

Draft Comprehensive Management Plan
and Environmental Impact Statement

Ala Kahakai National Historic Trail



Pacific West Region

National Park Service

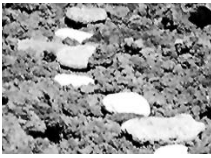
United States Department of the Interior

August 2007



1800 Lava Flow, Kalae Mano, N. Kona, NPS photo

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Through public scoping and the involvement of public agencies, local communities, and individuals, the National Park Service (NPS) planning team identified three alternatives for the draft Comprehensive Management Plan and programmatic Environmental Impact Statement (EIS) for the Ala Kahakai¹ National Historic Trail. These alternatives respond to the National Trails System Act, NPS planning requirements, and the issues identified during public scoping. These alternatives address trail administration and management, cultural and natural resource protection, and use of the trail by local residents, Native Hawaiians, and the visiting public. Alternative C is the preferred alternative of the NPS to guide the management of the Ala Kahakai NHT.

The plan identifies the necessity of community partnerships to protect trail resources and provide appropriate trail user services. As a partnership endeavor, the success of this plan is not solely determined by the NPS; rather its success rests with the will and perseverance of other local government agencies, communities, organizations, neighborhood associations, and individuals who have the capacity and desire to implement actions within this plan.

Alternative A constitutes the No Action alternative and assumes that existing programs, facilities, staffing, and funding would generally continue at their current levels. The Ala Kahakai NHT would consist of trail segments within the four national parks through which it passes and only a few other segments, most likely on state lands. As recommended in the *Ala Kahakai National Trail Study and Environmental Impact Statement*, January 1998, (*Feasibility Study*) on which national trail status was based, a continuous trail would be the goal but would not be achievable, even in the long-term, under alternative A. An auto tour would be completed that would lead visitors to 18 sites associated with the trail. Recreation along the trail and interpretation of its history would generally be limited to these sites.

Alternative B proposes the completion of a single continuous trail comprised of unaltered or verified ancient and historic portions of the *ala loa* (coastal trail around the island) linked as needed by later pre-1892 trails, pathways, and modern connector trails. Within the planning period of 15 years, the goal would be to complete the linear trail within the priority zone from Kawaihae through Pu'uuhonua o Hōnaunau National Park and to protect other segments outside of that area as feasible. In the long-term, cultural and natural resources along the entire trail tread and agreed upon adjacent areas would be protected and interpreted to the public. The NPS would administer the trail, but management outside of the national parks would remain with the land managing agency or landowner. The NPS would offer technical assistance and limited financial assistance to these management partners. Partnerships with state and county agencies, community organizations, and private individuals would help protect trail resources and provide appropriate trail user services. An auto tour would be completed as in alternative A.

Alternative C, the preferred alternative and environmentally preferred alternative, is based on the traditional Hawaiian trail system in which multiple trail alignments within the *ahupua'a* (mountain to sea land division) are integral to land use and stewardship. The linear trail would be protected as in

¹ A term coined by a planner in 1973 from *ala* (path, trail) *kaha* (by the) *kai* (sea). *Kahakai* means beach, seashore.

alternative B, but on publicly-owned lands, the Ala Kahakai NHT would include inland portions of the *ala loa* or other historic trails that run lateral to the shoreline and would be connected to ancient or historic *mauka-makai* (mountain to sea) trails that would have traditionally been part of the *ahupua'a* system. As with alternative B, during the 15-year planning period, the priority zone from Kawaihae to Pu'uuhonua o Hōnaunau National Park would be the focus of administration and management, but sections outside of that zone would be protected as feasible. Through an agreement, the state of Hawaii could convey to the NPS a less-than-fee management interest in trail segments that are state-owned under the Highways Act of 1892 within the Ala Kahakai NHT corridor. The NPS would then be responsible for managing these segments and federal law would fully apply. However, in cooperation with the NPS, local communities of the *ahupua'a* would be encouraged to take responsibility for trail management using the traditional Hawaiian principles of land management and stewardship. The Ala Kahakai Trail Association would be expected to robustly play a major part in trail management, promotion, and funding. An auto tour would be completed as in alternatives A and B.

The environmental consequences of the alternatives are examined in the EIS. Results of public involvement, consultation, and coordination are included.

The public comment period for this document will end 60 days after the U. S. Environmental Protection Agency publishes a notice of its availability in the *Federal Register*. We welcome your comments. They must be postmarked or transmitted by that date.

Written comments on the draft plan should be addressed to:

**Superintendent, Ala Kahakai NHT
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Kailua-Kona, HI 96740**

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

This document is online at the NPS Planning and Public Comment System at <http://parkplanning.nps.gov/alka>. An electronic public comment form is provided at this website.

Comments may also be made in person at one of the public workshops that will be conducted during the public review period. The specific dates and times for these workshops will be announced in local newspapers, in the Draft Comprehensive Management Plan newsletter, and online at the above site.

A limited number of copies of this report are available from the mailing address above. In addition, the draft CMP/EIS is available at the following public libraries on the island of Hawaii and in Honolulu:

Hawai'i State Library	Kealahou Public Library
Bond Memorial Public Library	Laupahoehoe Public Library
Hilo Public Library	Mountain View Public Library
Holualoa Public Library	Na'alehu Public Library
Honoka'a Public Library	Pahala Public Library
Kailua-Kona Public Library	Thelma Parker Public Library
Kea'au Public Library	

Contents

Executive Summary xi

Planning Issues and Concerns	xii
Trail Administration and Operations	xii
Changes to the Historic Scene	xii
Vulnerability of Cultural and Natural Features	xii
Effects on Native Hawaiians	xii
Landowner concerns	xiii
Undesirable Trail User Behavior	xiii
Land Use Decisions	xiii
Alternatives	xiii
Actions Common to all Alternatives	xiii
Alternative A: No Action	xiv
Alternative B: Single Trail	xiv
Alternative C: Ahupua'a System of Trails	xv

Acronyms Used in the Document xxvii

Hawaiian Words Used in the Text xxviii

Chapter 1: Introduction 2

Purpose and Need for the Plan	2
Purpose of the Plan	2
The Need for the Plan	3
Next Steps and Plan Implementation	4
Historic Overview	6
Planning Issues and concerns	13
Guidance for Planning, Administration and Management	15
Purpose of the Trail	15
Community Vision for the Trail	15
Significance Statements/Fundamental Resources and Values	15
Primary Interpretive Themes	17
Status of Resources and Values	18
Gaps in Information and Research Needs	29
Legal and Policy Requirements	29
Relationship to Other Plans	34
Impact Topics—Resources and Values at Stake	36
Impact Topics Addressed and Analyzed	36
Impact Topics Considered and Dismissed	36

Chapter 2: Alternatives for Management 40

Actions Common to All Alternatives	40
Administration & Management: Definition of Terms	40
Resource Protection	40
Health and Safety	47
Criteria for High Potential Sites and Segments	48
Criteria for Including Interpretive Facilities	49
Management Approach	50
Trail Classifications and Management Prescriptions	52
User Capacity	58

Trail Identification Marker	63
Introduction to Alternatives	64
Decision Points	64
Alternative A: “No Action”	64
Concept	64
Alternative A: Administration, Management, and Partnerships	65
Alternative A: Resource Protection	65
Alternative A: Trail User Experience	66
Alternative A: Facility Development	67
Alternative A: Costs	67
Alternative A: Funding	68
Alternative B: Single Trail	70
Concept	70
Alternative B: Administration, Management, and Partnerships	70
Alternative B: Resource Protection	73
Alternative B: Trail User Experience	74
Alternative B: Facility Development	76
Alternative B: Costs	78
Alternative B: Funding	80
Alternative C: Ahupua’a Trail System (Preferred Alternative)	86
Concept	86
Alternative C: Administration, Management, and Partnerships	86
Alternative C: Resource Protection	89
Alternative C: Trail User Experience	91
Alternative C: Facility Development	94
Alternative C: Costs	95
Alternatives Considered But Eliminated From Detailed Study	104

Chapter 3: The Affected Environment 106

Introduction	106
Natural Setting	106
Land Use	111
Cultural Resources and Values	115
Cave Resources	119
Natural Resources and Values	121
Wilderness Values	129
Visitor Experience	130
Socio-Economic Environment	136
Trail Operations	138

Chapter 4: Environmental Consequences of the Alternatives 140

Introduction	140
Methodology	141
Impact Terminology	141
Cumulative Impacts	142
Analysis Assumptions	146
Information Sources and Gaps	146
Impairment of Resources (NPS Properties)	146
Effects on Cultural Resources	147
Methodology and Assumptions	147
Effects on Cultural Resources from Alternative A: No Action	149

Effects on Cultural Resources from Alternative B: Single Trail	152	
Effects on Cultural Resources from Alternative C: Ahupua'a Trail System		154
Effects on Cave Resources	157	
Methodology and Assumptions	157	
Effects on Cave Resources from Alternative A: No Action	158	
Effects on Cave Resources from Alternative C: Ahupua'a Trail System	159	
Effects on Wetlands (Anchialine Pools and Fishponds)	160	
Methodology and Assumptions	160	
Effects on Anchialine Pools and Fishponds from Alternative A: No Action	162	
Effects on Anchialine Pools and Fishponds from Alternative B: Single Trail	163	
Effects on Anchialine Pools and Fishponds from Alternative C: Ahupua'a Trail System		163
Effects on Marine Resources Related to Traditional Coastal Harvesting	164	
Methodology and Assumptions	164	
Effects on Traditional Coastal Harvesting Resources from Alternative A: No Action	165	
Effects on Traditional Coastal Harvesting Resources from Alternative B: Single Trail	165	
Effects on Traditional Coastal Harvesting from Alternative C: Ahupua'a Trail System	166	
Effects on Native Ecosystems: Vegetation and Wildlife	166	
Methodology and Assumptions	166	
Effects on Native Ecosystems from Alternative A: No Action	168	
Effects on Native Ecosystems from Alternative B: Single Trail	168	
Effects on Native Ecosystems from Alternative C: Ahupua'a Trail System		169
Effects on Special Status Species	170	
Methodology and Assumptions	170	
Effects on Special Status Species from Alternative A: No Action	171	
Effects on Special Status Species from Alternative B: Single Trail	172	
Effects on Special Species from Alternative C: Ahupua'a Trail System	173	
Effects on Scenic and Visual Resources	174	
Methodology and Assumptions	174	
Effects on Scenic and Visual Resources from Alternative A: No Action	175	
Effects on Scenic and Visual Resources from Alternative B: Single Trail	176	
Effects on Scenic and Visual Resources from Alternative C: Ahupua'a Trail System		176
Effects on Wilderness Values	177	
Methodology and Assumptions	177	
Effects on Wilderness Values for Alternative A: No Action	178	
Effects on Wilderness Values for Alternative B: Single Trail	179	
Effects on Wilderness Values for Alternative C: Ahupua'a Trail System	179	
Effects on User Experience	179	
Methodology and Assumptions	179	
Effects on User Experience from Alternative A: No Action	181	
Effects on User Experience from Alternative B: Single Trail	182	
Effects on User Experience from Alternative C: Ahupua'a Trail System	184	
Effects on the Socioeconomic Environment	185	
Methodology and Assumptions	185	
Effects on the Socioeconomic Environment from Alternative A: No Action	186	
Effects on the Socioeconomic Environment from Alternative B: Single Trail	187	
Effects on the Socioeconomic Environment from Alternative C: Ahupua'a Trail System		189
Effects on Trail Operations	190	
Methodology and Assumptions	190	
Effects on Trail Operations from Alternative A: No Action	191	
Effects on Trail Operations from Alternative B: Single Trail	191	
Effects on Trail Operations from Alternative C: Ahupua'a Trail System	192	
Unavoidable Adverse Environmental Effects	192	
Alternative A: No Action	192	

Alternative B and Alternative C	192
Short-Term Uses and Long-Term Productivity	193
Alternative A: No Action	193
Alternative B and Alternative C	193
Irreversible and Irretrievable Commitment of Resources	193
Irreversible And Irretrievable Commitment of Resources of Alternative A: No Action	193
Irreversible And Irretrievable Commitment of Resources of Alternative B And Alternative C	193
The Environmentally Preferred Alternative	193

Chapter 5: Consultation and Coordination 196

Scoping	196
Alternatives Development	196
Study Review	196
Stakeholders/Document Recipients	197
Preparers of the Plan	198

Glossary 199

Appendices 205

Appendices 206

Appendix A: Relevant Legislation	206
Appendix B: Trail Segment Descriptions with High Potential Segments Noted as 1 or 2	231
Appendix C: High Potential Sites and Complexes along the Ala Kahakai NHT	236
Appendix D: Consultation with the United States Fish and Wildlife Service	248
Appendix E: Uses of the Uniform Marker	253
Appendix F: Draft Memorandum of Understanding Between the National Park Service, Department of Land and Natural Resources-State of Hawaii, and the County of Hawaii For The Implementation, Management, Protection and Public Use of Ala Kahakai National Histo	256
Appendix G: Sample Agreement between the National Park Service and an Interpretive Facility or Historic Site along the Ala Kahakai NHT	262
Appendix H: Hawai'i Island Guidelines for the Treatment of Historic Hawaiian Trails	263
Appendix I: Comparison of Costs of the Alternatives	268
Appendix J: Community Meeting Results	269
Appendix K: Assessment of Consistency with the State of Hawaii Coastal Zone Management Program	293

References 297

Index 305

List of Maps

Map 1: Vicinity map and Location of the Ala Kahakai NHT	5
Map 2: Districts of Hawai'i Island with <i>Ahupua'a</i> and Ancient Royal Centers	9
Map 3: Location of High Potential Cultural Sites and Complexes	25
Map 4: Auto Tour Route	57
Map 5: Alternative A: No Action	69
Map 6: Alternative B: Single Trail, North and South Kohala Districts	81
Map 7: Alternative B: Single Trail, North Kona District	82
Map 8: Alternative B: Single Trail, South Kona District	83
Map 9: Alternative B: Single Trail NHT, Ka'u District	84
Map 10: Alternative B: Single Trail, Ka'u and Puna Districts	85
Map 11: Alternative C: Ahupua'a Trail Systems, North and South Kohala Districts	99
Map 12: Alternative C: Ahupua'a Trail Systems, North Kona District	100
Map 13: Alternative C: Ahupua'a Trail Systems, South Kona District	101
Map 14: Alternative C: Ahupua'a Trail Systems, Ka'u District	102
Map 15: Alternative C: Ahupua'a Trail Systems, Ka'u and Puna Districts	103
Map 16: State Land Use Districts	112
Map 17: Land Use Pattern Allocation Guide Hawai'i County General Plan	113
Map 18: Special Management Areas	114
Map 19: Marine Managed Areas	123
Map 20: Vegetation	125
Map 21: Threatened and Endangered Plant Concentration	128
Map 22: Lava Flows, Hawaii Volcanoes National Park	134
Map 23: Hazard Zones	135

List of Tables

Table 1: Comparison of Alternatives	xvii
Table 2: Comparison of Impacts of Alternatives	xxii
Table 3: High Potential Cultural Sites and Complexes along the Ala Kahakai NHT	23
Table 4: Alternative A Staff	68
Table 5: Alternative A One-time Trail Costs (cumulative for 15 year period)	68
Table 6: Alternative B, Staffing Goals	78
Table 7: Alternative B Annual Operations Costs	79
Table 8: Alternative B One-Time Costs	79
Table 9: Alternative C Staffing Goals	96
Table 10: Alternative C Annual Operations Costs	96
Table 11: Alternative C One-time Costs	97
Table 12: West Hawai'i Museum Collections	119
Table 13: Federal, State, and County Park Sites within the Ala Kahakai NHT Corridor	131
Table 14: Resident and De Facto Population Projections, State and County of Hawaii: 2005-2025	136
Table 15: Attendance at Cultural Sites along the Ala Kahakai NHT Route	136
Table 16: Government Lands along the Ala Kahakai NHT Route (In Miles and % of Total)	137
Table 17: Property with Ancient Trails Described in the County of Hawaii Public Access to the Shoreline Inventory (based on 21048 miles of shoreline)	137



Manini'owali, N. Kona, NPS photo

Executive Summary



From left: 'Upolu, N. Kohala, NPS photo; Trail Clearing, Kealakehe HighSchool, O'oma, N. Kona, NPS photo; and Ancient Trail, Kapu'a, S. Kona, E. Kalani Flores

The National Park Service (NPS) administers the Ala Kahakai National Historic Trail (NHT), added to the National Trails System by the U.S. Congress on November 13, 2000. The legislation authorizing the Ala Kahakai NHT identifies an approximately 175-mile portion of prehistoric *ala loa* (long trail) and other trails on or parallel to the seacoast extending from 'Upolu Point on the north tip of Hawai'i Island down the west coast of the island around South Point to the east boundary of Hawaii Volcanoes National Park. The Ala Kahakai National Historic Trail combines surviving elements of the ancient *ala loa*¹ with segments of later *alanui aupuni*, which developed on or parallel to the traditional routes, and more recent pathways and roads that created links between the historic segments.

Federal ownership of the Ala Kahakai NHT is limited to the trail alignment within the four national parks it links: Pu'ukoholā Heiau National Historic Site; Kaloko-Honokōhau National Historical Park (NHP); Pu'uuhonua o Hōnaunau NHP; and Hawai'i Volcanoes National Park. Approximately 17% of the NHT is within the boundaries of these national parks. With trail authorization, these trail segments became federally protected components of the NHT, in compliance with § 3(a) 3 of the National Trails System Act.

The National Trails System Act, as amended, requires the preparation of a comprehensive management plan (CMP) for each new trail in the system. The CMP is intended to provide relatively long-term (approximately 15-year) direction for natural and cultural resource preservation, education, and trail user experience of the Ala Kahakai National Historic Trail. It considers the trail holistically. It identifies the necessity of community partnerships to protect trail resources and provide appropriate trail user services. As a partnership endeavor, the success of this plan is not solely determined by the NPS; rather its success rests with the will and perseverance of other local government agencies, communities, organizations, neighborhood associations, and individuals who have the capacity and desire to implement actions within this plan.

This document also includes a programmatic environmental impact statement (EIS), which considers at a general qualitative level the impacts that each of the alternatives could have on the trail environment. The EIS sets the framework for future compliance with the National Environmental Policy Act (NEPA) and the National Historical Preservation Act (NHPA) for each trail segment included in the Ala Kahakai

¹ "Ancient" or prehistoric trails such as the *ala loa* are those which were made in Hawaiian antiquity, predating western contact in 1778. By the middle 1820s, Governor Kuakini and island chiefs began a program of improving key trails on the island of Hawai'i to improve access for missionary efforts and the transportation of goods. In the 1830s the king began to formalize a program for work on and development of improved trails and roads. This work was generally performed by those convicted of crimes and in commutation for taxes. This program led to the development of the *alanui aupuni* (government road) system in 1847. These government roads are "historic" in design, function and use (Maly, 2005). In this plan, "ancient" is used instead of "prehistoric" or "precontact" when referring to trails predating Western contact.

NHT. It also assists decision makers and the public in assessing the relative merits and effects of any one alternative from the others.

This CMP was developed in consultation with National Park Service park and program managers; interested parties including landowners, Native Hawaiians, and trail groups, local communities; government agencies; and the general public. The NPS initiated formal consultation with the State Historic Preservation Division (September 2004) and the United States Fish and Wildlife Service (February 2003). The plan is based on an analysis of existing and predicted natural and cultural resource conditions, trail user experiences, environmental impacts, and costs. It primarily provides a framework for administration and management and a vision to be realized through future actions.

Planning Issues and Concerns

During scoping and alternatives review, the public expressed the following concerns about trail management. These are addressed in the CMP.

TRAIL ADMINISTRATION AND OPERATIONS

The trail is administered by the NPS, but the NPS owns and manages only 17% of the trail corridor. The trail passes through federal, state, county, Hawaiian Homelands, and private lands each with their own regulations for use. Even within state lands, the Nā Ala Hele Trails and Access Program² and State Parks operate under different rules. Consistent preservation, development, management, and marking the trail through varying jurisdictions will be a challenge.

CHANGES TO THE HISTORIC SCENE

Development, weather, and alien plants have significantly impacted the ancient and historic trail in some areas. New trails and jeep roads have often taken the place of ancient and historic trails. The plan addresses how these

sections of trail would be incorporated into the Ala Kahakai NHT.

VULNERABILITY OF CULTURAL AND NATURAL FEATURES

The Ala Kahakai NHT connects hundreds of cultural sites and traditional use areas. Desecration of cultural sites on public and adjacent private lands by persons accessing these sites via coastal trails is an ongoing problem. The plan addresses how trail management can protect these sites.

EFFECTS ON NATIVE HAWAIIANS

Native Hawaiians have deep concern for protection of natural and cultural resources, which are one and the same to them. For them, the trail is a part of a way of life. It includes not only the pathway but also the network of resources beside the trail. They are concerned that increased public access and use could impact areas of deep spiritual significance and their use of these areas to practice their cultural traditions. They also have concerns for the effect of federal administration of the trail on their gathering and subsistence rights under Hawaiian state law.



Pu'ukoholā Heiau NHS, S. Kohala, NPS photo

² A statewide program established by Hawaii Revised Statute 198D to inventory, classify, and regulate the use of trails and accesses on each of the islands. See appendix A for the legislation.

LANDOWNER CONCERNS

Landowners have concerns that trespass, litter, and misuse would result from trail use and that the burden of trail maintenance and protection would fall disproportionately on them. Landowners also have concerns for their liability and about federal intervention in their use of their land.

UNDESIRABLE TRAIL USER BEHAVIOR

Owners of private lands and managers of public land have suffered the effects of trespassing, vandalism, unauthorized off-road vehicle use, theft, littering, and illegal dumping due to open and largely unregulated access along and to the shoreline. In some cases, coastal resources such as *'opihi* (limpet), *limu* (seaweeds), fish, stones, sand, wood, and plant materials have been depleted. Access where immediate trail oversight is not present has led to over-harvesting of resources and inappropriate dumping of solid waste in coastal and other areas.



Luahinewai, N. Kona, NPS photo

LAND USE DECISIONS

In many cases, cultural and natural resources are threatened or have been lost due to development. State land use designation and county development permitting processes at times have allowed destruction of both traditional and early historic trails as long as developers provide public access to the shoreline.

Alternatives

As part of the planning process, three alternatives were developed to address these issues. Both action alternatives, alternatives B and C, are intended to address these issues successfully, if the recommendations are implemented. Alternative C is the alternative that the NPS proposes to implement. A table comparing the three alternatives immediately follows this summary.

ACTIONS COMMON TO ALL ALTERNATIVES

All alternatives share the following:

The same responsibility for resource protection and visitor health and safety based on federal laws and NPS requirements for management of cultural and natural resources.

The guidelines for high potential sites and segments³, interpretive facilities, management agreements, trail classifications and management prescriptions, carrying capacity, wilderness, and trail marking.

An auto tour route that includes 18 sites along the Ala Kahakai NHT route.

An initial administrative focus, on the 73-mile corridor from Kawaihae through Pu'uhonua o Hōnaunau NHP (see map 1) for development of trail segment management agreements. Other

³ A site or segment identified according to the procedures outlined in section 5 (e) of the National Trails System Act. Each site or segment must provide opportunities to interpret the trail's historical significance and to provide high quality recreation along a portion of the route. Route segments should have greater than average scenic values and should also help visitors appreciate the experience of the original trail users. Criteria include historical significance, the presence of visible historic remains, scenic quality, and relative freedom from intrusion. The management planning process determines if sites, trail segments, or associated resources are to be included as official components of the national historic trail.

areas will be protected as possible even though they might not be made available immediately for public use.

Five interpretive theme topics listed here and described in chapter 1: connections to the past, expression of a unique culture, significant events, stewardship, and environment.

All of these commonalities are described in chapter 2.

The alternatives differ on the extent of trail resources and values to which resource protection and the guidelines apply. Within the limits of resource capability, the alternatives vary in both what trail user services and experiences are provided and to what extent they are provided.

ALTERNATIVE A: NO ACTION

The “no action” alternative, a requirement of the National Environmental Policy Act (NEPA), basically continues the present course of action and serves as a baseline for comparison with all other alternatives. It does not mean that no federal action would occur, but that current federal administration would continue as it is with NPS funding constant at the FY 2006 level of \$260,000 with little opportunity for cost of living increases and no possibility for added staff.

Following the recommendation of the *Ala Kahakai National Trail Study and Environmental Impact Statement*, May 1997, (*Feasibility Study*), the goal of alternative A would be to complete a single continuous trail comprised of ancient and historic portions of the *ala loa* linked as needed by later pre-1892 trails, pathways, and modern connector trails. This alternative emphasizes the linear aspect of travel around the island and reflects a Euro-American concept of a trail as a linear transportation corridor or a recreational and educational entity. High potential sites associated with the alignment would be incorporated into the trail as feasible. Management agreements would focus on establishment and protection of a single route

parallel to or on the shoreline. Only the trail tread (state right-of-way, easements resulting from land use approvals, or other specified trail right-of-way) and negotiated adjacent areas would be included in the trail. Adjacent natural and cultural resources would be identified and protected as feasible along the trail route.

Given the limited staffing and funding under the No Action Alternative, the Ala Kahakai NHT would consist of trail segments within the four national parks through which it passes and only a few other segments, most likely on state lands and over easements already required by land use approvals. While a continuous trail would be a goal, there would be little opportunity to reach the goal even in the very long-term. An auto tour route would be completed that would lead visitors to 18 sites associated with the trail. Recreation along the trail and interpretation of its history and significance would generally be limited to these sites.

All of the principles of administration and resource management would apply to this alternative, but with the limited available federal funding, the application would occur in few places along the entire route. Generally, current management of ancient and historic trails and public access to them would continue. One-time costs for studies and projects are estimated to be \$675,000 over the 15-year plan period. Of that, the anticipated federal share would be \$405,000.

ALTERNATIVE B: SINGLE TRAIL

Alternative B shares the same overall goal as alternative A, but with added staff and funding more actions are potential, and in the very long term the goal could be accomplished. Within the planning period of 15 years, the goal would be to complete the linear trail within the priority zone from Kawaihae through Pu‘uhonua o Hōnaunau National Park and to protect other segments outside of that area as feasible. Also, as in alternative A, an auto tour route would be completed.

The NPS would actively work with the state of Hawai'i Nā Ala Hele Trails and Access Program to identify ownership of ancient and historic trails. Trail administration and management would emphasize agency involvement supported by the Ala Kahakai Trail Association and existing organizations. The NPS would focus its technical and limited financial assistance on Nā Ala Hele, State Parks, county parks, and those organizations that come forward to protect and maintain the trail. Nā Ala Hele would continue to manage state-owned segments of the *ala loa* that cross private lands, following the guidelines set out in the approved CMP. The *Feasibility Study* identified approximately 35 miles of trail across private lands along the entire route that have potential to be state-owned under the 1892 Highways Act,⁴ but suggested there may be more.

Day hiking and overnight camping would be supported with signs and markers, development of trail heads, and primitive campsites. While incorporating all of the trail themes, a unified trail interpretative program would emphasize the interpretive topics of movement from place to place, connections to the past, significant events, and stewardship. (Chapter 1 describes these topics and provides interpretive themes.)

Costs for this alternative are based on incorporating 73 miles of trail roughly from Kawaihae through Pu'u honua o Hōnaunau NHP into the Ala Kahakai NHT by the end of the planning period of approximately 15 years. These miles include trails within national, state, and county parks, trails within Nā Ala Hele jurisdiction, Alii Drive, and 16 miles of trail gaps. Annual operations costs are estimated to range from \$493,000-633,000. One-time costs for studies and projects are estimated to range from \$2,588,000 to \$4,235,000. Of these one-time costs, the estimated federal share is \$1,035,000 to \$2,178,000. Appendix I presents a comparison of costs by alternative.

ALTERNATIVE C: AHUPUA'A SYSTEM OF TRAILS

Alternative C includes the goal of a continuous linear trail as in alternative B, but also recognizes the existence and importance of multiple trail alignments in traditional land use and stewardship in Hawai'i by using the authority of the National Trails System Act, as amended, for connecting and side trails (16 USC 1245 Section 6). It reflects the public's vision, developed in the alternatives review process, for the administration and management of the trail. All parallel ancient and historic trails lateral to the shoreline within the Ala Kahakai NHT corridor on public land would be recognized as significant rather than recognizing only a single trail. These alignments would include inland portions of the *ala loa* or other historic trails that run lateral to the shoreline and would be connected to ancient or historic *mauka-makai* (mountain to sea) trails that traditionally would have been part of the *ahupua'a* system. Including *mauka-makai* trails may provide opportunities for loop trail experiences.

These multiple alignments would occur on public lands only, unless a private landowner expressed an interest in recognizing more than a single linear Ala Kahakai NHT. Canoe landings that reflect the traditional use of canoes in long-distance travel would be included, as feasible. In



'Upolu, N. Kohala, NPS photo

⁴ All public accesses that can be verified to have been in existence prior to the 1892 Highways Act continue to be owned in fee simple by the state of Hawaii. This law applies even if the trail is not physically on the ground because in many instances trail segments have been destroyed over time due to various land uses or natural processes.

order to better support interpretation of the Hawaiian trails as a system, focus of this alternative would lie in those areas containing multiple alignments, and a continuous linear trail would be a long-term goal. As in alternative B, day hiking and overnight camping would be supported with signs and markers, development of trail heads, and primitive campsites.

Preservation and interpretation of cultural features and landscapes that sustain the practice of Hawaiian values throughout the trail corridor would be the cornerstones of the trail protection program in alternative C. These cultural features include prehistoric and historic archeological and traditional sites and their surrounding natural landscapes, plant and animal ecosystems, and habitat.

Alternative C emphasizes community-based management that protects and preserves cultural sites and landscapes thereby providing the setting for cultural conservation and livelihood opportunities through the on-site practice and preservation of Hawaiian values and customs. A key component of management would be a viable and highly effective Ala Kahakai Trail Association (AKTA) that would partner with the NPS in trail protection and management. It would develop and implement a strategic approach to communication, membership, product development, marketing and fund- raising strategies for projects, project management, and staffing. NPS technical assistance would focus on strengthening the AKTA.

Under alternative C, the trail experience would center on understanding and appreciating Hawaiian values and cultural practice as found along a traditional system of trails. The experience would be comprised of activities, programs, and interpretation emphasizing the trail's significance and history. Although incorporating all of the trail themes, trail interpretation would emphasize the topics of connections to the past, expression of a unique culture, stewardship, and environment.

In alternative C, the NPS would not only administer and manage the trail on national park lands, but also could manage those segments of trail owned by the state through the Highways Act of 1892, including multiple lateral and *mauka-makai* trails within the Ala Kahakai NHT corridor. An agreement with the state of Hawaii could convey to the NPS a less-than-fee ownership interest in trail segments that are state-owned and assign management obligations to the NPS. However, in cooperation with the NPS and under its guidance, local communities within the *ahupua'a* would be encouraged to take responsibility for trail management using traditional Hawaiian principles of land management and stewardship. Federal management of the state-owned trail segments would allow for more consistent management of the trail as a unified entity and enforcement of federal protection laws under 36CFR-Parts 1-5. State laws for resource protection would continue to apply to the Ala Kahakai NHT if more stringent than the federal laws.

Costs for this alternative are based on incorporating 88 miles of trail from Kawaihae through Pu'uuhonua o Hōnaunau NP into the Ala Kahakai NHT during the planning period of approximately 15 years by adding 15 miles of *mauka-makai* trails to the 73 miles of trail in alternative B. Annual operations costs are estimated to range from \$702,000 - 887,000. One-time costs for studies and projects completed over the 15-year planning period are estimated to range from \$3,158,000 to \$5,015,000. Of the one-time costs, the estimated federal share is \$1,263,000 to \$2,508,000. Appendix I presents a comparison of costs by alternative.

Table 1: Comparison of Alternatives

PLANNING ISSUE	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA'A TRAIL SYSTEM
Concept	<p>Single linear trail preserving ancient and historic segments of the <i>ala loa</i>⁵ connected with more recent trails, jeep roads, and sidewalks to create a continuous trail.</p> <p>Continuing federal actions with a flat budget. Provides baseline for comparison.</p> <p>A Euro-American concept of a trail as a linear recreation and educational experience</p>	<p>Same as alternative A.</p> <p>Additional staff and funding make more actions potential.</p> <p>Same as alternative A</p>	<p><i>Ahupua'a</i> approach to trails adding <i>mauka</i> trails, other lateral trails, and canoe landings to a continuous linear trail to recognize a traditional system of trails on public lands. Lateral and <i>mauka-makai</i> trails authorized as connector trails by the National Trails System Act.</p> <p>A Hawaiian concept of trails as a system or network of trails and places providing opportunities for cultural conservation.</p>
Administration, Management, and Partnerships	<p>Ala Kahakai NHT administrator provides oversight to entire trail, as possible, but land managers or owners manage their segments of trail. NPS parks manage their segments of trail. Additional sites and segments added through agreements, as possible.</p> <p>Stewardship concepts and values embedded in the Hawaiian culture provide a basis for effective trail management.</p> <p>MOU signed with state and county. Nā Ala Hele management of state-owned ancient and historic trails continues. State Parks manages trail on its lands. County continues to require public shoreline access and manage trails on its lands. Landowners or others manage required easements.</p> <p>NPS relies on existing local organizations to implement the trail. Has little capacity to help the Ala Kahakai Trail Assn. (AKTA) get off the ground.</p> <p>NPS trail office would become information repository for all information regarding sites and segments.</p>	<p>Same as alternative A, but a continuous linear trail would be achieved in the long term. 15-year plan focuses on priority area. Additional funding would allow more sites and segments to be included.</p> <p>Same as alternative A.</p> <p>Same as alternative A, except NPS would focus technical and limited financial assistance on partnerships with state trail managing agencies and other trail management entities.</p> <p>NPS actively promotes cooperative community-based management focused on helping trail management agencies, AKTA, and local organizations.</p> <p>Same as alternative A, but more information would be processed as sites and segments are added to the trail.</p>	<p>Same as alternative B, but NPS could manage state-owned segments of ancient and historic trails through an agreement with the state providing NPS an interest in the trail but not ownership.</p> <p>Same as alternative A, but the <i>ahupua'a</i> approach would offer settings in which the culture could be practiced.</p> <p>Same as alternative A, except NPS would focus technical and limited financial assistance on AKTA to build its capacity to help trail management entities.</p> <p>NPS forms viable partnership with a robust AKTA to help manage the trail and its settings on public lands and to promote cultural conservation through on-site practice and preservation of Hawaiian values and livelihood opportunities.</p> <p>Same as alternative B, but even more information would be managed.</p>

⁵ Brief definition of terms: *ala loa* (long trail); *ahupua'a* (land division roughly running from the mountains to the sea); *mauka* (toward the mountains); *makai* (toward the sea); *mauka-makai* (mountain to sea).

PLANNING ISSUE	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
Resource Protection			
Resource Protection General	<p>Federal laws for natural and cultural resource management apply in the four national parks.</p> <p>Relevant federal laws and state laws apply to those sites and trail segments recognized as part of the Ala Kahakai NHT.</p> <p>Site and segment-specific management plans required.</p> <p>A range of protection measures available on nonfederal lands: compliance, inventory and assessment, specific management plans, agreement, phasing, strategic trail routing, monitoring, limited visitation, collaborative planning and design, education, coordination with Nā Ala Hele advisory council.</p>	<p>Same protections in place as in alternative A except that protection would extend to the entire linear trail as it is completed.</p>	<p>Same as alternative B except that resource protections would extend to a traditional system of trails on public lands as well as the linear trail.</p>
Resource Protection High potential sites and segments (See Glossary.)	<p>Recognition and protection within the four national parks.</p> <p>Management agreements are completed with Nā Ala Hele or State Parks for a few trail sites and segments and interpretive facilities.</p>	<p>Same as alternative A.</p> <p>Same as alternative A, but NPS works to incorporate all sites and segments currently identified as high potential as part of a linear trail. Active inventory and analysis of potential additional sites and segments to complete a linear long-distance trail.</p>	<p>Same as alternative A.</p> <p>The same as alternative B, but protection includes parallel lateral trails and <i>mauka-makai</i> trails on public lands using “connector trail” provisions in the NTSA.</p>
Resource Protection Trail alignment	<p>Alignment defined in the four national parks.</p> <p>On nonfederal lands, trail consists of identified trail right-of-way and negotiated adjacent resource areas.</p> <p>Uneven and slow progress, where opportunities arise, toward a continuous trail.</p>	<p>The same as alternative A.</p> <p>The same as alternative A, but NPS works with Nā Ala Hele to identify ancient and historic trails for public use.</p> <p>NPS works with Nā Ala Hele, state parks, other public and private landowners to actively develop a single continuous trail.</p>	<p>The same as alternative A.</p> <p>The same as alternative B. In addition, NPS works with Nā Ala Hele to identify ancient and historic <i>mauka-makai</i>, trails on public lands to develop a system of trails including the surrounding landscape.</p> <p>The same as alternative B, plus a traditional system of trails on public lands is recognized. Shoreline lateral access trails included in Ala Kahakai NHT.</p>

PLANNING ISSUE	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
Resource Protection Program	<p>Federal protections at national parks.</p> <p>On nonfederal segments, management plans with protection measures including inventory, assessment, and monitoring, in place for individual trail segments, their adjacent negotiated resource areas, and sites that are incorporated into the Ala Kahakai NHT.</p>	<p>The same as alternative A.</p> <p>Protection on nonfederal segments the same as alternative A, but more trail segments and sites would be included.</p>	<p>The same as alternative A.</p> <p>Protections along nonfederal segments the same as alternative B, plus parallel coastal trails and <i>mauka-makai</i> trails are included.</p> <p>On public land, preservation of cultural features and landscapes that sustain the practice of Hawaiian values is emphasized.</p> <p>Federal management and protection laws could extend to state-owned trails through an agreement with Nā Ala Hele.</p>
Trail User Experience			
Trail User Experience Traditional users or practitioners	Trail management planning would aim to mitigate negative impacts on traditional cultural practices by seeking input and advice from traditional gatherers and other practitioners.	Same as alternative A but NPS seeks to enhance access to and setting for traditional cultural practice.	Same as Alt. A except NPS seeks to facilitate access to and setting for traditional cultural practice
Trail User Experience Recreation	<p>Discontinuous trail segments available for day-hiking.</p> <p>Traditional Hawaiian values presented along segments of a single linear trail</p> <p>Auto tour route established as an experiential and interpretive spine that includes key high potential sites and access to several high potential trail segments.</p> <p>Special hiking and cultural events promoted on trail segments included in the Ala Kahakai NHT.</p>	<p>Longer segments available for day-hiking. Overnight camping accommodated as feasible.</p> <p>Traditional Hawaiian values presented along a continuous single linear trail</p> <p>Auto tour the same as alternative A</p> <p>The same as alternative A, but more trail segments available for events.</p>	<p>Loop trails, in and out experiences, and long-distance hiking accommodated, with emphasis on the cultural experience of trails within an <i>ahupua a</i>.</p> <p>Traditional Hawaiian values experienced and practiced along a traditional system of trails.</p> <p>The same as alternative A with the addition of the experience of traditional system of trails where accessible from auto tour sites.</p> <p>The same as alternative B, but with emphasis on the <i>ahupua a</i> and the traditional system of trails.</p>



Pōhuehue or Beach Morning Glory, NPS photo



Petroglyph Recording, S. Kohala, NPS photo

PLANNING ISSUE	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA'A TRAIL SYSTEM
Trail User Experience Interpretation and Education	<p>Potential for a Comprehensive Interpretive Plan (CIP) late in plan period. Initially, no comprehensive approach. Publications, website, wayside exhibits could be developed.</p> <p>Introduction of trail interpretive themes and programs encouraged at NPS units. Reliance on existing local entities and programs would continue on nonfederal segments. Emphasis on auto tour route.</p> <p>Outreach to local schools offered as requested and subject to staffing capacity.</p>	<p>Comprehensive Interpretive Plan (CIP) a priority leading to a range of coordinated interpretive approaches.</p> <p>Emphasizes interpretive topics (interpretive themes are outlined in chapter 1) of movement from place to place, connections to the past and significant events that occurred along the <i>ala loa</i>.</p> <p>Outreach to local schools and an educational curriculum developed. Heritage tourism involving travel along a single route possible if meeting permit requirements.</p>	<p>The same as alternative B.</p> <p>Emphasizes interpretive topics of cultural expression, stewardship, and environment. Hands on learning of conservation values and ethics offered from early education to adult programs serves as a basis for job and career employment.</p> <p>Outreach to local schools and an educational curriculum developed. Geotourism involving a traditional system of trails possible if meeting permit requirements.</p>
Trail User Experience Trail Identification, Markers, and Signs	<p>Markers would be used on few managed trail segments and at interpretive facilities. Public would randomly encounter markers.</p>	<p>Markers used to mark a single, linear trail. Markers guide users but do not clutter landscape.</p>	<p>Markers used on linear trail, parallel lateral trails, and <i>mauka-makai</i> trails to identify a system of trails as appropriate. Written guides may be used to avoid sign clutter in some areas.</p>
Facility Development	<p>Some wayside interpretive exhibits may be installed.</p> <p>For auto tour, may include wayside exhibits, signs and markers, access roads, trailhead parking areas, and comfort stations.</p> <p>State or local governments or private groups would fund development outside of federally owned areas. NPS would fund on federal components. NPS may provide seed money, cost sharing incentives, or technical assistance to nonfederal entities.</p>	<p>A system of wayside exhibits installed.</p> <p>Same as alternative A for auto tour. For hikers, may include wayside exhibits, signs and markers, potable water sources, campsites, trailhead parking and orientation signs.</p> <p>Same as alternative A except that more trail segments would require more of the described facilities.</p>	<p>The same as alternative B.</p> <p>The same as alternative B NPS would fund necessary facility developments on added federal components.</p> <p>The same as alternative B, except that AKTA would be expected to raise significant funds for development on non-federal land.⁶</p>



Ka'awaloa, S. Kona, NPS photo



Young Surfers at "Pine Trees", Kohanaiki, N. Kona, NPS photo

⁶ If the association's capacity does not develop, projects and conditions proposed under this alternative may not be realized.

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
Funding	<p>Alternative assumes minimal increases not keeping up with inflation.</p> <p>Competitive NPS Challenge Cost Share Program may be available for project matching funds annually at the discretion of Congress.</p>	<p>NPS would request increases in base funding to implement the CMP. Funds sought from other NPS programs. Funds and staff shared with national parks along the route.</p> <p>The same as alternative A.</p> <p>AKTA and private groups would raise funds as possible for programs. (See footnote 6.)</p>	<p>The same as alternative B.</p> <p>The same as alternative A.</p> <p>AKTA expected to raise significant funds to support educational and cultural programs and facilities. (See footnote 6.)</p>
Cost Estimates⁷	(based on FY 2007 dollars)		
Annual Operations	\$259,000	\$493,000- \$633,000	\$702,000 - \$887,000
One-time Costs (over 15 years) Studies	\$375,000	\$220,000 – \$375,000	\$310,000 - \$485,000
Projects	\$300,000	\$2,368,000 –\$3,860,000	\$2,848,000 – \$4,530,000
Total One-time Costs	\$675,000	\$2,588,000 - \$4,235,000	\$3,158,000 - \$5,015,000
Anticipated federal share of One-time Costs⁸	\$405,000	\$1,035,000 - \$2,178,000	\$1,263,200 - \$2,508,000
Staffing	2 full-time	4 full-time; 6 shared/part-time	5 full-time; 9 shared/part-time



‘Ōpae‘ula Pond, Makalawena, N. Kona, NPS photo



"Pebble Beach", Kaohe, S. Kona, NPS photo

⁷ Caveat for all cost estimates: The implementation of the approved plan, no matter which alternative, will depend not only on future NPS funding and service-wide priorities, but also on partnership funds, time, and effort. The approval of a CMP does not guarantee that funding and staffing needed to implement the plan will be forthcoming. Full implementation of the CMP could be many years in the future. These cost estimates suggest the range of federal funds in relation to partnership funds — state, county, nonprofit organizations, private entities, and individuals — required to open to the public the section of trail from Kawaihae to Pu‘uhonua o Hōnaunau in 15 years and to protect other sections of trail in that time period.

⁸ The Feasibility Study, approved by Congress, projected a 50% nonfederal match for one-time costs. Alternative A estimates that the federal share would be approximately 60% because much of the trail work would be limited to the national parks. Alternatives B and C estimate the federal share on the low estimate (anticipating greater partner involvement and fundraising) would be approximately 40% and on the high estimate, 50%.

Table 2: Comparison of Impacts of Alternatives

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
Cultural Resources	<p>Negligible to minor direct and indirect beneficial effects in national parks.</p> <p>No adverse impacts to NRHP properties on federal lands or on sites included in the auto tour due to the trail use; potential minor to moderate adverse impacts to sites on nonfederal lands not included in NHT.</p> <p>Potential for moderate long-term beneficial effects on a few trail segments on nonfederal lands added to the national trail.</p> <p>Potential long-term moderate to major adverse impacts due to loss of ancient trail fragments and other cultural resources within the trail corridor not incorporated in the NHT.</p> <p>Minor long-term beneficial effects result from limited promotion of national recognition of the trail.</p> <p>Minor to moderate long-term benefit resulting from new research on cultural resources within the national parks and on nonfederal segments incorporated into the trail contributing to better understanding and appreciation of the significance of this national historic trail to the culture of Hawaii.</p> <p>Potential long-term moderate to major adverse impacts if existing zoning and development regulations do not adequately protect the trail and its associated cultural resources.</p> <p>Potential long-term moderate to major adverse effects on portions of the trail route not included in the Ala Kahakai NHT from inadvertent desecration by unknowing trail users or from vandalism and looting by artifact hunters.</p> <p>Minor to major long-term effects of inadvertent or intentional damage to trail fabric and resources by private landowners.</p>	<p>Overall, the same as alternative A, except more trail segments included in the Ala Kahakai NHT.</p> <p>In addition:</p> <p>Long-term moderate to major beneficial effect from increased research and knowledge of cultural resources.</p> <p>Short and long-term moderate beneficial effects resulting from heritage tourism that contributes to a better understanding and appreciation of the Ala Kahakai NHT and the Hawaiian culture.</p> <p>Moderate long-term beneficial effect from bringing more NHRP properties under administrative oversight of the NPS.</p> <p>Moderate beneficial effects of enhanced promotion of national recognition of trail.</p> <p>Long-term minor beneficial effects on capacity of Nā Ala Hele to protect resources due to added NPS support.</p> <p>Potential moderate to major short and long-term adverse effects on cultural resources that define the national trail could result from lack of action by the NPS or its partners. Effects ameliorated by incremental implementation of the CMP and by NPS technical assistance.</p> <p>Long-term beneficial impact of research and information sharing that provides land owners a model for preserving resources and contributing to the broader preservation of the Hawaiian culture through public understanding.</p>	<p>Overall similar to alt. B with the addition of the following:</p> <p>Minor beneficial effects from increased community support of park management, but potential minor adverse effects as more trail segments are added within the parks.</p> <p>Long-term moderate to major beneficial effects on resource protection as more trail segments could come under federal jurisdiction and management with NPS less-than-fee interest in nonfederal trail segments, but potential short term minor to major adverse effects if funds and staff are not available for monitoring and protection.</p> <p>Long-term moderate beneficial effects on the Hawaiian community and on resource protection as local communities engage in living and interpreting their culture along a traditional system of trails.</p> <p>Long-term beneficial impact on the setting and character of the trail on public lands, keeping viable the cultural setting of the trail and enhancing the visitor experience through exposure to more aspects of the Hawaiian culture.</p> <p>Short and long-term beneficial effects on cultural resources would result from better options for redirection of trail users.</p> <p>Potential for short and long-term adverse effects of lack of capacity for management on the part of the NPS or partners. Effects could be reduced by incremental implementation.</p>

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
	Negligible effects on cultural practices of Native Hawaiians on federal lands. Possible minor beneficial effects on nonfederal trail segments.	Moderate long-term beneficial effects from encouragement of traditional access or accommodation of traditional users' practices or beliefs.	Major long-term beneficial effects from facilitation of traditional access or accommodation of traditional user's practices or beliefs.
Cave Resources	<p>Federal and state cave protection laws apply.</p> <p>Negligible effect, neither adverse nor beneficial, on cave resources in national parks and along segments of trail included in the Ala Kahakai NHT.</p> <p>Minor to major short and long-term adverse impacts on cave resources from use of caves on nonfederal lands for recreation.</p> <p>Major long-term adverse effects on cave resources from looting or desecration of caves.</p>	Same as alternative A.	<p>Similar to alternative A, plus moderate to major long-term beneficial effects from inventory and protection of cave resources along official components of the trail on public lands.</p> <p>Moderate beneficial effects if the public becomes better educated about the fragility and uniqueness of cave resources.</p>
Wetlands: Anchialine Pools and Fishponds (See glossary for definition of anchialine.)	<p>Negligible effects on anchialine pools and fishponds on national park lands.</p> <p>Inventory and monitoring of pools adjacent to the trail along with educational messages to users would reduce potential adverse effects on nonfederal lands incorporated into the Ala Kahakai NHT.</p> <p>Short and long-term minor to major adverse impacts could occur to pools along trail segments not included in the Ala Kahakai NHT.</p>	Same as alternative A.	<p>Similar to alternative A, plus minor to moderate beneficial short and long-term effects through management of pools and fishponds associated with a system of trails on public lands.</p> <p>Minor to major long-term adverse impacts to the pools could result from inability to perform pool management and monitoring.</p>
Marine Resources related to Traditional Coastal Harvesting	<p>Negligible impacts, neither adverse nor beneficial, to resources due to trail use are expected.</p> <p>Coordination with State DLNR and consultation with local traditional users to avoid local impacts would have short and long-term beneficial effects on the traditional user.</p>	Same as alternative A.	<p>Same as alternative A, plus</p> <p>Negligible to minor beneficial effects from the <i>ahupua'a</i> trail system and local community management approach on the traditional user.</p>
Native Ecosystems: Vegetation and Wildlife	Minor short-term adverse effects but minor long-term benefits to native vegetation from requiring alien plant removal and planting of natives, as appropriate.	Same as alternative A.	Same as alternative A, across private lands, but moderate beneficial effects on public lands from the requirement to remove alien plants and plant natives, as appropriate.

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA'A TRAIL SYSTEM
	Direct and indirect minor beneficial effects from consideration of trail location, temporary closures during nesting seasons, removal of predators, education of trail users and other measures.	Same as alternative A.	Moderate to major beneficial effects on wildlife habitat on public lands through flexibility in selecting trails for seasonal use to protect nesting wildlife and the opportunity to collaborate with state land managers in habitat management.
Special Status Species	<p>Potential short-term minor adverse effects to special status species may occur; no long-term adverse impacts from trail use on federal lands or along trail segments included in the Ala Kahakai NHT would occur. Trail segment management plans would avoid adverse impacts to specific plant and animal species and their communities as possible.</p> <p>Potential adverse impacts could occur along trail segments not incorporated into the national trail, but would be mitigated by enforcement of state laws.</p>	Same as alternative A.	<p>Same as alternative A, plus</p> <p>Long-term beneficial effects from inventory and preservation of habitats and plant and animal communities on public lands, not just specific species.</p>
Scenic and Visual Resources	<p>Negligible impacts to scenic and visual resources due to Ala Kahakai NHT development.</p> <p>Moderate to major short and long-term generally adverse effects of development within the trail corridor on nonfederal land with exception of state parks.</p>	<p>Same as alternative A plus potential adverse impacts of trail development on visual resources reduced by design guidelines, coordination along entire trail corridor, careful site-specific planning. Impacts reduced to negligible to minor.</p> <p>Development outside of the immediate area of the trail and negotiated protection area could have minor to major adverse effects on views and the visual character.</p>	<p>Same as alternative B except</p> <p>Traditional system of trails would require more directional signs and information that would be mitigated by inconspicuous markers and use of maps and self-guided tour brochures and pamphlets.</p>
Wilderness Values	Long-term negligible adverse impacts on wilderness values, short-term minor adverse effects on operations, and short-term negligible to minor adverse and beneficial effects on visitor experience depending upon if the user is seeking solitude or cultural information.	Same as alternative A.	Same as Alternative A.
User Experience	<p>Long-term minor beneficial effect from the potential to visit trail sites and segments that are protected, interpreted, and monitored.</p> <p>Short-term adverse effects to traditional users if they experience a sense of crowding or a lack of solitude.</p>	Moderate to major short and long-term beneficial effects on visitor understanding and appreciation of the Hawaiian culture through experiencing evidence of ancient and historic places, events, activities, and changes over time along a continuous trail route.	<p>All impacts described for alternative B would apply, plus</p> <p>Moderate to major beneficial effects for visitors interested in gaining knowledge of Hawaiian history and culture through the experience of the living culture along the route.</p>

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA‘A TRAIL SYSTEM
	<p>Short and long-term minor to moderate adverse impacts on recreational use of the trail resulting from limited ability of the NPS to incorporate trail segments into the Ala Kahakai NHT.</p> <p>Short and long-term minor to moderate direct beneficial effects resulting from addressing health hazards along official sections of the Ala Kahakai NHT through safety messages and other forms of education.</p> <p>Short and long-term moderate to major adverse effects on health and safety of users of the numerous nonfederal segments of the trail route that could not be included in the Ala Kahakai through exposure to unsafe conditions without warning and appropriate preparation.</p> <p>Short-term minor beneficial effects on serenity of the trail experience by limiting use of the Ala Kahakai NHT to walkers. Short-term, minor impacts to current users who may find that the regulations limit their use and enjoyment of trails.</p> <p>Minor to moderate beneficial impacts on visitor understanding and experience through interpretive materials regarding the Ala Kahakai NHT offered at the parks and along the auto tour route.</p> <p>Minor adverse impact to visitor understanding and experience resulting from the discontinuous trail limiting the opportunities to experience the ancient and historic <i>ala loa</i> and learn of the traditional Hawaiian use of trails.</p>	<p>Minor to moderate beneficial effects from trail segment management plans addressing the potential adverse effects of higher levels of use expected near population centers and resorts in the South Kohala and North Kona districts.</p> <p>Moderate beneficial effects from permit system for commercial tours.</p> <p>Moderate short-term beneficial effects from the opportunity for extensive travel on a continuous trail with through-hiking and overnight camping.</p> <p>Moderate beneficial effects from addressing health and safety issues along a continuous trail.</p> <p>Moderate to major beneficial effects from protection of more remote sections of trail or those in less developed areas that may be valued for their primitive qualities and opportunities for solitude.</p> <p>Moderate to major beneficial effects from elimination of unauthorized uses such as ATVs to trail users seeking quiet, solitude, and a historical experience; but could be experienced as adverse to users who want to continue their ATV activities.</p> <p>Moderate to major short and long-term beneficial effects of better public understanding of resource significance and the ability of Native Hawaiians and local users to walk in the footsteps of the ancient people and experience the diversity of the Hawaiian culture.</p> <p>Long-term moderate to major beneficial impacts on planning for interpretation and education resulting from comprehensive interpretive plan and additional interpretive and educational opportunities.</p>	<p>Moderate to major short and long-term beneficial effects from providing opportunities for local residents, Native Hawaiians, and tourists to experience the ancient and historic Hawaiian system of trails.</p> <p>Short and long-term moderate to major beneficial effects from increased opportunities for local Hawaiians to practice their traditional culture.</p> <p>Short and long-term moderate to major benefits to trail users from using the trail as a setting where people can learn from <i>kūpuna</i> or other traditional practitioners about land management and conservation.</p> <p>Minor to major short and long-term benefits to the trail user and the local communities from encouraging development that sustains the environment, cultures, aesthetics, heritage, and well-being of the residents.</p>

	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SINGLE TRAIL	ALTERNATIVE C: AHUPUA'A TRAIL SYSTEM
Socioeconomic Environment			
Socioeconomic Environment Economics & Nearby Communities	Negligible effects would result from NHT recognition.	Negligible beneficial effects from some small economic benefit that may accrue to communities and landowners along the trail in addition to already expected tourism dollars.	Similar to alternative B, but local communities could experience moderate beneficial effects through participation in cultural conservation.
Socioeconomic Environment Landowners	<p>Landowners would experience little more adverse or beneficial effects than they do today under state and county laws and regulations.</p> <p>Short to long-term term minor adverse effect felt by landowner if there is pressure from the public to fulfill the state requirement to open a trail to public use across private lands.</p> <p>Short and long-term minor beneficial effects to landowner by receiving technical and limited financial assistance in trail and resource management from the NPS.</p>	<p>Generally negligible to minor effects to private landowners from federal actions as a result of development of the Ala Kahakai NHT as the state already requires protection of ancient and historic trails.</p> <p>A new public trail across private land would increase the potential for trespassing resulting in short-term minor to major adverse effects.</p> <p>Adverse effects could be experienced by landowner if Hawaii law protects trail fabric and segments in place instead of allowing for relocation.</p> <p>Short and long-term beneficial effects to the landowner and the public if a landowner chooses to include resources associated with the Ala Kahakai NHT in trail management.</p>	<p>Effects the same as alternative B, for private landowners, but relieving Nā Ala Hele of management responsibility for trails in its jurisdiction along the Ala Kahakai NHT would be a moderate to major beneficial effect on the agency.</p> <p>State Parks would receive moderate to major beneficial effects if the NPS assists it with parklands adjacent to the linear alignment of the Ala Kahakai NHT that contain other lateral and <i>mauka</i> segments of ancient and historic trails. Without NPS assistance, State Parks could experience moderate to major adverse impacts.</p>
Trail Operations	Long-term moderate to major impacts to trail values result from staff levels inadequate to meet the goal of adding trail segments and sites to the Ala Kahakai NHT to create a presence for the trail.	Moderate to major long-term beneficial effects on trail resources and values from added funding and staff with skill in community planning, resource management, interpretation, and other disciplines.	Same as alternative B, plus NPS management of state-owned segments of trail could have long-term beneficial effects on trail management and on the relationship between Nā Ala Hele and the NPS. Long-term moderate to major beneficial effects would result from the Ala Kahakai Trail Association becoming a fully-functioning partner in trail development, protection, management, and interpretation.

Acronyms Used in the Document

ADA	Americans with Disabilities Act	HAR	Hawaii Administrative Rules
AKTA	Ala Kahakai Trail Association	HRS	Hawaii Revised Statutes
ALKA	Ala Kahakai National Historic Trail	LCS	List of Classified Structures
AIRFA	American Indian Religious Freedom Act	MLCD	Marine Life Conservation District
APE	Area of Potential Effect	MOA	Memorandum of Agreement
ARPA	Archeological Resources Protection Act	MOU	Memorandum of Understanding
ASMIS	Archeological Sites Management information Systems	Nā Ala Hele	Hawai'i State Nā Ala Hele Trails and Access Program (part of DOFAW)
BLNR	Hawai'i State Board of Land and Natural Resources	NAGPRA	Native American Graves and Repatriation Act
CEQ	Council on Environmental Quality	NARS	Natural Areas Reserve System
CDDA	Conservation District Use Application	NELHA	Natural Energy Laboratory of Hawaii
CFR	Code of Federal Regulations	NEPA	National Environmental Policy Act
CLI	Cultural Landscape Inventory	NHP	National Historic Park
CLR	Cultural Landscape Reports	NHPA	National Historic Preservation Act
CMP	Comprehensive Management Plan	NHT	National Historic Trail
CRM	Cultural Resource Management	NP	National Park
CZM	Coastal Zone Management	NPS	National Park Service
DEIS	Draft Environmental Impact Statement	NRHP	National Register of Historic Places
DHHL	Hawai'i State Department of Hawaiian Homelands	NTSA	National Trails System Act
DLNR	Hawai'i State Department of Land and Natural Resources	OGR	Old Government Road
DO	Director's Orders	PASH	Public Access Shoreline Hawaii
DOFAW	Hawai'i State Division Forestry and Wildlife (part of DLNR)	PWRO	Pacific West Regional Office (of the National Park Service)
EIS	Environmental Impact Statement	QLCC	Queen Lili'uokalani Children's Center
EPA	Environmental Protection Agency	REZ	Rezoning
FCRPA	Federal Cave Resources Protection Act	r.o.w.	Right of way
FEIS	Final Environmental Impact Statement	SCORP	State Comprehensive Outdoor Recreation Plan
FMA	Hawai'i State Fishery Management Area	SHPD	Hawai'i State Historic Preservation Division
FRA	Fish Replenishment Area	SMA	Special Management Area
FY	Fiscal Year (Federal)	SUB	Subdivision
GIS	Geographic Information System	TCP	Traditional Cultural Property
GPS	Global Positioning System	TMK	Tax Map Key
		USC	United States Code
		USFWS	United States Fish and Wildlife Service
		USGS	United States Geological Survey

Hawaiian Words Used in the Text

<i>‘a‘ā</i>	Solidified lava with a rough, clinkery surface.		purposes such as agricultural prosperity, fishing, surfing, the <i>hula</i> , etc. Only the highest ranking one, the <i>luakini</i> , was used for human sacrifice.
<i>ahu</i>	A heap of stones erected as a marker; a cairn; the altar upon which tribute offerings were placed.	<i>hōlua</i>	An inclined dry-laid masonry ramp on which sledding contests were held.
<i>ahupua‘a</i>	A major land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (<i>ahu</i>) of stones surmounted by an image of a pig (<i>pua‘a</i>) or because a pig or some other tribute was laid on the altar as a tax to the chief.	<i>ho‘okipa</i>	Hospitality
<i>‘āina</i>	The living earth.	<i>ho‘okupu</i>	Tribute as a sign of honor and respect, gift exchange.
<i>ala</i>	Anciently a footpath, trail, way; now also road or highway.	<i>‘ili</i>	A subdivision within an <i>ahupua‘a</i> administered by the chief controlling the <i>ahupua‘a</i> .
<i>‘alā</i>	Waterworn stones used as steppingstones or to mark a footpath; also called <i>pa‘alā</i> .	<i>‘ike</i>	Knowledge.
<i>ala aupuni</i>	Government trail, or government road, developed from a program begun in 1847 and continuing until 1892.	<i>‘ili‘ili</i>	Pebbles.
<i>ala loa</i>	Coastal trail around an island; long trail.	<i>hula</i>	Traditional form of dance.
<i>Ala Kahakai</i>	“Trail by the Sea,” name given to a state trail from ‘Upolu Point to Kailua and ultimately to the 175-mile national historic trail.	<i>Ka Lae</i>	Literally “the point” (South Point).
<i>alanui aupuni</i>	Street, road, or highway.	<i>Kahiki</i>	The “ancient ancestral lands”; believed to refer to Tahiti in the Society Islands.
<i>ali‘i</i>	Hawaiian sacred chiefs and chiefesses; the nobility.	<i>kahuna</i>	Prophet, seer; members of a priestly class; also classes of specialists and experts (e.g. navigators, healers, <i>tapa</i> workers, sculptors, architects, medical practitioners, genealogists, and so on).
<i>aloha</i>	Sacred breath of life, love, compassion.	<i>kama‘āina</i>	Native born Hawaiian; person familiar from childhood with any locality; in modern usage it refers to all long-time residents.
<i>aloha ‘āina</i>	Love of the land, reverence for all living things.	<i>Kāne</i>	One of four god types of ancient Hawai‘i (Kane, Ku, Lono and Kanaloa).
<i>heiau</i>	Hawaiian temple platform. There were numerous temples for many different	<i>kapa</i>	<i>Tapa</i> , or barkcloth (<i>Broussonetia papyrifera</i>).
		<i>kapu</i>	Taboo; sacred; no trespassing.

<i>Kapu</i>	A complex religious and political organization with associated rules (taboos)	<i>kula</i>	Plain, field, open country; source.
<i>kiawe</i>	The algaroba (<i>Prosopis pallida</i>), a legume from Peru. First introduced to Hawai'i in 1828.	<i>kuleana</i>	Responsibility, implied reciprocity.
<i>kīhāpai</i>	Small land division; cultivated patch or small farm.	<i>ku'ula</i>	<i>Heiau</i> for the worship of fishing gods; also a fish god stone.
<i>kī'i pōhaku</i>	A recent term to describe petroglyphs or rock art (literally "stone images").	<i>Kumulipo</i>	Origin, source of life; name of Hawaiian creation chant.
<i>kino lau</i>	Many forms taken by a supernatural, as Pele.	<i>kupuna</i>	Grandparent, ancestor, relative of grandparents' generation. <i>Kūpuna</i> is the plural form.
<i>kīpuka</i>	An island of vegetation surrounded by younger or sparsely vegetated lava flows.	<i>laulima</i>	"Many hands working together," cooperation.
<i>koa</i>	An endemic tree (<i>Acacia koa</i>), common in the dry forests, the wood of which was prized for canoes and other artifacts.	<i>lōkahi</i>	Unity, balance, harmony.
<i>ko'a</i>	Fishing shrine.	<i>loko kuapā</i>	Fishpond wall.
<i>kō'ele</i>	Small land unit farmed by a tenant for the chief.	<i>loko pu'uone</i>	Pond by the shore.
<i>kokua</i>	"Pulling with the back," pitching in to help, volunteering.	<i>Lono</i>	One of four god types; associated with agriculture, fertility and peace.
<i>konohiki</i>	Land manager of an <i>ahupua'a</i> ; a lesser chief.	<i>lua</i>	Pit, indentation, hole.
<i>kōnane</i>	An ancient Hawaiian game resembling checkers.	<i>luakini</i>	The <i>heiau</i> maintained by a paramount chief in his chiefdom for prayer and human sacrifice; the highest rank of temple. Generally dedicated to different Kū variants of each kingdom, which were the gods of war and of national prosperity.
<i>Kū</i>	A category with hundreds of gods. Kūkā'ilimoku was the war god of the Pili line of chiefs, of which Kamehameha was a member.	<i>mahalo</i>	Thanks, gratitude.
<i>Kūkā'ilimoku</i>	Kamehameha I's war image, among others. He was given charge of it by his uncle, Kalaniopu'u.	<i>Māhele</i>	Literally "a division, or a portion". The Great Māhele of 1848 was a division of lands between the king, chiefs, and government that established land ownership on a Western style, fee-simple basis. From this single act, the entire social, economic and political order of ancient Hawaii was altered forever.
<i>kukuni</i> or <i>kuni</i>	To burn, blaze, kindle, scorch, brand.	<i>makai</i>	Toward the sea; at the coast.
		<i>maka'āinana</i>	People in general; citizen.

<i>Makahiki</i>	The portion of the Hawaiian annual cycle which saw desanctification of the <i>luakini</i> temples and the ceremonial collection of taxes or tribute. It began about the middle of October and lasted four lunar months, with sports and religious observances and a taboo on war.	<i>‘opihī</i>	Several species of limpets (<i>Cellana spp.</i>).
<i>māla</i>	Garden, plantation, cultivated field.	<i>pa‘alā</i>	Water-worn stones. See <i>alā</i> .
<i>malama</i>	Care for, preserve.	<i>pali</i>	A cliff or precipice.
<i>mana</i>	Spiritual power, derived from the ancient gods, contained in varying degrees in all life forms and inanimate objects.	<i>papamū</i>	“Checkerboard” for game of <i>kōnane</i> , consisting of small, shallow holes arranged in a grid, either on native rock or a detachable slab.
<i>mana‘o</i>	Thought, idea, opinion; theory.	<i>pāhoehoe</i>	Solidified, smooth unbroken surface lava. When compared with ‘a‘ā, often appears as billowy fields with hollows and small hills; large cracks mark some billows.
<i>mana‘o‘i‘o</i>	Respect for nature.	<i>piko</i>	Navel; umbilical cord stump.
<i>mauka</i>	Towards the interior, or mountains; inland.	<i>pono</i>	Balance, proper, right, just, fair, integrity.
<i>mauka-makai</i>	Refers to trails that run from the mountains to the sea.	<i>pua‘a</i>	Pig.
<i>mō‘ī</i>	King, ruler.	<i>pu‘u</i>	Any kind of protuberance; hill, peak, mound, bulge.
<i>mo‘olelo</i>	Story, tale, history, tradition, legend.	<i>pu‘ulena</i>	A famous cold wind at Kīluea and Puna
<i>Nā Ala Hele</i>	The name given to Hawai‘i’s Statewide Trails and Access System which was established in 1988. Nā Ala Hele develops and improves mountain and shoreline trails and accesses, both historic and modern, throughout the state while conserving Hawai‘i’s unique environment and cultural heritage. Literally means “the trails.”	<i>pu‘uhonua</i>	Place of refuge; sanctuary. These were established specific sites usually associated with a <i>luakini heiau</i> at a royal center such as Pu‘uhonua o Hōnaunau, of the ruler himself or herself.
<i>nui</i>	Large; important; before a noun, <i>nui</i> might mean “group.”	<i>tsunami</i>	Seismic wave (Japanese).
<i>‘ohana</i>	Family, relative, kin group.	<i>‘ūlei</i>	A native spreading shrub (<i>Osteomeles anthyllidifolia</i>)
<i>‘ōhī‘a</i>	An endemic tree (<i>Metrosideros polymorpha</i>) dominant in the west forests. The wood was used for temple images.	<i>wahi pana</i>	Storied and sacred places.
		<i>wao</i>	Environmental zone