

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

construction of the cable that should have been chosen.

This profoundly oversimplifies the principles that should apply and thus serves to entirely defeat the purposes of the NECA cost recovery program. More importantly, the empirical data adduced during this long proceeding, and almost completely ignored by NECA, leaves no room for doubt that, under a proper application of the principles the Commission has historically applied, SIC is actually entitled to receive *considerably more* NECA support than the Commission allowed in the 2010 Order and certainly not less. The Paniolo Cable is not merely “used” or “useful,” it is, in fact, indispensable to the public safety and security of the HHL residents, schools, small businesses who depend on the SIC Network.

1. The Paniolo Cable is Both Used and Useful. The Paniolo Cable is used for its intended purposes.

This is not an extreme case in which a service provider seeks recovery of assets that never were put into service. The Paniolo Cable is clearly currently “used”—it provides vital connectivity directly and specifically to the HHL while the other existing Hawaiian submarine cable systems are not only designed to serve non-HHL areas, but are also aging-out. The Paniolo Cable is also “useful,” since it enhances the quality of service, and provides much needed back-up capacity and route-diversity to guard against service interruptions in both HHL and non-HHL areas. In fact, the Paniolo Cable is much more reliable than its competitor cables, and has been used by Time Warner and others when extended outages on the other line has occurred. This enhanced citizen safety benefit is not to be understated. Additional undersea fiber transport capacity will not only facilitate the deployment of advanced telecommunications and information services, but will also “enhance the reliability of basic telecommunications capability in emergencies.”⁶³

2. The Paniolo Cable Was a Prudent Investment. SIC’s investment in the Paniolo Cable was then (and is now) a reasonable investment based on expectations (in fact, the waiting list for HHL

⁶³ Letter from Richard Cameron for Hawaiian Telcom to Marlene Dortch, FCC, WCC Noc. No. 08-4 (Sept. 25, 2008)

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

homesteads presently exceeds 29,000 applicants). Plus, the reliably geometric curve of growing broadband capacity and service needs. If anything, as we have described above, the subsequent failures of the older submarine cable systems demonstrate that SIC was correct to get Paniolo to build a new and reliable system designed specifically for the unique needs and geography of the HHL. Unfortunately, NECA has penalized SIC for allowing other service providers to use the Paniolo Cable when their systems have been down for temporary periods. In such circumstances, NECA has treated payments received by SIC for temporary, emergency use as if the payments had been permanently withdrawn from the rate base, resulting in a reduction in revenues to SIC by approximately \$700,000 per year.⁶⁴ Finally, as we have also explained and as NECA has persistently ignored, this is the classic case of a lumpy investment. The fixed costs are front-loaded and unavoidable.

- 3. The Paniolo Cable's Capacity is Justifiable.** In general, broadband capacity needs have grown exponentially during recent years with the current Commission standard of 25 Mbps downstream/3 Mbps upstream likely to be superseded at an early date as more and more carriers offer Gigabit services. Given the economics of the deployment of undersea cable (that is, where the costs of laying the cable are massive and the costs of additional fibers are minimal in comparison), the only rational choice was to include a large number of fibers in the cable. As the "used and useful" test has developed, it has become clear that, far from representing a rigid, inflexible rule, the test may be molded by regulators to conform to the unique facts and circumstances of individual rate making decisions. Where fixed costs of a vital service are high, costs of additional capacity are low, and the potential for increased demands almost without limit, an investment such as SIC's in the Paniolo Cable is clearly "used and useful."

⁶⁴ See text at note 68, *infra*

4. The Paniolo Cable Was Specifically Designed for and Specifically Services High-Cost, Rural

Regions: The TDM/SONET system was state of the art in 2005 and remains the telecommunication industry standard in Hawaii. Moreover, as we have also explained and as NECA has persistently ignored, this is the classic case of a lumpy investment. While the initial forecasts by DHHL, upon which SIC relied, may have been optimistic, that can change very quickly, especially in light of such developments as the recently announced infusion of \$19 Million dollars into the HHL development fund.⁶⁵ Moreover, for a system designed and built to serve areas like HHL, it makes no sense to measure utility solely or even substantially by the number of lines served. In the first place, demand is at best a poor proxy for usage; and, in fact, usage in certain areas of HHL where there are commercial customers, is quite high and growing. The entire point of the SIC system is to provide high quality reliable service to the rural, unserved and underserved areas; and that is exactly what the Paniolo Cable accomplishes.⁶⁶

5. The Additional Capacity-Related Construction Costs Were De Minimis. In the final analysis, the entirety of the NECA position comes to rest on the proposition that the demand forecasts have not come to fruition and that therefore the entire cable is, itself, excessive. This implies—although NECA certainly does not say so—that NECA would be more willing to provide pool dollars to SIC had it built a 12 fiber system. This is irrational because it ignores the incremental cost of sizing and constructing a submarine fiber network. As the ex parte submissions made in this Docket show—and as neither NECA nor AT&T has ever denied—investments in submarine cable are lumpy and cannot be measured in a linear fashion. The complained-of “excess capacity” at issue regarding the Paniolo Cable is represented by the undersea fiber-optic cables connecting the

⁶⁵ See *supra*, Section III, D (5)

⁶⁶ It bears emphasis that in the rural HHL, the high quality reliable service is a lifeline for public safety considerations. For example, in rural Kahikinui on the island of Maui, without the phone service provided by SIC, there would be no communication to alert public safety officials of mountain fires that begin and many times threatened both HHL lands and homes, but adjoining other public and private landholder lands. Kahikinui has no electricity but has phone and DSL because of SIC. The more remote the areas, the more dependent and lifesaving simple phone service provides to HHL residents.

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

islands, and providing the necessary bandwidth for telecommunications. Each additional fiber represents an additional amount of bandwidth. However, SIC was unable to scale the number of fibers it needed in a linear manner—rather, SIC could only select from predetermined tiers of numbers of fibers.

At the time the system was designed and built, the type of scalability permitted by Ethernet applications was simply unavailable for a system of this type. The relative cost of the excess capacity must be included in the fact-intensive “used and useful” analysis. Just as SIC could not incrementally add fibers to reach an optimum capacity, the cost of leasing 48 fibers versus 12 fibers did not rise linearly. Given the unique challenges involved with laying undersea cables, the bulk of the cost of the Paniolo cable was not determined by the number of fibers, but rather by permitting, preparation, and other fixed costs. Indeed, 98% of the cost of the project represents “sunk costs”—costs that SIC would need to have paid regardless of the number of fibers involved. The actual “excess capacity” (the 36 additional fibers) represents only 2% of project’s cost. This investment allowed SIC to achieve significant future capacity at an insignificant increase in total costs.

Thus, with regard to the Paniolo Cable, the vast majority of the expense (98%) was “necessary to the provision of interstate telecommunications services”; SIC’s investment in the Cable and any “excess capacity” (representing 2% of the project costs) was prudent, and the benefits are currently being realized, through the direct provision of services, protections from gaps in service, and the ability to scale services to meet potentially rapidly-growing demand.

V. SIC PROPOSES TO RESTRUCTURE ITS PANIOLO LEASE IN A WAY THAT MOOTS THE NECA ISSUE AND REDUCES THE ANNUAL CHARGE TO THE NECA POOL

As we have shown, the applicable legal and economic principles that should govern this case establish

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

that SIC is entitled to cost recovery from the NECA pool for the Paniolo Cable at levels that are, in fact, significantly higher than approved by the Commission in the 2010 Declaratory Ruling Order.⁶⁷ However, SIC has recognized that for reasons that are not within its control or within the control of the residents or governing body of the HHL, usage of the entire network has grown much more slowly than anyone projected 11 years ago when the project was first launched.

Several factors have contributed to the slower than expected demand. First, although the project was launched during a period of relative prosperity, by the time construction of the submarine cable began in 2007, the country was sliding into what is now known as the Great Recession – inarguably the most severe financial downturn in the past 75 years. The negative externalities associated with the Great Recession were particularly severe in rural and isolated areas such as the HHL. While the effects of the financial crisis have largely receded in the more industrialized portions of the country, weak and vulnerable economies have persisted far longer in remote and rural areas like the HHL, to their great detriment. Second, for several reasons—some of which may have been related to the economic downturn—funding of the HHL project by the State of Hawaii came into question, resulting in litigation which was not concluded until 2016.

In sum, the Paniolo Cable came on line (in 2009) right in the face of the worst of the economic and legal turbulence since the Great Depression. It ought not to be surprising, then, that the demand in the past 5 years did not live up to the originally, perhaps overly optimistic, projections. None of this, of course, negates in any respect the legitimacy, and equally importantly, the benefit to the residents of the HHL of the SIC network as built. Faced with these realities, SIC began to explore means of spreading the investment costs of the Paniolo Cable lease.

Discussions with RUS as the lender with the largest share of SIC's debt began in 2013 and an

⁶⁷ See Discussion, *supra* at Sections C + D; see also SIC Exhibit 6.

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

agreement in principle was reached in late 2014; that agreement would have the net effect of reducing annual payments due to RUS and extending the maturity date of the RUS loans and the length of the repayment term. As a condition of approving the extension of the RUS amortization period, however, SIC agreed to renegotiate the terms of its Paniolo Cable lease. Accordingly, in 2014, SIC entered into discussions to restructure the Paniolo Cable lease and an understanding in principle, meeting the terms of the RUS restructure agreement, has been reached. Under that understanding, the annual lease payments under the Paniolo Cable lease would be reduced from the current annual amount of approximately \$24 Million to \$8.1 Million.

The \$8.1 Million annual payment was not arbitrarily reached. SIC performed a comparative market analysis to determine what the cost to use an alternative submarine cable system would likely be. The comparability analysis was performed using publicly available data for leased lines from other carriers, including Hawaiian Telephone, that offer service in the area. The data was obtained from the LATTIS system. An exact comparison of course was not possible because no service provider other than SIC reaches the HHL or areas contiguous to the HHL in the same way that SIC does; however, the comparison was performed on a segment by segment basis to achieve as close to comparability as possible.

The analysis also fails to take into account engineering and interconnection costs that would be incurred if the Paniolo Cable were entirely replaced; and these costs would add approximately another \$6 Million to annual operating costs. RUS, which reviewed the analysis, concurred that the fair market value cost of the submarine cable—entirely without regard to the additional benefits the Paniolo Cable provides to the HHL—is \$8.1 Million per annum. SIC therefore submits that its lease restructuring plan which would reduce the cost of the Paniolo Cable to \$8.1 Million should be permitted to go forward precisely because it would reduce the Paniolo Cable's draw on federal funds, while permitting SIC to continue to provide and to expand the essential and beneficial service it now

provides to HHL.

A primary obstacle to implementation of these arrangements is NECA's refusal to recognize the Paniolo Cable lease as eligible for cost recovery from the NECA traffic-sensitive pool under the used and useful principles.⁶⁸ We have shown that position to be without merit on its own terms. In fact, it is difficult to avoid the conclusion that what NECA is really seeking is to get the Bureau to reverse itself and the full Commission and now hold that the Paniolo Cable never should have been built in the first place. There are simply no grounds in law or policy for such an action.

VI. CONCLUSION

For these reasons, the Bureau should promptly issue an Order directing NECA to include 100% of the Paniolo Cable lease cost in the NECA pool immediately. More precisely, the Order should direct NECA to release funding in such a manner as to generate \$8.1 million of cost recovery per year to SIC, with the understanding that a portion of the Paniolo Cable lease costs will be removed from the SIC rate base and used for other purposes. Furthermore, the proposed funds should be released only after submission to NECA of evidence indicating that the Lease has been amended as specified herein.

We have shown that the Paniolo Cable fully satisfies the economic and equitable principles that underlie the used and useful evaluation. It follows *a fortiori*, that SIC's restructured Paniolo Cable

⁶⁸ NECA filed in February 2015 a Petition for Clarification and/or Declaratory Ruling, to which SIC has responded. As SIC has advised NECA, SIC's payments on its Paniolo lease have substantially exceeded the total support payments that it has received from NECA with respect to the lease. In light of the proposal made by SIC herein, it is not necessary for the Bureau to resolve the issue in dispute in NECA's Petition for Clarification. SIC proposes a revised treatment of the Paniolo lease that moots this issue. SIC believes it is important to state for the record that NECA has been improperly deducting amounts from SIC's NECA support payments since 2011. In July 2010, SIC at the request of Oceanic Time Warner, which had experienced a break in its undersea cable, requested a one-time use of the Paniolo Cable. As an accommodation, SIC agreed to this use in order to assist Oceanic Time Warner and its customers. Notwithstanding that this was a one-time (lasting approximately 6-7 weeks) non-regulated use of the cable, NECA has continued to deduct that one-time usage from SIC's NECA support payments on an on-going basis, year after year. SIC estimates that this has cost it in excess of \$700,000 per year beginning in 2011. This treatment of SIC by NECA continues to this day.

SUBJECT TO PROTECTIVE ORDER [DOCKET NO. 09-133]

lease—which will reduce the annual pool cost recovery without impairing the ability of SIC to meet the current and future needs of the citizens in the HHL—is equally consistent with Commission policy and should be adopted. Acceptance by the Commission of this result would moot SIC’s petition for reconsideration of the 2010 Declaratory Order as well as AT&T’s application for review and NECA’s Petition for Clarification and/or Declaratory Ruling. Most importantly however, it would bring an end to this decade-long saga, and permit SIC to devote its energies and resources to the purposes for which SIC was created: the provision of modern, high quality telecommunications and broadband service to the HHL.

Respectfully Submitted,

/s/_____

James Arden Barnett, Jr. RDML USN (ret.)

Ian D. Volner

Peter S. Frechette

Margaret M. Kelly

Venable, LLP

575 7th St, NW, Washington, D.C., 20004

Tel: (202) 344-4814



FILE

HOUSE OF REPRESENTATIVES

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

June 29, 2005

Ms. Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RE: OPPOSITION TO APPLICATION FOR REVIEW, CC Docket No. 96-45

Dear Ms. Dortch:

I am writing to strongly urge the dismissal of the Hawaiian Telcom Communications, Inc. (HTC) Application for Review of the recent granting of the Sandwich Isles Communications, Inc. (SIC) Study Area Waiver Petition. It is very disappointing for me, as a state representative intimately familiar with the on-going neglect by the ILEC of the rural areas of our state, that the second and newest successor ILEC in Hawaii in the past 10 years chooses to challenge the thoughtful, thorough, and well-documented decision made by the Bureau granting the SIC waivers. HTC offers no new information to warrant a review, and it makes no commitment to connect existing unserved residents within its service area on the Big Island who have been bypassed by all its predecessors. Accordingly, I encourage a timely dismissal by the Federal Communications Commission (FCC) of HTC's Application for Review.

Well over 10 years ago, the Hawai'i legislature took up the business of ensuring "universal service" for the rural areas of our state. We passed Act 80 which led to the Hawai'i Public Utilities Commission opening the way for additional telephone companies to serve our neglected rural areas with modern infrastructure capable of delivering advanced services. SIC emerged with a steadfast commitment and dedication necessary to undertake serving the Hawaiian Home Lands (HHL), some of the most rural and remote areas of the state. SIC has sustained its effort and focus on delivering service to these areas for over 7 years, and as a result, previously unserved and newly developed Department of Hawaiian Home Lands communities now have access to affordable telephone services.

Ms. Marlene H. Dortch
June 29, 2005
Page 2

In my view, the FCC should not back away from previous decisions that will allow the quality of telephone service on the HHL to equal that of the urban areas of our state. Nothing new has been offered by HTC to demonstrate against the public interest benefit of SIC serving the HHL. I, for one, would like to see SIC get on with their mission free of ILEC induced disruption. Thank you for allowing me to reaffirm my staunch support of the favorable SIC decision and to encourage your timely disposal of the HTC Application for Review.

Sincerely,



Robert N. Herkes
State Representative
5th District

LINDA LINGLE
GOVERNOR OF HAWAII



PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Office of Conservation and Coastal Lands

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

'04 MAY 26 P 4:00

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Ref.:PB:MM

MAY 25 2004
Files: CDUA ST-3176

MEMORANDUM

TO: Genevieve Salmonson, Director
Office of Environmental Quality Control

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: Final Environmental Assessment (FEA)/Finding of No Significant Impact (FONSI) for CDUA ST-3176 for the Installation of a Submarine Fiber Optic Telecommunications Cable Project Statewide

The Department of Land and Natural Resources has reviewed the FEA. We have determined that this project will not have significant environmental effects, and have therefore issued a **FONSI**. Please publish this notice in the June 8, 2004 OEQC Environmental Notice. ✓

Comments on the draft EA were sought from relevant agencies and the public, and were included in the final EA. The applicant has responded to these comments in a satisfactory manner. The applicant will deliver four (4) copies of the Final EA for the project. The applicant will also be submitting the OEQC Bulletin Publication Form.

It should be noted that acceptance of this EA does not constitute a project approval by the Board of Land and Natural Resources (BLNR). The BLNR has the discretion to approve or deny or modify the project.

Please contact me at 587-0381 if you have any questions on this matter.

Cc: Randal Urasaki

2004-06-08 EBA FONSI
SANDWICH ISLES COMMUNICATIONS
SUBMARINE FIBER-OPTIC CABLE
VOL 1 OF 2

JUN 8 2004

FILE COPY

Volume 1 of 2

Final Environmental Assessment/ Finding of No Significant Impact

Submarine Fiber-Optic Cable Project

Prepared Pursuant to
Chapter 343, Hawaii Revised Statutes and
Title 11, Chapter 200, Hawaii Administrative Rules



Proposed by:
Sandwich Isles Communications, Inc.

Prepared by:
Parsons Brinckerhoff Quade & Douglas, Inc.

April 2004

SUMMARY INFORMATION

PROJECT NAME: Submarine Fiber-Optic Cable Project

APPLICANT INFORMATION: Sandwich Isles Communications, Inc. (SIC)
Pauahi Tower, 27th Floor
1001 Bishop Street
Honolulu, Hawaii 96813
Contact: Mr. Roy Choates

AUTHORIZED AGENT: Parsons Brinckerhoff Quade & Douglas, Inc.
American Savings Bank Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813
Contact: Mr. Randall Urasaki, P.E.

ACCEPTING AGENCY: State of Hawai'i Department of Land and Natural Resources (Hawai'i Revised Statutes, Chapter 343)

PROJECT DESCRIPTION: The State of Hawai'i Department of Hawaiian Home Lands (DHHL) has licensed SIC to provide exclusive telecommunications services to its landholdings statewide through modern, high speed, fiber-optic cable networks. SIC is currently developing terrestrial fiber-optic cable networks on the islands of Kaua'i, O'ahu, Moloka'i, Maui and Hawai'i.

The proposed project would link the five islands by deploying four submarine fiber-optic cable routes, totaling about 300 miles. The submarine cables would involve seven "landing sites", which would provide the connections between the submarine and terrestrial networks.

Four of the seven landing sites would provide direct connections with the terrestrial networks. For the other three landing sites, the proposed project also includes cable extensions between the landing sites and the terrestrial networks. These "connecting routes" would utilize the rights-of-way of existing roads, and would be constructed similar to how cables in the terrestrial networks were installed.

**PROJECT LOCATION
TAX MAP KEY; AND LAND
OWNER (INCLUDING
CONNECTING ROUTES):** Statewide ocean area among the islands of Kaua'i, O'ahu, Moloka'i, Maui and Hawaii

Coastal and nearshore areas at or near the following locations, which were selected as proposed landing sites:

- 1) 'Akialoa Road, Kekaha, Kaua'i; TMK: por. 4-1-2:032 and 4-1-3-001:999; owner: DHHL
- 2) Kii Drive, Mākaha, O'ahu; TMK: por. 1-8-4-002:047; owner: City & County of Honolulu

SUMMARY INFORMATION

- 3) Oneall'i Homesteads, Kaunakakai, Moloka'i; TMK: 2-5-4-006:019; owner: DHHL
- 4) Wahikuli, Laha'na, Maui; TMK: por. 2-4-5-021:007, 015; owner: County of Maui and State of Hawai'i
- 5) Po'olenalena Park, Mākena, Maui; TMK: por. 2-2-1-007:072, 084; owner: State of Hawaii
- 6) Kaewa Place, Kawaihai, Hawai'i; TMK: por. 3-6-1-004:020; owner: DHHL

Each landing site would use the following road rights-of-way, which are owned by the State Department of Transportation (SDOT) or one of the counties:

- 1) 'Aki'aloa Road Landing Site and Connecting Route: Kaunuaui'i Highway (owner: SDOT), and 'Aki'aloa and Ullili Roads (owner: County of Kaua'i)
- 2) Kili Drive Landing Site and Connecting Route: Farrington Highway (owner: SDOT) and Kili Drive (City & County of Honolulu owner)
- 3) Sandy Beach Park Landing Site and Connecting Route: Kalaniana'ole Highway (owner: SDOT)
- 4) Oneall'i Homesteads Landing Site: Kamehameha V Highway (owner: SDOT)
- 5) Wahikuli Landing Site: Honoapi'ilani Highway (owner: SDOT)
- 6) Po'olenalena Park Landing Site: Mākena Alanui Road (owner: County of Maui)
- 7) Kaewa Place Landing Site: Akoni Pule Highway (owner: SDOT)

Executive Summary



**Final Environmental Assessment/
Finding of No Significant Impact**
Submarine Fiber-Optic Cable Project

EXECUTIVE SUMMARY

S.1 INTRODUCTION

This Final Environmental Assessment (EA) / Finding of No Significant Impact (FONSI) has been prepared to comply with the requirements of Chapter 343 of the Hawai'i Revised Statutes (HRS). This document discloses potential impacts that may result from the installation and operation of the Sandwich Isle Communications, Inc. (SIC) Submarine Fiber-Optic Cable Project.

SIC, a Native Hawaiian owned corporation, proposes to construct and operate an undersea fiber-optic cable system that would link the five major Hawaiian Islands (Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i). The undersea network will connect with SIC's terrestrial fiber-optic cable network on each island. While each terrestrial system serves the Hawaiian Home Lands on that island, the combination of the terrestrial and submarine systems would provide connectivity to most Hawaiian Home Lands statewide. The SIC network would be independent of existing communications networks owned and operated by other telecommunications providers.

Fiber-optic cable carries information or data through a glass fiber as light pulses. Fiber-optic cables represent advancement over copper cables because of larger capacity, less signal attenuation, resistance to electromagnetic "noise" from outside sources, and reduced maintenance cost.

S.1.1 Applicant

Sandwich Isle Communications, Inc., headquartered in Honolulu, Hawai'i, is licensed by the State Department of Hawaiian Home Lands (DHHL) to provide telecommunications services on the Department's property (Hawaiian Home Lands). The company was incorporated in 1995, and has been serving Hawaiian Home Lands since 1998. The Federal Communications Commission (FCC) certified SIC in 1998 as a rural local exchange carrier (RLEC). SIC is commissioned and regulated by the FCC, and is authorized by the State of Hawaii Public Utilities Commission (PUC) to provide telecommunications services on Hawaiian Home Lands.

S.1.2 Background and Purpose

The Hawaiian Homes Commission Act of 1920 created the mission to provide eligible native Hawaiians (those with at least a 50 percent blood quantum) with long term leased land to improve their quality of life. The lands made available for this purpose are called Hawaiian Home Lands. DHHL granted a license to SIC to provide modern telecommunications infrastructure and services for its properties and beneficiaries at no cost to DHHL. The individual subscribers would pay a fee equal to or less than the competitive rate.

Many Hawaiian Home Land properties are in rural areas with little access to basic infrastructure, such as telephone service. Broadband telecommunications service would help increase the standard of living and quality of life of native Hawaiian beneficiaries living in Hawaiian Home Land communities as well as increase the infrastructure services on DHHL commercial properties. To meet its obligation to DHHL, SIC is currently installing independent terrestrial fiber-optic cable networks on Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i, generally using State and County road rights-of-way. Environmental reviews of the terrestrial networks have already been completed.

The submarine network is designed to work in conjunction with and enhance those benefits provided by the terrestrial systems. The SIC network would provide underserved DHHL homesteaders with affordable telephone and advanced telecommunications services, such as telemedicine, distance learning, video and data transmission, and internet access. The combination of the terrestrial and submarine networks

would extend the reach of the SIC network to connect most DHHL properties on all islands, and would provide connectivity statewide among DHHL homesteads.

The specific benefits of the submarine network include the following:

- Ability to provide DHHL beneficiaries with affordable telecommunication services. Having an independent submarine system would mean that SIC would not have to rely on third party lines for inter-island connections.
- Ability to provide DHHL beneficiaries with modern telecommunication services and attract potential lessees for DHHL's commercial properties.
- Reliability of a new fiber-optic network. The SIC submarine network would be newer than the existing networks, and would provide sufficient capacity to serve the anticipated demand from DHHL properties.
- Providing employment opportunities for skilled and unskilled labor in the state.
- Ability to provide emergency telecommunication's service to historically remote rural communities

S.1.3 Accepting Agencies and Planning Process

Environmental review in accordance with HRS Chapter 343 is required for the proposed project because of use of: the State Conservation District, the Special Management Areas on each affected island, and State and county land, specifically DHHL properties and public road rights-of-way. These "triggers" involve several agencies including DHHL, the State of Hawai'i Department of Land and Natural Resources (DLNR), the State of Hawai'i Department of Transportation (SDOT), and the four county planning departments. Under HRS Chapter 343, only one of these agencies can be the "accepting agency" of the project's EA. Consistent with guidance provided in Section 11-200-4(b) of the Hawai'i Administrative Rules (HAR), DLNR was identified as the most appropriate accepting agency.

Based on Significance Criteria specified in HAR 11-200-12(b), the project is not anticipated to have a significant impact. Therefore, an EA process was selected for the environmental review of this project.¹

Notice of the project's Draft EA published in the Office of Environmental Quality Control's (OEQC) The Environmental Notice on February 23, 2004 initiated a 30-day public review period that ended on March 23, 2004. The Draft EA was made available for public review in accordance with OEQC and DLNR requirements.

DLNR has decided to issue a Finding of No Significant Impact (FONSI) pursuant to HRS Chapter 343. This decision was made after careful consideration of the comments received on the Draft EA, and SIC's responses to those comments. DLNR's FONSI determination and the availability of this Final EA would also be announced in The Environmental Notice.

Federal loans administered by the U.S. Department of Agriculture, Rural Utilities Service (RUS), will help finance construction of the project. One of the missions of RUS is to facilitate the development of certain utility systems in rural areas in order to provide telephone services to a level comparable to urban areas. In addition, the Federal Communications Commission (FCC) would need to issue a Cable Landing License for the project.

Because of loan assistance from RUS, a federal agency, and the need for a Cable Landing License from the FCC, also a federal agency, this project must also comply with the federal National Environmental Policy Act (NEPA). This Final EA is not intended to address NEPA requirements. Rather, a stand alone NEPA EA, which will incorporate the information contained this Final EA, will serve as the environmental

¹ EAs were prepared for similar undersea fiber optic projects.

document satisfying RUS's requirements under NEPA. Like DLNR, RUS is expected to issue a FONSI determination.

S.2 PROPOSED ACTION

SIC proposes to construct and operate approximately 300 miles of submarine fiber-optic cables Statewide, divided into four segments (see Figure S-1):

- Kekaha, Kaua'i, to Mākaha, O'ahu;
- Hawai'i Kai, O'ahu, to Kaunakakai, Moloka'i;
- Kaunakakai, Moloka'i, to Lahaina, Maui; and
- Mākena, Maui, to Kawaihae, Hawai'i.

The alignments shown on Figure S-1 were carefully selected based on many factors including bathymetry, existing cable or pipe crossings, military restrictions, fishing grounds, other environmental factors, and the potential for undersea natural hazards.

The submarine system would be comprised of three types of cables. Lightweight protected cable would be used at depths from 2,000 to 15,000 feet in areas with little potential for cable damage. Single armor cable would be used at depths up to 2,000 feet in areas with moderate hazards, such as gently sloped areas where sediment flows may occur. Double armor cable would be used at depths up to 350 or in areas with high potential for cable damage. For example, double armor cable would be used at all near shore locations where the cable could be exposed to natural hazards.

The lengths of the SIC submarine cable runs would be short enough to avoid the need for underwater repeaters to maintain signal strength.

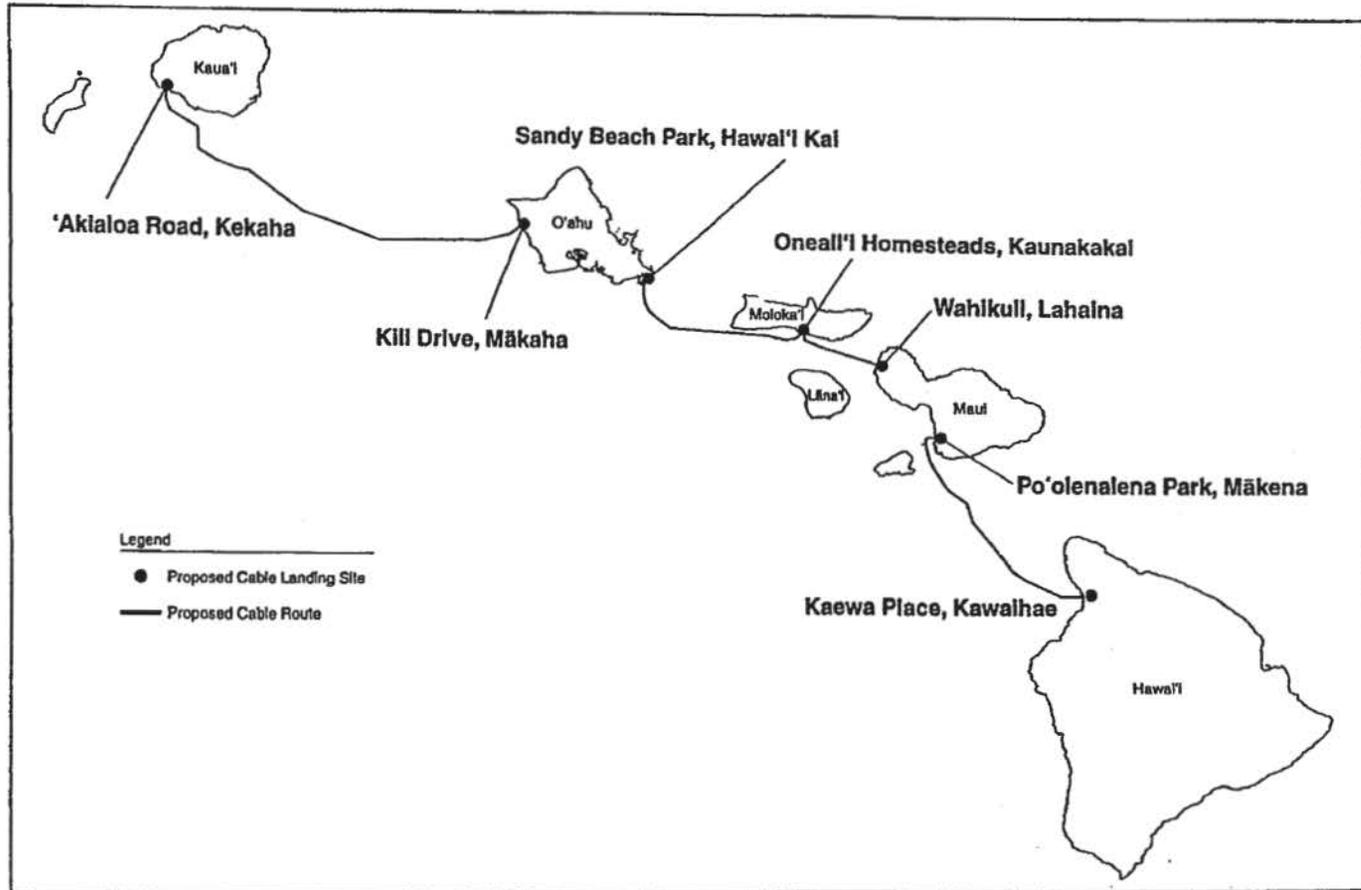
The submarine cables would achieve landfall at the following sites. These landing sites would be the nodes where the SIC submarine and terrestrial networks connect (see Figures S-2A through S-2E):

- 'Akiāloa Road, Kekaha, Kaua'i (TMK: 4-1-2-002:032, 4-1-3-001:999)
- Kill Drive, Mākaha, O'ahu (TMK: 1-8-4-002:047)
- Sandy Beach Park, Hawai'i Kai, O'ahu (TMK: 1-3-9-015:001)
- Onea!i Homesteads, Kaunakakai, Moloka'i (TMK: 2-5-4-006:019)
- Wāhikūlī, Lahaina, Maui (TMK: 2-4-5-021:007, 015)
- Po'olenalena Park, Mākena, Maui (TMK: 2-2-1-007:072, 084)
- Kaewa Place, Kawaihae, Hawai'i (TMK: 3-6-1-004:020)

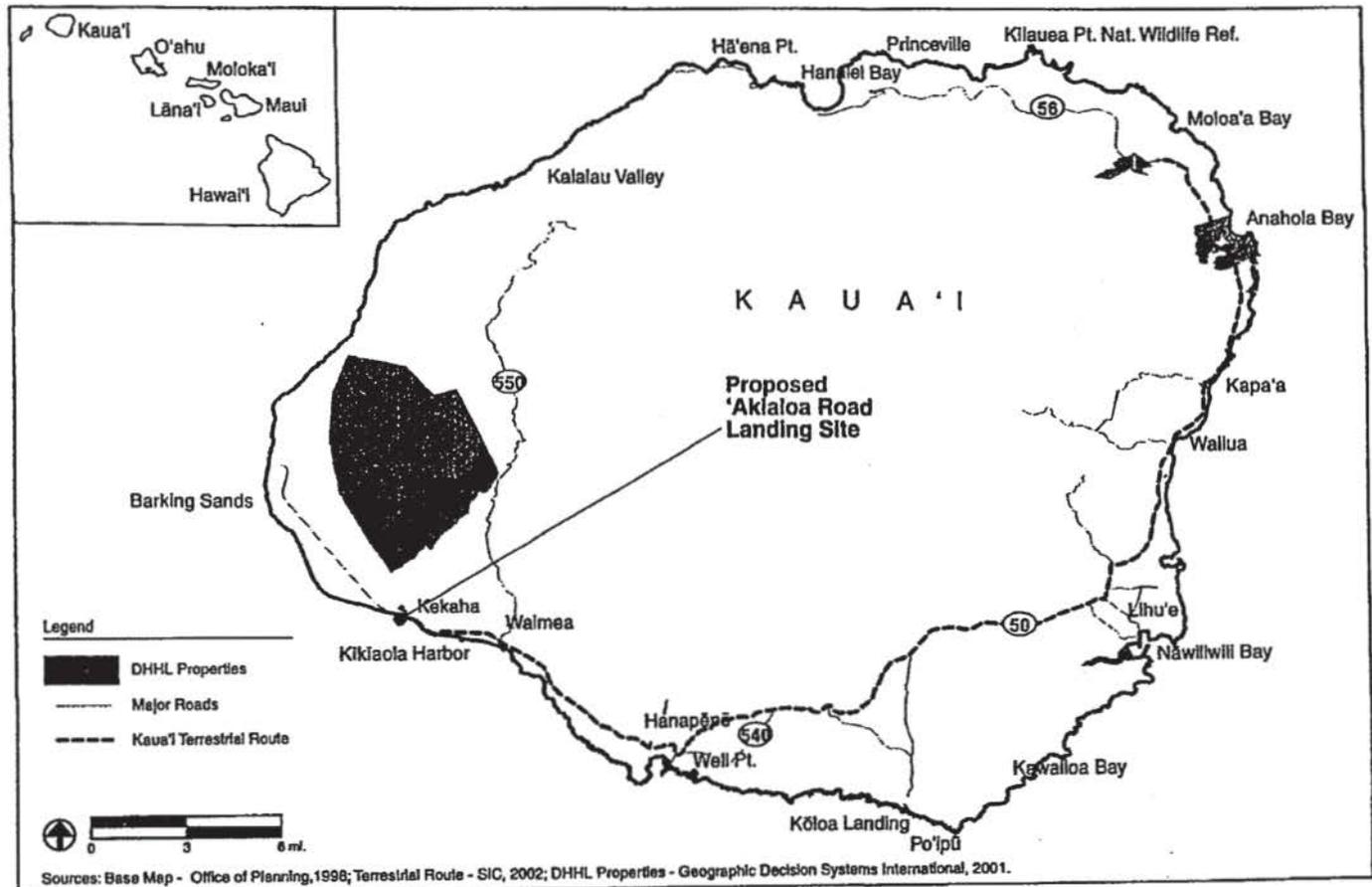
The landing sites proposed on Moloka'i, Maui, and Hawai'i are adjacent to existing or future SIC terrestrial cables running within the rights-of-way of the nearest roadway. However, the three proposed landing site parcels on Kaua'i and O'ahu are not adjacent to existing or future terrestrial cables. Therefore, at these landing sites, sections of underground fiber-optic cable will be installed in road rights-of-ways to connect the landing site to the closest approach of the terrestrial network. These connections are called "connecting routes".

The following describes the elements of a typical landing site moving from the ocean side to the land (see Figures S-3 and S-4):

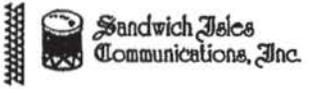
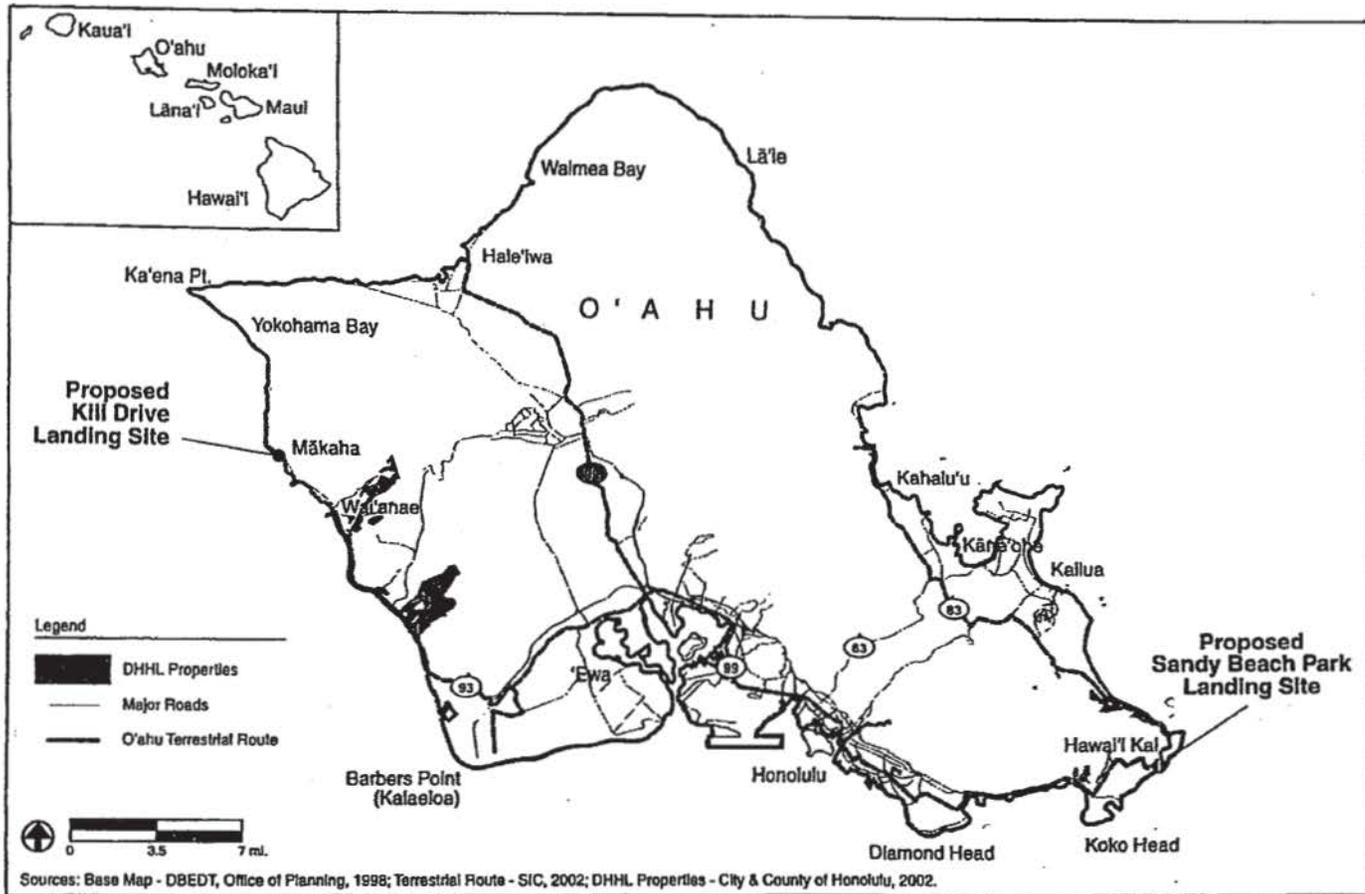
- Double armor protected fiber-optic cable (+60-foot depth);
- Fiber-optic cable within an under-seafloor steel drill casing or conduit between the submarine exit point (or "EP") and the drill site;
- Fiber-optic cable within a PVC pipe or conduit between the drill site and the beach manhole (three landing sites do not require this particular element because the drill site is on the mauka side of the manhole); and



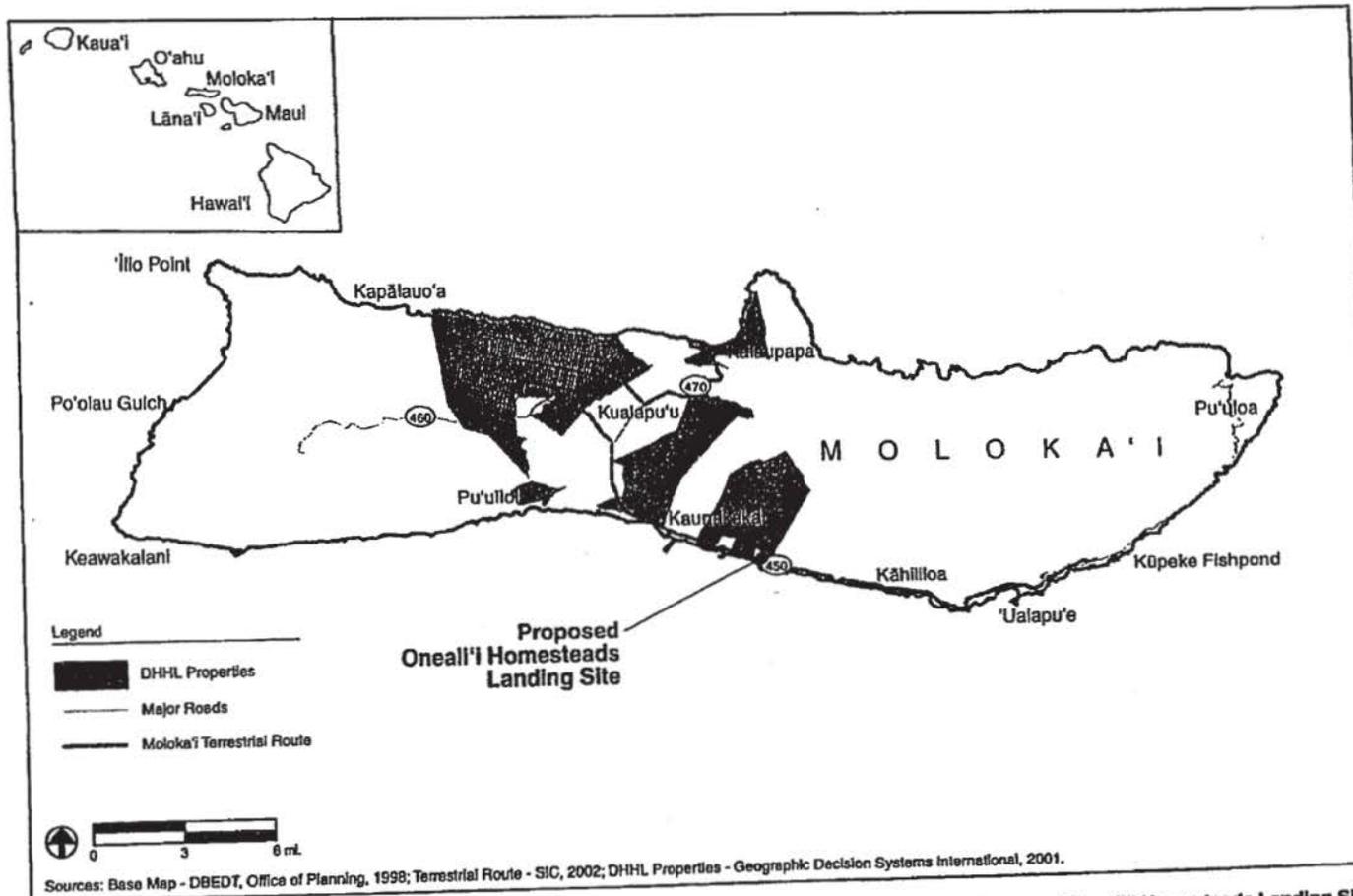
**Proposed SIC Submarine Fiber-Optic Network
Submarine Fiber-Optic Cable Project
Figure S-1**



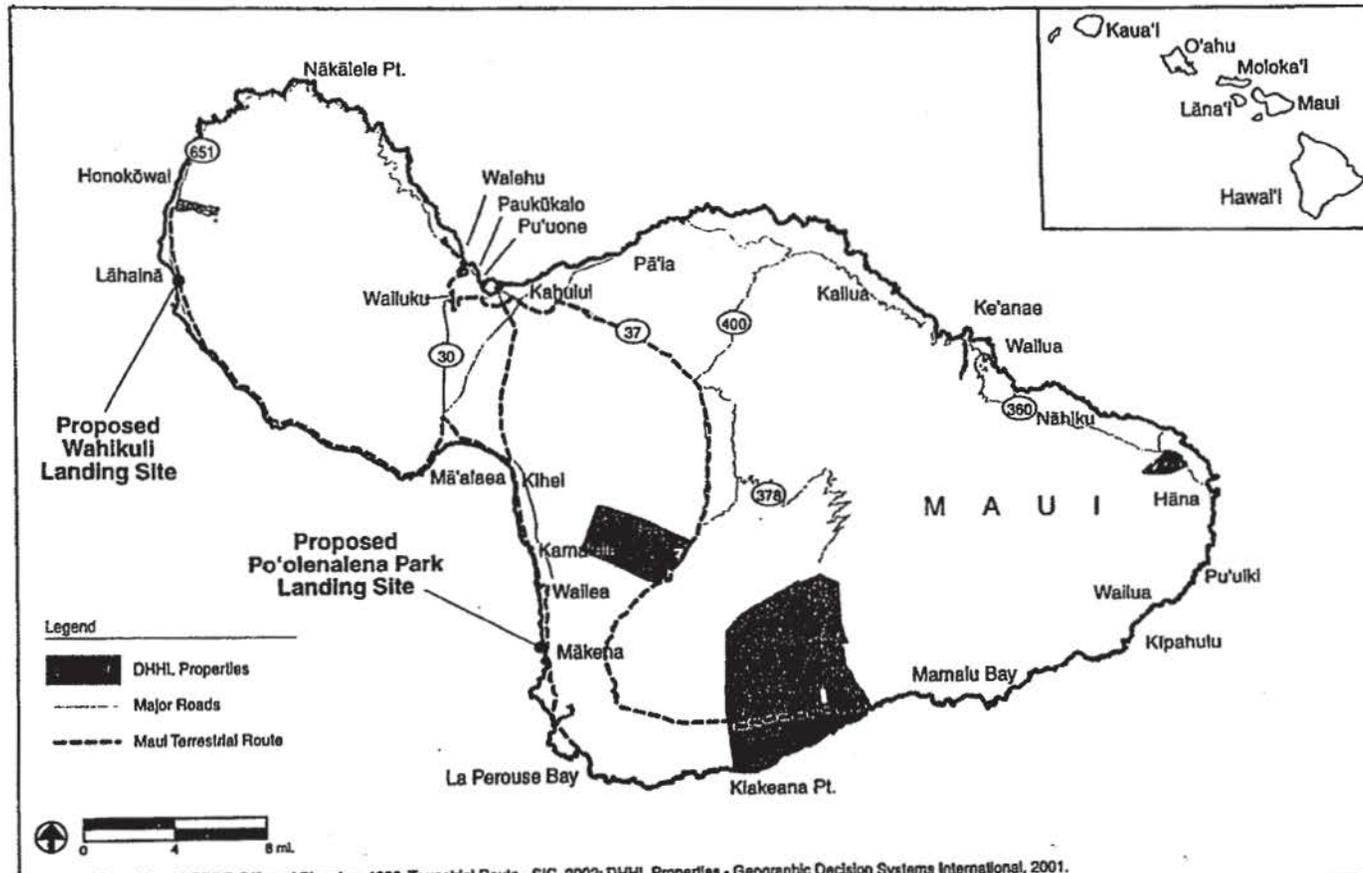
**Location of Proposed 'Aklaloa Road Landing Site
Submarine Fiber-Optic Cable Project**
Figure S-2A



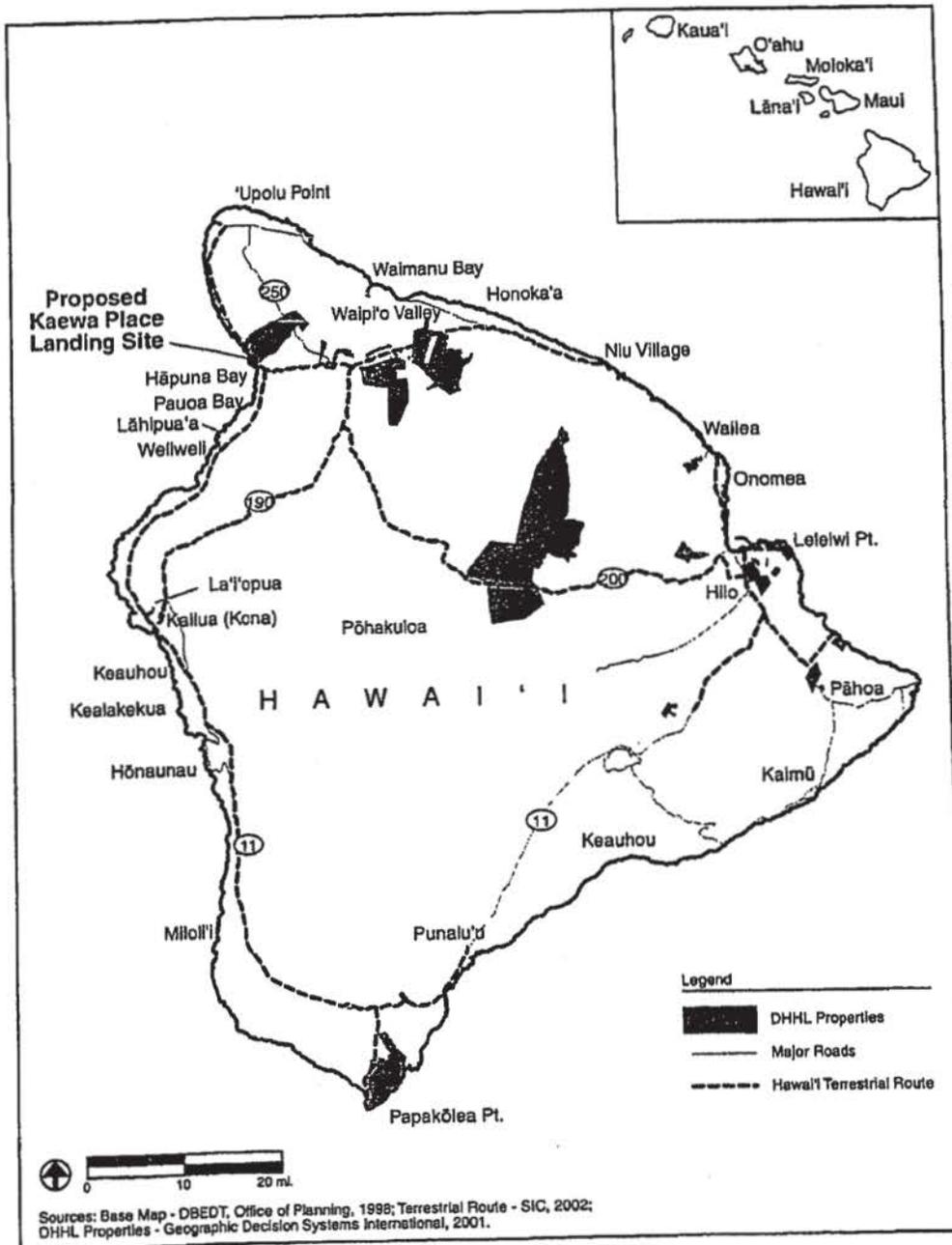
Locations of Proposed Kili Drive and Sandy Beach Park Landing Sites
Submarine Fiber-Optic Cable Project
Figure S-2B



Location of Proposed Oneall'i Homesteads Landing Site
 Submarine Fiber-Optic Cable Project
 Figure S-2C

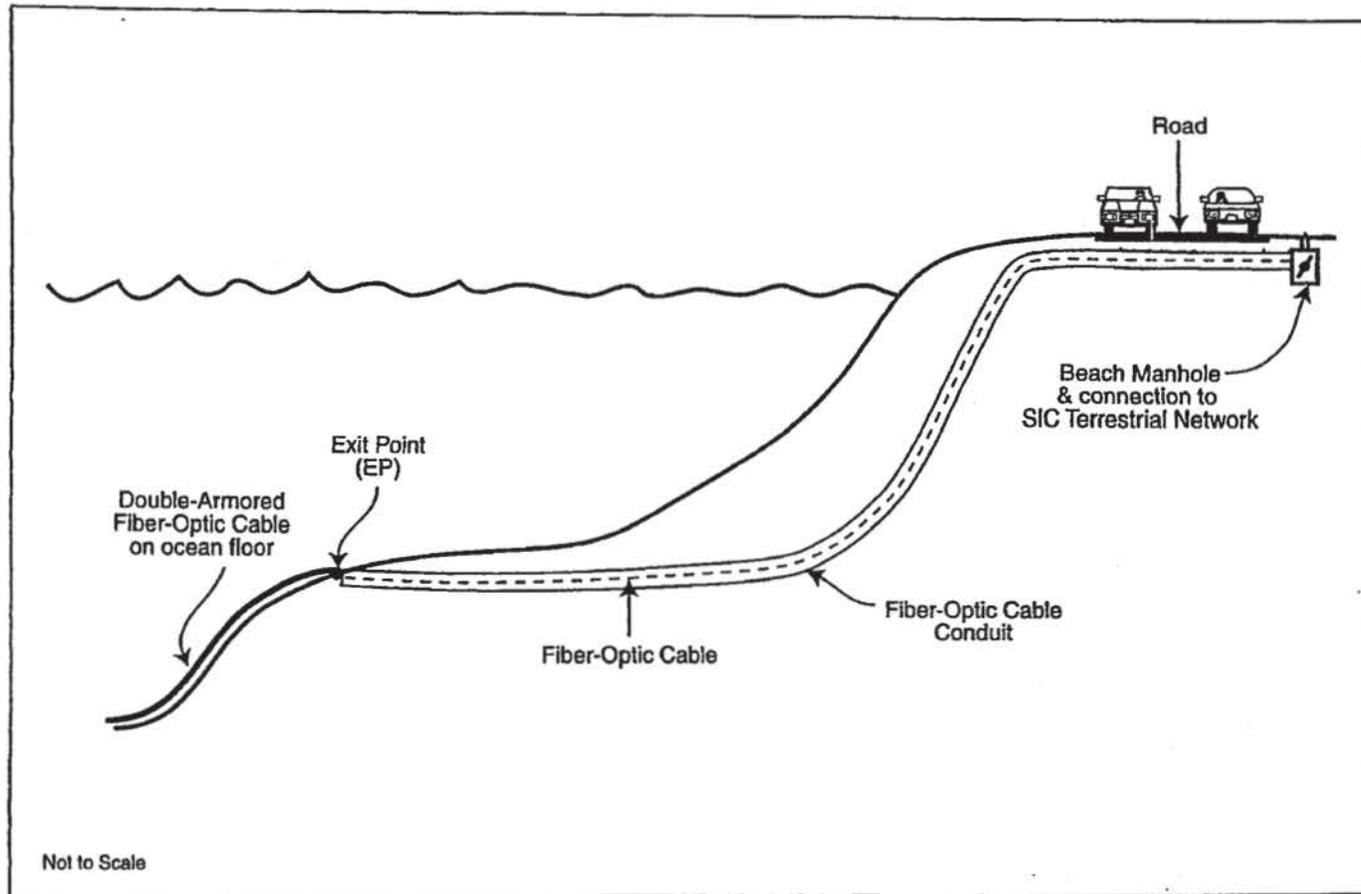


Locations of Proposed Wahikuli and Po'olenalena Landing Sites
 Submarine Fiber-Optic Cable Project
 Figure S-2D



Location of Proposed Kaewa Place Landing Site
 Submarine Fiber-Optic Cable Project
 Figure S-2E





Typical Landing Site Infrastructure (As Completed)
 Submarine Fiber-Optic Cable Project
 Figure S-3