



Strategic Plan

for Hawaii's Natural Area Reserves System

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Version 2.4
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Division of Forestry and Wildlife
Hawai'i Department of Land and Natural Resources

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The NewFields Companies are thankful to Hawaii's Department of Land and Natural Resources ("DLNR") and particularly the members of the Natural Area Reserves System Commission for their willingness to open their minds and hearts to concepts which stretch well beyond the framework that typically exists in agencies of their kind. I would like to single out Chairperson Laura Thielen and Commissioner Dale Bonar for their passion for strategic planning and their commitments to implementation. Further recognition is due to Christen Mitchell and Betsy Gagne of DLNR – Division of Forestry and Wildlife ("DOFAW") as well as the generous staff support of Stephanie Lu of the Nature Conservancy without whom this effort would have been far less successful than one could ever imagine.

Sprinkled throughout this report is some of the best Hawaiian photography we have seen. Many of the graphics included in this strategic plan were sourced from the public galleries found within the websites of the State of Hawai'i. Other photographs appear here with the expressed consent of the Nature Conservancy. We extend our thanks to the artists whose work is found in those galleries and note here that their pictures help make this report far more aesthetically pleasing.

Finally, we gratefully acknowledge the many people who gave their time and energy to inform this process. As an outsider to Hawai'i, I was led through a magnificent journey through the history and the values of the people in Hawai'i. I am personally thankful to all of those who spent their time educating me and hope that they can find a bit of their influence on the pages that follow.

The NARS staff and Commission have already made solid progress in protecting these special places. With the issuance of this strategic plan, DLNR is taking the next steps down a road which has the potential to preserve some of the nation's most precious resources. I applaud those who contributed to this effort and commit their energies to making progress along the road ahead.

Adam R. Saslow
Partner
The NewFields Companies, LLC

Section 1.0 Executive Summary

The purpose of this strategic planning effort was to reinforce and reinvigorate a clearly understood and universally accepted vision, mission, and goals framework. State agencies, like all human institutions, have a tendency to evolve and move away from the focus of their foundation. The daily circumstances of carrying out individual responsibilities obscure the overall ideal, and periodically it is necessary to take stock and reassess. That is what the Natural Area Reserves System Commission ("NARSC") has done over the past several months.

Many government entities undertake strategic planning efforts only when under siege from some real or perceived threat. This was not the case for the NARSC. DLNR and others fully support the efforts within the program. The NARS has staff and fiscal resources. Under the tenets of good management, current leadership recognized the need for a strategic plan, one that looks to define both short term and long term efforts for its future programs, staff, and budget.

The Process

The strategic planning process began with in-depth discussions among both internal and external participants. In the early stages, the Natural Area Reserves System ("NARS") staff and much of the management team (branch managers, administrator, Admin program managers) housed in the Department of Land and Natural Resource's ("DLNR") Division of Forestry and Wildlife ("DOFAW") were interviewed on a range of topics including the efficacy of the NARS Program delivering on its perceived mission. Please see Appendix 3 for sample questions. These interviews yielded important insight on the strengths, weaknesses, opportunities, and threats faced by the program in the pursuit of its mission. A variety of external stakeholders were also interviewed. Internal staff and external stakeholders were asked similar questions. All respondents were assured confidentiality of their perspectives.

Subsequently, the NARS Commission met in a consensus-based process to re-examine and re-define the sequence of vision, mission, goals, objectives, and performance metrics that comprise a strategic plan. The NARSC discussed at great length their organization, structure, and collaboration with DOFAW and analyzed the extent to which related programs and initiatives were acting in isolation or working effectively across program areas. It was decided that collaboration and coordination across organizational boundaries was one area where robust improvement was needed. Henceforth, DOFAW's leadership and the executive team were invited to all dialogue sessions.

Once this series of meetings were concluded, a draft was submitted to the NARSC for initial review. The draft strategic plan was evolved sufficiently to allow for broader

exposure to people beyond the NARSC and its staff. There will be a further review and comment period before finalizing the strategic plan.

The Product

Developing this plan sometimes revealed differences of opinion as to how the NARS Program should operate. Through collaboration, the NARSC agreed on the program’s central **vision and mission**. NARS primary role was recognized and valued by all concerned, both inside and outside the Department: essentially that the NARS exist to preserve and protect representative samples of Hawaiian biological ecosystems and geological formations.

NARS Vision Statement:

We envision a future in which the NARS contain the full range of Hawai`i’s unique geology, plants, animals, and habitats and will be forever protected, enhanced and valued by all generations.

NARS Mission Statement:

NARS exists to ensure the highest level of stewardship for Hawai`i’s unique natural resources through acquisition, active management, and other strategies.

This **Strategic Plan** reinforces the NARS vision and mission by cataloging goals, objectives, and performance metrics for the NARS program staff and commission during the next five years. After cataloging strengths, weaknesses, opportunities, and threats to and for the program, the participants focused the scope of this plan on nine broad functional goals that preserve and protect the NARS lands for years into the future. In order of priority they are:

Goal	Title	Goal
1	Management of Natural Resources	Manage NARS for high quality, natural resource integrity, diversity, and functioning ecosystems.
2	Integration with Other DLNR and DOFAW Programs	Effectively communicate between and among other DOFAW and DLNR staff regarding NARS statutes, rules and policies as well as strategies, goals, plans, and needs.
3	Administration and Infrastructure	Invest in and maintain the internal working environment necessary to achieve established NARS goals.

Goal	Title	Goal
4	Monitoring and Data Collection	Conduct a monitoring program that will effectively assess change in the status of resources and is useful in making management decisions.
5	Cultural Resource Issues	Develop the capacity to effectively address and accommodate constitutionally and statutorily protected cultural values and traditional and customary practices in the NARS.
6	External Partnerships	Collaborate with external partners as well as Divisions within DLNR to support the NARS mission and goals.
7	Outreach and Education	Foster understanding of and responsibility for the State's unique native resources.
8	Inventory of Lands in the NARS	Ensure that the NARS protects the full range of unique natural ecosystems, habitats containing rare, threatened and endangered species, and geologic features.
9	Enforcement	Ensure effective enforcement of laws that protect the NARS.

These goals represent many hours of deliberation and discussion and are intended to be revised in the years to come as the planning environment evolves. Today, however, they provide a basis for action and give direction primarily to the NARS Commission and NARS program staff and serve as a way to integrate with other DOFAW programs, divisions within DLNR, and external partners.

Conclusion

Many states that are rich in natural resources face similar pressures as they relate to population growth, loss of unique identity, and threats to the environment. The pressures faced in Hawai`i are magnified because of the high percentage of rare endemic species and increased susceptibility to outside influences such as invasive species and climate change.

This Strategic Plan sets out a broad framework which defines the NARS Program's role in preserving Hawaii's biological ecosystems for the future. With this framework in place, the next step is to develop an **Operating Plan** (sometimes known as a Tactical Plan) which details the specific tasks that must be accomplished to achieve these far-reaching goals. In that Operating Plan, annual priorities will need to be defined, resources justified, and unique performance metrics developed.

Section 2.0 **Introduction**

The Strategic Planning Process

The strategic planning process entailed in-depth discussions among both internal and external participants. In the earliest stages, DOFAW staff provided the consultant with background documents spanning the history of the program.

These documents provided the basis for an abbreviated analytical process involving interviews with project partners and a small volume of stakeholders and stakeholder groups. The analysis enabled the strategic planning consultant to evaluate the context in which the program exists. In the early stages, the Natural Area Reserves System ("NARS") staff and much of the management team housed in the Department of Land and Natural Resource's ("DLNR") Division of Forestry and Wildlife ("DOFAW") were interviewed on a range of topics including the efficacy of the NARS Program delivering on its perceived mission. A variety of external stakeholders were also interviewed. Internal staff and external stakeholders were asked similar questions and the answers held in confidence. These interviews yielded important insight on the strengths, weaknesses, opportunities, and threats faced by the program in the pursuit of its mission.

DOFAW was firmly of the mindset that staff and Commission knowledge and opinions are critically important to the development of a high quality plan – and the plan's implementation. The Consultant was asked to use the information collected within the interview process to design and guide a series of collaborative workshops that resulted in the development of this plan by the people most affected by it.

The consultant, as facilitator of the workshops, had several tasks:

- ✓ Assure that attendees remained focused on essential issues and keep all participants engaged and involved via preparatory meetings and conference calls;
- ✓ Develop and enforce ground rules;
- ✓ Provide centralized, consistent, neutral process design and guidance across the agenda by facilitating all portions of the dialogue; and
- ✓ Capture relevant points on flip charts, computer screen, and other media, as well as create a record of discussions in any breakout sessions.

The NARS Commission ("NARSC") met in a consensus-based process to re-examine and re-define the sequence of vision, mission, goals, objectives, and performance metrics of the strategic plan. The NARSC discussed the organization, structure, and collaboration with DOFAW at great length, and analyzed the extent to which they were either working in isolation or working effectively across program areas. It was decided that collaboration and coordination across organizational boundaries was one area where

robust improvement was needed. Thereafter, DOFAW's leadership and the executive team were invited to all later dialogue sessions.

Once this series of meetings were concluded, a draft was submitted to the NARSC for initial review. The draft strategic plan was evolved sufficiently to allow for broader exposure to people beyond the NARSC and its staff. There will be a further review and comment period before finalizing the strategic plan.

Structure of the Strategic Plan

Section 3 of the plan provides an overview of the resource management environment in which the NARS Program operates, and the strengths and weaknesses, opportunities, and threats faced by the program. This overview helped define the strategic directions sought and shed light on areas that could be further developed.

Section 4 presents the NARS vision and mission.

Section 5 outlines the nine strategic goals, their objectives and sub-objectives, and the performance metrics that might be used to manage progress in achieving the mission of the NARS program.

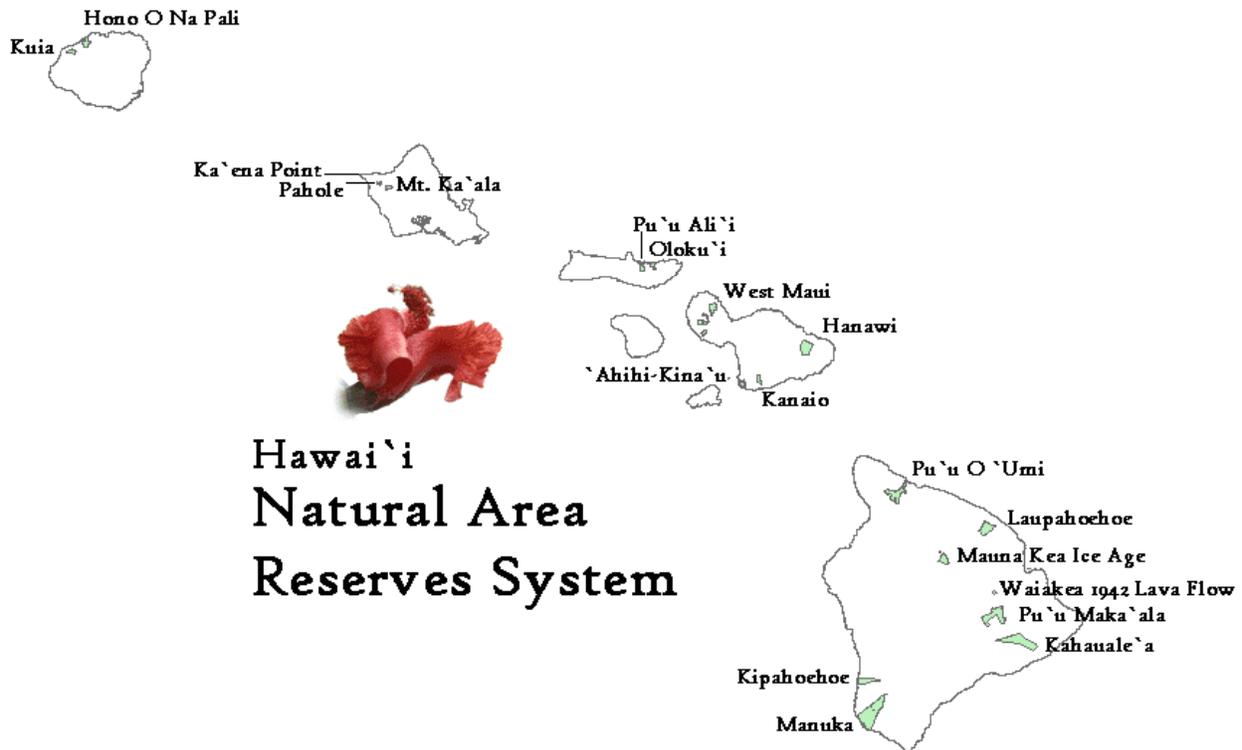
Several appendices are included at the end of the document to assist an external reader in understanding the vocabulary, context, and dynamics of the NARS program. Among these is a listing of acronyms and a glossary of terms used in this strategic plan.

Section 3.0 Scanning the Strategic Environment

The NARS Program Today

The Natural Area Reserves System (NARS) was established by Hawaii Revised Statutes ("HRS") Chapter 195 (reprinted in full in Appendix B) in 1971 to preserve in perpetuity, specific land and waters areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawai'i. The legislature further found that these unique natural assets should be protected and preserved, both for the enjoyment of future generations and to provide baselines against which changes to Hawaii's environment can be measured.

The NARS presently consists of 19 reserves on five islands, encompassing more than 109,000 acres of the State's most unique ecosystems. The diverse areas found in the NARS range from marine and coastal environments to an alpine desert, and from fresh lava flows to wet forests. These areas often serve as habitat for rare native plants and animals, many of which are on the verge of extinction. The NARS also includes important watershed, contributing to Hawaii's sources of drinking water.



The Organizational Context

NARS

A 13-member NARS Commission provides recommendations and advice regarding areas suitable for inclusion in the NARS and on policies for management, protection, and permitted uses of areas in the NARS. The Commission normally holds between four and eight meetings a year to discuss management related issues and make recommendations to the Department of Land and Natural Resources. For example, in fiscal year 2008 (July 1, 2007 - June 30, 2008), the Commission held six meetings and one strategic planning workshop. Topics included the proposed inclusion of Laupāhoehoe NAR within the newly formed Hawai`i Experimental Tropical Forest, the necessity of emergency rules relating to `ōhi`a rust, the establishment of visiting hours at `Āhihi-Kīnau NAR, the Watershed Partnerships program, the State invasive species program, the Plant Extinction Prevention program, and over 55 special use permit applications for research or education use of the NARS.

The NARS is managed by staff at each branch or district (Kaua`i, O`ahu, Maui, and Hawai`i), with statewide program support from the State Administration office. Each branch has a NARS Program Manager, one or more NARS Specialists, one or more Forestry and Wildlife Technicians, one or more Forestry and Wildlife Workers, and one or more General Laborers. At the State Administration Office, NARS is supported by a Native Ecosystems Protection and Management Section Manager (who oversees related programs as well as NARS), the NARS Commission Executive Secretary, and a Planner. At times, State civil service positions are supplemented with positions hired in cooperation with the Pacific Cooperative Studies Unit of the University of Hawaii.

Figures 1-4 contain organizational charts for DLNR, DOFAW, and the NARS.

DOFAW

DOFAW is responsible for the management of State-owned forests, natural areas, public hunting areas, historic and recreational trails, plant and wildlife sanctuaries, and threatened and endangered species. DOFAW's vision is "to be exemplary leaders and serve as effective stewards to conserve and enhance Hawaii's unique natural and cultural resources for the benefit and enrichment of current and future generations." The DOFAW mission is "to responsibly manage and protect watersheds, native ecosystems, and cultural resources and provide outdoor recreation and sustainable forest products opportunities, while facilitating partnerships, community involvement and education."

DOFAW is divided into four primary program areas for State budgeting purposes: LNR 172 - Forest Management and Products Development; LNR 402 – Native Resources and Fire Protection; LNR 407 – Natural Area and Watershed Management; and LNR 804 – Forest and Outdoor Recreation. The NARS program falls within LNR 407, along with the Watershed Partnerships Program, the Natural Area Partnerships Program, the Rare Plant Program, the Legacy Land Conservation Program, and the Youth Conservation

Corps. Due to a reorganization at the State Administration office, there are six program managers: Administrative Management (overseeing statewide personnel and budgeting, supporting all four LNR program areas); Wildlife Resources Management Section (implements non-game wildlife and invasive species program activities of LNR 402); Forest Resources Management Section (implements commercial forestry and forest protection programs of LNR 172); Outdoor Recreation section (implements the Na Ala Hele program and the game hunting program of LNR 804); Planning and Informational Services section (provides mapping and information and education support to all four LNR program areas); Watershed Protection and Management Section (implements forest health and fire response programs); and Native Ecosystems Protection and Management Section (implements the program activities of LNR 407, specifically NARS, NAPP, Watershed Partnerships program, the Legacy Land Conservation Program, and the Youth Conservation Corps). At the branch level, staff is organized along the four program areas of NARS, Forestry, Wildlife, and Na Ala Hele.

DOFAW has four primary Program goals:

1. Strengthen the State's economic opportunities through forest resource management to improve and assist in the sustainable production of forest products and services from forest reserves and other public and private lands (LNR 172).
2. Manage habitats to protect, maintain, and enhance the biological integrity of native ecosystems. Reduce the impacts of wildfires on native ecosystems and watersheds. Reduce the impacts of invasive species on native resources. Protect, maintain, and enhance native species populations, and recover threatened and endangered species. Promote outreach and foster partnerships to improve public understanding, responsibility, and participation. Monitor and evaluate areas to guide the development of recovery and management plans, and ensure cost effective adaptive management of implementation actions and tasks (LNR 402).
3. Protect, restore, and enhance Hawaii's natural areas, forested watersheds, native ecosystems, unique native plant and animal species, cultural and geological features for their inherent cultural, scientific, educational, and economic values to enrich present and future generations (LNR 407).
4. Provide managed opportunities and facilities for the public to engage in multiple-use outdoor recreation activities (hiking, biking, equestrian riding, off-highway vehicle (OHV) use, hunting, and camping) while also providing access for resource management. Maintain and enhance a public hunting program to provide a source of food and outdoor recreation for the public and as a means to control introduced game animals in watershed areas. Inventory and document ownership and restore specific historic trails and non-vehicular old government roads for public use where it is feasible and culturally appropriate (LNR 804).

DLNR

The Department of Land and Natural Resources (DLNR) manages State-owned lands (both those for lease and those set aside as forest reserves, natural areas, plant and wildlife sanctuaries, and parks), manages the State's marine and freshwater resources (e.g., commercial fisheries, aquaculture, aquatic resources protection, recreational fisheries, groundwater withdrawals), protects threatened and endangered species (terrestrial and aquatic), manages statewide ocean recreation and coastal areas programs (i.e., boating), oversees permitting associated with the Conservation District, implements the State's historic preservation mandates, maintains the statewide recording system for title to real property, and enforces the Department's rules and regulations.

DLNR is ultimately governed by the Board of Land and Natural Resources, which convenes twice monthly to review and take action on Department submittals.

State of Hawaii
Department of Land and Natural Resources
Plan of Organization

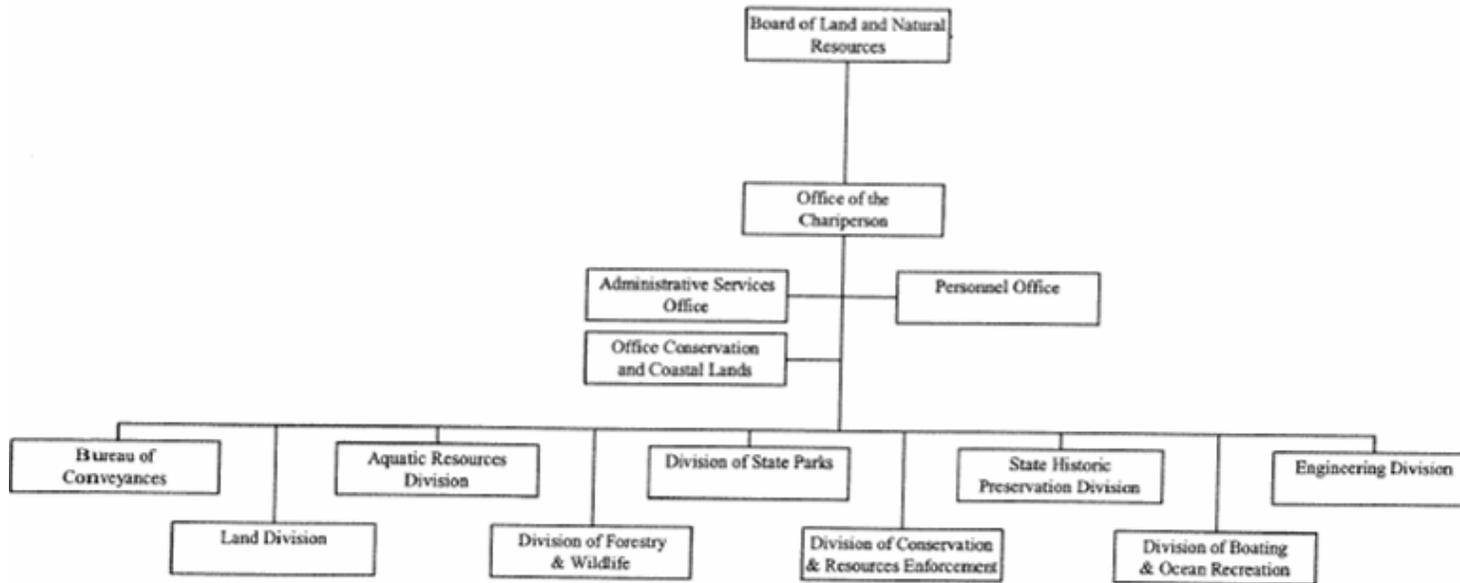


Figure 1: DLNR Organizational Chart as of 2007

State of Hawaii
Department of Land and Natural Resources
Division of Forestry and Wildlife
Position Organization Chart

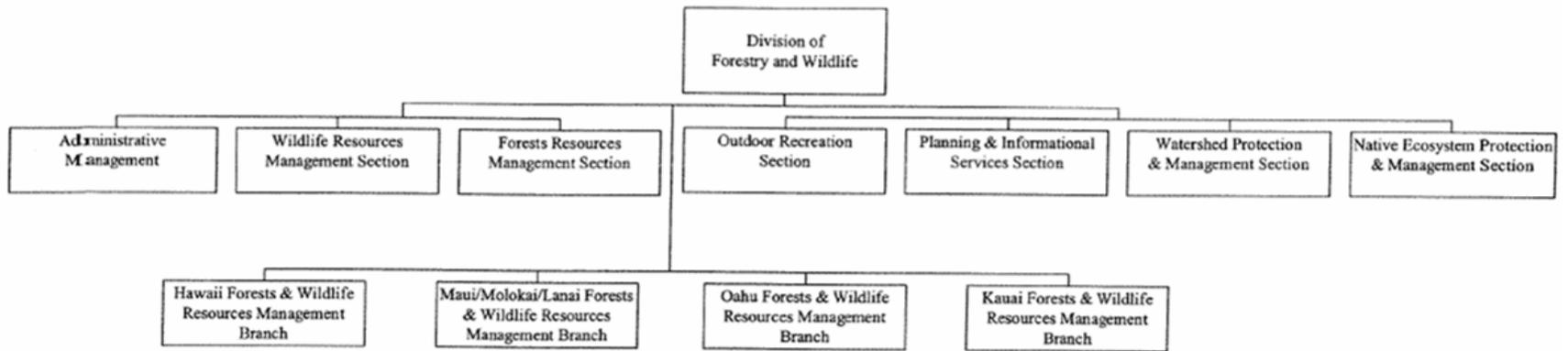


Figure 2: DLNR/DOFAW Organizational Chart as of 2007

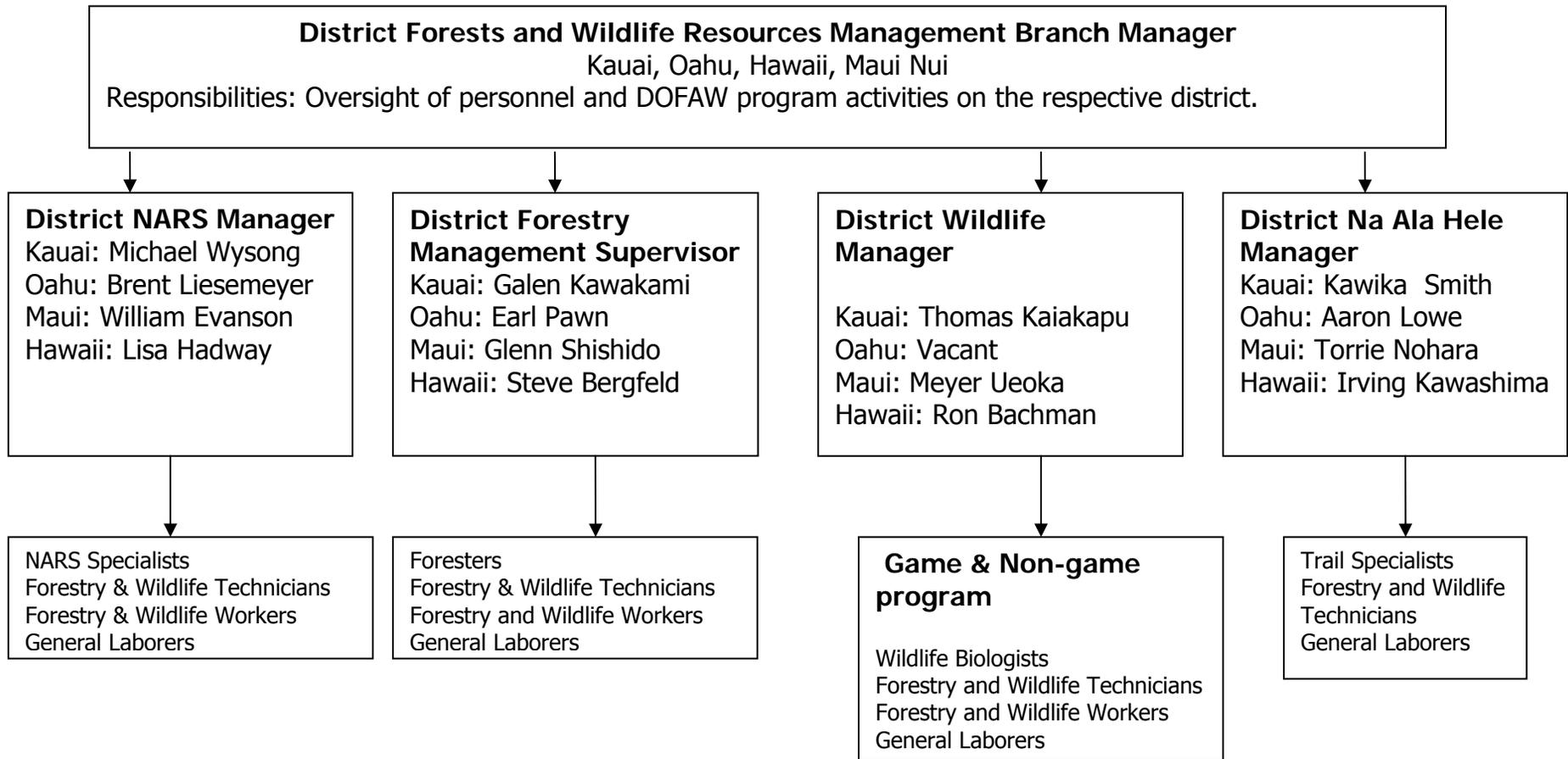


Figure 3: DOFAW Branch level Organizational Chart as of 2008 (unofficial)

Native Ecosystem Protection and Management Section

Randy Kennedy (#47595)

Responsibilities: 1) Oversight of LNR 407 program activities (including NARS, NAPP, WP, T&E plants, YCC, LLCP); 2) Budget control of LNR 407 which includes General Fund, the NARF, LCF, and grants; 3) Represent DOFAW with the Hawaii Conservation Alliance; 4) Represent DOFAW/ Section as needed at the local, state, federal, or international level; 5) Assist DOFAW Administrator w/ the Legislature on issues related to the Section.

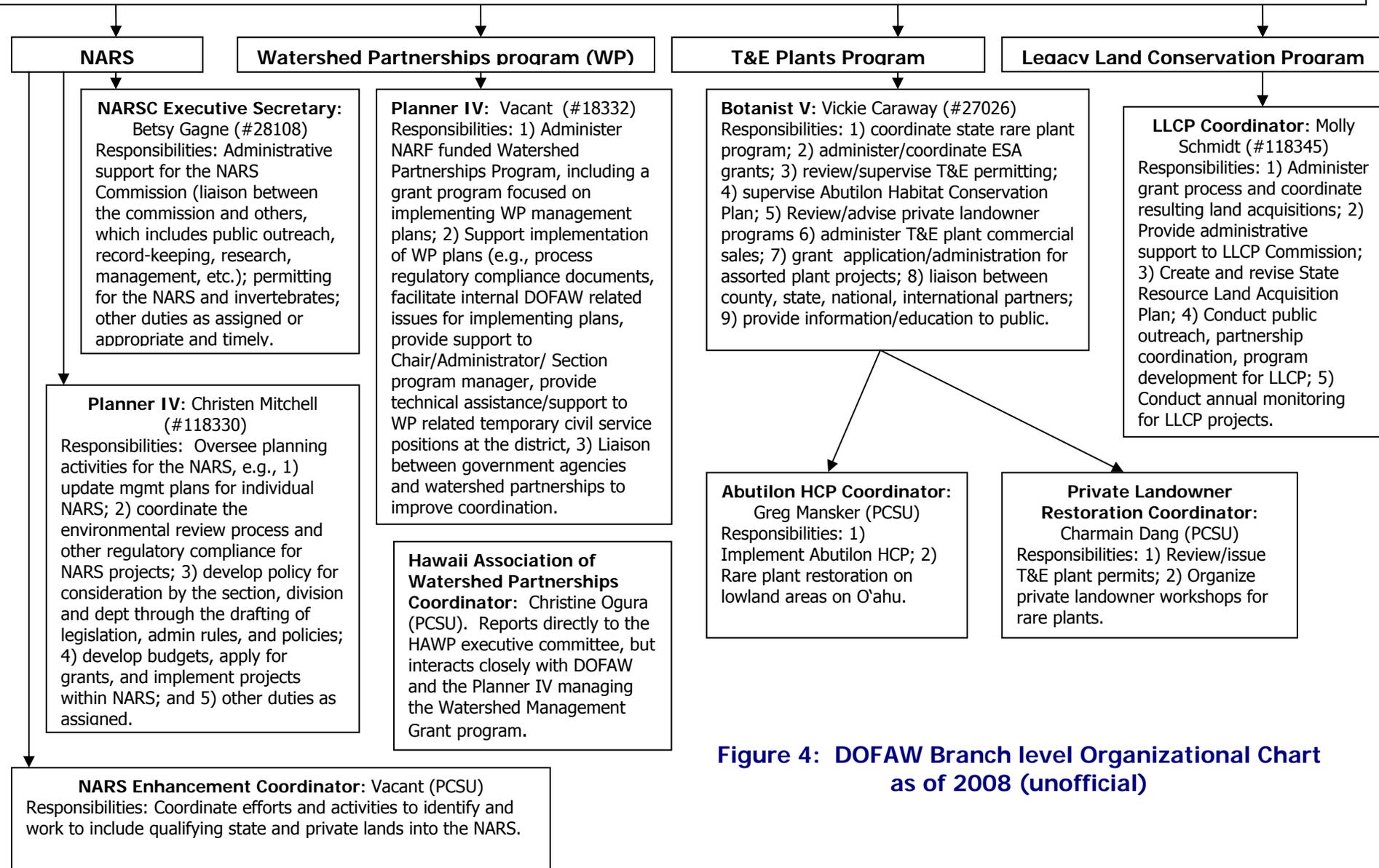


Figure 4: DOFAW Branch level Organizational Chart as of 2008 (unofficial)

A “SWOT” Analysis

A Strengths, Weaknesses, Opportunities, and Threats (“SWOT”) analysis is a standard tool in developing strategic plans in private and public sector organizations.¹ Such an analysis is conducted by looking at those things within the agency that determine its success and those things outside the agency that affect its future. In order to develop this analysis for the NARS Program, first the NARSC and the NARS program staff and then other DOFAW staff and external partners were asked to list and describe the historical and future internal and external influences on the NARS program.

On a strategic level, this analysis was used to establish the directions that the program might take over the coming years. On a tactical level, the analysis could be used in the context of an Operating Plan such that the NARSC might capitalize on new opportunities and more effectively address program shortcomings. The following table outlines key items mentioned in internal processes and external interviews.

Strengths	Weaknesses
<p><u>Legal/Statutory</u></p> <ul style="list-style-type: none"> ☑ Legislative support ☑ Clear statutes, policies (strong and clear directives from Congress) ☑ Community and legislative support 	<p><u>Legal/Statutory</u></p> <ul style="list-style-type: none"> ✗ Political power in Hawai`i is concentrated in urban areas where appreciation of Hawaii’s natural ecosystems is highest but their geographical and anthropomorphic distance from it is lowest.
<p><u>Organizational Interactions</u></p> <ul style="list-style-type: none"> ☑ NARS Commission (creates accountability mechanism) ☑ Organizational home within DOFAW allows NARS to have access to resources related to its broader programs ☑ Good support from Attorney General’s Office ☑ Demonstration of institutional openness – remarkable willingness to open NARS programs to scrutiny ☑ Institutional knowledge ☑ Oversight and teambuilding exists 	<p><u>Organizational Interactions</u></p> <ul style="list-style-type: none"> ✗ Conflicting DOFAW mandates (use v. protection) ✗ Variable levels of communication between DOFAW programs and NARS ✗ DOFAW organizational chart increases stovepiping of natural resource policies ✗ Provincial and dogmatic attitudes and lack of communication channels between DOFAW programs. Variable resource levels across and throughout DOFAW prevents smooth integration across programs, landscapes, divisions, and departments ✗ Poor definition of roles and chain of command between the NARSC, NARS staff and DOFAW
<p><u>Consideration of Cultural Issues</u></p> <ul style="list-style-type: none"> ☑ Quality of natural and cultural resources in NARS ☑ Local culture in Hawai`i helps set tone of appreciation for native resources 	<p><u>Consideration of Cultural Issues</u></p> <ul style="list-style-type: none"> ✗ Lack of protocol regarding cultural issues (commission lacks cultural rep) ✗ Lack of local cultural sensitivity ✗ Lack of means to address cultural issues

¹ “SWOT” processes are credited to both Albert Humphrey and Michael Porter.

Strengths	Weaknesses
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Support of the Native Hawaiian culture for protecting iconic native species is good but it could be greater. 	<ul style="list-style-type: none"> ✗ Lack of diversity on the NARSC/NARS staff to communicate with public regarding certain issues ✗ Lack of Native Hawaiian cultural guidance
<p><u>Management of NARS Lands</u></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Mission of NARS is inspiring (protection of native resources) 	<p><u>Management of NARS Lands</u></p> <ul style="list-style-type: none"> ✗ Crisis management that take away from more strategic action and its resulting effectiveness ✗ Lack of planning for crisis mgmt ✗ Reactive posture leads to inefficient use of resources ✗ Tension between philosophies: Broad-minded policies (which incite mission creep) versus narrow minded policies (which are ineffective) ✗ Outdated and non-existent mgmt plans ✗ Lack of complete baseline inventory for each NAR (precise make-up and priorities) ✗ Limited ability to do aerial shooting ✗ Overlay of conflicting wildlife rules onto NARS areas ✗ Inefficient/ineffective use of management tools (e.g., biocontrol, ungulate control) ✗ Public and DOFAW support of all necessary methods of feral animal control ✗ Inherent vulnerability of Hawaii's long isolated island ecosystems and ease of establishment of non-native species
<p><u>Inventory</u></p>	<p><u>Inventory</u></p> <ul style="list-style-type: none"> ✗ Adding NARS is difficult, perception that it needs to be intensively managed ✗ Gaps in NARS portfolio (lacking certain ecosystems) ✗ Slowness of approval/denial of permits and designation of new NARS
<p><u>Monitoring/Data Collection and Decision Making</u></p>	<p><u>Monitoring/Data Collection and Decision Making</u></p> <ul style="list-style-type: none"> ✗ Limited performance metrics and monitoring ✗ Data management: sharing and quality control inadequate DOFAW wide
<p><u>Outreach and Education</u></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Highly dedicated, knowledgeable staff <input checked="" type="checkbox"/> State Department of Education/DOFAW collaboration/partnership <input checked="" type="checkbox"/> Strategic plan already in place 	<p><u>Outreach and Education</u></p> <ul style="list-style-type: none"> ✗ Public awareness of native ecosystems could be improved ✗ It's hard for the people of Hawai`i to learn about native ecosystems if they are inaccessible ✗ Need to improve education and the need for

Strengths	Weaknesses
<p data-bbox="191 310 329 338"><u>Budgetary</u></p> <ul style="list-style-type: none"> <li data-bbox="201 342 605 369">☑ NAR Fund (dedicated funding) <li data-bbox="201 373 813 432">☑ Staff has the ability to raise funds (Federal, etc) – and spend them 	<p data-bbox="850 310 989 338"><u>Budgetary</u></p> <ul style="list-style-type: none"> <li data-bbox="860 342 1305 401">✗ Raiding of the NARF by DLNR and legislature <li data-bbox="860 405 1425 464">✗ Huge task, not enough capacity (insufficient resources)
<p data-bbox="191 537 613 564"><u>Staffing/HR and Administration</u></p> <ul style="list-style-type: none"> <li data-bbox="201 569 800 596">☑ Broad-minded staff that thinks outside the box <li data-bbox="201 600 745 659">☑ Excellent, highly educated, dedicated, and passionate staff and Commissioners <li data-bbox="201 663 805 758">☑ Willingness of program managers to take on things other DOFAW Program Managers would not do (e.g., Invasive Species Councils (“ISCs”)) <li data-bbox="201 762 493 789">☑ Commitment of staff <li data-bbox="201 793 472 821">☑ Knowledge of Staff <li data-bbox="201 825 753 852">☑ Good relationships with PCSU (more staff!) <li data-bbox="201 856 708 884">☑ Excellent staffing of the NARS Program 	<p data-bbox="850 537 1273 564"><u>Staffing/HR and Administration</u></p> <ul style="list-style-type: none"> <li data-bbox="860 569 1390 627">✗ Little capacity for effective communication with public <li data-bbox="860 632 1411 726">✗ Inadequate technology support (GIS) at the branch level for the program (overall tech support) <li data-bbox="860 730 1430 758">✗ Lack of formal staff development and training <li data-bbox="860 762 1398 856">✗ Lack of specialized staff (e.g., invertebrate specialists, cultural specialists, GIS experts, etc.) <li data-bbox="860 861 1406 919">✗ Inadequate administrative capacity to meet growing needs <li data-bbox="860 924 1365 982">✗ Program management is too focused on “process” and not land management <li data-bbox="860 987 1232 1014">✗ Lack of technical information <li data-bbox="860 1018 1300 1077">✗ Not expert in the full range of land management disciplines <li data-bbox="860 1081 1068 1108">✗ Too disciplined
<p data-bbox="191 1150 362 1178"><u>Enforcement</u></p>	<p data-bbox="850 1150 1021 1178"><u>Enforcement</u></p> <ul style="list-style-type: none"> <li data-bbox="860 1182 1425 1276">✗ Inconsistent, uncoordinated communication between DOCARE and Districts (internal and external) and beyond. <li data-bbox="860 1281 1409 1375">✗ Inefficient feedback loop between DOCARE and the NARS Program and other external communities.
<p data-bbox="191 1413 264 1440"><u>Other</u></p> <ul style="list-style-type: none"> <li data-bbox="201 1444 716 1472">☑ NARS enjoys strong support from NGOs <li data-bbox="201 1476 396 1503">☑ Partnerships <li data-bbox="201 1507 521 1535">☑ Relationship with PCSU <li data-bbox="201 1539 818 1566">☑ NARS effectively utilizes a network of volunteers <li data-bbox="201 1570 786 1629">☑ Development of partnerships (e.g. Watershed Partnerships) 	<p data-bbox="850 1413 924 1440"><u>Other</u></p> <ul style="list-style-type: none"> <li data-bbox="860 1444 1390 1503">✗ Relationship with PCSU (staff integration, training issues)

Opportunities	Threats
<p><u>Legal/Statutory</u></p> <ul style="list-style-type: none"> ☑ Legislative interest and support in NARS Program ☑ Momentum for improvement of NARS Program over last several years 	<p><u>Legal/Statutory</u></p> <ul style="list-style-type: none"> ✗ Poorly understood linkages between cultural, ecological and other policies as they secondarily impact the NARS (e.g., snare and aerial shooting) ✗ Automatic approval law
<p><u>Organizational Interactions</u></p> <ul style="list-style-type: none"> ☑ Interdivisional training ☑ Improve coordination with other agencies ☑ Change behavior parochial behavior. Meet regularly in cross-cutting forums. 	<p><u>Organizational Interactions</u></p> <ul style="list-style-type: none"> ✗ Lack of understanding of the NARS Program and other land designations in DLNR by other DLNR programs (e.g., DOCARE) ✗ Low interest in inter-division coordination, cooperation, and training
<p><u>Consideration of Cultural Issues</u></p> <ul style="list-style-type: none"> ☑ There is an opportunity to demonstrate the NARS Commission’s sensitivity to cultural issues outside of the DLNR/DOFAW structure. 	<p><u>Consideration of Cultural Issues</u></p> <ul style="list-style-type: none"> ✗ Cultural Values (different social points of view/values) ✗ Hostility and resentment resulting from land use restrictions in the NARS
<p><u>Management of NARS Lands</u></p> <ul style="list-style-type: none"> ☑ Can improve coordination with State and Federal Departments of Agriculture to prevent introduced species ☑ New technology (e.g., remote sensing, GIS, GPS, biocontrol) ☑ Apply research in NARS to management of NARS ☑ Invasive species concerns are warranted not just for biodiversity but for economic and quality of life concerns ☑ Commercial ecotourism 	<p><u>Management of NARS Lands</u></p> <ul style="list-style-type: none"> ✗ Invasive species ✗ Fire ✗ Climate change ✗ Commercial use pressure (e.g., inadvertent introduction of invasives, trampling, OHVs) ✗ Human use pressure (e.g., boundary use, research) ✗ Development (e.g., encroachment on NARS boundaries and fragmentation of habitat) and the pressure of new development encroaching on lands that may be designated NARS in the future ✗ Human encroachment on boundaries ✗ “Pathogens of globalization” – Hawai`i has the highest exposure of anyplace in the world ✗ Much of the invasive species problem is self-inflicted (e.g., the Australian tree fern)
<p><u>Inventory</u></p>	<p><u>Inventory</u></p>
<p><u>Monitoring/Data Collection and Decision Making</u></p> <ul style="list-style-type: none"> ☑ Research partnerships and external analysis and contributions will guide management 	<p><u>Monitoring/Data Collection and Decision Making</u></p> <ul style="list-style-type: none"> ✗ Decreasing budgets for monitoring and data gathering at supporting programs and networks

Opportunities	Threats
<p><u>Outreach and Education</u></p> <ul style="list-style-type: none"> ☑ Using the NARSC mandate to maximize influence beyond NARS ☑ We have fabulous symbols to use for educational and inspirational purposes. ☑ "Showing off" our reserves to people 	<p><u>Outreach and Education</u></p> <ul style="list-style-type: none"> ✗ Failure of society to take reserves seriously ✗ Ecological concerns are marginalized by 21st century economics ✗ Diminishing public support due to lack of outreach ✗ Uninformed public (including schools)
<p><u>Budgetary</u></p> <ul style="list-style-type: none"> ☑ Hawai`i Tourism Authority monies might be leveraged – Hawai`i Legacy Lands ☑ Lots of external resources 	<p><u>Budgetary</u></p> <ul style="list-style-type: none"> ✗ Changes in dedicated funding (raids) ✗ Cutback on resources for federal resource management programs ✗ Lack of access to Aviation Management Directorate (previously Office of Aviation Safety) certified helicopter and pilots ✗ Other DLNR Divisions requesting monies from NARS
<p><u>Staffing/HR and Administration</u></p> <ul style="list-style-type: none"> ☑ Pacific Cooperative Studies Unit (PCSU) with the Research Corporation of the University of Hawai`i (RCUH) ☑ "Voluntourism" ☑ Use volunteers more (when we have capacity) ☑ Improve effectiveness through better communication with each other and our partners 	<p><u>Staffing/HR and Administration</u></p> <ul style="list-style-type: none"> ✗ Staff shortages (State Dept. of Human Resources Development process and applicant pool shortage) ✗ Inertia and resistance to change in various quadrants ✗ "Voluntourism"
<p><u>Enforcement</u></p>	<p><u>Enforcement</u></p> <ul style="list-style-type: none"> ✗ Lack of enforcement
<p><u>Other</u></p> <ul style="list-style-type: none"> ☑ Leverage partnerships with complimenting strengths – internal to DOFAW and external (e.g., Watershed Partnerships, ISCs, Army, etc.) ☑ DOE, AAUW, Sierra Club and others are interested in the NARS ☑ Opportunities to partner with Hawai`i Conservation Alliance ☑ Management, education, outreach, partnerships ☑ Reach out to the Agriculture Dept ☑ Office of Hawaiian Affairs and other Native Hawaiian groups as a partner 	<p><u>Other</u></p>

Opportunities	Threats
<ul style="list-style-type: none"> ☑ Development and marketing of ecosystem services to those willing to pay for offsets (e.g., Mākua, Safe Harbor, Habitat Conservation Plans, carbon credit market) consistent with NARS mandates ☑ Coordination with county government and land acquisition sources ☑ Expand partnerships and more shared workload ☑ Be part of change for the better ☑ New technology 	

Section 4.0 **The Big Picture: The NARS Vision and Mission**

NARS staff drew upon the SWOT analysis to identify major functional strengths that would animate and energize NARS programs and activities. **Vision** and **mission** are largely guiding philosophies that serve as the foundation for an entity’s strategic and operating plans and so these two statements were developed with deep thought and consideration. The strategic goals were defined once NARSC members and NARS program staff unanimously adopted both.

As such, the strategic goals closely parallel NARS functional strengths. An additional goal explicitly recognized the need to further organizational capacities to ensure that the program attends to its own baseline needs for technology, resources, and managing its own group dynamics. A deeper discussion (beyond the rather general wording of organizational goals) yielded a variety of task-oriented **objectives** and **sub-objectives**. After that, the focus became more **output** and **outcome** oriented. Outcomes and outputs along with other activities were redefined as “performance metrics” for the overall strategic plan.

The result was a linear structure that became the basis for the strategic plan.

Vision ► Mission ► Goals ► Objectives ► Sub-objectives ► Performance Metrics

Vision

Within the 1997 Management Policies of the NARS, it is recognized that the State of Hawai'i possesses unique geological and volcanological features, and aquatic and terrestrial plants and animals. Many of these resources are endemic (occurring nowhere else in the world) and extremely vulnerable to threats and disturbance. Over time, without dedicated conservation efforts, these distinctive natural resources could be lost.

The Natural Area Reserves System was established by Hawai`i Revised Statutes Chapter 195 (reprinted in Appendix B) in 1971 to preserve in perpetuity, specific land and waters areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawai'i. The legislature further found that these unique natural assets should be protected and preserved, both for the enjoyment of future generations and to provide baselines against which changes to Hawaii's environment can be measured. The process and criteria by which areas are selected and recommended for inclusion in the Natural Area Reserve System are outlined in the Management Policies of the Natural Area Reserves System (adopted by the NARSC in 1997).

The Vision Statement defines an organization's future ideal. It describes in graphic terms where the goal-setters want to see themselves and how they see events unfolding over 10 or 20 years if everything goes exactly as hoped.

The participants in the strategic planning dialogue focused long and hard on the history of the program and the mandates of its authorizing legislation in order to develop the Vision Statement below.

NARS Vision Statement:

We envision a future in which the Natural Area Reserve System contains the full range of Hawaii's unique geology, plants, animals, and habitats and will be forever protected, enhanced and valued by all generations.

Yet the realization of this vision is largely outside the control of the individuals associated with the program. "Forever protecting unique geology, plants, animals, and habitats" involves a great many organizations, individuals, and environmental influences. The NARS program can only do its part – and so the emphasis of this strategic plan is NOT in achieving the vision, but rather in defining a road map to success in its mission – and thereby making a contribution to a future envisioned in this section.

Mission

The NARS is based on the concept of protecting ecosystems - not merely single species. When parts of a habitat are destroyed, it becomes more and more difficult for individual species to survive. Each ecosystem is a very complex weaving of species, developed over thousands of years, which depend on each other for survival. For example, a bird might need to feed from a certain plant, or perhaps a plant might rely on a particular insect for pollination.

Because the biological wealth of Hawai`i is under constant threat from feral ungulates, invasives species, human encroachment, climate change, and other threats, the NARS seeks to protect the best remaining samples of the State's unique ecosystems. Biologists have determined that Hawai`i has over 150 different natural communities which include alpine deserts, cloud forests, mesic (moist) gulches, dry shrublands, lava tube caves, coastal dunes, brackish ponds - each of these is its own community, and each faces its own threats and problems.

In addition to setting aside these areas as reserves, they also need to be actively managed in order to maintain the characteristics that make them a unique part of the natural heritage of Hawai`i.

The mission statement defines why the organization exists and its reason for being. It describes how the vision will be achieved.

NARS Mission Statement:

The Natural Area Reserve System exists to ensure the highest level of stewardship for Hawaii's unique natural resources through acquisition, active management, and other strategies.

Beyond the Philosophical to the Practical

This strategic plan's core contents appear on the pages that follow. The NARS Program recognizes that this is only a beginning point. For this plan to have value over the long term, semi-annual or annual **operating plans** need to be developed that will specifically target discrete activities that occur over a six or twelve month horizon. As such, incremental progress toward the achievement of the goals will be better managed and subsequently measured. The process of completing regular operating plans will allow staff to review progress toward achieving the goals in this strategic plan and taking corrective steps if progress is not seen.

Section 5.0 **The Strategic Plan**

The NARSC and the NARS program staff defined their vision in terms of an “end state” that might be realized if all of the proverbial stars came into alignment. Time and events would have to come together in ways that they could control as well as in ways that were beyond the control of Commissioners and staff. For example, in order to achieve the vision, natural phenomenon (e.g., storms, fire, drought etc...) would have to occur in ways that minimized the natural and physical destruction of the NARS.

On the other hand, the mission statement was crafted with an eye toward what the NARSC and the NARS program staff could control. It is their reason for being and is an expression of their contribution to the larger vision. It is this mission statement that provides the focus of the strategic plan, but it is the goals, objectives and sub-objectives that frame how the NARS Program will carry out its mission – the melding of mandates as well as the actions needed to address the needs of the State.

The goals and related objectives and sub-objectives are intended to direct the activities of the Commission and the program staff over the next five years. There was much discussion about what participants should do to meet their wide range of mandates. These goals represent the consensus of the participants on where the program should invest its resources. However, additional discussions are needed to prioritize among these goals.

The nine strategic goals are:

Goal	Title	Goal
1	Management of Natural Resources	Manage NARS for high quality, natural resource integrity, diversity and functioning ecosystems.
2	Integration with Other DLNR and DOFAW Programs	Effectively communicate between and among other DOFAW and DLNR staff regarding NARS statutes, rules and policies as well as strategies, goals, plans and needs.
3	Administration and Infrastructure	Invest in and maintain the internal working environment necessary to achieve established NARS goals.
4	Monitoring and Data Collection	Conduct a monitoring program that will effectively assess change in the status of resources and is useful in making management decisions.

Goal	Title	Goal
5	Cultural Resource Issues	Develop the capacity to effectively address and accommodate constitutionally and statutorily protected cultural values and traditional and customary practices in the NARS.
6	External Partnerships	Collaborate with external partners as well as Divisions within DLNR to support the NARS mission and goals.
7	Outreach and Education	Foster understanding of and responsibility for the State's unique native resources.
8	Inventory of Lands in the NARS	Ensure that the NARS protects the full range of unique natural ecosystems, habitats containing rare, threatened and endangered species, and geologic features.
9	Enforcement	Ensure effective enforcement of laws that protect the NARS.

Each appears below with objectives, sub-objectives, and performance objectives.

Goal #1: Management of Natural Resources

Manage the NARS for high quality, natural resource integrity, diversity and functioning ecosystems.

Management of native ecosystems involves understanding what threatens these areas, and actively working to protect them from these threats. This work could include a broad range of actions from pulling non-native weeds, to informing the public about native ecosystems, and working with local hunters to keep non-native animal numbers low to zero in certain sensitive areas. "Management" actions can be broken up into several broad categories – many of which are important enough to warrant their own unique goal statements in this strategic plan.

Objectives and Sub-objectives

- 1.1. Develop and apply protective, preventive, and restorative strategies and tactics in order to attain management goals within and across the NARS system**

- 1.1.1. Assess and prioritize the order for developing new (or updating existing) management plans.
 - 1.1.2. Update management plans for each NAR in the system as needed (but on no more than a seven year rotating cycle), unless otherwise incorporated in broader and more current regional or Watershed Partnership plans.
 - 1.1.3. Prioritize NARS areas that are particularly vulnerable to existing and potential threats to develop pre-emptive strategies for addressing those threats, particularly if no management plans exist.
 - 1.1.4. Incorporate landscape, regional and watershed planning (*moku* and *ahupua'a* management) in the management strategies of the NARS.
 - 1.1.5. Develop a research agenda, use and encourage external scientific research on a variety of socio-cultural, environmental and management topics as they relate to managing the NARS (see also Partnerships).
 - 1.1.6. Adapt new tools and techniques for application in NARS Management Plans (e.g., the Watershed Partnerships are staging management relations topic workshops to ensure that the newest technologies and efforts are brought to attention of managers for on-the-ground management).
- 1.2. Employ appropriate control strategies to minimize and control existing and future invasive plant and animal species.**
- 1.2.1. Map the populations and quantify areas infested with priority invasive species.
 - 1.2.2. Support and implement appropriate biological, chemical, and mechanical control technologies to manage the highest priority established invasive plants, animals and other pests impacting the NARS.
 - 1.2.3. Control incipient populations of invasive species within NARS and across adjacent lands with appropriate control techniques.
 - 1.2.4. Promote, encourage, and advocate community support, field interaction and research, and statewide policy development for invasive species control.

1.3. Manage native, rare, and T&E plant and animal species and their habitats at sustainable community and population levels

- 1.3.1. Identify and prioritize and develop strategies in the NARS management plans to eliminate or reduce factors that limit the distribution and abundance of targeted species.
- 1.3.2. Ensure that the NARS strategies for threatened and endangered (“T&E”) species link with other major species plans and strategies such as the USFWS recovery plans and the Hawai’i Comprehensive Wildlife Conservation Strategy.
- 1.3.3. Implement species-specific restoration strategies as needed.
- 1.3.4. Implement habitat restoration strategies for rare, threatened, and endangered species to facilitate the reestablishment or enhancement of these species in the NARS.
- 1.3.5. Ensure program staff and managers have adequate access to information and the latest methodologies and tools for managing for species.

1.4. Employ appropriate fire management strategies including pre-suppression, suppression and post-suppression rehabilitation tactics

- 1.4.1. Develop fire management strategies in the management plan for each NAR in collaboration with other DOFAW fire initiatives and with other partners.

1.5. Manage public use and access so that the natural resources remain as unmodified as possible.

- 1.5.1. Assess the level, impacts, and benefits of public use in each NAR.
- 1.5.2. Evaluate and implement methods to reduce the adverse impacts associated with the level of use to acceptable levels.
- 1.5.3. Manage public access in a manner consistent with the DLNR’s hierarchy of uses and constitutionally protected activities.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM1.A	Reduction of the abundance and impacts of non-native species.					

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM1.B	Priority invasive species in the NARS portfolio are eradicated where possible or contained to reduce their impacts where eradication is not possible.					
PM1.C	The levels of public participation in invasive species control in the NARS and on adjacent lands are increased where possible and appropriate.					
PM1.D	The number of new introductions of invasive species into the NARS is reduced.					
PM1.E	Population and community abundance of target species are increased to identified target levels.					
PM1.F	Correlate and optimize the relationship between resource protection, reduced disturbance and human use in each area and as local conditions dictate.					

Goal #2: Integration with Other DLNR and DOFAW Programs

Effectively communicate between and among other DOFAW and DLNR staff regarding NARS statutes, rules and policies as well as strategies, goals, plans and needs.

This goal and its related set of activities may be the single most important key to success in the efforts to make headway on the strategic plan. Presently, the DOFAW has a culture that is in many ways overly “stovepiped,” with a tendency for programs or initiatives to work in isolation rather than across program areas. Missions and mandates at the divisional level can create conflict between programs, and no clarity exists regarding the process for resolving such conflicts. This “clarity vacuum” can lead to cross-purpose actions, management misunderstandings, and decreased levels of efficiency regarding use of limited resources. As such, integration between programs within DOFAW as well as DLNR is important for helping to move the strategic plan forward.

To that end, the NARSC and NARS staff spent a great deal of time discussing the more problematic issues, and brainstorming ideas for increasing integration and communication between and among program areas. The results of these exercises are embedded in the objectives and sub-objectives that follow.

Objectives and Sub-objectives

2.1 Improve regular communications and integration on the DOFAW branch and programmatic levels regarding conservation issues to improve management.

- 2.1.1 Encourage the DOFAW Leadership Team, which consists of branch managers, Administration program managers, and the Administrator, to convene a series of neutrally facilitated, cross-cutting forums in which organizational issues are safely discussed across DOFAW programs in a timely manner.
- 2.1.2 Identify and use communication tools (e.g., meetings, briefings, updates, etc.) that disseminate appropriate volumes of data and information on particular projects that cross organizational and stakeholder interests
- 2.1.3 Develop feedback mechanisms for two-way accountability that creates transparency between the various branches and programs of DOFAW on decisions that impact them.
- 2.1.4 Identify a management and communications training curriculum that can be implemented to facilitate stronger communication and integration between and among DOFAW and DLNR entities.
- 2.1.5 Structure communication protocols and briefings to encourage broad programmatic discussions.

2.2 Working within the construct of the DOFAW Leadership Team, explore and support solutions that integrate NARS goals across the Division and other programs.

- 2.2.1 Clarify processes for the review of NARS Management Plans across DOFAW.
- 2.2.2 Clarify decision-making protocol for executive approval within NARS and across DOFAW.
- 2.2.3 Integrate NARS planning and implementation of management strategies with DOFAW planning and action.

- 2.2.4 Become familiar with other DOFAW programs and encourage teaming projects.
- 2.2.5 Create a shared drive or intranet site where NARS related documents (e.g., policies, ops plans, budgets, etc.) can be viewed by other Division programs.

2.3 Support strategic planning at the DOFAW so areas for integration are identified.

- 2.3.1 Share lessons learned from NARS strategic planning effort.
- 2.3.2 Participate in a DOFAW comprehensive strategic planning effort and help to define interactions that ensure that NARS and DOFAW missions and mandates are efficiently and effectively achieved.
- 2.3.3 Encourage the development of landscape scale planning that will achieve programmatic goals.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM2.A						

Goal #3: Administration and Infrastructure

Invest in and maintain the internal working environment necessary to achieve established NARS goals.

An organization may be staffed by the most impassioned and committed people in any given field. But passion and commitment can only get an organization so far. To achieve a well-understood and accepted mission and mandate, there needs to be sufficient staff and the staff needs appropriate support (equipment, infrastructure, training, etc.). This goal and its objectives and sub-objectives define many of the ways in which the NARSC and NARS program staff can assess personnel, organizational, and technological needs of the program and then take actions to eliminate any shortfalls.

Objectives and Sub-objectives

- 3.1 **Develop a process for linking and implementing the strategic plan with annual operating plans and workplan to ensure the implementation of the strategic plan.**

- 3.1.1 Review and refine the development process of annual or bi-annual workplans that link to budget requests in advance of each fiscal year.
- 3.1.2 Develop an annual operating plan for the upcoming fiscal year that draws upon the annual workplan.
- 3.1.3 Utilize a feedback loop for reviewing progress at the end of each operating plan cycle.

3.2 Acquire, improve, and maintain field infrastructure and equipment at the field level to ensure the implementation of the strategic and operating plans.

- 3.2.1 Acquire sufficient office space, baseyards, and remote facilities to support staffing levels within the program and at the field level.
- 3.2.2 Ensure the availability of the field infrastructure and equipment needed to achieve stated goals throughout the NARS.
- 3.2.3 Provide short term housing for staff, volunteers, and researchers as needed.

3.3 Ensure that sufficient staffing resources are available directly within the NARS program or through the development of Memorandum of Understanding/Agreements with partners that share mutual interests

- 3.3.1 Perform an organizational needs assessment for the professional experience, skills, and abilities needed to implement the strategic and operating plans.
- 3.3.2 By 2008, develop a formal organization chart that accurately represents the entirety of the program.
- 3.3.3 Hire, train, and promote the advancement of qualified and committed full time staff.
- 3.3.4 Ensure that formal relationships exist with independent contractors and others that expand the capacity of the NARS program staff to further the NARS goals.

3.4 Maintain and build a robust organization with the various skills and enthusiasm needed to implement this strategic plan and related operational plans, utilizing training and personnel development where needed.

- 3.4.1 Institutionalize an ethic of and opportunities for continuous learning in a way that increases capacities of NARS program staff to achieve high priority goals and objectives.
- 3.4.2 Increase the capacity of staff to expend and administer internal and external funding.
- 3.4.3 Identify and implement opportunities for increasing staff motivation, morale, and retention and provide formal and informal opportunities to acknowledge successes.
- 3.4.4 Refine and improve the system that alerts managers and staff to human resource situations that need attention – and act on them in a timely manner.
- 3.4.5 Create a shared drive or intranet site or work platform where NARS related documents (e.g., policies, operating plans, budgets, etc.) can be viewed by NARS program staff and NARSC.
- 3.4.6 Build capacity to recruit and retain staff.

3.5 Collaborate and coordinate within DLNR to deliver efficient and effective services through the use of consistent sets of technologies and equipment.

- 3.5.1 Acquire or upgrade various systems, hardware, software, and office tools to improve collaboration, work flow, and productivity.
- 3.5.2 Strengthen the capacity for the NARS program to disseminate information using the Internet and other technologies.

3.6 Strategically diversify sources of program funding in a manner consistent with the NARS mission and the goals within the strategic plan.

- 3.6.1 Identify financial resource needs for specific goal-related projects.
- 3.6.2 Strategically explore grants and other external funding opportunities that support habitat restoration, outreach, research, watershed planning, mitigative measures, land acquisitions, and other NARS goals.
- 3.6.3 Request that the Legislature and Administration provide general/base funding, and in-kind “state match” for federal and other external funds.
- 3.6.4 Explore the use of user fees and other revenue raising policies and products to support management of the NARS.

3.7 Create a readily identifiable “brand” for the NARS and apply it to all print and electronic collateral and in the field.

3.7.1 Hire a graphic artist to create a consistent logo, signage, print collateral, and electronic media.

3.8 Increase capacity to efficiently draft and process rulemaking changes in support of NARS program goals.

3.8.1 Cross train staff to better understand rulemaking process and procedures.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM3.A	By ____, NARS staff will have operationalized orientation, staffing, and training plans.					
PM3.B	The NARS program will maintain a 90% retention rate annually.					
PM3.C	NARS staff will maintain a 90% job satisfaction rating as calculated via an anonymously completed annual job satisfaction survey.					
PM3.D	By ____, NARS staff will have implemented and will be sustaining a computer hardware, software and technology upgrade and maintenance plan.					

Goal #4: Monitoring and Data Collection

Conduct a monitoring program that will effectively assess change in the status of resources and is useful in making management decisions.

The NARSC and NARS program staff view monitoring as a critical component of the program. A comprehensive monitoring program is needed to help managers understand what resources are present in each specific area, their health and abundance, and what threats are present. Monitoring actions include periodic surveys of reserves to gather information on the presence or absence of feral animals, weed species, and native and non-native bird species and updating information on insects, soils, weather, and other

elements critical in determining if an ecosystem is functioning. A second aspect of monitoring is evaluating the success of management activities. Finally, a monitoring program should monitor the implementation of the strategic plan and evaluate the extent to which implementation of the plan contributes to achievement of the NARS mission.

Objectives and Sub-objectives

4.1 Implement a comprehensive monitoring program that quantifies the distribution, abundance, and trends related to native resources and the threats to those resources to inform on effective management for reserves.

- 4.1.1 Create a standardized monitoring plan across the NARS program and where possible consistent with its various partnerships.
- 4.1.2 Support the ongoing collection of current field data and the timely inputting into retrievable databases including the Heritage Database.
- 4.1.3 Gather and analyze data to assess trends in the NARS so managers can identify threats/adverse changes and act accordingly or identify the limiting factors to the sustainability of threatened populations where possible. Utilize a feedback loop for reviewing progress at the end of each operating plan cycle.
- 4.1.4 Identify ecological targets that allow NARS managers to measure the biological integrity of resources programmatically and in every NAR.
- 4.1.5 Use trend analysis to develop programs that mitigate threats to species and communities.
- 4.1.6 Identify a process in which information collected from monitoring will be used and integrated into management decisions

4.2 Monitor the performance of the entire NARS program in its ability to protect and preserve the unique natural resources existent in Hawai`i.

- 4.2.1 Review trends relative to outcome oriented indicators on an annual basis.
- 4.2.2 Develop a biennial "State of the NARS" report for public education and outreach.
- 4.2.3 Integrate the results of the NARS resource status assessments with the other statewide conservation assessments.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12

PM4.A	Quantify changes in canopy cover of areas dominated by native and alien plants in the NARS.					
PM4.B	Document changes in the number of individuals and populations of priority alien and native species in each NAR.					
PM4.C	Integrate results of the monitoring program into management strategies.					

Goal #5: Cultural Resource Issues

Develop the capacity to effectively address and accommodate constitutionally and statutorily protected cultural values and traditional and customary practices in the NARS.

The NARSC and NARS program staff acknowledge that indigenous cultural and natural resources are one and the same, and unlike most western perspectives, can not be separated from one another. The relationship between the resources and the culture is part of the same system.

Objectives and Sub-objectives

5.1 Increase management capacity by prioritizing and securing cultural, historic, and archaeological assessments for each NAR.

- 5.1.1 Prioritize and develop cultural and archaeological assessments that identify critical cultural and archaeological resources, document appropriate uses of these resources, and protect and preserve these features.
- 5.1.2 Ensure that cultural information is readily accessible to land managers, staff, Commissioners, and the public as appropriate

5.2 Protect the integrity of cultural, archaeological, and historic resources and archaeological sites found within the NARS.

- 5.2.1 Utilize cultural assessments, archaeological inventory surveys, other studies, and external expertise as needed to appropriately manage cultural, archaeological, and historic resources.

5.3 Increase NARS program staff and Commission capacity for evaluating and monitoring permit applications and other management related issues for traditional and customary practices.

- 5.3.1 Hire or contract for expertise in Native Hawaiian traditional and customary practices.
- 5.3.2 Obtain statutory approval for expansion of the NARS Commission to include a cultural expert.
- 5.3.3 Develop a training program on traditional and customary practices for existing NARS program staff, Commissioners, and other DOFAW or DLNR staff.
- 5.3.4 Convene a stakeholder group to help the NARS Commission and NARS staff formalize and codify a process and guidelines for reviewing NARS Special Use Permit applications involving traditional and customary practices.
- 5.3.5 Conduct an annual review of traditional and cultural practice-related Special Use Permit applications to look for trends in requests, uses, and the impacts to the NARS.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM5.A	Stabilization is achieved for cultural sites appearing on cultural and archaeological assessments for each of the NARS.					

Goal #6: External Partnerships

Collaborate with external partners as well as other government agencies to support the NARS mission and goals.

The NARSC and NARS program staff cannot, by themselves, protect or preserve the NARS. They are heavily dependent upon leveraging the resources – both financial and human – of other organizations throughout the State and even on the mainland. As such, it is impossible to overstate the importance of “partnership” to fulfilling NARS mission and goals. Several important partnerships include Watershed Partnerships, Natural Area Partnerships, Hawai`i Conservation Alliance, Hawai`i Rare Plant Restoration Group, Pacific Cooperative Studies Unit, and others.

Objectives and Sub-objectives

- 6.1 Dedicate time and resources to ensuring the success of Watershed Partnerships, Natural Area Partnerships, and other internal and external**

partnerships that forward the NARS mission and vision as well as those that build capacity for landscape level collaborative actions.

6.1.1 Develop a system that tracks NARS partnerships and other relationships and the goals that partnerships are attempting to achieve.

6.1.2 Establish or participate in existing discussion groups and partnerships that share information on land management strategies.

6.1.3 Utilize web-based technologies to link partners in the sharing of information via listservs, active and current links and webcasts.

6.1.4 Build new partnerships that support policy development and implementation.

6.2 Use existing relationships throughout DOFAW, DLNR, and other State government agencies to improve NARS effectiveness and expand staff capacity.

6.2.1 Convene and participate in periodic meetings with sister departments and divisions to share information, devise solutions to critical issues, and obtain broad-based support for public policy.

6.2.2 Create incentives for cooperation on land management issues that cross administrative boundaries.

6.2.3 Where appropriate, work with land managers on contiguous State lands to enhance capacities to manage these lands similar to NARS to create larger landscape managed ecosystems.

6.3 Improve relationships that can help prevent new introductions of incipient invasive species both state-wide and within an Island.

6.3.1 Work with Hawai`i Department of Agriculture ("HDOA"), US Animal and Plant Health Inspection Service ("APHIS"), and other agencies to prevent new introductions of invasive species.

6.3.2 Facilitate communications by Commissioners and staff with the Hawai`i Invasive Species Council ("HISC"), ISCs and the DOFAW Invasive Species section in order to keep NARS informed of new threats and vice versa.

6.3.3 Promote, encourage, and advocate for the development of research, tools, and statewide policies for prevention of invasive species.

6.4 Recognize and support partners engaged in the research elements of the NARS program as part of the partnership process and in the management of lands.

6.4.2 Recognize, support, and encourage high quality research opportunities within the NARS.

6.4.3 If appropriate, afford access to NARS lands when research of high value to the NARS is requested.

6.4.4 Where appropriate, enter into long term relationships with research entities (e.g., Hawai`i Tropical Experimental Forest).

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM6.A	The partnerships' goals have been met and have provided a benefit to the NARS.					

Goal #7: Outreach and Education

Foster understanding of and responsibility for the State's unique native resources.

Outreach and education is a central component of this plan. Within nearly every goal statement there is some reference to education programs targeted at children and adults. This goal in particular is written with an eye toward resource user groups or partners such as hunters, military, landowners, decision-makers and others.

Objectives and Sub-objectives

7.1 Strengthen natural resource education in grades K-12 and in institutions of higher learning to enhance understandings of key native resource management concepts and encourage inquiry, problem solving and service.

7.1.1 Identify and catalogue education programs within and outside the NARS program. Collect and review existing materials for appropriateness and relevance to NARS mission and educational goals.

7.1.2 Support and participate in the development and distribution of conservation education materials and programs that are accurate, hands-on, integrated and

science-based, and that address applicable State educational standards and benchmarks.

- 7.1.3 Provide schools with relevant information and integrate NARS topics into the classroom experience.
- 7.1.4 Develop hands-on learning opportunities through stewardship projects, internships and field trips that promote NARS topics where and when appropriate.
- 7.1.5 Provide mentorship, service opportunities and career opportunities.
- 7.1.6 Participate in training for teachers in the use of new materials/programs with on-going evaluation and review.

7.2 Educate, motivate and inspire policymakers to support the NARS and the conservation of native resources.

- 7.2.1 Convene highly focused periodic forums and briefings on NARS management issues for policymakers in the legislative and executive branches of government.
- 7.2.2 Identify ways, including funding and legislation, for policymakers to support the management of the NARS program and individual NARS.
- 7.2.3 Provide hands-on opportunities for policymakers to view and experience the native resources as well as management challenges in the NARS or other appropriate sites.
- 7.2.4 Better coordinate with organizations such as the Conservation Council of Hawai'i and Hawai'i Conservation Alliance to education decision-makers.

7.3 Educate general public and specific user groups on issues related to the conservation of native resources.

- 7.3.1 Create communication plans that prioritize groups within the resident public for targeted outreach efforts.
- 7.3.2 Utilize the DOFAW newsletter and website to communicate NARS - related news.
- 7.3.3 Utilize media and networks to disseminate information to educate and inform the public.
- 7.3.4 Continue to collaborate with partners in public outreach campaigns.

7.3.5 Provide opportunities for public participation in NARS stewardship projects.

7.4 Identify and educate visitors to foster support for the conservation of native resources.

7.4.1 Identify educational opportunities and co-develop conservation-related materials with the Hawai`i Visitor and Convention Bureau, Hawai`i Tourism Authority, airline industries, and other governmental and nongovernmental groups supporting the visitor industry.

7.4.2 Support State, national, and international media projects that portray appropriate conservation and native species management in Hawai`i.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM7.A	Measurable increases in conservation education programs, training and materials that have led to behavior changes/support for management actions.					
PM7.B	Achieve an 80% approval rating from participants (teachers?) based on baseline and subsequent surveys following teacher training sessions.					
PM7.C	Increase legislative support of conservation policies.					
PM7.D	Increase awareness and appreciation levels and behavior changes across interested demographics as measured in focus groups that include representative stakeholders from diverse constituencies and demographics.					

Goal #8: Inventory of Ecosystems and Lands in the NARS

Ensure that the NARS protects the full range of unique natural ecosystems, habitats containing rare, threatened and endangered species, and geologic features.

Objectives and Sub-objectives

8.1 Identify and fill any gaps in the NARS.

- 8.1.1 Using the best available scientific information, assess current NARS portfolio to determine what types of ecosystems exist/are well represented.
- 8.1.2 Identify “gaps” in the portfolio, specifically the types of ecosystems that are not represented or are poorly represented in the existing NARS.
- 8.1.3 Regularly analyze appropriate natural resource databases to assess trends and ensure that unique species, communities, and geological features are included within the NARS. Identify, annually prioritize, and account for candidate lands that contain heretofore unprotected unique natural resources for inclusion in the NARS program.
- 8.1.4 On an ongoing basis, pursue new opportunities to acquire NARS candidate lands as needed to meet the NARS mandate.
- 8.1.5 Assess the program’s ability to manage the existing portfolio and the incremental resources needed to manage additions to the system.
- 8.1.6 Advertise on DOFAW-NARS website the characteristics of lands that might be needed fill existing gaps in the NARS system so as to encourage people to submit viable applications

8.2 Clarify the information collection and approval processes for adding to or removing lands from the NARS.

- 8.2.1 Design, document, and use an internal process that is appropriate and efficient for collecting comments and information from within DOFAW and external entities prior to making recommendations to add or subtract NARS within the system to the Board.
- 8.2.2 Use the existing statutory process for adding to or removing reserves from the NARS.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM8.A	Fill any gaps in the NARS inventory.					

Goal #9: Enforcement

Ensure effective enforcement of laws that protect the NARS.

Objectives and Sub-objectives

9.1 Collect and analyze incident data and violations to assess the existing laws that protect the NARS from human threats and to also determine if new laws need to be developed.

9.1.1 Chart, graph, and analyze the timing and types of violations within every NAR on a regular but periodic basis as appropriate.

9.1.2 Analyze existing laws to address gaps in current legal protections.

9.2 Collaborate with appropriate law enforcement agencies to identify solutions in enforcing existing laws.

9.2.1 Identify and communicate recurring violations for each NAR, as appropriate.

9.2.2 Identify weaknesses in the prosecution of criminal violations.

9.2.3 Explore opportunities for effective civil administrative actions.

9.2.4 Install consistent and uniform signage to facilitate the enforcement of laws within marked boundaries.

9.3 Establish and implement alternative enforcement strategies.

9.3.1 Research and assess the applicability of enforcement techniques in similar reserve systems.

9.3.2 Analyze and assess the need for expanding the NARS Ranger program.

9.3.3 Revisit the issue of providing selected enforcement powers and duties to NARS personnel.

9.3.4 Establish a volunteer program (e.g., the Ahihi-Kinai Master Naturalist program, Makai watch program) to create awareness of applicable laws.

9.3.5 Investigate the use of monitoring technologies to aid in enforcement.

9.3.6 Enhance enforcement capabilities by developing relationships with partners, neighbors and stakeholders.

9.4 Communicate with the judiciary and other government branches to underscore the importance of natural resource protection and the challenges to enforcement.

9.4.1 Institutionalize an enforcement forum across DOFAW and DOCARE in order to facilitate the exchange of information on enforcement challenges.

9.4.2 Work with UH Law School and others to better inform judges, prosecutors, and enforcement officials on the importance, purpose and need of resource-protection laws.

9.4.3 Support initiatives to develop a section of the judiciary system dedicated to environmental laws and cases.

Performance Metrics						
No.	Metric	'08	'09	'10	'11	'12
PM9.A	Demonstrate annual reductions in degradation due to crimes against the environment.					
PM9.B	The percentage of NARS enforcement cases that are won is increased.					

Prioritization

Ordinal presentation does not necessarily indicate priority in terms of plan activities. The NARS program is committed to the establishment of annual operating plans that identify short- and near-term activities needed to achieve strategic plan objectives and prioritize staff activities, programming requirements, and budget investments in each goal area.

Section 6.0 Appendix 1: Glossary

Term	Definition
Cross-cutting teams	A bureaucratic arrangement whereby personnel from different organizational entities collaborate and coordinate so as to achieve some mutually desirable goal or objective.
Mission Statement	Defines why the organization exists and its reason for being. It describes how the vision will be achieved.
Operating Plan	The Operational Plan is more specific than the Strategic Plan and lists activities that will be used to achieve the broad goals listed in the Strategic Plan. Typically designed for a one-year period, the operating plan defines how an organization will conduct its business. It explains what resources will be brought to bear, gives timelines, lists interim outputs and outcomes, and identifies responsible parties.
Outcomes	Changes or benefits as a result of outputs. These can be on a continuum from short-term to long-term achievements. They answer the question "What difference are we making?"
Outputs	Activities conducted or products created that reach targeted participants/populations. Outputs lead to outcomes.
Stovepiped System	A largely bureaucratic phenomenon where departments, divisions and even branches hoard control or resources over particular areas of responsibility without regard to leveraging the experience, work or related resource allocations that may exist across reporting or organizational lines.
Strategic Plan	A document used by an organization to align its organization and budget structure with organizational priorities, missions, and objectives. According to requirements of GPRA, a strategic plan should include a mission statement, a description of the agency's long-term goals and objectives (ideally in terms of "outcomes"), and strategies or means the agency plans to use to achieve these general goals and objectives. The strategic plan may also identify external factors that could affect achievement of long-term goals. www.gao.gov/policy/itguide/glossary.htm
Tactical Plan	Please see "operating plan."

Vision Statement	Defines the agency's future identity. It describes in graphic terms where the goal-setters want to see themselves in the future. It may describe how they see events unfolding over 10 or 20 years if everything goes exactly as hoped.
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Section 7.0 Appendix 2: Acronyms

Term	Definition
APHIS	Animal and Plant Health Inspection Service
BLNR	Board of Land and Natural Resources
CDUA	Conservation District Use Application
DLNR	Department of Land and Natural Resources
DOCARE	Division of Conservation and Resources Enforcement
DOFAW	Division of Forestry and Wildlife
GIS	Geographic Information Systems
GPS	Global Positioning System
HDOA	Hawai`i Department of Agriculture
HISC	Hawai`i Invasive Species Council
HRS	Hawai`i Revised Statutes
ISC	Invasive Species Council
NAR	Natural Area Reserve
NARS	Natural Area Reserves System
NARSC	Natural Area Reserves System Commission
PCSU	Pacific Cooperative Studies Unit
SUP	Special Use Permit
SWOT	Strengths, Weaknesses, Opportunities, and Threats
T&E	Threatened and Endangered

Section 8.0 **Appendix 3: Interview Questions**

1. Does your organization's mission and mandate intersect with NARS?
2. What is the single greatest service/product provided by the NARS staff or NARSC
3. What services would you like for them to provide that they are not currently providing?
4. What do you see as the strengths of the NARS Program?
5. What are its weaknesses?
6. Are there opportunities they are not taking advantage of?
7. What do you think are the major issues preventing them from being as effective as they could be?
8. Which external entities or what people have the greatest amount of influence over the direction of NARS?
9. Which external entities or what people have the greatest amount of influence over the success of NARS?
10. Is there anyone out there who we simply must get in contact with?

Name	Title	Organization	Phone	E-mail