



# Welcome

## *TO THE OPEN HOUSE FOR THE*

### INITIAL BISON HERD REDUCTION ENVIRONMENTAL ASSESSMENT

### GRAND CANYON NATIONAL PARK

*Please sign in*



View looking west from Powell Plateau

GRAND CANYON NATIONAL PARK  
INITIAL BISON HERD REDUCTION ENVIRONMENTAL ASSESSMENT





# Purpose and Need

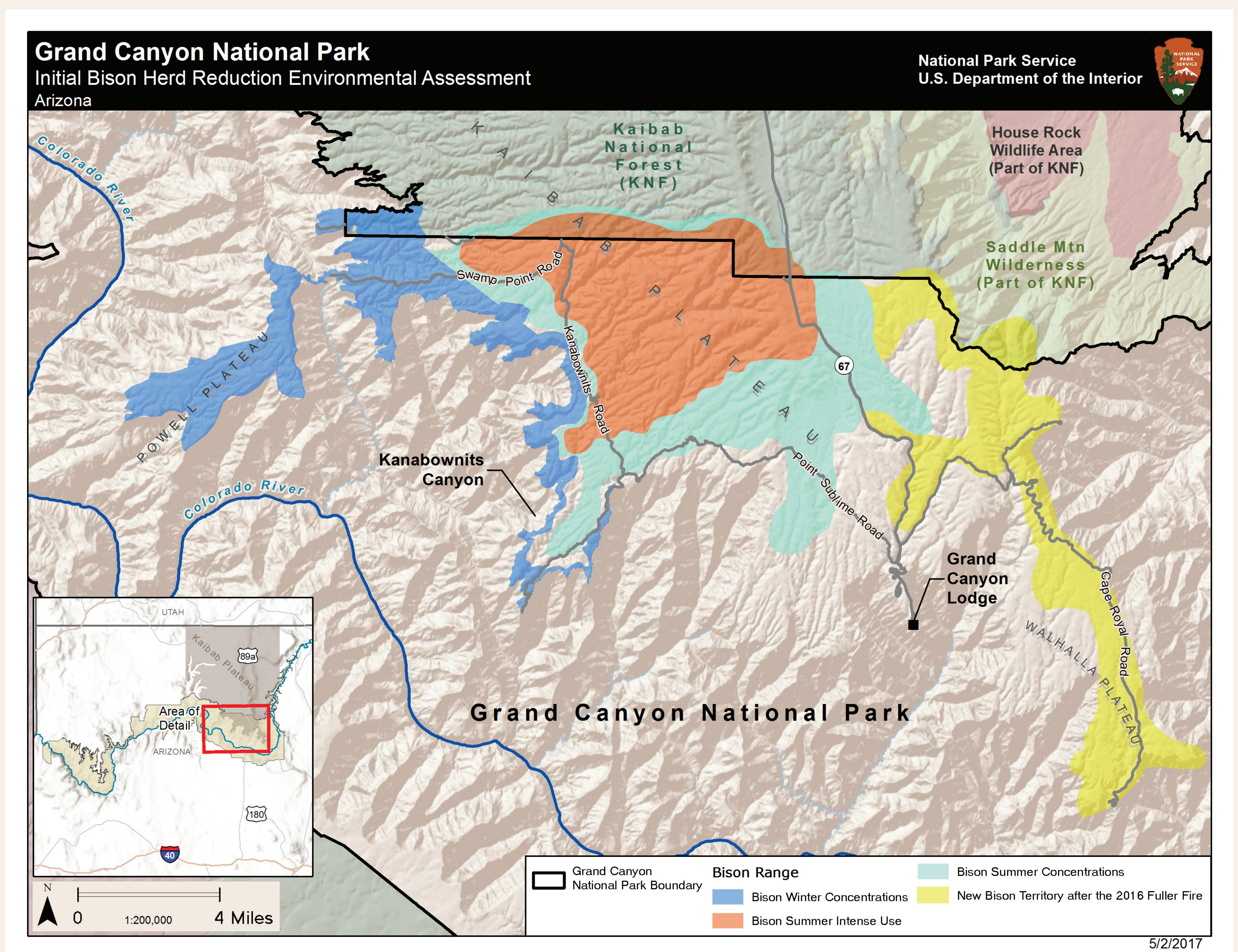
The ***purpose*** of taking action is to (1) quickly reduce the bison population in collaboration with other agencies with jurisdiction for bison management on the Kaibab Plateau, and (2) protect Grand Canyon National Park resources and values from the impacts of a steadily growing bison population.

Action is ***needed*** now because:

- Most of the House Rock bison herd now spends a majority of its time inside the park.
- Biologists estimate that since the early 1990s, despite a state-managed hunt outside the park, the House Rock bison herd grew from approximately 100 bison to between 400 and 600 bison that currently roam the Kaibab Plateau.
- The House Rock bison herd is expected to grow to nearly 800 bison in the next 3 years and as large as 1,200 to 1,500 animals within 10 years.
- Given current bison distribution, abundance, and density and the expected growth of the House Rock bison herd, the National Park Service is concerned about any current and potential increased impacts on park resources, such as water, vegetation, soils, and archeological sites; and on values such as visitor experience and wilderness character.

The Arizona Game and Fish Department manages bison in this area as a free-ranging herd through an agreement with the US Forest Service. The NPS is committed to working with these partners.

## BISON CONCENTRATION AREAS



## GRAND CANYON NATIONAL PARK INITIAL BISON HERD REDUCTION ENVIRONMENTAL ASSESSMENT





# Issues and Impact Topics Analyzed in Detail

The National Park Service analyzed in detail issues associated with the following resource areas. This list corresponds to the impact topics described in the affected environment and environmental consequences chapters of the environmental assessment.

- House Rock bison herd
- Water resources in the karst landscape
- Bison-affected vegetation
- Soils
- Wildlife (other than bison) and wildlife habitat
- Special-status wildlife species
  - › Mexican spotted owl (*Strix occidentalis lucida*)
  - › California condor (*Gymnogyps californianus*)
  - › Northern goshawk (*Accipiter gentilis*)
  - › Northern leopard frog (*Lithobates pipiens*)
- Wilderness character
- Cultural and tribal resources
  - › Archeological resources and prehistoric and historic structures
  - › North Rim Entrance Road Corridor Cultural Landscape
  - › Traditional cultural properties and ethnographic tribal resources
- Visitor use and experience







# Alternatives and Impacts

## ALTERNATIVE 1: NO ACTION

Under the no-action alternative, the National Park Service would not reduce the House Rock bison herd, which would continue to grow and could become as large as 1,200 to 1,500 animals within 10 years.

The no-action alternative would represent a continuation of the National Park Service's current efforts to:

- Monitor bison and their effects on other resources and potentially use fenced enclosures around water sources.
- Communicate and collaborate with other agencies regarding research on bison management tools and the presence of bison on the Kaibab Plateau.
- Provide interpretive information throughout the park about the history of the House Rock bison herd on the North Rim.

## IMPACTS OF ALTERNATIVE 1: NO ACTION

Adverse impacts would increase over time as the bison population grows and would include:

- Increased intensity and extent of trampling of vegetation and soils near water sources
- Increased consumption of vegetation and water
- More intense and widespread adverse impacts on natural and cultural resources and the natural character of wilderness from:
  - › Reduced native plant productivity and cover
  - › Increased rates of soil disturbance and compaction
  - › Increased risk of local depletions of water sources or degraded water quality
  - › Increased use of habitat (e.g., wet meadows and surface water) for special-status species, such as the northern leopard frog
  - › Damage to or destruction of archeological resources, prehistoric structures, traditional cultural properties, and ethnographic resources





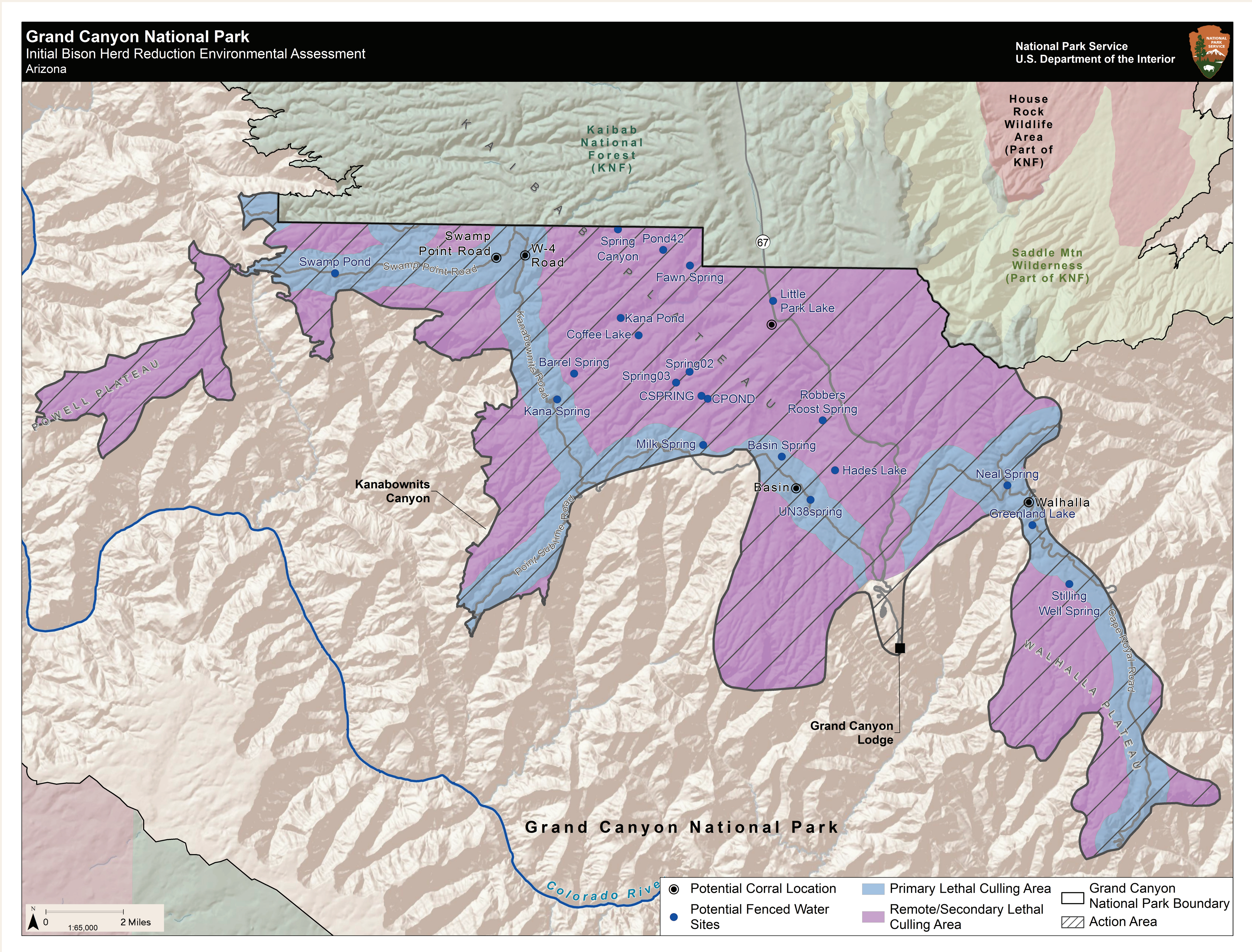
# Alternatives and Impacts

## ALTERNATIVE 2: PREFERRED ALTERNATIVE

Under alternative 2, the National Park Service would:

- Collaborate with federal, state, and tribal partners to reduce the House Rock bison herd to fewer than 200 animals as quickly as possible.
- Inside the park, use a combination of nonlethal culling by live capture and removal of bison and lethal culling by skilled volunteers and tribal members.
- Coordinate NPS reduction activities inside the park with Arizona Game and Fish Department activities outside the park (e.g., hunting on national forest system lands) to maximize effectiveness.
- As appropriate, use other tools, including attractants, hazing and herding, and targeted exclusion fencing.

### ACTION AREA AND LOCATIONS OF CORRALS, LETHAL CULLING, AND FENCING UNDER THE PREFERRED ALTERNATIVE



### NONLETHAL CULLING (June to September):

- Install temporary corrals in up to five locations and employ mitigation measures, including avoiding water resources and conducting surveys for/avoiding cultural resources
- Design corrals to limit stress to captured bison and to sort bison by age/sex as needed
- Use soft handling techniques, hazing/herding, and attractants (e.g., food/water) to move and capture bison
- Load bison into trailers for removal from the park
- Transfer captured bison to willing recipients, which could include tribes, the state of Arizona, other federal agencies, and non-governmental organizations





# Alternatives and Impacts

## ALTERNATIVE 2: PREFERRED ALTERNATIVE (CON'T.)

LETHAL CULLING (Potentially year-round, with culling primarily occurring from mid-October to mid-May):

- Lethally remove bison from the park with firearms, using teams consisting of an NPS lead, skilled volunteers, and tribal personnel
  - › Use trained team members who meet predetermined requirements
  - › Use lead-free ammunition
- Access lethal culling areas on foot and/or with stock animals utilizing established roads via four-wheel-drive vehicles or snow machines.
- Use fixed-wing aircraft to help locate and monitor bison
  - › Employ mitigation that includes flight restrictions for special-status species
- Use carcass removal teams and, if needed, helicopters in remote locations to remove bison meat and other parts
  - › Employ mitigation that includes flight restrictions for special-status species
- Make every reasonable effort to salvage meat and other parts (e.g., hides, heads, and horns) from the field for beneficial human use
  - › Donate bison meat, as appropriate, to volunteers, tribal members, and food banks
  - › Donate other bison parts to tribal partners and federal or state agencies for non-monetary uses (e.g., public or educational display or research)

## ADDITIONAL TOOLS

- Use targeted exclusion fencing around water sources or other sensitive areas prone to bison use
- Prompt bison to move toward capture sites or away from sensitive resources using hazing/herding, which may include limited use of helicopters, and attractants (e.g., food and water)
- Monitor reduction tool effectiveness, bison response to reduction activities, and response of other resources to bison reduction





# Alternatives and Impacts

## IMPACTS OF ALTERNATIVE 2: PREFERRED ALTERNATIVE

Implementation of lethal and non lethal culling would have mostly transient and localized impacts:

- Constructing corrals, corralling bison, and accessing corral sites to remove bison
  - › One to two acres of localized vegetation trampling and soil disturbance and compaction
  - › Impacts on visual characteristics of the North Rim Entrance Road Corridor cultural landscape
  - › Mitigation to include avoidance of water resources, soil aeration, and revegetation
- Shooting activities and increased movement of bison
  - › Limited, localized soil disturbance and compaction, including impacts on hydrologic function if activities occur near seeps, springs, lakes, or ponds
  - › Potential for trampling of known and unknown archeological sites
- Noise from presence of people, use of vehicles/aircraft, discharge of firearms, and other activities
  - › Localized disturbances to wildlife and special-status species
  - › Diminished opportunities for solitude or primitive, unconfined recreation, as well as visitor use and experience
- Managing bison in wilderness would result in degradation of:
  - › Untrammeled wilderness character
  - › Undeveloped wilderness character from the use of temporary corral structures, fencing of resources, and motor vehicles
  - › Natural wilderness character from impacts on vegetation, soils, and water
  - › Opportunities for solitude or primitive, unconfined recreation as a result of closures

*While bison would still be present on the landscape, reducing the House Rock bison herd to fewer than 200 animals would improve resource conditions in the park. A smaller herd would benefit park resources and values and could also benefit US Forest Service resources and values, including:*

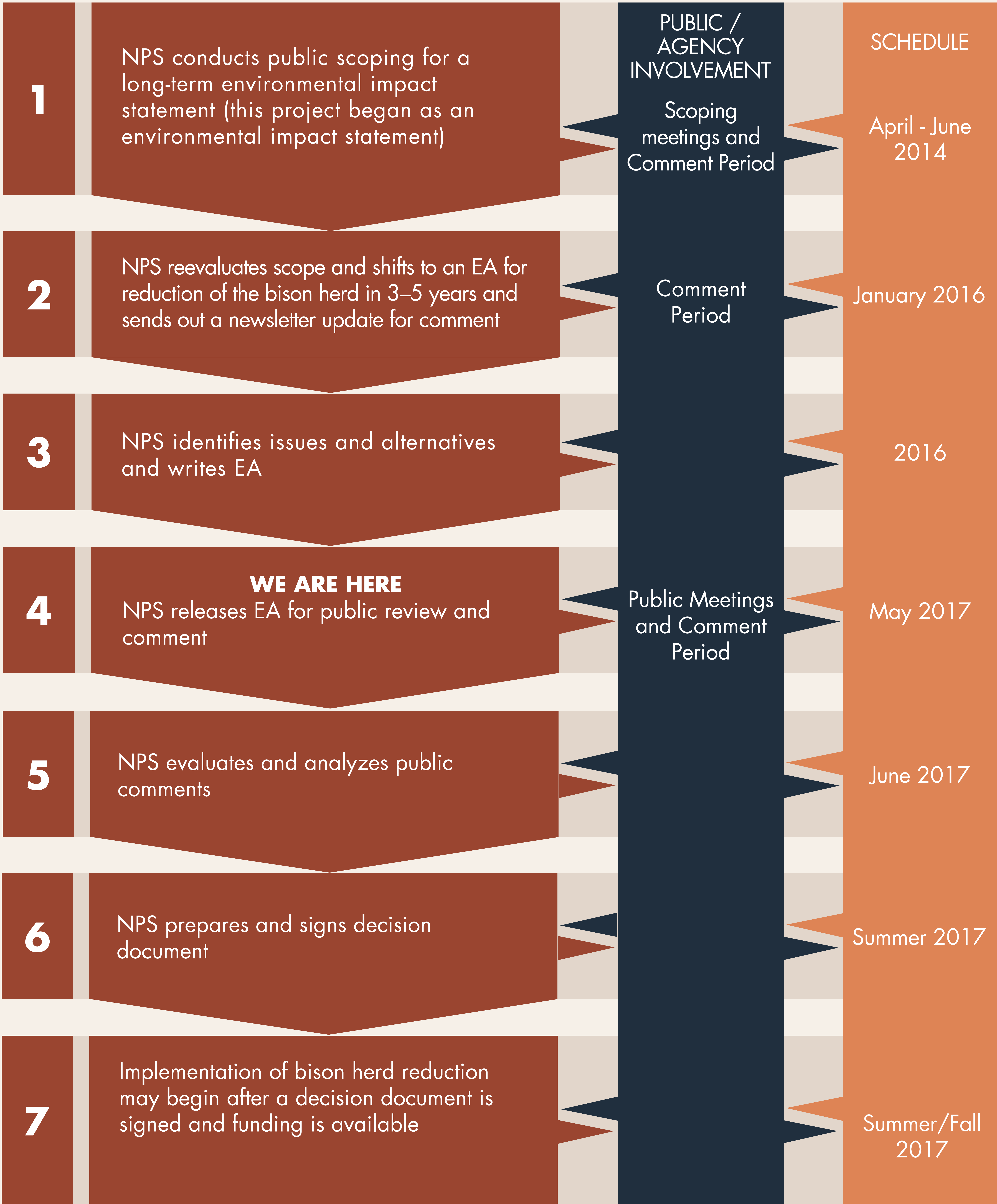
- Increased species diversity and vegetative cover in meadows and wetland-associated habitat, thereby improving habitat for wildlife and special-status species
- Fewer new instances of trampling of or damage to archeological resources, prehistoric structures, traditional cultural properties, and ethnographic resources
- Improved water quality and availability
- Improved natural wilderness character





# The National Environmental Policy Act Process, Public Involvement Opportunities, and Timeline

Steps in the planning and NEPA process and the anticipated timeline are identified below.



This environmental assessment was prepared by the NPS in cooperation with the following agencies:

- US Forest Service-Kaibab National Forest
- Bureau of Land Management
- Arizona Game and Fish Department
- InterTribal Buffalo Council





# Alternatives Considered But Dismissed

## ALTERNATIVE

## REASON FOR DISMISSAL

**Elimination of Bison from Grand Canyon National Park**

It would not be possible to remove all bison from the park within 3-5 years, and eliminating bison would represent a decision about long-term management that is outside the scope of this EA.

**Managed Hunt/Public Hunting**

Hunting is not authorized in the park and is inconsistent with existing laws, policies, and regulations.

**Fertility Control**

Fertility control techniques are often uneconomical or infeasible to implement and would not reduce the herd to fewer than 200 animals within 3–5 years. Further, National Park Service managers do not have sufficient understanding of the behavior and distribution of the House Rock bison herd to implement fertility control measures.

**Park Border Fence**

A fence would not accomplish the objectives to quickly reduce the House Rock Bison herd to a lower level and density, and other issues related to wilderness and other wildlife movement would have too great an environmental impact that can be avoided with other alternative elements.

**Gray or Mexican Wolf Reintroduction**

Reintroduction of either species of wolf would not be a predictable population reduction tool and would not reduce the House Rock bison herd quickly, or possibly not at all.

**Use of Dogs to Haze or Herd the Bison**

Experts indicate the use of herding dogs to haze or herd bison is not effective; bison are extremely difficult to move using dogs, and it is dangerous for the dogs.

**Stand-Alone Tools for Reduction (Nonlethal vs. Lethal Culling)**

Modelling for this project indicates that using only nonlethal culling (capture and removal) or lethal culling (with firearms) as stand-alone approaches would take too long or be too difficult to implement in a timely fashion.





# Options for Public Comment

The public is invited to provide input in several ways:

**1**

Submit comments electronically at:

[http://parkplanning.nps.gov/GRCA\\_bison](http://parkplanning.nps.gov/GRCA_bison)  
(preferred method)

**2**

Submit comments in person at a meeting

**3**

Submit written comments by mail to:

Superintendent  
Grand Canyon National Park  
PO Box 129  
Grand Canyon, Arizona 86023

**4**

Submit comments in person at Grand Canyon National Park's office in Flagstaff at:

1824 S. Thompson Street  
Flagstaff, AZ 86001

Please submit your comments on the EA by

**June 7, 2017**

*You should be aware that your entire comment—including personal identifying information, such as your address, phone number, and email address—may be made public at any time. While you can ask in your comment that your personal identifying information be withheld from public review, the National Park Service cannot guarantee that it will be able to do so.*