Hawai'i Volcanoes Disaster Recovery – Concept Development Narrative

The impact of the 2018 summit collapse caused profound changes to Kīlauea caldera and Halema'uma'u Crater (right). NPS Photo/J.Wei taken from Uēkahuna Bluff.

SUPERINTENDENT'S MESSAGE

E Aloha,

Hawai'i Volcanoes National Park is pleased to present for your consideration the initial draft design concepts for the proposed Disaster Recovery Project. The intent of this project is to repair and/or replace critical park infrastructure and U.S. Geological Survey-operated facilities damaged during the 2018 eruption and summit collapse of Kīlauea volcano. The project addresses potential future use of the Uēkahuna Bluff area and other park sites. Uēkahuna Bluff is an area of geologic, natural and cultural significance and is regarded as sacred by Native Hawaiians and other groups.

The National Park Service and U.S. Geological Survey are currently evaluating four draft design concepts with additional draft elements common to all concepts. Your feedback is critical at this important step in this evaluation process. In our normal process, we would hold a meeting to hear your input in person. However, due to Covid-19 and following Centers for Disease Control guidelines, the NPS is conducting this essential civic engagement virtually to maintain social distancing mitigations, and greatly values your participation. We are offering several ways for you to provide feedback:

- Visit https://parkplanning.nps.gov/HAVODisasterRecovery for an overview of the draft concepts and the draft elements that would be common to all, and to submit your comments
- We have a phone line dedicated to receiving your comments on this project. You can leave a detailed message or request that someone call you back at (808) 460-6212.
- Those who prefer printed copies can also call (808) 460-6212, or email havo_planning@nps.gov.

Park staff, partners, and volunteers remain committed to fulfilling our kuleana to protect the rich geologic, natural, and cultural heritage, and providing inspirational visitor experiences at Hawai'i Volcanoes National Park.

We appreciate your continued interest in the park and hope that you will continue to stay engaged with the planning process.

Mahalo nui loa,

Rhonda Loh, Acting Superintendent

INTRODUCTION

The focus of this planning effort is the repair, replacement, removal or relocation of the facilities and functions that were damaged at Uēkahuna Bluff in the park by the 2018 volcanic disaster. The project also addresses continued and potential future use of the area that has important geologic, natural, and cultural significance, and is considered by Native Hawaiians and other groups as a sacred area**.** Affected facilities include the Reginald T. Okamura (Okamura) building and the adjacent Geochemistry Annex (Annex) building - both operated by the U.S. Geological Survey-Hawaiian Volcano Observatory (HVO), and the historic Jaggar Museum.

The following four draft design concepts are being evaluated and include plans for restoring visitor services and USGS-operated facilities at alternate locations in the summit area of Kīlauea volcano, as well as plans to demolish some facilities at the Uēkahuna Bluff. This planning effort is an opportunity to address other long-standing issues related to traffic, parking congestion, high demand on existing facilities, and resource impacts.

We are taking a comprehensive, long-term approach to recovery planning consistent with recommendations in the park's 2016 General Management Plan. Not all elements of the concepts would be funded by disaster recovery and it is likely that the final overall concept would be designed and constructed in phases over multiple years as funding allows. The first phase will be focused on those efforts tied directly to replacement of lost facilities and functions.

Halemaʻumaʻu Crater Before & After – November 28, 2008 (left); August 1, 2018 (right) – USGS Photos

ASPECTS COMMON TO ALL DRAFT CONCEPTS

All concepts being evaluated would include the following proposed actions. See the matrix at the end of this section for a summary of relevant differences between existing and proposed conditions.

Uēkahuna Bluff

- Due to damage sustained in the 2018 eruption, the historic Jaggar Museum and non-historic Reginald T. Okamura (Okamura) building would be demolished, and most of the existing footprint would be restored to natural conditions. Some remnant elements from the buildings may be salvaged and incorporated into a viewing shelter located on site.
- The Geochemistry Annex (Annex) building would be repaired for interim use by U.S. Geological Survey-Hawaiian Volcanoes Observatory (HVO) and National Park Service (NPS) administration until the new USGS field station is completed, at which time the Annex may be demolished.
- The existing restrooms would be repaired for continued visitor use.
- The existing paved and walled overlook in front of the restrooms, Annex and Jaggar Museum would be repaired and improved. Improvements would include enlarging the overlook to incorporate some of the footprint of the Jaggar Museum and adding an open-air viewing shelter.
- A second area, previously used by the public as an informal viewing area, would become a formalized overlook, with possible hard surface and perimeter walls, located along Crater Rim Trail south of the public parking area. The existing Crater Rim Trail would be maintained.
- The existing radio tower and radio room will remain. The existing water tanks may be replaced or removed, depending on if the Annex remains long term. In the future and if needed, add visitor parking capacity by constructing a new parking lot on the other side of Crater Rim Drive. This would alleviate severe congestion and resource damage that occurs during summit eruptions. The Jaggar Museum to Nāmakanipaio Trail connection would be re-routed if this parking is constructed.

Facilities at Uēkahuna Bluff - USGS Photo

Kīlauea Visitor Center Area

- The existing trails around Kīlauea Visitor Center (KVC) would be connected to form a loop trail connecting the visitor center to other amenities and nearby overlooks.
- The existing covered lanai at KVC would be reduced in size to restore the integrity of the historic KVC building. The current outdoor exhibits would be replaced and relocated to a new covered lanai area.
- The existing restrooms next to KVC would be renovated.
- The park entrance road and kiosk would be modified to improve vehicle circulation and reduce congestion.

Kīlauea Research and Administrative Area

- USGS Pacific Island Ecosystems Research Center - Kīlauea Field Station (PIERC-KFS) buildings. The majority of staff and functions would move to a new facility in Hilo, HI. The remainder would relocate to a new USGS Field Station in the park, that would house both PIERC-KFS and HVO field operations. (See Concepts 1 through 4 for proposed locations of new USGS Field Station).
- Existing PIERC-KFS occupied buildings (343, 344, 216, 295) would be converted to NPS administrative use.
- Portions of the non-historic NPS office space in the research area would be demolished.

COMMON TO ALL MATRIX

Uēkahuna Bluff	**Existing**	**Proposed**
Okamura Building (sf)[1]	22,500	0
Jaggar Museum (sf)[1]	3,975	0
Annex Building (sf)[2]	3,800	3,800
Restroom Building (sf)	950	950
Interpretive Overlook (sf)[3,4]	9,700	19,600
Visitor Passenger Vehicle Stalls	72	144
Visitor Large Vehicle Stalls	7	14
NPS/USGS Passenger Vehicle Stalls	23	23
Research Area	**Existing**	**Proposed**
PIERC Building (sf)[5]	12,470	12,470
NPS Office Space(sf)[6]	3,312	0
New USGS Field Station[7]	0	12,000

[1] Entire Okamura Building footprint and approximately 900 square feet (sf) of Jaggar Museum footprint would be restored to natural conditions.

[2] The Annex building will be repaired for interim administrative use and may later be demolished.

[3] Existing overlook area measured from aerial imagery and is approximate.

[4] 2,900 sf of overlook expansion would be within footprint of former Jaggar Museum and would include 2,800 sf open air viewing shelter. 7,000 sf of proposed interpretive overlook would be the new formalized overlook con-nected to the parking lot.

[5] All PIERC-KFS space to be vacated for use by NPS.

[6] Non-historic NPS office space to be demolished.

[7] See concept descriptions for proposed USGS Field Station locations.

CONCEPT DESCRIPTIONS:

The following draft concepts provide options for replacement of park visitor center functions and visitor use capacity lost through damage to Jaggar Museum. They also provide a new USGS Field Station facility to replace the functions and capacity lost by HVO at the Okamura building as well as the PIERC-KFS operations that remain following relocation of the majority of their functions to Hilo. Proposed improvements would maintain the historic character, utilize compatible design styles and materials, leverage existing facilities and to the greatest extent possible, minimize impacts to existing features and functions. These project goals are achieved in a different manner with each of the concepts. See the matrix at the end of this section for a summary of relevant differences between concepts.

Concept 1

Concept Statement:

Create a consolidated interpretive, education and research campus by relocating facilities and functions formerly at Uēkahuna to an area adjacent to existing primary visitor use areas. Construct a new stand-alone visitor center on the south/caldera side of the Crater Rim Drive to enhance pedestrian connectivity to most visitor facilities and caldera views. The current KVC is repurposed as an education center. USGS functions are located adjacent to the visitor use area. Leverage existing parking and utilities with minor realignment and expansion needed to accommodate replacement facilities and visitor use levels.

- A new visitor center with a separate restroom building would be constructed on the south side of Crater Rim Drive near the park entrance in a currently forested area, and includes a covered lanai, outdoor exhibits, theater, visitor parking, bus parking, NPS administrative parking, pedestrian circulation, and a new wastewater system.
- A new visitor center would be large enough to accommodate the visitor functions currently provided at KVC and previously provided by Jaggar Museum.
- A new visitor center would allow a single, easy-to-find stop for the interpretation of the park's defining features in a coordinated and consolidated manner.
- New covered picnic tables would be constructed in the existing picnic area adjacent to the 1877 Volcano House.
- Visitor use in the KVC building would be relocated to the new visitor center. The existing KVC building would be repurposed as an education center with existing NPS office and auditorium uses being maintained.
- The existing education center in the NPS administrative area would be repurposed for NPS administrative use.
- A new USGS HVO & PIERC-KFS Field Station, parking and wastewater system would be constructed to the east of the KVC building in a section of previously disturbed forest which is fragmented by utility corridors and an unpaved parking lot.
- An administrative bypass lane, additional fee booth and replacement staff parking would be added to the existing entrance station.
- Crater Rim Drive would be realigned and a roundabout would be constructed to improve traffic flow, safety and wayfinding at the Crater Rim Drive intersection.
- Existing water and communications lines would be utilized with minor relocation and connection spurs.

Concept 2

Concept Statement:

Consolidate visitor use adjacent to existing primary visitor area. Construct a new stand-alone visitor center east of the existing one. The existing KVC is repurposed as an education center. Leverage existing parking and utilities with expansion needed to accommodate replacement facilities and visitor use levels. USGS functions are separated from the main visitor use area at the park but are still in close proximity to park emergency operations.

- A new visitor center with interior restrooms would be constructed east of KVC and includes a covered lanai, outdoor exhibits, theater, visitor parking, bus parking and pedestrian circulation.
- A new visitor center would be large enough to accommodate visitor functions currently provided by KVC and previously provided by Jaggar Museum
- A new visitor center would allow a single, easy-to-find stop for the interpretation of the park's defining features in a coordinated and consolidated manner.
- New covered picnic tables would be constructed in the existing picnic area adjacent to the 1877 Volcano House.
- Visitor use in the KVC building would be relocated to the new visitor center. The existing KVC building would be repurposed as an education center with existing NPS office and auditorium uses being maintained.
- The existing education center in the NPS administrative area would be repurposed for NPS administrative use.
- A new USGS HVO & PIERC-KFS Field Station, parking and wastewater system would be constructed near the Visitor Emergency Operations Center (VEOC) in a currently forested area.
- An administrative bypass lane, additional fee booth and replacement staff parking would be added to the entrance station.
- Crater Rim Drive would be realigned, and a roundabout would be constructed to improve traffic flow, safety and wayfinding at the Crater Rim Drive intersection.
- Existing water and communications lines would be utilized with minor relocation and connection spurs.

Concept 3

Concept Statement:

Maximize reuse of existing visitor space by repurposing the existing visitor center and auditorium area and constructing an adjacent smaller new visitor center and expanded parking area. Leverage existing parking and utilities with expansion needed to accommodate replacement facilities and visitor use levels. USGS functions are separated from NPS functions and relocated to the former ballfield area, west of the Kilauea Military Camp (KMC) land assignment.

- A new visitor center addition (separate building) would be constructed on the west side of the KVC in an existing developed landscape and includes a covered lanai and outdoor exhibits along with visitor parking, bus parking and pedestrian circulation. The lanai would connect to visitor parking and the KVC.
- Together, the existing KVC and smaller visitor center addition would accommodate visitor functions currently provided at KVC and previously provided by Jaggar Museum
- The existing KVC lobby would be used for an expanded bookstore and orientation information. Exhibits will be replaced in the new visitor center addition.
- The visitor experience would be segmented into two separate buildings with enhanced wayfinding to guide visitors between areas/buildings.

- A new USGS HVO & PIERC-KFS Field Station and parking would be constructed in the historic former ballfield area, adjacent to the Kilauea Military Camp (KMC) land assignment.
- A new water line, water tank and wastewater system would be constructed adjacent to the new USGS HVO & PIERC-KFS Field Station.
- A new two kiosk entrance station would be constructed to the west of the existing kiosks, which would be demolished. An administrative bypass lane would be added to reduce traffic congestion at the entrance.
- Crater Rim Drive would be realigned to improve vehicular circulation in the KVC area.

Concept 4

Concept Statement:

Relocate the functions lost at Uēkahuna to the former ballfield area adjacent to the KMC land assignment. Visitor services currently provided at KVC and formerly provided at Jaggar Museum are combined in a new visitor center at the former ballfield. A new USGS field station is constructed adjacent and west of the new visitor center. Construct new parking and utility infrastructure to support the new facilities. The existing KVC is repurposed to an education center.

- A new visitor center with a separate restroom building would be constructed in the former historic ballfield area, adjacent to the KMC land assignment, and includes a covered lanai, outdoor exhibits, visitor parking, bus parking, NPS administrative parking and pedestrian circulation.
- A new USGS HVO & PIERC-KFS Field Station and parking would be constructed adjacent to the new visitor center.
- A new shared water line, water tank and wastewater systems would be constructed adjacent to the new visitor center and USGS HVO & PIERC-KFS Field Station.
- Visitor use in the KVC building would be relocated to the new visitor center. The existing KVC building would be repurposed as an education center with existing NPS office and auditorium uses being maintained.
- The existing education center in the NPS administrative area would be repurposed for NPS administrative use.
- New covered picnic tables would be constructed in the existing picnic area adjacent to the 1877 Volcano House.
- An administrative bypass lane and additional fee booth would be added to the park entrance station.
- Crater Rim Drive would be realigned to improve vehicular circulation in the KVC area.

CONCEPT MATRIX

Parking Stalls*	**Existing**	**Concept 1**	**Concept 2**	**Concept 3**	**Concept 4**
Visitor Passenger Vehicle	123	239	235	228	243
Visitor Large Vehicle/Bus	8	16	16	14	24
NPS Administrative	50	59	34	50	70
USGS Administrative	0	35	35	35	35
Facility Areas (in square feet)	**Existing**	**Concept 1**	**Concept 2**	**Concept 3**	**Concept 4**
Visitor Center/Restrooms**	11,845	16,220	16,220	13,870	16,220
Covered Lanai	1,750	13,700	12,200	11,800	12,100
Education Center	3,300	5,800	5,800	3,300	5,800

*Includes parking at KVC Area, VEOC, and Former Ballfield. Does not include parking at Uēkahuna or Research area.

**Existing area includes Jaggar Museum (3,975 sf), KVC (5,800 sf), Uēkahuna restroom (950 sf), and KVC restroom (1,120 sf)

See actions common to all for USGS Facility Areas

Uēkahuna Bluff above Halemaʻumaʻu Crater - NPS Photo, Jon Christensen