

Environmental Report Card 2001

**Annual Report of the Environmental Council
Pursuant to Chapter 341, Hawai'i Revised Statutes**

The Environmental Council

THE 2001 ANNUAL REPORT OF THE ENVIRONMENTAL COUNCIL

STATE OF HAWAII

Environmental Report Card, 2001

ENVIRONMENTAL COUNCIL 2001

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Introduction

This Annual Report

In this report the Environmental Council expands and refines its comprehensive listing of Hawai'i Environmental Indicators. These data are presented in tables and graphs and track the environmental health of our islands on issues ranging from government funding to oil spilled into our waters. Students, policy makers and the public can use this document to gain an objective view of our state's progress in managing the natural and urban environment.

This report contains an updated Report Card. The Council, after considering the relevance of each indicator, grades our state's progress toward meeting its goals to protect the environment.

The 2001 Annual Report presents an overview of environmental action taken by government offices across the state. Agencies are asked each year to list their environmental goals and any progress toward meeting these goals. This review of environmental activity helps policy makers and the public keep tabs on government environmental initiatives.

The Environmental Council

The Environmental Council is a fifteen-member citizen board appointed by the Governor to advise the State on environmental concerns. The Council is responsible for making the rules that govern the Environmental Impact Statement (EIS) process for the State. The Council is empowered to approve an agency's "exemption list" of minor activities that can be implemented without first preparing an Environmental Assessment (EA).

Created in 1970, the Council is empowered to monitor the progress of state, county, and federal agencies' environmental goals and policies. In a report each year, the Environmental Council must advise state policy makers on important issues affecting Hawai'i's environment.

The Office of Environmental Quality Control

The Office of Environmental Quality Control (OEQC) was established in 1970 to help stimulate, expand and coordinate efforts to maintain the optimum quality of the State's environment. OEQC implements the Environmental Impact Statement law, HRS Chapter 343. Office planners review and comment on hundreds of environmental disclosure documents each year. Twice a month the OEQC publishes *The Environmental Notice*. This bulletin informs the public of all the projects being proposed in the State that are subject to public review and comment. At the request of the Governor, the Director of the OEQC is empowered to coordinate and direct State agencies in matters concerning environmental quality.

Acknowledgements

The Environmental Council would like to thank the following individuals for their assistance in compiling this report.

Steven Alber
Nancy Heinrich
Kay Kaminaka
Steve Lai (photos on page 9)
Steve Lohse
Douglas Oshiro
Melissa O'Connor-Farinas
Leslie Segundo
Jeyan Thirugnanam
Joan Yoshioka (cover illustrations)

Recommendation to the Governor

Preserving Hawai'i's Biodiversity

For the past three years, the Environmental Council's "Environmental Report Card" has featured themes related to ecosystem sustainability in its recommendations to the Governor. This year we feature Hawai'i's biological diversity, also termed "biodiversity," referring to the richness and variety of life in an ecosystem.

Hawai'i is considered by many to be the biodiversity "hot spot" of the world, being home to hundreds of plant and animal species found nowhere else in the world. In fact, of the flowering plants that got here before people arrived, more than 90% of those species are endemic (unique) to Hawai'i.

To protect Hawai'i's unique biodiversity, we must address the threats – the most serious of which are **invasive alien species**. Alien species have arrived in Hawai'i with the help of people, unintentionally or intentionally. They are considered invasive when they spread rapidly and reduce an area's biodiversity.

We have become more familiar with some invasive alien species in recent years with news headlines featuring a weed called *Miconia*, tiny but loud tree frogs in our backyards, and more recently, a statewide outbreak of dengue fever, spread by mosquitoes. While these events may seem unrelated, all are symptoms of a larger problem – the uncontrolled influx of destructive alien pests and disease organisms to Hawai'i. In fact, Hawai'i's invasive species problem is the most severe of any state.

The worst may be yet to come. State inspectors now fear the arrival of the dreaded red imported fire ant, which recently invaded California and has already been intercepted twice in Hawai'i. Experts also warn that Hawai'i could soon have established snake populations if several practical steps are not taken now. More than 200 credible sightings of snakes of various species were reported in the islands during the last decade, and most of these snakes were free-roaming and not recovered.

In addition to costing the State roughly \$500 million annually in lost agricultural revenue and property damage, invasive alien species cause irreversible damage to native ecosystems and watersheds. To protect our special natural resources, it is important to work at a landscape level, across landowner boundaries, and with the *ahupua'a* (sea to mountain) land principles in mind.

The Environmental Council is playing a small but important role in increasing public awareness of this issue by working closely with other key groups and volunteers to produce educational "flashcards" on 20 of the most serious alien species threats to Hawai'i's environment and way of life. These soon-to-be-printed resources will be distributed statewide to teachers and Island Invasive Species Committees.

The Environmental Council urges the Governor, Legislature and government agencies to implement the following actions to protect Hawai'i's biodiversity.

Prevention

- Implement plans to prevent new potentially devastating alien species from coming to Hawai'i – with special attention to the red imported fire ant and all snakes.
- Urge the landscaping and nursery industries to identify and prevent introductions of new plant pests and prevent the spread of existing plant pests.
- Strengthen the capacity of state agencies to conduct incoming quarantine inspections.

Control

- Secure immediate and long-term funding to develop the capacity of Island Invasive Species teams to contain *Miconia* and to carry out early detection/rapid response of other alien pests.

Education

- Support and expand programs that increase public awareness of alien species, targeting all incoming arrivals, both residents and visitors.

Ecosystem Protection

- Continue to provide dedicated funding for the State's Natural Area Reserve fund. (The Natural Area Reserve fund receives income from a small portion of the state's Conveyance tax. This fund is used to support: the Natural Areas Partnership program, watershed partnerships, and the Youth Conservation Corps.)

Community Action

- Make it easier for private citizens to use native Hawaiian plants for home landscaping and use primarily native and Polynesian introduced plants for landscaping of all publicly funded projects.
- Support programs that train and share volunteers who work to protect biodiversity and control alien species on public and private lands.

For more information on preserving Hawai'i's biodiversity, please see:

www.conservationhawaii.org
www.hear.org
nature.org
aliens.bishopmuseum.org
hbs.bishopmuseum.org/hbs1.html
www.malahawaii.org

OEQC's Report

Director's Report

2001 has been a very encouraging year for OEQC. May I begin by thanking my hard working staff for their sincere dedication and teamwork.

OEQC's recommendations and concerns are now being recognized at the Legislative Sessions. In 1999, we encouraged more diversion of our solid waste. As a result, a "Beverage Container Deposit Bill" has made it to conference committee in the 2001 legislative session. In 2001, we recommended renewable energy. As a result net metering was passed.

Our educational flash card program on native species has been very successful in the schools. In 2002, we will introduce our second flash card program on invasive species. This was done in conjunction with the

Environmental Council recommendations that focused on biodiversity. We are now active with the Cruise Ship Task Force in a partnership to help protect our environment.

The Environmental Notice has been expanded to include different interests to better inform the public. It now includes minor special management permits from all counties.

We will continue to get involved in workshops and pre-consultations with county, state, federal agencies, and just as important, the private sector.

To Jeyan Thirugnanam, Les Segundo, Nancy Heinrich and Kay Kaminaka, I thank all of you who have helped OEQC with our accomplishments this past year.

Genevieve Salmonson
Director

Environmental Documents Reviewed by OEQC in 2001

Type of Notice	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Draft EA	16	11	15	10	9	7	14	11	11	12	7	6	129
FONSI	8	6	12	12	14	9	10	17	8	9	12	13	130
EISPN	0	1	0	3	2	0	1	3	2	1	1	1	15
Draft EIS	0	0	2	0	1	1	1	1	0	0	2	1	9
Final EIS	0	0	0	1	0	2	0	1	0	0	0	0	4
Total	24	18	29	26	26	19	26	33	21	22	22	21	287

Council's Report

A Message from the Chair

I've been privileged to serve on the Environmental Council since 1994, observing a tremendous growth in its activity and concern for our environment. The theme of this year's Annual Report is perhaps the most poignant as it addresses Hawaii's unique biodiversity. Although we have a large number of native plant and animal species, few realize how sensitive these are to human modification especially the accidental or even deliberate introduction of alien species.

The various committees of the council have sought to educate the general public about current and potential

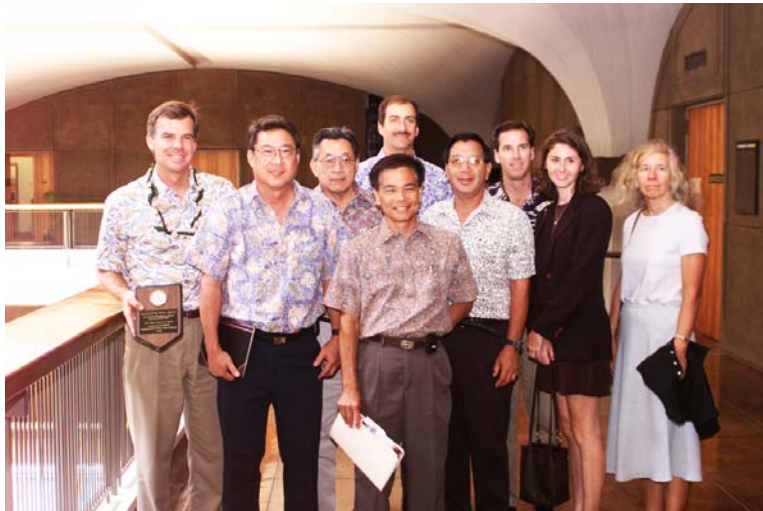
ecological problems that will eventually have adverse impact on their livelihoods. In recent years, the Council has gone a step further. It has used more proactive measures such as this report to advocate legislative action in achieving environmental objectives.

As I complete my last term as a Council member, I foresee greater influence of the Council and its supporting agency, the Office of Environmental Quality Control. This was made possible through the appointment of highly-qualified and motivated council members and staffers. Together, both entities will be significantly productive and innovative in finding ways to maintain our world-renown pristine environment.

William Petti
December 2001

Year 2000 Outstanding Environmental Agencies

Awards Ceremony, June 13, 2001



Department of Health



Hawai'i Army National Guard



Division of Forestry and Wildlife



Section I

Environmental Indicators

Each year, the Environmental Council collects data on important indicators of the health of Hawai`i's environment. These data are presented in text, tables and graphs so that the public and policy makers can readily understand the status of Hawai`i's environment today. The indicators provide a comprehensive look -- from water quality to native species -- at the many faceted task of keeping Hawai`i clean and healthy.

The indicators presented in the Annual Report of the Environmental Council are organized this year in categories reflecting the principles of ecosystem sustainability. In order for an ecosystem to be sustainable, it must:

- 1) Use sunlight or other renewable alternatives such as wind as the source of energy
- 2) Dispose of wastes and replenish nutrients by recycling all elements
- 3) Maintain biodiversity
- 4) Maintain the size of human or animal populations so that "overgrazing" and overuse do not occur

It may be possible for an ecosystem to sustain itself for long periods without adhering strictly to these principles. However, sustainability in perpetuity can be achieved only if the above principles are met.

In this section the Environmental Council also grades the status of Hawai`i's environment. The Council hopes that this evaluation stimulates the public to learn about and take action to improve our environment.

Environmental Indicators

Energy Use

1. Electric Utility Sales

Table 1 depicts the growth in electricity sales in Hawai'i. Utility sales per capita for defacto population (resident population plus average number of visitors) and per 1992 dollar of Gross State Product (GSP) have increased over the 11-year period.

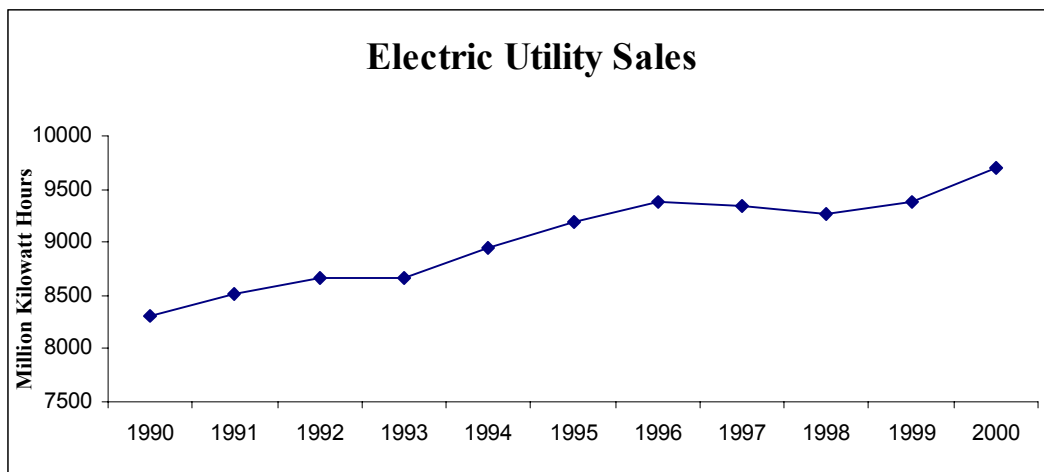
It should be noted that, in 2000, electric utility sales accounted for 88.1% of all electricity generation in Hawai'i. Hawai'i's electric utility sales generated 60.4% of total electricity generation, while independent power producers (IPP) and the sugar industry produced the remaining 39.6%. The IPPs and sugar mills sold 84% of their generation to the utilities (33.1% of total generation), and used 16% in their own operations (6.5% of total generation). Transmission losses accounted for the remaining 5.4% of total generation.

Table 1: Hawai'i Electric Utility Sales, 1990-2000.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
State Utility Sales (Million kWh)	8,311	8,524	8,667	8,658	8,948	9,187	9,378	9,346	9,261	9,380	9,690
State de facto Population (million)	1.24	1.25	1.26	1.26	1.28	1.28	1.28	1.31	1.31	1.31	1.34
State Average Annual per Capita Utility Electricity Use (kWh)	6,702	6,819	6,878	6,871	6,991	7,178	7,327	7,134	7,070	7,160	7,248
Gross State Product (Millions of 1992 \$)	32,396	32,205	32,504	32,671	32,656	32,207	32,068	32,692	33,363	33,872	35,142
\$GSP/kWh of Utility Electricity Use	3.90	3.78	3.75	3.77	3.65	3.51	3.42	3.50	3.60	3.61	3.63

Sources: State DBEDT, Energy, Resources, and Technology Division, Energy Data Services; State of Hawaii Data Book 2000; Utility FERC-1 and Annual Reports to the Public Utilities Commission.

Note: The vertical axis does not begin with zero.



Environmental Indicators

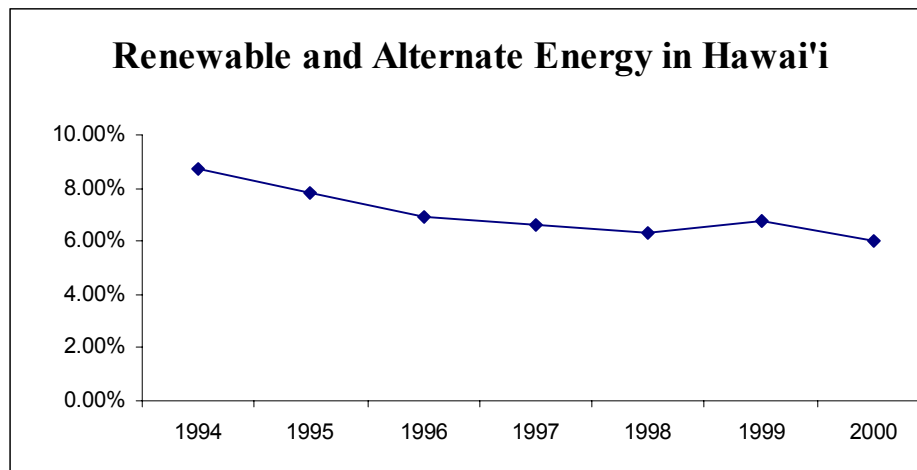
2. Energy Used in Hawai'i

One of Hawai'i's goals is to replace energy produced from fossil fuels with alternate and renewable sources such as solar power, biomass, hydro-electric, wind, geothermal and solid waste. The table below shows the amount of energy used in Hawai'i in trillion British thermal units (BtU) used.

Table 2: Total Energy Used in Hawai'i in Trillion BtU, 1994 to 2000.

Source	1994	1995	1996	1997	1998	1999	2000
Petroleum	285.5	274.0	277.1	278.3	269.1	272.5	290.2
Coal	13.6	16.5	16.9	16.8	14.8	14.5	15.5
Biomass	16.4	11.8	10.4	9.0	7.5	9.2	7.1
Solar Hot Water	2.3	2.8	3.1	3.1	3.1	3.5	3.6
Hydroelectric	1.5	1.1	1.1	1.0	0.8	1.2	1.0
Wind	0.2	0.2	0.2	0.2	0.2	0.0	0.2
Geothermal	1.8	2.3	2.4	2.4	2.3	2.0	2.6
Solid Waste	6.2	6.4	4.7	5.3	5.1	5.1	5.1
Photovoltaic	0.0003	0.0003	0.0005	0.0008	0.0020	0.0027	0.0043
Total	327.5	315.1	315.9	316.1	302.9	308.0	325.2

Source: State DBEDT, Energy, Resources, and Technology Division, Energy Data Services.



Environmental Indicators

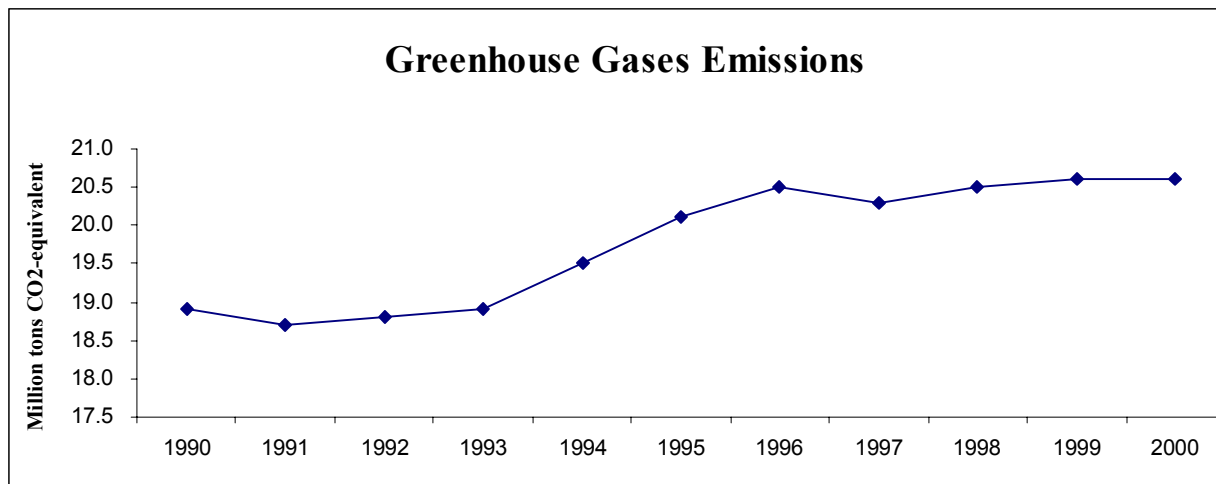
3. Estimated Greenhouse Gas Emissions

The earth's climate is changing because human activities are altering the composition of the atmosphere through the buildup of greenhouse gases, primarily carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons. The energy sector produces 90 percent of the greenhouse gases. The table below shows the estimated greenhouse gas emissions in Hawai'i.

Table 3: Estimated Greenhouse Gas Emissions in Millions of Tons Carbon Dioxide Equivalent, 1990-2000.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Greenhouse Gasses (Millions of Tons Carbon Dioxide Equivalent)	18.9	18.7	18.8	19.5	20.1	20.5	20.3	20.5	20.6	20.6	20.7

Source: State DBEDT, Energy, Resources, and Technology Division, Energy Data Services.



2000 recommendations to the Governor on "Global Warming: No More Business as Usual"

The Environmental Council recommends that the Governor and Legislature support the Kyoto Protocol to the United Nations Framework Convention on Climate Change, signed by the United States in November 1998, and accordingly, commit to reduce Hawai'i's greenhouse gas emissions by 7% less than 1990 emissions by 2008–2010. The *Hawai'i Climate Change Action Plan* (DBEDT, 1998) offers many strategies for reducing greenhouse gas emissions.

Environmental Indicators

4. Fossil Fuel Imported into Hawai'i

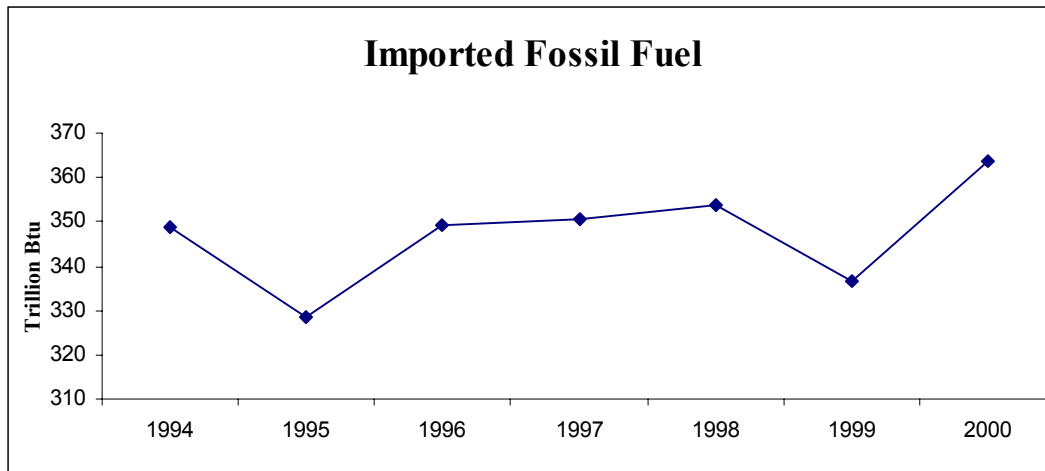
Fossil fuels are coal, oil and natural gas which formed inside the earth from the remains of plants and animals that lived many years ago. The table below shows the amount of imported fossil fuel imported into Hawai'i by type.

Table 4: Total Imported Fossil Fuel into Hawai'i in Trillion BtU, 1994 to 2000.

Type of Imported Fuel	1994	1995	1996	1997	1998	1999	2000
Crude Oil	323.9	298.2	301.9	296.4	299.6	272.5	289.4
Refined Oil Products	10.6	13.7	31.3	37.3	39.3	49.6	58.7
Coal	14.2	16.5	16.1	16.8	14.8	14.5	15.7
Total	348.7	328.4	349.3	350.5	353.7	336.6	363.8

Source: State DBEDT, Energy, Resources, and Technology Division, Energy Data Services.

Note: Figures in trillion British thermal units (Tbtu).



Environmental Indicators

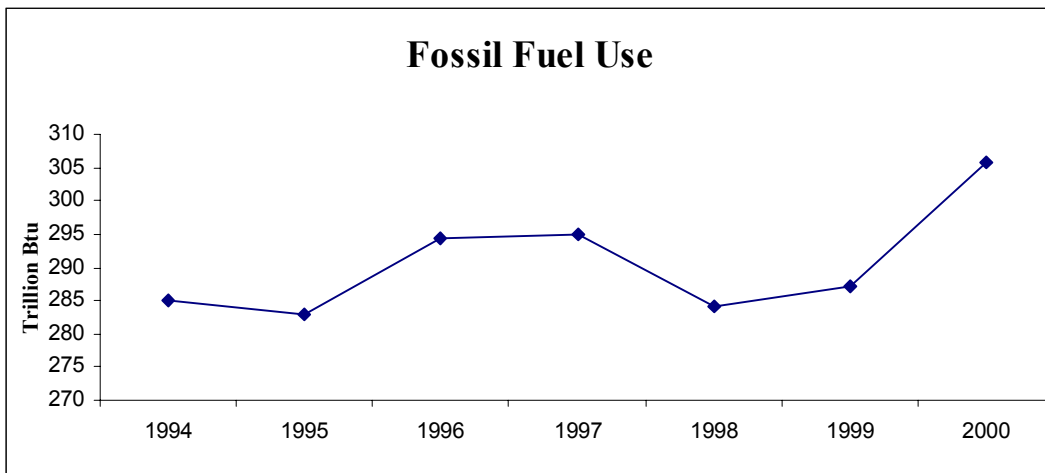
5. Fossil Fuel Use in Hawai'i

Hawai'i's over dependence upon imported oil is a major concern. In the event of a disruption in the world oil market, Hawai'i's economy and way of life would be adversely affected. Environmentally destructive oil spills are always a possibility during the transport of petroleum products. The table below shows the amount of fossil fuel used by category.

Table 5: Amount of Fossil Fuel Used in Hawai'i by Category in Trillion BTU, 1994 to 2000.

Sector	1994	1995	1996	1997	1998	1999	2000
Electricity Production (Oil)	82.2	78.6	84.2	83.2	85.6	87.2	91.8
Electricity Production (Coal)	13.6	16.5	16.9	16.8	14.8	14.5	15.5
Transportation - Ground & Water (Oil)	81.5	82.1	75.9	74.0	78.8	75.9	76.6
Transportation - Air (Oil)	90.0	96.5	102.4	102.7	93.3	92.3	102.7
Other Sectors (Oil)	17.7	9.3	15.1	18.4	11.5	17.1	19.1
Total	285.0	283.0	294.5	295.1	284.0	287.0	305.7

Source: DBEDT, Energy Division, Energy Data Services.



Use and Recycling of Resources

6. Municipal Water Consumption

Good drinking water is one of Hawai'i's greatest natural assets. The combination of a growing population and limited potable water resources is reducing the availability and quality of our drinking water.

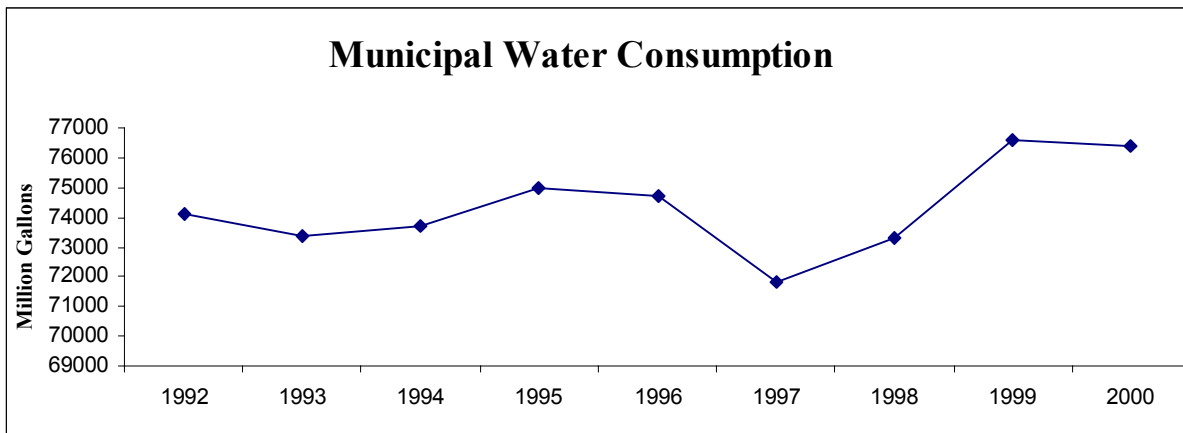
The table below shows water consumption through the respective municipal (county) water distribution systems. The Environmental Council's year 2002 goal for water consumption is 70,000 million gallons (MG).

Table 6: Municipal Water Consumption by County, Fiscal Years 1992 to 2000.

Fiscal Year	1992	1993	1994	1995	1996	1997	1998	1999	2000
Honolulu	51,241	51,033	50,407	51,006	50,682	48,624	49,265	51,614	51,020
Kauai	4,453	4,056	4,149	4,114	4,206	3,944	4,148	4,373	4,309
Hawaii	8,024	7,937	7,999	8,378	8,363	7,804	8,159	8,076	8,353
Maui	10,399	10,312	11,177	11,494	11,477	11,438	11,729	12,547	12,719
Total (MG)	74,117	73,338	73,732	74,992	74,728	71,810	73,301	76,610	76,401

Source: The State of Hawai'i Data Book 2000 prepared by the Department of Business, Economic Development and Tourism; Honolulu Board of Water Supply; Hawai'i County Department of Water Supply; Kaua'i Department of Water; and Maui Department of Water Supply.

Note: i) These figures include only municipal water supply. Military, private and plantation water systems are not included.



Note: The vertical axis does not begin with zero.

Environmental Indicators

7. Wastewater Treatment and Reuse

Promotion of wastewater management practices that protect, conserve and fully utilize water resources is vital for Hawai'i. One way to achieve this objective is to use water reclaimed from wastewater treatment plants for irrigation.

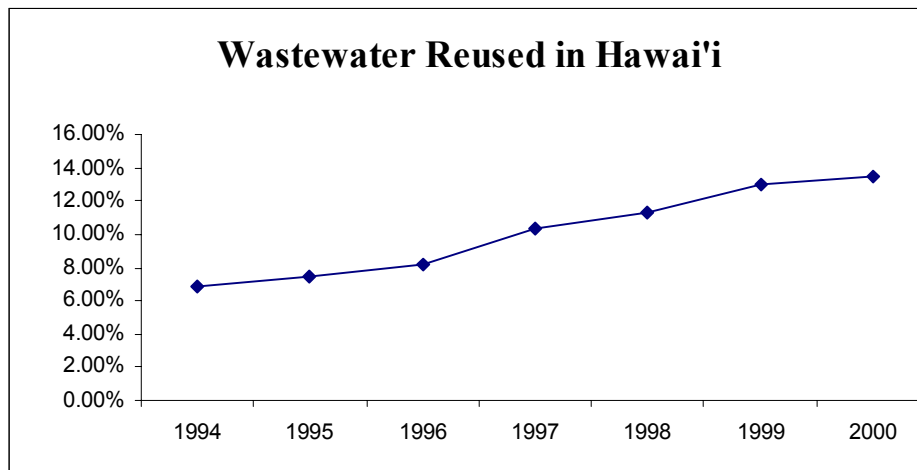
The table below shows the rate wastewater was treated and reused in millions of gallons per day (MGD). The Council's year 2002 goal for the percentage of treated wastewater reused is 18%.

Table 7: Total Statewide Wastewater Treatment and Reuse 1994 to 2000.

Federal Fiscal Year	Total Waste water Treated (MGD)	Wastewater Reused (MGD)	Percentage Reused
1994	151.6	10.5	6.9%
1995	150.1	11.1	7.4%
1996	150.1	12.3	8.2%
1997	150.0	15.6	10.4%
1998	150.0	17.0	11.3%
1999	150.0	19.5	13.0%
2000	150.0	20.2	13.5%

Source: Hawaii Department of Health.

Note: Previous annual reports show lower treatment and reuse figures because only municipal wastewater treatment systems were included.



Environmental Indicators

8. Solid Waste Generation and Diversion

Wise management of solid waste through programs of waste prevention, energy resource recovery, and recycling reduces human impact on the environment. Waste minimization, recycling and composting also reduce the amount of solid waste that we send to our landfills. It is the goal of the state to reduce the solid waste stream prior to disposal by 50% by January 1, 2000. Recent data show that we have only met half our goal.

The following table shows the total amount of municipal solid waste generated and the amount recycled and composted. The amounts diverted do not include waste sent to H-Power for incineration and power generation. The Environmental Council's year 2002 goal for municipal solid waste generated per capita is the present nationwide average of 4.3 pounds per day.

Table 8: Solid Waste Generation and Diversion in Hawai'i, 1994 to 2000.

Federal Fiscal Year	Produced Statewide (1,000 tons)	De facto Population	Daily per Capita (lbs)	Disposed Statewide (1,000 tons)	Diverted Statewide (1,000 tons)	Percentage Diverted
1994	1,953	1,276,171	8.4	1,616	337	17%
1995	2,023	1,281,732	8.6	1,620	403	20%
1996	2,122	1,284,594	9.1	1,619	503	24%
1997	2,132	1,305,611	8.9	1,599	533	25%
1998	2,004	1,309,366	8.4	1,524	481	24%
1999	1,884	1,307,639	7.9	1,424	460	24%
2000	1,794	1,337,991	7.3	1,441	353	20%

Source: Hawaii Department of Health and Department of Business, Economic Development and Tourism, Data Book 2000 (De facto Population).
 Note: The 2000 numbers are partial as not all facilities have reported to DOH.

1999 recommendations to the Governor on "Improving Hawai'i's Solid Waste Recycling Rate"

- Support local recycling enterprises
- Establish recycling demonstration projects
- Implement a comprehensive recycling program
- Invest in infrastructure to recycle
- Provide more funding to the Department of Health
- Support the development of a market for recycling products
- Use glassphalt for paving roadways
- Create preference for non-polluting recycling activities
- Amend definition of maritime business to include recycling
- Provide funds for market development research
- Enforce current recycling laws
- Expand the "advance disposal fee" program

Environmental Indicators

9. Hazardous Waste Generated

Hazardous wastes are classified as either ignitable, corrosive, reactive or toxic. These wastes have components that have been shown to be harmful to health and the environment. To protect worker safety, public health, and the environment, users of hazardous chemicals must minimize the amount of waste they generate.

State law requires large generators of hazardous waste to report biennially to the Director of Health the amount of hazardous waste generated. The following table shows the data. The Environmental Council's year 2002 goal for total hazardous waste generated is 900 tons.

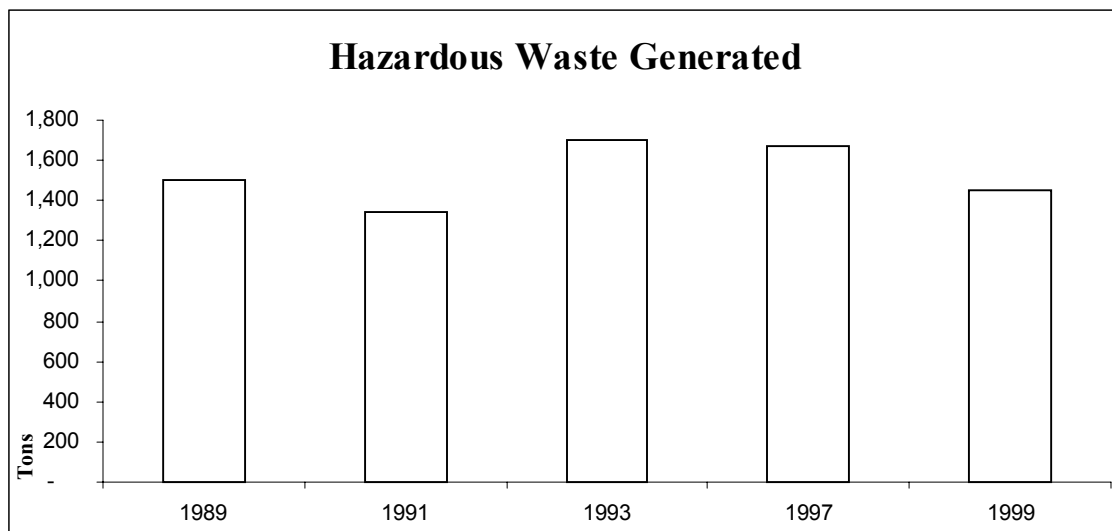
Table 9: Total Hazardous Waste Generated by Large Quantity Generators in Hawai'i, 1989 to 1999.

Federal Fiscal Year	1989	1991	1993	1995	1997	1999
Hazardous Waste Generated (in tons)	1,499	1,343	1,702	NA	1,669	1,456

Source: Hawaii Department of Health.

Note: i) Figures do not match previous years' annual report data as the numbers have been adjusted by the DOH.

ii) Data for 1995 are not included because the data collected by the Department of Health includes both **large and small** quantity generators.



Biodiversity Maintenance

10. Status of Plant Species

Hawai'i is the most isolated high land mass on Earth and most of our native plants are found nowhere else in the world. Species that reached the islands before the arrival of humans evolved with minimum competition. As a result, most native plants are easily damaged by feral animals and do not compete well with introduced, aggressive plants. Land use changes and exotic plants and animals cause major problems to our native species.

The table below shows the number of rare native plant species in Hawai'i.

Table 10: Number of Plant Species in Hawai'i by Status, 1999 to 2000.

Year	Listed Endangered or Threatened	Proposed Endangered or Threatened	Candidate for Endangered or Threatened Listing	Species of Concern	Total Rare Plant Species
1999	292	0	92	204	588
2000	292	0	92	204	588

Source: U.S. Fish and Wildlife Service.

Environmental Indicators

11. Status of Native Animal Species

The loss of native species in Hawai'i has been tremendous. Flora and fauna that evolved over millions of years have been devastated in less than 2,000 years. Twenty five percent of the U.S. endangered taxa occur in Hawai'i.

The table below shows the status of native animal species (except invertebrates) in Hawai'i.

Table 11: Status of Animal Species, 1998-2000.

Number of Species	Mammals			Birds			Turtles			Fishes		
	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
Total Native Species	4	4	4	93	93	93	5	5	5	22	22	22
Extinct Species	0	0	0	26	26	26	0	0	0	0	0	0
Listed Endangered	4	4	4	30	31	33	2	2	2	0	0	0
Listed Threatened	0	0	0	1	1	1	3	3	3	0	0	0
Proposed for Listing	0	0	0	0	1	0	0	0	0	0	0	0
Candidate Species	0	0	0	2	2	2	0	0	0	0	0	0
Species of Concern	0	0	0	5	4	4	0	0	0	0	1	1

Source: U.S. Fish and Wildlife Service

Note: i) The status of Hawaiian invertebrates is hard to assess due to lack of information on abundance and distribution for described (5,500+ species) and undescribed (3,000 - 5,000 species) taxa. ii) Four native mammals include the Monk Seal, Hoary Bat, Humpback Whale and Sperm Whale.

Environmental Indicators

12. Health of Hawai'i Fisheries

Ocean resources are an integral part of Hawai'i's heritage. Aquatic resources are extremely valuable for ecological, social and economic reasons. Sustaining and enhancing Hawai'i's living aquatic resources and their habitats make environmental and economic sense.

The tables below shows the figures for the bottomfish *spawning potential ratio (SPR)* compiled by the Honolulu Laboratory of the National Marine Fisheries Service. Archipelagic values of less than 20% indicate recruitment overfishing for the stock. Similar values for more localized areas, such as the Main Hawaiian Islands, indicate locally depleted resources. Localized depletion is still a serious problem, but not as serious as overfished stocks. The Environmental Council's year 2002 SPR goal for onaga within the Main Hawaiian Islands is 15%.

Table 12a. Main Hawaiian Islands Bottomfish Spawning Potential Ratio 1987 to 2000.

Bottomfish	Spawning Potential Ratio (in percent)													
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Ehu	13	9	17	12	7	4	5	6	7	8	9	9	7	8
Hapuupuu	37	52	58	37	34	37	26	33	21	20	23	23	28	25
Onaga	21	21	15	14	9	10	13	9	6	5	4	5	6	7
Opakapaka	31	37	58	42	39	44	32	37	35	27	32	27	28	35
Uku	21	64	55	30	26	28	46	37	40	41	34	33	47	33

Source: National Marine Fisheries Service.

Note: SPR is calculated from catch size composition and commercial catch rate. SPR values of less than 20% are thought to be indicative of recruitment overfishing, the point at which there may be too few spawning fish remaining to maintain the population. Target SPR values for ehu and onaga recovery are 20%.

Table 12b. Archipelago-Wide Bottomfish Spawning Potential Ratio 1987 to 2000.

Bottomfish	Spawning Potential Ratio (in percent)													
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Ehu	61	37	51	44	44	51	54	38	41	45	42	40	37	40
Hapuupuu	71	56	70	57	58	67	65	51	48	51	49	47	48	49
Onaga	61	42	38	36	42	41	53	39	33	40	25	23	34	27
Opakapaka	69	49	69	57	57	68	67	53	54	53	53	49	46	52
Uku	65	62	68	52	53	61	73	52	56	60	54	51	55	52

Source: National Marine Fisheries Service.

Environmental Indicators

Environmental Quality

13. Air Quality Comparison with Other Cities

Breathing polluted air can cause health problems ranging from difficulties in breathing to aggravation of asthma, to cancer and even death. Air pollution can also damage buildings and vegetation.

All metropolitan areas in the United States with populations greater than 200,000 are required to report their air quality to the EPA. The table below lists the number of days the air quality at certain cities exceeded EPA standards.

Table 13: Number of Days Air Quality Declared Unhealthy by EPA Standards, 1989 to 1998.

	# of Monitoring Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Honolulu	6	0	0	0	0	0	0	0	0	0	0
Dallas	8	18	24	2	11	12	15	36	12	15	18
Las Vegas	6	36	21	8	4	6	8	1	5	0	0
Los Angeles	38	215	173	169	175	134	139	113	94	60	56
Orlando	9	9	4	1	4	4	3	1	1	4	11
San Francisco	9	0	0	0	0	0	0	2	0	0	0

Source: EPA Office of Air Quality Planning and Standards, Table A-15 of the National Air Quality & Emissions Trends Report, 1998.

14. Air Quality Measurements in Honolulu

Hawaii's annual average concentrations of sulfur dioxide are so low that they do not pose a health concern. The following are annual average concentrations of sulfur dioxide from the Kapolei air monitoring station.

Table 14: Air Quality Measurements in Honolulu, 1994 to 2000.

	1996	1997	1998	1999	2000	Federal Standard
PM₁₀ (F g/m³)	14	8	9	14	14	50
CO (F g/m³)	2127	4133	6726	4788	3990	40,000
SO₂ (F g/m³)	3	2	2	2	1	80

Source: Hawaii Department of Health.

Notes: PM₁₀, SO₂ are annual means; CO is the maximum 1-hour value recorded in the year.

Environmental Indicators

15. Ambient Levels of Carbon Monoxide

Table 15: Annual Average of Daily Maximum 1-Hour Carbon Monoxide (in ug/m³), 1995-2000.

	Honolulu	Waikiki	West Beach	Kapolei	Federal Standard
1996	2,127	2,159	594	477	40,000
1997	4,133	1,939	598	541	40,000
1998	6,726	1,672	470	419	40,000
1999	4,788	1,634	299	387	40,000
2000	3,990	4,332	1,596	2,508	40,000

Source: Hawaii Department of Health.

16. Ambient Levels of Sulfur Dioxide

Table 16: Annual Average Sulfur Dioxide (in ug/m³), 1995-2000.

	Honolulu	West Beach	Kapolei	Makaiwa	Federal Standard
1995	3	1	2	2.5	80
1996	3	3	2	1	80
1997	2	6	2	1	80
1998	2	4	2	3	80
1999	2	1	2	2	80
2000	1	3	1	1	80

Source: Hawaii Department of Health.

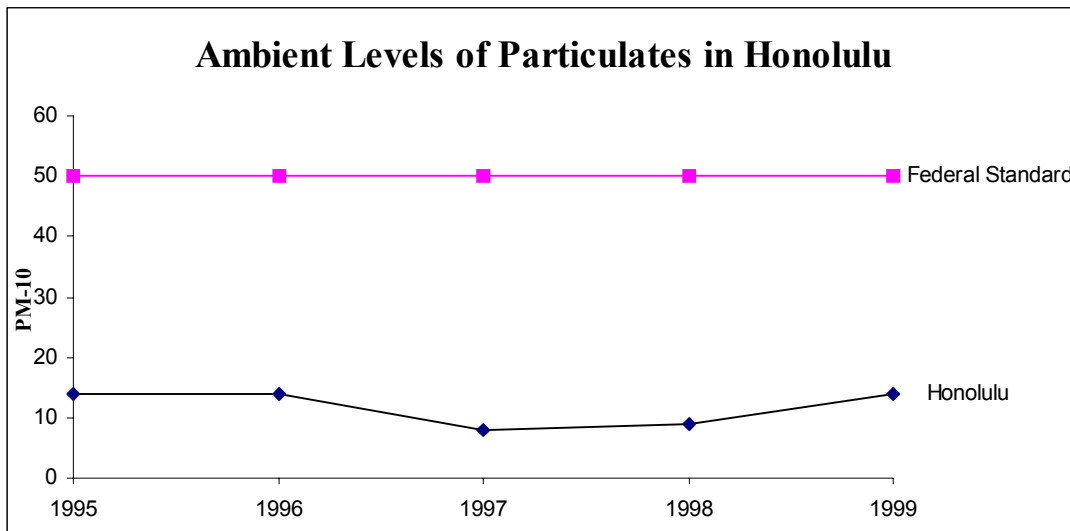
Environmental Indicators

17. Ambient Levels of Particulates

Table 17: Annual Average 24-Hour Sampling of PM-10 on Oahu (in ug/m³), 1995-2000.

	Honolulu	Liliha	Pearl City	Waimanalo	West Beach	Kapolei	Federal Standard
1995	14	15	17	16	16	24	50
1996	14	16	14	16	18	19	50
1997	8	15	14	18	17	13	50
1998	9	15	16	20	16	15	50
1999	14	15	14	18	13	15	50
2000	14	15	16	17	14	17	50

Source: Hawaii Department of Health.



Environmental Indicators

18. Beaches Posted as Unsafe Due to Pollution

Residents and visitors use our public beaches and the ocean for recreation and fishing. Sewage and chemical spills can restrict our enjoyment and use of the shoreline as well as poison aquatic life.

The following table shows the number of times beaches were posted with warning or closure signs (unsafe due to water pollution) by the Department of Health. Beach closures increased 50% in 1999 largely due to the DOH requiring more precautionary closures. The Environmental Council's year 2002 goal for beach closure days is 5.

Table 18: Days Beaches Posted as Unsafe Due to Pollution by DOH, 1994 to 2000.

Year	Days beaches closed
1994	20
1995	16
1996	45
1997	28
1998	13
1999	26
2000	20

Source: Hawaii Department of Health.

Note: i) There were additional postings of warning signs on streams, lakes, and harbors.

ii) Other agencies may also post warning signs on beaches. For example, the City and County of Honolulu also posts warning signs on beaches after opening stream mouths to drain water.

iii) Figures do not match previous years' annual report data as the numbers have been adjusted by the DOH.

19. Oil and Chemical Spills

Oil and chemical spills pollute our ocean, streams, groundwater. In addition to the environmental and ecological damage, cleanup costs run into the millions of dollars. Even with the best response plan, it is impossible to restore the environment to its original condition. Spill prevention must be our primary strategy.

The following table shows the number of oil and chemical spills in Hawai'i. The Environmental Council's year 2002 goal for the number spills is 365.

Table 19: Oil and Chemical Spills in Hawai'i, 1995 to 2000.

Federal Fiscal Year	Oil Releases	Chemical Releases	Total Spills
1995	126	222	348
1996	237	230	467
1997	295	205	500
1998	225	305	530
1999	240	286	526
2000	163	303	466

Source: Hawaii Department of Health.

Note: i) Figures do not match previous years' annual report data as the numbers have been adjusted by the DOH.

Environmental Indicators

20. Safe Drinking Water

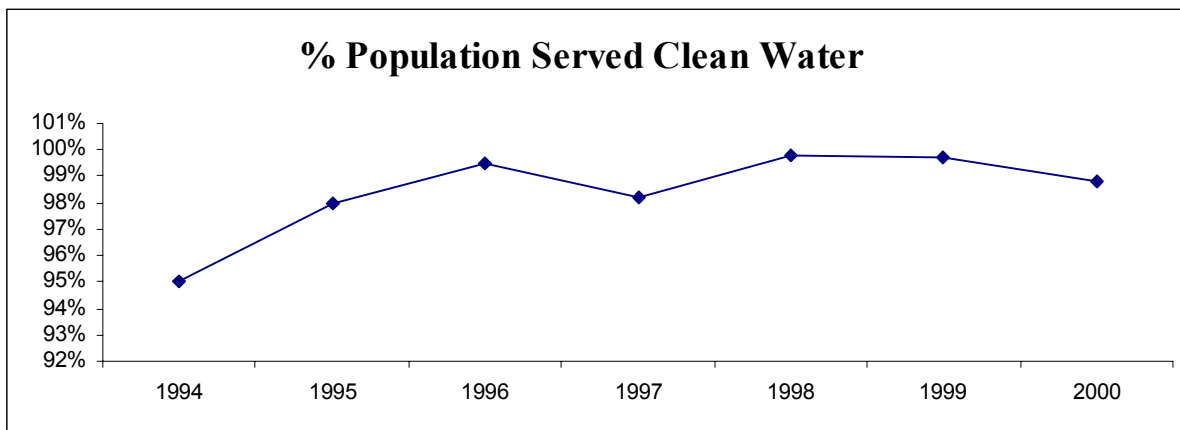
Fresh water is a precious resource. Pesticides, fertilizers, oils and chemicals that we apply to the ground eventually seep into our drinking water aquifers. We must protect our drinking water supplies from contamination, or spend millions of dollars for treatment.

Public water systems provide piped water for human consumption such as drinking and washing. They include both municipal and private facilities for the collection, treatment, storage and distribution of water. The next table shows the percentage of Hawai'i's population served drinking water in compliance with 1994 maximum microbiological and chemical contaminant levels. Water which exceeds maximum contaminant levels (MCLs) is believed to be harmful to human health.

Table 20: Population Served Safe Drinking Water, 1994 to 2000.

Federal Fiscal Year	Total Population Served Drinking Water	Population Served Water Below MCLs	Percentage Population Served Water Below MCLs
1994	1,343,548	1,276,400	95.0%
1995	1,343,538	1,317,301	98.0%
1996	1,347,266	1,341,126	99.5%
1997	1,334,397	1,310,573	98.2%
1998	1,333,717	1,331,353	99.8%
1999	1,294,772	1,291,099	99.7%
2000	1,291,907	1,277,016	98.8%

Source: Hawaii Department of Health.



Environmental Indicators

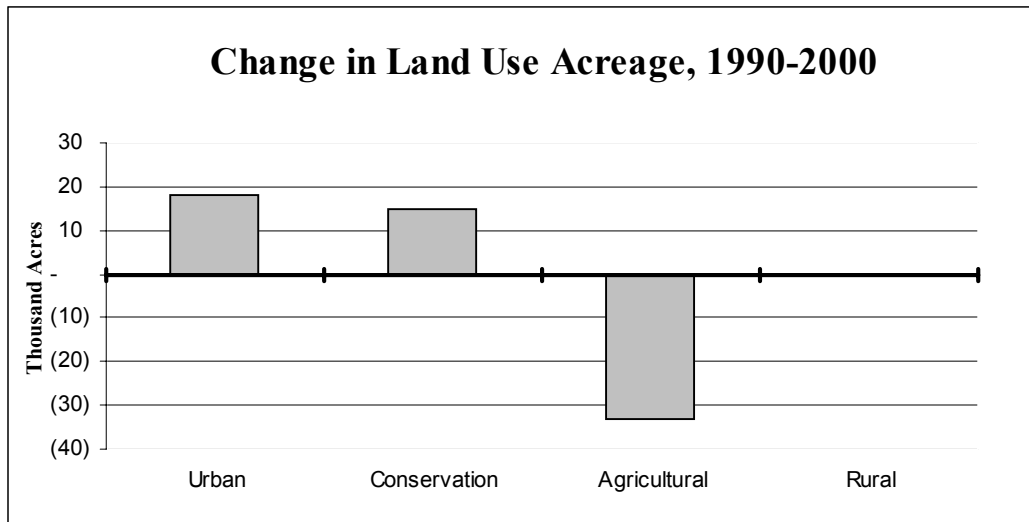
21. Statewide Land Use District Acreage

There are four land use districts designations for all lands in the state: urban, rural, agricultural, and conservation. With the decline of sugar cane and pineapple, there may be less productive agricultural land in Hawai'i than previously. The following table shows that since 1990, more than 30,000 acres of agricultural land have been converted to Urban and Conservation designations. The Council's year 2002 goal for conservation land area is 2,110,000 acres.

Table 21: State Land Use District Acreage 1990 to 2000.

Year	Land Area in Thousand Acres			
	Urban	Conservation	Agricultural	Rural
1990	175	1,961	1,966	10
1991	178	1,961	1,963	10
1992	181	1,960	1,961	10
1993	181	1,961	1,961	10
1994	188	1,959	1,956	10
1995	190	1,976	1,936	10
1996	191	1,975	1,936	10
1997	192	1,975	1,935	10
1998	193	1,975	1,934	10
1999	195	1,975	1,933	10
2000	193	1,976	1,933	10

Source: State Land Use Commission, Department of Business, Economic Development and Tourism.



Environmental Indicators

Public Awareness/Concern

22. State Environmental Expenditures

Environmental protection is one of the 11 primary objectives of the state government. Programs within the environmental protection structure include: Department of Health (Environmental Management, Environmental Health Administration, and Office of Environmental Quality Control); Department of Land and Natural Resources (Forestry & Wildlife, Commission on Water Resources Management, Conservation and Resources Enforcement, Natural Area Reserves, Aquatic Resources, Mineral Resources, and Conservation District); and Department of Agriculture (Pesticides).

More funding to promote the goals of Hawai'i's environmental programs will result in better overall state environmental quality. The portion of expenditures for environmental protection reflects the priority given towards environmental programs relative to other functions.

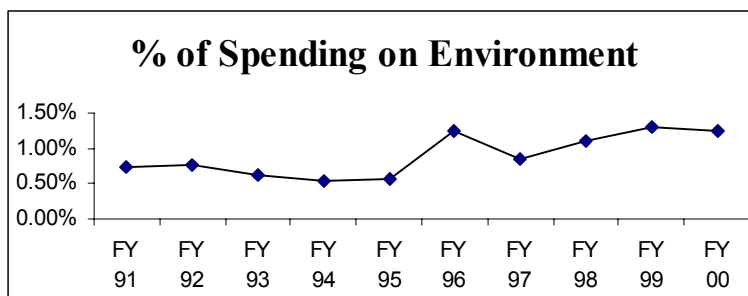
The table below shows the sum of money and the percentage of total state expenditures spent on environmental protection programs. The Environmental Council's year 2002 goal for the percentage of total state expenditures spent on environmental protection programs is 1.9% which is the average of states in the nation.

Table 22: State Expenditures on Environmental Protection Programs, FY 1991 to 2000.

Fiscal Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
State Expenditures (million \$)	3,413	3,907	4,320	4,953	5,092	4,906	5,338	5,393	5,315	5,538
Environmental Expenditures (millions \$)	25	30	26	27	30	61	45	60	69	69
Environmental Spending as % of State Expenditures	0.74%	0.76%	0.61%	0.55%	0.59%	1.25%	0.85%	1.10%	1.30%	1.24%

Source: The Variance Report, State of Hawai'i, compiled by the Department of Budget and Finance. This report is prepared annually and submitted to the state Legislature.

Note: Beginning with fiscal year 1996, environmental spending figures include the Water Pollution Control Revolving Fund that was not shown in previous years. Revolving fund expenditures fluctuate greatly from year to year.



Environmental Indicators

23. Registered Motor Vehicles in Hawai'i

Exhaust from motor vehicles contains many air pollutants, including carbon monoxide, ozone and particulates. We breathe these toxic pollutants. Reducing the number of motor vehicles on our roads and improving emission control technology will improve air quality. We can help reduce air pollution by walking, biking or taking the bus instead of riding gas-powered cars.

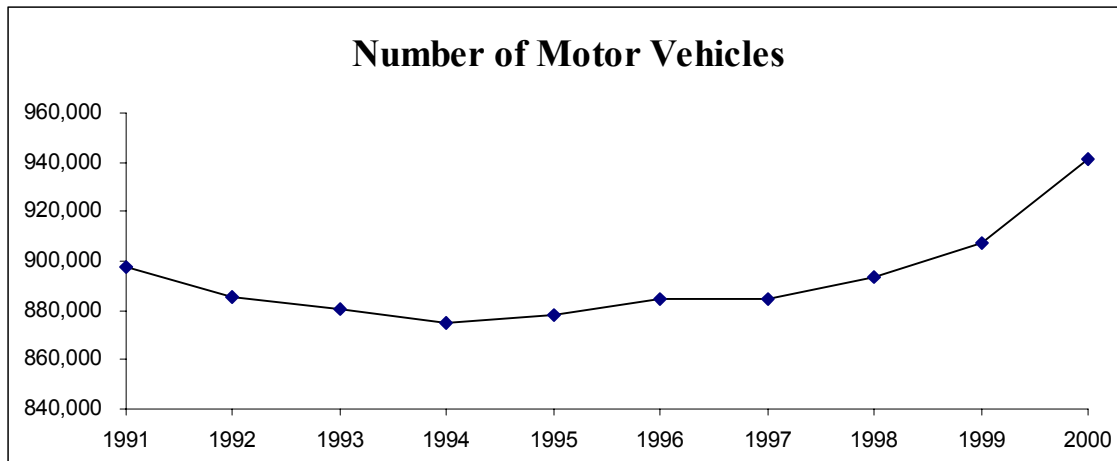
The table below shows the total number of registered motor vehicles in Hawai'i. The Council's year 2002 goal for the number of motor vehicles per capita is 0.61.

Table 23: Number of Registered Motor Vehicles In Hawai'i, 1991 to 2000.

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Motor Vehicles (in thousands)	897	886	880	875	878	885	884	893	907	941
State de facto Pop. (million)	1.24	1.25	1.26	1.26	1.28	1.28	1.28	1.31	1.31	1.34
Vehicles per Person	0.72	0.71	0.70	0.69	0.69	0.69	0.69	0.68	0.69	0.70

Source: Statewide data provided by the City and County of Honolulu, Department of Finance, Motor Vehicles and Licensing Division.

- Note: i) Carbon monoxide is a colorless, odorless and tasteless gas.
 ii) Ozone is a poisonous form of pure oxygen. It is pungent smelling and faintly bluish.
 iii) De facto population obtained from State Data Book.



Note: The vertical axis does not begin with zero.

Environmental Indicators

24. Noise Complaints Received by the Health Department

Loud noises can lead to health problems such as stress and hypertension. Noise also causes distress to wildlife and disrupts people's enjoyment of nature and wilderness. Usually, increase in urbanization results in more noise.

The following table shows the number of noise complaints (by category) received by the Department of Health. The Council's year 2002 goal for the number of noise complaints per hundred thousand people is 25.

Table 24: Number of Noise Complaints Received by the Department of Health, 1992 to 2000.

Type of Complaint	1992	1993	1994	1995	1996	1997	1998	1999	2000
Agriculture	5	2	1	3	1	0	0	0	6
Aircraft	8	9	12	11	5	6	0	1	3
Commercial	0	0	21	6	3	13	4	13	8
Construction	166	164	157	142	140	112	146	106	250
Industrial	6	19	6	2	3	7	9	2	9
Miscellaneous	31	22	17	12	12	14	18	12	14
Refuse Collection	72	36	41	35	41	68	43	33	30
Stationary	100	85	93	112	109	104	75	93	97
Unknown	6	10	4	13	8	8	13	11	8
Nuisance Complaints:									
Animal	42	34	22	24	16	14	12	8	14
Hobby	11	3	8	9	9	12	4	6	10
Maintenance	38	37	29	37	27	21	25	20	17
People	21	23	16	12	13	13	5	8	2
Sound Production Devices	100	93	62	48	40	45	51	47	42
Vehicular	39	26	20	21	30	24	22	12	26
Total	645	563	509	487	457	461	427	372	536
State de facto Population (Million)	1.26	1.26	1.28	1.28	1.28	1.31	1.31	1.31	1.34
Noise Complaints per Hundred Thousand People	51	45	40	38	36	35	33	28	40

Source: Department of Health - Noise, Radiation and Indoor Air Quality Branch.

Environmental Indicators

25. Bikeway Miles

Alternate transportation modes such as bicycling and mass transit systems conserve energy, alleviate traffic congestion, reduce air pollution, support physical fitness and recreation, and provide green corridors. Overall, they improve environmental quality and the urban landscape.

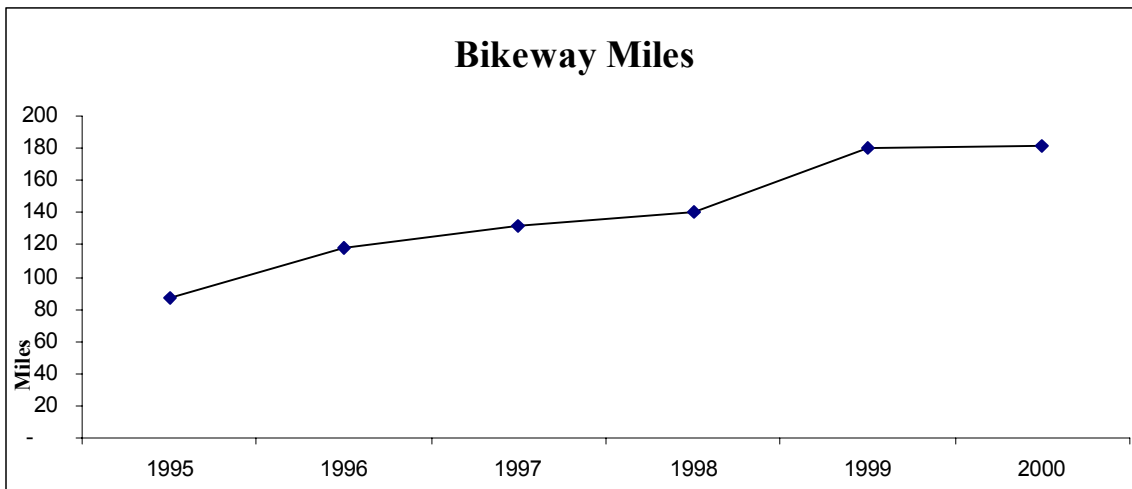
The next table shows the total miles of bikeways in Hawai'i by island. The Environmental Council's year 2002 goal for total miles of bikeways is 327.

Table 25: Miles of Bikeways in Hawai'i, 1995 to 2000.

Island	Bikeway Miles					
	1995	1996	1997	1998	1999	2000
Kauai	3.8	3.8	6.8	6.5	6.2	6.2
Oahu	55.4	66.1	56.6	60.3	73.7	75.1
Maui	19.6	40.0	40.8	43.3	67.1	67.1
Hawaii	8.2	8.2	27.8	30.8	32.7	32.7
Statewide	87.0	118.1	132.0	140.9	179.7	181.1

Source: State Department of Transportation, Highways Division

Note: i) Bikeway miles are provided only for bikeways that are designated as such through signing. The State and counties have installed many miles of improved paved shoulders, 4 feet or wider, on roadways which can accommodate bicycles but are not designated routes.



Environmental Indicators

26. Number of Bus Boardings on O`ahu

The data below are estimates of the number of boardings on O`ahu for TheBus. An effective mass transit system can reduce traffic congestion and improve the quality of life in a city. These estimates are calculated based on the amount of money in the fare box, number of monthly passes sold, and random samples. The Environmental Council's year 2002 goal for bus boardings on O`ahu is 89 million.

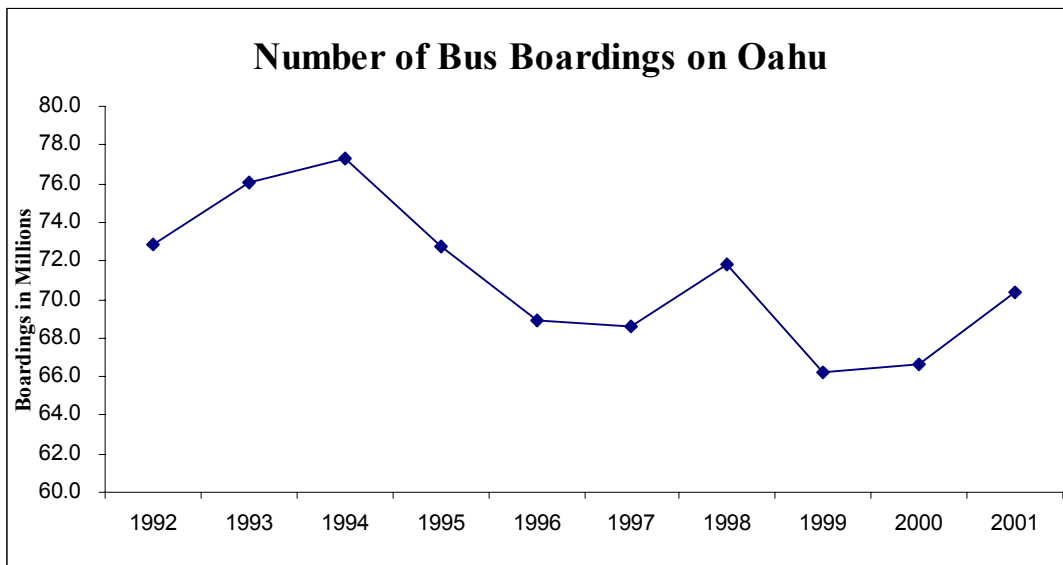
Table 26: Number of Bus Boardings on O`ahu, 1992 to 2000.

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Number of Bus Boardings (in millions)	72.9	76.1	77.3	72.7	68.9	68.6	71.8	66.2	66.6	70.4

Source: Public Transit Division of the Department of Transportation Services.

Note: i) Figures include residents and visitors.

ii) The figures are calendar year estimates of total passengers for TheBus calculated from reports to the American Public Transit Association.



Note: The vertical axis does not begin with zero.

Environmental Indicators

2001 Environmental Report Card

In this section, the Environmental Council grades the status of Hawai'i's environment. This year the Council continues to measure progress towards annual goals. This report card provides citizens and policy makers with a quick assessment of how well we are caring for our environment. The Council hopes this evaluation stimulates the public to learn about and take action to improve our environment. Your thoughts and suggestions on the content and methodology of this report card are welcomed.

2001 Environmental Report Card State of Hawai'i	Progress Grade	Status Grade
Energy Use	C	D
Use & Recycling of Resources	B-	C
Biodiversity Maintenance	B-	D
Air Quality	A+	A+
Water Quality	C+	A-
Terrestrial Quality	B	B
Public Awareness & Concern	C+	C
Overall Grade	B	C+

What the grades mean:

Grade	Progress Grade	Status Grade
A	Excellent	Optimum
B	Improvement	Good
C	No Significant Change	Poor
D	Significantly Worse	Very Poor
F	Disaster	Unacceptable

Environmental Indicators

Method for Calculating Environmental Progress and Status Grades:

Step 1.

Environmental Progress Scores and Grade

The method used to calculate the grades was selected to reward progress toward environmental indicator goals established for the year 2002. Progress is evaluated on a yearly basis and is measured relative to incremental progress toward the year 2002 goal. The grading system rewards Hawai'i's people for movement towards sustainability and reduction of pollution levels.

Establishing goals for each environmental indicator is a necessary starting point for the grading method. In some instances the agency responsible for monitoring the data has an established target for the indicator. The Council considered agency goals in establishing our year 2002 goals for the indicators used in this report card.

With the previous year's data and year 2002 goals available it is possible to determine annual increments approaching the goals. A linear scale is used to calculate annual increments. Indicator ratings are assessed relative to annual goals and an unacceptable condition.

Individual indicator scores are assigned as follows:

Present condition equal to or better than annual goal	= 100
Present condition equal to previous year's level	= 50
Present condition equal to unacceptable condition	= 0

A linear scale is employed to assign scores for conditions falling between the limits listed above. Letter grades corresponding to the assigned scores are given in the same manner as last year.

Environmental Status Scores and Grades

The method used is based on the National Wildlife Federation's 1971 Environmental Quality Index (Kimball, 1972). Individual indicator scores are assigned as follows:

Present condition equal to or better than optimum condition	= 100
Present condition equal to unacceptable condition	= 0

A linear scale is employed to assign scores for conditions falling between the limits listed above. Letter grades corresponding to the assigned scores are given in the same manner as last year.

Step 2.

The environmental indicators are then organized into eight categories. The categories are: Energy Use, Use and Recycling of Resources, Biodiversity Maintenance, Air Quality, Water Quality, Terrestrial Quality, Public Awareness & Concern.

A weight is assigned to each of the indicators in a given category. This weight is used to obtain the score for each category. The weights are assigned to each indicator in relation to the empirical importance of the indicator itself as well as the reliability of its related data. For simplicity in interpreting the "0" to "100" scores, letter grades are used.

Step 3.

Finally, a weighted average of the nine components is used to obtain a progress index and grade for Hawai'i's environment.

Limitations:

The comprehensiveness and accuracy of the grades are limited by the following factors:

- The assessment is based on a sample of 20 environmental indicators. This small sample is not a full representation of Hawai'i's environment.
- The benchmarks for unacceptable and 2002 goals are based on assumptions and judgments made by the Council (see below). Others may have very different opinions about the figures.
- The relative importance value to compute the weighted averages for the categories and total index is also subjective based on the Council's beliefs.

This is the fourth attempt to assess the status of Hawai'i's environment. The Council hopes to continually refine and improve this assessment process.

Environmental Indicators

Table A: Benchmarks, Environmental Progress Points and Status Scores.

Indicator	Unacceptable Condition	Average of Previous 3 Years	Latest Year Level	Latest Year Goal	Year 2002 Goal	Optimum Cond.	Progress		Status	
							Pts.	Grade	Pts.	Grade
% of Energy from Renewable Sources	0.0	6.6	6.0	8.3	10.0	25.0	45	C	24	D-
Greenhouse gas emissions in million tons	23.0	20.6	20.7	19.8	19.0	15.7	48	C	32	D
Water Consumption in Million Gallons	100,000	73,907	76,401	71,954	70,000	50,000	45	C	47	C
% of Treated Wastewater Reused	0	11.6	13.5	14.8	18	25	80	A-	54	C
Daily per capita Waste Generated in pounds	10.8	8.4	7.3	6.4	4.3	3.6	77	B+	49	C
% of Waste Diverted	0	24	24	37	50	75	50	C	32	D
Hazardous Waste Generated in Tons	2,700	1,686	1,456	1,124	900	500	70	B	57	C+
Number of Rare Native Plant Species	1000	588	588	537	486	0	50	C	41	C-
Onaga Spawning Potential Rate	0	5	7	10	15	50	71	B	14	F
Particulate Levels as a % of Federal standards	100	29	34	75	75	75	100	A+	100	A+
Number of Unhealthy Air Days	1	0	0	0	0	0	100	A+	100	A+
Days Beaches Posted Unsafe	100	22	20	14	5	0	69	B	80	A-
Number of Oil and Chemical Spills	1000	519	466	442	365	100	80	A-	59	C+
Conservation Land Area in million acres	1.03	1.98	1.98	2.05	2.11	2.25	50	C	78	B+
% of Population Served Water Below MCLs	90	99.2	98.8	99.6	100	100	48	C	88	A
% of State Funding for Environment	0	1.08	1.24	1.49	1.90	2.50	70	B	50	C
Number of Motor Vehicles per capita	1	0.69	0.70	0.65	0.61	0.33	48	C	45	C
Noise Complaints per 100,000 People	100	32	40	29	25	10	44	C-	67	B
Bikeway Miles	0	151	181	239	327	1309	69	B	14	F
Annual TheBus Boardings in millions	0	68	70	79	89	124	57	C+	56	C+

Environmental Indicators

Table B: Scores and Grades for Environmental Progress

Category	Indicator	Progress Points	Indicator Weights	Category Scores	Category Grade	Category Weights	Total Score	Total Grade
Energy Use	% of Energy from Renewable Sources	45	50%	47	C	15%	65	B
	Greenhouse Gas Emissions	48	50%					
Use & Recycling of Resources	Water Consumption in Million Gallons	45	20%	64	B-	15%		
	% of Treated Wastewater Reused	80	20%					
	Daily per capita Waste Generated in pounds	77	20%					
	% of Waste Diverted	50	20%					
	Hazardous Waste Generated in Tons	70	20%					
Biodiversity Maintenance	Number of Abundant Native Plant Species	50	50%	61	B-	10%		
	Onaga Spawning Potential Rate	71	50%					
Air Quality	Particulate Levels as % of National Standard	100	50%	100	A+	15%		
	Number of Unhealthy Air days	100	50%					
Water Quality	Days Beaches Posted Unsafe	69	50%	59	C+	15%		
	% of Pop. Served Water Below MCLs	48	50%					
Terrestrial Quality	Conservation Land Area in million acres	50	50%	65	B	15%		
	Number of Oil & Chemical Spills	80	50%					
Public Awareness & Concern	% of State Funding for Environment	70	20%	58	C+	15%		
	Number of Motor Vehicles per capita	48	20%					
	Noise Complaints per 100,000 People	44	20%					
	Bikeway Miles	69	20%					
	Annual TheBus Boardings in millions	57	20%					

Environmental Indicators

Table C: Scores and Grades for Environmental Status

Category	Indicator	Status Points	Indicator Weights	Category Scores	Category Grade	Category Weights	Total Score	Total Grade
Energy Use	% of Energy from Renewable Sources	24	50%	28	D	15%	59	C+
	Greenhouse Gas Emissions	32	50%					
Use & Recycling of Resources	Water Consumption in Million Gallons	47	20%	48	C	15%		
	% of Treated Wastewater Reused	54	20%					
	Daily per capita Waste Generated in pounds	49	20%					
	% of Waste Diverted	32	20%					
	Hazardous Waste Generated in Tons	57	20%					
Biodiversity Maintenance	Number of Abundant Native Plant Species	41	50%	28	D	10%		
	Onaga Spawning Potential Rate	14	50%					
Air Quality	Particulate Levels as % of National Standard	100	50%	100	A+	15%		
	Number of Unhealthy Air days	100	50%					
Water Quality	Days Beaches Posted Unsafe	80	50%	84	A-	15%		
	% of Pop. Served Water Below MCLs	88	50%					
Terrestrial Quality	Conservation Land Area in million acres	78	50%	69	B	15%		
	Number of Oil & Chemical Spills	59	50%					
Public Awareness & Concern	% of State Funding for Environment	50	20%	46	C	15%		
	Number of Motor Vehicles per capita	45	20%					
	Noise Complaints per 100,000 People	67	20%					
	Bikeway Miles	14	20%					
	Annual TheBus Boardings in millions	56	20%					

Environmental Indicators

Assumptions:

The Environmental Council's assumptions for unacceptable conditions, year 2002 goals, and optimum levels for Hawai'i's environmental indicators are listed below.

a) Renewable Energy: The Department of Business, Economic Development and Tourism has proposed a year 2002 goal of 7% for the amount of energy from renewable sources. The Council prefers a more aggressive goal of 10% for the year 2002 and 25% for optimum conditions.

b) Greenhouse Gasses: The Council supports the Kyoto Protocol which calls for emissions of 7% below 1990 levels by 2010. This works out to 19 million tons by 2002 and 15.7 million tons by 2010 for optimum. The unacceptable level is 23 million tons.

c) Water Consumption: The Council has set 70,000 million gallons per year as the goal for the year 2002. 100,000 is unacceptable. The optimum level is 50,000.

d) Treated Wastewater Reused: The reuse target for the year 2002 is 18%. The optimum level is 25%.

e) Waste Generated: According to Healthy Hawai'i 2000, the national objective is to reduce the average pounds of municipal solid waste produced per person each day to no more than 3.6 pounds. The optimum level is the same as the national objective. The year 2002 goal is the present national average of 4.3 pounds per person per day (EPA, 1997). It is unacceptable to produce 3 times the national objective.

f) Waste Diverted: Pursuant to section 342G-3, HRS, it is the goal of the state to reduce solid waste stream prior to disposal by 50% by the year 2000. The same goal is used for the year 2002. The optimum level is 75%.

g) Hazardous Waste: The Department of Health has set a target of 900 tons for the year 2002. Three times the 2002 target amount is unacceptable. The optimum target is 500 tons.

h) Native Plant Species: The year 2002 goal is to have 1/2 the species of concern removed from the rare list. 1,000 species listed as rare would be unacceptable. Optimally, all native species would be in abundance.

i) Onaga SPR: The National Marine Fisheries Service has set a target of 15% or better for the Onaga SPR for the year 2002. The optimum level is 50%.

j) Particulate Levels: The year 2002 goal and the optimum level is 75% of the federal standard.

k) Unhealthy Air Days: Not a single day should be declared unhealthy in Hawai'i.

l) Beaches Posted Unsafe: The Department of Health has set a target of 5 beach closure days for the year 2002. A level of 100 beach closure days per year is unacceptable. Optimally, no beaches would be closed.

m) Oil and Chemical Spills: The year 2002 goal is to have less than 365 spills. The optimum number is 100 or less.

n) Conservation Land: The 2002 goal coincides with the State Land Use District Boundary Review, 1992 recommendation that approximately 150,000 acres of Urban and Agricultural lands be converted to Conservation zoning. The report also identifies another 139,000 acres of non-Conservation land as "Areas of Critical Concern" that should be protected for its conservation resource value. Therefore, the optimum level is the conversion of 289,000 acres. Any less amount than one fourth of state lands in the Conservation district is unacceptable.

o) Drinking Water: The year 2002 goal and the optimum level to have 100% of the population drinking clean water.

p) Environmental Spending: Based on information presented in World Resources Institute's 1992 Environmental Almanac the average state in the U.S. spends approximately 1.9% of its state budget on environmental protection. The year 2002 goal is the same as the average state. The optimum level is 2.5%.

q) Motor Vehicles: The year 2002 goal is to reduce the number of motor vehicles per capita by 10% from the 1995 level. One motor vehicle per person is unacceptable. The optimum level should be one motor vehicle for every three people (the average household size is three people).

r) Noise Complaints: The year 2002 goal is 25 complaints per hundred thousand people. An average of 100 noise complaints per hundred thousand people is unacceptable. The optimum number is 10 or less per hundred thousand people.

s) Bikeway Miles: According to Bike Plan Hawai'i a total of 1,309 miles of bikeways is proposed. The optimum condition is the construction of all the bikeways proposed. The year 2002 goal is to have 25% of the bikeways installed.

t) Bus Ridership: The present bus fleet is 525. The FEIS for the Honolulu Rapid Transit Program considered an expanded bus fleet of 997 buses for the Transportation System Management alternative. Based on Table 1.1 in the Comprehensive Bus Facility & Equipment Requirements Study, we estimate that the number of boardings for a fleet of 997 buses would be 124,000,000 per annum. The optimum level is 124,000,000 boardings. The year 2002 goal is to increase boarding by 10% from 1995 levels.

Environmental Indicators

Letter Grades:

For the sake of simplicity in interpreting the “0” to “100” scores, letter grades are used. The scale that we used was obtained from A Rating Guide to Life in America’s Fifty States (Thomas, 1994).

100 = A+
85-99 = A
80-84 = A-
75-79 = B+
65-74 = B
60-64 = B-
55-59 = C+
45-54 = C
40-44 = C-
35-39 = D+
25-34 = D
20-24 = D-
0-19 = F

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Section II

Agency Goals

The Environmental Council monitors agency progress in achieving the state's environmental goals and makes an annual report with recommendations to the Governor and Legislature. The Council asks each agency for its environmental goals and objectives for inclusion in its annual report. Each agency identifies its top three environmental goals for the past and current years and the results of its efforts to achieve these goals.

Outstanding Environmental Agencies for 2000

Department of Education

Department of Health

Department of Land and Natural Resources, Division of Forestry and Wildlife

Department of Defense, Hawai'i Army National Guard

Outstanding Environmental Agencies for 1999

Department of Agriculture, Plant Industry Division

Department of Education

Department of Land and Natural Resources, Division of Forestry and Wildlife

Department of Defense, Hawai'i Army National Guard

Agency Goals

Department of Accounting and General Services

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: The Automotive Management Division will try to purchase more alternative fueled vehicles which are more environmentally friendly.

B. Goal/Objective #2: The Public Works Division will begin to implement ultra-violet light technology to reduce mold growth within air conditioning systems. Mold is a major cause of indoor air quality problems.

C. Goal/Objective #3: The Public Works Division will increase the use of wood-polymer lumber products in its construction projects in lieu of timber or hazardous phenol-based or formaldehyde-based chipboards. The wood-polymer products contain no preservatives and are made from post-consumer and/or post-industrial reclaimed plastic and waste wood, so they are more environmentally friendly. They can be used for benches, picnic tables, playgrounds, docks and landscaping.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: The Automotive Management Division has met their goal of complying with EPA requirements for purchasing Alternative Fueled Vehicles. The EPA requires that 90% of new State Government vehicles purchased after model year 2000 must be capable of utilizing alternative fuels.

B. Goal/Objective #2: The Public Works Division has begun to implement ultra-violet light on the coils of air-conditioning chillers. Public Works is recommending it on all future projects for better maintenance on the coils.

C. Goal/Objective #3: The Public Works Division intends to include a directive to use wood-polymer lumber products in its Design Consultant Criteria Manual. We should be seeing increased use of these products from January 2002.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: The Public Works Division will begin to phase out the use of arsenic containing termite treated lumber. Copper azole, Type A and Inorganic Boron

will be used in lieu of Chromated Copper Arsenate and Ammoniacal Copper Zinc Arsenate.

B. Goal/Objective #2: The Maui District will spend about \$325,000 to retrofit or replace light fixtures at Maui District schools. The new fixtures will use energy efficient lamps and ballasts. A study estimates that a 34 percent reduction in lighting energy costs can be achieved by retrofitting or replacing existing fluorescent light fixtures with more efficient lamps and electronic ballasts.

State Department of Agriculture

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To prevent the introduction of harmful pests and diseases by inspecting all incoming shipments of plant materials, non-domestic animals, and microorganisms.

B. Goal/Objective #2: Limit plant pest populations which can cause significant economic damage to agriculture or constitute serious threats to the environment.

C. Goal/Objective #3: To ensure the efficient, effective, and safe use of pesticides to minimize adverse effects on the environment, and enable the agricultural industry to continue the use of pesticides.

II. Results of Efforts of FY 2001

A. Goal/Objective #1:

- Issued 1,003 violation notices and 17 citations resulting in \$6,225.00 worth of fines from surveillance and inspection of Hawaii-bound air and sea baggage, cargo, mail, and passengers.

- A total of 1,807 insect interceptions were made. Of these, 483 (27%) were species not known to occur in Hawaii, 1,005 (56%) were already present in the State and 319 (17%) were either too immature or damaged to be identified to the species level.

- There were 30 talks and tours at the Plant Quarantine Station in which 1,445 persons were informed of the Plant Quarantine Branch's requirements for importing plant materials and non-domestic animals.

- A risk assessment was started of alien species movement from mainland and foreign sources into Hawaii through Kahului Airport. The assessment was conducted over four three- or four-week periods. The assessment involved intensive inspections of checked and carry-on baggage with detector dogs, inspections of cabins and cargo holds of mainland flights, and 100% inspection of all agricultural products shipped by air cargo. The initial phase of the project found a low risk of importation of alien species through baggage, carry-ons, aircraft cabins, and aircraft cargo holds. The highest risk was with the import of agricultural materials such as produce, cut flowers, and propagative plant materials.

B. Goal/Objective #2:

- Collected 247 *Scymnus* sp. adults and larvae from banana plants in Thailand and shipped them to the department's Insect Quarantine Facility for further testing to control the banana aphid, a vector of banana bunchy top virus.
- Conducted applied research to find an alternative to the restricted-use pesticide caffeine to control the coqui frog in nursery, residential, and resort settings.
- Completed actions to eradicate Banana Bunchy Top Virus, a serious disease of bananas, from a 10-square mile Eradication Zone in the North Kona District of Hawaii. Area will be monitored for several years to determine if the eradication was successful.
- Established chemical and mechanical control program to eliminate fireweed, a designated noxious weed, on Kauai.
- Continued to survey for and evaluate actions taken to eliminate fireweed, a designated noxious weed, on Oahu.
- Continued to release and establish two weevils (*Acythopeus burkhartorum* and *Acythopeus cocciniae*) to control ivy gourd (*Coccinia grandis*), an extremely aggressive lowland vine that covers poles, trees, other plants, and fences.
- Continued to release and establish a moth (*Mompha trithalama*) to control clidemia (*Clidemia hirta*), and aggressive shrub that dominates the forest understory.
- Developed aerial release system for the dissemination of the biocontrol fungus (*Colletotrichum gloeosporioides* f. sp. *miconiae*) to control the noxious weed, miconia (*Miconia calvescens*) on Maui.

C. Goal/Objective #3:

- Entered year two of a five-year plan with a goal to reduce pesticide exposures reported to the Hawaii Poison Control Center by 50%. Consumer information cards were printed (examples are attached). Approximately 800 pesticide exposures were reported in FY 2001. Disinfectants, bleach product and cleaners accounted for 48% of these exposures. The Poison Control Center has been awarded funds for FY 2002 for activities to reduce the number of exposures reported from disinfectants, bleach and cleaners.
- Conducted over 600 inspections of farms, pesticides dealers, and non-farm users for proper use and distribution of pesticides.
- Issued over 60 warning letters for improper use and collected \$27,633 in penalties for illegal use or sale of pesticides.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1:

- To prevent the introduction of harmful pests and diseases by inspection all incoming shipments of plant materials.
- Complete risk assessment of alien species movement from mainland and foreign sources into Hawaii through Kahului Airport.
- Amend Chapter 4-71 Hawaii Administrative Rules to Delete References to Microorganisms, Subchapter 3, pertaining to microorganisms and the lists of microorganisms and adopt Hawaii Administrative Rules Chapter 4-71A, "Microorganism Import Rules" to establish microorganism import requirements and lists of microorganisms.

B. Goal/Objective #2:

- Limit plant pest populations which can cause significant economic damage to agriculture or constitute serious threats to the environment.
- Continue to evaluate BBTV Eradication Project in Kona; manage BBTV on Kauai.
- Control papaya ringspot virus on Hawaii, fountaingrass and thorny kiawe on Oahu.
- Finalize testing and seek approval for fireweed biocontrol candidates.
- Initiate explorations in Thailand for natural enemies of the melon fly.

Agency Goals

C. Goal/Objective #3:

- To ensure the efficient, effective, and safe use of pesticides to minimize adverse effects on the environment, and enable the agricultural industry to continue the use of pesticides.
- Demonstrate agricultural remediation of persistent organic pollutants and toxic metals and facilitate commercial applicators and regulatory acceptance of agricultural remediation technologies.

Department of Business, Economic Development and Tourism

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Continue to not over promote fishery resources.

B. Goal/Objective #2: Work with the National Oceanic and Atmospheric Administration (NOAA), the Environmental Protection Agency (EPA), and the State of Hawaii Department of Health (DOH) to ensure the *Hawaii's Coastal Nonpoint Pollution Control Program* receives final approval by June 30, 2003.

C. Goal/Objective #3: Encourage renewable energy use in Hawaii by setting a Renewable Portfolio Standard and providing for Net Metering. A renewable portfolio standard sets goals or requirements for increased renewable energy on utility systems. Net metering allows owners of small renewable energy systems to send surplus power to the utility, which is traded for power from the utility when the renewable system is not operating.

D. Goal/Objective #4: In cooperation with the Building Industry Association, develop a BuiltGreen™ program for Hawaii.

E. Goal/Objective #5: Assist Hawaii's economy in becoming more efficient and productive by reducing energy consumption in commercial buildings through the Rebuild Hawaii Consortium and encouraging performance contracting.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: No indication that promoted stocks are over-fished, however, seafood promotion effort has been reduced because of changing priorities.

B. Goal/Objective #2: DBEDT's Coastal Zone Management program (CZM) has engaged in ongoing discussions with NOAA, EPA and DOH to work toward the goal of receiving final approval of *Hawaii's Coastal Nonpoint Pollution Control Program*. In September 2001, in Honolulu, NOAA, EPA, DOH and CZM met for three days to review the progress made and to determine specific tasks and timelines to meet the June 2003 deadline. CZM has begun work on priority areas. All four agencies have agreed to meet on a regular basis by conference call to ensure the progress of work.

C. Goal/Objective #3: Act 272 (SLH 2001), Relating to Renewable Energy Resources was passed by the 2001 Legislature and signed into law. It has the following provisions:

- Establishes goals for the deployment of additional renewable energy by Hawaii's electric utilities. Goals were set at 7% by 2003; 8% by 2005; and 9% by 2010.
- Requires electric utilities to develop and make available net energy metering contracts to eligible customer-generators using solar, wind turbine, biomass, or hydroelectric energy, or a hybrid system consisting of two or more of these technologies, with a capacity of not more than ten kilowatts.

D. Goal/Objective #4: Promoted Residential Energy Efficient Building Guidelines for Hawaii in four workshops on the four major islands to architects, builders, suppliers, and the general public.

- Integrated the Residential Guidelines into the local building industry through the Hawaii BuiltGreen™ Program. This self-certifying, three-star rating system has 226 items to judge a house or development on its energy and resource efficient features and appliances. It was used by the Building Industry Association of Hawaii to rate homes in the 2001 Parade of Homes. Sixteen out of 22 entries participated in the program.

- DBEDT's *Field Guide for Energy Performance, Comfort, and Value in Hawaii Homes* was developed, printed, and distributed in three workshops and various presentations throughout Hawaii.

- DBEDT's Model Demonstration Home, dedicated on May 15, 2001, as the First Hawaii BuiltGreen™ Home in Waianae Valley was the successful result of a historic public/private partnership. Partners were DBEDT, U.S. Department of Energy, Department of Hawaiian Home Lands, Honolulu Chapter of the American Institute of Architects, Building Industry Association of Hawaii, Honsador Lumber Corpora-

tion, and Hawaiian Electric Company, Inc. The home was featured in four newspaper articles, two magazine articles, various professional organizations' newsletters, and three TV news segments. During the Open House, visitors thought the home was air conditioned because it was so cool inside.

- Co-sponsored a BuiltGreen™ conference and supported the industry in developing a self-certifying BuiltGreen™ Rating program.

E. Goal/Objective #5: Achieved at least \$800,000 in annual utility bill savings in State and County buildings through performance contracting.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue to not over promote fishery resources.

B. Goal/Objective #2: Make substantial progress on priority activities called for in the revised work plan for *Hawaii's Coastal Nonpoint Pollution Control Program* to ensure final approval by June 30, 2003.

C. Goal/Objective #3: Promote the use of distributed energy, including renewable energy, in Hawaii to increase reliability and energy system efficiency, to benefit the economy, and to contribute to environmental protection.

D. Goal/Objective #4: Support adoption of the revised Model Energy Code, enacted in 2001 by C&C of Honolulu, by Hawaii and Kauai counties.

E. Goal/Objective #5: Develop State Brownfields Program to promote the sustainable redevelopment of contaminated property in Hawaii.

Department of Defense

Hawaii Army National Guard (HIARNG)

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Conservation. Continue natural/cultural resource management, eradicate alien species, protect endangered species, and educate the public.

B. Goal/Objective #2: Compliance. Continue to monitor for regulatory compliance and implement pollution prevention initiatives.

C. Goal/Objective #3: Land Management. Complete baseline geographic information system (GIS) data for HIARNG facilities statewide. Develop and implement a digital photographic database for ease of access and use.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Conservation. Successfully prevented the extinction of endangered plants such as the Diamond Head schiedea shrub by establishing two additional thriving populations. Treated and eradicated Oahu's most invasive dry forest weed, fountain grass, from trails and high-use areas of Diamond Head Crater and from Bellows Regional Training Institute. Initiated a fencing project at Keaukaha Military Reservation (Hilo) to protect 300 acres of coastal old-growth rain forest from feral pigs. Initiated a 2-year, 14-acre landscape and restoration project at Ukumehame Firing Range (Maui) to plant over 10,000 native plants in wetland areas and enhance the Guard's training mission. Developed a natural resource training class and graphic training aids for National Guard soldiers to use in the field for avoiding damage to plants or animals. Guided the University of Hawaii at Manoa intern program to give five student interns natural resource job training and accomplished crucial field work in alien species eradication and native plant restoration. Was awarded a \$6,000 grant by the National Environmental Education and Training Foundation to plant 300 native, dry forest trees in Diamond Head Crater on National Public Lands Day. Completed a historic building survey of WWII Navy buildings at our Waiawa facility.

B. Goal/Objective #2: Compliance. Developed and implemented a qualified recycling program on Oahu. Elevated the Environmental Compliance Assessment System to a higher level of auditing which ensures that the HIARNG meets local, State, and Federal requirements.

C. Goal/Objective #3: Land Management. Completed baseline GIS data for all facilities and numerous training areas which allows personnel to assess the impact of compliance and conservation projects.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Conservation. Complete natural and cultural resource management plans; inventory and evaluate historic properties; ensure endangered species recovery and noxious weed eradication. Continue awareness training and education of Hawaii's youth, Guard members, and the public.

Agency Goals

B. Goal/Objective #2: Compliance. Continue to monitor for regulatory compliance and implement pollution prevention initiatives.

C. Goal/Objective #3: Land management. Develop and implement an internet map server; create historical and contemporary digital photos for all facilities; continue to update existing baseline GIS layers for evolving compliance, conservation, facilities, and force protection taskings.

Hawaii Air National Guard

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Compliance. Ensure facilities and operations continue to comply with Federal, State, and local regulations.

B. Goal/Objective #2: Environmental Documentation. Continue to pursue assessment and consideration of environmental impacts for all projects and real estate actions.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Compliance. Hickam Air Force Base (AFB) units evaluated under the U.S. Air Force's Environmental, Safety, and Occupational Health Compliance and Management Program (ESHOCAMP) assessment guidelines by an internal Hickam AFB team. Geographically separated units were evaluated under the ESHOCAMP assessment guidelines by an external Air National Guard civil engineer environmental team. All discrepancies identified were or are being corrected.

B. Goal/Objective #2: Environmental Documentation. Submitted Air Force Form 813, Environmental Baseline Surveys, and Environmental Assessments, as required, for all real estate and construction projects including the property acquisition at Kalaeloa airport, the Clear Water Rinse Facility adjacent to Mike taxiway, and the Sentry Aloha Facility improvements.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Compliance. Ensure that the facilities and operations continue to comply with Federal, State, local, and military base regulations.

B. Goal/Objective #2: Pollution Prevention. Implement pollution prevention initiatives whenever possible to ensure efficient use of limited funding.

C. Goal/Objective #3: Environmental Documentation. Ensure all projects and real estate actions are properly assessed and evaluated for their environmental impacts.

State Civil Defense (SCD)

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Continue to participate in quarterly Hawaii State Emergency Response Commission (HSERC) meetings and local emergency planning committee (LEPC) meetings to provide input on the development of State contingency plans related to hazardous materials and to support hazardous materials training and exercises for first responders statewide.

B. Goal/Objective #2: Continue division recycling initiatives that include waste paper and aluminum cans, reduce the amount of paper we use in our offices through improved use of computer programs, and provide environmental information in division web sites and newsletters.

C. Goal/Objective #3: Include environmental review procedures during the conduct of Federal disaster assistance (Public Assistance Program) training for State and County employees and for volunteer architects and engineers.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: The SCD was represented at every HSERC meeting this fiscal year and involved in numerous LEPCs on Oahu and on the neighbor islands. The SCD provided input to contingency plans related to hazardous materials and continues to coordinate and support hazardous materials training and exercises for first responders statewide.

B. Goal/Objective #2: In our continuing efforts to reduce trash and preserve the environment, SCD aggressively recycled waste paper and aluminum cans. This in-house recycling program has been successful for many years.

C. Goal/Objective #3: The clearance and disposal of debris were essential elements of the recovery efforts on the Big Island following the November floods of 2000. They coordinated with various government agencies in the recovery process and restoration of public assets such as soccer fields, roadways, buildings, etc., that were damaged due to the November floods.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue to participate in HSERC meetings and LEPC meetings to provide input on the development of State contingency plans related to hazardous materials and to support hazardous materials training and exercises for first responders statewide.

B. Goal/Objective #2: Plant trees and other foliage in the surrounding areas of Birkhimer Emergency Operating Center. The added irrigation system will help sustain plant life and reduce the potential for dry brush fires. Continue our efforts of recycling used paper products (and aluminum cans) and continue to reduce the amount of paper we use in our offices. Ensure all SCD personnel receive annual hazard communication training on responsibilities for hazardous material handling and know how to properly dispose of hazardous waste.

C. Goal/Objective #3: Provide objective reviews and information regarding mitigation projects that may have potential impact on the environment. Continue to review and closely monitor the environmental impact statements and environmental assessments for projects that may not be in compliance with the National Environmental Policy Act.

Office of Veterans Services (OVS)

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Safety. Safety is the Hawaii State Veterans Cemetery's (HSVC) top priority. To improve safety, employees are required to attend these programs. Records must be maintained to improve better control and inventory.

B. Goal/Objective #2: Training. Training is always a priority at HSVC in all phases of the cemetery and administration. The correct handling of hazardous material and the understanding of the material safety data sheet (MSDS) are priorities. Customer service and computer training are mandatory.

C. Goal/Objective #3: Veteran Community Awareness. Educating the veteran community of our existence, location, and eligibility requirements. Reaching out to veterans' organizations and continuing to hold informational meetings at various location in our State. These sessions are beneficial to our veterans, their spouses, and dependents.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Safety. Safety continues to be an integral part of the OVS/HSVC program. Numerous challenges have been met in terms of safety in the office and on the cemetery grounds. Employee awareness through educational classes is constant within the work area.

B. Goal/Objective #2: Training. On-the-job training continues to be an important part of HSVC. Training in the correct use of equipment, fertilizers, herbicides, and pesticides is ongoing. Actual classroom training has not been set on MSDS/hazardous materials and will not be until the program is reorganized. Employees have been instructed to read all incoming and updated MSDS to keep current on information.

C. Goal/Objective #3: Veteran Community Awareness. The veteran community is gradually learning of the existence of HSVC. Participation in veterans' organizational sessions has been most helpful and beneficial. The OVS/HSVC, in partnership with Department of Veterans Affairs at the "Informational Day" at Pearl Ridge Center, generated a great deal of public interest. Through these sessions, HSVC receives ongoing telephone and in-person inquiries.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Compliance. Conform to environmental regulations and ensure that the cemetery and its surrounding areas are safe from chemical run-off.

B. Goal/Objective #2: Safety/Training. Actively promote safety/training programs and ensure that the cemetery staff is well informed of new rules and regulations concerning the environment and individual health. Provide increased and ongoing awareness of the MSDS and complete the reorganization of the safety/hazardous programs at HSVC.

Department of Health

I. Goals/Objectives for FY 2001

Because DOH's environmental goals were designed as general goals for long-term use (5 to 10 years), we will retain these goals in their present form for the foreseeable future:

A. Goal/Objective #1: To ensure that Hawaii's coastal waters are safe and healthy for people, plants and animals.

Agency Goals

B. Goal/Objective #2: To protect and restore the quality of Hawaii's streams, wetlands, estuaries and other inland waters for fish & wildlife, recreation, aesthetic enjoyment and other appropriate uses.

C. Goal/Objective #3: To protect Hawaii's groundwater from contamination for drinking, irrigation, and other appropriate uses.

D. Goal/Objective #4: To protect Hawaii's lands from pollutants that endanger people and the environment; and to rehabilitate contaminated lands.

E. Goal/Objective #5: To protect and enhance Hawaii's air quality for the health of our people.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Beach closure posting days decreased from 26 days in calendar year 1999 to 20 days in 2000, most of these closures are precautionary as a result of suspected sewage and/or chemical spills.

B. Goal/Objective #2: To better protect the quality of the State's inland and coastal waters, DOH has completed a Total Maximum Daily Load (TMDL) assessment of both the Ala Wai Canal and Waimanalo Stream, and has begun three additional TMDLs, and two on windward O'ahu.

C. Goal/Objective #3: DOH oversaw the cleanup of nearly 110 leaking underground storage sites in FY 2001, preventing further contamination of the groundwater beneath those sites. Wastewater recycling continued to rise from 13% to 13.5% resulting in a reuse of almost 20.23 million gallons per day for irrigation and other appropriate uses.

D. Goal/Objective #4: DOH responded to over 303 oil and chemical spills in FY 2001 to assure cleanup, prevent adverse health effects, and avoid future contamination.

E. Goal/Objective #5: Hawaii's air quality exceeds national standards. Contaminant levels of sulfur dioxide, carbon monoxide and particulates were assessed; concentrations of these pollutants remain far below levels of concern. The following are the ambient air quality data for 2000 at the Honolulu station: annual average for PM-10 = 14 ug/m³ (national standard = 50 ug/m³); annual average for SO-2 = 1 ug/m³ (national standard = 80 ug/m³); highest 1-hour average for CO = 3,990 ug/m³ (national standard = 40,000 ug/m³).

III. Goals/Objectives for FY 2002

Same as for FY 2001.

Department of Land and Natural Resources

Commission on Water Resource Management

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To plan for the sustainability of our water resources by completing efforts to update remaining components of the Hawaii Water Plan. Coordinate completion/update of the Water Resource Protection Plan (WRPP), Agricultural Water Use and Development Plan (AWUDP), Water Quality Plan (WQP), the respective County Water Use and Development Plans (WUDP).

B. Goal/Objective #2: Improve stream protection, management, and restoration by setting statewide interim/permanent instream flow standards. Initial focus to be placed on windward Oahu streams related to the Hawaii Supreme Court decision in the Waiahole Ditch Combined Contested Case Hearing.

C. Goal/Objective #3: Establish a State Drought Coordinator position to implement provisions of the Hawaii Drought Plan (HDP). HDP implementation to include regional assessments of drought risk/vulnerability, improved drought monitoring and forecasting, and enhanced response/mitigation measures and dissemination of drought information to the general public.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Began implementation of the "Statewide Framework for Updating the Hawaii Water Plan" adopted by the Commission in FY 2000. Completed preparation of the final draft of the State Water Projects Plan. Efforts to complete a partial update of the Water Resource Protection Plan are ongoing. The Commission continues to facilitate inter-agency planning activities toward completion of the other components of the Hawaii Water Plan. These efforts include scoping of the AWUDP and the WQP in consultation with responsible agencies (i.e., the Department of Agriculture

and the Department of Health, respectively). The Commission is also participating in the efforts of the Honolulu Board of Water Supply to update the Oahu Water Use and Development Plan through an integrated resource planning process.

B. Goal/Objective #2: The Hawaii Supreme Court, in its August 22, 2000 decision, remanded the Commission's original December 24, 1997 Decision and Order for additional findings and conclusions toward the designation of interim instream flow standards for windward Oahu streams. Additional hearings were held before a hearing officer on April 4, 2001, with closing arguments held on April 24, 2001. The Hearing Officer's Proposed Legal Framework, Findings of Fact, and Decision and Order was issued to the parties on August 1, 2001. The parties were given the opportunity to file written exceptions to the Hearing Officer's proposal. The Commission heard oral arguments on the written exceptions on October 1, 2001. The final decision and order is expected for issuance in FY 2002.

C. Goal/Objective #3: The Governor in FY 2001 established a temporary, un-funded State Drought Coordinator position. Partial funding was provided by various state and county agencies serving on the Hawaii Drought Council, which was used to hire a temporary State Drought Coordinator (SDC) for a limited term of 9-months. During this period, various HDP provisions and emergency drought relief efforts were implemented by the SDC in consultation with the HDC. These efforts included requesting and securing \$210,000 in drought relief assistance from the U.S. Bureau of Reclamation under Title I of the federal Emergency Drought Relief Act of 1991. Unfortunately, the 2001 Legislature did not approve DLNR's request to establish a permanent State Drought Coordinator position. This request will be re-submitted as part of DLNR's supplemental budget request to the 2002 Legislature.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Seek appropriate resources necessary to complete the update of the Water Resource Protection Plan and the other remaining components of the Hawaii Water Plan. Continue efforts to facilitate completion/update of the Agricultural Water Use and Development Plan, Water Quality Plan, and the County Water Use and Development Plans in coordination with the Statewide Framework for Updating of the Hawaii Water Plan.

B. Goal/Objective #2: Issue the final Legal Framework, Findings of Fact, and Decision and Order in the Waiahole Ditch Combined Contested Case Hearing, which will establish interim instream flow standards for certain

windward Oahu streams. Issuance of the final document, along with the Hawaii Supreme Court's August 22, 2000 decision, will serve to guide the Commission's efforts, actions, and policies related to enhancing stream protection, management, and restoration.

C. Goal/Objective #3: Establish permanent and adequate number of staff positions, as well as securing necessary resources to implement critical water resource protection provisions of the State Water Code. Such positions include additional stream hydrologists/geologists to assist in the establishment of interim/permanent instream flow standards statewide. In addition, a permanent State Drought Coordinator position should be established to continue implementation of key provisions of the Hawaii Drought Plan (HDP). These stream- and drought-related positions are considered vital to effectively carrying out the resource management and protection provisions of the State Water Code.

Department of Public Safety

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To ensure departmental operations comport to existing environmental laws, requirements, and regulatory guidelines.

B. Goal/Objective #2: To ensure the wastewater treatment plant at the Waiawa Correctional Facility is maintained within proper operating specifications at all times.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: The Inspection and Investigation Office (IIO) within the Department has been very responsive to all environmental concerns coming from our Department, especially our correctional facilities.

B. Goal/Objective #2: Pond liners were checked and patched to minimize any potential wastewater leakage.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: In order to operate in a proactive rather than a reactive mode, the Department's Inspection and Investigations Office is developing a comprehensive environmental health and safety program.

Agency Goals

B. Goal/Objective #2: To eliminate all deficiencies in the operations and management of the Waiawa Correctional Facility Wastewater Treatment Plant.

Department of Transportation

Airports Division

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Install eight automatic Stormwater collection systems at several sites at HNL.

B. Goal/Objective #2: Activate noise monitoring system for Honolulu International Airport

C. Goal/Objective #3: Initiate a noise mitigation project for Keaukaha housing adjacent to Hilo International Airport.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: The siting of the automatic stormwater collection systems is being evaluated further as part of the implementation of the completed stormwater monitoring plan for HNL.

B. Goal/Objective #2: The new equipment and software for Noise Monitoring System upgrade for HNL is ready for installation and testing.

C. Goal/Objective #3: Awaiting FAA approval for the Part 150 Noise Compatibility Program for Hilo International Airport to fund the recommended noise mitigation projects for the Keaukaha subdivision. Public information meetings were conducted in Keaukaha for public input to determine what mitigation projects are most needed.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Implement the renewed NPDES permit for Honolulu International Airport and enforce all Best Management Practices.

B. Goal/Objective #2: Completely integrate a new GIS database to include the current listing of environmental assets and ongoing environmental compliance requirements.

C. Goal/Objective #3: Develop new projects along the South Ramp at HNL to include more oil/water separators and provide more environmental protection to Keehi Lagoon.

Harbors Division

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: The Harbors Division perseveres to balance environmental and economic concerns in the improvement/allocation of harbor facilities.

B. Goal/Objective #2: The Harbors Division encourages management practices that control and abate pollution.

C. Goal/Objective #3: To support Hawaii's lifestyle, the Harbors Division develops transportation facilities in compliance with environmental laws and regulations.

II. Results of Efforts for FY 2001

A. Goal/Objective #1:

- Commercial Harbor Master Plans utilize the environmental disclosure process to ensure proper planning safeguards for harbor facility improvements.
- Engineering design and construction insure minimal environmental impacts of harbors projects. Harbors Division's engineering design and construction services always strive for project compatibility with the environment and natural surroundings.
- By consulting/coordinating with appropriate citizen groups and environmental organizations, the Division was able to address the legitimate environmental concerns/impacts to the satisfaction of most of the involved parties.
- Harbors Division's projects continue to reflect an aesthetic harmony with the environment while striving to protect and preserve the environment.
- Harbors Division's projects also minimize noise pollution and blasting vibrations to satisfy public/community concerns.

B. Goal/Objective #2:

- The Harbors Division complies with all environmental requirements in the control and abatement of pollution. Coastal Zone Management approval of Harbors Division's projects entails compliance with the U.S. Army Corps of Engineers, the State Department of Health (DOH), and the

U.S. Environmental Protection Agency pollution control requirements. Dredging, excavation and ocean dumping require the use of silt curtains, filtering pools, and water quality monitoring. Harbors Division's projects also perform air monitoring whenever required by DOH programs.

- Asbestos, lead paint, contaminated soil, and other hazardous wastes generated by structural demolition are properly disposed or treated by the appropriate services.
- Administrative/professional offices practice paper and aluminum recycling.
- Harbors Division's operations maintain pollution/litter control in and around the harbors and harbor facilities.
- Underground storage tanks are regularly monitored for leaks.
- Solvents, used oil, oil-based paints, lacquer, thinner, brake fluid, and other hazardous wastes are properly disposed.
- Non-hazardous substitutes (e.g., water-based solvents) are being considered to minimize hazardous waster generations.
- Tenants and lessees are advised of appropriate pollution control measures.

C. Goal/Objective #3:

- Hawaii's history and tradition are linked to the sea. Our maritime culture began on the day the first Polynesian seafarers set foot on these islands. The harmonic embrace of the maritime culture, the lifestyle of the people and the environment of the State are beingperpetuated through the development of additional/improved commercial harbor facilities and the use of more efficient vessels.

III. Goals/Objectives for FY 2002

The Harbors Division will have the same goals and objectives as in FY 2001.

Highways Division

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Train and educate Highways Division staff statewide regarding the MS4 and NPDES programs.

B. Goal/Objective #2: Address all phases of landscaping for the entire State following our Master Guidelines for Landscaping and Maintenance of the Hgihways in Hawaii.

C. Goal/Objective #3: Remove/abate lead base paint on steel bridges and other structures in the State Highway System.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Training has begun and continues regarding the MS4 and NPDES programs.

B. Goal/Objective #2: The Master Guidelines for Landscaping and Maintenance of the Highways in Hawaii have been implemented by design engineers and consultants statewide.

C. Goal/Objective #3: The Highways Division demolished and removed two building structures on Oahu that contained lead based paint and awarded contracts to remove lead based paint and repaint five steel bridges on the State Highway System, four on Hawaii and one on Kauai.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue training of personnel and random monitoring of sites regarding MS4 and NPDES until zero violations are achieved.

B. Goal/Objective #2: Remove/abate lead base paint on steel bridges and other structures in the State Highway System.

C. Goal/Objective #3: Complete a statewide Solid Waste Management Program assessment of current work practice and educate Highways Division staff regarding proper solid waste management.

City and County of Honolulu, Board of Water Supply

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Continue to develop environmentally appropriate water system projects and continue to provide public notification and information during the feasibility phase of major water system projects. Continue BWS representation at each Neighborhood Board meeting.

B. Goal/Objective #2: Continue to pursue improvements and streamline the environmental permit processes for water use, utility crossings of streams and effluent discharges from BWS projects.

Agency Goals

C. Goal/Objective #3: Evaluate new technologies in alternative water development such as desalination, recycled water and deep ocean thermal technology to reduce the need for new groundwater sources and allow a more efficient use of all resources by matching use with water quality. Alternative water sources will also allow limited restoration of watersheds and streams. Expand community-based watershed planning to every ahupua'a of Oahu.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: The BWS has continued to initiate and provide community presentations for significant projects in an effort to improve public outreach, community awareness and involvement. BWS continues to provide main break reports, project updates, general announcements and address community concerns at all of the 35 Neighborhood Boards.

B. Goal/Objective #2: The quality and thoroughness of the permits' best management practices and monitoring plans has been improved through increased consultation with contractors and the authorizing agency during the permit preparation process. The BWS continues to evaluate new technologies in alternative water development.

C. Goal/Objective #3: The BWS is presently evaluating a potential desalination site at Kalaeloa. Exploratory wells have been drilled and a pilot desalination plant will test various desalination technology. The Ewa Nonpotable Master Plan is being prepared to assess existing and future nonpotable demands and the expansion of nonpotable facilities in the Ewa district, which would be served by the BWS Honouliuli Reclamation Plant. Deep ocean thermal technology and cold water applications are also being evaluated by a consultant feasibility study. The BWS is actively involved in establishing community watershed protection partnerships to work toward watershed improvement projects and programs. The BWS has established partnerships in the Waianae community, and are working to establish partnerships in Kalihi, Heeia and Waimanalo Valleys, as well as being an active member in the Ko'olau watershed partnership.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue to develop environmentally appropriate water system projects and continue to provide effective public outreach and notification during the feasibility phase of major water system projects. Continue effective BWS representation at all 35 Neighborhood Boards.

B. Goal/Objective #2: Continue to develop watershed partnerships and community-based watershed planning for prime recharge areas on Oahu. This approach is intended to conserve the watershed's natural resources as well as support the interest of stakeholders in that watershed. A community-based watershed process can improve the integration of land and water management activities and promote the sharing of resources and responsibilities among stakeholders.

C. Goal/Objective #3: Continue to evaluate and analyze alternative water sources such as desalination, recycled water and deep ocean thermal technologies to diversify source, defer additional groundwater development and allow a more efficient use of all resources by matching use with water quality. The BWS is evaluating recycled water use in Waianae and in Central Oahu.

City and County of Honolulu, Department of Environmental Services

No goals/objectives were submitted for FY 2001

I. Goals/Objectives for FY 2002

A. Goal/Objective #1: Reduce waste to Waimanalo Gulch Sanitary Landfill by increasing recycling of target materials such as sewage sludge, yard waste, white goods and metals, wooden pallets, cardboard, and beverage containers.

B. Goal/Objective #2: Develop and distribute educational brochures on Storm Water Control Best Management Practices for the hotel/tourist industry by June 30, 2002.

C. Goal/Objective #3: Develop organizational plan to achieve competitive operations while maintaining/improving protection of the environment.

City and County of Honolulu, Department of Parks and Recreation

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Expand the City's beautification, park landscaping and tree planting efforts; and support other conservation efforts which have high aesthetic impact and value .

B. Goal/Objective #2: Continue development of major regional parks for Central Oahu; construct improvements for Hanauma Bay Nature Preserve; and pursue acquisition of significant park resources.

C. Goal/Objective #3: Implement a systems approach to long-range planning for parks, establishing a process for meeting the community's needs and revising antiquated park standards.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Planted 1,995 trees and 13,050 shrubs; accepted 1,107 additional street trees provided through development requirements; and landscaped an additional 68,518 square feet of sod and groundcover island-wide.

B. Goal/Objective #2: Continued development of the Central Oahu Regional Park and Waipio Soccer Complex; and constructed improvements for the Hanauma Bay Nature Preserve to help protect the area's natural resources.

C. Goal/Objective #3: Completed approximately 85 percent of the comprehensive island-wide parks master plan.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue large scale tree planting and major landscaping projects, including medial strips and other traffic related projects.

B. Goal/Objective #2: Continue acquisition of open space for parks, scenic vistas, and preservation of natural resource areas.

C. Goal/Objective #3: Complete the island-wide parks master plan.

City and County of Honolulu, Department of Transportation Services

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To promote programs to reduce dependence on the use of automobiles.

B. Goal/Objective #2: To evaluate the social, economic, and environmental impact of additions to the transportation system prior to construction.

C. Goal/Objective #3: To improve the safe and efficient operation of City transportation and other facilities under the jurisdiction of the department.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Completed the conversion of Leeward Oahu to a hub-and-spoke bus system; Phase II (Central Oahu) conversion commenced; and designs being prepared for transit hubs and centers in Waianae, Waipahu, Wahiawa and Mililani, and at Aloha Stadium, Iwilei, and Middle Street. Wheelchair-accessible service now provided with 390 lift-equipped buses out of 525 buses in fleet. Entire TheBus fleet equipped with bike racks. Implemented Kalihi Valley shuttle service to transport Kalihi Valley residents between their neighborhoods and the closest bus stop during the morning and evening peak hours. Continued operation of Kaimuki-Kapahulu-Waikiki Trolley. TheBus provided special services for the Mayor's Memorial Day Service at Punchbowl, Easter Sunrise Service, Great Aloha Run, Veterans Day Service, all University of Hawaii home games (Aloha Stadium Football Express), the Pro Bowl football game, the Sony Open golf tournament, and New Year's Eve-New Year's Day. Continued work on the Primary Corridor Transportation Project; Major Investment Study/Draft Environmental Impact Statement completed and Bus Rapid Transit Alternative selected as Locally Preferred Alternative. Constructed bikeway lanes on University of Hawaii-Manoa Upper Campus Fire Road and on Dole Street. Designed or awarded design contracts for Kaimuki Traffic Calming Master Plan, Ke Ala Pupukea Bikeway Extension, Asing Park Bikeway Segment, Kewalo Basin Bikeway Segment, University Avenue Bike Lanes, Young Street Park Boulevard and Bikeway, Pearl Harbor Bikeway-Leeward Community College Spur, Waiialua Bike Lanes, Waiialae Bike Station and Kawai Nui Marsh Multi-Purpose Path Study. Negotiated and prepared Use and Occupancy agreements with the State of Hawaii for the construction and use of bikeway facilities at Kapiolani Community College and Asing Park. Co-sponsored the Bike to Work Day. Purchased and installed 100 "bike" shaped bike racks.

B. Goal/Objective #2: Reviewed, coordinated and processed over 40 environmental impact and assessment documents. Completed work on the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project and prepared environmental assessments for the Kaimuki Traffic Calming Master Plan and Leeward Community College Bikeway Spur. Continued work on the Oahu Short-Range Transportation Plan and Program.

Agency Goals

C. Goal/Objective #3: Continued work on the Primary Corridor Transportation Project. Completed construction of the Pearl City Bus Facility, a 250-bus operating and maintenance yard in Manana. Installed a new Fuel/Fluid management system at the Kalihi-Palama Bus Facility service station.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: To promote programs to reduce dependence on the use of automobiles.

B. Goal/Objective #2: To evaluate the social, economic, and environmental impact of additions to the transportation system prior to construction.

C. Goal/Objective #3: To improve the safe and efficient operation of City transportation and other facilities under the jurisdiction of the department.

City and County of Honolulu, Fire Department

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Expand the recycling program to the administrative section of the Honolulu Fire Department (HFD).

B. Goal/Objective #2: Install oil separators and grease traps in all new fire stations.

C. Goal/Objective #3: Purchase three new fire apparatuses each year. This will allow the HFD to replace older, inefficient pollution generating fire apparatuses with new trucks that are compliant with the Environmental Protection Agency requirements.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: We have partnered with our building's managing agent, the Airport Industrial Park Associates (AIPA), in the shredding and recycling of paper and paper products.

B. Goal/Objective #2: We continue to work with the Department Design and Construction to include oil separators and grease traps in all new and renovated fire stations. Recently renovated stations include the Central and Kalihi Uka Fire Stations. The replacement of the Wahiawa Fire Station project started in fiscal year 2001.

C. Goal/Objective #3: The HFD continued its apparatus replacement program with the acquisition of two pumpers at the Waipahu and Hawaii Kai Fire Stations and Tower 9 at the Kakaako Fire Station with fiscal year 2001 funds.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: To take a more active role in working with State and Federal agencies in response to public safety issues. The HFD is a participating member in the following committees: The Department of Health (DOH) and Emergency Medical Services Concerns Group, the City and County of Honolulu and State Terrorist BIO Planning Group, the State Hazard Mitigation Committee, and the State Civil Defense Terrorist Incident Planning Group.

B. Goal/Objective #2: Purchase modern and state-of-the-art equipment to allow for a safer assessment of hazardous materials incidents in order to improve product identification.

C. Goal/Objective #3: Obtain Federal grants in order to supplement City funds to enhance training and equipment for terrorist and hazardous material incidents.

City and County of Honolulu, Oahu Civil Defense

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Familiarize Civil Defense Staff with the State Environmental Policy in Chapter 344, HRS.

B. Goal/Objective #2: Continue to familiarize Civil Defense Volunteers With the State Environmental Policy in Chapter 344, HRS.

II. Result of Efforts for FY 2001

A. Goal/Objective #1: Staff will better articulate the goals and objectives.

B. Goal/Objective #2: Volunteers will better understand the State policy.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Civil Defense Staff and Volunteers will be able to describe in general terms the State Environmental Policy provided in Chapter 344, HRS.

County of Hawaii, Department of Parks and Recreation

I. Goals/Objectives for FY 2001

A. Goal/Objective #1:

- Implement wastewater disposal system improvement projects at both Miloli'i Beach Park and Kolekole Beach Park.
- Secure funding for Higashihara Park and Hilo Municipal Golf Course projects.
- Construct restrooms at Ahalanui Park and Isaac Hale Park.

B. Goal/Objective #2:

- Initiate tree planting programs at Kea'au Park (Phase 2), Mo'ohau Park, and Pahoa Community Center.

II. Results of Efforts for FY 2001

A. Goal/Objective #1:

- Completed design of Milolii Beach and Kolekole Beach wastewater disposal system improvement projects and initiated bidding process.
- Secured appropriations for Higashihara Park and Hilo Municipal Golf Course Projects – awaiting sale of general obligation bonds to fund appropriations.
- Finalizing design of restrooms at Ahalanui Park and Isaac Hale Park.

B. Goal/Objective #2:

- Tree planting project (14 rainbow shower trees) completed at Kea'au Park.
- Tree planting project at Mo'ohau Park deferred due to November 2000 flood. Project to be initiated with flood damage restoration project at adjacent soccer fields.
- Tree planting project at Pahoa Community Center postponed.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1:

- Complete wastewater disposal system projects at Miloli'i Beach Park and Kolekole Beach Park.
- Secure funding and initiate construction of wastewater disposal system projects at Higashihara Park and Hilo Municipal Golf Course.
- Initiate restroom projects at Ahalanui Park and Isaac Hale Beach Park.

B. Goal/Objective #2:

- Initiate tree planting project at Mo'ohau Park.
- Initiate landscaping projects at Reeds Bay Park, Happiness Gardens, Waiakea-Uka Park, and Kawamoto Swim Stadium.

County of Hawaii, Department of Water Supply

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Continue to meet Federal Safe Drinking Water Act compliance requirements. This includes continuing with corrosion control treatment at specified water systems, and constructing wells to replace sources under the influence of surface water.

B. Goal/Objective #2: Continue to replace transite pipes containing asbestos and replace steel tanks that contain lead-base paint.

C. Goal/Objective #3: Construct alternate energy plants to supply our facilities with electrical power. This would include construction of hydro-generation power plants.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Construction and advertising for bids for deep wells is continuing throughout the island. Continuing with corrosion control treatment islandwide.

B. Goal/Objective #2: Replacing transite pipes with ductile iron pipe and steel tanks with concrete tanks throughout the island is continuing. This will be an on-going activity.

Agency Goals

C. Goal/Objective #: This option is presently being evaluated in our energy study.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue to meet Federal Safe Drinking Water Act compliance requirements.

B. Goal/Objective #2: Continue to replace transite pipes containing asbestos and replace steel tanks that contain lead-based paint.

C. Goal/Objective #3: Provide electrical power to remote sites to improve system reliability. Implement energy study recommendations.

County of Hawaii, Fire Department

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To become more aware of illegal dumping, releases and violations against the environment.

B. Goal/Objective #2: Maintain and increase haz-mat equipment inventory to be able to better respond to and mitigate the various types of incident emergencies. Example: Chemical/biological, weapons of mass destruction (WMD) type incidents (anthrax, sarin, tabun, soman, VX, blister agents, radioactive, etc.).

C. Goal/Objective #3: Enable fire fighters to respond more safely and to recognize possible WMD incident characteristics to better handle mass and emergency decontamination of patients at the scene of mass casualties, whether caused by WMD agents or industrial chemicals.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: A representative to the Environmental Crimes Task Force has been designated and will present Hawaii's areas of concern. Hope to learn more about what to look for and gain further insight as to what can be done to curb or better prevent further attacks against the environment. Questionnaire was sent out to various districts for their input.

B. Goal/Objective #2: Participation in the DOJ/OJP Equipment Purchase Grant will enhance our ability to acquire various monitors which help in identifying the chemical/biological agents described above. (APD 2000 with radioactive option, Alexeter Standard program with various strips and PID). Decontamination tents and accessories will be acquired to protect patients' modesty concerns and to allow us for speedier and more thorough decontamination of mass number of patients with minimal manpower requirements.

C. Goal/Objective #3: Lectures and hands-on training are being conducted island-wide to all platoons by our haz-mat company, focusing on recognizing the characteristics of a WMD incident, how to set up and decontaminate multiple patients and actions to take for emergency decontamination while recognizing and protecting the patient's privacy rights. These procedures are to be utilized in industrial, chemical, regular haz-mat, and incidents involving WMD agents. Note: Districts that are distant from haz-mat home base, make-shift decon procedures need to be initiated prior to haz-mat unit's arrival.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Continue to issue environmentally friendly absorbents to all fire companies for rapid hazard mitigation. This will allow fire companies to mitigate minor spill incidents quickly and reduce hazards to the public. It will decrease their time spent at the scene and free them to respond to other incidents.

B. Goal/Objective #2: Participate and help various agencies plan for exercises (table top, full scale, etc.) to ensure readiness of these agencies during a haz-mat incident and to better acquaint the haz-mat team with their procedures.

C. Goal/Objective #3: Identify various agencies and businesses that are not complying with TIER II reporting requirements and educate them in their need to do so. This will result in a better informed public and a greater awareness of the hazards facing our first responders.

County of Hawaii, Office of Housing and Community Development

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: The OHCD will continue to seek training to keep staff abreast of NEPA's rule changes.

B. Goal/Objective #2: The OHCD, as a recipient of CDBG and HOME funds from the Department of Housing and Urban Development (HUD), assumed the responsibility to coordinate compliance with Federal and State environmental rules and regulations under the National Environmental Policy Act, 24 CFR Part 58 and Chapter 343, Hawaii Revised Statutes.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: On June 20-22, 2001, staff attended a HUD sponsored workshop on 24 CFR Part 58- HUD Environmental Review Procedures.

B. Goal/Objective #2: Carried out environmental review responsibilities for four RD and three CDBG projects.

III. Goals/Objectives for FY 2002

Same as those identified for Fiscal Year 2001.

County of Hawaii, Planning Department

No reported goals/objectives for fiscal year 2001.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Adoption of the revised Hawaii County General Plan and implementation of the various environmental goals and policies articulated in the plan.

B. Goal/Objective #2: Define the most desirable use of land that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.

C. Goal/Objective #3: Protect and effectively manage Hawaii's open space, watersheds, shoreline, and natural areas.

County of Kauai, Offices of Community Assistance

In administering federal housing and community development grant programs, the Offices of Community Assistance works with recipients and subrecipients to ensure compliance with regulations governing environmental review procedures at the Federal (24 CFR Part 92) and State (OEQC) levels.

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Assume responsibility for environmental review determinations, decision-making and action that would otherwise apply to HUD grant programs under the National Environmental Policy Act, 24 CFR Part 58. Ensure that activities are environmentally sound.

B. Goal/Objective #2: Afford private citizens and government entities the opportunity to comment on activities that may potentially affect human, physical and social environments.

C. Goal/Objective #3: Provide technical assistance and monitor compliance for activities funded with Community Development Block Grant, HOME Investment Partnerships, and Special Purpose Grant Programs.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Assumed environmental review responsibility for the Kekaha Gardens Community Beach Park, Historic Hanapepe Pool Hall Rehabilitation, and Lihue Court Transitional Housing projects, as applicable.

B. Goal/Objective #2: Issued legal public notices, as applicable, and considered all public comments and consultation responses received during the environmental assessment process for the above-mentioned projects.

C. Goal/Objective #3: Maintained environmental review records for each program activity assessed during the reporting period. Monitoring to occur through project completion.

III. Goals/Objectives for FY 2002

Same as those identified in FY 2001.

County of Kauai, Planning Department

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To ensure that land use and development projects are assessed for conformity to the goals and policies of the Kauai County General Plan and supporting zoning ordinances with respect to maintaining Kauai as the "Garden Island" by sustaining the unique landscape, natural ecology and environmental character of the Island.

Agency Goals

B. Goal/Objective #2: To facilitate the implementation of the County's Shoreline Setback and Special Management Area Rules and Regulations.

C. Goal/Objective #3: To provide objective reviews and information regarding projects that may have potential impacts to the environment.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Discretionary permits and applications are referred to various governmental agencies for comments (and HRS 343 process when applicable) and adjoining property notification and public hearings are held to further identify and address impacts. The County's newly updated General Plan provides guidance for land use regulations regarding environmental and other development issues, along with helping to guide the location and character of new private and government development and infrastructure.

B. Goal/Objective #2: Departmental efforts to monitor development activities which may impact the Special Management Area are ongoing.

C. Goal/Objective #3: Departmental comments are offered through the environmental assessment process, conservation district use permit reviews and when requested by other agency or applicant actions. As funding allows, staff attends workshops and conferences to enhance in-house expertise.

III. Goals/Objectives for FY 2002

The current environmental goals/objectives apply to FY 2002.

County of Maui, Department of Housing and Human Concerns

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Provide community education on environmental issues.

B. Goal/Objective #2: Preserve and protect natural resources and open spaces.

C. Goal/Objective #3: Revise and develop Core Community Values study to serve as basis for future sustainable growth in Maui county.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Ongoing process to distribute EP information to community.

B. Goal/Objective #2: Continue programs and policies for EP and preservation.

C. Goal/Objective #3: Gather community input on EP for inclusion in upcoming Community General Plan.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Expand/enhance community education on EP topics.

B. Goal/Objective #2: Continue county recycling programs (Tri-island).

C. Goal/Objective #3: Enhance partnerships with community EP groups.

County of Maui, Department of Parks and Recreation

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: To raise the awareness of the value of trees through the staff support to the Arborist Committee, a citizen advisory committee to the Mayor, by observing Arbor Week in November and the successful application for TreeCity USA designation.

B. Goal/Objective #2: To promote, implement and monitor beautification of the County property including landscaping projects and maintenance of trees.

II. Results of the Efforts for FY 2001

A. Goal/Objective #1: The theme for Arbor Week 2001 was "Trees and cars belong in parking lots." Fifteen nominations were forwarded by the community of well-landscaped commercial properties and parking lots. 800 free trees were given away. TreeCity USA was awarded for the 24th consecutive year.

B. Goal/Objective #2: Volunteers trimmed 116 roadside trees at no cost to the County for a value of \$10,400. Sixty-one new street trees were planted as well as 114 in the parks.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: To provide support of the Arborist Committee by facilitating monthly meetings that review planting plans and develop policy on tree protection; to celebrate Arbor Week; to apply for TreeCity USA designation; and to participate in policy concerns regarding invasive species.

B. Goal/Objective #2: To continue the turf management program, tree safety, and the planting of additional trees along streets, in parks and other public places.

County of Maui, Department of Public Works and Waste Management

I. Goals/Objectives for FY 2001

A. Goal/Objective #1: Pass legislation regarding recycled glass for use in County projects and for the mandatory recycling of glass for establishments that possess liquor licenses.

B. Goal/Objective #2: Initiate programs along the beaches in Kihei as it relates to the department's maintenance of stream channels so as to protect the health of those beaches.

C. Goal/Objective #3: Initiate the permitting of restaurants throughout the County of Maui consistent with our pretreatment ordinance regulating the discharge of fats, oils and greases.

II. Results of Efforts for FY 2001

A. Goal/Objective #1: Ordinances pertaining to recycled glass for use in County projects and mandatory recycling of glass for establishments that possess liquor licenses are in effect. Administrative rules are in the process of being adopted.

B. Goal/Objective #2: Removal of sand plugs along the Kihei coast have been done on an as-needed basis. A purchase of the seaweed beach cleaning machine has been completed. When this is delivered and in operation, this should result in more efficient removal of nuisance seaweed and cleaner beaches.

C. Goal/Objective #3: During FY 2001, the permitting of restaurants was initiated with a goal of permitting 50 percent of the 460 restaurants within Maui County. As of October 2001, the Wastewater Reclamation Division has permitted 100 percent of the restaurants.

III. Goals/Objectives for FY 2002

A. Goal/Objective #1: Eradicate mosquito breeding areas to minimize or control the effects of dengue fever.

B. Goal/Objective #2: Complete the scale house and recycling center at the Central Maui Landfill which should result in an additional 4 percent diversion rate, open the reuse center, and begin collecting nicad batteries.

C. Goal/Objective #3: Achieve 50 percent compliance of all restaurants meeting new sizing criteria for grease interceptors. This will greatly reduce the amount of grease blockages within the collection system and directly reduce the amount of raw wastewater overflows.