

# **Strategic Plan**

## **for Hawaii's Natural Area Reserves System**

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**Hawai`i Department of Land and Natural Resources  
Division of Forestry and Wildlife  
Natural Area Reserves Program**

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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**

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

The purpose of this strategic planning effort was to reinforce and reinvigorate a clearly understood vision and mission and clarify the goals for the Natural Area Reserves System. State agencies have a tendency to evolve and move away from the focus of their foundation, particularly as the daily circumstances of carrying out individual responsibilities obscure the overall ideal. Periodically it is necessary to take stock and reassess. That is what the Natural Area Reserves System Commission (NARSC) and Natural Area Reserves System (NARS) staff, in collaboration with DOFAW staff, have 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 NARS: the program enjoys support of both the Department and outside stakeholders and the program has staff and fiscal resources. To improve management and overall effectiveness of the program, 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.

This strategic plan identifies a vision, mission, and goals for the NARS program over the next decade. This vision, mission, and 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.

### **NARS Vision Statement:**

**We envision a future in which the Natural Area Reserves 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.**

**NARS Mission Statement:**

**The Natural Area Reserves System exists to ensure the highest level of stewardship for Hawaii’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 sub-objectives for NARS program staff and NARSC during the next five years. Nine broad functional goals that preserve and protect the NARS into the future 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 DOFAW and DLNR 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.
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 and habitats containing rare, threatened and endangered species, as well as geologic features.
9	Enforcement	Ensure effective enforcement of laws that protect the NARS.

This Strategic Plan sets out a broad framework. The next step to implement the plan is to develop **Operational Plans** which detail the specific tasks that must be accomplished to achieve these far-reaching goals. In the Operational Plans, annual priorities will need to be defined and resources justified. In addition, performance metrics need to be identified to assess progress towards implementing this strategic plan.

## Section 2.0      **NARS Vision and Mission**

NARS staff drew upon an analysis of strengths, weaknesses, opportunities, and threats (SWOT) to identify major functional strengths that energize NARS programs and activities. **Vision** and **mission** are largely guiding philosophies that serve as the foundation for an entity's strategic and operational plans. The strategic goals were defined once NARSC members and NARS program staff unanimously adopted both.

The strategic goals closely parallel NARS functional strengths. A deeper discussion (beyond the rather general wording of organizational goals) yielded a variety of task-oriented **objectives** and **sub-objectives**.

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

*Vision ► Mission ► Goals ► Objectives ► Sub-objectives*

### **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 Reserves 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 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 Reserves 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.**

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 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, invasive species, human encroachment, climate change, and other threats, the NARS seeks to protect the best remaining examples 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, active management is needed 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 Reserves System exists to ensure the highest level of stewardship for Hawaii's unique natural resources through acquisition, active management, and other strategies.**

### **The NARS Program Today**

The Natural Area Reserves System (NARS) was established by Hawaii Revised Statutes ("HRS") Chapter 195 in 1970. In the legislation, the State specifically made the following findings and declarations:

1. The State of Hawaii possesses unique natural resources, such as geological and volcanological features and distinctive marine and terrestrial plants and animals, many of which occur nowhere else in the world, that are highly vulnerable to loss by the growth of population and technology;
2. These unique natural assets should be protected and preserved, both for the enjoyment of future generations, and to provide base lines against which changes which are being made in the environments of Hawaii can be measured;
3. In order to accomplish these purposes the present system of preserves, sanctuaries and refuges must be strengthened, and additional areas of land and shoreline suitable for preservation should be set aside and administered solely and specifically for the aforesaid purposes; and
4. That a statewide natural area reserves system should be established to preserve in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawaii. (HRS § 195-1).

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.



# Hawai'i Natural Area Reserves System



## Section 3.0      **The Strategic Plan for the Natural Area Reserves System**

The NARSC and the NARS program staff defined their vision in terms of an “end state” that might be realized if most of the goals are met and objectives realized. Clearly factors beyond the control of the NARS and NARSC will influence the degree to which this happens. For example, in order to achieve the vision, natural phenomena (e.g., storms, fire, drought, etc....) would have to occur in ways that minimized the natural and physical destruction of 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. Ordinal presentation of the goals does not necessarily indicate the priority of 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 DOFAW and DLNR 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 an internal working environment necessary to achieve established NARS goals.
4	Monitoring and Data Collection	Conduct monitoring 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 with other governmental agencies to support the NARS mission and goals.
7	Outreach and Education	Foster understanding of and sense of 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.

The NARS program is committed to the establishment of annual operational 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. Each goal appears below with objectives, sub-objectives, and performance metrics.

### **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.

#### **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 longer 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 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 populations of 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 threatened and endangered plant and animal species and their habitats at sustainable community and population levels.**

- 1.3.1. Identify, prioritize and develop strategies in the NARS management plans to eliminate or reduce factors that limit distribution and abundance of targeted species.
- 1.3.2. Ensure that NARS strategies for threatened and endangered species link with other major species management plans and strategies such as 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 species.

**1.4. Employ appropriate fire management strategies.**

- 1.4.1. Develop fire management strategies, including pre-suppression, suppression and post-suppression rehabilitation tactics, 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 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.

**Goal #2: Integration with Other DOFAW and DLNR 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.*

Effective communication and collaboration with other programs reduces conflict, leverages available resources, and enhances the potential for success.

## **Objectives and Sub-objectives**

### **2.1 To improve management, ensure regular communication and integration on the DOFAW branch and programmatic levels regarding conservation issues.**

- 2.1.1 Encourage the DOFAW Leadership Team, which consists of branch managers, Administration program managers, and the Administrator, to develop means to discuss organizational issues and controversial matters in a neutral environment.
- 2.1.2 Identify and use communication tools (e.g., meetings, briefings, updates, etc.) that disseminate relevant data and information on projects that cross organizational and stakeholder interests.
- 2.1.3 Develop feedback mechanisms for transparency and accountability between the various branches and programs of DOFAW.
- 2.1.4 Identify a management and communications training curriculum that can be implemented to facilitate better 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 Explore and support solutions that integrate NARS goals across DOFAW and other programs.**

- 2.2.1 Clarify processes for the review of NARS Management Plans across DOFAW.
- 2.2.2 Clarify decision-making process for issues where DOFAW program goals are at odds with NARS program goals.
- 2.2.3 Integrate NARS and DOFAW planning and implementation of management strategies and actions.
- 2.2.4 Become familiar with other DOFAW programs and encourage cooperative projects.

2.2.5 Create and maintain an internal website where NARS related documents (e.g., policies, operational plans, budgets, etc.) can be viewed by other programs.

### **2.3 Encourage strategic planning for DOFAW.**

2.3.1 Share lessons learned from NARS strategic planning effort.

2.3.2 Participate in future DOFAW comprehensive planning efforts and help define interactions that ensure that NARS and DOFAW missions and mandates are efficiently and effectively achieved.

### **Goal #3: Administration and Infrastructure**

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

To successfully pursue an accepted mission and mandate, there needs to be sufficient staff and the staff needs appropriate support (equipment, infrastructure, training, etc.).

### **Objectives and Sub-objectives**

#### **3.1 Link the strategic plan with annual operational plans and budgets to ensure its implementation.**

3.1.1 Review and refine the development of annual or bi-annual operational plans that link to the legislative budget request in advance of each fiscal year.

3.1.2 Develop an annual operational plan for the upcoming fiscal year.

3.1.3 Review progress at the end of each operational plan cycle.

#### **3.2 Acquire, improve, and maintain field infrastructure and equipment to ensure the implementation of the strategic and operational plans.**

3.2.1 Acquire sufficient office space, baseyards, and remote facilities to support staffing levels within the program and in the field.

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 Memoranda of Understanding/Agreements with partners that share mutual interests.**

3.3.1 Assess program needs in the areas of professional experience, skills, and abilities needed to implement the strategic and operational plans.

3.3.2 Develop an organizational chart that accurately represents the entire program.

3.3.3 Hire, train, and retain 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 NARS goals.

**3.4 Build and maintain an organization with the skills, motivation and commitment needed to implement the strategic and operational plans through training and development.**

3.4.1 Provide opportunities for continuous learning to increase capacities of NARS program staff to achieve high priority goals and objectives.

3.4.2 Provide appropriate staff training for project administration, including spending internal and external funding efficiently and reporting accomplishments.

3.4.3 Explore ways to increase staff motivation and morale, and recognize successes.

3.4.4 Address human resource issues in a timely manner.

**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 Diversify sources of program funding in a manner consistent with the NARS mission and goals of the strategic plan.**

- 3.6.1 Explore grants and other external funding opportunities that support habitat restoration, outreach, research, watershed planning, land acquisitions, and other NARS goals.
- 3.6.2 Encourage the Legislature and the Administration to provide sufficient general/base funding, and in-kind "state match" for federal and other external funds.
- 3.6.3 Explore the concept of user fees and other revenue generating activities to support management of the NARS.

**3.7 Create a readily identifiable logo for the NARS and use it in print, electronic media and signage.**

**3.8 Increase capacity to efficiently draft and process rulemaking changes in support of NARS program goals by cross-training in this area.**

#### **Goal #4: Monitoring and Data Collection**

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

A comprehensive monitoring program provides insight on what resources are present in each specific area, their health and abundance, and what threats are present. Monitoring also provides information on the success of management activities, and on how well implementation of this strategic plan contributes towards 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 effective management for reserves.**

- 4.1.1 Create standardized monitoring protocols across the NARS program and where possible consistent with its various partnerships.
- 4.1.2 Support the ongoing collection of current field data and their timely recording in retrievable databases including the Hawai'i Biodiversity and Mapping Program Database (formerly known as 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.
- 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 Integrate information collected during monitoring into management practices and 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 Develop a biennial "State of the NARS" report for public education and outreach.
- 4.2.2 Integrate the results of the NARS resource status assessments with other statewide conservation assessments.

**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.*

Hawaiian cultural and natural resources are one and the same, and cannot be separated from one another.

**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 conduct cultural and archaeological assessments that identify critical cultural and archaeological resources, evaluate appropriate uses of these resources, and recommend measures to 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 Use cultural assessments, archaeological inventories, other studies, and external expertise as needed to appropriately guide management of 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 a process and guidelines for reviewing NARS Special Use Permit applications involving traditional and customary practices.

5.3.5 Conduct periodic reviews of traditional and cultural practice-related Special Use Permit applications to look for trends in requests, uses, and the impacts to the NARS.

**Goal #6: External Partnerships**

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

Collaboration is critical to expanding the resources available to fulfill 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 to enhance ecosystem protection.

**6.3 Improve relationships that can help prevent new introductions of invasive species both statewide and within an island.**

6.3.1 Work with Hawai`i Department of Agriculture, US Animal and Plant Health Inspection Service, 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, the island Invasive Species Committees 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 the development of research, tools, and statewide policies for preventing the introduction and spread of invasive species.

**6.4 Recognize and support partners engaged in research that benefits the NARS program.**

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

6.4.2 Where appropriate, enter into long-term relationships with research entities.

**Goal #7: Outreach and Education**

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

Outreach and education to a wide variety of users or interest groups contributes to achievement of the NARS vision and mission.

**Objectives and Sub-objectives**

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

7.1.1 Identify education programs within and outside the NARS program. Assess 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, up-to-date, 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 and service opportunities.

7.1.6 Participate in training for teachers.

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

- 7.2.1 Convene highly focused 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 Coordinate with conservation-oriented organizations to educate decision-makers.

## **7.3 Educate general public and specific user groups on issues related to the conservation of native resources and the role of the NARS in meeting this goal.**

- 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 educate and inform the public.
- 7.3.4 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 develop conservation-related materials to support the visitor industry, and to encourage appropriate behavior within NARS.
- 7.4.2 Support State, national, and international media projects that portray appropriate conservation and native species management in Hawai'i.

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

*Ensure that the NARS protects the full range of unique natural ecosystems and habitats containing rare, threatened, and endangered species, as well as 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 Publicize the characteristics of lands that might be needed to fill existing gaps in the NARS and on the nomination process to encourage people to submit 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 other entities prior to making recommendations to add or subtract lands within the system to the Board of Land and Natural Resources.
- 8.2.2 Use the existing statutory process for adding to or removing lands from the NARS.

## **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 effectiveness of existing laws, and determine if new laws are needed.**

- 9.1.1 Collect and analyze data relating to the timing and types of violations within every NAR on a regular basis.
- 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 recurring violations for each NAR, as appropriate.
- 9.2.2 Identify challenges to successful 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 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 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 enforcement challenges.**

9.4.1 Exchange information on enforcement challenges between DOFAW and DOCARE.

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 an environmental law court.

## Section 4.0      **Next Steps: From Plan to Action**

The NARS Program recognizes that completing this Strategic Plan is only a beginning point. For this plan to have value over the long term, additional steps need to be taken to translate this plan into action. One priority is the development of **operational plans** for each branch, the administrative office, and the Commission, to specifically target discrete activities that occur over a twelve month horizon. As such, incremental progress toward achievement of the goals will be better managed and subsequently measured. The process of completing regular operational plans will assist staff in preparing annual budget requests, and at the same time, will allow staff to review progress toward achieving the goals in this strategic plan and taking corrective steps if progress is not seen.

A second priority is the development of appropriate performance metrics for various aspects of the plan, to improve monitoring progress in implementing the strategic plan and towards achieving the NARS mission.

## Section 5.0      **Appendix 1: Glossary**

Term	Definition
<b>Mission Statement</b>	Defines why the organization exists and its reason for being. It describes how the vision will be achieved.
<b>Operational Plan</b>	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 <b>operational plan</b> 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.
<b>Outcomes</b>	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?"
<b>Outputs</b>	Activities conducted or products created that reach targeted participants/populations. Outputs lead to outcomes.
<b>Strategic Plan</b>	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. <a href="http://www.gao.gov/policy/itguide/glossary.htm">www.gao.gov/policy/itguide/glossary.htm</a>
<b>Vision Statement</b>	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.

## Section 6.0      **Appendix 2: Acronyms**

<b>Term</b>	<b>Definition</b>
<b>BLNR</b>	Board of Land and Natural Resources
<b>DLNR</b>	Department of Land and Natural Resources
<b>DOCARE</b>	Division of Conservation and Resources Enforcement
<b>DOFAW</b>	Division of Forestry and Wildlife
<b>HRS</b>	Hawai'i Revised Statutes
<b>NAR</b>	Natural Area Reserve
<b>NARS</b>	Natural Area Reserves System
<b>NARSC</b>	Natural Area Reserves System Commission

**Section 7.0      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?

<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Phone</b>	<b>E-mail</b>

## **Section 8.0    Appendix 4: Background on preparing the Strategic Plan: The Process**

### **The Strategic Planning Process**

The strategic planning process began with 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) and staff 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 and staff discussed at great length the organization, structure, and collaboration with DOFAW and analyzed the extent to which they were either acting in isolation or working effectively across

program areas. It was decided that collaboration and coordination across organizational boundaries was one area where improvement was needed. Thereafter, DOFAW's leadership team (comprised of the Administrator, program managers, and branch managers) was 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**

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.

The plan presents the NARS vision and mission and 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. In addition, the plan includes a summary of the strategic planning process, and 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.

### **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.<sup>1</sup> 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

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<sup>1</sup> "SWOT" processes are credited to both Albert Humphrey and Michael Porter.

context of an Operational Plan such that the NARSC might capitalize on new opportunities and more effectively address program shortcomings. The summary SWOT analysis is not included in this strategic plan, but is available for review and use as needed in the future.

## **Section 9.0    Appendix 5: Background on preparing the Strategic Plan: The Organizational Context**

### ***NARS***

The NARS program is one of four programs within the Division of Forestry and Wildlife, which is one of eight divisions within the Department of Land and Natural Resources. Ultimately, all authority to manage the lands within the Natural Area Reserves System derives from the Board of Land and Natural Resources, which is the governing body of the Department of Land and Natural Resources.

The NARS system is managed on a day-to-day basis 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.

The NARS system is unique within the State, in that there is an advisory commission established by statute to provide recommendations regarding establishment and management of the system. The 13-member NARS Commission provides recommendations 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 educational use of the NARS.

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 (called LNRs 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. Other programs in LNR 407 include 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’s program goals, as outlined using the budgetary LNR format, are as follows:

1. LNR 172: 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.
2. LNR 402: 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.

3. LNR 407: 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.
4. LNR 804: 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.

### ***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

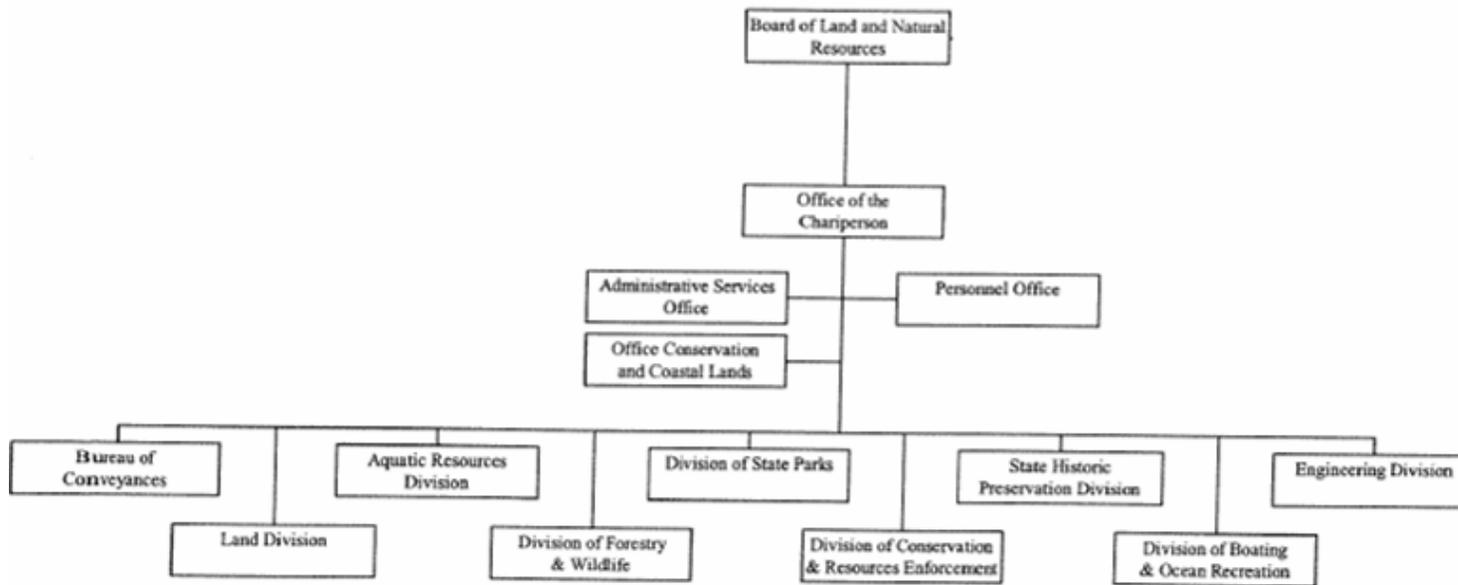


Figure 1: DLNR Organizational Chart as of 2007

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

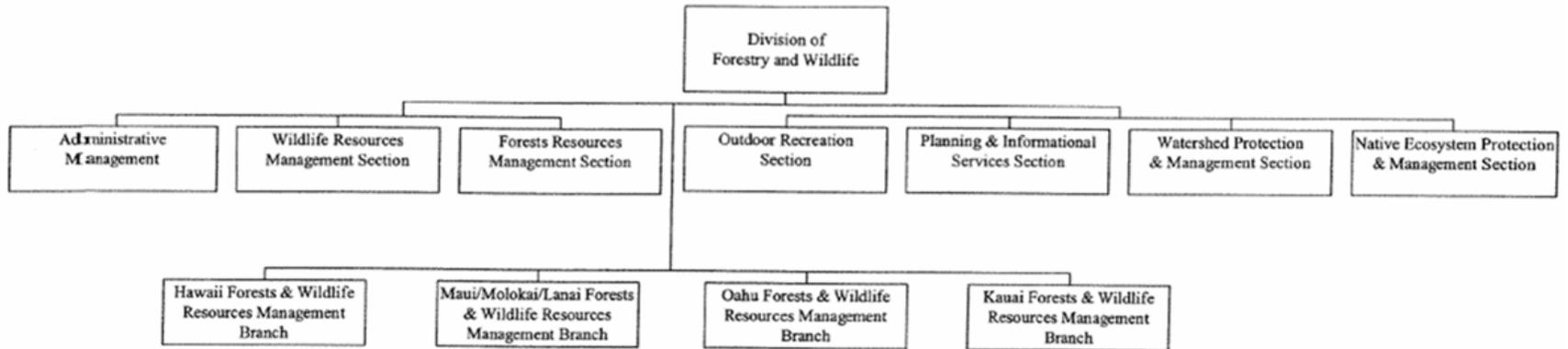
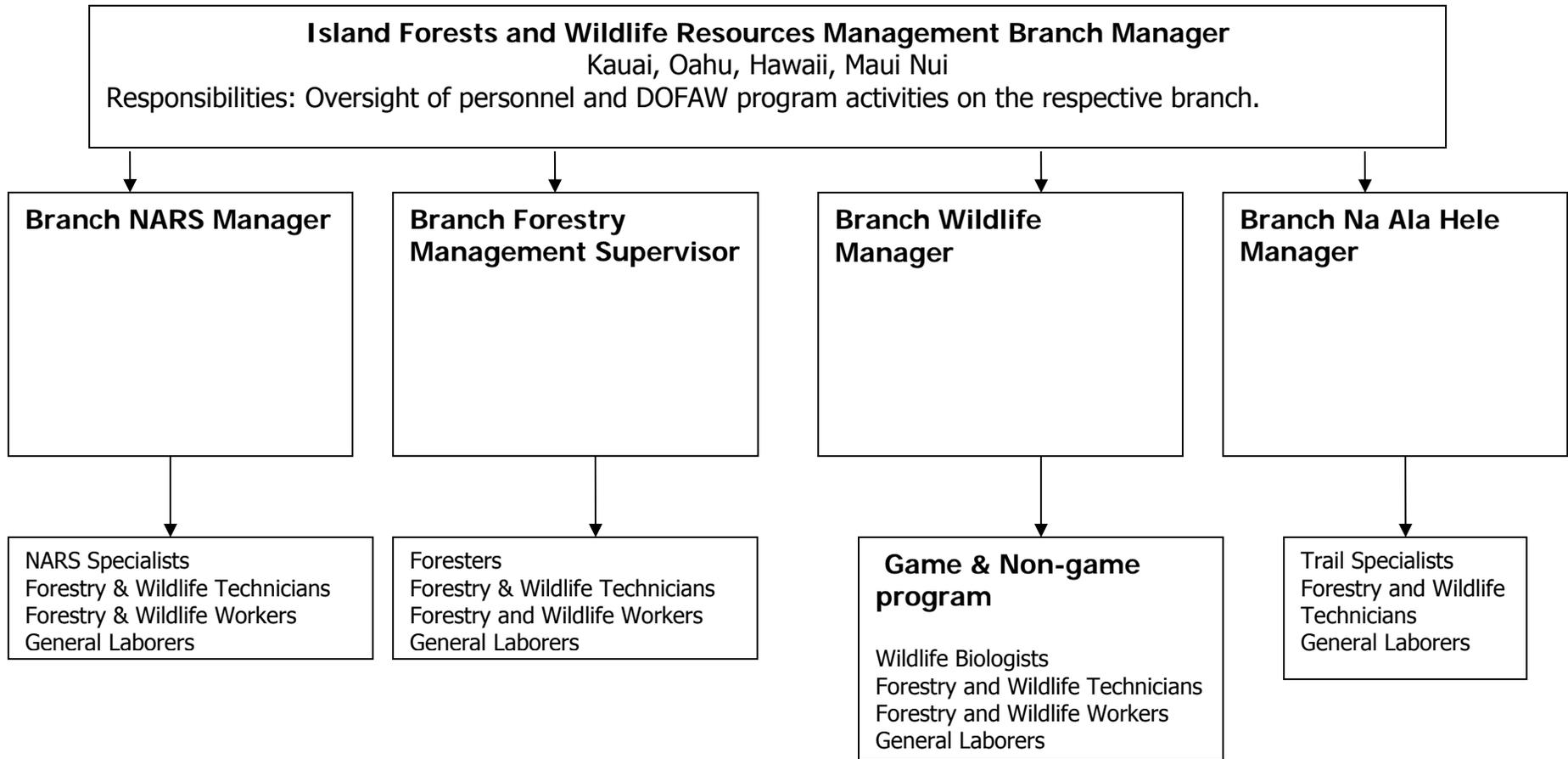


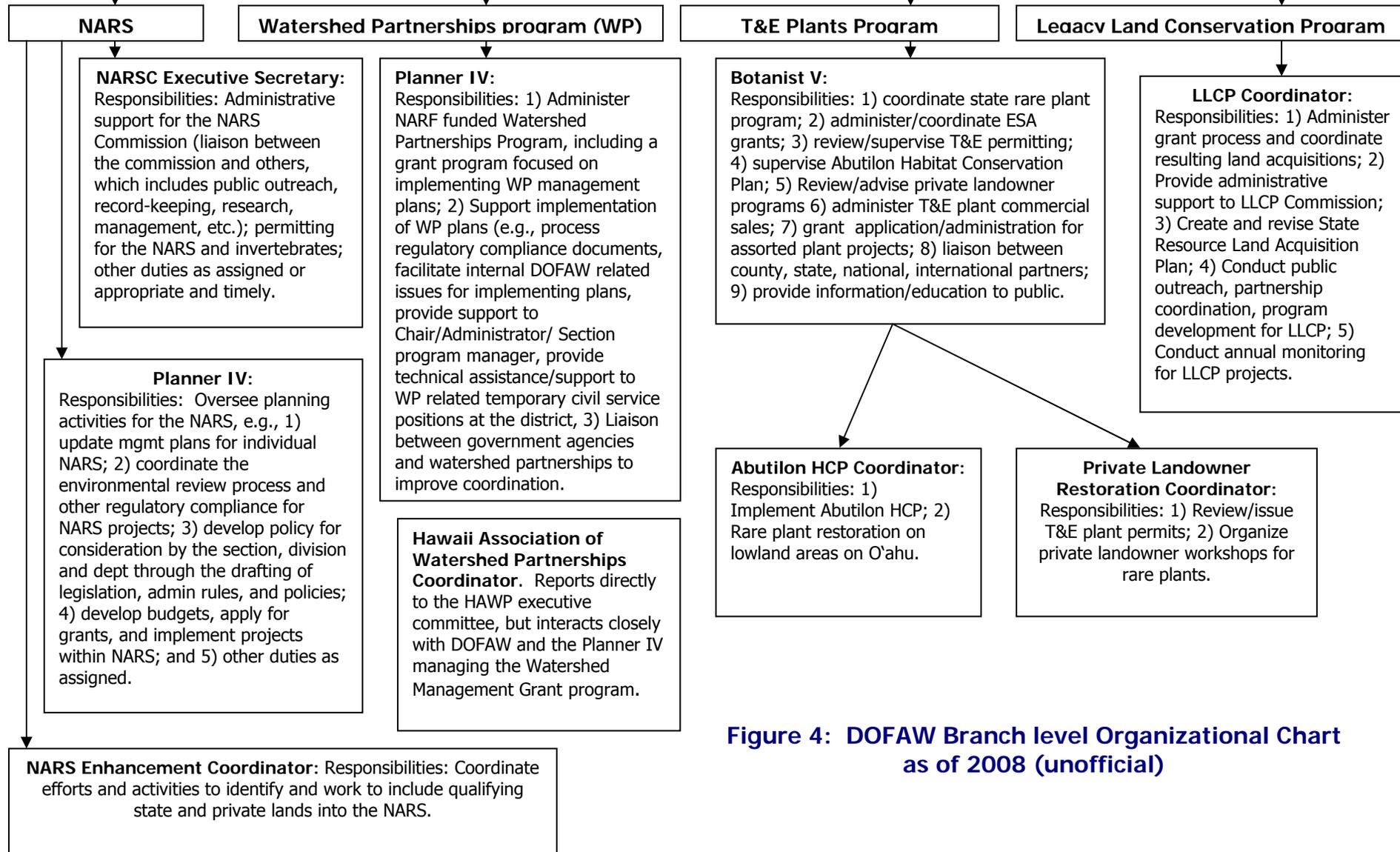
Figure 2: DLNR/DOFAW Organizational Chart as of 2007



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

## Native Ecosystem Protection and Management Section

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)**