain requirements, as determined by the NPS. Should lethal management tools be implemented, the NPS would strive, to the extent practicable, to put bison lethally removed from the park to beneficial use.

The NPS will seek input from the public and other agencies about bison management techniques as part of scoping, and will provide details of those under consideration, when the draft plan/EIS is released.

5. What is meant by management of 'sustainable,' 'huntable,' and 'free-ranging' bison?

The National Park Service, U.S. Forest Service, and Arizona Game and Fish Department all have different missions to consider when undertaking bison management. However, generally, bison in the vicinity of Grand Canyon National Park are managed:

- By Arizona as a public trust wildlife resource towards a self-sustaining population retaining wild behavior;

- By Arizona on lands adjacent to the park as wildlife with public hunting as the primary population management approach;
- By USFS as wildlife in the HRWA and adjacent habitat to protect other resources and multiple uses, including cattle grazing, in accordance with the Kaibab National Forest Plan; and
- By NPS at GCNP as wildlife and to protect other park resources and values;
- For up to 90 animals on USFS lands concentrated within the HRWA using adaptive management techniques within habitat and resource capacity, which may include maintaining or improving vegetation conditions on Kaibab National Forest; and
- To retain natural selection processes and successful herd reproduction with minimal human intervention, except when supplementation may be needed to increase herd genetic diversity.

6. How is bison hunting managed in Northern Arizona?

As noted in response to previous FAQs, the Arizona Game and Fish Department has used public, recreational hunting, which is not authorized in Grand Canyon National Park, as the primary tool for managing bison on U.S. Forest Service lands. Over the years multiple strategies have been used, including:

1. Population Management Hunts- mid-June to mid-August on House Rock Wildlife Area – last used in 2009, which is the last time the House Rock herd occupied House Rock Wildlife Area in any numbers.

2. Companion Permits- Prior to 2014, Kaibab deer hunters had the opportunity to purchase a bison permit at a reduced cost (the number of permits ranged from 50-94 from 2011 to 2013, with a three year average of 79 companion permits).

3. Spring "Draw" Permit Season- January 1-June 14 for "any buffalo" (20 permits issued in 2014)

4. Multi Season Draw Permits - Starting in fall 2014, companion permits are replaced with draw permits with the following hunts:

Aug 15-28, 2014	Archery	7 Yearling or Adult Cow
Aug 29-Sep 11, 2014	Archery	7 Yearling or Adult Cow
Sep 12-25, 2014	General	7 Yearling or Adult Cow
Sep 26-Oct 9, 2014	General	7 Yearling or Adult Cow
Oct 10-23, 2014	General	7 Yearling or Adult Cow
Oct 24-Nov 6, 2014	General	7 Yearling or Adult Cow
Nov 7-20, 2014	General	7 Yearling or Adult Cow
Nov 21- Dec 4, 2014	General	7 Yearling or Adult Cow
Open Area:	Units 12A, 12B, and 13A (excluding House Rock Wildlife Area).	

In 2014, buffalo permit costs were set as follows:

- Bull or Any Buffalo- $1095 resident and $5,452.25 non-resident
- Cow or Yearling Buffalo-$695.50 resident or $3,262.75 non-resident
- Yearling Buffalo-$362.75 resident or $1,754.75 non-resident

7. Are bison a native species at Grand Canyon National Park?

Evidence exists that bison inhabited areas of the southwest, including Arizona, New Mexico and into Mexico, areas generally recognized as on the edge of the original range of bison. Archaeological evidence indicates that bison occasionally occurred within northern Arizona, and possibly within the current boundaries of Grand Canyon National Park (GCNP), prior to the last Ice Age (i.e. >12,000 years ago). Pictographs of bison appear in Kanab Creek along the Arizona and Utah border and at one location on the San Francisco Peaks near Flagstaff, Arizona. Historical records indicate that Spanish explorers encountered a small bison herd in northern Arizona in the mid-1500s (south of the Colorado River), though no evidence indicates that bison occurred at GCNP during the past 450 years.

8. How did the current bison herd end up in the park?

Bison now found at GCNP are descendants of bison brought to Arizona in June 1906 by Charles "Buffalo" Jones, who bred them with cows in an attempt to create a superior, more robust breed of livestock, the "cattalo." Jones received a permit to graze cattle and other big game animals on land the federal government made available on the Kaibab Plateau.

These federal lands eventually came under the jurisdiction of the National Park Service and U.S. Forest Service between 1906 and 1919. In November 1906, the Grand Canyon Game Preserve was created along roughly the same boundaries as what is today the North Kaibab Ranger District and north of the Colorado River in GCNP. The authorization came from a June 1906, act of Congress titled "An Act for the protection of wild animals in the Grand Canyon Forest Reserve." The act named "buffalo" specifically as a species worthy of protection. In 1908 the Kaibab National Forest was established (North Kaibab only). Later the same year, Grand Canyon National Monument was created. In 1919 the Grand Canyon National Park was established.

According to available information, by 1908 Charles Jones realized that the "cattalo" experiment was not as successful as he envisioned. Consequently, in 1909, he rounded up and sold all the animals he could.

Roughly 20 animals that Jones could not round up became the property of the Grand Canyon Cattle Company in House Rock Valley. In 1926, the state of Arizona purchased bison from the Grand Canyon Cattle Company and established the core herd in Arizona for what would become the House Rock Wildlife Area and the Raymond Wildlife Area in Flagstaff.

From 1928 to 1946, the USFS issued three permits to the AGFD for grazing bison in the south end of House Rock Valley. In 1950, in accordance with a memorandum of understanding amongst the USFS, the Arizona Game and Fish Commission, the Bureau of Land Management, and local stockmen, the Buffalo Ranch Allotment was set aside as an area for long-term bison use. This area has since become known as the House Rock Wildlife Area (HRWA).

For the next 40 years, the bison herd remained largely confined to the HRWA. Herd size in the 1990s (based on AGFD bison counts from 1990 to 1997) ranged from between 69 and 96 head (post-hunt), which was consistent with the size recommended by the USFS and AGFD Allotment Plan for the area.

However, during the late 1990s, the bison began "pioneering" up to the top of the Kaibab Plateau and into GCNP. A combination of public hunt pressure, drought, wildfire, and reduced forage quality in House Rock Valley during the 1990s are thought to have contributed to the bison moving through Saddle Mountain Wilderness and onto the higher elevations of the Kaibab Plateau. As the home range of the bison expanded to include areas beyond HRWA, traditional bison hunt strategies became less effective and the herd grew beyond AGFD/USFS objectives. In 2012 the herd numbers were estimated at over 300, with the majority of the herd staying within GCNP yearlong. Based on Arizona Game and Fish observations over the last 3 years, the herd is reproducing at a rate of 30 to 50% each year, depending on herd size and characteristics.

9. Is there anything unique about the current bison herd when compared to other bison herds?

Bison that use GCNP are the descendants of early 20th century "cattalo" breeding efforts as well as additional bison introduced by Arizona at the House Rock Wildlife Area to improve overall herd genetics. Bison in this herd have not been intentionally interbred with cattle for over 85 years, and no outward physical characteristics of cattle have been observed in over 20 years. Although the animals in this bison herd are sometimes referred to by others as beefalo or cattalo, these terms are more appropriately used in reference to animals that show phenotypic characteristics of cattle, which is not the case at GCNP.

Rather, the bison currently occupying GCNP lands are considered native wildlife within the southern edge of their historic range. Although recent genetic testing indicates the current population continues to have historic cattle genes, it is not possible to determine exactly what proportion of the entire genome is bison and what proportion is cattle. And, while genetic science also indicates that these bison do not possess the highly diverse or unique genetics for furthering the conservation of the species, compared to other wild bison herds, NPS law and policy allows for and encourages cooperation with federal and state agencies to manage conservation herds (despite their genetics history), as well as to improve the conservation genetics of bison herds.

10. What types of impacts do bison have on other resources and values protected at Grand Canyon National Park? (GCNP)

Bison across their historic range are capable of impacts to soils and vegetation, through grazing, physical damage, trampling, wallowing, and urine and dung deposition. Bison have also been shown to have positive impacts, such as increasing phytomass production and biodiversity in some landscapes of the Great Plains. These effects are expected, but have been shown to alter local landscape characteristics, which can be of concern for managing other resources and values. Although there is very little long-term science on positive, neutral, or negative effects from low density bison across local- to large-landscape scale sites in the southwestern edge of their range, Grand Canyon National Park has identified the following resources of concern:.

Water Resources: Persistent use of water seeps, springs and lakes results in dewatering and contamination of these sources. Additional concerns include denuded vegetation at the periphery of these water sources and soil disturbance and compaction.

Cultural Resources: A 2012 archeological site condition assessment at Point Sublime indicated the general area is directly impacted by bison. Trampling of artifacts and disturbance of prehistoric archeological sites were evidenced by bison tracks and presence of bison manure and urine. These large and heavy animals are accessing difficult to reach ledges and alcoves that contain preserved archeological resources.

Other archeological sites in the area are also being directly impacted by bison, evidenced by trailing, trampling, soil compaction, and damage to collapsed and stable habitation structures, artifact scatters, and historic mining features.

Unique Vegetation: High plateau meadows comprise a mere 0.3% of the park's landscape; this community supports alpine meadow plants that are being heavily grazed and in some instances, denuded. Grazing and wallowing appear to be reducing plant diversity and influencing the introduction and spread of invasive plant species, including bindweed, wooly mullein and cheatgrass. Impacted vegetation also includes species unique to seeps, springs, lakes and grasslands.

Other Wildlife: Concentrated bison use of certain areas could affect other wildlife and their habitat including sources of water and forage within the areas that bison graze consistently.

Wilderness: Current impacts caused by bison are affecting the wilderness character of the area proposed for wilderness designation and managed as such as directed by the Wilderness Act and NPS Management Policies 2006. This includes the loss of naturalness (it is the mandate of NPS that management should seek to sustain natural distribution, numbers, population composition, and interaction of indigenous species) and the untrammeled, primitive nature of the area (management intervention should only be undertaken to the extent necessary to correct past mistakes, the impacts of human use, and the influences originating outside of wilderness boundaries).

(Per NPS Reference Manual 41: Wilderness Preservation and Management, 6.3.7 Natural Resources Management)

Human/Bison Interactions: Over the past 3-4 years, vehicle collisions with bison have steadily increased. For example, from 2009 to 2011, there were 11 vehicle collisions with bison, while in 2012 alone there were seven with reports of extensive vehicle damage. These are occurring primarily at night, along Hwy 67, within and just outside the park boundary.

11. Are there concerns over disease transmission from bison to other wildlife or livestock?

The Arizona Game and Fish Department annually collects blood samples from harvested bison from the Raymond and House Rock bison herds to test for Bovine brucellosis, a disease of concern in bison. It is a bacterial infection that can cause reproductive problems in cattle and bison and can be transmitted by other wild ungulates such as elk. To date, bovine brucellosis has not been detected from either bison herd. No known disease outbreaks have been reported or observed during annual AGFD deer check station inspections of harvested deer either. Likewise, the Arizona Department of Agriculture State Veterinarian's Office indicates that this disease has not been detected in cattle on and around the North Kaibab Plateau.

12. What are the differences in bison management planning at Grand Canyon National Park versus Yellowstone National Park?

At Grand Canyon, the NPS is seeking to develop a plan that minimizes bison impacts to other park resources and values; and to support other agency goals for a free-ranging bison population, as appropriate. At Yellowstone National Park the NPS is just beginning a planning process with the purpose of conserving a wild and migratory population of Yellowstone-area bison while minimizing brucellosis transmission between bison and livestock to the extent practicable. Although both Grand Canyon and Yellowstone are concerned with managing bison consistent with their appropriate ecological role based on their locations within the historic range of the species, impacts to other resources from bison abundance, distribution, and movements are a central concern of the NPS at Grand Canyon, but less a focus at Yellowstone. And, as noted in response to FAQ #5, disease management is not a concern at Grand Canyon, whereas it is a central concern at Yellowstone.