

THE NORTH SHORE GREENPRINT:
KAHUKU TO KA'ENA, MAUKA MAKAI



ACKNOWLEDGMENTS

This project would not have been possible without generous support from the Doris Duke Charitable Foundation and the United States Army, through the Army Compatible Use Buffer Program. Special thanks are owed to Alvin Char for assistance in procuring U.S. Army Environmental Center funding for the project and for participating in many meetings and calls. The United States Army has been a partner for land conservation on the North Shore of O‘ahu, helping to protect places important to residents that will also serve as buffers for military training activity, creating a win-win situation for the Department of Defense and the North Shore.

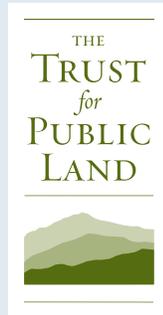
The Trust for Public Land (TPL) and the North Shore Community Land Trust (NSCLT) also gratefully acknowledge all the individuals and organizations that contributed their time, energy, and ideas toward the creation of the North Shore Greenprint. About two hundred residents and visitors spoke with us at farmers’ markets, and nearly 50 people participated in interviews (for a list of interviewees, see Appendix A). The Steering Committee (below) supervised and guided the Greenprint. Technical Advisory Team members (*) provided scientific and technical expertise to assist the Steering Committee in development of the Greenprint.

Denise Antolini	North Shore Community Land Trust vice chair; Pūpūkea resident
Andy Bohlander*	University of Hawai‘i Sea Grant
Kevin Chang	Office of Hawaiian Affairs
Alvin Char	U.S. Army Garrison, Hawai‘i
Malia Chow	National Ocean and Atmospheric Administration
Joan Delos Santos	Hawai‘i State Office of Planning
Scott Derrickson*	Hawai‘i State Land Use Commission
Mary Donovan	USGS-Hawai‘i Fishery Research Unit
Dave Ellis	U.S. Fish and Wildlife Service, James Campbell Refuge
Dolan Eversole*	University of Hawai‘i Sea Grant/ National Ocean and Atmospheric Administration
Scott Fisher	Hawaiian Islands Land Trust
Kalani Fronda*	Kamehameha Schools
Sherri Hiraoka*	Townscape, Inc.
Lea Hong	The Trust for Public Land
Kevin Kinvig	U.S. Department of Agriculture, Natural Resources Conservation Service
Joey Lecky*	National Ocean and Atmospheric Administration, Hawaiian Islands Humpback Whale National Marine Sanctuary
Bob Leinau	North Shore Community Land Trust secretary; North Shore Neighborhood Board; Pūpūkea resident
Jacque Leinau	North Shore Neighborhood Board Agriculture chair; North Shore Community Land Trust; Pūpūkea resident
Ralph Makaiau	Turtle Bay Development; Kahuku Community Association; Kahuku resident
Michele Mansker*	Natural resource manager, U.S. Army Garrison, Hawai‘i

Reed Matsuura	City Council, on behalf of Ernie Martin; Mokulē'ia resident
Cathleen Mattoon	Ko'olauloa Hawaiian Civic Club
Creighton Mattoon	Punalu'u Community Association
Blake McElheny	North Shore Neighborhood Board; Pūpūkea resident
Larry McElheny	North Shore Community Land Trust director; Pūpūkea resident
Joseph Paulin	National Ocean and Atmospheric Administration, Hawaiian Islands Humpback Whale National Marine Sanctuary
Kelly Perry	North Shore Community Land Trust treasurer; Friends of Ka'ena Board; Mokulē'ia resident
Greg Pietsch	Sunset Ranch
Laurent Pool	Waimea Valley director of conservation
Thi Pruitt*	Resident
Bill Quinlan	Sunset Beach resident
Dan Quinn	Hawai'i Department of Land and Natural Resources, State Parks
Gil Riviere	Hawai'i State House Representative; Waialua resident
Jonathan Scheuer	Hawaiian Islands Land Trust
Ken Schmidt	Honolulu City and County Department of Planning and Permitting
Meredith Spreicher	National Park Service Rivers, Trails & Conservation Assistance
Andy Tomlinson*	Pacific Consulting Services
Jared Underwood*	U.S. Fish and Wildlife Service
Barry Usagawa*	Honolulu Board of Water Supply
Stephanie Whalen	Hawai'i Agriculture Research Center

TABLE OF CONTENTS

I	Introduction	I
II	Greenprint Components and Timeline	3
III	Public Outreach Results	4
IV	Mapping Results	7
	Figure A. Greenprint Value Results	8
	Figure B. Map: Overlapping Conservation Values	9
V	Next Steps	10
	Action Plan for the North Shore Greenprint	11
VII	Conclusion	13
Appendices		
A	List of Interviews	14
B	North Shore Existing Conditions	16
C	Summaries of the Steering Committee Meetings	25
D	Community Outreach Summary	41
E	Greenprint Goal Maps	44
	Protect Agricultural Lands	45
	Increase Recreation and Public Access Opportunities	46
	Preserve Cultural and Historic Places	47
	Preserve and Enhance View Planes	48
	Protect Natural Habitats for Plants and Animals	49
	Protect Water Quality and Quantity	50
	Protect Coastal Region	51



PROJECT PARTNERS

TPL is a national nonprofit organization dedicated to conserving land for people to enjoy as parks, gardens, and natural areas, ensuring livable communities for generations to come. Since its founding in 1972, TPL has helped protect more than 2 million acres of land in 46 states, including more than 40,000 acres in the state of Hawai'i. Today, TPL focuses on three areas in Hawai'i: shorelines, food, water and energy sustainability, and heritage lands. TPL depends on the support and generosity of individuals, foundations, and businesses to achieve our land for people mission. For more information, visit www.tpl.org.

NSCLT is an O'ahu-based nonprofit organization that protects, stewards, and enhances the natural landscapes, cultural heritage, and rural character of ahupua'a from Kahuku Point to Ka'ena. NSCLT furthers its mission by engaging the community in understanding the importance of our relationship with the natural environment and facilitating voluntary land conservation transactions. NSCLT strives to build a shared sense of appreciation for the places we love on the North Shore and the voluntary methods available to conserve those places. For more information, visit www.northshoreland.org.

I. INTRODUCTION

Stretching from Ka'ena Point in the west to Kahuku Point in the east, the North Shore is a place of extraordinary natural beauty. Known throughout O'ahu as "the country," the North Shore is home to pristine white sand beaches and dramatic mountain views that frame expanses of agricultural lands. The rural towns of Hale'iwa and Waialua anchor the North Shore economically. As the visitor industry continues to grow, the North Shore community is seeking to find a balance between development and land conservation.

Critical to the voluntary land conservation movement on the North Shore is the North Shore Community Land Trust (NSCLT). NSCLT's mission is to protect, steward, and enhance the natural landscapes, cultural heritage, and rural character of ahupua'a from Kahuku Point to Ka'ena. NSCLT furthers its mission by engaging the community in understanding the importance of our relationship with the natural environment and facilitating voluntary land conservation transactions. NSCLT strives to build awareness about the North Shore's potential to contribute to food security, and about how the region's rural character sustains the local economy and enhances resident and visitor quality of life.

PROJECT AREA:

the ahupua'a along the North Shore from Kahuku Point to Ka'ena Point

In light of development pressure as well as the region's rich natural and cultural heritage, world-class recreation resources, and food security issues, in 2009 NSCLT began a visioning process aimed at conserving the heritage of the North Shore. NSCLT partnered with The Trust for Public Land (TPL) to develop this Greenprint for guiding voluntary land conservation with willing landowners.

"This plan helps us identify future voluntary conservation donations and purchases of land and easements in order to protect and enhance important natural and cultural resources for the benefit of us all."

—Doug Cole, Executive Director for the North Shore Community Land Trust

The Greenprint is based on local and regional conservation priorities. During the Greenprint process, NSCLT and an inclusive steering committee, with information gleaned from existing and past efforts as well as public information-gathering sessions, identified the lands on the North Shore that are most important for meeting multiple land conservation objectives. The result is a set of color-coded maps and action strategies.

"Ideally this Greenprint will be the community's story about itself and its relationship to O'ahu and the world."

—Jonathan Scheuer, Hawaiian Islands Land Trust

WHAT IS A GREENPRINT?

A Greenprint is a plan for meeting local and regional conservation priorities. Community members collaborate to identify the types of land that best serve their goals — and to create strategies for protecting those places with interested landowners. The plan includes a detailed set of color-coded maps and action strategies.



Photo Credit: Sean Davey

II. GREENPRINT COMPONENTS AND TIMELINE

1. Existing Conditions Review

The existing conditions review summarized related factors and planning efforts such as local comprehensive land use plans, water district plans and sources, state planning and economic development efforts, major land and water uses, and demographic trends. This helped inform the mapping analysis and implementation plan. Work on the existing conditions report began in early 2011. Please see Appendix B for the full existing conditions report.

2. Public Outreach

The public outreach component of this project included developing the Steering Committee, conducting interviews, hosting three community “Speak-Outs,” and coordinating the Technical Advisory Team of experts in natural resource protection, water quality, cultural assets, and geographic information systems (GIS). See the Acknowledgments section for the list of members.

Each form of outreach was important to creating a conservation plan and implementation strategy. For example, Steering Committee meetings, interviews, and community Speak-Outs revealed trends in community preferences regarding such values as protecting agricultural and coastal lands. Townscape, Inc., a local planning company, coordinated the Speak-Outs, which were interactive booths designed to capture community ideas and values. They were held at three farmers’ markets between January and March of 2011. Those preferences were then married to hard data (current land use, etc.) about the land. The main objectives were to identify the places on the North Shore that are most important to O’ahu’s “quality of life.”

Please see Appendix C for summaries of the four Steering Committee meetings and Appendix D for more details about the Speak-Outs, including a description of trends that emerged.

3. Mapping Analysis

With help from the Technical Advisory Team, TPL mapped the goals identified through public outreach (described above).¹ The Technical Advisory Team worked with TPL to develop scientifically sound models that incorporate the best available data with current local and national research. The result is a set of preservation prioritization maps that show where communities should invest limited dollars in order to meet their resource and recreation protection and acquisition goals. The GIS model was developed during the summer of 2011 and refined in the early fall. This report includes the maps of landscape opportunities that emerged from the process.

4. Final Report

This final report details the project steps, includes final products, and provides strategic recommendations. The bulk of work on this report took place in the fall of 2011.

¹ The interactive mapping model is based in ESRI’s ArcGIS 9.3 platform and uses ModelBuilder, Spatial Analyst, and TPL custom tools.

III. PUBLIC OUTREACH RESULTS

When asked what matters most about the North Shore, residents and visitors had much to say. We interviewed approximately 50 people in their homes, at restaurants, and in offices around the North Shore. We set up booths at farmers' markets and hosted informal talks at coffee shops. Through these venues we reached over three hundred people. They told us what is most important to them about the North Shore:

Agriculture—The success of diversified agricultural operations on former sugar plantation land is evidence of the region's potential for cultivating locally consumed food crops.

"If we are serious about sustainability and producing enough food for the island, we need to preserve our agricultural lands. Many of those lands are on the North Shore."

— Creighton Mattoon, Ko'olauloa Hawaiian Civic Club

Recreation—People come to the North Shore for activities from surfing and snorkeling to hiking and horseback riding. These and other activities are important to quality of life and the visitor-based economy.

Cultural heritage—Heritage sites on the North Shore are reminders of the region's rich history—and the ongoing work of cultural practitioners today.

"There are cultural areas in each ahupua'a that are special to the families from these ahupua'a, and you need to approach them in the right way."

— Kawika Au, Waialua Hawaiian Civic Club

Scenic Landscapes—The region's rural character and scenic views form a strong connection between O'ahu residents and the land. The North Shore's beauty attracts visitors from all over the world.

Plants and animals—The North Shore provides important habitat for endangered and threatened native species, such as the native Hawaiian hoary bat, the Hawaiian monk seal, and the green sea turtle.

Water— Clean, abundant water sustains community health and agriculture. Protecting water sources also safeguards the ocean for marine life and world-class recreation.

Beaches— In addition to several world-renowned surf breaks and beaches, the North Shore has most of O‘ahu’s longest remaining stretches of undeveloped coastline.

“The ocean, the coast, and the coral reefs must be a part of any conversation about conservation.”

— Bob Leinau, General Manager of Waimea Valley, 1973–2009

These are our Greenprint values.



Photo Credit: Blake McElheny

ECONOMIC BENEFITS OF LAND CONSERVATION

Communities like the North Shore increasingly understand that they need to “grow smart” by conserving natural areas. Accumulating evidence indicates that natural area conservation and the maintenance and creation of public areas are investments that produce significant economic benefits.

Recent reports indicate that parks and natural areas provide millions of dollars in annual economic benefit to local governments and taxpayers. Parks and natural areas attract nonresident visitors who put new dollars into local economies. Proximity to parks and open space enhances the value of residential properties and produces increased tax revenues for communities.

The North Shore’s impressive natural resources not only enhance quality of life for visitors and residents, but also play an important role in sustaining the visitor, agricultural, and film and television industries. Preserving these resources is essential to protecting the viability of our local economy.



Photo Credit: Blake McElheny

IV. MAPPING RESULTS

By way of background, the North Shore study area encompasses 90,000 acres of land, and it extends offshore to include an additional 34,000 acres of ocean that buffer the coast.² Almost 20 percent of the study area on land has already been protected in some way. For example, there are 270 acres of city park land and 16,100 acres of other protected lands within the study area. The “other” category includes natural area reserves, game management areas, forest reserves, state parks, and National Wildlife Refuges.³ While almost 20 percent of the study area has some form of protection, 80 percent is privately owned.

Landownership is concentrated in comparison to typical patterns on the mainland. Large landowners and leaseholders include Kamehameha Schools, Dole Foods, Castle and Cooke, and the U.S. Department of Defense. In interviews and at public forums, many residents expressed mixed feelings about concentrated landownership. While many are satisfied with the way these lands are currently managed, they also expressed serious concerns about future management of privately owned lands. Many residents are worried that after tracts of land are sold, the land use patterns will change. As of fall 2011, 27 percent of the North Shore was up for sale. The Greenprint can help. When land comes up for sale, the Greenprint can serve as a guide for conservation buyers to determine which “for-sale” lands to pursue given limited staff and funding resources.

With help from the Technical Advisory Team and the Steering Committee, TPL staff translated the seven conservation values identified through public outreach (described just above) into a set of preservation priority maps. These maps show where voluntary land conservation could be most worthwhile. Each map highlights the lands that, if preserved, would go the furthest in meeting that particular conservation objective. These maps are featured in Appendix E.

WHAT IS VOLUNTARY LAND CONSERVATION?

If a landowner needs to sell their property, but wants to protect it from development, a land trust may be able to help. Land trusts can identify potential buyers for conserved lands, or work with the landowner to place a conservation easement on the property before it goes on the market.

² TPL delineated the extended offshore study area to capture offshore data provided for the North Shore Greenprint.

³ The protected land also includes one privately owned property that is restricted with a conservation easement.

**Figure A. Greenprint Value Results:
High-Priority Acreage for Voluntary Land and Water Conservation**

Greenprint Value	Priority Acres Onshore, Not Yet Protected (% of study area)	Priority Acres Offshore (% of study area)
Protect Agricultural Lands	23,526 (26%)	0 (0%)
Increase Recreation and Public Access Opportunities	2,723 (3%)	2,627 (8%)
Preserve Cultural and Historic Places	18,566 (21%)	77 (<1%)
Preserve and Enhance View Planes	18,434 (21%)	51 (<1%)
Protect Natural Habitats for Plants and Animals	37,273 (41%)	4,389 (13%)
Protect Water Quality and Quantity	65,902 (73%)	191 (<1%)
Protect Coastal Region	3,362 (4%)	5,217 (15%)

Figure A summarizes the total acres identified as high priority for each Greenprint goal, both onshore and offshore. A relatively small percentage of the study area shows up as a prime location for meeting a couple of the goals (e.g., recreation priorities exist on only 3 percent of the onshore study area and 8 percent of the offshore study area). For other goals, there are opportunities all across the study area (e.g., 41 percent of the onshore study area presents opportunities for protecting natural habitats for plants and animals and 13 percent of the offshore study area).

The Steering Committee approved one map to show the greatest degree of overlap between the values on the landscape. Figure B shows maximum overlap between all the values in gradations of purple. Darker purple reflects the presence of more values in one place and lighter purple reflects less overlap between values. In general, the darkest purple color identifies areas with four or more overlapping values. There are no areas that have all seven values.

This map shows about 23,000 acres in purple on land. That represents about 25 percent of the study area that is not already “protected” in some way.⁴ About 2,000 acres of the 23,000 are developed.⁵ For the most part, the opportunity areas in purple are open and rural land. About 2,200 acres are purple offshore; this represents about 7 percent of the offshore study area.⁶

WHAT IS A LAND TRUST?

Land trusts are charitable organizations that get directly involved in conserving land for its natural, cultural, recreational, scenic, agricultural, and other values. Land trusts can purchase land for permanent protection. Alternatively, they may accept donations of land or the funds to purchase land, accept a bequest, or accept donations of a conservation easement, which permanently limits the type and scope of development that can take place on the land. In some instances, land trusts also purchase conservation easements.

⁴ See the first paragraph of this section for a description of protected areas.

⁵ For purposes of this calculation, “developed” means parcels under 10 acres containing at least one living unit.

⁶ It is important to note that a portion of the offshore study area already receives some protection, such as the Hawaiian Islands Humpback Whale National Marine Sanctuary.

V. NEXT STEPS

The maps are ready, and so the hard work begins of realizing the goals that emerged from the Greenprint process. These are long-term goals, and so this is intended to be a long-term plan of action. Although this action plan focuses on what the North Shore Community Land Trust can do to advance the Greenprint, it anticipates coordination with other organizations and individuals who are working on related issues.

It is worth noting that conservation efforts to date have resulted in protection of land and water for essentially the same reasons as those that emerged from the Greenprint, so the Greenprint reflects a work in progress rather than inception of something completely new. But now there is a guiding document and maps to hone outreach activities and evaluate trade-offs between conservation opportunities and limited resources. Further, the Greenprint process asked North Shore residents about the value of voluntary conservation, and they responded passionately about the need to preserve the land and water they love. With prompting, they gave specific suggestions about where to focus, and those perspectives are incorporated into the Greenprint. Also, the Greenprint reflects the combined perspective of practitioners who work on related issues, as many of them served on the Steering Committee, and contributed to this action plan.⁷



Photo Credit: Ellie Knecht

⁷ This action plan is also consistent with the North Shore Community Land Trust's current strategic plan.

ACTION PLAN

Conservation

Take action to advance land conservation goals:

1. Begin at least one new conservation transaction and complete at least one pending conservation transaction every year.
2. Protect 25 percent of acres for sale (as of January 2012) by 2017.
3. Use the North Shore Greenprint to research and develop conservation opportunities in consultation with conservation committee and conservation partner organizations.
4. Take steps to promote each Greenprint conservation value (appendix/ attachment to be developed to outline more specific actions for each conservation value such as identifying partners and funding sources and establishing action-oriented strategies):
 - Protect Agricultural Lands
 - Increase Recreation and Public Access Opportunities
 - Preserve Cultural and Historic Places
 - Preserve and Enhance View Planes
 - Protect Natural Habitats for Plants and Animals
 - Protect Water Quality and Quantity
 - Protect Coastal Region

Collaboration

Create and maintain a social and political environment that is conducive to voluntary land conservation:

1. Partner with agencies, committees, community groups, organizations, and individuals that have an interest in and/or influence over land uses in the region to protect and steward valuable lands.
2. Identify partners that can effectively advocate with state and county governments.
3. Develop and foster healthy relationships with current and potential landowners and managers, and identify willing sellers.
4. Present Greenprint findings to agencies and other organizations that are doing related work.

Education

Develop a public awareness campaign:

1. Create and distribute materials (print and web) that provide information about:
 - The shared conservation values identified by the community in the Greenprint.
 - The importance of the North Shore to food security, local and state economic sustainability, and quality of life.

ACTION PLAN (CONTINUED)

- The tools, programs, and tax incentives available to landowners who voluntarily conserve their lands.
 - The value of voluntary land conservation; the work of North Shore Community Land Trust and its conservation partners; and the role of land trusts in general.
2. Hold at least one coffee hour every month.
 3. Lead one outing to a property successfully conserved through voluntary land conservation every three months.
 4. Engage youth in topics related to responsible stewardship and land conservation.

Capacity

Build NSCLT's capacity to conserve land and support programs and policies that foster successful voluntary land conservation:

1. Grow the capacity of NSCLT's conservation committee to guide NSCLT's conservation work and to oversee implementation of the Greenprint by recruiting additional members, holding regular conservation committee meetings to evaluate opportunities, and formulating recommendations for the board.
2. Support new and ongoing funding for land conservation.
3. Update the North Shore Greenprint every two years.

Conservation focus

The Steering Committee identified some additional factors for conservation specialists to consider when investigating project potentials. In particular, the committee suggested focusing on large undeveloped properties that are for sale now along the coast, along riparian areas, or adjacent to existing protected land. Also, those properties should be investigated that have potential public funding sources available for their purchase.

VI. CONCLUSION

The North Shore is an extraordinary place, rich in natural and cultural heritage. With over 60,000 acres of undeveloped and unprotected lands,⁸ it will be a challenge to conserve the rural character that draws people to this area and to realize the other Greenprint values. Nevertheless, community input makes it clear there is broad support for conserving land and water to benefit the public.

It is time to seize opportunities to implement the vision for the North Shore's future that is reflected in this Greenprint.



Photo Credit: Sean Davey

⁸ For purposes of this calculation, “undeveloped” is defined as parcels 10 acres and greater that are classified in the O’ahu County real property land classification as agriculture, vacant agriculture, or containing a living unit. The following lands are excluded: parcels less than 10 acres, land already protected, and military-owned land.

APPENDIX A

LIST OF INTERVIEWS CONDUCTED BETWEEN JANUARY AND MARCH, 2011

Jeff Alameida	North Shore Neighborhood Board, Waialua Community Association, Mokulē‘ia resident
Milton Algadar	Twin Bridge Farms, Waialua resident
Kawika Au	Waialua Hawaiian Civic Club, Waialua resident
Kanani Awai	Waimea Valley Kupuna, Hale‘iwa resident
Tinker Bloomfield	Defend O‘ahu Coalition, Waimea Valley, Pūpūkea resident
Margaret “Auntie Kaula” Chun	Waimea Valley Kupuna, North Shore Community Land Trust Board, Hale‘iwa resident
Lucky Cole	Keep the North Shore Country, local business owner, Sunset Beach resident
Marilyn Cole	Local business owner, Sunset Beach resident
Bonnie Cordeiro	North Shore Trails Association, Pūpūkea resident
Kris Corliss	North Shore Trail Association, Hawai‘i Trail and Mountain Club, Pūpūkea resident
Sue Cortes	North Shore Trail Association, North Shore Community Land Trust, Sunset Beach resident
Mike Dailey	Mokulē‘ia Community Association, Mokulē‘ia Polo Association/Field, Mokulē‘ia resident
Donovan Dela Cruz	State Senator for District 22, Wahiawā resident
Malia Evans	Waialua resident
Karen Gallagher	Sunset Beach Community Association, Sunset Beach resident
Josh Heimowitz	YMCA Camp Erdman, Friends of Ka‘ena, Mokulē‘ia resident
Butch Helemano	Cultural Practitioner, Waimea Valley, North Shore resident
Star Jacobson	Pūpūkea resident
Kevin Kinvig	U.S. Department of Agriculture, Natural Resources Conservation Service
Jacque Leinau	North Shore Community Land Trust, North Shore Neighborhood Board, agriculture chair, Pūpūkea resident

Al Madranos	Twin Bridge Farms, Waialua resident
Ralph Makaiau	Turtle Bay Development, Kahuku Community Association, Kahuku resident
Reed Matsuura	Legislative Aide to City Council member Ernie Martin, Mokulē‘ia resident
Cathy Mattoon	Ko‘olauloa Hawaiian Civic Club, Ko‘olauloa resident
Creighton Mattoon	Punalu‘u Community Association, Ko‘olauloa resident
Blake McElheny	North Shore Neighborhood Board, Pūpūkea resident
Antya Miller	North Shore Chamber of Commerce, North Shore Neighborhood Board, Pūpūkea resident
Dan Nellis	Dole Foods Company, Waialua resident
Judith Nelson	Save Hale‘iwa Beach Park, Mokulē‘ia resident
Paul Nelson	Save Hale‘iwa Beach Park, Mokulē‘ia resident
Larry Oswald	North Shore Trail Association, Hawai‘i Trail and Mountain Club, Pūpūkea resident
Kathleen Pahinui	North Shore Neighborhood Board, Friends for Waialua Town, Waialua Community Association, Waialua resident
Margaret Primacio	Kahuku High School, Defend O‘ahu Coalition, Kahuku resident
Bill Quinlan	Velzy Land/Waiale‘e resident
Stew Ring	Mokulē‘ia Community Association, Mokulē‘ia resident
Gil Riviere	Hawai‘i State House, Waialua resident
Al Santoro	Poamoho Organic Farms, North Shore Neighborhood Board Agriculture Committee, Waialua resident
Jonathan Scheuer	Hawaiian Islands Land Trust
Bart Smith	Pūpūkea resident
Linda and Randy Smith	Visitors from Lumi Island, Puget Sound
Ellyn Sollars	North Shore Trails Association, Pūpūkea resident

APPENDIX B

NORTH SHORE EXISTING CONDITIONS

Overview

Stretching from Ka'ena Point in the west to Kahuku Point in the east, the North Shore is a place of extraordinary natural beauty. Known throughout O'ahu as "the country," the North Shore is home to pristine white sand beaches and dramatic mountain views that frame expanses of agricultural lands. The rural towns of Hale'iwa and Waialua anchor the North Shore economically. As the visitor industry continues to grow, the North Shore community is seeking to find a balance between development and land conservation.

Critical to the conservation movement on the North Shore is the North Shore Community Land Trust (NSCLT). NSCLT's mission is to protect, steward, and enhance the natural landscapes, cultural heritage, and rural character of ahupua'a from Kahuku Point to Ka'ena. NSCLT seeks to conserve rural landscapes to protect the natural resources and cultural values of the North Shore by engaging the community in land prioritization and facilitating land transactions. NSCLT strives to educate North Shore communities about the importance of the rural character of the area and the voluntary methods available to conserve that character. With this in mind, NSCLT is working toward building its capacity by building its supporter base, establishing a stable funding network, and developing a committed and diverse board of directors.

History

Evidence suggests Polynesians settled in the Hawaiian Islands roughly 2,000 years ago from Tahiti and the Marquesas. Windward coastal sites along the North Shore of O'ahu, with fertile valley floors, ample fresh water, and good offshore fishing, were among the earliest places inhabited. Hawaiians developed sophisticated agricultural systems featuring terraces and irrigation ditches as well as large-scale fishponds. They grew taro, sweet potato, bananas and other crops, and raised fish, pigs, chickens and dogs.⁹

The North Shore's natural abundance made it a focus of Hawaiian population and chiefly rule as well as a center of influence for the priestly class. The largest heiau, or temple, in all of O'ahu was built overlooking Waimea Bay. Many temples survive and are cared for today by Hawaiian practitioners on the North Shore including Kūkaniloko, the geographic piko (belly button) that is widely recognized as having served as the most powerful birthing site for the island's high chiefs.

In 1779, Westerners landed on O'ahu at Waimea Bay aboard the ships of British explorer James Cook.¹⁰ Western influence grew over time and hastened after the death of Kamehameha in 1819. There was a shift away from the generations old subsistence agriculture systems in the early 1800s, but sandalwood harvesting and export collapsed by the 1830s. In 1832, Christian missionaries came to Waialua District and built a mission and girls seminary.

Eventually, the Western presence and influence led to the ancient Hawaiian system of rules and laws being overthrown. Private land ownership began with the introduction of a land title and

⁹ <http://www.waimeavalley.net/historyofvalley.aspx>.

¹⁰ Joseph Kennedy, "Kahuna Chronicles: An Archaeologist Traces a Sacred Hawaiian Valley from Myth to Modern Times," *Natural History*, October 2005.

deeds system during the Mahele in 1845. In this process the bulk of the North Shore was granted to Victoria Kamamalu, sister of King Kamehameha IV, and King Kamehameha V. Smaller scale agriculture returned to the region during this time and included a burgeoning rice industry.

Beginning around 1900 sugar cane and pineapple plantations emerged and rapidly grew. These industries dominated the North Shore economy for the next 100 years on tens of thousands of acres with the accompanying industrial agricultural infrastructure and support systems (aqueducts, reservoirs, rail-lines, roadways, etc.) laid over the traditional land patterns. The sugar cane industry recently closed its doors (while pineapples remain in production at a much smaller scale) but the infrastructure remains largely in place for new agricultural products.

In the last two decades, the visitor and outdoor recreation (primarily surfing) industries, film and television, and diversified agriculture and agronomy have emerged as the region’s primary economic engines and serve as a connection to the global community. The North Shore continues to play a vital role in Hawai‘i, hosting half of all visitors to O‘ahu and stewarding a large proportion of O‘ahu’s remaining agricultural lands.

Population and Demographics

The North Shore has experienced a steady increase in population over the last forty years. In 1970, the North Shore’s population was about 9,200 people, accounting for 1.4 percent of O‘ahu’s total population.¹¹ By 2000, the North Shore’s population doubled to nearly 18,400 people, about 2.0 percent of the island-wide population. Although the North Shore has experienced a population decrease the last couple of years, 19,517 people are projected to reside in the region by 2035.¹²

Table 1. Population Growth between 2000 and 2010

	2000	2010	% Change (2000–2010)
Hawai‘i	1,211,586	1,299,566	7.3
City and County of Honolulu	875,1330	911,841	4.1
North Shore	18,380	17,724	-3.6

Source: State of Hawai‘i Data Book 2009.

The North Shore is younger and home to larger families and households than both the state of Hawai‘i and the United States.

Table 2. Population Characteristics of the North Shore

		Median Age	Households	Average Household Size	Average Family Size
Hawai‘i	2000	36.2	403,240	2.92	3.42
	2006	37.7	506,550	2.85	3.41
North Shore	2000	31.3	5,893	3.05	3.60
	2006	35.1	5,699	2.90	3.57

Sources: State of Hawai‘i Data Book 2009; U.S. Census Bureau, 2009 American Community Survey—Rural O‘ahu.

11 City and County of Honolulu, Department of Planning and Permitting, *North Shore Sustainable Communities Plan*, 2.1 (Finalized May 2011) [hereinafter NSSCP]

12 Ibid.

Rural O‘ahu¹³ is extremely diverse. As of 2009, the breakdown of race by percentage of the total population is as follows: 28.8 percent mixed race, 24.1 percent white, 19.5 percent Asian American, 15.2 percent Native Hawaiian, 7.8 percent Pacific Islander, 3.8 percent black, and 0.7 percent American Indian.¹⁴ People of Latino or Hispanic origin are 10 percent of the area’s total population.

Government

The City and County of Honolulu encompasses the North Shore. The county seat is located in Honolulu with county departments providing services throughout the North Shore and O‘ahu.¹⁵

Local participation in government is encouraged through the North Shore Neighborhood Board. The neighborhood board system is a network of elected neighborhood boards created to facilitate communication and interaction between O‘ahu communities and the city government.¹⁶ Boards sponsor forums to hear from political candidates and from various businesses and organizations regarding issues that affect their regions. They also make recommendations to city departments, the Honolulu City Council, the Hawai‘i State Legislature, and federal agencies regarding land use proposals, environmental concerns, and social issues.

Economy

The visitor industry dominates the economic landscape of the North Shore. According to Hawai‘i’s Department of Business, Economic Development and Tourism, over half of all visitors to O‘ahu in 2003 and 2005 visited the North Shore.¹⁷ That means approximately 2.4 million tourists visit the North Shore every year, or almost 7,000 visitors per day.¹⁸ Employment reflects the visitor industry’s importance—recreation, accommodation, and retail account for over a quarter of jobs on the North Shore. And although Rural O‘ahu is considered an agricultural region, the industry employed only 2.2 percent (891) of the civilian labor force in 2009.¹⁹

13 U.S. Census Bureau, *2009 American Community Survey—Rural O‘ahu*. The Rural O‘ahu Public Use Microdata Area (PUMA) includes Wai‘anae, Wahiawa, North Shore, and Ko‘olauloa.

14 Ibid.

15 North Shore Chamber of Commerce, *Government & Community*, http://www.gonorthshore.org/govt_community.htm.

16 City and County of Honolulu Neighborhood Commission Office, *O‘ahu’s Neighborhood Board System*, <http://www.honolulu.gov/nco/office.htm>.

17 Department of Business, Economic Development and Tourism, *Visitor Behavior and Satisfaction O‘ahu’s North Shore: A “Tack On” Survey to the 3rd Quarter 2005 and 4th Quarter 2003 Visitor Satisfaction Survey* (State of Hawai‘i).

18 Department of Business, Economic Development and Tourism, *Annual Visitor Research Report* (State of Hawai‘i, 2005) (indicating 4,731,843 visitors traveled to O‘ahu in 2005).

19 U.S. Census Bureau, *2009 American Community Survey—Rural O‘ahu*.

Table 3. Employment by Industry, Rural O‘ahu, 2009

Category ²⁰	%
Educational services and health care and social assistance	21.9
Arts, entertainment, recreation, and accommodation and food services	15.2
Retail trade	11.3
Construction	10.5
Professional, scientific, management, and administrative and waste management services	10.1
Public administration	6.1
Transportation, warehousing, and utilities	5.7
Finance, insurance, real estate, and rental and leasing	4.7
Manufacturing	3.9
Wholesale trade	2.7
Agriculture, forestry, fishing and hunting, and mining	2.2

Source: U.S. Census Bureau, 2009 American Community Survey—Rural O‘ahu.

In 2007, rural O‘ahu had the highest unemployment rate among Hawai‘i’s public use microdata areas (PUMAs)²¹ at more than 8.0 percent.²² Rural O‘ahu is also the only PUMA in Hawai‘i that had an unemployment rate higher than the national average between 2005 and 2007. While Hawai‘i’s economy on the whole remains resilient during the recent recession with the civilian labor force unemployment rate at 7.1 percent, rural O‘ahu has continued to struggle, reaching 12 percent unemployment during 2009.²³

Real estate values have far outpaced the growth of household incomes on the North Shore. As such, the region lacks affordable housing. The median household income in rural O‘ahu actually decreased 1.7 percent between 2005 and 2009, from \$52,446 to \$51,578.²⁴ On the other hand, between 2005 and 2009 the value of owner-occupied units in rural O‘ahu increased 34 percent from \$307,500 to \$412,300.²⁵ In addition, between 2000 and 2005, the median sales price of a single-family home in O‘ahu increased 103 percent and the median condominium price increased 115 percent.²⁶ Despite the recent collapse of the housing market across the country and decreases on the whole, home prices still remain high on the North Shore. The median price of a single-family home sold on the North Shore for 2009 was \$645,000 and the median condominium price was \$365,000. In 2010, the median price of a single-family home was \$682,000 and the median condominium price was \$240,000.²⁷

20 Categories with small percentages have been omitted, which is why the percentages do not add up to 100 percent.

21 U.S. Census Bureau, Cartographic Boundary Files, http://www.census.gov/geo/www/cob/pu_metadata.html. A public use microdata area (PUMA) is an area with a decennial census population of 100,000 or more people for which the U.S. Census Bureau provides specially selected extracts of raw data from a small sample of long-form census records screened to protect confidentiality.

22 Department of Business, Economic Development & Tourism, *Income, Employment, Education, and Housing Characteristics of Public Use Microdata Areas (PUMAs) in Hawai‘i: 2005 to 2007*, p. 14 (State of Hawai‘i, March 2009).

23 U.S. Census Bureau, 2009 American Community Survey—Rural O‘ahu.

24 U.S. Census Bureau, *American Community Survey—Rural O‘ahu, 2005 and 2009*.

25 Ibid.

26 NSSCP, 3.5.

27 Honolulu Board of Realtors, Local Market Updates, North Shore (1-5-6 to 1-6-9), http://www.sunsethomes.net/pdf/HBR_Sep_2010/HBRLocalMarket_2010-09.pdf.

Economic Highlights

Since 1983, the annual Triple Crown of Surfing brings the international surf community together on the North Shore to watch the year's top surfers compete for one of the most coveted honors in surfing. Every November, as the shores of northern O'ahu are pounded by towering winter swells, the area is inundated by surfers and fans, injecting dollars into retail shops, real estate companies, and restaurants. It is estimated that the six-week event injects over \$9 million in direct spending into the North Shore economy.²⁸

The North Shore is also at the forefront of the Hawai'i Clean Energy Initiative. Boston-based First Wind LLC recently erected O'ahu's first wind farm in the hills above Kahuku to capitalize on the trade winds that traverse the North Shore.²⁹ The 30-megawatt farm is estimated to produce energy to power 7,700 homes and is expected to create 200 jobs.³⁰ First Wind is also proposing to develop a 70-megawatt wind turbine farm on the former Kawailoa Plantation, which is owned by Kamehameha Schools.

The federal government is Hawai'i's second-largest industry, spending over \$14 billion in 2007 and accounting for 12.5 percent of all jobs in Hawai'i.³¹ In 2009, 19.2 percent of workers in rural O'ahu were federal employees.³² A majority of those federal jobs are military—the Department of Defense is the largest federal employer in the state. In fact, military spending accounts for 23 percent of the O'ahu economy.³³ Military expenditures translate to local spending by servicemen and women, as well as several thousand civilians employed by the military. Goods and services are provided by local vendors in procurement contracts, research grants, and construction projects undertaken by local contractors.

Drawn to the striking tropical beauty of the North Shore, the television and film industry plays an integral role in the area's economy. During its six seasons, the television show *Lost* injected over \$400 million into the Hawai'i economy. Much of the show was shot on the North Shore.³⁴ In 2009, *Lost* spent \$78 million, employed 2,025 local people, and generated \$7 million in tax revenue. Hawai'i legislators encouraged film productions on the islands by passing Act 88—a 15 percent refundable tax credit for film and television production.

28 Brooks Baehr, "Big Surf Brings Big Business to North Shore," *Hawaii News Now*, November 12, 2010, www.hawaiinewsnow.com/Global/story.asp?S=13489452&cli.

29 Alan Yonan Jr., "Oahu Wind Farm Stays on Track," *Honolulu Star-Advertiser*, October 9, 2010, www.staradvertiser.com/templates/fdcp?1289926333635.

30 Gary T. Kubota, "Third Isle Wind Farm Proposed," *Honolulu Star-Advertiser*, September 25, 2010, www.staradvertiser.com/templates/fdcp?1289926283619.

31 Sen. Will Espero, Special to *Hawaii247.com*, *Federal Spending in Hawaii Has Huge Impact*, *Hawaii 24/7*, June 12, 2009, <http://www.hawaii247.com/2009/06/12/federal-spending-in-hawaii-has-huge-impact/>.

32 U.S. Census Bureau, *2009 American Community Survey—Rural O'ahu*.

33 Espero, "Federal Spending in Hawaii Has Huge Impact."

34 Janis Magin, "Hawaii Bids 'Lost' Farewell, Says Aloha to New Shows," *Portfolio.com* March 1, 2010, <http://www.portfolio.com/views/blogs/pressed/2010/03/01/abcs-lost-meant-millions-for-hawaii-companies/#ixzz168JPud40>.

Land Use and Natural Resources

O‘ahu is the third-largest, third-oldest, and most densely populated of the main eight Hawaiian Islands.³⁵ A coastal plain surrounds much of O‘ahu, while the vertiginous vestiges of two ancient volcanic mountain ranges, the Wai‘anae in the west and the Ko‘olau in the east, straddle the coasts. The northern stretches of those ranges frame the eastern and western borders of the North Shore. Although a fertile saddle lies between the ranges, roughly 45 percent of O‘ahu’s land area has a slope of 20 percent or greater. Mild temperatures characterize the island’s subtropical climate. Rainfall varies across the island with the windward side generally home to moist catchments and leeward to dry rain shadows.

Roughly 60 percent of O‘ahu is covered by undeveloped forest, while 25 percent is urbanized, and the remaining 15 percent is dedicated to agriculture.³⁶ In fact, plantation agriculture characterized the O‘ahu landscape for 100 years. Before 1950, urban and industrial development was concentrated in Honolulu and Wahiawā, on the coastal plain near Pearl Harbor, and at several military bases. However, in the last fifty years, sugarcane and pineapple plantations on O‘ahu have been transitioning to diversified-crop agriculture and suburban use (in central, west and south O‘ahu).

Agricultural lands help define the North Shore’s rural character. Approximately 60 percent of land within the North Shore Sustainable Communities Plan region is zoned agricultural.³⁷ Of the area’s 45,000 agricultural acres, around 20,000 acres are considered high quality, suitable for commercial cultivation of crops.

O‘ahu is home to some of the world’s most endangered tropical dryland forests. The island contains less than 0.2 percent native dry forest (1.7 km²) with less than 30 percent protected in reserves (0.5 km²).³⁸ Forty-five percent of the 68 native tree and shrub species identified in the dry forest region are threatened. Land development, fire, grazing, and nonnative plant species invasion threaten to continue the degradation and fragmentation of Hawai‘i’s dryland forests.

Military areas include all lands used for military and military support purposes, including residential, commercial, industrial, and park uses. On the North Shore, the military owns and leases the Helemano Military Reservation, with its existing and planned military housing, related community facilities and industrial uses, and the Kawailoa and Kahuku Training Areas and Dillingham Military Reservation.

35 Frederick L. Klasner and Clinton D. Mikami, *Land Use on the Island of O‘ahu, Hawai‘i*, 1998, pp. 2–4 (U.S. Geological Society, 2003), Water-Resources Investigations Report 02-4301.

36 Ibid.

37 NSSCP, 3.2.

38 Stephanie Pau, *Tropical Dry Forests of the Pacific: Hawai‘i*, <http://www.geog.ucla.edu/tdfpacific/hawaii.html>. Tropical dry forest is forest in frost-free regions with annual precipitation of between 500 and 2000 mm and a pronounced dry season of four to seven months with less than 50 mm of precipitation.

Framework for Land Use

Hawai'i employs a dual system of state and county laws to regulate private land use.³⁹ On the state level, land is classified as follows: conservation (51 percent of O'ahu), agricultural (46 percent), rural (less than 1 percent), and urban (about 2.5 percent). Preservation and agricultural zones make up more than 90 percent of the land within the North Shore region.⁴⁰ The Department of Land Natural Resources (DLNR) manages land in the Conservation District, and the counties have primary responsibility for land in the other three districts.⁴¹ The conservation district limits development and commercial activity with varying levels of restrictions.

The City Council may make boundary changes via ordinance for areas of 15 acres or less; otherwise, the state Land Use Commission (LUC) must approve changes by a 6–3 vote. Only the LUC can take land out of a conservation district.

The City and County of Honolulu Land Use Ordinance (LUO) and accompanying zoning maps prescribe the allowable uses of land for the City and County of Honolulu, including the North Shore.⁴² The LUO delineates zoning districts and uses, as well as the development standards within each district.⁴³

Water

Groundwater provides all of O'ahu's public drinking-water supply, while streams provide some irrigation water.⁴⁴ On O'ahu, the Board of Water Supply (BWS)⁴⁵ supplies municipal water. Water demand in the North Shore was 2.8 million gallons per day (mgd) in 2000 and is projected to increase to 3.4 mgd by 2030.⁴⁶ Currently, existing and proposed water supplies are adequate to meet planned demand in the region.

Endangered Species

The Hawaiian Islands hold more than 30 percent of the nation's imperiled species.⁴⁷ On O'ahu, 51 listed species are endangered, as designated under the Endangered Species Act, four are threatened, and one is proposed for listing as endangered. Moreover, native wildlife and their habitats contribute millions of dollars in goods and services to the residents of Hawai'i. A University of Hawai'i study of the valuation of ecosystem services estimated the economic value of the Ko'olau Mountains to range from \$7.4 to \$14 billion.⁴⁸

39 City and County of Honolulu, Planning and Permitting Department, *Land Use Regulatory System*, http://www.co.hawaii.hi.us/planning/Land_Use_Regulatory_System.pdf.

40 NSSCP, 3.1.

41 C. Mitchell, C. Ogura, D.W. Meadows, A. Kane, L. Strommer, S. Fretz, D. Leonard, and A. McClung, *Hawaii's Comprehensive Wildlife Conservation Strategy*, 3-2 (State of Hawai'i Department of Land and Natural Resources, October 2005) [hereinafter CWCS 2005].

42 NSSCP, 3.1.

43 Ibid.

44 Stephen Anthony, Charles Hunt, Jr., Anne Brasher, Lisa Miller, and Michael Tomlinson, *Water Quality on the Island of Oahu, 1999–2000*, p. 2 (U.S. Geological Society, 2004), Circular 1239.

45 The BWS is a semiautonomous agency governed by a seven-member Board of Directors. Five members are appointed by the mayor and approved by the City Council, and two are the director of the State Department of Transportation and the chief engineer of the City Department of Facility Maintenance. City and County of Honolulu, Board of Water Supply, *About Us*, <http://www.hbws.org/cssweb/display.cfm?sid=1065>.

46 NSSCP, 4.2.

47 CWCS, 1-3.

48 CWCS, 1-4.

Table 4. Examples of Threatened and Endangered Species

	Common Name	Hawaiian Name	Federal Status
Mammals	Hawaiian hoary bat	‘Ōpe‘ape‘a	Endangered
	Hawaiian monk seal	‘Ilio-holo-i-ka-uaua	Endangered
Birds	Hawaiian duck	Koloa maoli	Endangered
	Newell’s shearwater	‘A‘o	Threatened
	Black-necked stilt	Ae‘o	Endangered
Reptiles	Green sea turtle	Honu	Threatened
	Hawksbill turtle	‘Ea	Endangered
Snails	O‘ahu tree snail (41 taxa)	Pūpū kani oe	Endangered
Arthropods	Picture-wing fly (6 taxa)	Nalo	Endangered
	Pacific Hawaiian damselfly		Proposed endangered

Source: U.S. Fish and Wildlife Service, Pacific Islands, www.fws.gov/pacificislands/publications/listinganimals.pdf.

Found only in native forest on the ridges of the Ko‘olau and Wai‘anae ranges, the striking O‘ahu tree snail is adorned with a vibrantly colored shell.⁴⁹ Populations can be found on lands managed by the state and the military. The snails hold significant cultural cache, featuring prominently in Native Hawaiian stories and used in lei. In fact, native species generally play a significant role in Native Hawaiian belief systems, as well as in traditional practices such as hula, medicine, and ceremonies.

Existing Parks and Trails

There are 18 beach and beach support parks totaling 272 acres within the bounds of the North Shore, including Hale‘iwa Ali‘i Beach Park, Mokulē‘ia Beach Park, Pūpūkea Beach Park, and ‘Ehukai Beach Park (Pipeline).

STATE PARKS

Ka‘ena Point State Park
 Pu‘u o Mahuka Heiau State Historic Site
 Pūpūkea Paumalū State Park Reserve
 Mālaekahana State Recreation Area

The DLNR manages forest reserves and natural areas within the State Land Use Conservation District. The Forest Reserve System protects mountainous areas that contain watersheds, and serve as wildlife refuges and recreational areas. Natural Area Reserves protect and preserve representative examples of the island’s unique native ecosystems.⁵⁰

FOREST RESERVE SYSTEM

Pūpūkea-Paumalū Forest Reserve
 Kuaokalā Forest Reserve
 Mokulē‘ia Forest Reserve

49 CWCS, Terrestrial Invertebrates: O‘ahu Tree Snails.
 50 NSSCP, 3.1.

NATURAL AREA RESERVE

Pāhole Natural Area Reserve
Mount Ka‘ala Natural Area Reserve
Ka‘ena Natural Area Reserve

STATE NA ALA HELE TRAIL SYSTEM

Na Ala Hele is the State of Hawai‘i Trail and Access Program.⁵¹ Established in 1988 in response to public concern about the loss of access to trails and the threat to historic trails from development, the program engages in trail management and regulatory issues around recreational activities and other emerging legal issues.

Relevant Planning Documents

O‘ahu Bikeway Plan (Public Review Draft, July 2009): The Department of Transportation Services for the City and County of Honolulu identifies 119 miles of existing bikeways on O‘ahu (9 on the North Shore), and 572 miles of proposed bikeways island-wide, 59 of which are on the North Shore. The plan delineates a North Shore bikeway system that includes the following: Ke Ala Pūpūkea Bike Path; a coastline route that links to Central O‘ahu and rounds Ka‘ena Point to Wai‘anae; and a route through Hale‘iwa Town. The public comment period is now over, and the final plan is currently under preparation.

North Shore Sustainable Communities Plan (Finalized, May 2011): The plan includes geographic boundaries and policies that support the role of diversified agriculture and commercial activity in the towns of Hale‘iwa and Wai‘alua while retaining their historic and “country town” character. The plan also sets forth the policies and guidelines for North Shore parks and recreational opportunities. The Open Space and Natural Environment section emphasizes an integrated approach to resource management that highlights the Native Hawaiian concept of ahupua‘a, seeking to preserve valued natural features, agricultural lands, and recreational areas.

O‘ahu Water Management Plan: Serves as the City and County of Honolulu’s component of the Hawai‘i Water Plan. It guides the State Commission on Water Resource Management (CWRM) in planning and managing O‘ahu’s water resources.

Wai‘alua Town Master Plan (2005): Details the revitalization of the town’s commercial center.

Kamehameha Schools North Shore Plan (2008): Outlines sustainable land management practices on its North Shore lands that uphold traditional Hawaiian cultural values and knowledge.

Ko‘olau Mountains Watershed Partnership Management Plan (KMWP) (2002): The goal of the KMWP is to protect the forested watershed areas within the Ko‘olau Range. The KMWP proposes management activities that address threats to the watershed. It also promotes water resources and watershed management, biodiversity protection, and cultural resource management and education.

⁵¹ Department of Land and Natural Resources, Division of Forestry and Wildlife, *Na Hala Hele, Trail & Access System*, <http://hawaiitrails.ehawaii.gov/info.php>.

APPENDIX C

SUMMARIES OF THE STEERING COMMITTEE MEETINGS

Steering Committee Meeting 1 Summary

January 27, 2011 | 6:00–7:30 p.m. | Waialua Community Association Clubroom

Meeting Participants

Kevin Kinvig, Natural Resources Conservation Services
David Ellis, U.S. Fish and Wildlife Service, James Campbell Refuge
Meredith Speicher, National Park Service, RTCA
Joe Paulin, HIHWNMS
Alvin Char, U.S. Army
Reed Matsuura, on behalf of City Council member Ernie Martin
Dan Quinn, Hawai'i Department of Land and Natural Resources, State Parks
Jonathan Scheuer, Hawaiian Islands Land Trust
Creighton Mattoon, Punalu'u Community Association
Cathleen Mattoon, Ko'olauloa Hawaiian Civic Club
Kelly Perry, North Shore Community Land Trust Board and Friends of Ka'ena Board
Jacque Leinau, North Shore Neighborhood Board, Agriculture Committee
Blake McElheny, NSCLT/NSNB
Bob Leinau, NSCLT/NSNB
Lea Hong, The Trust for Public Land
Sherri Hiraoka, Townscape, Inc.
Doug Cole, North Shore Community Land Trust
Kelley Hart, The Trust for Public Land

Doug Cole made welcoming remarks and participants introduced themselves. Doug explained that the North Shore Community Land Trust (NSCLT) has partnered with The Trust for Public Land (TPL) to launch a Greenprint, a conservation plan featuring maps that identify high-priority lands for preservation on the North Shore based on community-derived goals. He thanked participants for attending and said that he is still doing outreach around forming the Steering Committee and welcomes suggestions for additional people/organizations to include. Kelley Hart also thanked participants for coming and explained that the Greenprint Steering Committee will be a critical decision-making body of experts for the Greenprint.

Next Kelley provided a project overview covering the following topics in brief: background on TPL, draft project study area map (commensurate with NSCLT mission area), the Greenprint timeline, community involvement, and the mapping approach for the Greenprint. Kelley also gave an example of a Greenprint from the Central Penobscot region in Maine and circulated some materials from previous Greenprints. Then participants engaged in discussion on a variety of topics related to the Greenprint, as follows.

General Suggestions

Suggestions regarding the Greenprint process from Steering Committee members:

- Place a comment box at Waialua farmers' market and/or library as one way to collect community input about land preservation priorities.
- Have a Speak-Out at farmers' markets.
- Post materials for the Greenprint on the TPL Facebook page.
- Seek comments from youth.
- Clearly convey to the public that this plan will identify voluntary conservation opportunities and is intended to be used with willing landowners.
- Think about how to explain that it's not about locking up land; "protect" may be a better way to describe than "conserve" because much of the conservation will be about having lands that incorporate public use.
- Talk to Joe Paulin's GIS specialist at NOAA to see what data already exists.

Greenprint Objectives

Doug and Kelley proposed a few Greenprint objectives to the Steering Committee at the beginning of the discussion (based on findings from their telephone interviews with community leaders so far), and participants added to the list and did some rewording during this meeting. There was also an understanding that some of these may need further refinement before being released to the public:

1. What would you like the plan to accomplish?
 - Jointly produce a community-based guidance document for land protection on the North Shore. [Comment: Take care that it doesn't suggest locking up the land.]
 - Keep ocean, coast, and submerged lands (namely coral reefs, in danger of being mined or destroyed) as part of conversation, not strictly "land" that needs to be protected.
 - Communicate the value of voluntary land preservation. (Someone suggested using the term "guidance" rather than "strategic plan," because it sounded more voluntary than mandatory.)
 - Build community pride for the area.
 - Increase awareness of the North Shore's potential to contribute to food security in Hawai'i. [Comment: One concern is that there is too much fallow land.]
 - Protect water quality: aquifer, drinking water, and watershed areas.

Overarching Issues/Opportunities the Plan Should Address or Consider

1. Consider infrastructure (e.g., location of future roads, wastewater treatment plants). It is affecting water quality and relates to protecting lands. A future wastewater treatment plant will affect water quality and dictate where development will go.
2. Sustainable Communities Plan—look at their development plan and mine for potential overlays.

What We Should Call This Project

- Sensitivity about the study area, as defined. It overlaps with Ko'olauloa. One suggestion was to include "Kahuku Point to Ka'ena Point, Mauka to Makai" as part of the title. Another suggestion was to research the name of the peak that is in the southeast corner.
- Use Hawaiian names.
- One idea is to consider using the names of the moku: Ko'olauloa and Waialua.
- Next step: Consider name with subcommittee of this group and bring back some ideas.

Whom We Should Invite to Be on the Technical Advisory Team

This group will help with identifying GIS datasets that are available and advise TPL on fitting together the datasets into a series of maps, each of which should reflect a community goal related to resource preservation, recreation, working land preservation, etc.:

- University of Hawai'i Sea Grant College Program, Dolan Eversole
- Office of Hawaiian Affairs, Kale Hannahs
- Resource Mapping Hawaii?
- Department of Land and Natural Resources?
- Ko'olauloa Watershed Representative?
- Ron Cannarella with Forestry and Wildlife (statewide assessment related to forestry, GIS)
- Board of Water Supply, Barry Usagawa
- USGS, Steve Gingrich or Steve Anthony
- Kamehameha Schools, Jason Jeremiah (GIS), Kalani Fronda (North Shore lands)
- U.S. Army, Channing Fukuda (Enterprise GIS)
- Honolulu County GIS, Department of Planning and Permitting
- Malia Chow, NOAA
- The Nature Conservancy, Stephanie Tom
- State Office of Planning
- Ko'olau Mountains Watershed Partnership, Miranda Smith
- Dole Foods

The next Steering Committee meeting will be Tuesday, March 15, in the evening (location and exact time TBD). At that meeting the Steering Committee will consider the community input gathered by NSCLT, TPL, and Townscape, Inc., and seek agreement on a list of community goals that will be the basis for the Greenprint maps. At that meeting we will also discuss urgency factors.

**The North Shore Greenprint: Kahuku to Ka'ena, Mauka Makai
Steering Committee Meeting 2 Summary
March 15, 2011 | 6:00–8:00 p.m. | Waiialua Community Association Clubroom**

Meeting Participants

Alvin Char, U.S. Army
Kevin Kinvig, USDA-NRCS
Andy Bohlander, University of Hawai'i Sea Grant
Kevin Chang, Office of Hawaiian Affairs
Ann Offeman, on behalf of Rep. Gil Reviere
Larry McElheny, NSCLT
Barry Usagawa, Honolulu Board of Water Supply
Laurent Pool, Waimea Valley
Bob Leinau, NSCLT and NSNB
Malia Chow, NOAA, Hawaiian Islands Humpback Whale NMS
Cathleen Mattoon, Ko'olauloa Hawaiian Civic Club
Mary Donovan, USGS-Hawai'i Fishery Research Unit
Creighton Mattoon, Punalu'u Community Association
Meredith Spreicher, National Park Service Rivers, Trails and Conservation Assistance
Dave Ellis, U.S. Fish and Wildlife Service, James Campbell Refuge
Thi Pruitt, resident
Greg Pietsch, Sunset Ranch and NSCLT
Doug Cole, NSCLT
Jacque Leinau, NSNB ag. chair
Sherri Hiraoka, Townscape Inc.
Joey Lecky, NOAA, Hawaiian Islands Humpback Whale NMS
Bob Heuer, The Trust for Public Land
Kelly Perry, NSCLT and Friends of Ka'ena Board
Kelley Hart, TPL
Ken Schmidt, City and County Department of Planning

Doug Cole from North Shore Community Land Trust (NSCLT) welcomed participants and announced the project sponsors, the U.S. Army Compatible Use Buffer Program and the Doris Duke Charitable Foundation. Doug explained that the U.S. Army has been a conservation partner in the past, providing critical support for the Waimea Valley and Pūpūkea Paumalū projects. Doug then commenced a round-robin of introductions.

Sherri Hiraoka from Townscape reported on the Speak-Out events that occurred in February on the North Shore to gain information from the public about their preferences and ideas that we can incorporate into the Greenprint. Sherri announced that she also has a more detailed report of public input available for anyone who would like a copy.

Kelley Hart from The Trust for Public Land presented the project objectives, revised by the Steering Committee at the first meeting in January:

- Jointly produce a guidance document for conservation on the North Shore. The plan will feature maps that show areas important for land and water conservation. [Note: Based on discussion at this second Steering Committee meeting, we've added the word "water" to this bullet.]
- Communicate the value of voluntary land conservation.
- Build community pride for the area.
- Increase awareness of the North Shore's potential to contribute to food security in Hawai'i.

Kelley gave a quick overview of the project timeline. She explained that we're winding down the first phase of the project, which is collecting information from the public and organizing that into community goals related to conservation for the North Shore. The next stage is mapping those goals, and the Technical Advisory Team (TAT) of local and state experts will assist The Trust for Public Land in developing Geographic Information Systems (GIS) maps for each goal.

Bob Heuer of TPL gave a brief presentation related to the GIS portion of the project. He showed the revised study area map and pointed out some correction from the first Steering Committee meeting. He then explained how the conservation goals are converted into maps and then combined into a composite map that reflects the overlap between goals. Bob concluded by thanking the individuals so far who have agreed to serve on the Technical Advisory Team:

- Barry Usagawa, Honolulu Board of Water Supply
- Joan Delos Santos, State Office of Planning
- Ken Schmidt, City Department of Planning and Permitting
- Kalani Fronda, Kamehameha Schools
- Dolan Eversole, Sea Grant
- Joey Lecky, NOAA

Kelley reported briefly on findings from the personal interviews that she and Doug Cole conducted with about three dozen community members in February and March. Interviewees were asked to comment on what they think the biggest challenges to the North Shore will be, what will likely happen to large landholdings in the near future, factors that contribute to quality of life, the value of the Greenprint, and the number of beach parks, bike paths, and off-road trails. They were also asked a number of questions related to potential conservation goals.

The information gleaned from interviews and the Speak-Outs that relates to conservation goals is reflected in the draft of goals that was provided as a handout for this meeting. Kelley said that the Steering Committee's main task for this meeting is to review and refine this list of goals (and criteria for each of the goals). Doug reiterated that the handout is just a draft and we are very much looking forward to getting Steering Committee members' thoughts and ideas.

Then meeting participants discussed the draft goals and criteria. Below is the list of goals that emerged. There were a number of related points:

- We need a good definition for what is "protected land." Protected land will appear on the final maps in green. Doug and Bob explained that the protected land on the current study area map reflects government-owned lands that are state parks, forest reserves, and NSCLT/TPL protected properties (deed restricted). (Late addition note about city parks: We created a separate color for the city parks because of some uncertainty as to whether such lands are entirely "protected.")
- There were a number of ideas related to conservation but not to mapping, and those items are noted beneath each goal for possible follow-up discussion at the action planning meeting.
- Bob Leinau also mentioned wanting to discuss threat or urgency related to land conservation and that topic will also be covered later
- There were several ideas for other maps that some Steering Committee members would like to see overlaid with the results of the goal maps. Those are noted below.

The representatives from TPL reminded participants that some of these datasets probably do not exist and that our project budget does not include money for creating much data. Greenprints typically incorporate data that already exists, and sometimes volunteers help to collect data on a limited basis. As a result, it is likely that the maps that we view at the next meeting will be scaled down from this list, though TPL and the TAT will try to find datasets to reflect these criteria.

The committee will reconvene to review the draft maps (in about three or four months) and then once more to develop an action plan and finalize the maps.

Conservation Goals

I. PROTECT AGRICULTURAL LANDS

- Land that would promote food security by increasing the amount of locally grown and locally sold produce and livestock (suggested land characteristics include nonacidic soil with good drainage and availability of quality irrigation water)
- Scenic beauty
- Places for community gardens
- Open space suitable for animal grazing
- Near where people live
- Existing agricultural land. Focus on the areas that are being farmed now
- Land adjacent to schools (so ag. can be taught in schools)
- Action plan ideas:
 - Need to address water quality of Lake Wilson
 - Concern around runoff from agriculture—impact on water quality
 - People are interested in sustainable farming; what is being done currently that is considered sustainable.
- Mapping overlay ideas. Overlay the agriculture goal map with a map of:
 - What is currently being produced
 - All places with sustainable agriculture practices

2. PROTECT NATURAL HABITATS FOR PLANTS AND ANIMALS

Marine and coastal resources. Need to identify the most important submerged assets (Work with the marine wildlife sanctuary. Joey from NOAA has generated some marine resource maps for NSCLT’s mission area already.)

- Wetlands
- Large contiguous tracts of natural lands
- Critical plant and animal habitats, could look at native-dominated ecosystems to represent this (see existing map, check with Laurent for data suggestions; check with Ko’olau Mountains Watershed Partnership for mapping of prioritized areas; late addition: Alvin suggests we speak with Krista Winger for potential natural resource program data as well)
- Native forest areas
- Places that would be good new fishery reserve areas, i.e., areas for no fishing (see Joey at NOAA for dataset)
- Properties adjacent to existing protected land
- Action plan idea:
 - Help to promote and educate on the value of submerged assets. Could advocate for more state protection.

3. PROTECT WATER QUALITY*

Buffers around streams, rivers, and reservoirs (include Lake Wilson)
Highly erodible areas (could be slopes over 70 percent if no better data exists)
Bluffs above the stream gulches
Wetlands

*Some Steering Committee members want water quantity reflected in this goal title.

- Natural freshwater springs
- Upland forested areas
- Protect high-recharge areas for aquifers (to assist with water quantity protection)
- Action plan ideas:
 - Concerns about stormwater, urban or agriculture runoff
- Overlay ideas:
 - Where best management practices are in place
 - Look to stormwater regulations to see what is mapped and if there is an overlay value here. Check with Department of Health.
 - Map of contaminated aquifers and source water protection areas

4. PRESERVE CULTURAL AND HISTORIC PLACES

Kūkaniloko Birthing Stones area

- Bell Stone at Kaiaka
- Loko Ea and ‘Uko‘a fish ponds
- Lo‘i
- Sites at Hale‘iwa Beach Park Mauka (next to Jameson’s)
- Hale‘iwa wetlands
- Marconi Building
- Historic heiau (e.g., heiau above Waimea Bay, Heiau by Kapaeloa)
- Pua‘ena Point
- The WCA Building(s)
- World War II sites
- Ke Ahu O Hapu‘u (fishing shrine at the point by Iliohu)
- The springs behind Hale‘iwa Beach Road
- Old plantation-style homes with tin roofs
- Plantation-style homes
- Shoreline areas will have cultural import
- Waimea Valley—interlaced sites with different meanings
- Waialua courthouse
- Lili‘uokalani Church

Consult for ideas: OHA, Kamehameha Schools, Sites of O‘ahu, also State Historical Preservation Division, Hale‘iwa Special Design District as resource, could also get list of environmental impact statements (OEQC) and review the resources described in those reports

Other comments: Would be good to have a list and a dataset, include some things that have not yet been captured. (Though unable to attend this meeting, Kalani Fronda reviewed the strawman and had this suggestion for cultural and historic resources: Create subcategories for structures and for natural resources.)

5. INCREASE RECREATION AND PUBLIC ACCESS OPPORTUNITIES

Safe bike paths and bike lanes connecting our communities: Ka‘ena to Waialua; Mokulē‘ia to Hale‘iwa; Waialua to Hale‘iwa; Hale‘iwa to Waimea; around Waimea Bay; Sunset to Kahuku (look to O‘ahu bike plan for layers.)

- Undeveloped coastal lands
- Hiking/biking/horse trails in uplands (additional trails in some areas and improved access to existing trails in other areas)
- Look at utilizing existing cane haul roads as trails
- Improve access to the beaches (should be sure the standard from the North Shore Sustainable Communities Plan is met: access at least every ¼ mile)

- Better parking (for existing recreation places)*
- Submerged lands—coral reefs
- Safe and convenient places to watch the surf
- Place for a tot lot in/near Waimea Bay area
- Place for a skateboard park
- More places for camping
- More community gardens close to where people are living (Note: Do not need to be prime soil because can enrich as farming)
- Expand existing parks
- Improving access around existing cultural areas
- Action plan ideas:
 - Turtle Bay may be required to develop two parks. Let's investigate the proposed locations. Can we influence where they put them?
 - Security needed potentially around culturally significant areas already protected
 - Traffic management is a huge issue. Department of Transportation has some long-term proposals and plans. Should we identify transit nodes?

6. PRESERVE AND ENHANCE VIEW PLANES (NO PUBLIC VOTE REQUESTED ON THIS ITEM)

Mountaintops (e.g., top of Pūpūkea, the bluff area above Waimea)

- Expansive agricultural views along the Kamehameha Highway and Kaukonahua Road as you drive toward the coast from the Wahiawā and Schofield areas
- Lands along the west side of Kaukonahua Road
- Views of the seashore
- Views from the ocean looking inland

See view plane map from North Shore Sustainable Communities Plan (Cathleen has a view plane map, city project just on view planes, may be from visioning teams).

7. PROTECT COASTAL REGION

Buffer on coast and include some near shore waters as part of this buffer (Note: Could prioritize within the buffer)

*Not sure how to deal with the parking issue; to be discussed later.

**The North Shore Greenprint: Kahuku to Ka'ena, Mauka Makai
Steering Committee Meeting 3 Summary
July 28, 2011 | 7:00 –9:00 p.m. | John Kalili Surf Center at Hale'iwa Ali'i Beach Park**

Meeting Participants

Alvin Char
Laurent Pool
Cathleen Mattoon
Lea Hong
Creighton Mattoon
Mary Donovan
Dave Ellis
Meredith Spreicher
Denise Antolini
Ralph Makaian
Garth Henderson
Reed Matsuura
Jacque Leinau
Scott Fischer
Jared Underwood
Sherri Hiraoka
Joey Lecky
Doug Cole
Jonathan Scheuer
Bob Heuer
Joseph Paulin
Kelley Hart
Kalani Fronda
Ellie Knecht
Larry McElheny

Doug Cole from North Shore Community Land Trust (NSCLT) welcomed participants. We had a round-robin of introductions. Kelley Hart from The Trust for Public Land thanked project sponsors, the U.S. Army Compatible Use Buffer Program and the Doris Duke Charitable Foundation. She presented the project objectives, a quick overview of the project timeline, and the meeting agenda.

Bob Heuer from TPL thanked the technical team representatives, who helped to develop the draft Greenprint Goal maps since the last Steering Committee meeting. Technical team members are:

- Barry Usagawa, Honolulu Board of Water Supply
- Joan Delos Santos, State Office of Planning
- Ken Schmidt, City Department of Planning and Permitting
- Kalani Fronda, Kamehameha Schools
- Dolan Eversole, Sea Grant
- Joey Lecky, NOAA
- Jared Underwood, U.S. Fish and Wildlife Service
- Scott Derrickson, State Land Use Commission

Then Bob introduced the draft maps for each goal, and participants made suggestions on how to improve the goal maps and the data table handout (which describes the goal maps), as follows:

1. PROTECT AGRICULTURAL LANDS

- No revisions.

2. PROTECT NATURAL HABITATS FOR PLANTS AND ANIMALS

- All wetlands should be high priority. Right now some appear as high priority and others as medium priority. [Note: Red means highest priority potential.]
- Use NOAA benthic habitat data (also used in Protect Coastal Region goal) to map coral reefs.
- Consider moving coastal seabird nests from “wetlands” criteria to “marine and coastal resources” criteria because many seabirds do not nest in wetlands.
- Check spelling of Hi‘ipaka LLC” under data source column.
- Change criteria name from “Possible new fishery management areas” to “Possible new marine management areas.”
- This next point wasn’t raised at the meeting, but Sherri mentioned after the meeting that we should also move the “Elepaio critical habitat” from the “wetlands” criteria to the “Important and rare plant and animal habitat” criteria since the ‘elepaio is an endangered forest bird.

3. PROTECT WATER QUALITY AND QUANTITY

- All wetlands should be high priority. Right now some appear as high priority and others as medium priority.

4. PRESERVE CULTURAL AND HISTORIC PLACES

- For the cultural data, add a disclaimer on limitations, including lack of publicly available data.
- Add fish pond data to Cultural criteria.

5. INCREASE RECREATION AND PUBLIC ACCESS OPPORTUNITIES

- Add surfing locations criteria; make high priority.

6. PRESERVE AND ENHANCE VIEW PLANES

- No revisions.

7. PROTECT COASTAL RESOURCES

- Change name to marine reserve in data matrix. Currently says “fisheries,” but MMAs are areas where fishing is not allowed or is restricted.
- Dave Ellis will talk to Bob re: a tweak on this map.
- Surf spots should be more prominently identified as important areas. Work with the community to identify specific surf breaks.
- Use NOAA benthic habitat data (also used in Protect natural habitats for plants and animals goal) to map coral reefs.
- Change criteria name from “Lands that support....” to “Unused lands that support....”

There were also some comments that apply to all of the goal maps:

- Distinguish between military owned and military leased on all maps. For example, some lands in Waimea Valley are currently grayed as military land but are privately owned and for sale. A viewer would tend to consider the land that is “grayed” as not available.
- Similar question about Kamehameha Schools. Should those lands be “grayed” as not available? No final decision was reached during this meeting.
- Identify offshore protected areas the same way that protected areas on land are identified.

- Check with University of Hawai'i for additional data. For example, Dept. of Geography should have data on water quality and quantity. Other departments should have GIS data for their areas of study.
- Correct the name of the N. O'ahu Whale Sanctuary on all of the maps. It should be the Hawaiian Islands Humpback Whale National Marine Sanctuary.
- Correct spelling to "Waialua Bay."
- The Pahole Natural Area Reserve needs to be reflected on our maps as a protected area.
- Have the final maps show the priority areas as "blobs" vs. "freckles" so it doesn't look like distinct parcels are called out. This will help to make landowners more comfortable if any of the maps become public.

Denise Antolini requested that there be discussion regarding the need for lack of light pollution, and Kelley suggested that we table that for action planning.

During the mapping discussion, some participants mentioned types of lands where protection may be most urgently needed. Though we did not have time to fully discuss this, participants put forward three ideas about what near-term conservation priorities could be:

- Protect large parcels, and "avoid freckles on a map." One reason is that there may be economies of scale re: management costs.
- Protect lands that are for sale now.
- Protect lands that provide connectivity for important habitats.

Kelley mentioned that TPL and NSCLT will conduct interviews over the next two months to find out, among other things, if Steering Committee members have other ideas around urgency. There will be more discussion at the next Steering Committee meeting.

Next the group began creating a "more bang for your buck" map (aka "Overall Conservation Priorities Map") that brings together all seven of the individual land and water goals into one map and looks for the overlap between goals. Bob showed an example of a map with all of the goals incorporated and equally weighted. The map featured potential priority lands only where there was significant overlap between most goals. Bob explained that it is possible to give some goals more prominence than others while overlaying them, and that it is appropriate to do that if some goals are more important than others because then more of those types of lands will show up on the overall map. Kelley explained that this is an important part of the Greenprint because it is a time when the community voices preferences and makes compromises, and that the Overall Conservation Priorities Map can be a powerful tool because it shows those lands that are going to be the most important for meeting multiple community goals.

Participants agreed that it made sense to consider the coastal/offshore resources separately from onshore because many of the conservation goals do not apply to offshore resources. We had a brief discussion of the relative importance of the goals that apply to offshore resources—coastal, habitat, and recreation—and then Steering Committee members ranked the goals using electronic keypads. The prioritization result was:

- Coastal, 44 percent
- Habitat, 35 percent
- Recreation, 20 percent

We looked at a draft overall map that showed this relative prioritization, and participants seemed generally comfortable with the results, but decided to hold on confirming this scenario until data improvements are made (see list above) and they can see the results with those changes. This scenario will be reviewed at the next meeting.

Then participants considered onshore resources. In this round of keypad voting, results were as follows (note: participants were asked to rank their top three goals and the computer applied a weighted average to arrive at this scenario):

- Coastal, 25 percent
- Ag., 25 percent
- Cultural, 15 percent
- Habitat, 10 percent
- Recreation, 9 percent
- Water quality, 9 percent
- View planes, 7 percent

We discussed these results, and there were a number of concerns. A few participants commented that it was difficult to select just three goals. A concern about the scenario was that water quality should be given greater importance. Kelley suggested we create tiers and group the goals into tiers (easier to discuss that way), and then people began to talk more about which goals belonged in the upper tiers. We considered this scenario:

- Coastal, 20 percent
- Ag., 20 percent
- Water quality, 20 percent
- Habitat, 10 percent
- Cultural, 10 percent
- Recreation, 10 percent
- View planes, 10 percent

Someone else suggested that habitat needed more weight. We ran out of time and decided to table the discussion until the next meeting. A number of people said they wanted an opportunity to consider the trade-offs and look at the draft maps in more detail. Doug pointed out that the maps are sensitive because they include private property. Doug agreed to host an informal open house for Steering Committee members to view the poster maps before the next meeting. TPL agreed to also host a webinar so that participants can view the maps online and ask questions. Committee members will not be able to have their own copies of the maps due to their draft status and sensitivities of landowners. [Note: We also agreed after the meeting to revisit preferences that emerged from the Speak-Out and review those with Steering Committee members because they incorporate the opinions of many more people, though not all the options are described in the same way.]

Ellie Knecht of TPL said that she will call Steering Committee members over the next couple of weeks to talk to them about ideas for the action plan and urgency factors. The next Steering Committee meeting will be Monday, September 26 (location and time TBD).

**The North Shore Greenprint: Kahuku to Ka'ena, Mauka Makai
Steering Committee Meeting 4 Summary
September 26, 2011 | 6:00 –8:00 p.m. | Waiialua Courthouse**

Meeting Participants

Alvin Char
Jan McElheny
Larry McElheny
Thi Pruitt
Barry Usagawa
Jared Underwood
Laurent Pool
Bill Quinlan
Jonathan Scheuer
Lea Hong
Bob Heuer
Blake McElheny
Joseph Paulin
Meredith Spreicher
Doug Cole
Bob Leinau
Kelly Perry
Reed Matsuura
Kelley Hart
Cathleen Mattoon
Kevin Kinvig
Sherri Hiraoka
Margie Kim Bermeo
Creighton Mattoon
Kevin Chang
Stephanie Whalen

Doug Cole from North Shore Community Land Trust (NSCLT) welcomed participants and led a round-robin of introductions. Kelley Hart from The Trust for Public Land (TPL) reviewed the agenda and briefly provided project background.

Bob Heuer and Mitchel Hannon, also from TPL, presented the Greenprint goal maps, explaining map updates and reflecting requests made at the last Steering Committee meeting. There was some discussion about the maps as follows:

- *Question:* Surfing is a national resource. How does our prioritization of the surfing locations affect a potential National Park Service decision to give them national recognition? Answer: We do not know what NPS factors into its decisions. Right now, the surf spots are the highest priority components of the goals that they feed into. Increasing their weights within each goal would not change the maps.
- *Question:* How is access being addressed, particularly for cultural sites? Answer: Access was addressed primarily through the recreation goal. The historic/cultural goal had very little data to draw from, and there were issues with making the data public.
- *Comment:* There is a disclaimer about the limitations of the mapping, including the availability of data, but that can be made bigger so people don't guess about what information is missing and why.

Next there was discussion about a final Greenprint composite map. Kelley and Bob explained the value in having one overall map that can reflect the themes of the Greenprint. They reviewed our progress on this topic at the last Steering Committee meeting: Participants set about combining the goals in one map and ranking them in order of importance. However, participants expressed frustration with this part of the process for a variety of reasons. Since the last Steering Committee meeting, the core team (NSCLT and TPL) tried to think of some alternatives that would still help the committee arrive at a final map. Bob and Kelley presented an alternative map, one that shows the overlap between all of the Greenprint goals. It uses a different color scheme to indicate overlap, and it shows gradations of overlap with darker purple reflecting the presence of more goals in one place and lighter purple reflecting less overlap between goals. Kelley said the Steering Committee would need to decide if it wanted a map that emphasizes some goals over others or a map that shows maximum overlap between all the goals. Before going to a vote, we had a discussion as follows:

- *Question:* Do we need to choose an overall map? Can we just have two maps and explain what the differences are? *Answer:* It is easier to have one overall map to use in brochures and other public presentations. That way you just have one story to tell. Otherwise, you may get bogged down in explaining the maps, instead of using the maps to further land conservation discussions.
- *Question:* For the Overlapping Conservation Values map, how many goals overlap in each shade of purple? *Answer:* In general, the darkest purple color identifies areas with four or more overlapping goals. There are no areas that have all seven goals.
- *Question:* What is the difference between the two overall maps [that we are choosing between]? *Answer:* The Overlapping Conservation Values map identifies areas where the goals overlap, without consideration for which goal(s) might be more important. The other Overall map gives more presence to the agriculture and coastal regions goals and less weight to the view planes, water quality, and recreation goals.
- *Question/comment:* There are too many goals. Can we consolidate them to perhaps three? *Answer:* At the second meeting, the Steering Committee decided that seven goals were necessary to fully reflect the conservation values of the community. At this point in the process, it would take a lot of effort to collapse the goals. We should consider consolidating them when we update the Greenprint, hopefully, in a few years.
- *Comment:* Do we have champions for each of the goals? Without identified champions, we're better off showing the Overlapping Conservation Values map.
- *Question:* How accessible will the individual goal maps be? Will we be able to take them to the community? None of the individual goal maps will be lost. All of the maps will be on a Greenprint web page that will allow for viewing and querying.
- *Comment:* The Overlapping Conservation Values map is easier to explain to the public, because we wouldn't have to explain which goals are prioritized and how the goals were weighted.

Using electronic keypads, participants were asked to select the final combined Greenprint map. The Overall map with ranked goals received 20 percent of the vote and the map that looks at maximum overlap between all the goals received 80 percent of the votes. Kelley announced that the overlapping goals map will serve as the composite Greenprint map, but she reminded participants that the individual goal maps will continue to exist.

Next participants discussed whether there were any particularly urgent land conservation needs. Kelley mentioned that we could highlight these features in the Greenprint project materials. She reviewed the "urgency factors" that have already been raised, whether at previous Steering Committee meetings or in the interviews that TPL conducted over the phone this summer with a cross

section of the Steering Committee. These are the types of lands that need to be urgently conserved, according to our discussions so far:

- Large parcels
- Lands that are for sale now
- Undeveloped coastal lands
- Lands that may have potential funding sources available (e.g., adjacent to Army or adjacent to protected lands could give some indication)

Kelley then asked if participants had additional suggestions, and they proposed two:

- Riparian areas provide multiple benefits, and there are incentive programs available for their conservation.
- Plans that threaten the important lands as identified in the Greenprint. The General Plan is being revised right now. One participant mentioned that we need to make sure that the North Shore and Koʻolauloa remain rural.

The final agenda item was to discuss the action plan. Doug reviewed the draft action plan that he and Kelley developed by sorting through the many ideas that emerged from the Greenprint process, and then Doug narrowed to a list of items the North Shore Community Land Trust might be able to focus on. Doug invited feedback, explaining that the action plan should reflect not only items that the land trust can pursue, but also items of interest to partner organizations. Comments were as follows:

- Tax incentives are needed to encourage willing land conservation.
- Climate change resiliency and how that relates to land protection
- For the Conservation Action, what is meant by “protect 25 percent of lands currently for sale”? Does this refer to acreage or number of parcels? This number also changes from year to year.
- Question: Where did the goals come from (specifically, for the Conservation Action)? Answer: NSCLT tried to set reasonable goals for itself, based on experience and its strategic plan.
- Public agency advocacy needs to be increased.
- Education needs to target youth, the next generation of stewards, and families, which will broaden the network. (Consider activities in schools.)
- Collaboration and capacity building should be given priority in the action plan because NSCLT cannot do everything on its own. It needs to grow its organization and alliances, and needs partnerships to manage protected lands. Collaboration and capacity building should be emphasized more and greater detail provided. One potential action is to update and cross-reference the strategic plan effort (i.e., mention something about updating NSCLT Strategic Plan with Greenprint in mind.)
- Re: collaboration, one of the most valuable outcomes of this Greenprint process was getting people talking about the North Shore and why it is important.
- *Question:* One of the “Capacity” actions is to update the Greenprint every two years. Is two years the appropriate time frame and how much would that cost? Answer: The intent is to update the data for the GIS model, which could be fairly easy and cheap (-\$2,000). The update would also be a good time to do additional community outreach. Reevaluating the goals would be more involved and expensive, but the goals that were identified should be long term and shouldn’t change very much in a short time frame.
- *Question:* Consider how to best position North Shore land conservation. Protecting the North Shore will benefit all of Oʻahu. How can we position ourselves to get partners outside the North Shore? Answer: The Education actions i. a), b), and c) are meant to share the importance of the North Shore to all of Oʻahu and beyond, for multiple benefits including quality of life and food security.

- *Comment:* Collaboration action #2 re: advocating government involvement is extremely important. Without agency support and involvement, land conservation will be difficult to achieve.
- *Comment:* As a 501(c)3 organization, NSCLT needs to be careful about how much lobbying it can do. One way to reach agencies and elected officials is to send e-mails to supporters with information about pending legislation that concerns land conservation. NSCLT can request letters of support or opposition to specific legislation and possibly include form letters.
- *Comment:* The Board of Water Supply North Shore Watershed Management Plan is starting up and will address some of the actions outlined in the plan (e.g., Conservation #4, 3rd bullet). BWS would like to incorporate the Greenprint findings into its planning effort.
- *Comment:* Figure out how to get the Greenprint outcomes into government plans. If we cannot tie into government plans and processes, then it will be harder to implement. Some of the issues, such as climate change, already have groups that meet regularly.
- Think about unifying partners/groups/individuals around responding to a threat.

In terms of next steps, Doug explained that this is our final Greenprint development meeting. He announced that there will be a NSCLT fundraising event on November 5, and Steering Committee members are welcome to attend. Kelley explained that draft project summary materials will be circulated for Steering Committee feedback. The meeting adjourned with thanks given to the project management team and to the Steering Committee for participating in this process!

APPENDIX D

COMMUNITY OUTREACH SUMMARY

The North Shore Community Land Trust held three community information-gathering sessions in January and February of 2011 to find out what goals are important to the community with respect to land conservation. Participants at these "Speak-Outs" were asked to provide their thoughts on land conservation, including:

- What do you want the North Shore to look like in the next 50 years?
- What types of lands are important to protect on the North Shore?
- Why are they important?
- Where are these lands?
- How should/can we protect them?
- Whom should we be talking to?

Feedback was collected through notecards and comment sheets that participants could fill out, by volunteers recording verbal comments, and through pictures drawn by children on what they love about the North Shore. The notes are summarized below, but verbatim translations are also available. Comments were sorted by topic but may be applicable to multiple topic categories.

Summary of Information Sessions: Participants and Their Priorities

	Sunset Beach Elementary, Jan. 29, 2011	Waialua Farmers' Market, Feb. 26, 2011	Hale'iwa Farmers' Market, Feb. 27, 2011	Total
Participants				
Signed in	33	0	8	41
Submitted ranking cards	61	34	79	174
Total we could count	75	34	85	194
Residence				
North Shore	20	3	7	30
Hawai'i (not including North Shore)	0	1	6	7
Outside Hawai'i	2	0	1	3
Didn't say	52	30	73	155
Conservation Priorities				
Agricultural and rural lands	49	28	55	132
Cultural and historic places	23	14	42	79
Native habitat	44	16	55	115
Access to public parks and beaches	19	17	18	54
Recreational opportunities	14	7	8	29
Water quality	39	21	54	114
Other	10	1	12	23

Agricultural and Rural Landscapes

There was a strong sentiment to protect agricultural lands, primarily for food security, but also because such landscapes offer the secondary benefits of providing scenic beauty, maintaining the area's character, and providing healthy food choices. Many participants wanted to see more organic and traditional agriculture, but they did not support genetically modified organism (GMO) crops and agricultural practices that used large quantities of harmful chemicals and poor conservation practices.

Participants also mentioned rural character frequently, identifying “rural” as low density, a lot of green, the presence of nature, and no large buildings.

Some areas that were identified for protection or enhancement:

- Fishpond by Jameson's
- Farms in Mokulē'ia, Waialua, Downtown Hale'iwa

Potential threats:

- Economics—can't make a living by farming anymore
- Regulations
- Encroachment by development
- Harmful chemicals and farm practices

Ideas for protection or enhancement:

- Education: teach the children, those that want to farm how to farm
- Find ways to share infrastructure and equipment
- Support permaculture
- Tax incentives and subsidies
- Land use laws and zoning protections
- Architectural standards to preserve lifestyles and plantation village atmosphere
- Create agricultural parks

Recreation and Public Access

Passive recreation areas, e.g., beach parks, multiuse (hiking, biking, horseback riding) trails, bike paths, camp sites, etc., were widely cited as being important. Some participants wanted to see improvements to existing active recreation sites, such as the skateboard park and tennis, volleyball, and basketball courts.

Some areas that were identified for protection or enhancement:

- Trails: Mokulē'ia, Lā'ie, Ka'ena Point
- Bike path between Pūpūkea and Hale'iwa
- Beach parks: Hale'iwa
- Access to the beaches—every quarter-mile

Potential threats:

- Erosion at the beach parks
- Access to mauka trails
- Conflicting uses, e.g., off-road vehicles and hiking trails at Ka'ena Point
- Pollution and runoff
- Encroachment by development

Ideas for protection or enhancement:

- Create more access

Historic and Cultural Places

Participants generally felt that historic and cultural places were important, but they did not have many specific thoughts on what kinds of places need to be protected and how.

Some areas that were identified for protection or enhancement:

- Birthing stones
- Loko Ea and 'Uko'a fishponds
- Bell Stone at Kaiaka Bay
- Pua'ena Point
- Pu'u o Mahuka Heiau
- Marconi Building near Kahuku

Ideas for protection or enhancement:

- Inventory of sites
- Education
- Find ways to have preservation of the site be self-sustaining
- Restore the cultural connection by using original place names

Other Comments

Aesthetics and character were common reasons for protecting land on the North Shore. The coastline was especially important to participants, and several wanted to protect the marine environment. They also frequently mentioned water quality and habitat.

Some areas that were identified for protection or enhancement:

- Open spaces and views: entering the North Shore from Wahiawā, looking up from the coast toward the mountains and agricultural lands
- Streams
- Marine (offshore) areas: Kawela Bay
- Habitat areas: Mokulē'ia
- Lands west of Kaukonahua Road

Ideas for protection or enhancement:

- Focus on large, contiguous areas for protection
- Moratorium on building permits
- Educate visitors and residents
- Create fisheries reserve areas

APPENDIX E

GREENPRINT GOAL MAPS

North Shore Greenprint Kahuku to Ka'ena, Mauka Makai

Preserve and Enhance View Planes

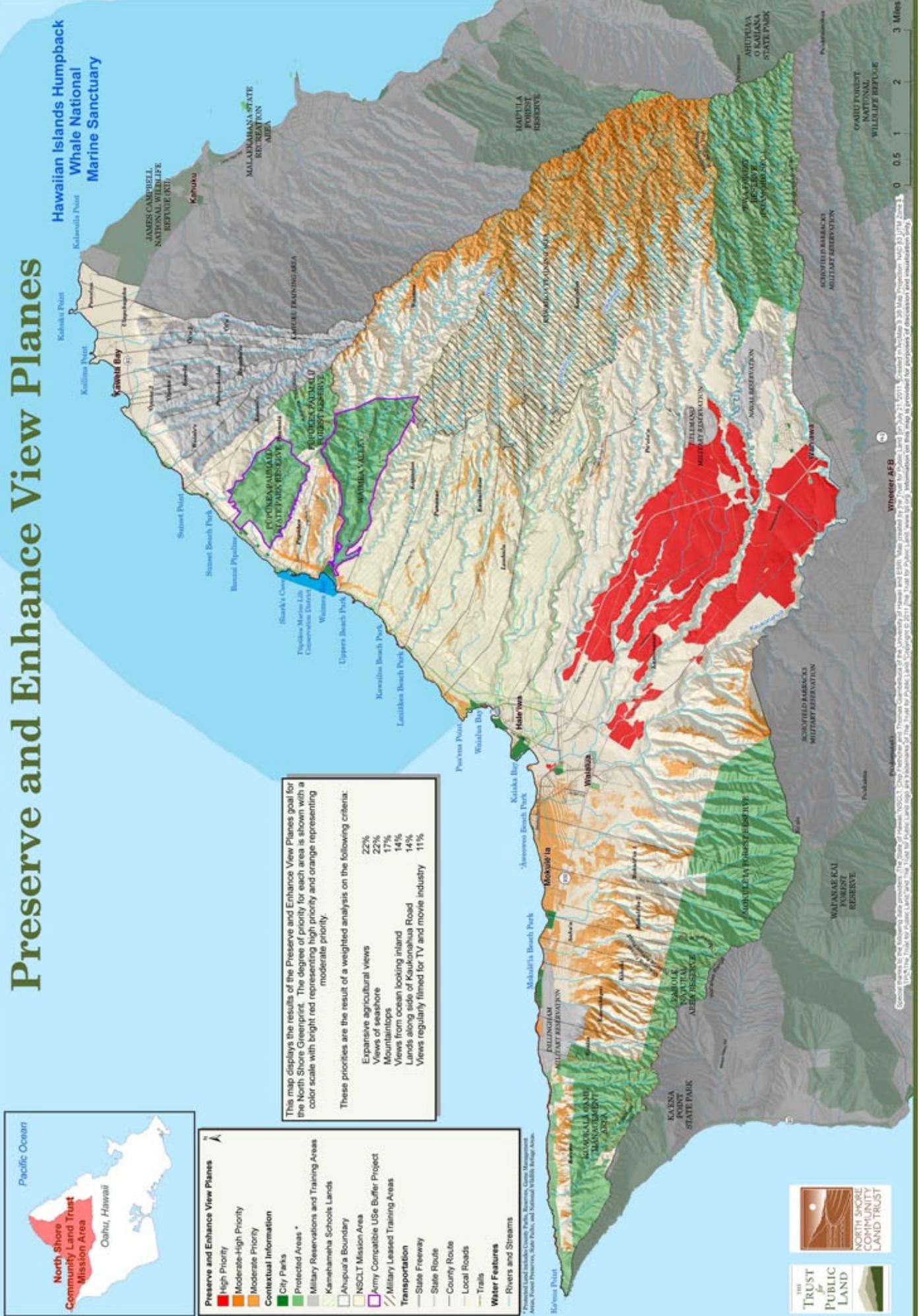


- Preserve and Enhance View Planes**
- High Priority
 - Moderate-High Priority
 - Moderate Priority
 - Contextual Information
 - City Parks
 - Protected Areas*
 - Military Reservations and Training Areas
 - Kamehameha Schools Lands
 - Ahupua'a Boundary
 - NSCLT Mission Area
 - Army Compatible Use Buffer Project
 - Military Leased Training Areas
- Transportation**
- State Freeway
 - State Route
 - County Route
 - Local Roads
 - Trails
- Water Features**
- Rivers and Streams

This map displays the results of the Preserve and Enhance View Planes goal for the North Shore Greenprint. The degree of priority for each area is shown with a color scale with bright red representing high priority and orange representing moderate priority.

These priorities are the result of a weighted analysis on the following criteria:

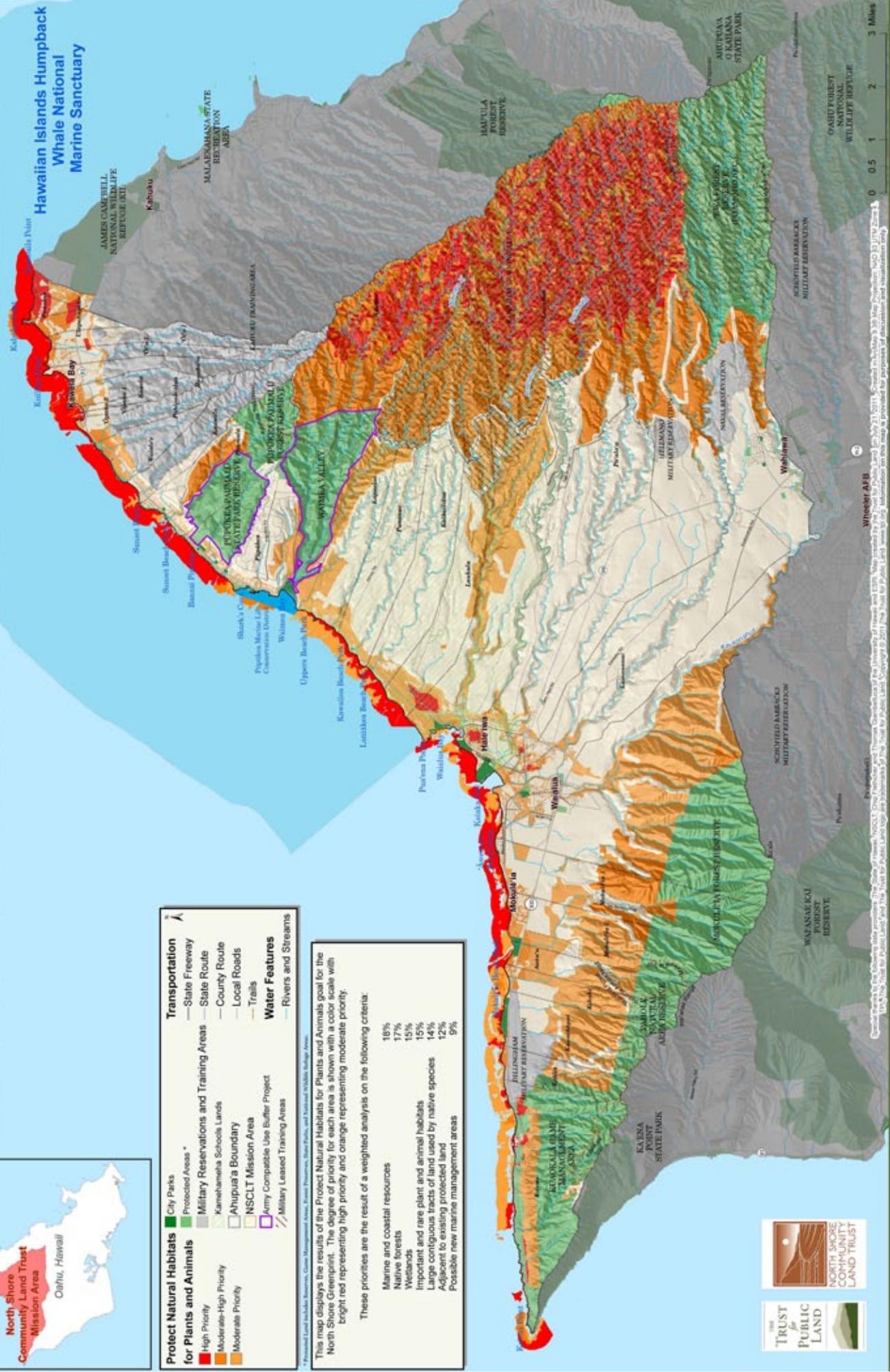
Expansive agricultural views	22%
Views of seashore	22%
Mountaintops	17%
Views from ocean looking inland	14%
Lands along side of Kaulaheua Road	14%
Views regularly filmed for TV and movie industry	11%



Map prepared by the Trust for the North Shore, Oahu, Hawaii, in partnership with the Hawaii Department of Land and Natural Resources, Office of Planning and Development, and the Hawaii Department of Transportation, Office of Planning and Development. The map is provided for informational purposes only and does not constitute a contract or warranty of any kind. The Trust for the North Shore, Oahu, Hawaii, is not responsible for any errors or omissions on this map. © 2014 Trust for the North Shore, Oahu, Hawaii. All rights reserved.

North Shore Greenprint Kahuku to Ka'ena, Mauka Makai

Protect Natural Habitats for Plants and Animals



Protect Natural Habitats for Plants and Animals

- High Priority
- Moderate-High Priority
- Moderate Priority

Transportation

- State Freeway
- State Route
- County Route
- Local Roads
- Trails

Water Features

- Rivers and Streams

Other Features:

- City Parks
- Protected Areas *
- Military Reservations and Training Areas
- Kamehameha Schools Lands
- Ahupua'a Boundary
- NSCLT Mission Area
- Army Compatible Use Buffer Project
- Military Leased Training Areas

This map displays the results of the Protect Natural Habitats for Plants and Animals goal for the North Shore Greenprint. The degree of priority for each area is shown with a color scale with bright red representing high priority, and orange representing moderate priority.

These priorities are the result of a weighted analysis on the following criteria:

- Marine and coastal resources 18%
- Native forests 17%
- Wetlands 15%
- Important and rare plant and animal habitats 15%
- Large contiguous tracts of land used by native species 14%
- Adjacent to existing protected land 12%
- Possible new marine management areas 9%



North Shore Greenprint Kahuku to Ka'ena, Mauka Makai

Protect Coastal Region



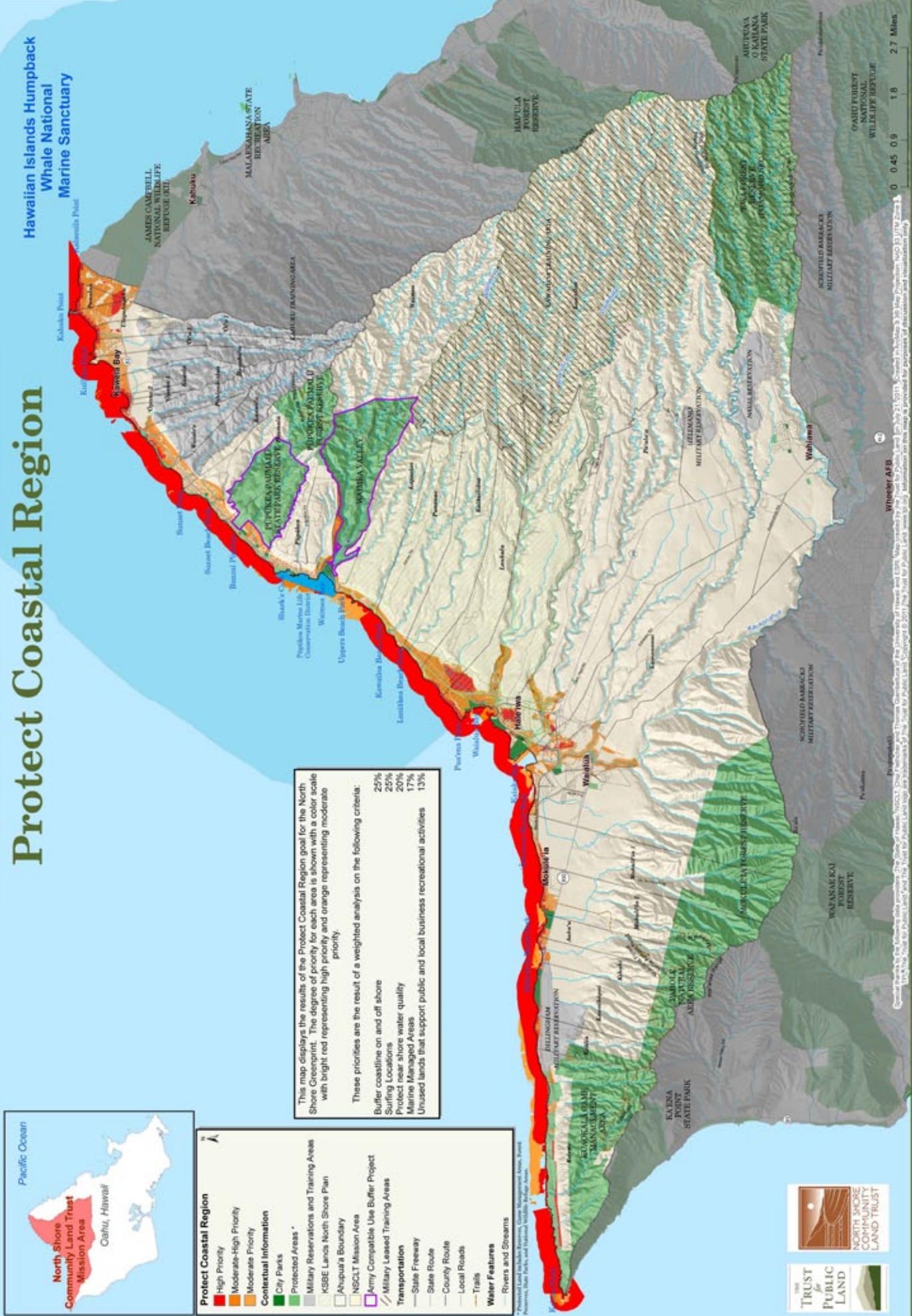
Protect Coastal Region

- High Priority
- Moderate-High Priority
- Moderate Priority
- Contextual Information
- City Parks
- Protected Areas*
- Military Reservations and Training Areas
- KSBE Lands North Shore Plan
- Ahupua'a Boundary
- NSC/LT Mission Area
- Army Compatible Use Buffer Project
- Military Leased Training Areas
- Transportation
- State Freeway
- State Route
- County Roads
- Local Roads
- Trails
- Water Features
- Rivers and Streams

This map displays the results of the Protect Coastal Region goal for the North Shore Greenprint. The degree of priority for each area is shown with a color scale with bright red representing high priority and orange representing moderate priority.

These priorities are the result of a weighted analysis on the following criteria:

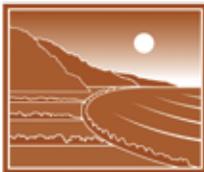
Buffer coastline on and off shore	25%
Surfing Locations	25%
Protect near shore water quality	20%
Marine Managed Areas	17%
Unused lands that support public and local business recreational activities	13%



THE
TRUST
for
PUBLIC
LAND



HAWAII STATE OFFICE
1136 UNION MALL
SUITE 202
HONOLULU, HI 96813
808.524.8560
HAWAII@TPL.ORG
tpl.org/hawaii



NORTH SHORE
COMMUNITY
LAND TRUST

NORTH SHORE COMMUNITY
LAND TRUST
P.O. Box 1179
HALE'IWA, HI 96712
808.497.0036
INFO@NORTHSHORELAND.ORG
northshoreland.org