Proposal to Designate the Northwest Coast of Molokaʻi a Community-Based Subsistence Fishing Area

Prepared by

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for

Department of Land and Natural Resources

State of Hawaiʻi

Part I

SUMMARY INFORMATION

1.0 NAME OF ORGANIZATION SUBMITTING PROPOSAL

Hui Mālama O Moʻomomi

2.0 CHARTER OF THE ORGANIZATION

Please see Appendix A

3.0 LIST OF MEMBERS OF THE ORGANIZATION

Please see Appendix A

4.0 DESCRIPTION OF THE LOCATION AND BOUNDARIES OF THE MARINE WATERS AND SUBMERGED LANDS PROPOSED FOR DESIGNATION

The area proposed for designation encompasses the marine waters and submerged lands off of the northwest coast of Molokaʻi, extending seaward one nautical mile from the high water shoreline, bounded by Kaholaiki Bay on the east and ʻIlio Point on the west.

5.0 JUSTIFICATION FOR PROPOSED DESIGNATION

The owners and stewards of properties adjacent to these waters for proposed designation have come together in partnership to revive traditional, subsistence-based management in the context of contemporary landownership (See Figure 1 appended to the end of this document for lands identified by demarcated colors associated here with "[]"). From West to East, these are: State of Hawaii (Ilio Point to Anapuka [orange]) Molokaʻi Land Trust (Anapuka to Kaʻa [light green]), The Nature Conservancy (Kaʻa to Keonelele; and furthest east at Pelekunu to Kaholaiki [dark green]), Molokaʻi Ranch (Keonelele to Moʻomomi [violet]), Department of Hawaiian Home Lands (managed by Hui Malama o Moʻomomi, Moʻomomi to Nihoa [brown]), State of Hawaiʻi Department of Health (Nihoa to Leina o Papio [orange]), Kainoa ʻOhana (Leina o Papio to Lae o Ka Pahu [purple dot]). This broad-based collaboration, cutting across several sectors and organizations, is a strong indication of the extensive community support of this management plan.

Subsistence fishing activities off the northwest coast of Molokaʻi originated with the Hawaiian ancestors who settled the island. The subsistence culture of the Hawaiian communities presently inhabiting the area has been remarkably resilient. There are several reasons for the persistence of subsistence activities:

- The original homesteaders who settled in the Hoʻolehua community (1924 - 29) were selected by the Hawaiian Homes Commission specifically for their capacity for self-sufficiency;

- Behavioral norms within the Hoʻolehua community are still defined by traditional Hawaiian values and orientations; and

- An approximate balance has been maintained between harvesting and replenishment of inshore marine resources which the Hoʻolehua community depends upon for subsistence. However, those species that have been specifically impacted to a greater degree necessitate enhanced regulatory measures (e.g., lobster, discussed in detail herein).

- Access to ʻĪlio Point is restricted by the State of Hawaiʻi which owns the land, because the area was used by the military for live fire munitions training and it has not be cleared of unexploded ordnance.

- Historically, Molokaʻi Ranch managed access to the shoreline resources through a pass key system for its employees and those who accompanied them. The Molokaʻi Land Trust who now manages the northwest shoreline from ʻĪlio Point through Keonelele continues to provide access for subsistence through a pass key system. The Nature Conservancy (TNC) which manages the shoreline from Keonelele to Moʻomomi also continues to provide access for subsistence through a pass key system. TNC also owns a significant portion of Pelekunu Valley to Kaholaiki, marking the eastern boundary of the proposed designated area. TNC also actively manages these lands and is supportive of complementary marine management through this proposed designation.

- Since 1994 to present Hui Mālama O Moʻomomi has developed a community-based subsistence management system for the entire coastline from ʻĪlio Point to Nihoa flats.

- Subsistence fishing and gathering of marine resources along the shorelines that are part of the Kalaupapa National Park is limited to the residents and park service employees.

- Joyce Kainoa and her family are the only people who have lived in the area from the National Park boundary at Leina o Papio Point, east to Lae o Ka Pahu Point.

Fishing is interwoven with all aspects of community life and cultural identity. Per household seafood consumption in the Hoʻolehua Homesteads is estimated to be about 10 times higher than on the island of Oʻahu. According to a survey conducted by the Governor's Molokaʻi Subsistence task Force in 1994, 38% of the food consumed by residents of Hawaiian ancestry is produced by subsistence activities. These estimates indicate not only how much the Hoʻolehua community depends on the ocean as a source

of food, but they also suggest that the present subsistence harvest from the inshore fishery is in the upper range of resource sustainability.

Commercial harvesting by residents and non-residents threaten to increase fishing effort off the northwest coast of Molokaʻi to higher levels, at which resource productivity could no longer be sustained. Not only are commercial harvesters causing fishing pressure to mount but they are also introducing standards of behavior and perceptions that deviate from traditional subsistence practices and conservation ethics. For example, monitoring data collected by Mac Poepoe from 1999 through 2011 show a steady decline in the size and populations of lobsters (*Panulirus penicillatus*) at Moʻomomi.

The 1994 Hawaii State Legislature created a process for designating community-based subsistence fishing areas 9Act 271/94). Hui Mālama O Moʻomomi is seeking designation of such an area off the northwest coast of Molokaʻi (see Figure 1). The Hui has prepared a management plan (Part II of this document) proposing that fishing activities in the subsistence fishing area be regulated.

A fusion of customary management practices with contemporary government fishing regulations would be cost-effective for managing the Moʻomomi Subsistence Fishing Area. Community-based resource management in partnership with State government can promote the sustainable use of fisheries resources more effectively and efficiently than government rule enforcement alone. A participatory management approach that involves community representatives in fisheries monitoring and enforcement (in the form of incident reporting and fostering compliance through education) will serve as an instrument of community empowerment and self-determination and will relieve government from much of the cost of management and enforcement.

Customary fishing practices and rules of conduct can be revitalized in the Northwest Coast of Molokaʻi Community-based Subsistence Fishing Area through peer pressure and education that emphasizes acquiring, using and transmitting ancestral knowledge. A main audience targeted for initiation to sustainable fishing methods and values in the area are children, who are the next generation of fishermen.

Part II

Management Plan for Northwest Cost of Molokaʻi
Community-based Subsistence Fishing Area

1.0 ORGANIZATION OF DOCUMENT

The Northwest Coast of Molokaʻi Community-based Subsistence Fishing Management Plan is organized like Fishery Management Plans (FMPSs) of the type prepared by the Western Pacific Regional Fishery Management Council. The FMP format satisfies government requirements for evaluation of management alternatives and impacts. During its 33-year existence, the Council has prepared four FMPs with input from fishery managers, scientists fishing industry advisors and the general public. It is advantageous to structure the Moʻomomi plan according to the FMP format, which is so familiar in fishery decision-making

2.0 SUMMARY

2.1 Proposed Actions

The 1994 Hawaiʻi State Legislature (Act 271/94) amended the Hawaiʻi Revised Statutes (Chap. 188) to provide for "designation of community-based subsistence fishing area(s) …for the purpose of reaffirming and protecting fishing practices customarily and traditionally exercised for purposes of Native Hawaiian subsistence, culture and religion." Subsistence is defined as "the customary and traditional Native Hawaiian uses of renewable ocean resources for direct personal or family consumption or sharing."

Hui Mālama o Moʻomomi, which represents the Hoʻolehua Hawaiian Homestead community, is seeking designation of a community-based subsistence fishing area extending from the high water shoreline to a distance of one nautical mile offshore, between Kaholaiki and ʻĪlio Point on the northwest coast of Molokaʻi (Figure 1). The plan recommends the following actions:

- Regulation (through adoption of new Hawaiʻi Department of Land and Natural Resources Administrative Rules) of fishing activities that are incompatible with sustainable use of the inshore subsistence fishery.

- Community and State sharing of managerial control and responsibility for monitoring and enforcement. This would include an area-wide catch reporting system implemented by all landowner partners tied to access of fishermen through their properties.

- Training of volunteer resource managers (recruited from the community) to monitor fishing activities, catches, and resource condition in the management area and to assist State authorities in enforcing regulations.

- Education of novice fishermen (especially the next generation of fishermen) in sustainable fishing methods and conservation ethics.

2.2 Summary of Objectives and Rationale

The Northwest Coast of Molokaʻi Community-based Subsistence Fishing Area would accomplish the following objectives:

1. Shared community and state regulation of fishing activities that are incompatible with sustainable use of marine resources in the marine waters and submerged lands traditionally utilized as a "community-based subsistence fishing area" by the Hoʻolehua, Kaluapapa, and Maunaloa communities, Molokaʻi Ranch employees and the Joyce Kainoa ʻOhana.

2. Prevent depletion of subsistence fishery resources by managing on the side of caution.

3. Maintain and restore customary fishery practices that are consistent with subsistence uses and values. [Customary is defined here as behavioral patterns that emerged from traditional roots and have continuous and meaningful links with the past as they adapt to handling contemporary events.]

4. Establish a cooperative, adaptive management system in which authority and responsibility are shared by the fishing community and the Sate of Hawaiʻi and there is a fusion of traditional management practices with contemporary government regulations.

5. Train volunteer resource managers (recruited from the community) to monitor harvesting activities and resource conditions and to assist the State of Hawaiʻi in enforcing regulations in the management area.

6. Design and implement an educational program to perpetuate subsistence fishing methods and values through initiation of novice fishermen (especially children).

7. Integrate local knowledge of natural history and fishermen's experience with conventional scientific data collection to monitor and manage the fishery.

Compliance with fishing rules has been improved in some fisheries by decentralizing management and by strengthening the relationship between the content of regulations and the everyday understanding of fishing communities. The lessons learned from these experiences (Dyer and McGoodwin, 1994) provide the rationale for formally designating the Northwest Coast of Molokaʻi Community-based Subsistence Fishing Area:

- A fishery cannot be managed effectively without the support and participation of the local fishing community. This is especially true in isolated areas.

- Local knowledge of natural history and everyday experience while fishing can provide useful information for managers.

- Small-scale, localized segments of industrial societies can learn and practice conservation under the proper conditions. This is more likely to happen if the local community is traditional in the sense of having a long history in the area and has a local culture that generates norms and values independent of the state culture, emphasizing a clear membership boundary for itself.

- Despite their best intentions, even groups with a strong tradition of marine fisheries conservation can be driven to non-sustainable behavior by external economic and social forces.

- Local-level management can work in a complementary relationship with government rules. Local fishermen who have long experience with and a detailed knowledge of marine fisheries can serve as effective resource managers.

2.3 Responsible Organizations

Hui Mālama O Moʻomomi
Molokaʻi Land Trust
The Nature Conservancy
Kalaupapa Community
Joyce Kainoa ʻOhana
Department of Hawaiian Homelands
Hawaiʻi Department of Health
Hawaiʻi Division of Aquatic Resources
Hawaiʻi Division of Conservation and Resources Enforcement
Molokai Properties Ltd.

3.0 PROBLEMS ADDRESSED BY PLAN

3.1 Sustainable Use of Nearshore Fisheries Resources

In recent decades, there has been a notable decline in nearshore fishery resources in the main Hawaiian Islands (Shomura, 1987). Resource condition varies considerably from area to area (Smith, 1993), depending on several factors: population size, degree of economic development, extent of nearshore habitat alteration and intensity of fishing. The persistence of subsistence fishing on Molokaʻi is an indication that customary fishing practices have not depleted inshore fisheries resources-- though as discussed below, outside influences have impacted them to a degree.

Sustainability of subsistence fisheries resources was assured in ancient Hawaiʻi. The fishing methods and practices of that time generally promoted the sustainable use of fisheries resources within the limited nearshore areas that were exploited. The commercialization of fishing has changed the way resources are perceived and are

utilized. Fishing decisions are made with considerable uncertainty about how fishermen will behave collectively. Such uncertainty tends to shorten planning horizons and places a premium on short-term catches over future catches.

Customary fishing practices are increasingly beset by pressures from inside and outside the community. Commercial harvesting by resident and off-island fishermen and new residents is causing some Molokaʻi fishermen to question traditional values (sharing of seafood resources and conservation for future generations) and rule of conduct, which are the foundation of the subsistence culture. An alarming number of fishermen are using improper harvesting methods, taking undersized animals or ignoring seasonal prohibitions. Traditional means of assuring compliance and punishing infractions (the kapu system) are not viable in modern society. The sustainability of the subsistence fishery and its benefits to the community is threatened by encroachment of commercial fishing values and methods. For example, there was a serious decline in lobster (*P. penicillatus*) from 1997 to 2011. Kūmū (*Parupeneus porphyreus*) declined from the mid-seventies to the mid-eighties to a point of no return.

With respect to lobster (*P. penicillatus*), since 1994 and the inception of Hui Mālama O Moʻomomi, there has been a steady decline of populations observed at Moʻomomi with no evidence of recovery to a sustainable level. This was concluded from comprehensive studies conducted by resource managers from within the Hui who collected data consistently through this time period. As a result there has been a near collapse of the lobster population in 2010 and 2011. Year 2012 has confirmed the population decline of lobsters by catch reports from fishermen. This has been primarily caused by overharvest, compounded by the sexual imbalance of harvest (i.e., a disproportionate harvest of large, mature males) resulting in not enough superior broodstock to perpetuate a healthy population. This overharvest has been largely from within the community, which means the onus in on residents of this area to acknowledge the consequences of stricter regulations if sustainable populations and self-sufficiency are to be fully realized.

Consequently, as discussed in further detail in following sections (13-?-4. Procedures for Access (check-in, reporting), the Hui recommends a moratorium on lobster harvest at Moʻomomi until such time they reach sustainable levels. The decision for when the moratorium is lifted will be based on continual community monitoring of the resource as well as scientific stock assessments conducted by the State of Hawaiʻi DLNR. In addition, post-moratorium, a further recommendation would be to ban the use of nets for harvesting lobster. Harvest should be by hand, trap, or hook only.

3.2 Perpetuation of Community Identity, values and Self-Sufficiency

The communal identity of Hoʻolehua Hawaiian Homesteads is defined by a common cultural heritage and is maintained by a system of interdependence and social reciprocity that is expressed in many ways, including the sharing of food gathered through subsistence. The Governor's Molokaʻi Subsistence Task Force (1994) found that Hawaiians engage in subsistence and related practices more than other ethnic groups on

the island. Among Hawaiian families surveyed 38% of all food is acquired through subsistence. The Task Force concluded that without subsistence as a major means of providing food and supplementing income, Moloka‘i families would have a greatly reduced standard of living.

While engaged in fishing and gathering activities, practitioners share experiences and gain knowledge that provides continuity between the past and the present and that builds trust and cooperation. These shared experiences shape community values and beliefs that are critical for perpetuation of Hawaiian cultural identity.

The self-sufficiency of the Ho‘olehua community is threatened by commercial fishing practices that could deplete inshore fishery resources and could reduce the supply of food produced by subsistence fishing in the management area. Such a trend would tend to increase the community’s reliance on purchased food and perhaps on government "entitlement" programs to subsidize food purchases. Collapse of the subsistence fishery would also undermine family and community cohesion.

3.3 Credibility and Effectiveness of Government Fishing Regulations

The State lacks sufficient enforcement manpower to assure that existing fisheries regulations are rigorously enforced, and voluntary compliance by fishermen is relatively poor. If management is to succeed, it needs the support of fishermen. Harvesters who are required to make short-term sacrifices (e.g., take only the amount of fish that they can use for subsistence) need to be assured their self-denial really will have a positive impact on the health of the resource; otherwise, there will be no perceived long-term collective or individual benefit.

The networks of cooperation and exchange generated within a stable community by subsistence fishing activities create a collective interest in resource sustainability and foster consensus about the proper conduct of fishing. Education, community pressure and community-based resource management in partnership with government can promote the sustainable use of fisheries resources more effectively and efficiently than government regulation alone. The involvement of fishing communities in resource management is variously termed adaptive management; folk management; indigenous management; community-based management; decentralized management; layered management; and traditional management.

3.4 Limitations of Conventional Scientific Data for Managing Complex Fisheries

The size of fish stocks is the result of the processes of recruitment, growth and mortality. Yearly, a group of fish is established in an area and it is sometimes possible to make a reasonable stock-wide forecast of catch and abundance for that species for a few years using yield per recruit methodology. Longer-term predictions that depend on recruitment outcome have not proved possible for most species. Measurement of all the relevant variables is beyond any realistic capabilities. The time and expense cannot be justified except for large-scale, high-value fisheries.

Unpredictability is a worse problem in tropical inshore fisheries because of the complexity of the environment. Management requires attention to a finer level of spatial and temporal detail than compared to pelagic or temperate fisheries. Isolated communities which rely heavily on nearshore marine resources for subsistence develop an intimate knowledge of them. Fishermen's interpretations of fish behavior and ecological interactions are empirically based and are potentially valuable for use in modern fisheries management. Yet, the resource knowledge of users is rarely incorporated into management systems.

One of the obstacles is that government managers and scientists view fishermen as an interest group rather than as a group possessing valuable knowledge about local natural history and marine resources. Scientifically-trained managers could benefit from interaction and exchange of resource knowledge with subsistence fishermen who have intimate knowledge of small units of ocean and who are attuned to biological cycles of marine species (lunar, seasonal, annual).

The ancient Hawaiians depended on the ocean for survival and existence and they accumulated a sophisticated knowledge of marine fisheries. This knowledge involved not only how and where to fish, but also a code of conduct about how fishing should be practiced so that it would be sustainable. Cautions against wanton harvest are part of Hawaiian spirituality. While the force of these beliefs has been muted in modern times, perpetuation and application of this body of knowledge is relevant to some of Hawai‘i's present-day fishery problems, particularly the sustainable use of nearshore fisheries.

4.0 HISTORY

4.1 History of Management Plan

In February 1993, Governor John Waihe‘e appointed the Moloka‘i Subsistence Task Force to document the island's subsistence economy. The Task force, co-chaired by Kelson "Mac" Poepoe of the Ho‘olehua Homestead and Hui Mālama O Mo‘omomi, and Dona Hanaike, Deputy Director of the Department of Land and Natural Resources, hired consultants to conduct an island-wide random sample survey and organize focus groups to assess the extent and importance of subsistence activities. With the findings, the Task Force formulated policies and recommendations for community review and submitted a preliminary report to the Governor in December 1993. The report contained a recommendation to designate a Mo‘omomi Subsistence Fishing Area from Nihoa Flats to ‘Īlio Point.

This recommendation was incorporated in Act 271/94, adopted by the Seventeenth Hawai‘i State Legislature, amending Chapter 188 (HRS), as follows;

> Designation of community based subsistence fishing area.
> (a) The department of land and natural resources may designate community based subsistence fishing areas and carry out fishery management strategies for such

areas, through administrative rules adopted pursuant to chapter 91, for the purpose of reaffirming and protective fishing practices customarily and traditionally exercised for purposes of native Hawaiian subsistence, culture, and religion." The Act defines "subsistence" as "the customary and traditional native Hawaiian uses of renewable ocean resources for direct personal and family consumption or sharing."

A plan was prepared by Hui Mālama o Moʻomomi in 1995 to provide the rationale for establishing the Moʻomomi Community-based Subsistence Fishing Area and for adopting State administrative rules for its management. This management plan builds upon the 1995 plan and experience of the Moʻomomi Pilot Project to provide more intense monitoring and data collection over a broader area, from Kaholaiki, at the east point of Haupu to ʻĪlio Point, including the Kalaupapa Peninsula.

4.2 History of Management Area

4.2.1 Physiography

Kalaupapa Peninsula bisects the rugged north coast of Molokaʻi. The proposed management area fronts the reach of coast between Kaholaiki Bay, east of Pelekunu Valley, to ʻĪlio point, including the Kalaupapa Peninsula. Sea cliffs form most of the coastline. Sea cliff heights diminish rapidly from above Kalaupapa toward Moʻomomi Beach. West of Moʻomomi, an extensive lithified sand dune forms the backshore to ʻĪlio Point, where the dune rock extends below sea level. Inland, the Hoʻolehua plain merges with deeply-eroded grazing lands of west Molokaʻi.

Except for the partially sheltered bays at Moʻomomi and Kawaʻaloa and the cove at Keawanui, the nearshore waters are a high energy environment exposed to the open ocean. Basaltic cliffs and talus slopes which form much of the coast descend below sea level. In some areas, wave-cut benches form terraces at depths between 15 and 100 feet. The benches are strewn with cobbles and boulders and the sea floor drops off steeply from their seaward margins. Kalaupapa is a flat peninsula. The east side is exposed the strong trade winds with high intense wave action. The west side is calm. Fishing by the patients and workers is concentrated on the west side. Okala and Huelo islets lie off of Waikolu. There are sea caves at Kalawao, Keanapuhi and Haupu.

4.2.2 Habitation and Access

The management area borders one of the least accessible reaches of coastline in the State of Hawaii. Kalaupapa is an isolated area with restricted access and fishing that is regulated by the patients and workers. From Nihoa Flats, west of Kalaupapa, to Moʻomomi Bay, access is through Hawaiian Home Lands. From Kawaʻaloa to ʻĪlio, access is through lands controlled by Molokai Properties Limited (MPL), The Nature Conservancy, the Molokaʻi Land Trust (MLT) and the State of Hawaiʻi. Property owners strictly regulate public access. The State-owned ʻĪlio Point is accessible over an unimproved road which once served the US. Coast Guard reservation. Waikolu is owned

by the State of Hawai‘i, but not inhabited. Waiho‘okalo is owned by The Nature Conservancy. Haupu is owned, in part, by the Joyce Kainoa ‘Ohana. Pelekunu is largely owned by TNC, but Pelekunu beach is also comprised of a number of smaller kuleana land parcels.

The major settlements are at Kalaupapa and Ho‘olehua homesteads. There is one ‘Ohana at Haupu. Fishing at Kalaupapa is already restricted to subsistence fishing by the patients and workers at the settlement. Ho‘olehua is situated above the sea cliffs from Pohakunui to west of Nenehanaupo. This community is comprised of 13,500 acres of land supporting a population of approximately 1,000 resident Hawaiians. The homesteaders who originally settled here between 1924 and 1929 were selected by the Hawaiian Homes Commission specifically for their capacity for self-sufficiency.

Areas rich in artifacts and human burial remains have been identified in extensive areas along Mo‘omomi beach and inland sand dunes. Most of these remains appear to date from prehistoric Hawaiian communities and activities. Some are sacred sites and places referred to in Hawaiian legend (Summers, 1971). Inland sand dunes are owned and protected by The Nature Conservancy, which established a "Mo‘omomi Preserve" in 1988. The 921-acre preserve protects more than 22 native Hawaiian plants, four of which are globally rare or endangered. Over time, most of Hawai‘i’s native beaches have been lost to coastal development and, today, Mo‘omomi is the most intact beach and sand dune ecosystem in the main Hawaiian Islands. The dunes were once home to at least 30 bird species, about one-third of which have since become extinct (The Nature Conservancy of Hawai‘i, n.d.).

In December 2010, the Department of Hawaiian Homelands designated the 1,050 acres lands it owns from Mo‘omomi to Anahaki as a Special District in order to "Preserve and protect significant natural, historic and community resources on Trust lands." There can be no development that exceeds 30 feet in height within the Special District of Mo‘omomi-Anahaki.

The area from Mo‘omomi to Keonelele is managed as a natural preserve by The Nature Conservancy and the area from Keonelele to ‘Īlio Point is managed as a natural and cultural preserve by the Moloka‘i Land Trust. The State of Hawai‘i Department of Land and Natural Resources has begun the process to designate ‘Īlio Point as a Natural Area Reserve.

The area from Waikolu to Haupu is only accessible by boat and the Pelekunu trail.

Kawa‘aloa Bay is owned by Moloka‘i Properties Limited. It is the biggest green sea turtle nesting area in the state.

Most of the wave-exposed shoreline at the base of the sea cliffs is physically inaccessible from land. Boats can approach the shore, however, when the ocean is calm. Certain trails exist, known mainly by people who use these areas.

A permitting and access system, to be used in conjunction with—not in lieu of—securing access permission from the appropriate landowner, is discussed in detail within the following section 13-4 "Procedures for Access (check-in, reporting)."

4.2.3 Fishing use

Despite the rugged shoreline and windward exposure of the management area, it is regarded as a traditional fishing and gathering area. The marine resources of this area have sustained the Hawaiian population of north Molokaʻi since the 11th century. The ancient Hawaiians from Molokaʻi's wet, north valleys spent the summer months at Moʻomomi catching and curing fish to see them through winters too rough for fishing (Summers, 1971).

Early inhabitants of nearby valleys made regular canoe voyages to fish offshore. Accounts from oral history allude to a time when indigenous inhabitants walked on trails from Nihoa to ʻĪlio Point and beyond to favorite fishing spots. The locations of offshore koʻa have been passed on from generation to generation and are well known to this day, and Hoʻolehua residents still rely on the area for gathering fish, seaweed, sea salt and other marine resources (Governor's Molokaʻi Subsistence Task Force, 1994).

The reach of coast between Nenehanaupo and Kapalauoʻa is the most heavily fished in the management area. The semi-protected waters of Moʻomomi and Kawaʻaloa Bays are focal points for pole and hand-lining fishing, throw-netting, spearing as well as for gathering of ʻopihi (*Patellidae spp.*), ʻaʻama crab (*Grapsus tenuicrustatus*, *Pachygrapsus plicatus*) limu (assorted marine algae) and lobster (*P. penicillatus*).

When ocean conditions permit, Hoʻolehua Homestead residents launch small boats from a small, unimproved boat ramp on the east side of Moʻomomi Bay, as well as across the sandy beach. The homesteaders have rebuilt a recreational center on the eastern margin of the bay.

ʻUlua (*Caranx ignobilis*) are caught by small boats trolling throughout the management area and akule (*Selar crumenopthalmus*) are taken in areas with sandy bottom. The pelagic waters seaward of the management area are popular for trolling ono (*Acanthocybium solandri)* and other open ocean species. Salt and limu (various marine algae spp.) are gathered.

Access for fishing and gathering of ʻopihi (*Patellidae* family) and limu from Kawaʻaloa through ʻĪlio is managed through a pass system by The Nature Conservancy and the Molokaʻi Land Trust. Previously these areas were only accessible to Molokaʻi Ranch employees and those who accompanied them. Residents of Hoʻolehua still utilize a traditional trail from Moʻomomi down to ʻĪlio Point around the west Molokaʻi coastline.

5.0 Management Unit

The management unit for this plan is not defined by boundaries of fish stocks, as is usually the case, but by boundaries of resources use. The management area has a long history of use for subsistence fishing and gathering by local fishing communities, which inhabited the coastal areas of north Molokaʻi. Resource use, in terms of areas fished and species harvested, is still determined largely by customs and dietary preferences of the local fishing community.

The inshore fisheries resources include a high diversity of shallow-water reef fish, invertebrates and seaweeds, as well as coastal pelagic species. The species most important for subsistence include but are not limited to the following:

Moi (Pacific Threadfin, *Polydactylus sexfilis*)
Uhu (Parrotfishes, *Scaridae spp.*)
Kūmū (Whitesaddle Goatfish, *Parupeneus porphyreus*)
Wekeʻā (White Goatfish, *Mulloidichthys flavolineatus*)
Wekeʻula (Yellowfin Goatfish, *Mulloidichthys vanicolensis)*
Other Goatfishes (*Mullidae* spp.)
Variety of Surgeonfishes (*Acanthuridae spp.*)
Variety of Wrasses (*Labridae spp.*)
Enenue, Nenue (Gray Chub/Rudderfish, *Kyphosus biggibus*)
ʻAlaʻihi (Menpachi/Squirrel fish, *Holocentridae spp.*)
Limu (Varieties of seaweeds)
Akule (Bigeye Scad, *Selar crumenopthalmus*)
Papio (Jacks, *Carangidae spp.*)
ʻOpihi (Limpets, *Patellidae spp.*)
ʻUla (Lobster, *Panulirus penicillatus*)
Heʻe (Octopuses, *Octopoda spp.*)
ʻAʻama crab (Rock Crabs, *Grapsus tenuicrustatus*, *Pachygrapsus plicatus*)
paʻakai (Sea Salt)

Within the nearshore environment, there is a great deal of habitat diversification. Within each habitat zone, there exists a patchwork of physically distinctive sites due to differences in water depth, wave exposure, submarine geology, and bottom topography. Different habitats each have characteristic fish assemblages and potential yields. They may also have different management needs. Separation of the larger inshore ecosystem into subsystems based on bottom type is a practical approach for distinguishing different fish habitats within the management area.

There are three major fish habitat zones in the management area. The most prevalent type is wave-exposed lava rock/boulder habitat, often characterized by encrusting forms of corals (particularly *Pocillopora meandrina*) and algae. Shallow reef flat habitat (papa) is present in Moʻomomi Bay and West Kalaupapa but is limited elsewhere in the management area. This bottom type is also surge-swept and is characterized by the stony coral, *P. meandrina*. Only Moʻomomi and Kawaʻaloa bays are semi-protected from wave action. The bays have sandy bottoms that are important spawning and juvenile

rearing areas for many species. The ocean on the west side of Kalaupapa to Lae o Ka Pahu serves as a massive nursery because it is a protected area. The ocean bottom is comprised of blue rock boulders.

6.0 CONDITION OF INSHORE FISHERIES RESOURCES

Inshore marine resources can be rapidly depleted on a local basis if removal of resident fish is greater than rates of replenishment by immigration of adult fish or recruitment of juvenile fish. Scientific knowledge of the effects of fishing on populations of reef fishes comes from comparisons of areas with differing levels of fishing pressure.

Grigg (1994) compared reef fish abundance in areas protected from fishing with abundance in unprotected areas. He concluded that statewide declines in reef fish abundance appear to have been caused by overfishing. Fishing pressure accounted for a difference of 45 gm (-2) of fish biomass between survey stations protected (Marine Life Conservation Districts) versus those unprotected from fishing. This result supports the qualitative impressions of fishermen who consider overfishing to be one of the major causes of the long-term statewide decline in nearshore fish resources (Harman and Katekaru, 1988)

6.1 Complicating Factors

Several factors complicate the population dynamics of reef species and confound attempts to assess stock condition and how it is affected by fishing. The most important of these factors are the potential for long-distance dispersal during the early life history of most reef species and the potential for movement and aggregation by adult fish.

6.1.1 Life Cycle

The abundance of local fish populations is the result of species-by-species processes of recruitment, growth and mortality. The life cycle of reef fish includes a pelagic stage as eggs and larvae and a bottom-dwelling phase as juveniles and adults. Pelagic dispersal may carry offspring far from their parents, so that intense fishing in one site can have marked effects on the recruitment to other sites many miles down a coastline. High mortality (approaching 100%) during the larval phase causes the rate of recruitment to vary strongly through time and among settlement areas. Local history (including fishing history) is important, therefore, in determining the composition and abundance of local stocks in the management area.

The general problem in studying stock-recruitment relationships is that biologists are unlikely to ever collect enough data to allow confident statistical descriptions of such complex processes. This is because recruitment data are both time-consuming and costly to collect and precise analysis is difficult owing to a lack of understanding of the mechanisms producing the observed variations in recruitment.

It is entirely possible that reproduction within areas protected (by nature or by law) from fishing contribute significantly to recruitment into the fishery over a much larger area. Depending to a great extent on pathways of larval dispersal, small but undisturbed populations could account for a greater total reproductive output than more heavily fished populations of fish present in much larger, but unprotected, areas. Reef fish species almost universally possess a pelagic larval dispersal phase which typically lasts between two and four weeks (Roberts and Polunin, 1991). Information about the extent to which recruitment to the Mo‘omomi management area is derived from local fish populations has been gathered for selected species, i.e. lobster (*P. penicillatus*), uhu (*Scaridae spp.*), and aholehole (*Kuhlia xenura*) since the start of the Mo‘omomi Pilot Project in 1994.

6.1.2 Movements

Most species of reef fish appear to stay within a small area (home range) for much of their post-settlement lives. However, scales of movement differ greatly among species and even individuals within species. Two main factors appear to affect distances moved: body size and grouping behavior. In general, small species move much shorter distances of several hundred meters while foraging around large home ranges. Many fish species move similar or greater distances to sties outside their home range to reproduce (Ogden and Qunn, 1984). At Mo‘omomi Bay, for example, several species of adult fish come into shallow waters to locate sandy bottoms where eggs can be deposited for fertilization by male fish.

A common observation in many fisheries is that fish move offshore as they increase in size. Such habitat shifts may involve movement as little as a few hundred meters or as much as several kilometers, depending upon the spatial relationships of the habitats (Ogden and Qunn, 1984).

Where habitat is continuous, the distances travelled are greater. Conversely, the presence of habitat discontinuities may greatly reduce the potential for movement. For example, some reef fish remain close to cover and will not venture out across sandy areas. Large areas of sand would limit movement of such species. The quality of habitat may influence the net direction of movement. Movement may be greater in areas of low-quality habitat than in high-quality areas, since in the former, essential resources are more sparsely distributed. Better-quality habitat may be expected to accumulate fish from surrounding areas of poorer habitat. The perception of habitat quality by a fish may depend on biological factors as well as physical properties of the habitat (Roberts and Polunin, 1991).

6.1.3 Aggregation

The quality of habitat may strongly influence the movements of reef fish, with areas of better quality habitat accumulating fish from surrounding areas of lower-quality habitat (Buechner, 1987). Fish aggregation in areas of high relief is a behavior consistently observed by Hawaiian fishermen. A name for such areas, ko‘a (meaning fish house),

exists in the Hawaiian language. Presumably the fish inhabiting such "houses" must forage over much larger areas to meet their metabolic needs (Grigg, 1994)

Grigg (1994) concluded that the major natural factor controlling the abundance of reef fish in Hawai‘i appears to be habitat complexity (bottom topographic relief). Fish aggregate in areas of high habitat complexity at biomass levels which in areas protected from fishing, may significantly exceed (2 to 5 times) levels supported by primary production within the ecosystem.

As with artificial reefs, ko‘a would be expected to increase the ability to catch reef fish. Aggregation of reef fish at ko‘a may partially explain why coral reef fish are so vulnerable to overfishing. The ability to catch fish would be expected to increase in such areas and many year classes of fish may be exposed to fishing at the same place and time (Grigg, 1994). It has been suggested that in reef ecosystems, prey stocks are naturally exploited at minimum levels by predators so that even limited fishing pressure can cause rapid decline of stocks (Pauley, 1979).

6.2 Catch Trends

The State of Hawai‘i requires nearly all commercial fishermen to furnish reports of fish catch, effort and revenues for each fishing trip. The Northwest Coast of Moloka‘i Community-based Subsistence Fishing Management Area corresponds with a portion of the State’s commercial fisheries. Area 312 extends from ‘Īlio Point to Kahi‘u Point.

The State does not require catch reporting by non-commercial fishermen. No accurate estimates of the subsistence catch are available for the management area but anecdotal information indicates a substantial subsistence fishery. The most important harvest methods are spearing, hand collecting, thrownetting and pole fishing. Interviews with fishermen from Ho‘olehua Homesteads and seafood consumption rates within the community suggest that the annual harvest by the subsistence fishery is presently on the order of 75,000 - 100,000 lb. This yield is comparatively high, yet the persistence of the Mo‘omomi fishery is an indication that traditional fishing practices have not depleted inshore marine resources below sustainable levels. Stakeholders along the coast will do their own data collection derived from catch-reports turned in by users who attain passes, except at Kalaupapa. It is acknowledged that Kalaupapa will remain with their own management system, a longstanding understood set of regulations honored by the Molokai community for generations despite any lack of legal codification. Any formalization of the set of rules governing marine management in that area will be done at their own discretion.

7.0 RELATIVE IMORTANCE OF MANAGEMENT AREA

7.1 Importance to Ho‘olehua Community

Residents of Ho‘olehua Homesteads place high value on subsistence fishing and gathering activities and on Hawaiian practices and values. The communal identity of

Hoʻolehua Hawaiian Homesteads is defined by a shared cultural heritage and is maintained by a system of interdependence and social reciprocity that is expressed in many ways, including the sharing of food gathered through subsistence. Among Hawaiian families surveyed by the Governor's Molokaʻi Subsistence Task Force (1994), 38% of all food was acquired through subsistence. Subsistence fishing reduces dependence on purchased seafood. The availability of an alternative food source gives residents a sense of self-sufficiency and freedom.

Subsistence fishing provides other, less definable benefits. Time spent in subsistence fishing cultivates intimacy and harmony with the ocean, reinforcing a strong sense of kinship with nature that is the foundation of Hawaiian spirituality and religion. While engaged in fishing and gathering activities, practitioners share experiences and gain knowledge that provides continuity between the past and the present and that builds trust and cooperation. These shared experiences reinforce beliefs and values that are critical for perpetuation of Hawaiian cultural identity. Subsistence fishing emphasizes group identity and relationships rather than individual economic accomplishment. Food obtained through subsistence fishing is distributed within the community and is consumed at family and community gatherings.

7.2 Importance to Molokaʻi

The prevalence and economic and social importance of subsistence activities on Molokaʻi is well documented (Governor's Molokaʻi Subsistence Task Force, 1994). A survey commissioned by the Task force concluded that, without subsistence as a major means of providing food and supplementing income, Molokaʻi families would have a greatly reduced standard of living.

Subsistence is an essential and viable sector of the overall island economy. Subsistence fishing not only provides food but contributes to a healthy diet. Obtaining equivalent food items, such as fish, from stores can be costly and families on fixed incomes are known to purchase cheaper, less healthy foods. Subsistence activities require physical exertion and provide opportunities for relatively inexpensive recreation that contribute to better health.

Beyond the immediate economic and health advantages of subsistence fishing are other benefits that serve to enhance family identity and community cohesion and to perpetuate traditional values. Subsistence resources have allowed Molokaʻi to endure economic hardship without major social disruption.

Molokaʻi provides a rare example of how a community adapted to changing economic circumstances without massive government intervention in the aftermath of failed economy. Subsistence became a more vital aspect of the economy when a major employer closed down. Subsistence should not be viewed as a replacement economy but as a tradition that has survived and has buffered the impacts of failures in other sectors of the island's economy (Governor's Molokaʻi Subsistence Task Force, 1994).

Moloka‘i is unlikely to experience economic growth or social dislocation on a scale that would change the underlying lifestyle. Subsistence fishing on Moloka‘i will continue to be an integral part of the island's economy. In fact, the subsistence lifestyle is so prevalent on Moloka‘i, it is viewed by many on the more urbanized islands as a preferred lifestyle which protects against downturns in the cash economy.

8.0 MANAGEMENT OBJECTIVES

1. Regulate fishing activities that are incompatible with sustainable use of marine resources in the marine waters and submerged lands traditionally utilized as a "community-based fishing area" by the Ho‘olehua community.

2. Prevent depletion of subsistence fishery resources by managing on the side of caution.

3. Restore customary fishery management practices that are consistent with subsistence uses and values. [Customary refers to behavioral patterns that emerged from traditional roots and have continuous and meaningful links with the past as they adapt to handling contemporary events.]

4. Establish a cooperative management system in which authority and responsibility are shared by the fishing community and the State of Hawai‘i and there is a fusion of customary management practices with contemporary government regulations [Decentralization brings management to a higher level of resolution with people who have the most detailed understanding of the resource and the greatest long-term interest in its conservation]

5. Train volunteer resource managers (recruited from the community) to monitor fishing activities, catches, resource conditions and to assist the State of Hawai‘i in enforcing regulations in the management area.

6. Design and implement an educational program to perpetuate subsistence fishing methods and conservation ethics through initiation of novice fishermen (especially children).

7. Integrate local knowledge of natural history and fishermen’s experience with conventional scientific data collection to monitor and manage the fishery.

9.0 MONITORING RESEARCH PROGRAM

Modern influences do not necessarily make contemporary local knowledge less traditional because the system is not static. The knowledge base is continually improving as each generation acquires personal experience that is added to the core of ancestral knowledge. Local knowledge has two important advantages for strengthening the monitoring program: it is based entirely on an accumulation of long-term observations adapted specifically to the local marine environment and it is relatively sophisticated in

terms of understanding of local marine ecology, fish behavior and interrelationships among organisms and elements of the physical environment.

Fishery managers and scientists will be invited to Mo‘omomi to interact with master fishermen. This interaction will develop channels of communication and will encourage resource knowledge in conventional and unconventional forms to be shared and expanded. The integration of technical data from surveys and biological research with fishermen's awareness of biological processes is an effective means of increasing the reliability of resource monitoring in the management area. Fishermen's knowledge should prove to be relatively compatible and with scientists' research findings because both groups acquire their information by making repetitive observations at small experimental sites.

Fishery monitoring would rely initially on collecting five types of information:

- Detailed observation and reporting of permitted fishing activities and catches.
- Repetitive surveys of spawning aggregations [because they occur at predictable times and places.]
- Repetitive surveys of ko‘a [because exceptionally large catches can be made where fish aggregate].
- Small-scale experiments that allow study of species’ growth rates or allow comparison of populations in fished and unfished areas.
- Scientific research shaped by fishermen’s observations.

The research program could become more sophisticated if scientists are able to take advantage of the experimental opportunities afforded by the Northwest Coast of Moloka‘i Community-based Subsistence Fishing Management Area. Recruitment dynamics are one subject of critical scientific consideration in monitoring stock condition. However, biological research of where recruits come from and what affects their success would be highly complex and more costly than other types of research.

10.0 IMPACT ASSESSMENT

Act 271/94 requires an assessment of the extent to which the activities proposed for the Northwest Community-based Subsistence Fishing Management Area may interfere with the use of marine waters for navigation, fishing and public recreation. These and other potential impacts are addressed in this section.

10.1 Nearshore Fisheries Resources and Habitats

Although there are no comprehensive data on nearshore fisheries for the State as a whole, there is widespread consensus that overfishing is one of the major causes of dramatic

declines in resource abundance. "A general consensus exists that immediate conservation and restoration measures are needed to reverse these trends. Unfortunately, our understanding of most species' biology and ecology, and our insight into reasons for the observed changes, are still insufficient to propose a dynamic and comprehensive plan for their recovery." (DAR, 1988).

The Northwest Coast of Molokaʻi Community-based Subsistence Fishing Management Plan and proposed regulations would have only beneficial impacts on nearshore fisheries because (a) the sustainability of a localized nearshore fishery off northwest Molokaʻi would be protected; (b) understanding of species' biology and ecology could improve as a result of detailed observation and experimentation in the management area; and (c) the impact on nearshore resource abundance resulting from exclusion of commercial fishing gear could be evaluated.

Nearshore habitats will be positively affected because commercial gill netting for reef fish would be prohibited under the management program. Some of the fishermen who use this method "juice" holes with bleach to drive fish into their nets.

10.2 Social and Economic Impacts

Social impacts would be minimal. For residents, this is a process that would largely formalize a social code of conduct that has been in place for generations in the area. In this light, perhaps the greatest beneficial impact of this formalization will be the recognition and compliance of this code of conduct by visitors and non-residents when entering the area, particularly those from other islands. It is anticipated that some public pushback may occur, particularly from those fishermen from other islands. But owing largely to the respect that fishers across the state have for Hui Malama o Moʻomomi, this will likely be minimal.

Because trolling, bottomfish handling and akule (*S. crumenopthalmus*) fishing would be exempted from regulation within the management area, the commercial fishing methods most likely to be impacted are diving, trapping, hand line and net fishing for reef species. However, it should be emphasized that nothing is being done to attempt to stop commercial fishing in the area, but rather only certain fishing methods often associated with commercial fishing that have been deemed unsustainable by the community will be prohibited.

10.2.1 Navigation and Vessel Safety

This plan will not affect navigation in the management area because transiting vessels, including those engaged in trolling, are exempted from regulation. Unless otherwise noted in the discussion of allowed and prohibited activities for the enhanced sustainability of natural resources, small vessels will not be impeded from transiting nearshore waters or landing as long as they are not engaged in prohibited fishing activities.

10.2.2 Shoreline/ocean Access and Marine Recreation

Recreational boating, including troll fishing and deep sea bottomfishing, is exempted from regulation under the proposed management plan. Swimming and surfing occur in Mo‘omomi Bay and the backshore is used for picnicking and camping. None of these activities would be adversely affected by the plan.

10.2.3 Fishing

Fishing has meaning to its participants beyond that suggested by landings and revenues. The more important impacts may be those associated with fishing as a social experience. These impacts are difficult to evaluate and nearly impossible to quantify.

The management plan and proposed regulations would reduce the risk of depleting inshore subsistence fishery resources and of alienating the Ho‘olehua and Kalaupapa community from its subsistence culture. With a sustainable resource base, there will not be a need to compensate for a loss of self-sufficiency and a reduced standard of living in the community through government entitlement programs. The transmission of ancestral knowledge from master fishermen to students through educational programs will contribute to perpetuation of cultural identity, strengthening of family unity (inter-generational bonds) and community cohesion. The fishing community will become more informed about sustainable fishing practices and will be more likely to exert peer pressure on fishermen who deviate from social norms of behavior. Social controls will be more effective in achieving compliance with fishing rules than more costly government enforcement.

Although a few individual fishermen may be affected severely, the potential loss of seafood and revenue is relatively minor. Commercial divers, fish trap, reef handline and net fishermen are concerned that there is a long-term trend of closing nearshore fisheries statewide that will result in major, cumulative impacts on their activities and livelihoods.

Commercial harvesting of reef species has long been discouraged in the management area, both by the Ho‘olehua fishing community and by the policies of neighboring landowners.

10.2.4 Perpetuating Cultural Practices

As aforementioned in Section 8.0, this designation explicitly aims to restore, protect, and perpetuate through younger generations, cultural fishing practices that are foundational to the social fabric of the residents of this area. The cultural importance and context of this designation effort has been discussed throughout this management plan.

10.2.5 Protection of Turtles and Monk Seals

All regulations with respect to monk seals and sea turtles will be upheld consistent with existing State and Federal laws. However, the residents acknowledge that turtle

harvesting regulation is being pursued through other means, so it is not addressed here in this management plan. However, if and when the ban is lifted the stakeholders of this CBSFA will work with the State and island ʻAha Kiole to devise a thorough management plan for turtle harvest as this area currently harbors the largest turtle nesting area in the State.

11.0 RELATIONSHIP TO OTHER LAWS

The regulatory actions proffered here focus only on fishing regulations (and to a degree, enforcement, largely via peer and education to uphold established local social norms). They are intended to be stricter than those in surrounding waters. There are no rules or regulations suggested here intended to make State laws more lenient within the area. Moreover, they are intended to be stand-alone; they do not request any modification to State laws presiding over other areas for their proper implementation within this managed area. Moving forward, should challenges arise in understanding the way regulations within this area interface with existing or new laws outside of the area, the managers of this area are amenable to working with the State to define those legal relationships to make them functional and practical.

11.1 Act 271/94

The 1994 Hawaii State Legislature (Act 271/94) created a process for designating Community Based Subsistence Fishing Areas. Hui Mālama O Moʻomomi is seeking designation of such an area off the Northwest Coast of Molokaʻi. The Hui has prepared a management plan (Part II of the document) proposing that fishing activities in the subsistence fishing area be regulated by the Department of Land and Natural Resources (DLNR) under a new set of administrative rules. Results from the demonstration project may be applicable to management of the subsistence fishing area.

11.2 Endangered Species Act and Marine Mammal Protection Act

Only positive impacts on protected species are expected from the management plan and proposed regulations.

11.3 National Environmental Protect Act

This CBSFA designation initiative, undertaken by the residents of the North Shore of Molokaʻi, will improve the regulation of marine species in the area through stricter rules, improved enforcement, and targeted education and outreach efforts. This project has been assessed for significant effects, and has been found to have none. There will be no detrimental impacts to public health or safety. This project will not physically alter the area in any way. There will be no significant controversy generated from this project. There are no significant unknown or uncertain risks. There will be no precedent setting for future significant impacts (however, there may be some short-term negative impact to commercial fishing, for which mitigation measures are discussed below). There will be no loss or destruction of significant scientific, cultural, or historic resources. There will

be no impact to existing environmental protection laws. There will be no introduction of non-indigenous species to the area as a result of this project. There will be only beneficial impacts to regulated species. The project will have no significant individual or cumulative affects on the environment.

11.3.1 Unavoidable Adverse Effects

The only adverse effects will be to unlawful persons due to non-compliance with adopted rules. Unforeseeable natural disasters offer the only other unavoidable adverse effect, but obviously this will not be due to any actions resulting from this management plan.

11.3.2 Short-term Use of Environment Related to Long-term Productivity

The management plan seeks to assure long-term productivity of inshore fisheries by prohibiting fishing activities that can produce large catches in the short term but are not proven to be compatible with sustainable resource use.

11.3.3 Irreversible or Irretrievable Commitment of Resources

There will be no commitment of resources, human, financial or otherwise, toward this management effort that will be either irreversible or irretrievable. Inshore fisheries resources of the Mo‘omomi management area would be committed to their traditional use-for subsistence purposes only. Commercial harvesting and fishing methods that could adversely affect sustainable use would be prohibited from the area.

11.3.4 Mitigation Measures

Some types of commercial fishing in the management area would be negatively impacted. Most of the affected activities are conducted from boats. Thus, commercial fishermen have some capacity for relocating to other areas. They are concerned, however, that a series of previous and proposed fishing closures throughout the state could have a major, cumulative impact on their income from fishing. To mitigate potential cumulative impacts from fishing closures, the Hawaii Department of Land and Natural Resources should periodically review the status and impacts of all existing Marine Life Conservation Districts and other closed areas and should consider whether closure should be relaxed on a case-by-case basis.

12.0 IMPLEMENTATION OF MANAGEMENT PROGRAM

12.1 Cooperative Community-Government Enforcement

Compliance with government regulations will be improved if they are enforced by community pressure as well as by conventional policing. The Hawaii Division of Conservation and Resources Enforcement (DOCARE) would have primary responsibility for enforcing administrative rules that result from the community-based management plan. Volunteer resource managers from the Mo‘omomi community are willing to aid in

enforcement cooperatively with appropriate law enforcement agencies via documenting violations and incident reporting.

12.2 Educational Program

Customary fishing practices and rules of conduct can best be maintained and restored in the Moʻomomi subsistence fishing area through peer pressure and education that emphasizes acquiring, using and transmitting ancestral knowledge. One of the primary audiences for initiation in sustainable fishing methods and values should be children, who are the next generation of fishermen. An educational program aimed at perpetuation of subsistence fishing knowledge and values in Hoʻolehua Homesteads and other Molokaʻi communities has been developed and will be applied as part of this initiative.

HAWAII ADMINISTRATIVE RULES
TITLE 13
DEPARTMENT OF LAND AND NATURAL REOSURCES
SUBTITLE 4 FISHERIES
CHAPTER 59
COMMUNITY-BASED SUBSISTENCE FISHING AREA,
NORTHWEST COAST OF MOLOKAʻI
FROM ʻĪLIO POINT TO KAHOLAIKI

13-1 Definitions (location, boundary of management area, map)

"Northwest Coast of Molokaʻi Community-based Subsistence Fishing Management Area" means the marine waters and submerged lands, extending one nautical mile seaward from the high water shoreline, bounded by Kaholaiki and ʻĪlio Point, northwestern Molokaʻi, County of Maui, Hawaiʻi.
"Subsistence" means the customary and traditional native Hawaiian uses of renewable ocean resources for direct personal or family consumption or sharing
"Daytime" means between 6 a.m. and 6 p.m.
"Nighttime" means between 6 p.m. and 6 a.m.
"Marine life" means any type or species of saltwater fish, shellfish, mollusk, crustacean, coral or marine animal, including any part, product, egg or offspring thereof; or seaweeds or other marine plants, including any part, product, seed, or root or salt; thereof.
"Volunteer" and the associated terms "Occasional-Service Volunteer," Regular-Service Volunteer," and "Stipend Volunteer" have the same meaning as in HRS §90-1.

13-2 Prohibited Activities (closed to all fishing activities - except in next section)

(a) No person shall engage in any fishing activity or use of marine life within the management area except as permitted under section 13-3.
(b) No diving of any kind, for any species, shall be permitted at night within the CBSFA
(c) No competitive fishing events shall be allowed within the CBSFA.
(d) All existing regulatory measures contained in title 12, Hawaii Revised Statutes (HRS) and title 13, Hawaii Administrative Rules (HAR), relating to fishing or marine life shall apply in the CBSFA.
(e) No commercial activities of any kind, either extractive or non-extractive shall be permitted within the CBSFA (this includes cruise tour operations, charter boats, and kayaking).
(f) No netting of lobster within the CBSFA shall be allowed until assessments determine the population has returned to a sustainable level.
(g) From Nihoa to ʻIlio Point, no take of male uhu (uliuli, *Chlorurus spiluris*) and no take of more than two (2) females (ahuʻula, *C.*

spiluris) per party, per trip during the months of July through March with a complete kapu (prohibition) on the harvest of these uhu species during annual spawning periods (April-June).
(h) No surfing or bodysurfing allowed outside of designated area
(i) No kite surfing, sailboard/windsurfing, or jet skis in project area except for MFD training and rescue operations.

13-3 Permitted Activities (activities to be allowed)

- For rescue, monitoring and research purposes only, use of equipment otherwise prohibited in this section.
- Transit by boats not engaged in fishing unless otherwise noted in 13-2.
- Hook and line fishing for pelagic species (subject to State statutes and administrative rules in force)
- Hook and line fishing for deep sea bottomfish species (subject to State statutes and administrative rules in force)
- Hook and line, net fishing for akule (subject to State statutes and administrative rules in force)
- Net fishing for ta‘ape (subject to State statutes and administrative rues in force)
- Fishing with SCUBA gear permitted only for akule and ta‘ape or for research (subject to State statutes and administrative rules in force)
- Trap fishing for deep-sea shrimp (subject to State statute and administrative rules in force)
- Trap and net fishing for kona crab and kuhonu crab (subject to State statutes and administrative rules in force)
- Throw netting permitted only for subsistence
- Hook and line fishing from shore permitted only for subsistence (no competitions are permitted)
- Hand harvesting from shore permitted only for subsistence
- Diving with spears permitted only in the daytime and only for subsistence (no spearing competitions are permitted)
- Diving for hand harvesting permitted only in the daytime and only for subsistence
- Hand harvesting of ‘a‘ama crab is permitted at night and only for subsistence
- ‘Opihi collecting permitted from shore only (no diving) and only for subsistence (subject to State statutes and administrative rules in force)
- Harvesting of spiny lobster permitted by hand, hook or trap (no netting, no spearing) and only for subsistence (subject to State statutes and administrative rules in force)

13-4 Procedures for Access (check-in, reporting)

Permit system for CBSFA Access:
- The issuance of a permit will be accompanied by material containing all current CBSFA rules and regulations, including a set of recommended pono fishing practices.

- The permit will serve as means to ensure catch-reporting is consistent and inclusive of all fishers, either by boat or from land, and resident and non-resident alike.
- It is anticipated that the permits would be issued by a local check-in station on Molokaʻi to be determined.

Non-resident Permitting:

- To enter the management area by boat for any permitted fishing activity by a non-resident which involves vessel anchoring, off-island fishermen must apply for a permit per visit.
- To fish within the management area by land for any permitted activity by a non-resident, off-island fishermen will likewise be required to apply for a permit in addition to securing permission for access by the appropriate landowner per visit.
- The off-island vessel will also require a resident ʻsponsorʼ present on board while fishing within the CBSFA is actively taking place.

Resident Permitting NOT from any ahupuaʻa within CBSFA:

- Resident fishermen will also be required to have a fishing permit that shall be free of charge, and provide access to the CBSFA for one (1) year at a time to ensure consistent and accurate catch reporting.

13-5 Submission of Fishing Reports and Confidentiality of Information

- Catch reports shall be submitted by users of the Northwest Coast of Molokaʻi Community-based Subsistence Fishing Management Area.

13-6 Denial of Access Privileges

- Access privileges may be revoked for any violation.

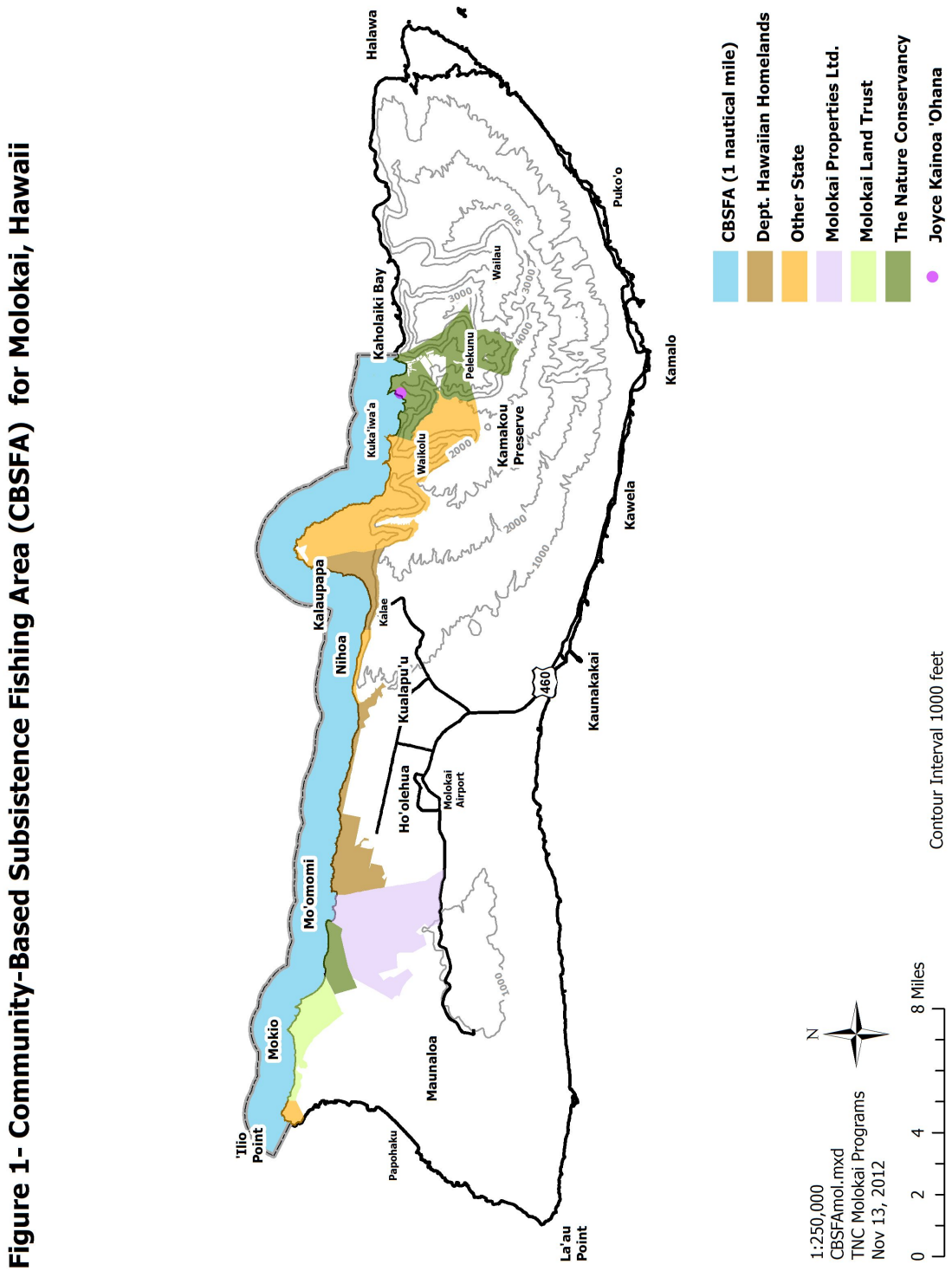
13-7 Penalty

- For first violation, loss of access privileges may be revoked

13-8 Kapu Protected Area

- Throw net, gathering of crab and limu, hand polling and dunking will be allowed at Kawaʻaloa from October 1 t through March 31. No harvesting of shore and marine resources at Kawaʻaloa will be permitted from April 1 thru Sept 30. Nighttime activities at Kawaʻaloa unrelated to rescue, monitoring and research will be strictly limited to the gathering of ʻaʻama crab on designated evenings.

FIGURE 1. Map of Proposed designated CBSFA and partnering landowners adjacent to the area.



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