

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS**

July 8, 2011

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

SUBJECT: Request for Approval of the Placement of Act 82, SLH 02, Warning and Management Signs at selected locations of the Napali Coast State Wilderness Park, Kauai.

Background Information on Act 82, SLH 02, Warning Signs:

Act 82, 2003 Session Laws Hawaii, relating to Public Land Liability, established a process for installing and maintaining warning signs on improved public lands, and provides the State and Counties with protection from liability for damages caused by the dangerous natural conditions that are identified through the signage. Pursuant to Act 82, the Board is to review and approve of the design and placement of these types of signs. The Board, following the recommendations of a Risk Assessment Working Group (RAWG) reviewed and approved the sign design as dictated by Chapter 13-8, Hawaii Administrative Rules (HAR). All subsequent sign placement at park and trail locations under the Department and County jurisdiction are submitted for review by the RAWG and approved by the Board.

Sign Placement Criteria: Pursuant to Chapter 13-8, HAR, the following guidelines have been used for determination of the placement of signage:

§ 13-8-9 Public use and exposure. (a) Traffic patterns and managed access points of people accessing the improved public lands shall be considered when placing signs. (b) The type, frequency, and location of incidents or potential public exposure relating to specific dangerous natural conditions when known on the improved public lands shall be considered when placing signs.

§ 13-8-10 Placement. Sign(s) shall be placed at or near access points; i.e., along vehicle and pedestrian traffic corridors in clearly visible locations placed as close as possible to the potentially dangerous natural conditions on improved public lands and at managed and designated entrances where the signs will be seen as users enter improved public lands. View sheds, aesthetics, and feasibility of installation shall be considered in the placement of the signs. Signs shall be installed with consideration for the average adult line-of-sight but outside of the general path of travel to avoid physical contact with the signs. Signs may be attached to posts or by any other method of installation depending on the nature of the location and terrain.

ITEM E-1

Background Information on Napali Coast State Wilderness Park

Napali Coast State Wilderness Park (Napali) comprises 6,175 acres of undeveloped land. It is situated adjacent to one of the wettest locations on the planet and the underlying landform is composed of highly erosive volcanic geology. The continual weathering of this location has resulted in the visually dramatic cliffs (*pali*) that jut westward into the ocean. Frequently, these stunning geologic features provide the stock imagery used for visitor related marketing. Hanakapi'ai, two miles into Napali from Ha'ena State Park along the Kalalau trail, has a calculated visitation of up to approximately 500,000 people per year. For the Kalalau camping area, at the end of the 11 mile trail, 3,075 camping permits were issued for approximately 9,840 campers from July 2009 to June 2010. From April 2010 to April 2011, 3,506 permits were issued to a patronage of approximately 12,000 campers. Kalalau is popular with both visitors and residents, and poses a continuous management challenge associated with a high percentage of unpermitted campers and squatters who stay for extended periods of time in both authorized and unauthorized camping locations – putting a seasonal strain on remote and limited facilities in portions of Kalalau and overcrowding authorized camping areas.

Act 82 Warning Sign Placement and Mitigative Actions at Napali

In 2008, a rock fall incident involving an unoccupied tent in a camping location in Kalalau that did not result in injury prompted a rapid DSP assessment of conditions and public use patterns in relation to rockfall exposure. This assessment resulted in the determination that warning and additional management signs must be installed, camping areas redefined, high rockfall exposure location be restricted and potential funding for rockfall mitigation study and scaling be requested.

In August 22, 2008 the Board approved the placement of 17 Act 82 warning and management signs at select locations in the Napali along the Kalalau trail and adjacent the Ho'ole'a waterfall at Kalalau. A variety of locations, where the public had been camping directly within areas subject to rockfall, were permanently closed and "area closed", "rockfall warning" and "rockfall danger" signs were installed.

From September 7 to October 31 2010, DSP initiated an unprecedented closure of the Kalalau Trail from Hanakapiai to Kalalau in order to initiate 1) a rock scaling project with contractors, 2) enforcement and clean-up operations directed towards a large number of illegal campers in various remote locations in Kalalau, 3) public hunting of feral animals with dogs and firearms and 4) campground and trail improvements. Following rock scaling and further evaluation of rockfall areas, revised warning sign locations were identified, particularly in relation to the public transit areas to and along the camping area to and from the Ho'ole'a falls, and to and from Kalalau Beach.

Upon the completion of the rock scaling project, staff went on site and reassessed the area, considering on the public transit patterns within the camping area, access to and from the beach and to the waterfall, and the seasonal disappearance of the beach in relation to pedestrian patterns and exposure to rockfall. Based upon this assessment, the Department is

requesting the approval of the posting of new warning and management signage in Kalalau and along several other sections of the Kalalau Trail, including the Hanakoa camping area, a section of the Kalalau Trail that is prone to severe weathering and erosion and difficult to regularly maintain due to its location (approximately 7 to 8 miles in), Hanakapi'ai and also the posting of signs at the trailhead relating to exposure to the reoccurring hazardous conditions along the Kalalau Trail and other areas within the park.

Conclusion

Due to the several decades of consistent, global public recreational demand, the remote, backcountry wilderness setting, and the recent evaluation and rock scaling, DSP is proposing updated hazard warning signs and locations. The goal is to balance warning the public of exposure to hazards in this remote wilderness, in recognition of that fact that the recreational setting is adjacent to steep, continually weathering cliffs and the unstable effects of feral animals. In addition, there is the implicit impossibility of 100% physical mitigation of rockfall on such a monumental scale that even if affordable, would also have detrimental aesthetic and cultural impacts upon a significant and highly valued public geologic setting. The "area closed" signs previously posted at Kalalau Beach and camping area have been replaced with "Danger – Falling Rocks" "Do not go beyond this point" to specifically warn and educate the users about the exposure to this hazard and to not proceed beyond the sign.

Due to seasonal fluctuation and reduction in the size and geomorphology of the Kalalau beach – pedestrian access adjacent to specific cliff areas of known rockfall is typically limited to the summer months. DSP intent is to post a seasonal sign warning when the beach and subsequent pedestrian exposure to rockfall, returns each spring, in addition to a permanent sign via a post embedded in the cliffs. (Exhibit 4). In addition to the on site sign posting, the DSP website and Wiki Camping Permit Reservation System also contain information relating to the possible exposure to rockfall, dangerous cliffs and flashfloods when traversing the Kalalau Trail throughout Napali.

The public is now informed of the potential exposure to dangerous natural conditions in Napali while:

- 1) Viewing park information online,
- 2) Obtaining a Kalalau camping permit (warning information is printed on the required permit),
- 3) Entering the Kalalau trailhead before proceeding along the trail, and
- 4) Hiking along several specific trail locations and at the designated camping area.

This current Board submittal is intended to replace the previous 2008 Board approval of sign placement for Napali - as there are now additional and replacement warning and management signs installed in numerous locations and additional Internet information to inform users due to changes in physical conditions and management policy. DSP has consulted with the RAWG, and is requesting Board approval of the current placement of signs at the Kalalau Trailhead and Hanakapiai, along the trail, Hanakoa camping area and at Kalalau Beach and camping area.

RECOMMENDATION

That the Board approves:

1. The placement of the warning signs as shown in Exhibits 1, 2, 3, and 4

Respectfully submitted,



DANIEL S. QUINN
State Parks Administrator

APPROVED FOR SUBMITTAL:



WILLIAM J. AILA, JR.
Chairperson

EXHIBIT 1: Act 82 Sign Installation Guide

DLNR Division: State Parks Island: Kauai Site/State Park: Napali Coast State Wilderness Park

Exposure to natural conditions: Falling Rocks, Hazardous Cliffs, Flash Floods

Entrance Signs: Station KA00018	Warning Falling Rocks, Warning Hazardous Cliff, Warning Flash Flood	WFFE WHCE WFFE
Site Specific Signs: Station KA00019	2 Warning Flash Flood	WFFS
Site Specific Signs Station KA00020	2 Warning Flash Flood	WFFS
Site Specific Sign Station KA00021	Warning Hazardous Cliff	WHCS
Site Specific Sign Station KA00022	Warning Hazardous Cliff	WHCS
Site Specific Sign Station KA00023	2 Warning Flash Flood	WFFS
Site Specific Signs: Stations KA00024 KA00025 KA00025 KA00026 KA00027 KA00028 KA00029 KA00030 KA00031 KA00032 KA00033 KA00034	12 Warning – Falling Rocks	WFRS
Site Specific Signs: Stations KA00035 KA00036 KA00037 KA00038 KA00039 KA00040	6 Danger – Falling Rocks	DFRS
Seasonal Site Specific Signs: Station KA00041 KA00042	2 Danger – Falling Rocks	DFRS

Entrance Hazard Sign Codes



WFRE



WHCE



WFFE



DNDE

Site-Specific Hazard Sign Codes



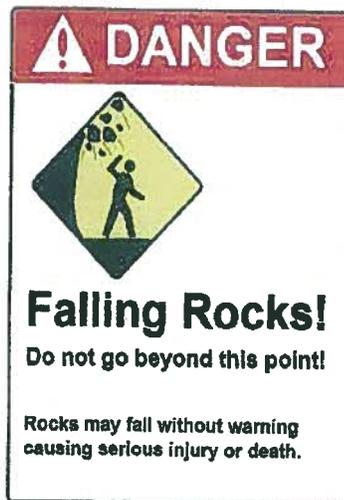
WFRS



WHCS



WFFS



DFRS

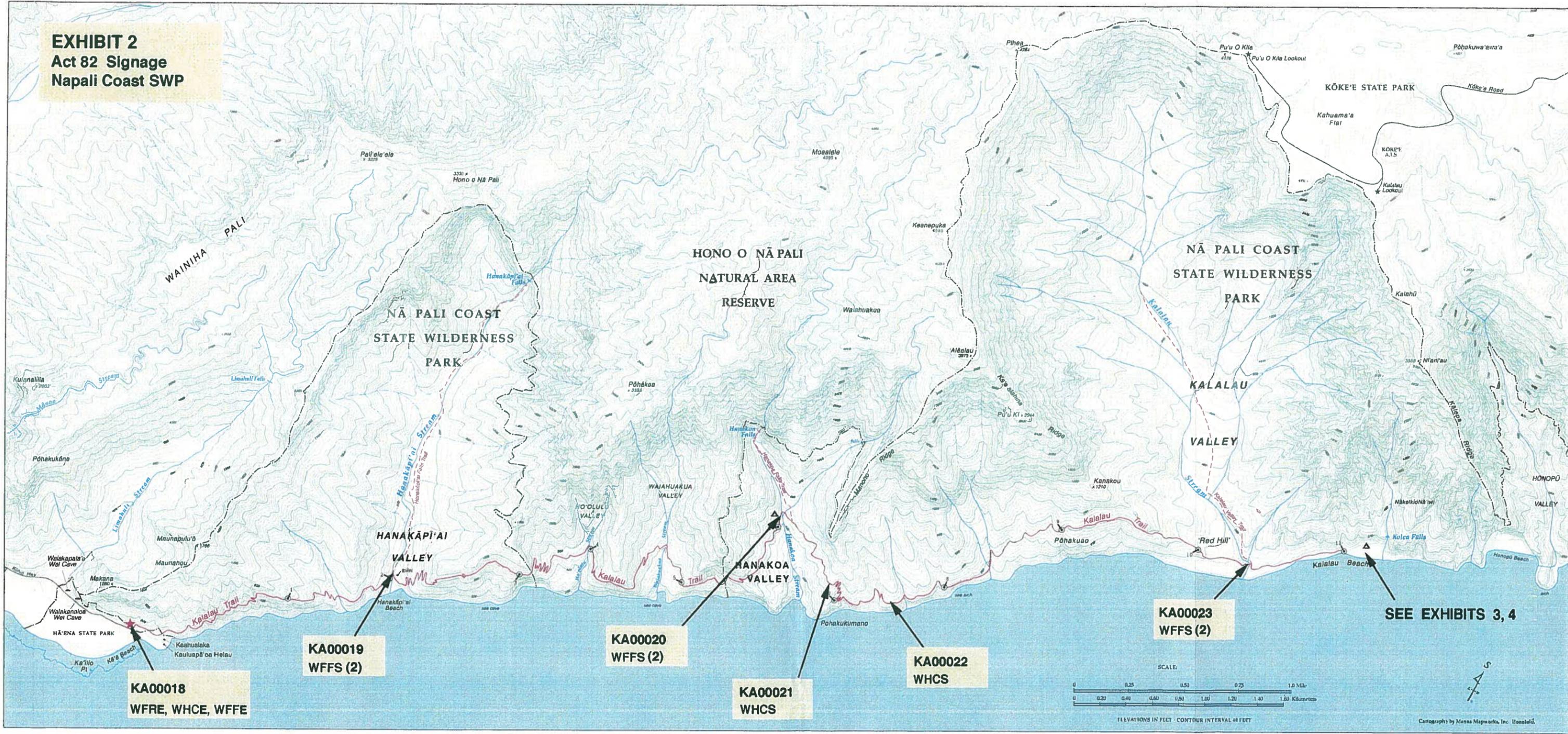


DNDS

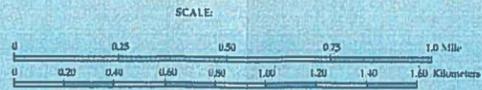


DFFS

EXHIBIT 2
Act 82 Signage
Napali Coast SWP



SEE EXHIBITS 3, 4



ELEVATIONS IN FEET - CONTOUR INTERVAL 40 FEET

Cartography by Menoa Mapworks, Inc. Honolulu

EXHIBIT 3
Act 82 Signage
Nāpali Coast SWP

KALALAU BEACH
NĀ PALI COAST STATE PARK

OCEAN

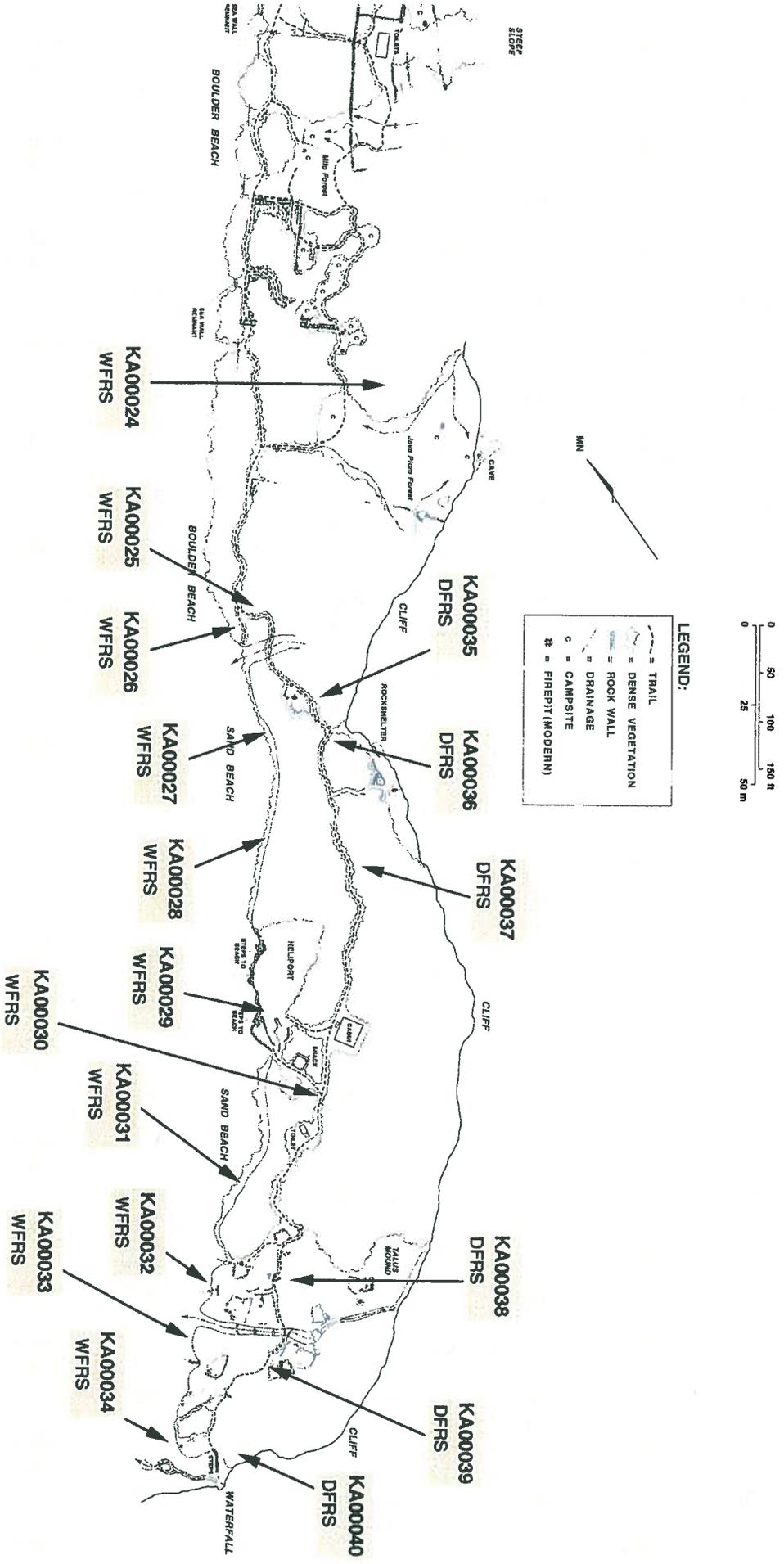
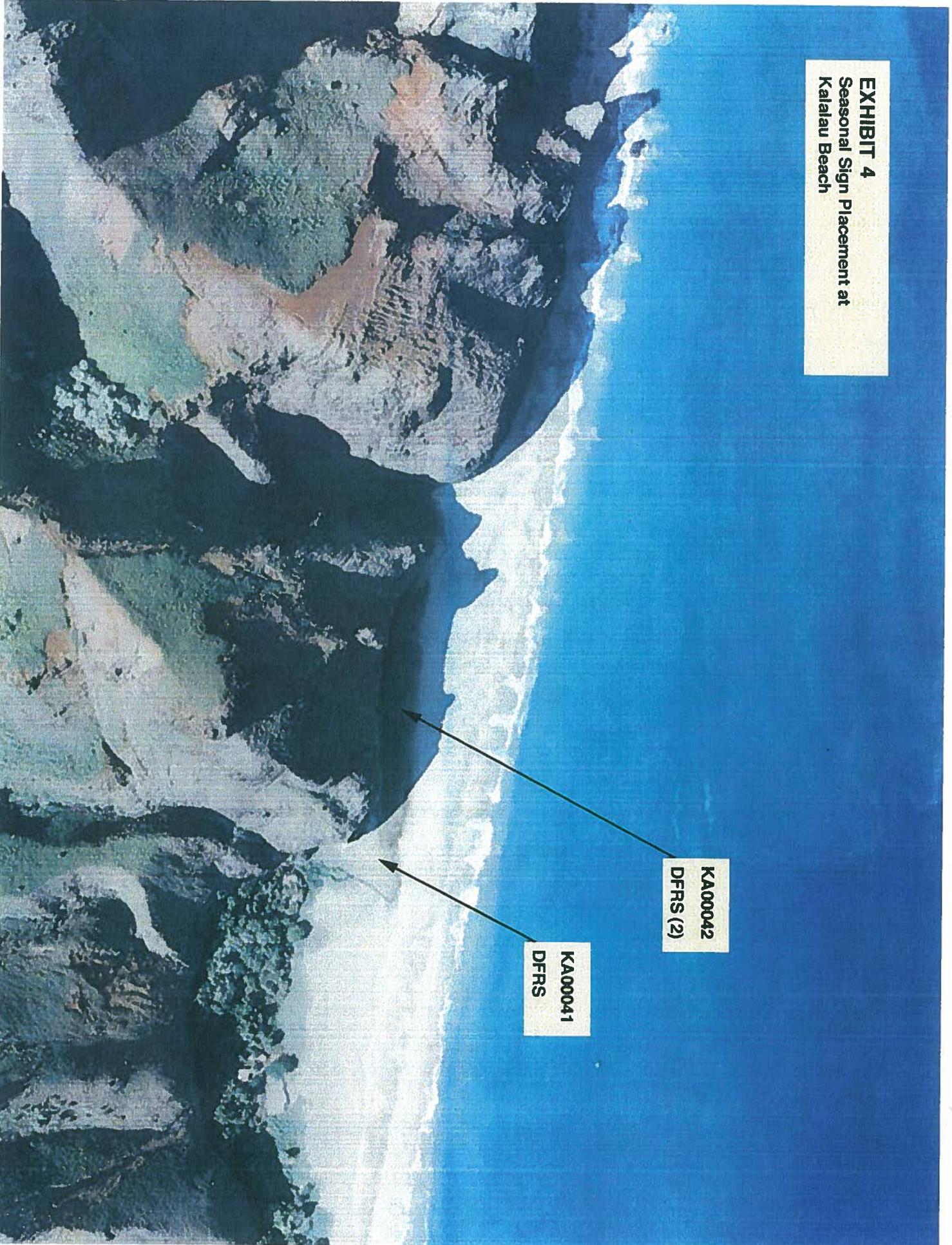


EXHIBIT 4
Seasonal Sign Placement at
Kalalau Beach



KA00042
DFRS (2)

KA00041
DFRS

KA00041
DFRS