



National Park Service
U.S. Department of the Interior
Haleakalā National Park

FINDING OF NO SIGNIFICANT IMPACT KALAHAKU OVERLOOK AREA MANAGEMENT Haleakalā National Park

July 2019

BACKGROUND

Increased visitation to areas of the Summit District of Haleakalā National Park (HNP) over the past decade has raised concerns about visitor safety and enjoyment and adverse impacts to natural and cultural resources at Kalahaku Overlook. The overlook is one of four locations in the park where visitors gather to watch sunrise and sunset and enjoy broad Crater vistas. Kalahaku Overlook is located on the Crater's western rim and provides unobstructed scenic views east into the Crater and to the west overlooking the island of Maui. Viewing areas along Haleakalā Crater become crowded during peak visitation periods.

This Finding Of No Significant Impact (FONSI) and its associated environmental assessment constitute the record of the environmental impact analysis and decision-making process. The National Park Service (NPS) will implement the selected alternative (proposed action) for Kalahaku Overlook area management to protect the area's natural and cultural resources while improving the visitor experience and visitor safety. The proposed action was selected after careful analysis of resource and visitor impacts, consultation with Native Hawaiian Organizations and park Kūpuna Groups, and review of public comments.

This document records (1) a finding of no significant impact as required by the National Environmental Policy Act of 1969; (2) a finding of no effect to federally listed species or their habitat as required by the Endangered Species Act, Section 7; and, (3) a finding of no adverse effect as required by the National Historic Preservation Act, Section 106; all described by the Director's Order #12 and Handbook (NPS 2015). This finding of no significant impact is available on the NPS Planning, Environmental and Public Comment (PEPC) website at <http://parkplanning.nps.gov/Overlook>.

PURPOSE AND NEED FOR FEDERAL ACTION

The purpose of this action is to rehabilitate visitor use areas at Kalahaku Overlook to improve visitor enjoyment and safety and reduce adverse impacts to natural and cultural resources. The need for this action is driven by the number of visitors to the overlook and the lack of clearly defined trails and visitor use areas, especially during dusk, dawn, and dark hours. Kalahaku Overlook receives up to several

hundred visitors daily. The existing overlook structure is the only designated viewing area along the Crater rim at this location, and often becomes overcrowded during peak viewing times. Visitors wander off-trail around the Crater edge and near steep cliffs, and into Threatened and Endangered species habitat to experience better views. There is a need to more clearly delineate visitor use areas to increase visitor safety and reduce impacts on natural and cultural resources.

There is a need to better educate visitors on the types of natural and cultural resources at Kalahaku Overlook, and the impacts to these resources when visitors travel outside of designated visitor use areas. There is a need to improve the condition of the Silversword Trail, including the adjoining stairs and adjacent rock wall, for visitor safety and enjoyment. There is a need to increase the number of activities and educational opportunities available at HNP for individuals with disabilities.

SELECTED ALTERNATIVE

Based on the analysis presented in the environmental assessment, the NPS has selected Alternative 2: Improve Existing Features and Add Open Air Viewing Areas, which was the preferred alternative. Alternative 2 consists of: additional trail delineations; installation of pathway lighting; installation of signage; improvements to the parking area; improvements to the Silversword Trail, adjacent rock wall, and stairs; installation of two newly designated viewing areas along the Crater rim; and installation of a platform and interpretive wayside exhibit that conforms to Architectural Barriers Act Accessibility Standards code requirements and utilizes universal design principles.

ALTERNATIVES CONSIDERED

Three alternatives were analyzed; a no action alternative, and two action alternatives. Under the no action alternative there would be no improvements made to Kalahaku Overlook although routine maintenance would still be performed. One of the action alternatives (Alternative 3: Improve Existing Features and Expand Sheltered Viewing Area) contains many of the same improvements set forth under Alternative 2 (Preferred Alternative), but rather than adding newly designated viewing areas along the Crater rim and an Architectural Barriers Act Accessibility Standards code compliant viewing area, the existing Kalahaku Overlook structure would be expanded following the Secretary of the Interior's standards for the treatment of historic properties.

MITIGATION MEASURES

As described in the environmental assessment the following measures will be applied to minimize negative impacts due to implementation of the selected action.

Impacts to federally listed species

- Coordinate with biologists to schedule operations at strategic times to avoid inadvertent contact with or impact to any known Threatened and Endangered Species.
- Personnel working on improvements would be required to be able to properly identify Threatened and Endangered Species.
- No federally Threatened *ʻāhinahina* or Haleakalā silversword (*Argyroxiphium sandwicense* ssp. *macrocephalum*) plants would be removed. Walking near the base of Haleakalā silverswords would not occur.
- No gathering of rock and cinder would occur within 100 feet of Threatened and Endangered Species.
- Small rocks, gravel, and cinder would be collected from borrow pits in the park base yard around 7,000 feet without disturbing native vegetation. Additional cinder is not anticipated, but if

needed, could come from a source on island, after being inspected by park staff and cleared to be free of invasive species.

- All project personnel would be notified that Threatened or Endangered Species could be in the vicinity of the project at any time during the year. If a Threatened or Endangered Species should appear within 100 feet of ongoing work, all activity would be suspended until the species leaves the area on its own.
- All project personnel would be notified of the potential for 'ua'u or Hawaiian petrels (*Pterodroma sandwichensis*) and nēnē or Hawaiian geese (*Branta sandvicensis*) to be present on roadways and would be required to travel at or below posted speed limits.
- Pathway lighting would be low to the ground, shielded or pointed downward, and a warm light color, such as amber, so as not to disrupt flight patterns of Threatened and Endangered seabirds.
- Noise and vibration of equipment would be kept to a minimum when working in the vicinity of Threatened or Endangered Species.
- Work areas would be cleaned up at the end of each shift so that loose tools, debris and materials are not left out in a manner that could present a hazard to listed species or visitors.
- Hazmat spill prevention protocols and all other construction best practices, would be followed while operating all gas-powered equipment.
- Tarpaulins would be used to contain any debris that may fall while working on buildings or rock and mortar structures (e.g. paint chips, mortar chips). Magnets would be used to pick up all loose nails or screws from the work site.
- All signs would be installed at the lowest possible height to decrease risk of collision for Hawaiian petrels.

Spread of Invasive Species

- All tools, construction materials, work boots, and clothes would be inspected by park staff and free of weed seeds and plant material.
- Material required for the project would consist of those already in the park or would be inspected for invasive species prior to being imported into the park.
- All trash, particularly food items, would be removed daily to avoid infestations of Argentine ants and Western yellow-jacket wasps.

Cultural Resources

- All ground disturbance will be monitored by a qualified archeologist.
- No large rocks from Kalahaku Overlook would be used. Large rocks would come from other areas of the park, mainly the stockpile in the park baseyard, which is rock from HNP removed during previous projects.

Human Health and Safety

- All personnel working on project would wear personal protection equipment at all times.
- Safety personnel would advise on safety concerns, as needed.

PRELIMINARY OPTIONS CONSIDERED AND DISMISSED

One alternative was considered but dismissed from further analysis. The alternative included all of the actions common to both Alternative 2 and Alternative 3, as well as the addition of an interpretive structure just north of the existing Kalahaku Overlook structure. The interpretive structure would have

been a stand-alone structure, seating up to twenty people, and intended for ranger-led and self-guided interpretation.

This alternative was dismissed from consideration as it does not fully meet the purpose and need of increasing the number of designated viewing areas to improve visitor enjoyment and safety. This alternative did not include providing increased access and educational opportunities for people with disabilities. This alternative was also dismissed due to lack of available staff to conduct ranger-led interpretive activities.

WHY THE SELECTED ACTION WILL NOT HAVE A SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an Environmental Impact Statement.

No significant impacts to resources were identified that would require analysis in an environmental impact statement. Measures to minimize any potential negative or adverse impacts would be implemented. Additional detail on impacts to resources can be found in the environmental assessment.

The degree to which public health and safety are impacted.

Additional delineated viewing areas and trails will direct visitors to safe areas for travel and viewing and reduce the likelihood visitors will walk around near the steep drop offs along the Crater's edge and on steep slopes potentially injuring themselves. Pathway lighting on the new spur trails would improve the safety of all visitors during dusk, dawn, and dark hours. Installation of signage and crosswalks to the parking area would improve pedestrian safety by indicating where to cross and alerting drivers that pedestrians might be present on both sides of the parking area. Visitor trips and falls on the Silversword Trail would be reduced by repair of the trail and the installation of pathway lighting. Improvements made within the parking area would conform to Architectural Barriers Act Accessibility Standards (ABAAS) scoping and code requirements. The selected action in combination with the existing sunrise reservation system will reduce crowding at the Kalahaku Overlook structure. Visitors would have more space for viewing the sunrise, rather than wandering off-trail to dangerous areas along the Crater rim. Impacts to human health and safety resulting from the selected alternative are beneficial and direct, and the cumulative impacts would also be beneficial.

Impacts to any unique characteristics of the area (proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains, and so forth).

Cultural resources at Kalahaku Overlook include the cultural landscape, historic structures, and the ethnographic resource associated with Native Hawaiian cultural practices. Although there are archeological features in the surrounding area, reconnaissance and inventory surveys indicate there are no archeological features within the area of potential effect (APE). Improvements to historic structures are necessary in order to prevent their disrepair. Under the selected alternative, all repairs done to historic structures would be completed using in-kind materials and following the Secretary of the Interior's Standards for the Treatment of Historic Properties. Clear delineation of visitor use areas will reduce pedestrians in off-trail areas, which would be beneficial to cultural resources. Implementation of the selected action would result in direct beneficial impacts to cultural resources, including historic structures.

A number of federally Threatened and Endangered Species are known to occur or may occur in the vicinity of the project area. These include: Threatened 'āhinahina or Haleakalā silversword (*Argyroxiphium sandwicense* ssp. *macrocephalum*); Endangered 'ua'u or Hawaiian petrel (*Pterodroma sandwichensis*); Endangered nēnē or Hawaiian goose (*Branta sandvicensis*); 'akē'akē or band-rumped storm petrel (*Oceanodroma castro*); and 'ōpe'ape'a or Hawaiian hoary bat (*Lasiurus cinereus semotus*). The project area lies within designated critical habitat for the Threatened 'āhinahina or Haleakalā silversword (*Argyroxiphium sandwicense* ssp. *macrocephalum*). The Kalahaku Overlook area contains active 'ua'u burrows, although they are located outside of the project area.

Implementation of the selected action would result in direct beneficial impacts to Threatened and Endangered Species and critical habitat as clear delineation of visitor use areas should reduce pedestrian traffic in off-trail areas. Signage will be installed to inform visitors that travelling outside of designated visitor use areas can result in adverse impacts to Threatened and Endangered Species. The likelihood of visitors having direct contact with active 'ua'u burrows will be reduced. Pathway lighting will conform to the seabird and night sky friendly lighting and structures guidance (e.g. be low to the ground, shielded or pointed downward, and a warm light color such as amber).

The degree to which the potential impacts are likely to be highly controversial.

Throughout the environmental assessment process, no environmental impacts associated with the selected alternative have been identified as controversial. NPS conducted internal and external scoping, held public and kūpuna meetings, and provided for a 31-day public comment period on the environmental assessment. Comments were solicited from agencies, organizations, and the public. NPS has not received substantive comments indicating opposition to the implementation of the selected alternative based on direct effects to the human environment.

The degree to which the potential impacts are highly uncertain or involve unique or unknown risks.

The proposed Kalahaku Overlook management actions address visitor safety, enjoyment and current adverse impacts to natural and cultural resources. Impacts resulting from the proposed action would primarily be beneficial and direct. Cumulative impacts to various resources in the area do not represent a significant adverse effect. The anticipated impacts to the human environment, as analyzed in the environmental assessment, are not highly uncertain or unique and do not involve unknown risks. Resource conditions in the project area are well known and the anticipated impacts from implementing the proposed Kalahaku Overlook management actions are understood based on NPS experience with similar projects.

Whether the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The selected alternative does not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration. All elements within the selected alternative are common management actions conducted at national parks. All repairs and improvements will be done using in-kind materials and in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Whether the action is related to other actions that may have individual insignificant impacts but cumulatively significant impacts. Significance cannot be avoided by terming an action temporary or breaking it down into small component parts.

Cumulative impacts were analyzed in the environmental assessment and no significant adverse cumulative impacts were identified. Implementation of the selected alternative in combination with the majority of other past, present, and future projects included in the environmental analysis contribute to protection of native species and habitat and cultural resources as well as improvement of visitor safety and enjoyment.

Degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources.

In 2008 the NPS portion of the Haleakalā Highway was determined eligible for listing in the National Register of Historic Places (NRHP) as a historic district, including Kalahaku Overlook along with other developmental nodes. The period of significance for the historic district extends from 1933 to 1966, beginning with the initial construction of the road and covering the subsequent improvements and developments along the road that furthered the park's mission to enhance visitor access to Haleakalā Crater. Kalahaku Access Road and the parking area were constructed in 1954. Historic features constructed or improved between 1954 and 1966 were part of the Mission 66 Program, a national NPS initiative to improve deteriorating infrastructure and accommodate changing visitation patterns. Existing features at Kalahaku Overlook eligible for listing in the NRHP include the Kalahaku Overlook structure, four sets of rock and mortar stairs with railings, the asphalt Silversword Trail, walkways, and the rock wall along the Silversword Trail.

No historic properties, significant scientific, archeological, or cultural resources would be adversely impacted by the proposed action. Resurfacing the Silversword Trail with asphalt would be in keeping with the character of the historic district and the Mission 66 design philosophy. The historic stairs and adjacent rock wall would be rehabilitated using in-kind materials, and addition of the path lighting would be compatible with the historic Mission 66 design philosophy. All rehabilitations would follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. The NPS submitted a determination of "no adverse effect" to the Hawai'i State Historic Preservation Office and received no response on the determination.

Degree to which the action may adversely affect an Endangered or Threatened Species or its critical habitat.

The selected alternative would not result in any significant adverse effects to Threatened and Endangered Species. Repair to the Silversword Trail, stairs, and rock wall can occur within the current footprint of the features without impacts to Haleakalā silverswords. There are no Haleakalā silverswords within the footprint of the proposed new viewing areas and access trails. There are no Haleakalā silverswords within the footprint of the proposed new accessible platform.

The selected alternative would result in short-term, temporary noise. Noise, dust, and exhaust from vehicles and construction have the potential to result in startle, alarm, and alert wildlife and disturb the daytime activities of nesting Hawaiian petrels. There is likely currently some level of noise habituation by Hawaiian petrels due to the daily presence of vehicles and the sound levels from the selected action

would be similar. All project activities would take place more than 100 feet away from Hawaiian petrel burrows.

The project does not involve the installation of any barbed wire fencing, powerlines, guywires, or other cables that have been known to cause injury to bats and birds. The planned pathway lighting would conform to the seabird and night sky friendly lighting and structures guidance. Installed outdoor lights will be low to the ground, shielded or pointed downward, and a warm light color, such as amber, so as not to disrupt flight patterns of Threatened and Endangered seabirds. No significant adverse effects to wildlife are anticipated due to installation of pathway lighting.

The adverse effects on Threatened and Endangered Species would be negligible due to the above measures that will be taken to minimize impacts. Visitors currently travel outside of designated use areas, negatively impacting Haleakalā silversword critical habitat. New sidewalks, railings, signs, and trail delineations will direct visitors to stay in designated visitor use areas. It is expected that the selected alternative will benefit Haleakalā silversword critical habitat as impacts from visitors will be confined to designated visitor use areas.

Whether the action threatens a violation of Federal, State, or local environmental protection law.

The selected alternative does not violate any federal, state, or local environmental protection laws.

PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

Scoping

A description of all alternatives along with a request for comment was distributed to agencies, organizations, and individuals as well as posted, and advertised on both the NPS Planning, Environment, and Public Comment webpage and HNP websites. Additionally, all alternatives were discussed at a public meeting held on December 7, 2017 in Pukalani, Hawai'i to inform, answer questions, and collect comments. The Haleakalā Summit and Kīpahulu Kūpuna Groups and 21 Native Hawaiian Organizations (NHOs) were invited to attend a site visit and "talk story" session regarding the proposed improvements on March 7, 2018. In April of 2019, Haleakalā Summit and Kīpahulu Kūpuna Groups and NHOs were consulted by mail about the project and any historic properties of religious or cultural significance that might be impacted. No comments were received.

Environmental Assessment Review

The NPS released the Environmental Assessment (EA) for Kalahaku Overlook Area Management for public review from May 27, 2019 to June 27, 2019. The public review period was announced via a newsletter, press release and advertised on both the NPS PEPC and HNP websites for availability of wide spread participation. A letter was also sent under Section 106 of the National Historic Preservation Act to Haleakalā Summit and Kīpahulu Kūpuna Groups and 21 NHOs requesting comment on the APE and finding of no adverse effect, and with a link to the EA. In total, five comments were received. Comments and concerns were related to: safety; overcrowding in the summit region; continued access by Native Hawaiians in the furtherance of their cultural practices at HNP; and continued protections for natural and cultural resources. Comments provided during the comment period did not result in any needed clarifications or edits to the Kalahaku Overlook Area Management EA.

Agency Consultation

U.S. Fish and Wildlife Service (USFWS)

In November 2018, the USFWS informed NPS that the proposed activities in the action alternatives were covered under the park's current Biological Opinion for park activities and that all appropriate mitigation measures must be followed for work occurring in the area. Additionally, biologists familiar with the listed wildlife species potentially present must be consulted at least one month prior to the start of work to ensure minimization measures are pertinent and accurate.

Hawai'i State Historic Preservation Division (SHPD)

On May 28, 2019, NPS sent the Hawai'i State Historic Preservation Division (SHPD) a letter detailing the proposed action and all Section 106 consultation to date with Haleakalā Summit and Kīpahulu Kūpuna Groups and NHOs. The letter provided a link to view the EA. The letter detailed that NPS believes, in accordance with 36 CFR Part 800.5(b), that a finding of "no historic properties adversely affected" is appropriate for the undertaking and requested concurrence on the project APE and finding of effect. The Hawai'i State Historic Preservation Officer (SHPO) did not send a response within the required 30-day review period.

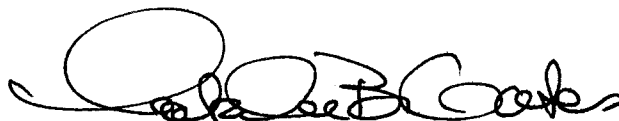
CONCLUSION

As described above, the proposed action does ^{not} meet the criteria for preparation of an Environmental Impact Statement. The proposed action would not have significant effect on the human environment. Environmental impacts that could occur are limited in geography, context and intensity and when combined with mitigation measures, would be negligible. The proposed project would result in long-term beneficial effects, particularly in regard to visitor enjoyment and safety as well as cultural and natural resources. There are no unmitigated adverse impacts on public health, public safety, Threatened or Endangered Species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region.

No highly uncertain or controversial impacts, unique or unknown risks, or significant cumulative impacts were identified. Implementation of the action would not violate any federal, state, or local environmental protection laws.

It has been determined that an environmental impact statement is not required for this project and thus will not be prepared.

Recommended: _____

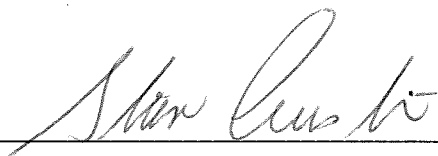


Natalie B. Gates, Superintendent

7/10/19

Date

Approved: _____



Stan Austin, Regional Director

8/8/19

Date

DETERMINATION OF NO IMPAIRMENT KALAHAKU OVERLOOK AREA MANAGEMENT

Haleakalā National Park
July 2019

The National Park Service *Management Policies 2006* requires analysis of potential effects to determine whether or not actions would impair park resources or values. The fundamental purpose of the national park system, established by Title 54 and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give the National Park Service the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of a park. Although Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of these resources or values. An impact on any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment when there is a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or,
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or,
- identified as a goal in the park's general management plan or other relevant National Park Service planning documents as being of significance.

An impact would be less likely to constitute impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

This determination of no impairment has been prepared for the selected action described in the Finding of No Significant Impact (FONSI), for the applicable impact topics that were considered in the Kalahaku Overlook Area Management Environmental Assessment. The threshold for considering whether there could be impairment is based on whether an action will have significant effects. Impairment determinations are not necessary for visitor use and experience, socioeconomics, public health and safety, and park operations. After dismissal of the above topics, the remaining areas for evaluation for possible impairment include: vegetation, wildlife, habitat, geological resources, lightscapes, soundscapes, cultural landscapes and structures, ethnographic resources and cultural practices.

BIOLOGICAL RESOURCE TOPICS

Vegetation

The selected action will not result in impairment of vegetation. Potential direct adverse impacts to vegetation include: trampling; disturbance due to removal of small rocks and cinder and moving large rocks into place; and mortality due to installation of new infrastructure (e.g. sidewalks, railings, viewing areas). Kalahaku Overlook contains large areas of bare ground, making it feasible to conduct most activities without disturbing any large areas of native vegetation. *Āhinahina* or Haleakalā silverswords (*Argyroxiphium sandwicense* ssp. *macrocephalum*) would not be susceptible to trampling during repair activities as all plants are a minimum of three feet away from the Silversword Trail, stairs, and rock wall. Workers would be able to repair the trail, stairs, and rock wall from within the previously disturbed footprint of the trail. Vegetation within the areas where overlook infrastructure will be installed represents a small amount of the native plant coverage at Kalahaku Overlook and the impact from disturbance would be negligible. Measures to minimize risk of introduction of non-native plant species will be employed.

Direct beneficial impacts to vegetation are expected as fewer people will be as inclined to wander outside of designated visitor use areas and trampling vegetation. Decreased disturbance by humans may provide for expansion of native plant population outplanting throughout the Kalahaku Overlook area. Concerns of visitors trampling Haleakalā silverswords or the sensitive root area surrounding each plant would be reduced.

Wildlife

The selected action will not result in impairment of wildlife. Potential direct adverse impacts to wildlife include disturbance due to noise and direct mortality of invertebrates. The selected action would result in short-term, temporary noise. Noise by vehicles and construction has the potential to result in startle, alarm, and alert behavior and disturb the day-time activities of nesting 'ua'u or Hawaiian petrels (*Pterodroma sandwichensis*). There is likely some level of noise habituation currently by Hawaiian petrels due to the daily presence of vehicles at Kalahaku and sound levels from the selected action would be similar. All project activities would take place more than 100 feet away from Hawaiian petrel burrows. Gathering small rocks and cinder to delineate visitor use areas is likely to result in some direct mortality to a small number of native invertebrates at borrow pit locations. Proposed activities in the action alternatives were covered under the park's current Biological Opinion. Additionally, biologists familiar with the listed wildlife species potentially present must be consulted at least one month prior to the start of work to ensure minimization measures are pertinent and accurate. These measures to minimize adverse impacts would ensure no 'take' of threatened or endangered species.

Direct beneficial impacts to wildlife are expected as there would be fewer visitors wandering outside of designated use areas. Visitors unintentionally wandering into sensitive habitat would be reduced. The creation of new viewing areas and access trails would likely result in the direct, short-term mortality of some invertebrates due to trampling. However, directing visitor traffic to specific areas rather than visitors wandering all around Kalahaku Overlook would result in a lower long-term mortality rate for invertebrates.

Habitat

The selected action will not result in impairment of habitat based on the current foot traffic patterns in the area. All work would take place in areas that have already been degraded or disturbed as a result of

long-term visitor use. Impacts to invertebrate habitat due to borrow (e.g. construction material from the park base yard) pits would be limited to a small area, and do not represent a significant adverse effect. Direct beneficial impacts to habitat are expected as there would be fewer visitors wandering outside of designated use areas. New sidewalks, railings, signs, and trail delineations would be beneficial to habitat as they would direct visitors to stay in designated visitor use areas. The chance of visitors wandering into sensitive habitat would be reduced with improved scenic visitor areas provided. The risk of off-trail visitor travel causing erosion and crushing Hawaiian petrel burrows will be reduced. Damage to Haleakalā silversword habitat from trampling would be reduced.

PHYSICAL ENVIRONMENT TOPICS

Geological Resources: Geology, Topography and Soils

The selected action will not result in impairment of geological resources, including geology, topography, and soils. Gathering of small rocks and cinder would be confined to specific locations within the project area. The locations of the viewing areas were chosen because they are relatively flat and would require minimal grading and a minimal amount of ground disturbance. The area near the parking area where the accessible viewing platform would be placed would be subject to minimal soil disturbance in locations where piles are driven into the ground to support the structure. Direct beneficial impacts to soils are expected as soils would be less subject to crushing by off-trail visitors. Also, accelerated erosion would decrease due to less off-trail visitor travel.

Soundscape

The selected action will not result in impairment of the soundscape. There would be no permanent changes to the soundscape, as noise will be temporary during the construction period. Adverse impacts to the soundscape would be negligible because increased noise would be intermittent, temporary, and limited to daytime hours.

Lightscape (night sky/dark sky)

The selected action will not result in impairment of the natural lightscape. The selected action would increase light levels in areas along the new spur trails and the Silversword Trail due to the installation of pathway lighting. Pathway lighting would be low to the ground, shielded or pointed downward, and a warm light color such as amber would comply with published seabird and night sky friendly lighting and structures guidance. Increased light levels would occur during the evening hours and last until the solar charge on the lights ran out, likely sometime in the middle of the night. Pathway lighting would be placed so that it would not be visible in the designated wilderness area directly to the south of Kalahaku Overlook. Adverse impacts to the lightscape would be negligible because increased light would be concentrated and not be visible outside of the Kalahaku Overlook area.

CULTURAL RESOURCE TOPICS

Cultural Landscapes and Structures, Ethnographic Resources and Cultural Practices

The selected action will not result in impairment of cultural landscapes, structures and ethnographic resources associated with particular cultural practices. The following measures to minimize adverse impacts to cultural resources will be employed.

The selected action would increase the number of built features within the Haleakalā Highway historic district cultural landscape at Kalahaku Overlook. The selected action is also taking place within the Haleakalā Summit Traditional Cultural Property (TCP), an ethnographic resource integral to the park.

During consultation with Haleakalā Summit and Kīpahulu Kūpuna Groups and Native Hawaiian Organizations regarding cultural resources, the NPS was provided input about the specific implications, for Native Hawaiians, of placing a large stone upright. Any rock walls installed to delineate viewing areas would not contain any large upright stones. Kūpuna Group members expressed a desire for no additional development within the park and concerns about overcrowding at Kalahaku Overlook. Some Native Hawaiian commenters indicated new overlooks, viewing platforms, signs, delineation rocks, railings, or any type of structure would be a negative impact to the ethnographic resource. Because there is no major or severe adverse effect to the TCP resulting from the selected action, it does not constitute impairment of the ethnographic resource.

New and rehabilitated features would be built with modern materials (e.g. steel, concrete, asphalt, and mortar) combined with native rock. The addition of new features and rehabilitation of others would not result in adverse impacts to the Haleakalā Highway historic district cultural landscape as the design would be compatible with the character of the historic district and the Mission 66 design philosophy and follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. Overall, the circulation patterns, natural systems, and historic uses within the historic district would not be significantly affected by the new additions. The addition of the viewing platform adjacent to the parking area would be beneficial to *kūpuna* and Native Hawaiian cultural practitioners with mobility issues who may otherwise lack an accessible place to spend time at Kalahaku Overlook.

The selected action would result in temporary noise and other construction related disturbance that may negatively impact cultural practitioners temporarily. Implementation of the selected action would not significantly affect long-term use by Native Hawaiian cultural practitioners as the space and environment available for Native Hawaiian cultural practitioners would not change significantly. However, some locations may be temporarily off-limits during work periods.

Delineation of designated trails and visitor use areas is expected to result in protection for archeological resources that are outside of the Kalahaku Overlook and may be trampled by visitors' unintentionally traveling off-trail. A decrease in the number of social trails in the area would also be beneficial to the historic district cultural landscape and the ethnographic resource.

SUMMARY

In conclusion, as guided by the expected outcomes noted above, implementing the selected action does not constitute impairment on any resource or park value whose conservation is: (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning documents as being of significance.