# REPORT TO THE TWENTY-THIRD LEGISLATURE STATE OF HAWAΓΙ 2006

# ENVIRONMENTAL RESPONSE LAW AND HAWAI COMMUNITY RIGHT TO KNOW ACT

PURSUANT TO CHAPTERS 128D AND 128E,
HAWAI REVISED STATUTES
REQUIRING THE DEPARTMENT OF HEALTH TO REPORT
ENVIRONMENTAL RESPONSE LAW AND
HAWAI COMMUNITY RIGHT TO KNOW ACT
FINANCIAL AND ENVIRONMENTAL SITE INFORMATION

PREPARED BY:
STATE OF HAWAI'I
DEPARTMENT OF HEALTH
DECEMBER 2005

# This page left intentionally blank

# **TABLE OF CONTENTS**

TA	BLE OF CONTENTS	I
LIS	ST OF TABLES	VI
LIS	ST OF CHARTS	VI
GL	OSSARY OF ABBREVIATIONS AND ACRONYMS	VII
EX	KECUTIVE SUMMARY	ES-1
	I. FY 2005 Accomplishments	ES-1
	II. Environmental Response Revolving Fund (ERRF) Support for Five EHA Programs	ES-5
	III. The Focus on FY 2006	ES-6
1	THE HEER OFFICE	1-1
1.1	Authorities	1-1
1.2	Mission	1-2
1.3	Functions and Activities Overview	1-2
1.4	Program and Project Management Priorities and Objectives	1-3
	1.4.1 Enforcement of 128D and 128E, HRS Improved	1-3
	1.4.1.1 Environmental Crimes Unit (ECU) Continues	1-3
	1.4.1.2 Legal Support/Enforcement Continues	1-4
	1.4.2 Emergency Response and Preparedness Improved	1-5
	1.4.3 Oversight and Response to Contaminated Sites Improved	1-5
	1.4.4 Voluntary Response and Brownfields Programs Developed for Greater Participation	1-6
	1.4.4.1 Participation in the Voluntary Response Program Continues to Grow	1-6
	1.4.4.2 State Brownfields (BF) Program Partnerships Enhanced	1-7
	I. DBEDT/OP – DOH Partnership Activities	1-7
	II. DOH and EPA State Targeted Site Assessment Projects (TSAs).	1-8
	III. Other New Brownfield Grants	1-8
	1.4.5 EPA Chemical Accident Release Prevention Program Delegation to Hawai`i Being Considered	1-8
	1.4.6 Office Operations, Policy, and Administration Improved	1-9
	1.4.6.1 2003 Legislative Session	1-9
	I. Act 200, SLH 2003, State Budget	1-9

	1.4.6.2	2004 Legislative Session	1-9
	I. Ac	t 40, SLH 2004, Illegal Use of Controlled Substances	1-9
	II. Ac	t 44, SLH 2004, Illegal Use of Controlled Substances	1-9
	III. Ac	t 52, SLH 2004, Non-General Funds	1-10
	IV. Ac	t 146, SLH 2004, Polybrominated Diphynyl Ethers	1-10
	1.4.6.3	2005 Legislative Session	1-10
	I. Ac	t 133, SLH 2005, State of Hawai'i: Voluntary Response Program	1-10
	II. Ac	t 178, SLH 2005, State Budget	1-10
	III. Bil	ll and Resolution on the Uniform Environmental Covenants Act	1-10
	1.4.7 Office	Management	1-10
	1.4.8 Opera	tions and Planning	1-11
	1.4.9 HEER	Office Information Management	1-11
	1.4.9.1	Environmental Health Administration (EHA) One Stop Grant Project	1-12
	1.4.9.2	Data Integration	1-12
	1.4.9.3	Data Quality	1-12
	1.4.9.4	Website Capability	1-12
2	HEER OFF	ICE PROGRAMS AND ACTIVITIES	2-1
2.1	Emergen	cy Response Preparedness	2-1
		i'i Emergency Planning and Community Right-To-Know Act (HEPCRA) redness Program	2-2
	2.1.1.1	Hawai'i State Emergency Response Commission (HSERC)	
	2.1.1.2	Hawai'i Emergency Planning and Community Right-To-Know Act Tier II Filing Fees	
		Air Act (CAA) 112 (r) Accidental Release Prevention Program Inspections and	2-4
	2.1.3 Emerg	gency Response Preparedness Activities	2-5
	2.1.3.1	Pollution Exercise Participation	2-5
	2.1.3.2	Chemical and Bio-Terrorism	2-6
	2.1.3.3	Campbell Local Emergency Action Network (CLEAN)	2-6
	2.1.3.4	Airborne Dispersant Delivery System (ADDS)	2-6
	2.1.3.5	Hawai`i Pipeline Corrosion Control Coordinating Committee	2-7
	2.1.3.6	Environmental Crimes Task Force	2-7
		Oiled Wildlife Response Program	2-7

2.2	En	nergency Response	2-8
	2.2.1 Honolulu Harbor Area-wide Contamination		2-8
	2.2.2	Paula Drive Unknown Vials	2-8
	2.2.3	Hilo Pier Black Oil Release	2-9
	2.2.4	Vessel Groundings	2-9
	2.2.5	Illegal Dumping on All Islands	2-9
	2.2.6	Unknown Compressed Gas Cylinders	2-10
	2.2.7	Cruise Line Industry-Related Incident	2-10
	2.2.8	Sewage Spills	2-10
	2.2.9	Pipeline Releases	2-10
2.3	Ha	zard Evaluation	2-11
	2.3.1	Ecological Risk Assessment	2-11
	2.3.2	Public Health Studies	2-11
	2.3	2.1 VOG	2-11
	2.3	VOG Health Assessment Study, An Assessment of the Health Effects from Exposure to Volcanic Emissions (formerly: Hilo Asthma Pilot Study)	2-12
	2.3	.2.3 Big Island Bio-aerosol Study (BIBS)	2-12
	2.3	.2.4 Volcanic Emissions and Airway function, Inflammation, heart Rhythm (AIR) Study	2-12
	2.3.3	Reporting of Pesticides & Heavy Metal Poisoning to the HEER Office	2-13
	2.3.4	Significant Hazard Evaluation Project Summaries	2-14
	2.3.5	Committees, Advisory Boards, and Community Presentations	2-19
2.4	Sit	e Discovery, Assessment, and Remediation	2-20
	2.4.1	State Non-emergency Response Program.	2-22
	2.4.2	Voluntary Response Program (VRP)	2-28
	2.4.3	Brownfields (BF) Revitalization Program	2-31
	2.4.4	CERCLA Preliminary Assessment/Site Inspection (PA/SI) Cooperative Agreement Program	2-34
	2.4.5	Department of Defense State Memorandum of Agreement (DSMOA) Program	2-40
	2.4	.5.1 Army Installation Significant Sites	2-40
	2.4	.5.2 Navy Installation Significant Sites	2-42
	2.4	.5.3 Air Force Installation Significant Sites	2-47
	2.4.6	Formerly Used Defense Sites (FUDS) Program	2-50

3	SITE	E LISTS SUBJECT TO THE STATE CONTINGENCY PLAN	3-1
3.1	Hawai`i Sites Listed on the Federal National Priority List (NPL)		
3.2		awai`i Sites Eligible Under the Comprehensive Environmental Response, ompensation and Liability Act (CERCLA)	3-2
3.3	St	ate Site Priority List	3-3
3.4	Br	rownfields (BF) Revitalization Program Site List	3-7
3.5	De	efense/State Memorandum of Agreement (DSMOA) Site List	3-8
	3.5.1	Army Installations	3-8
	3.5.2	Navy Installations	3-8
	3.5.3	Air Force Installations	3-8
3.6	Fo	ormerly Used Defense Site List	3-9
3.7	De	epartment of Health Release Notification Log	3-9
4	HEE	R OFFICE FUNDING AND EXPENDITURES	4-1
4.1	H	EER Office Funding Summary	4-1
4.2	H	EER Office Expenditures Summary	4-3
4.3	H	EER Office State and Federal Funding	4-5
	4.3.1	HEER Office General Funds	4-5
	4.3.2	HEER Office Environmental Response Revolving Funds	4-6
	4.3.3	HEER Office Federal Funding	4-7
	4.3	3.3.1 EPA Superfund Core Grant	4-8
	4.3	3.3.2 EPA Superfund PA/SI Cooperative Agreement Grant	4-9
	4.3	3.3.3 EPA State Response Program Grant	4-10
	4.3	Department of Defense/State Memorandum of Agreement Program Grant	4-11
5		TRONMENTAL RESPONSE REVOLVING FUND BUDGET AND ENDITURES FOR EHA PROGRAMS	5-1
5.1	Er	nvironmental Response Revolving Fund	5-1
5.2	Er	nvironmental Response Revolving Fund Revenues	5-1
5.3	Er	nvironmental Health Administration Budget and Expenditure Summary	5-2
5.4	Er	nvironmental Health Administration Programs Receiving HTH 840 and 849	
		RRF Funding	
	5.4.1	Hazard Evaluation and Emergency Response Office	
	5.4.2	Environmental Management Division	5-5

5.4.3	Solid a	nd Hazardous Waste Branch	5-6
5.4	4.3.1	Used Oil Management and Recycling	5-6
5.4	4.3.2	Special Waste Management	5-7
5.4	4.3.3	Management of Leaking Underground Storage Tank (LUST) Sites	5-7
5.4	4.3.4	Inspection of Underground Storage Tank Facilities	5-7
5.4.4	Safe D	rinking Water Branch	5-8
5.4	4.4.1	Lead and Copper Rule Administration	5-8
5.4	1.4.2	Development and Maintenance of Disinfectant/Disinfection By-Products Rule and Interim Enhanced Surface Water Treatment Rule	5-9
5.4	1.4.3	Protection of Existing and Potential Underground Sources of Drinking Water (Hawai'i Underground Injection Control Program)	5-9
5.4	1.4.4	Certification of Operators of Public Water Systems	5-10
5.4	4.4.5	Assistance to Owners and Users of Rainwater Catchments Systems	5-10
5.4	4.4.6	Capacity Development Program	5-11
5.4.5	Clean	Water Branch	5-13
5.4	4.5.1	Quality Assurance	5-13
5.4	4.5.2	Polluted Runoff Control	5-13
ADN	IINISTE	2 2005 DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH RATION HAZARD EVALUATION AND EMERGENCY RESPONSE ATE SITE LIST	A-1
ADN	IINISTE	7 2005 DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH RATION HAZARD EVALUATION AND EMERGENCY RESPONSE ELEASE NOTIFICATION LOG	B-1

# LIST OF TABLES

Table 1	HEER Office Funding Source and Budget FY 2005	4-1
Table 2	HEER Office Funding Source and Expenditures FY 2005	4-3
Table 3	HEER Office General Funds	4-5
Table 4	HEER Office Environmental Response Revolving Funds	4-6
Table 5	HEER Office Federal Funding Summary	4-7
Table 6	HEER Office EPA Superfund Core Grant Funds	4-8
Table 7	HEER Office EPA Superfund Preliminary Assessment/Site Inspection Cooperative	
	Agreement Funds	4-9
Table 8	HEER Office State Response Program Funds	4-10
Table 9	HEER Office Department of Defense/State Memorandum of Agreement Program	
	Funds	4-11
Table 10	ERRF Revenues FY 2005	5-1
Table 11	Environmental Response Revolving Fund HTH 849 and HTH 840 Programs Budget	
	and Expenditures Summary FY 2005	5-3
Table 12	HEER Office Environmental Response Revolving Fund	5-4
Table 13	Environmental Management Division Environmental Response Revolving Fund	5-5
Table 14	Solid and Hazardous Waste Branch Environmental Response Revolving Fund	5-6
Table 15	Safe Drinking Water Branch Environmental Response Revolving Fund	5-8
Table 16	Clean Water Branch Environmental Response Revolving Fund	5-13
	LIST OF CHARTS	
Chart 1	HEER Office Funding Sources by Percentages FY 2005	4-2
Chart 2	HEER Office Budgets and Expenditures FY 2005	4-4
Chart 3	FRRE HTH 849 and HTH 840 Budget and Expenditure Summary FV 2005	5-2

# GLOSSARY OF ABBREVIATIONS AND ACRONYMS

A Addressed as part of an existing NPL site

ABLES Adult Blood Lead Epidemiology and Surveillance

ABW Air Base Wing

ADDS Airborne Dispersant Delivery System

AFB Air Force Base

AAFES Army Air Force Exchange System

AFS Air Force Station
AG Attorney General
AOC Area of Concern

ARPP Accidental Release Prevention Program

AST Above-ground Storage Tank

ATSDR Agency for Toxic Disease Registry

ATSDR/CDC Agency for Toxic Disease Registry /Center for Disease Control

AVGAS Aviation gas

AWQC Ambient water quality criteria

BCRLF Brownfields Cleanup Revolving Loan Fund

BF Brownfields

bgs Below Ground Surface

BIBS Big Island Bio-aerosol Study

BRAC Base Closure and Realignment Commission
BTEX Benzene, Toluene, Ethylbenzene, and Xylenes

CA Cooperative Agreement

CAA Clean Air Act

CAB Clean Air Branch

CCA Copper, Chromium, Arsenate
C&C City and County of Honolulu
CDC Centers for Disease Control

CERCLA Comprehensive Environmental Response Compensation and Liability Act

CEU Continuing Education Credits
CFR Code of Federal Regulations

CIC Clean Islands Council

CID (EPA) Criminal Investigation Division

CIP Campbell Industrial Park

CLEAN Campbell Local Emergency Action Network

COC Contaminants of Concern

COE (United States Army) Corps of Engineers

CST Civil Support Team
CWB Clean Water Branch
Deferred to RCRA

D/DBPR Disinfectant/Disinfection By-Products Rule

DAGS Department of Accounting and General Services

dba doing business as

DBEDT Department of Business, Economic Development, and Tourism

DBEDT/OP Department of Business, Economic Development, and Tourism/Office of Planning

DCE Dichloroethylene

DDT Dichlorodiphenyl trichloroethane

DERP Defense Environmental Restoration Program

DFM Diesel Fuel Marine

DHHL (State) Department of Hawai`ian Home Lands
DLIR Department of Labor and Industrial Relations
DLNR Department of Land and Natural Resources

DOD Department of Defense

DOE Department of Education

DOH Department of Health

DOT Department of Transportation

DPSA Data Processing Systems Analyst

DRMO Defense Reutilization and Marketing Office

DS Discovery

DS1 Discovery (Initial)
DS2 Discovery (Extended)

DSMOA Department of Defense/State Memorandum of Agreement

DWS Department of Water Supply

ECS Environmental Compliance System

ECU Environmental Crimes Unit

EDR Environmental Data Registry

EE/CA Engineering Evaluation/Corrective Action

EHA Environmental Health Administration

EHS Environmental Health Specialist

EMD Environmental Management Division

Env. Environmental

EP&R Emergency Preparedness and Response (Section)
EPA (United States) Environmental Protection Agency

EPCRA Emergency Planning and Community Right-To-Know Act

Epi Surge Epidemiological Surge

EPO Environmental Planning Office

ERA Environmental Response Agreement

ERO Environmental Resource Office

ERRF Environmental Response Revolving Fund

ES Expanded Site Inspections

ES1 Expanded Site Inspections (Initial)

ES2 Expanded Site Inspections (Extended)

ESL Environmental Screening Level

ESWTR Enhanced Surface Water Treatment Rule

FAMIS Financial Accounting Management Information System

FBRR Filter Backwash Recycling Rule

FEMA Federal Emergency Management Agency
FITS Facility Identification Template for States

FOSC Federal On-Scene Coordinator
FOST Finding of Suitability to Transfer

FRS Facility Registry System

FS Feasibility Study

FSA Fuel Storage Annex

FUDS Formerly Used Defense Sites

FY Fiscal Year

G Recommended for HRS Scoring
GAC Granulated Activated Carbon

GF General Fund

GIS Geographic Information System

HACD Hawai'i Association of Conservation Districts

HAFB Hickam Air Force Base

HAR Hawai`i Administrative Rule

HAZMAT Hazardous Material

HCDA Hawai'i Community Development Authority

HCDCH Housing and Community Development Corporation of Hawai'i

HCR House Concurred Resolution

HD House Draft

HDOH Hawai'i Department of Health

HEER Hazard Evaluation and Emergency Response (Office)0

HEPCRA Hawai'i Emergency Planning and Community Right-To-Know Act

HERL Hawai'i's Environmental Response Law

HIANG Hawai`i Air National Guard
HIARNG Hawai`i Army National Guard

HMEP Hazardous Materials Emergency Preparedness

HR Hazard Ranking

HR1 Hazard Ranking (Initial)
HRS Hawai`i Revised Statute

HSERC Hawai'i State Emergency Response Commission

HTH Health

IDOP Iwilei District Operating Partners

IDPP Iwilei District Participating Partners

IESWTR Interim Enhanced Surface Water Treatment Rule

IM Information Management

IMIP Information Management Improvement Project

IRA Interim Remedial Action
IRB Industrial Review Board

IRP Installation Restoration Program

ISST Initial Site Screening Team

ITIR Informal Technical Information Report

JABSOM John A. Burns School of Medicine (University of Hawaii)

JP-5 A jet petroleum fuel

LAN Local Area Network

LAN/WAN Local Area Network/Wide Area Network

lccs Large capacity cesspools

LEPC Local Emergency Planning Committee

LF Landfill

LLC Limited Liability Company

LNAPL Light non-aqueous phase liquid

LOC Letter of Completion

LT Long Term

LTM Long Term Monitoring

LUST Leaking Underground Storage Tank

MAP Management Action Plan

MBE Minority Business Enterprises

MBE/WBE Minority Business Enterprises/Women's Business Enterprises

MCH Maternal and Child Health

MCL Maximum Contaminant Level

μg Micro gram

MOA Memorandum of Agreement

MPX Multiphase Extraction (System) (also known as bioslurper)

M/V Marine Vessel

MW Monitoring Well

NAS Naval Air Station

NCCUSL National Conference of Commissioners on Uniform State Laws

NCP National Contingency Plan

NCTAMS Naval Computer and Telecommunications Area Master Station

NES Naval Exchange NFA No Further Action

NFRAP No Further Response Actions Planned

NOAA National Oceanic Atmospheric Administration

NPL National Priority List

NRDA Natural Resources Damage Assessment

NRTF Naval Radio Transmitting Facility

OE Ordnance and Explosives

OEW Ordnance and Explosive Waste

O&M Operation and Maintenance

OP Office of Planning
OPA Oil Pollution Act

OPA 90 Oil Pollution Act of 1990 OSC On-Scene Coordinator

OU Operable Unit

PA Preliminary Assessment

PA/SI Preliminary Assessment/Site Inspection

PA1 Preliminary Assessment (Initial)

PA1/PA2 Preliminary Assessment (Initial)/Site Inspection (Initial)

PAH Polycyclic Aromatic Hydrocarbons; also, Polynuclear Aromatic Hydrocarbon

PCB Polychlorinated biphenyls

PCP Pentachlorophenol

PEL Permissible Exposure Limit

PHIN Public Health Information Network

PM Particulate Matter
PM1 Particulate Matter 1

POD Pacific Ocean Division

POL Petroleum Oil and Lubricant

ppb part per billion ppm Part per million

PRC Polluted Runoff Control

PRG Preliminary Remedial Goals

PRP Potential Responsible Parties, Principal Responsible Party

QMP Quality Management Plan

RA Remedial Assessment

RAB Restoration Advisory Board

RAM Remedial Action Memorandum

RCRA Resource Conservation and Recovery Act

RI Remedial Investigation

RI/FS Remedial Investigation/Feasibility Study

RMP Risk Management Program

ROD Record of Decision
RP Responsible Party

RPM Remedial Project Manager

SAP Site Assessment and Prioritization; also, Sampling and Analysis Plan

SBLRBRA Small Business Liability Relief and Brownfields Revitalization Act of 2002

SCP State Contingency Plan

SDAR Site Discovery, Assessment, and Remediation (Section)

SDWA Safe Drinking Water Act
SDWB Safe Drinking Water Branch

SERC State Emergency Response Commission

SHWB Solid and Hazardous Waste Branch

SI Site Inspection

SI1 Site Inspection (Initial)
SI2 Site Inspection (Extended)
SLD State Laboratory Division
SLH Session Laws of Hawai'i

SMAP State Management Action Plan

SO2 Sulfur dioxide

SOSC Sate On-Scene Coordinator

SOW Statement of Work

SRP State Response Program (A federal grant program)

STS Satellite Tracking System

SVOC Semi-volatile Organic Compound SWTR Surface Water Treatment Rule

T Temporary

TAMC Tripler Army Medical Center

TCE Trichloroethylene

TCRA Time-Critical Removal Action
TGM Technical Guidance Manual
TMF Technical Managerial Financial
TPH Total Petroleum Hydrocarbons

TPH-D Total Petroleum Hydrocarbons as diesel
TPH-O Total Petroleum Hydrocarbons as oil

#### GLOSSARY OF ABBREVIATIONS AND ACRONYMS

TSA Targeted Site Assessment
TSCA Toxic Substance Control Act
UCS Unified Command System

UIC Underground Injection Control

USACE United States Army Corps of Engineers
USACOE United States Army Corps of Engineers

USAF United States Air Force

USDW Underground Sources of Drinking Water

USEPA United States Environmental Protection Agency

UST Underground Storage Tank
UXO Unexploded Ordinance

VCC Video Conferencing Center VCP Voluntary Cleanup Program

VCP/BF Voluntary Cleanup Program/Brownfields (Program)

VOC Volatile Organic Compound

VOG, vog Volcanic Fog

VRP Voluntary Response Program
WBE Women's Business Enterprises
WMD Weapons of Mass Destruction

WNV West Nile Virus

#### **EXECUTIVE SUMMARY**

# REPORT ON THE ENVIRONMENTAL RESPONSE REVOLVING FUND BUDGET AND EXPENDITURES FOR FISCAL YEAR 2005

This report, prepared by the State of Hawai'i Department of Health (DOH), Environmental Health Administration (EHA), Hazard Evaluation and Emergency Response (HEER) Office, complies with Chapters 128D and 128E, HRS that require the DOH to prepare an annual report to the State Legislature.

The "environmental response tax" established in the Fuel Tax Law, 243-3.5, Hawai'i Revised Statutes (HRS) supports the Environmental Response Revolving Fund (ERRF) established in Chapter 128D, HRS. This is a state tax of five cents per barrel, or fractional part of a barrel, of petroleum product sold by a distributor to any retail dealer or end user, other than a refiner of petroleum product. Fines and penalties for environmental violations, grants, legislative appropriations, and costs recovered from response actions also support the ERRF.

#### ERRF funds are used for:

- Removal or remedial actions consistent with Chapter 128D to deal with oil spill and hazardous substances releases.
- Oil spill planning, prevention, preparedness, education, research, training, removal, and remediation.
- Direct support for county used oil-recycling programs.
- To support environmental protection and natural resource protection programs; including but not limited to energy conservation and alternative energy development; and to address concerns related to air quality, global warming, clean water, polluted runoff, solid and hazardous waste, drinking water, and underground storage tanks (UST), including support for the UST program of the department and funding for the acquisition by the State of a soil remediation site and facility.

This report addresses State Fiscal Year 2005 and does not address Act 178, Section 20, Session Laws of Hawaii (SLH) requiring the Department of Health to report the revenues and expenditures of the ERRF as of December 1, 2005. A separate report has been prepared to satisfy the Section 20 requirement.

# I. FY 2005 Accomplishments

The HEER Office Emergency Preparedness and Response (EP&R) Section received 351 notices for releases of a hazardous substance or oil spill. Eight-four cases required direct action, including emergency response deployment to one site with suspected nerve gas and another for the grounding of a cargo vessel at Barbers Point.

The HEER Office Site Discovery, Assessment, and Response (SDAR) Section completed 137 project activities at 137 sites. The completed activities included 25 site assessments, 24 removal actions, 1 remedial action, and 14 Unregulated Storage Tank (UST) closures. SDAR Remedial Project Managers (RPM) also reviewed records for 73 sites and made recommendations for either a next-phase follow-on activity or no further action

The DOH, through the HEER Office efforts, has been developing programs and capabilities for managing contaminated site assessment and cleanup activities. For example, the Hawaii Voluntary Response Program (VRP) and Brownfields Program are designed to encourage and facilitate the assessment, clean up, and redevelopment of contaminated property. These two programs complement each other and operate collaboratively with the national U.S. EPA Brownfields Program. Through increased community outreach for the Voluntary Response Program and Brownfields Program, the HEER Office has encouraged responsible parties to assume the cost for cleaning up contaminated property with HEER Office oversight.

In FY 2005, HEER Office finalized Environmental Screening Level (ESL) criteria for cleanup goals. The guidance document, *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2005)* was published and a workshop was designed for HEER staff, property owners, and consultants so environmental issues could be incorporated into projects early on to better coordinate remedial and construction activities.

The Office is also conducting a major study to define arsenic concentrations in the surface soil of public use areas as well as undeveloped land adjacent to residential subdivisions around Kea'au, Hawai'i. A series of public meetings were held with Kea'au community members to inform them of the DOH concerns as the study progresses.

The following paragraphs summarize the HEER Office FY 2005 emergency response actions as well as the environmental program efforts that have enhance contaminated site assessment and cleanup capacity.

# **State On-Scene Coordinators Conduct Emergency Response Actions**

During FY 2005, the HEER Office received 351 emergency response notifications for the release of hazardous chemicals or oil spills. EP&R SOSCs performed a site visit and/or off-scene coordination was provided to 61 of the emergency response cases, 23 cases were referred to the HEER Office Site Discovery, Assessment, and Remediation (SDAR) Section for follow-on investigation and ranking, and 56 were referred to other agencies. Twenty-two training drill and 14 were sewage spill notifications were also reported. Notable among the responses managed by the HEER Office SOSCs during FY 2005 included the "Paula Drive Unknown Vials" case that was a coordinated effort under a Unified Command System, the "Hilo Pier Black Oil Release", and the "Cape Flattery Vessel Grounding" in the Barbers Point area. Summaries for the significant emergency response actions are presented in the following paragraphs and in Section 2.

HEER Office Emergency Preparedness and Response (EP&R) Section State On-Scene Coordinators (SOSCs) successfully led the removal of approximately 100 vials with unknown and potential nerve agent contents, from a home on Paula Drive, Oahu. Initial investigations indicated that the vials could have been from test kits used in World War II; and removal would require a highly specialized unit from Aberdeen Proving Ground, Maryland and their equipment. The response action was a coordinated effort under a Unified Command System comprised of HEER, private, local, other state, and federal agencies: American Red Cross, Oahu Civil Defense Agency, Honolulu Fire Department, Honolulu Police Department, Emergency Medical Services, Hawai'i National Guard team, the 93<sup>rd</sup> Weapons of Mass Destruction Civil Support Team, Hawai'i State Attorney General's Office; and United States Army.

On September 16, 2004, an incident occurred when black fuel oil was released from a fuel pipeline under the Hilo piers. Inspection by an American Petroleum Institute inspector revealed that the thirty-year-old pipe had failed due to galvanic corrosion next to a previous repair. Chevron conducted the cleanup.

On February 2, 2005, the 555-feet marine vessel (M/V) Cape Flattery ran aground while approaching Barber's Point. The Cape Flattery, a Hong Kong flag bulk carrier with a cargo capacity of 32,600 tons, was fully loaded with cement. The HEER Office dispatched contractors to the scene to unload 128,000 gallons of fuel and 7,000 tons of cement cargo. The vessel was re-floated following the removal of the

fuel and cargo. During the incident, there was no release of a hazardous substance from the vessel, however, damage occurred to the coral reef. However, much cement dust entered the ocean. The Department of Land and Natural Resources conducted a Natural Resource Damage Assessment (NRDA) to calculate the monetary cost of restoring injuries to the coral reef natural resource.

#### Hawaii Voluntary Response Program (VRP) Sites Increased

The number of total Voluntary Response Program (VRP) sites increased to twenty-five sites, with twelve projects at nine sites completed in FY 2005. One Letter of Completion with Unrestricted Use was issued during FY 2005. At the close of the year, the VRP program was addressing twenty-one ongoing projects at seventeen active VRP sites.

During FY 2005, the HEER Office issued three Letters of Completion and added five new VRP sites to the program. Applications to the VRP program should continue to grow, as the economic outlook for property development remains positive within the State.

The Voluntary Response Program (VRP) provides significant incentives for property owners and prospective purchasers to voluntarily cleanup contaminated properties. Under the law, DOH has the authority to grant prospective purchasers an exemption from future liability if the cleanup is performed to DOH specifications under the program. While property owners can participate in this program, exemptions from liability can only be given to future purchasers or tenants. Upon completion of the voluntary cleanup action, an official Letter of Completion (LOC) is issued by the Department of Health and noted on the property deed.

### Hawaii Brownfields Program Expands within State and County Environmental Community

DOH, other State agencies, and the counties have made strides in further developing Hawaii's Brownfields Economic Redevelopment Program. The HEER Office and the Office of Planning (OP) in the DBEDT are the key state agencies working to promote the Brownfields program in Hawaii. However, it is important to note that there are a number of other agencies participating in and benefiting from the Brownfields program including DBEDT/OP, the counties, and non-profit agencies. Much of the progress is made possible by the federal support provided to the State in accordance with Public Law 107-118, Small Business Liability Relief and Brownfields Revitalization Act. This law provides approximately \$250 million for competitive Brownfields grants and \$50 million to assist states and tribes in developing their own Brownfields programs.

Through Brownfield Program interagency collaboration with Department of Business, Economic Development and Tourism (DBEDT), and the counties, the HEER Office has helped to expand significantly the brownfields activity in the State. For example DBEDT, the City and County of Honolulu, County of Maui, and the DOH HEER Office, announced the availability of the \$2 million Brownfields Cleanup Revolving Loan Program (BCRLF). This fund is managed by the DBEDT Office of Planning (OP) with the HEER Office Voluntary Response Program providing technical oversight during the clean up process.

DBEDT completed its Implementation Plan and administrative rules for the Brownfields Cleanup Revolving Loan Program (BCRLF) and a Memorandum of Agreement among the partners in the BCRLF, including: DBEDT/OP, City and County of Honolulu, County of Maui, and the DOH HEER Office. This program was established by an EPA coalition grant with OP as the lead state agency for the BCRLF. DOH has a major role in implementing the program by providing technical oversight to all cleanups using BCRLF funds.

DBEDT/OP was awarded an EPA Brownfields Assessment Grant (\$400,000) and DOH is now collaborating on the implementation. Separate meetings were held with officials from each county to encourage participation in identifying and assessing brownfields sites for redevelopment.

DOH continued funding to DBEDT/OP for redevelopment design charrettes to selected brownfields projects that are ready for development (\$15,000). DBEDT/OP conducted charrettes for: Kapiolani Community College on Oahu, Kanuikapone Charter School on Kauai, and the Building Industry Association on Oahu.

HEER Office performed environmental site assessments for the following agencies and projects: 1) Building Industry Association new Construction Training Center, 2) DLNR Manana Valley land purchase, 3) HCDA Heeia land transfer to DLNR, 4) HCDA Kaka'ako Units 6 & 7 environmental site assessments, and 5) Kokua Kalihi Valley Active Living Center.

Ten Brownfields targeted site assessments were completed during FY 2005. One site, the Cannon Club site on Oahu, was issued a No Further Action (NFA) letter. Nine sites were issued a recommendation to continue site work with a next-phase assessment, removal, or remedial activity. At the close of FY 2005, there were twenty-two sites on the HEER Office Brownfields list, with ten active and twelve recommended project activities.

#### **Environmental Screening Level Guidance Document Published**

The HEER Office Hazard Evaluation Section presented updated guidance to help expedite the cleanup and redevelopment of contaminated properties. The document, Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2005), helps environmental professionals to rapidly and cost effectively identify environmental concerns at contaminated sites and prepare remedial actions to address these concerns. This permits property owners and developers to incorporate environmental issues into projects early on and better coordinate remedial and construction activities.

Such approaches are integral to a successful Brownfields Program and help prevent the abandonment of contaminated properties due to uncertainties about the cost and effort to get the properties back into productive use. The document was prepared after a thorough review of similar guidance prepared by other State and Federal agencies. Workshops will be held on a regular basis to train DOH staff and environmental consultants in use of the document and related computer spreadsheets. Workshops are also being held for the Army, Navy and Air Force and private entities such as HECO, as well as the Hawai'i Bar Association and local financial institutions.

The Solid and Hazardous Waste Branch (SHWB), Leaking Underground Storage Tank Section, has also recommended the use of the updated Environmental Screening Levels document on a voluntary basis until such time as HAR Chapter 11-281 (Underground Storage Tanks) is formally revised to reference the updated guidance (anticipated early 2006). As for sites under HEER Office oversight, the updated screening levels document is expected to simplify and expedite cleanup activities for leaking underground storage tanks.

#### Ongoing Arsenic Studies in Kea'au, Hawai'i

The HEER Office investigations of elevated soil arsenic concentrations on former agricultural lands where sugarcane was grown continued in 2005. The Site Discovery, Assessment and Remediation staff assisted by the Hazard Evaluation staff completed investigations of soil arsenic concentrations in the surface soil of public use areas as well as undeveloped land adjacent to residential subdivisions around Kea'au, Hawai'i.

In early 2005, soil samples were collected from 18 areas of the Kea'au community and tested for arsenic. Reported levels of arsenic in soils from the area are up to 100 times higher than anticipated background levels.

Due to high levels of arsenic documented in soils of some areas around Kea`au, investigations on soil arsenic uptake by vegetables and fruits in gardens was initiated. Two community gardens and a garden

used by a local school were identified as high priority for potential health risk concerns. Use of the school garden has ceased, pending evaluation of the garden area assessment currently underway.

In addition, an exposure investigation of volunteers from two small residential communities in the Kea'au area was initiated with the participation and assistance of the Agency on Toxic Substances and Disease Registry. Our State Laboratory is planning to analyze arsenic in "split" samples of the urine to compare results with the National CDC lab in Atlanta, and prepare the State Lab for doing future urine-arsenic analyses. In addition, the State Laboratory will also be testing split samples of vegetables and fruits to compare results with the National FDA lab in Kansas.

Testing was continued to estimate the bioaccessibility of arsenic found in Hawai'i soils. The bioaccessibility testing from the Kea'au area has so far indicated only 20% or less of the soil arsenic may be bioaccessible to humans if the soil was ingested (e.g. from soil left on vegetables/fruits or small amounts of soil from hand to mouth of kids or gardeners). The HEER Office also continued to support research at the University of Hawai'i on the chemistry and bioaccessibility of soil arsenic.

An overview of results from these investigations was presented to the Kea'au community in August 2005. Several public meetings were held with local residents who live near and work in the community gardens. The residents have been cautioned to practice good hygiene, thoroughly wash produce and avoid bringing dirt from the gardens into their homes. Arsenic has not been reported in the municipal water supply for the community.

#### II. Environmental Response Revolving Fund (ERRF) Support for Five EHA Programs

During FY 2005, the Legislature appropriated \$4,490,775 from the ERRF to fund five Environmental Health Administration (EHA) programs. They are the Hazard Evaluation and Emergency Response (HEER) Office, Environmental Management Division (EMD), Solid and Hazardous Waste Branch (SHWB), Safe Drinking Water Branch (SDWB), and Clean Water Branch (CWB). Of the \$4,514,764 budgeted to the programs, the following percentages were allocated; HEER Office 65.49%, EMD 1.12%, SHWB 11.41%, SDWB 16.08%, and CWB 5.90%. The total amount expended by the five programs was \$3,301,334.

The ERRF appropriation to the HEER Office was \$2,941,054, with \$1,872,834 expended. These monies were primarily utilized for potential and immediate use during a hazardous substance or oil related emergency response action. Because the actual expenditures for emergency response actions are random and dependent upon the number and scale of potential responses, it is expected that there may be a large difference between the allocated budget and expenditures. During FY 2005, there were no major spill or response expenditures.

In addition to ERRF funding, the HEER Office is funded by three federal grants; the Superfund, State Response Program (SRP), and Department of Defense/State Memorandum of Agreement (DSMOA) grants. The total FY 2005 budget for the HEER office, including monies appropriated from the ERRF, General Fund, and federal grants was \$5,759,984, with \$4,959,984 actual funding received, and \$3,462,832 expended. The ERRF appropriation of \$2,941,054 accounted for 54% of the actual HEER Office budget. The General Fund accounted for 10%, and federal grants accounted for 36% of the actual HEER budget.

ERRF monies appropriated to the HEER Office also supported three programs outside of the office. The HEER Office budgeted \$200,000 for use by the Solid and Hazardous Waste Branch (SHWB) Hazardous Waste Section "Four Counties" Used Oil Collection" Programs. The amount of \$75,000 was budgeted to fund the veterinarian contracted by the Department of Land and Natural Resources to help oiled wildlife

if there is a spill. The HEER Office also transferred \$142,787 to the Department of Attorney General to fund two criminal investigators assigned to the Environmental Crimes Unit (ECU).

The ERRF appropriation to EMD was \$50,197, with \$16,931 expended. The ERRF funds the Data Processing Systems Analyst computer-network manager position for the EMD. During FY 2005, the Data Processing Systems Analyst (DPSA) supported the Division's day-to-day use and maintenance of the Local Area Network/Wide Area Network (LAN/WAN). Other projects included participation in the Division's One Stop project, the CWB Water Quality Web application project, the CAB database project, and coordinating the use of a Video Conferencing Center (VCC).

The ERRF allocation to SHWB was \$512,382, with \$599,077 expended. The FY 2005 SHWB overbudget expenditure is the result of an accounting procedure where the EMD Data Processing System Analyst (DPSA) V salary was processed through the SHWB account.

The SHWB used ERRF monies to implement the used oil management and recycling program that includes permitting for used oil facilities and transporters, special waste permitting and monitoring activities, management of leaking underground storage tanks cases, and inspection of underground storage tank facilities.

The ERRF appropriation to Safe Drinking Water Branch (SDWB) was \$722,169, with \$549,108 expended. The ERRF continued to support SDWB personnel and activities related to the protection of public health and drinking water quality.

FY 2005 SDWB activities included sampling and assessment of lead and copper concentration in Hawai'i's drinking water. By the end of FY 2005, all public water systems in the state had lead and copper concentrations in the tap water below the lead and copper action levels.

The SDWB also utilized ERRF funding to administrate the Disinfectant/Disinfection By-Products Rule and Interim Enhanced Surface Water Treatment Rule, the Hawai`i Underground Injection Control Program, and the Capacity Development Program that identifies, prioritizes, and assists existing water systems in improvement of the technical, managerial, and financial capacity of existing public water systems

The ERRF appropriation to the Clean Water Branch (CWB) was \$264,973, with \$263,383 expended. The ERRF provides the CWB with capabilities for electronic data quality assurance and data reporting, and contract support for the Polluted Runoff Control Program. The Legislature authorized \$150,000 for continued funding of CWB contracts with soil and water conservation districts.

#### III. The Focus on FY 2006

One continuing challenge ahead will be keeping up with rapidly changing threats in the area of terrorism and weapons of mass destruction. This challenge will be met in opportunities for the Emergency Preparedness and Response (EP&R) and Hazard Evaluation staff to participate in workshops and training exercises designed for the emergency responder and threat analysis community, including participating in the development of the Department Operations Center (DOC).

The HEER Office will take a lead roll in defining and developing the legal framework for Land Use Controls applied to industrial use properties that have been cleaned up to state regulated standards. HEER Site Discovery, Assessment, and Remediation (SDAR) Section staff specialized in management of Voluntary Response Program and Brownfields Redevelopment Program assessment and response activities are preparing a draft Uniform Environmental Covenants Act (UECA) bill.

Other areas for development of HEER Office programs and activities includes recruitment of Remedial Project Managers specialized and experienced in non-emergency response work on state listed sites and

improving data quality and database tools in preparation for integrating the HEER data with the EHA-wide One Stop project enterprise data warehouse is summarized in the following paragraphs.

# **Land Use Controls**

The Department of Health (DOH) is preparing a draft Uniform Environmental Covenants Act (UECA) bill. The draft uses the UECA model developed by the National Conference of Commissioners on Uniform State Laws (NCCUSL). Specifically, the UECA bill would establish a process for creating, modifying, monitoring, enforcing, and maintaining land-use controls, regardless of changes in property ownership.

The UECA is a model for land use controls and provides the legal framework for enforcing conditions imposed on environmental clean up projects when complete removal of all contaminants is not feasible or practical. Land-use controls, or institutional controls (ICs), prevent the improper use of contaminated land. An example of improper use of contaminated land would be development of land for residential purposes when such a property had been cleaned up to only industrial-use standards.

# Accommodate An Increasing Number of Sites on the State Site List

The Brownfields Redevelopment Program and Voluntary Response Program are adding to the number of sites on the State Site List. These programs are providing incentives to responsible parties wanting to clean up contaminated land for the purpose of redevelopment. The incentives are in the form of receiving state Remedial Program Manager (RPM) oversight with clearly defined state approved clean up goals, and the potential for receiving a No Further Action (NFA) letter issued for an assessment, removal, or remedial activity performed by the former property owner, new property owner, developer, or a responsible party. In the case of the Brownfields Program, there is also the incentive for a potentially responsible party to obtain a loan through the Brownfields Cleanup Revolving Loan (BCRLF) Program managed by Department of Business, Economic Development, and Tourism/Office of Planning (DBEDT/OP).

In FY 2006, RPMs within the Site Discovery, Assessment, and Remediation (SDAR) Section will manage activities for 350 to 400 projects managed under the State Non-Emergency Response Program, Voluntary Response Program, Brownfields Redevelopment Program, and Preliminary Assessment/Site Inspection (PA/SI) Program.

The SDAR Section will continue the recruitment of RPMs specialized and experienced in these areas to oversee the non-emergency response work on state listed sites. The complexity of many of the large and long-term contamination clean-up projects already underway continues to depend upon people highly specialized in the areas of toxicology, risk assessment, and the environmental sciences. So far, the ability to recruit people who are skilled in these areas on a permanent basis has been difficult because people with such skills are sought and better paid by private industry. The office consequently focuses a higher level of effort on primarily high-risk environmental issues and sites such as clean up of the Honolulu Harbor Iwilei Unit, Gasco Honolulu, the Ewa Pesticide Mixing/Loading Area, Del Monte Kunia, and the Kapalama Incinerator Honolulu. The office will continue to utilize non-emergency contractors to enhance capacity.

# Planning for the One Stop Project

The offices and branches of the Environmental Health Administration (EHA) are working as a team to implement the One Stop Project. The plan for this project is to facilitate an EHA-wide user interface, develop mechanisms for inter-agency and public data portals and data exchange, and integrate all EHA branch and office environmental site data into one enterprise database with one facility name index.

Development of a quantifiable information management system will continue to be a HEER Office priority in FY 2006 as the office improves and builds program and project management capacity to order,

enforce, oversee cleanups of contaminated sites, and recover costs wherever possible. The requirements and criteria for quantifiable reporting of site clean-up work is a mandatory requirement defined in EPA State Response Program grant terms and conditions. To meet these and also the One Stop Project requirements, the office will be developing tools that conform to the Environmental Protection Agency's (EPAs) Facility Identification Template for States (FITS), Facility Registry System (FRS), and the Environmental Data Registry (EDR) models. Use of these models will facilitate the transfer of HEER Office data into the One Stop environmental programs data systems and warehouse.

In FY 2006, the HEER Office will be developing a plan for an electronic filing system for by Tier II facilities. The office intends to develop a One Stop Project webpage and public access portal so Tier II facilities may electronically input an annual notification and payment. During FY 2006, the HEER Office will focus resources on defining the basic requirements for the Tier II electronic filing capability.

# **EPA Superfund Core Funding Will Terminate**

The EPA Superfund Core grant funding will terminate at the end of federal fiscal year 2006 (September 30, 2006). Since 1991, the Superfund Core grant has been a resource for funding personnel costs for grant preparation and reporting, training activities, and equipment purchases. The HEER Office will be negotiating with EPA to increase the State Response Program (SRP) grant awards for the coming years and to augment some of the resources lost when the Superfund Core grant ends.

# **Cautionary Use of ERRF Funds**

Finally, the HEER Office continues to be concerned that appropriate funds may not be available in the ERRF in the event of a major emergency chemical or petroleum release. The ERRF receives funds from court settlements, fines, penalties, and revenues from the five cents per barrel "environmental response tax" on petroleum products sold in the state. The original and prime continuing purpose of the ERRF is to have immediate sufficient fiscal resources available for chemical and petroleum related emergency and long-term remediation activities without utilizing or depending on the General Fund. The ERRF already supports many line programs.

However, in recent years, ERRF funds have been used to balance the budget and looked at as a possible source of funding for other environmental projects. If adequate ERRF funds are not available to respond to and clean up a major chemical or petroleum spill, the Department of Health may have to seek after-the-fact general funds through a special appropriation to the legislature. This would defeat the purpose to which the ERRF was originally established.

# 1 THE HEER OFFICE

# 1.1 Authorities

The HEER Office operates under various environmental authorities. The primary state enabling legislation is Chapter 128D, HRS, "Environmental Response Law" or commonly referred to as Hawai'i's Environmental Response Law (HERL), and Chapter 128E, HRS, "Hawai'i Emergency Planning and Community Right-to-Know Act" (HEPCRA). The HERL is modeled after the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and HEPCRA is modeled after the federal Emergency Planning and Community Right-To-Know Act (EPCRA). However, unlike CERCLA, HERL defines hazardous substances to include oil. For oil spill planning, preparedness and response, the HEER Office becomes involved under the authority of the Oil Pollution Act of 1990 (OPA 90). The following tables list the legal authorities under which the HEER Office operates.

# STATE LAWS: STATUTES AND RULES

STATE STATUTES	STATE RULES
Chapter 128D, HRS "Hawai`i Environmental Response Law" (HERL)	Title 11, Chapter 451, HAR "State Contingency Plan" (SCP)
Chapter 321, HRS "Department of Health"	Title 11, Chapter 5, HAR "Environmentally-Related Illness and Injury"
Chapter 128E, HRS "Hawai'i Emergency Planning and Community Right-to-Know Act" (HEPCRA)	

#### FEDERAL LAWS: STATUTES AND REGULATIONS

FEDERAL STATUTES AND CODE OF FEDERAL REGULATIONS (CFR)	FEDERAL REGULATIONS National Contingency Plan (NCP)
Comprehensive Environmental Response, Compensation & Liability Act (CERCLA),	Title 40 CFR, Part 302
National Contingency Plan (NCP)	Title 40 CFR, Part 300
Emergency Planning and Community Right- to Know Act (EPCRA)	Title 40 CFR, Part 370
Clean Air Act (CAA), Section 112 (r) "Risk Management Program" (RMP)	Title 40 CFR, Part 68
"Oil Pollution Act of 1990" (OPA-90)	Title 40 CFR, Part 112

# 1.2 Mission

To protect human health, public welfare, and the environment through enforcing environmental laws, and to provide state leadership, support and partnership in preventing, planning for, responding to, eliminating, and mitigating releases or threats of releases of hazardous substances, pollutants, or contaminants including oil. Specific program actions are:

- Prepare for and respond in a timely and effective manner to releases of hazardous substances and oil into the environment.
- Prepare and respond to all media related (air, land, and water) releases, including non-routine state working hours (off-hours).
- Locate, investigate, and assist in the cleanup of lands with prior releases of hazardous substances, pollutants or contaminants.
- Prevent harmful releases of oil and hazardous substances into the environment.
- Evaluate the risks associated with releases of chemicals into the environment and other environmental risks to public health and the ecosystem.

# 1.3 Functions and Activities Overview

The office is comprised of three operating sections, each addressing an important aspect of its mission:

- 1) Emergency Preparedness and Response; 2) Site Discovery, Assessment and Remediation; and
- 3) Hazard Evaluation. The office is staffed with professionals able to conduct emergency response activities, formulate response plans, assess chemical risks, evaluate the extent of chemical contamination, and oversee removal and remediation activities.

The Emergency Preparedness and Response (EP&R) Section is responsible for planning and preparing for, and responding to hazardous substance releases which may cause an immediate and substantial threat to human health or the environment. The EP&R section's State On-Scene Coordinators (SOSCs) represent the State of Hawai'i whenever there is an oil or hazardous material spill and are back-up personnel to the first responder HAZMAT teams. They respond to and supervise any removal operations to eliminate chemical or oil threats that are deemed immediately dangerous to the public and the environment. During FY 2005, the EP&R team was also actively involved in emergency responder training exercises to meet requirements for readiness during chemical releases to the environment and weapons of mass destruction threats.

The Site Discovery, Assessment, and Remediation (SDAR) Section is responsible for assessing the relative near-term and long-term threat of sites contaminated with hazardous substances, and for the oversight and implementation of response actions at sites with suspected and confirmed releases of hazardous substances, including petroleum. The SDAR Section response and remedial work is performed by Remedial Project Managers (RPMs) assigned to the Preliminary Assessment/Site Inspection (PA/SI) Program, State Response and Remedial Program, Voluntary Response Program, and Brownfields Program. Project oversight provided to military facilities is subject to the Department of Defense/State Memorandum of Agreement (DSMOA), a cooperative agreement administered by the U.S. Corps of Engineers. During FY 2005, large projects of interest included the Honolulu Harbor cleanup project, the Gasco Benzene site in Iwilei, and the Pearl Harbor area wide contaminant problems. The PA/SI effort included sampling work performed at former sugar mill sites on Kauai, Oahu, Maui, and Hawai`i.

The Hazard Evaluation Section is responsible for providing toxicological assistance to all programs in the Environmental Health Administration (EHA), as well as the public. It conducts toxicological assessments of chemical threats to human health, establishes appropriate cleanup level for chemical contamination,

assists the public with information concerning the health effects of chemicals, and recommends site cleanup priority for workload purposes.

# 1.4 Program and Project Management Priorities and Objectives

The Office applied a comprehensive integrated approach to improving program and project management capabilities. Management, supervisors, and staff collaboration within and across the office's operational sections and focused on specific prevention, assessment, and response programs. The staff placed a high degree of importance on defining mechanisms for accountability. The following is a list of objectives relied upon to improve the HEER Office's program and project management capabilities.

#### **Objective A:** Environmental Release Response

- A-1: Improving the preparedness of federal, state, and local entities to respond to releases of petroleum and hazardous materials into the environment by utilizing risk-based management principles and effective partnerships.
- A-2: Integrating the Department of Health's response and cleanup programs by utilizing risk-based management principles and effective partnerships.
- A-3: Enhancing and improving capabilities to identify and assess hazardous substance and petroleum-contaminated sites.
- A-4: Enhancing and improving capabilities to clean up hazardous and petroleum waste sites.

#### **Objective B:** Environmental Contamination Prevention

- B-1: Implementing an oil spill prevention program in Hawai'i.
- B-2: Implementing a Pipeline Safety Program.
- B-3: Implementing a Clean Air Act (CAA) Section 112 (r) Risk Management Program.
- B-4: Implementing a Hawai'i Emergency Planning and Community Right-to-Know Act (HEPCRA) Inspection Program.

#### **Objective C:** Statewide Risk Assessment Support

C-1: Maintaining an ongoing core of qualified environmental technical experts.

# 1.4.1 Enforcement of 128D and 128E, HRS Improved

#### 1.4.1.1 Environmental Crimes Unit (ECU) Continues

The Environmental Crimes Unit (ECU) within the Department of the Attorney General formed in 2004. The mission of the ECU is to identify, apprehend, and successfully convict significant violators of environmental law who pose substantial risks to human health and the environment or to environmental regulatory integrity (e.g., those who commit fraud, false reporting, and concealment). It is the State's intent to maximize compliance and reduce threats to public health and the environment by employing an integrated approach of compliance assistance, inter-governmental coordination, and vigorous civil and criminal enforcement.

The Department of Health reallocated \$142,787 of HEER Office emergency response operations funding to two investigators for one year dedicated to conducting environmental crime investigations for the state. These investigators work closely with the Department of Health and the EPA Criminal Investigations Division. The Attorney General has also assigned two deputy attorneys general to prosecute environmental crimes in state court.

The unit investigates and prosecutes environmental crimes that pose a substantial risk to public health or the environment. These investigations include, but are not limited to the fields of air quality, water quality, solid and hazardous waste, underground storage tanks, toxic and hazardous substances, pesticides, and/or importation and exportation, counterfeiting, and application and illegal use of restricted or regulated chemicals in the state. The ECU continues to vigorously prosecute crimes against the environment.

This past year, the unit successfully prosecuted an individual resulting in felony convictions. The Unit will continue to aggressively investigate and prosecute crimes against the environment. It will also continue to foster relationships with other state, local and federal agencies.

As an example of the cases prosecuted by the ECU, a Kona grand jury indicted a man in November 2004 on one count of knowingly discharging wastewater, which contained human urine and feces, from his septic truck into the Hilo Forest Reserve. Knowingly allowing or causing the discharge of wastewater onto the ground is a class C felony punishable by up to three years in prison, or a fine of not less than \$5,000 and not more than \$50,000, or both.

The Defendant pleaded guilty to the class C felony, was ordered to pay \$3,000.00, and spend a year in jail. The judge suspended 6 months of his jail term.

In addition, there are several cases being investigated for future prosecution. The ECU has fielded more than 160 calls for information, reports of dumping, requests for clean up of dump sites, requests for appearance at meetings to disseminate information on the ECU, and how to report illegal activity.

The Department of Health (DOH) supports prosecution of environmental crimes in part to restore or prevent hazardous material and other releases to the environment. This program further underscores State's goal to have the responsible party pay to restore the environment and when applicable, and pay or reimburse the Environmental Response Revolving Fund (ERRF) and other applicable funds for expenditures incurred. DOH will assist with technical support to the AG for investigations and prosecutions, where necessary and consistently with emergency response priorities.

# 1.4.1.2 Legal Support/Enforcement Continues

The Deputy Attorney General supported the HEER staff in FY 2005 by providing consultation, discussion and/or resolve to issues regarding:

Advice and/or counsel regarding legislation, procurement, subpoena, order, contract, agreement, memorandum of agreement (MOA), settlement, lawsuit, cost recovery, property access, record review, confidential material, natural resource damage assessment, rehabilitation and recovery, and emergency response and remedial activities.

Issues of concern to the HEER Office related to cost recovery for expenditures from the ERRF include:

- Cost recovery during enforcement.
- Recovering expended response funds from the responsible parties.
- State agencies as responsible parties.
- Transfer of closed federal facilities to other state agencies.
- Brownfields redevelopment of State lands.
- Voluntary Response Program
- Cleaning up State priority listed sites.

A fully funded Deputy Attorney General continued to spend two days a week at the HEER Office. Legal support was solicited by the HEER Office to provide staff with assistance and legal resources regarding investigation, enforcement, response, legislation, and cost recovery activities resulting from the accidental and/or intentional releases of hazardous chemicals, including oil and various petroleum constituents. The Deputy Attorney General provided support in the negotiations on the cleanup of Honolulu Harbor. Upon request, the Deputy Attorney General scheduled consultations with HEER staff to discuss overall and site-specific legal issues.

# 1.4.2 Emergency Response and Preparedness Improved

The increasing concern for acts of terrorism have required more involvement and coordination of effort by the HEER Office Emergency Preparedness and Response (EP&R) Section State On-Scene Coordinators (SOSCs) with County HAZMAT units, and other State and Federal agencies. Training with County Fire HAZMAT teams and the 93rd Weapons of Mass Destruction (WMD) Civil Support Team (CST) of the Hawai'i National Guard, State Department of Defense along with the State DOH Laboratory Division and University of Hawai'i Laboratory is strengthening our capability to deal with acts of terrorism. In order to enhance bio-terrorism response capabilities, during FY 2005, the EP&R SOSCs designed and presented an "All Hazards Field Sampling and Categorization Training" course. This training is a collaborative effort amongst the HEER Office State On-Scene Coordinators, State Laboratory Division staff, and University of Hawai'i lab personnel. The course was presented to the first responder community on Oahu, Kauai, and Hawai'i with additional training planned for Maui County to follow.

HEER SOSCs have also initiated a Level A suit drill series with CST, Fire Hazmat, DOH Noise and Radiation, Fed Fire, AG Office investigators to do tactical drills together at venues known to HEER through the normal course of work. The HEER On-Scene Coordinators (SOSCs) developed a semi-annual Multi-Agency Level A (fully encapsulating protective suits) training course. The training was developed for all first responders to familiarize each other and their respective operating procedures through interaction while conducting Level A response activities.

The SOSCs coordinate and facilitate the events, while the participating agencies develop the training exercises, drills, and scenarios. To date the participating agencies are the Department of Health's Hazard Evaluation and Emergency Response Office (HEER SOSCs) and Noise, Radiation and Indoor Air Quality Branch, Honolulu Fire Department Hazmat Teams, Hawai'i National Guard 93rd WMD Civil Support Team, and the State Attorney General Office Environmental Crimes Unit (ECU).

# 1.4.3 Oversight and Response to Contaminated Sites Improved

#### **Oversight**

During FY 2005 a considerable amount of the Site Discovery, Assessment, and Remediation (SDAR) Section effort focused on DOH policy and planning for the HEER Office programs. The SDAR Remedial Project Managers (RPMs) reviewed and developed workplans, budgets and site-specific projects for activities managed under the Defense State Memorandum of Agreement (DSMOA), Formerly Utilized Defense Sites (FUDS) Program, Preliminary Assessment/Site Inspection (PA/SI) Program, Voluntary Response Program, and Brownfields Program.

The SDAR Remedial Project Managers (RPMs) achieved a high degree of success in completing site work managed within the Voluntary Response Program (VRP), the Brownfields Program, and the PA/SI Program. The successes of the VRP and the Brownfields projects are exemplary for achievement of goals with additional qualified staff. Through these efforts, private ownership sites were successfully moved from idle contaminated land to properties that are being developed and re-entered into the tax base.

The PA/SI Program effort continues to effectively identify, rank, and evaluate Hawai`i sites that potentially present a risk to the public. Coordination between EPA Region 9 and Hawai`i property owners have successively addressed contaminated soils at several sugar mills that are no longer in operation.

Efforts to address the workload in the SDAR Section included developing relationships with local non-profit agencies and universities to identify students that might serve internships with DOH. To supplement current staffing levels, the HEER Office contracted with technical support contractors for environmental investigation, document review, and data interpretation. In one instance, the HEER Office reached an agreement with other agencies such as the National Oceanic Atmospheric Administration (NOAA) to collaborate with the HEER Office to enhance the HEER Office database capabilities.

The FUDS Program has taken on a renewed interest resulting in a higher level of activity between the DOH, EPA, and the U.S. Army Corps of Engineers (USACOE). Oversight for the evaluation of sites in Hawai'i includes the active participation in the review of documents produced by the US Corps of Engineers (COE) for the evaluation of cleanup of the FUDS in Hawai'i.

#### **Response Contracts**

Chapter 128D, Hawai'i Environmental Response Law (HERL), of the Hawai'i Revised Statutes (HRS), specifically mandates the Department of Health (DOH) to undertake response actions whenever any hazardous substance, pollutant and/or contaminant, including oil, is released or there is a substantial threat of a release into the environment that may present a substantial threat to the public health, and welfare, or to the environment.

The Hazard Evaluation and Emergency Response (HEER) Office continues to rely on the support of the time-critical emergency environmental response contract awarded to the Pacific Environmental Corporation (PENCO) and the non-emergency environmental response contracts awarded to AMEC Earth & Environmental, Inc. and to The Environmental Company, Inc (TEC). Both AMEC and TEC reviewed documents pertaining to new and former releases as well as addressed questions of overall risk at high visibility sites under investigation. The non-emergency contractors played a very large role in providing support for the development of technical information and answering specific questions relating to assessment of sites, upgrading the database, technical training for SDAR employees and meeting the needs of site assessment and cleanup.

The non-emergency contract has been solicited and two new contractors have been selected through the State Procurement Process. At this time, final contract paperwork is being done for the two new contractors to support the HEER Office.

# 1.4.4 <u>Voluntary Response and Brownfields Programs Developed for Greater</u> Participation

The primary goal of the Hawai'i Voluntary Response Program (VRP) and Brownfields Program is to encourage and facilitate the assessment, clean up, and redevelopment of contaminated property. These two programs complement and operate collaboratively with the national U.S. EPA Brownfields Program. The State VRP and Brownfields programs are developed using HEER Office federal grants.

# 1.4.4.1 Participation in the Voluntary Response Program Continues to Grow

The number of total Voluntary Response Program (VRP) sites increased to twenty-five with twelve projects at nine sites completed. The HEER Office has maintained its program development and outreach efforts during FY 2005, and additional applications are expected as the State's economic outlook improves.

Under the Hawai'i's Environmental Response Law (Chapter 128D, HRS), DOH has the authority to grant prospective purchasers or developers an exemption from future liability if they cleanup the property under DOH oversight and approval. Exemptions from liability, however, are only granted to parties who are not liable for the contamination. Current property owners are not eligible for exemptions under the VRP. A Letter of Completion (LOC) is issued by the DOH upon completion of an approved voluntary cleanup action.

Hawai'i's Voluntary Response Program (VRP) was established by statute in 1997 (Chapter 128D, Part II, HRS). The VRP encourages voluntary cleanup of contaminated properties. Participants in the VRP pay a non-refundable \$1000 application fee and a \$100 per hour oversight charge. These fees help to offset the State's cost of operating the Program.

# 1.4.4.2 State Brownfields (BF) Program Partnerships Enhanced

Over the past year, DOH, other State agencies, and the counties have made strides in further developing Hawai'i's Brownfields Economic Redevelopment Program. The HEER Office and the Office of Planning (OP) in the Department of Business, Economic Development and Tourism (DBEDT) are the key state agencies working to promote the brownfields program in Hawai'i. However, It is important to note that there are a number of other state agencies participating in and benefiting from the brownfields program including DBEDT/OP, City and County of Honolulu, and the County of Maui.

Much of the progress is made possible by the federal support provided to the State in accordance with Public Law 107-118, Small Business Liability Relief and Brownfields Revitalization Act. This law provides approximately \$250 million for competitive brownfields grants and \$50 million to assist states and tribes in developing their own brownfields programs.

Below is a list of the Brownfields Program highlights for FY 2005.

#### I. <u>DBEDT/OP – DOH Partnership Activities</u>

- DBEDT completed its Implementation Plan and administrative rules for the Brownfields Cleanup Revolving Loan Program (BCRLF) and a Memorandum of Agreement among the partners in the BCRLF, including: DBEDT/OP, City and County of Honolulu, County of Maui, and the DOH HEER Office. This program was established by an EPA coalition grant with OP as the lead state agency for the BCRLF. DOH has a major role in implementing the program by providing technical oversight to all cleanups using BCRLF funds.
- DBEDT/OP was awarded an EPA Brownfields Assessment Grant (\$400,000) and DOH
  is now collaborating on the implementation. Separate meetings were held with officials
  from each county to encourage participation in identifying and assessing brownfields
  sites for redevelopment.
- DOH continued funding to DBEDT/OP for redevelopment design charrettes to selected brownfields projects that are ready for development (\$15,000). DBEDT/OP conducted charrettes for: Kapiolani Community College on Oahu, Kanuikapone Charter School on Kauai, and the Building Industry Association on Oahu.
- DBEDT/OP officials participated in EPA grant review meetings of the DOH State Response Program Grant.

# II. DOH and EPA State Targeted Site Assessment Projects (TSAs).

- DOH initiated and completed a number of environmental site assessments to assist other state and non-profit agencies
- DOH receives funds from EPA, part of which can be used to perform state-sponsored TSAs.
- DOH performed environmental site assessments for the following agencies and projects:
   1) Building Industry Association new Construction Training Center,
   2) DLNR Manana Valley land purchase,
   3) HCDA Heeia land transfer to DLNR,
   4) HCDA Kaka'ako Units
   6 & 7 environmental site assessments,
   and
   5) Kokua Kalihi Valley Active Living Center.

#### III. Other New Brownfield Grants

EPA, DOH, and DBEDT/OP made a concerted effort to encourage Hawai'i agencies to participate in the national grant competition. In October 2005, the State received the following two new grants.

- County of Hawai'i Community Assessment Grant (\$200,000)
- DLNR Contaminated Site Cleanup grant (\$200,000)

These grants add to the following four EPA grants received last year.

- DBEDT/OP Community Assessment Grant (\$400,000)
- County of Kauai Community Assessment Grant (\$200,000)
- Anahola Homesteaders Council Cleanup Grant (\$200,000)
- Honolulu Community College Job Training Grant (\$200,000)

# 1.4.5 EPA Chemical Accident Release Prevention Program Delegation to Hawai'i Being Considered

The State of Hawai'i through the Hazard Evaluation & Emergency Response Office is considering taking partial delegation from EPA to implement the Clean Air Act (CAA) Accidental Release Prevention Program (ARPP), Risk Management Program (RMP) Section 112 (r). The focus of the ARPP is prevention and preparedness through the detection and prevention of accidental releases of hazardous chemicals into the ambient air that could cause harm to the public and the environment.

As a first consideration to partial delegation, on August 11, 2003, the EPA certified the Department of Health's RMP coordinator with the authority to conduct field inspections and audits for facility compliance under the Clean Air Act (CAA) 112 (r), Emergency Planning and Community Right-To-Know Act (EPCRA), and Comprehensive Environmental Response Compensation and Liability Act (CERCLA). RMP Coordinator responsibilities also include auditing Risk Management Plans prepared by all facilities that handle or utilize threshold quantities of chemicals listed in the Clean Air Act (CAA) 112 (r) Regulated Chemical for Accidental Release Prevention List.

# 1.4.6 Office Operations, Policy, and Administration Improved

#### 1.4.6.1 2003 Legislative Session

During FY 2005, the HEER Office was tasked by the following legislation passed by the 2003 Legislature:

#### I. Act 200, SLH 2003, State Budget

Section 18 of the State Budget stipulated that the Environmental Health Administration (HTH 849), shall submit a report on all revenues and expenditures from the Environmental Response Revolving Fund; provided further that this report shall be submitted to the legislature no later than twenty days prior to the convening of the 2004 and 2005 regular sessions.

Section 5, <u>Environmental Response Revolving Fund Funding, Programs, and Projects</u> of the <u>2005 Report to the Twenty-Third Legislature</u> was submitted to the 2005 Legislature in January 2005 by the Environmental Health Administration (HTH 849).

# 1.4.6.2 2004 Legislative Session

During FY 2005, the HEER Office was tasked by the following legislation and resolutions passed by the 2004 Legislature:

# I. Act 40, SLH 2004, Illegal Use of Controlled Substances

The sum of \$300,000 was appropriated for the Department of Health from the Environmental Response Revolving Fund (ERRF) for a study and analysis of the effects of clandestine methamphetamine laboratories on the environment (particularly ground water), disposal of toxic waste materials found at the site, disposal of the site itself, and recommendations for action.

The funds were not released by the Governor and the study was not done, however, the HEER Office is monitoring the numerous issues relating to meth lab cleanup efforts that are occurring in other states.

#### II. Act 44, SLH 2004, Illegal Use of Controlled Substances

#### §322-1, HRS, previously stated:

Removal, prevention. The department of health and its agents shall examine into all nuisances, foul or noxious odors, gases or vapors, water in which mosquito larvae exists, sources of filth, and all causes of sickness or disease, on shore, and in any vessel, which may be known to them or brought to their attention, which in their opinion are dangerous or injurious to health, and into any and all conditions created or existing which cause or tend to cause sickness or disease or to be dangerous or injurious to health, and shall cause the same to be abated, destroyed, removed, or prevented.

The section was amended to include:

For the purpose of this section, a nuisance shall include toxic materials that are used in or by-products of the manufacture or conversion of methamphetamine, and clandestine drug labs that manufacture methamphetamine.

The HEER Office is monitoring the numerous issues relating to meth lab cleanup efforts that are occurring in other states.

# III. Act 52, SLH 2004, Non-General Funds

The Director of Finance was authorized to transfer at least \$500,000 from the Environmental Response Revolving Fund to the General Fund on July 1, 2004.

Funds were transferred to the General Fund.

# IV. Act 146. SLH 2004. Polybrominated Diphynyl Ethers

On or after January 1, 2006, a person may not manufacture, process, or distribute into commerce a product, or a flame-retarded part of a product, containing more than one-tenth of one per cent, by mass, of pentaBDE, octaBDE, or any other chemical formulation that is part of these classifications.

The HEER Office is monitoring the numerous issues relating to these chemicals, which are also occurring in other states

# 1.4.6.3 2005 Legislative Session

During the 2005 Legislature (January-May 2005), the HEER Office tracked the following legislation of importance and will be responding to them:

#### I. Act 133, SLH 2005, State of Hawai'i: Voluntary Response Program

Clarifies certain provisions and exemptions to strengthen the voluntary response program.

# II. Act 178, SLH 2005, State Budget

Section 20 – the environmental health administration (HTH 849), shall submit a report on all revenues and expenditures from the environmental response revolving fund as of December 1.

Section 21 – of the revolving fund appropriation for environmental health administration (HTH 849), the sum of \$100,000 from the environmental response revolving fund shall be expended for the Hawai'i Energy Policy Forum.

#### III. Bill and Resolution on the Uniform Environmental Covenants Act

Review and make recommendations on reasonable alternatives to implement a Uniform Environmental Covenants Act for Hawai'i.

#### 1.4.7 Office Management

The HEER Office Manager encourages section supervisors to be self-directed in meeting the office's overall mission and objective. This allows the section supervisors to focus their efforts precisely on their respective areas of responsibility. Section supervisors are also encouraged to foster integration and cooperation among sections as well as other department offices.

### 1.4.8 **Operations and Planning**

The Planning Section within the HEER Office serves to support the entire office in the areas of long-term planning, program development, financial reporting, data management, logistical support, and legislative expertise.

The Planning section is responsible for identifying resource and training needs to ensure that all HEER staff has the capabilities to function in the protection of human health and the environment. A major goal of the Planning Section is to assist the other sections, and to have in place regulations, policies, guidelines and procedures for responding to releases of hazardous substances, pollutants, or contaminants.

Highlights of projects generated and/or coordinated through the Planning Section in FY 2005 included:

- The 2005 Annual Report to the Legislature to comply with Chapters 128D and 128E.
- Submittal of the federal Combined Superfund Grant.
- Submittal of the federal State Response Program Grant.
- Status and financial reporting for the three programs receiving federal grant funds.
- Reporting of HEER Office purchases from Hawai'i's minority owned and/or women owned Business Enterprises (MBE/WBE).
- Submittal of the HEER Office Annual Expenditure Plan.
- Updates to the HEER Strategic Plans.
- Monitoring, referrals, and reporting on legislative actions.
- Recovery of costs incurred at chemical release and response sites.
- Development of the HEER Office information management capabilities.

#### 1.4.9 HEER Office Information Management

The HEER Office Planning Section concentrated informational technology efforts to further enhance documentation capabilities for chemical release and contaminated site data. The office has also been developing capabilities to function within an internet platform so the database will have capabilities to share geographically defined environmental site information with other agencies and the public. The Office maintains an index of facility/sites of interest to the office. The facility/site records contain information in any or all of three major categories:

- Site List Records of State listed cleanup sites
- Releases Records of the chemical spills reported.
- HEPCRA Records of chemical facilities reporting under the Hawai'i Emergency Planning and Community Right-to-Know Act (HEPCRA).

A Microsoft Access database on the Environmental Health Administration's local area network (LAN) houses the data. Each record in the database corresponds to a physical facility/site file.

The database facilitates file retrieval and workflow tracking through the office. The addition of an incoming document log increases the office's ability to track work requests, aiding staff in coordinating contaminated site handling across separate HEER Office sections.

# 1.4.9.1 Environmental Health Administration (EHA) One Stop Grant Project

On March 30, 2004, the Hawai'i Department of Health (DOH) selected American Management Systems, Inc. (CGI-AMS) to assist EHA in Project Management and Systems Analysis Assistance. Specifically, CGI-AMS was to assist the EHA with Phase I of an Information Management Improvement Project (IMIP) as follows:

- Assess data flow processes, and recommend improvements according to individual office needs.
- Develop a Five-Year Information Management Plan (IM) plan,
- Integrate and enhance data systems within each program in accordance with the IM plan and Environmental Health Administration (EHA) interoperability standards (e.g. common facility identifiers and data fields/definitions, and
- Identify and integrate pertinent program data into an existing data warehouse for sharing with EHA, the Environmental Protection Agency (EPA), and the public.

HEER Office staff participated in this enterprise-wide environmental systems development project. Phase I was completed on November 12, 2004. The outcome of this EHA-wide information management project will have major implications regarding information technology standards and direction for the future HEER Office information system.

The Data Team selected Microsoft SQL as the database back end for the building. A facilitator position was filled to coordinate and further division-wide One Stop efforts.

# 1.4.9.2 Data Integration

The HEER Office physical site files containing HEPCRA, Site List, and Release information are reconciled with the consolidated database index (with the exception of Military sites). This consolidated index conforms to Environmental Protection Agency's (EPAs) Facility Identification Template for States (FITS), One-Stop, Facility Registry System (FRS), and the Environmental Data Registry (EDR) models.

A consultant was hired to check and complete geographic information for active sites. This resulted in a ArcView data project that displays active site locations.

# 1.4.9.3 Data Quality

The HEER Office continues to increase the precision with which we define sites within our office. The office is complying with the requirements and protocols for data quality, work processes, and computer hardware and software as defined by the Draft Environmental Health Administration (EHA) Quality Management Plan (QMP).

# 1.4.9.4 Website Capability

An ongoing challenge for the HEER Office data management capabilities is the expansion of website capabilities. We are developing the HEER database to function within an Internet platform. This will give the HEER Office the ability to exchange information and technology worldwide. The database on an Internet platform will lend itself well to sharing geographic information.

#### 2 HEER OFFICE PROGRAMS AND ACTIVITIES

The Hazardous Evaluation and Emergency Response (HEER) Office serves the people of the State of Hawai'i by addressing all aspects of releases of hazardous substances including oil into the environment. The work includes preventing, planning for, responding to hazardous substance releases or risks of releases, and protecting the natural resources of the State of Hawai'i. The HEER Office accomplishes this mission by addressing contaminated sites with the highest risk to human health and the environment first, preventing contamination rather than cleaning up after the fact, and basing decisions on sound scientific principles and common sense.

The functions for the HEER Office are defined in Chapter 128D, HRS, Chapter 128E, HRS, and the following federal laws; Comprehensive Environmental Response Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Clean Air Act (CAA), and Oil Pollution Act (OPA) of 1990. In general, ERRF and General Fund appropriations to the HEER Office provide for state leadership in addressing all aspects of releases of hazardous substances and/or petroleum into the environment. Federal grant monies received by the HEER Office provide for development of state programs such as the Voluntary Response and Brownfields Programs, and support Remedial Project Managers in performing oversight for site assessment and clean-up activities.

The office is comprised of three operating sections, each addressing an important aspect of its mission. The implementing sections are organized as follows: 1) Emergency Preparedness and Response; 2) Site Discovery, Assessment and Remediation; and 3) Hazard Evaluation.

# 2.1 Emergency Response Preparedness

The HEER Office Emergency Preparedness and Response (EP&R) Section is responsible for planning and preparing for, and responding to hazardous substance releases which may cause an immediate and substantial threat to human health or the environment. There are four designated SOSCs in the State of Hawai'i, employed by the DOH and staffed within the HEER Office.

The EP&R Section State On-Scene Coordinators (SOSCs) have the authority to act on behalf of the State for the Governor as mandated in Chapter 128D (Environmental Response Law) to bring about expedient and effective response to protect human health and the environment. SOSCs are responsible for bringing about or initiating measures that provide the best State resources and manpower available at any moment to respond to the release of hazardous chemicals, including oil and its constituents.

SOSCs are assigned as a Duty Officers to take calls after hours, on weekends, and holidays and ensure 24-hour coverage of incidents occurring around the State. Many times, SOSCs are dispatched to public complaints before the involvement of other responding agencies. This may lead to referrals internally to DOH agencies such as the Clean Air, Clean Water, and Solid and Hazardous Waste Branches. Referrals may also be made to county, state, and federal agencies including Civil Defense, Homeland Security, Police Vice and Criminal Divisions, State Agriculture, Department of Land and Natural Resources, the Attorney General office, Food and Drug Administration, Occupational Health and Safety Administration, U.S. Coast Guard, U.S. Customs, and the U.S. Postal Service.

The HEER Office Emergency Preparedness and Response (EP&R) Section performs activities that supports planning, preparing, and responding to hazardous substance releases which may cause an immediate and substantial threat to human health or the environment. There are four designated SOSCs in the State of Hawai`i, employed by the DOH and staffed within the HEER Office.

The EP&R Section State On-Scene Coordinators (SOSCs), in partnership with the U.S. Coast Guard, EPA, and industry, also participate in tabletop and deployment preparedness exercises. During FY 2005 nine preparedness exercises were conducted.

# 2.1.1 <u>Hawai'i Emergency Planning and Community Right-To-Know Act</u> (HEPCRA) Preparedness Program

Under SARA Title III Section 301(a), Establishment of State Emergency Response Commissions, the Governor appoints the Hawai'i State Emergency Response Commission (HSERC). The HSERC is responsible for establishing local emergency planning districts, as well as appointing, supervising, and coordinating the activities of local emergency planning committees (LEPC).

# 2.1.1.1 Hawai'i State Emergency Response Commission (HSERC)

Chapter 128E, HRS, Hawai'i Emergency Planning and Community Right-To-Know Act (HEPCRA), requires that the DOH establish an account called the local emergency response planning committees' account within the ERRF for the purpose of administration and oversight of the Hawai'i Emergency Planning and Community Right-To-Know Act (HEPCRA). The account is managed by the Hawai'i State Emergency Response Commission (HSERC).

The HSERC, chaired by the DOH Deputy Director for Environmental Health establishes policy for statewide emergency response, reviews Local Emergency Planning Committee (LEPC) Emergency Response Plans, and develops statewide response plans.

The EP&R Section provides administrative support to the Hawai'i State Emergency Response Commission (HSERC), and technical assistance to the Local Emergency Planning Committee's (LEPCs) on Hawai'i, Oahu, Kauai, and Maui.

The available HSERC funds for FY 2005 were \$79,400. At the May 13, 2004 HSERC meeting, the following budget was approved:

Tier II funds to LEPCs	58,815
To attend LEPC Meetings	5,832
M2K HazMat Explo 2004*	1,645
NASTTPO Convention in Seattle, Washington	2,356
20% match* for the HMEP Planning Grant (based on grant amount of \$43,006)	10,752
	\$79,400

<sup>\*</sup> Reimbursement by the HMEP Planning Grant if funds are available after 20% soft match

The Tier II funds of \$58,815 were disbursed to each LEPC for operational expenses in the following manner: a base of \$3,000 and the balance on the percentage of Tier II funds collected in each emergency planning district for the 2003 calendar year. The following is the distribution to the nearest dollar:

Honolulu	\$22,943
Hawai`i	16,211
Maui	10,706
Kauai	8,955

Members approved the distribution of the US Department of Transportation (DOT), Hazardous Materials Emergency Preparedness (HMEP) Planning Grant funds as follows:

Honolulu	\$22,000
Hawai`i	14,500
Maui	9,500
Kauai *	-0-

<sup>\*</sup> Kauai did not request FY 2005 HMEP funding

The Honolulu, Hawai'i, and Maui County LEPCs completed their HMEP Planning Grant projects for FY 2005.

# 2.1.1.2 Hawai'i Emergency Planning and Community Right-To-Know Act Tier II Filing Fees

Chapter 128E, HRS, Hawai'i Emergency Planning and Community Right-To-Know Act (HEPCRA), requires that an owner or operator of a facility that stores, uses, or manufactures any hazardous substance, or extremely hazardous substance, above defined thresholds to file a notification of such "Tier II" activity and to pay a filing fee. The HEER Office collects the fees that are then deposited into the ERRF.

The HEPCRA also requires the DOH to submit to the legislature an annual report on the amount of Tier II filing fees collected annually for use by the Local Emergency Planning Committees (LEPCs) and deposited into the Environmental Response Revolving Fund (ERRF) during the fiscal year, the amount collected to date, and the amount to be collected in FY 2007.

The HEER Office collects and assesses Tier II reports submitted annually by all businesses that handle large volumes of hazardous chemicals and extremely hazardous substances, as required by Chapter 128E, HRS: Hawai'i Emergency Planning and Community Right-to-Know Act (HEPCRA).

The deadline for owners and operators of facilities submitting Hawai'i Emergency Planning and Community Right to Know Act (HEPCRA) Tier II filing fees for reporting year 2004 (calendar year 2004) is March 1, 2005 (FY 2005). Commonly, a greater amount of the filing fees collected by the HEER Office are submitted in February, just prior to the collection due date.

The following identifies (1) the amount of Tier II filing fees collected for use by the Local Emergency Planning Committees (LEPCs) and deposited into the Environmental Response Revolving Fund (ERRF) during FY 2005, (2) the amount collected to date for FY 2006, and (3) the amount to be collected in FY 2007.

FY 2001	\$53,800
FY 2002	72,100
FY 2003	79,400
FY 2004	67,500
FY 2005	2,300
(July 1 through Sept 30, 2005)	

In comparison to FY 2003 and FY 2004 the amount of fees collected from Tier II facilities was reduced to \$67,500. The reduction in fees was due to efficiency methods introduced by certain facilities. Product distributors reduced their stock levels to below the higher fee large quantity supplier status. Distributors also reduced hazardous chemical stocks by storing stock for potential customers on an as required basis. A hazardous chemical reduction method used by County swimming pools was to switch product use and storage from hazardous powders chemicals/gases to non-hazardous chemical tablets

Fees collected for fiscal years 2006 and 2007 should remain at about the \$68,000 level.

The Tier II filing fees have been, or are being distributed as noted below to the Local Emergency Planning Committees, after deductions for the Hawai'i State Emergency Response Commission (HSERC) operating expenses.

FY 2001	\$60,000
FY 2002	53,352
FY 2003	37,022
FY 2004	66,947
FY 2005	58,815

The HEER Office is planning to develop an electronic filing system for by Tier II facilities. During FY 2006, the HEER Office will focus resources on defining the basic requirements for the Tier II electronic filing capability.

# 2.1.2 Clean Air Act (CAA) 112 (r) Accidental Release Prevention Program Inspections and Audits

During FY 2005 the Risk Management Program (RMP) coordinator inspected Tier II businesses that handle large volumes of hazardous chemicals and extremely hazardous substances with the prospect of identifying additional sites regulated under the ARPP.

There are presently 17 RMP facilities throughout the Hawai'ian islands. The number of facilities declined from 19 to 17 during FY 2005 due to the change over of chemicals that are no longer covered under EPA Emergency Planning and Community Right-to-Know Act (EPCRA) reporting requirements. Hawai'i is fortunate to have so few RMP facilities. California and other states have hundreds of RMP facilities

Due to the outcome of the inspections and because of the decreasing number of Risk Management Program facilities, the State is considering seeking only partial delegation from the EPA for Risk Management Program oversight. To run a program with full delegation would require access to additional money and resources such as engineering technical support.

The EPA reviewed and renewed the state's RMP Coordinator authorization to represent EPA during facility inspections in July 2005. Certification of authority for the Risk Management Plan Coordinator to conduct facility field inspections and audits under the Clean Air Act (CAA) 112 (r), Emergency Planning and Community Right-to-Know Act (EPCRA), and Comprehensive Environmental Response Compensation and Liability Act (CERCLA) will be valid for two more years.

# 2.1.3 Emergency Response Preparedness Activities

The office works closely with State Civil Defense, first responders, and other Federal, State, County, and local agencies to strengthen the State's ability to respond to public health and environmental health emergencies. The HEER Office also coordinates statewide planning activities to prepare for and respond to chemical and oil spills in the environment.

Preparedness training for emergency response actions is a vital community effort involving federal, state, and local agencies and commissions, and private industry. The Emergency Preparedness and Response (EP&R) Section of the HEER Office, in partnership with the U.S. Coast Guard, EPA, and industry, continued to play an active role in designing, planning, and conducting a wide range of oil and hazardous materials (HAZMAT) training and preparedness training exercises for emergency response actions.

Preparedness exercises are designed to work as a Unified Command System (UCS) that is modeled from nationally recognized UCS protocols. The UCS approach brings the DOH, U.S. Coast Guard, and representatives of the party responsible for the pollution, together for effective decision-making that serves the particular best interests of each participating party during an emergency response action. In the UCS, either the U.S. Coast Guard Captain of Port, or an Environmental Protection Agency (EPA) OSC is the designated Federal On-Scene Coordinator (FOSC) by presidential directive, and can thereby provide the State with Federal monetary and technical resources necessary for oil related or hazardous substance related emergencies of national priority.

The State works hand-in-hand with the FOSC once a Unified Command System (UCS) has been initiated. The State On-Scene Coordinators (SOSCs) are instrumental in making determinations necessary to address priority issues concerning the State of Hawai'i.

#### 2.1.3.1 Pollution Exercise Participation

During FY 2005, SOSCs participated in nine tabletop and deployment exercises using the Unified Command System (UCS) modeled after the nationally recognized Unified Command System (UCS) objectives. The DOH, in partnership with the U.S. Coast Guard, EPA, and industry, held regular training and workshops on response operations throughout the year. Many of these exercises were conducted by Chevron, TESORO, and HECO.

The exercises are designed to test and challenge the capabilities of all participating responders in the State such as the police and fire departments, County HAZMAT, and the Civil Defense. Follow-on improvements to emergency response plans and equipment are implemented based on performance during the exercises.

#### 2.1.3.2 Chemical and Bio-Terrorism

EP&R SOSCs enhanced bio-terrorism response capabilities during FY 2005 by designing and presenting an "All Hazards Field Sampling and Categorization Training" course. This training is a collaborative effort amongst the HEER Office State On-Scene Coordinators, State Laboratory Division staff, and University of Hawai'i personnel. The course was presented to the first responder community on Oahu, Kauai, and Hawai'i with additional training planned for Maui county to follow.

# 2.1.3.3 Campbell Local Emergency Action Network (CLEAN)

The HEER Office participates in the Campbell Local Emergency Action Network (CLEAN) developed in 1997 by businesses in the James Campbell Industrial Park (CIP) to address emergency planning issues, including public health and safety, for the CIP and surrounding community. An Emergency Management Plan for the CIP currently in use provides guidance and information to emergency response personnel, local residents, and businesses based on local conditions and specific CIP hazards. Community involvement has been present throughout the planning process.

A special task force has been working to improve the overall effectiveness of the warning /notification system, to achieve increased public awareness and protection in and around CIP, and to provide public education on appropriate responses to the warning-notification in the event of an emergency. Campbell Local Emergency Action Network (CLEAN) has procured Sentinel Alert Radios for CIP and public facilities, including schools in the area to enhance notification of a chemical release. This year, the CLEAN organization was active in community outreach and participated in the Makakilo Emergency Preparedness Fair. During FY 2005, a key project was working with the State Department of Education (DOE) to provide "Shelter In Place" training and upgrade school communications for Public Schools in the area.

#### 2.1.3.4 Airborne Dispersant Delivery System (ADDS)

In April 1999, Governor Cayetano signed a Memorandum of Agreement (MOA) with Rear Admiral J.J. McClelland, Commander of the Coast Guard's Fourteenth District and with the Clean Islands Council oil industry spill response co-op. Under the MOA, the Coast Guard will use one of its four C-130 aircraft at Barbers Point Air Station to fly the State owned Airborne Dispersant Delivery System (ADDS) to a spill site for usage. The Clean Islands Council (CIC) maintains the Airborne Dispersant Delivery System (ADDS) and trains personnel for immediate use of the system in the event of an oil spill. This oil spill response capability allows the State and the Coast Guard to utilize chemical dispersant to fight offshore oil spills. The ability to use chemical dispersant greatly enhances the State's oil spill response capability for combating oil spills in the Hawai'i Island chain, including locations distant from Honolulu. It is critical that this capability is made available immediately after an oil spill occurs to be most effective in keeping the oil from reaching Hawai'i's beaches. Dependency on mainland aircraft would delay operations for several days.

The State purchased the ADDS with funds from the Environmental Response Revolving Fund. The Coast Guard, HEER Office, and Clean Islands Council (CIC) execute an airborne dispersant delivery system drill, annually. This partnership is an added deterrent against the devastating impact that a large oil spill could have on Hawai'i. The value of having a Dispersant capability available was demonstrated

when a release occurred at the TESORO Single Point Mooring. Dispersant was applied and prevented the slick from potentially impacting the shores of Kauai, as occurred with previous spills.

During FY 2004 the ADDS trailer was upgraded to provide for an over-the-road capability. This has reduced the time required to load the aircraft.

#### 2.1.3.5 Hawai'i Pipeline Corrosion Control Coordinating Committee

This Hawai'i Pipeline Corrosion Control Coordinating Committee was formed within the DOH for administrative purposes for two years in compliance with Act 148, SLH 1997. Act 148 SLH 1997 did sunset on June 30, 1999; however, the pipeline operators continue to meet quarterly to promote pipeline safety. A depository for pipeline maps has been established with the intention that the information will be placed into a planned Environmental Geographic Information System (GIS).

The committee acts as a forum to share information and technology. A database facilitates cathodic protection testing and interference mitigation of pipelines. The Federal Department of Transportation's Office of Pipeline Safety provided training for pipeline operators.

#### 2.1.3.6 Environmental Crimes Task Force

HEER Office SOSCs have continued their involvement with a federal/state task force under the lead of the US Attorneys office and EPA Criminal Investigation Division by providing information and support for investigations, particularly when intentional releases of hazardous substances are perpetrated as a means of disposal. Many referrals involve criminal issues including fugitive dumping and releases, illegal drugs, clandestine drug laboratories (clan labs), illegal importation and distribution, fraud, and misapplications and misuse of chemicals and pesticides.

Requests for incidence assistance from local responders and the EPA may involve additional investigation by SOSCs to locate responsible parties for civil and criminal action. SOSCs may now rely on the HEER Office laboratory contract with the University of Hawai'i for rapid identification of unknown chemicals during an emergency response action and assistance in determining if a crime has been committed.

During FY 2004, the EPA hired a local person to be the Honolulu Resident Agent for investigation of environmental crimes. This should facilitate enforcement actions between EPA and the State of Hawai'i.

A current project underway at the HEER Office will link the University of Hawai'i laboratory and State Attorney General Office Environmental Crimes Unit (ECU) investigator resources into a network that focuses on environmental crimes, Weapons of Mass Destruction (WMD), and clandestine drug lab activities.

#### 2.1.3.7 Oiled Wildlife Response Program

The purpose of having an Oiled Wildlife Response Program is to provide rehabilitation for wildlife harmed by an oil release. The HEER Office continued to support preparedness efforts for the protection of wildlife in the event of an oil spill. The Department of Land and Natural Resources (DLNR) was authorized \$75,000 funding from the Environmental Response Revolving Fund (ERRF) for a veterinarian to manage a wildlife response and to conduct necessary rehabilitation projects. Each year, additional equipment is obtained for a portable response facility. Training is conducted annually for personnel in wildlife capture, cleaning, and recovery.

In FY 2004 the veterinarian under contract with the Department of Land and Natural Resources (DLNR) resigned. The Wildlife Committee under the Hawai'i Area Planning Committee still meets. DLNR is actively recruiting for a veterinarian replacement.

# 2.2 Emergency Response

The Environmental Health Administration Hazard Evaluation and Emergency Response Office Release Notification Log in Appendix B contains a listing of all notifications received during the fiscal year. Many of these notifications were for small spills that were resolved in less than one day. Descriptions for the notable responses for FY 2005 are in the following sections.

The HEER Office Emergency Preparedness and Response Section (EP&R) State On-Scene Coordinators (SOSC) are responsible for planning and preparing for, and responding to releases of a hazardous substance and/or oil that may cause immediate and substantial threat to human health or the environment. The SOSCs are trained to enter hazardous atmospheres in self-containing breathing apparatus and various types of personal protective equipment. SOSCs are on 24-hour call as back-up personnel to first responder County HAZMAT teams.

During FY 2005, the HEER Office received 351 emergency response notifications for the release of hazardous chemicals or oil spills. EP&R SOSCs performed a site visit and/or off-scene coordination was provided to 61 of the emergency response cases, 23 cases were referred to the HEER Office Site Discovery, Assessment, and Remediation (SDAR) Section for follow-on investigation and ranking, and 56 were referred to other agencies. Twenty-two training drill and 14 were sewage spill notifications were also reported. Notable among the responses managed by the HEER Office SOSCs during FY 2005 included the "Paula Drive Unknown Vials" case that was a coordinated effort under a Unified Command System, the "Hilo Pier Black Oil Release", and the "Cape Flattery Vessel Grounding" in the Barbers Point area.

#### 2.2.1 Honolulu Harbor Area-wide Contamination

The Iwilei District Operating Partners (IDOP) has continued to focus on preventing the release of the existing area wide petroleum contamination into the Honolulu Harbor and the waters of the State. The Hawai'i Department of Health HEER Office has continued the oversight of source control, containment, response activities, and pipeline mapping. The Environmental Protection Agency (EPA) Federal On-Scene Coordinators (FOSCs) are assisting in this State lead joint project.

The HEER Office will continue to provide oversight of the prevention and cleanup activities. The work will entail the evaluation of current facilities and the control and elimination of future releases. This area wide remediation effort will require staff time for several more years.

The seepage area at Pier 26 has been identified and is being repaired by the Iwilei District Participating Partners (IDPP).

### 2.2.2 Paula Drive Unknown Vials

On March 13, 2005, HEER received a notification from a woman who was cleaning under her house and discovered a box of approximately 100 ampoules or vials. Each of the vials found were sealed and contained a faint yellow liquid. Initial investigations indicated that the vials could have been from test kits used in World War II; and removal would require a highly specialized unit from Aberdeen Proving Ground, Maryland and their equipment. Aberdeen Proving Ground is the home of Army ordnance research and testing, and its chemical and biological defense command.

Response was a coordinated effort under a Unified Command System comprised of HEER, private, local, other state, and federal agencies: American Red Cross, Oahu Civil Defense Agency, Honolulu Fire Department, Honolulu Police Department, Emergency Medical Services, Hawai'i National Guard team,

the 93<sup>rd</sup> Weapons of Mass Destruction Civil Support Team, Hawai'i State Attorney General's Office; and United States Army.

An evacuation of three homes nearest the facility and an option of either an evacuation or shelter-in-place for residents a tenth of a mile downwind of the facility was implemented while removal was conducted on March 17, 2005.

#### 2.2.3 Hilo Pier Black Oil Release

On September 16, 2004, during delivery to the HELCO power plant an incident occurred when black fuel oil was released from a fuel pipeline under the Hilo piers. Chevron is the owner of the pipeline, however, HELCO takes ownership at the point where the pipeline meets land. Chevron conducted the cleanup. The release was caused by three one quarter inch corrosion pits in the flange area of the under pier pipe. Estimated time to repair or replace the pipe was six months, however the next fuel barge was to arrive on Sept 24 at which time the Big Island would have 18 to 20 days of power left. To expedite, a rubber hose was run along the top of the pier as a temporary repair. Meanwhile, a very labor-intensive effort by divers cleaned the two hundred odd pilings under the pier.

Inspection by an American Petroleum Institute inspector revealed that the thirty-year-old pipe had failed due to galvanic corrosion next to a previous repair.

# 2.2.4 Vessel Groundings

On February 2, 2005, the 555-feet marine vessel (M/V) Cape Flattery ran aground while approaching Barber's Point. The Cape Flattery, a Hong Kong flag bulk carrier with a cargo capacity of 32,600 tons, was fully loaded with cement. The HEER Office dispatched contractors to the scene to unload 128,000 gallons of fuel and 7,000 tons of cement cargo. The vessel was re-floated following the removal of the fuel and cargo. During the incident, there was no release of a hazardous substance from the vessel, however, damage occurred to the coral reef. The Department of Land and Natural Resources conducted a Natural Resource Damage Assessment (NRDA) to calculate the monetary cost of restoring injuries to the coral reef natural resource.

#### 2.2.5 <u>Illegal Dumping on All Islands</u>

The HEER Office continually receives reports of drums and containers abandoned on the sides of the road and in remote places. Historically, drums that have been "abandoned" typically contain hazardous waste and/or petroleum, used cooking oil and grease trap waste, and are often leaking. The HEER Office and Environmental Crimes Task Force is working to coordinate law enforcement and response efforts to mitigate the problem.

On June 30, 2004, HEER received a complaint that five fifty-five gallon drums labeled "perchloroethylene" were abandoned. A determination was made at that time that the drums were not abandoned; the drums belonged to an operating facility. However, on May 5, 2005, HEER received another notification that the dry cleaning business had left the premises, leaving the drums behind. A removal was conducted by HEER and the case is under consideration for an enforcement action.

On July 9, 2004, an abandoned trailer was reported right outside the TESORO Tank Farm in Campbell Industrial Park. Due to heightened homeland security interests, it was critical that the contents of the trailer be identified, and HEER took the lead in sampling.

# 2.2.6 <u>Unknown Compressed Gas Cylinders</u>

Compressed cylinders of unknown contents typically have washed ashore, but HEER also receives reports of cylinders "abandoned" on land. These compressed gas cylinders are often badly rusted and without visible markings. Removal usually involves venting the cylinders on-site or taking the cylinders back out to sea and venting them. The empty cylinders are then brought back for disposal at a landfill.

On January 28, 2005, two unknown compressed gas cylinders located at 24 Sand Island Access Road were reported. Located near a highly populated area, HEER conducted a coordinated response involving private, federal, state, and local agencies.

# 2.2.7 Cruise Line Industry-Related Incident

On July 14, 2004, Hawai'i Transfer Company released approximately 250 gallons of polyaluminum chloride solution, a water treatment chemical, slated for Norwegian Cruise Lines. With the chemical's acidic characteristics, storm drains were inspected to determine if any of it entered the storm drains.

On August 11, 2004, Pacific Diving was contracted by Norwegian Cruise Lines to conduct hull cleaning in Honolulu Harbor at Pier 12-13. While in the process of removing barnacles and other algae growth Pacific Diving allowed debris to fall and paint to disperse into the water column. Pacific Diving and Norwegian Cruise Lines was notified that this was a violation of the Clean Water Act and corrections were needed before the operation could continue.

On October 10, 2004, the HEER Office received a call from Matson that they had five 40-feet outgoing containers labeled "Non-Regulated Hazardous Waste". Since it was a new shipper, Matson decided there was a need to inspect the contents and packaging. Upon inspection it was discovered the contents to be Medical waste. The HEER Office facilitated the transport of the containers back to Asia Pacific Environmental Technology International's facility at Campbell Industrial Park. The Solid and Hazardous Waste Branch will oversee the rest of the investigation.

#### 2.2.8 Sewage Spills

HEER SOSCs receive sewage spill notifications after-hours including weekends. On January 29, 2005, because of heavy rains, eight sewage spill notifications were received from the City and County of Honolulu. These cases were referred to the Clean Water and Wastewater Branches of the Department.

#### 2.2.9 Pipeline Releases

On January 25, 2005, the HEER Office responded to a TESORO pipeline release at Kalaeloa Harbor. TESORO had detected a break in the pipeline used for loading the fuel barges. The HEER Office in coordination with the USCG and TESORO developed temporary alternative methods for the continued fueling activities at the harbor because even though the broken pipeline required repairs it was critical that the fuel supply be delivered to the other islands. The HEER Office continued to oversee the clean up of the harbor and repair of the pipeline.

On March 18, 2005, C&S Wholesale Grocers had a very large (2500 lbs.) release of Anhydrous Ammonia, which required a 16-hour response. The HEER SOSCs provided technical assistance and equipment support for the Honolulu Fire Department. The HEER SOSCs notified the Department of Health's Food and Drug Branch of the release. The Food and Drug Branch condemned the contents of the building which led to C&S Wholesale destroying 1.2 millions pounds of contaminated foods. The HEER Office continued with follow-up inspections to ensure that C&S Wholesale updated their safety equipment and procedures.

# 2.3 Hazard Evaluation

The HEER Office Hazard Evaluation Section provides ecological and human health risk assessment, conducts toxicological assessments of chemical threats to human health, establishes appropriate cleanup levels for chemical contamination, and assists the public with information concerning the health effects of chemicals. In FY 2005, the staff provided risk assessment support and responded to a diversity of inquiries concerning potential health hazards. These inquiries included questions regarding heavy metals (i.e. mercury, lead, arsenic), pesticides, indoor/outdoor air quality, and other illnesses potentially related to the environment. HEER continues to provide information to private citizens, businesses, schools, other State and local agencies, as well as directly to the Director of Health and the Deputy Director for Environmental Health

## 2.3.1 Ecological Risk Assessment

The Office's human health and ecological risk assessment project collaborated with other Environmental Health Administration (EHA) programs and community groups to provide risk assessments and/or information on the impact of environmental contaminants on human health and the environment.

The two highest priorities for ecological risk assessment activities for FY 2005 included:

- 1. Development of standards specific to Hawai'i's environmental conditions and its unique biological communities, and
- 2. Providing support for the day to day activities of project managers who are involved in the identification of contaminated sites, their assessment of remediation approaches, and the cleanup of these sites for the short and long term protection of the State's ecological resources.

Secondarily, assistance to other DOH Branches included ecological risk assessment information for particular sites and situations involved with potential impact to natural resources.

The Ecological Risk Assessor's work focused on review of ecological risk assessment reports and other supporting material including data sets, and program and project management activities. Much of the work in FY 2005 was involved with review of ecological risk assessment reports to support the State Sites; DSMOA; VRP, and to a limited extent, the PA/SI programs within the HEER Office.

#### 2.3.2 Public Health Studies

The following provides an overview of the pubic health studies performed in FY 2005.

#### 2.3.2.1 VOG

The environment plays an important role in human development and health. Exposure to some environmental hazards have been linked with specific diseases by researchers. The mission of the Department of Health is to protect and improve the health and environment for all people in Hawai'i.

The HEER office has interest in enhancing the public health of Hawai'i citizens, which include understanding the potential impact of volcanic emissions on the health of Hawai'i residents. Kilauea volcano on the Big Island of Hawai'i has been erupting continuously since 1986 releasing 1,000 metric tons of sulfur dioxide (SO2) into the atmosphere on an average day (Hawai'i chapter of the American Lung Association). These emissions produce an acidic haze of volcanic fog known as "vog." Hawai'i

residents are potentially exposed to gaseous and particulate matter that can result from continuous volcanic eruptions.

Through monies appropriated by Congress, the U.S. Centers for Disease Control (CDC) provides funds to the Hawai'i Department of Health so that health effects experienced by Hawai'i residents that may be associated with potentially toxic volcanic emissions from an active volcano may be studied. These studies are an effort to help individuals with respiratory sensitivity. The Hazard Evaluation staff within the HEER office oversees and coordinates the vog research grants supported by the CDC. The Hazard Evaluation staff assists the subcontractor with data analysis and provides administrative services and oversight for the study. The Hazard Evaluation staff prepares the contract and contract modifications, oversees that the Institutional Review Board (IRB) approvals are obtained in a timely fashion, prepare letters of correspondence, and coordinate all required reports and related documents necessary to comply with the grant and contract requirements.

# 2.3.2.2 VOG Health Assessment Study, An Assessment of the Health Effects from Exposure to Volcanic Emissions (formerly: Hilo Asthma Pilot Study)

Dr. Jon-Pierre Michaud who is an Associate Professor of Chemistry at the University of Hawai'i at Hilo is the subcontractor who is conducting this study. This study is an investigation of possible associations between "vog" exposure and acute changes in health status. A twin pair of nephelometers was stationed next to the National Park Services SO2 monitor behind the Hawai'i Volcanoes National Park Visitor Center/ Headquarters. Data were averaged and logged each hour for the duration of the study. Hourly SO2 data were obtained from the Air Resources Division of the National Park Service, and from the Hawai'i Department of Health for Hilo. Dr. Michaud collected simultaneous sets of air quality (hourly SO2 and PM1) and health status data (lung function, symptoms and medication type and use frequency). The results to date have shown no significant associations between lung function data and mild to moderate vog exposures. Dr. Michaud's work on this study will end on September 29, 2005.

# 2.3.2.3 Big Island Bio-aerosol Study (BIBS)

The HEER office submitted and received a \$77,007 grant from the CDC to support a mini bio-aerosol study being conducted by Dr. Jon-Pierre Michaud. This study involves an evaluation of health risk issues that may be attributable to bio-aerosols other than volcanic pollution (vog) exposure on the Big Island of Hawai`i. The overall objective of this study is to see which airborne contaminants affect the health of Big Island residents. Approximately 200 people have already completed a questionnaire used to assess home environment and individual factors for a study investigating possible influences of vog. The focus of this study is to investigate previously collected data for associations of health status with indices of bio-aerosols. This bio-aerosol study addresses the research question, "Are indices of bio-aerosol exposure correlated with measures of health status in data that have already been collected? Dr. Michaud will assess the statistical associations of health status with indices of bio-aerosol exposure as well as examine questionnaire-derived indices of smoke exposure for associations of health status. Dr. Michaud's work on this study will end on September 29, 2005.

# 2.3.2.4 Volcanic Emissions and Airway function, Inflammation, heart Rhythm (AIR) Study

The Hazard Evaluation staff submitted an application for the CDC's fiscal year (FY) 2005 for the Single Eligibility Award Request for Application EH05-056, An Assessment of the Health Effects from Exposure to Volcanic Emissions. Upon the CDC grant approval, the period of performance for work to

be done shall be from September 1, 2005 through August 31, 2006. The overall goal of the study is to engage the community in research that explores the interactions between environmental factors and public health.

This study is led by pulmonologist Dr. Elizabeth K. Tam of the University of Hawai`i at Manoa, John A. Burns School of Medicine (JABSOM). Dr. Tam will be the principal investigator subcontractor for this study.

Dr. Tam in a consortium with the Hawai`i DOH will be doing a pilot study in order to study the effects of volcanic air pollution on cardiopulmonary health by exploring the hypothesis that adults exposed to high levels of volcanic emissions develop airway obstruction, inflammation, or autonomic dysfunction. This work will examine whether airway function, sensitive markers of inflammation, and autonomic dysfunction increase during or shortly after episodes of volcanic air pollution. Dr. Tam will focus on adults at risk of sporadic very high exposure or chronic exposure to somewhat elevated acidity or sulfur dioxide. Dr. Tam will recruit new subjects (adults, not children) according to stringent exclusion criteria. Feasibility of measuring airway function, inflammation, and autonomic function / heart rate variability in at least 20 adult residents of Volcano Village, Pahala, or Kona on the Big Island will be tested. Dr. Tam will test the air quality of Volcano Village (which is usually upwind but closest to the vent) and Pahala, which is usually downwind but 60 miles distant in order to compare the exposures. This proposal provides for a year of planning and preparation for more comprehensive studies that can yield conclusive evidence.

The HEER toxicologist will be integrally involved in the planning and preparation of the study, evaluation of the results, assistance with air monitoring, communication of the results to the community and final report review and preparation. The toxicologist will coordinate activities between DOH staff and scientists at the University of Hawai`i JABSOM as well as provide guidance in the health effect assessment portion of the study.

## 2.3.3 Reporting of Pesticides & Heavy Metal Poisoning to the HEER Office

As stated in the Hawai'i Administrative Rules (HAR) Title 11, Department of Health Chapter 5, Environmentally-Related Illness and Injury Reporting Law, abnormal lab results for pesticides (i.e. organophosphates and carbamates) and elevated lab results for heavy metals (i.e. lead, mercury, arsenic, and cadmium) are reportable conditions. Physicians and laboratory directors are required to report cases, or suspected cases, of pesticide or heavy metal poisoning to the Hawai'i Department of Health. The HEER office continue to receive lab reports that show heavy metal testing as well as cholinesterase and pseudocholinesterase testing from the labs. The data from these lab reports will be used to increase the present knowledge and understanding of pesticide and heavy metals exposure to individuals and the magnitude of the problem in Hawai'i.

The Hazard Evaluation staff work with the Department of Agriculture, Pesticide Branch on follow up of individuals with suspected cases of pesticide poisoning. When requested by the Pesticide Branch, queries are done on the pesticide data to extract information on individuals with depressed cholinesterase or pseudocholinesterase levels that may be suggestive of pesticide exposure.

The Maternal and Child Health (MCH) Branch receives blood lead results for children as well as adults. The MCH Branch has the Adult Blood Lead Epidemiology and Surveillance (ABLES) grant. The HEER office will be sharing the blood lead results with the Maternal Child Health (MCH) branch. The Hazard Evaluation staff will work together with the MCH branch so that there is no duplication of efforts.

#### 2.3.4 Significant Hazard Evaluation Project Summaries

The following provides a summary of additional significant project activities performed in FY 2005.

- 1. HEER toxicologists reviewed remedial investigation documents for work conducted by private parties, and state and federal agencies. Documents reviewed included environmental risk assessments (including human health and ecological risk assessments), sampling plans and work plans for the following sites:
  - a. Former Unocal Station, Ewa, Oahu (Human Health Risk Assessment)
  - b. Former Unocal Station, Kaneohe, Oahu (Human Health Risk Assessment)
  - c. Fort Shafter, Oahu (Remedial Investigation and Environmental Risk Assessment)
  - d. Gasco, Iwilei, Oahu (Baseline Environmental Risk Assessment Outline)
  - e. HECO, Island-wide (Transformer Release Response Protocol)
  - f. Honolulu Harbor, Oahu (Site Assessment and Prioritization Report)
  - g. Kahuku Sugar Mill, Kahuku, Oahu (Remedial Investigation and Environmental Risk Assessment)
  - h. Kaneohe Public Storage, Honolulu, Oahu (Environmental Risk Assessment)
  - i. Kea'au VRP Site, W.H. Shipman, Ltd, Kea'au (Hotel Study Arsenic)
  - j. Kea'au Hawai'i (Area-wide Soil and Produce Assessment Study Arsenic)
  - k. Komohana Park, Kapolei, Oahu (Human Health Risk Assessment)
  - l. PVT Landfill, Oahu (Human Health Risk Assessment of Fugitive Dust and Surface Soils)
  - m. Red Hill, Pearl Harbor, Oahu (Site Characterization and Risk Assessment Project)
  - n. Snow White Linen, Honolulu, Oahu (Environmental Risk Assessment status)
  - o. Waimanalo Gulch Landfill, Oahu (review of leachate data and site conditions)
- 2. Environmental Screening Levels, Statewide

The HEER office presented updated guidance to help expedite the cleanup and redevelopment of contaminated properties. The document, Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2005), helps environmental professionals to rapidly and cost effectively identify environmental concerns at contaminated sites and prepare remedial actions to address these concerns. This permits property owners and developers to incorporate environmental issues into projects early on and better coordinate remedial and construction activities. Such approaches are integral to successful "Brownfield" programs and help prevent the abandonment of contaminated properties due to uncertainties about the cost and effort to get the properties back into productive use. The document was prepared after a thorough review of similar guidance prepared by other State and Federal agencies. Workshops will be held on a regular basis to train DOH staff and environmental consultants in use of the document and related computer spreadsheets. Workshops are also being held for the Army, Navy and Air Force and private entities such as HECO, as well as the Hawai'i Bar Association and local financial institutions. The guidance document will be updated on a regular basis.

#### 3. Kea'au Arsenic Exposure Investigation, Hawai'i

Hazard Evaluation staff assisted Site Discovery, Assessment and Remediation staff in an evaluation of health risks posed by contamination of soils by arsenic in the Kea'au community of Hawai'i. The community is located in an area of former sugar cane fields. Reported levels of arsenic in soils from the area are up to 100 times higher than anticipated background levels. Arsenic has not been reported in the municipal water supply for the community.

In early 2005, soil samples were collected from 18 areas of the Kea'au community and tested for arsenic. Two community gardens and a garden used by a local school were identified as high priority for potential health risk concerns. In April 2005, staff collected produce samples from the gardens and submitted them to the Federal Food and Drug Administration Laboratory in Kansas for arsenic analysis. In spite of the elevated levels of arsenic in the soils, levels of arsenic detected in the produce tested were within the published, natural background range of arsenic in produce that is sold in stores. Follow up testing of additional produce is planned for later in 2005.

Additional testing of soils is anticipated for later in 2005. Recommendations are being developed for the garden as well as other areas tested. Several public meetings were held with local residents who live near and work in the community gardens. The residents have been cautioned to practice good hygiene, thoroughly wash produce and avoid bringing dirt from the gardens into their homes.

DOH is also working with the Agency for Toxic Disease Registry (ATSDR) to undertake an exposure investigation of the residents to see if they are being exposed to high levels of arsenic. Urinary arsenic (total and speciated) will be measured three separate times over a 2-3 month period in the same person to assess whether current arsenic levels in soil pose a health risk to community members. Thirty residents have volunteered to participate in the investigation. The results will be available in the Spring of 2006.

#### 4. Wolmanized lumber treated with Chromium Copper Arsenate (CCA)

Wolmanized lumber treated with chromium copper arsenate (CCA) is ubiquitous in the islands. CCA treated lumber was used extensively at DOE locations to construct government and school buildings, houses, and playground equipment (for example, Barbers Point Playground).

Arsenic is a proven human cancer agent, and there is a possible risk to children's health from direct contact with public playground equipment made of arsenic-treated wood or with arsenic-contaminated soil beneath the equipment due to the leaching of arsenic out of CCA-treated wood by rainwater.

The Departments of Education (DOE) and Accounting and General Services (DAGS) are trying to determine which public buildings might have this problem. During this fiscal year, the Department of Accounting and General Services (DAGS) became aware of an additional health and disposal problem involving deteriorating ceilings in a few older schools where ceilings were constructed of canec, a material which was made from pressed sugar-cane stalks, with arsenic added to prevent attack by termites and mildew.

# 5. Metallic lead in upcountry Maui drinking water

The Maui communities of Makawao (population 33,000), upper Kula (population 4,800), and lower Kula (population 3,000) have a drinking water supply that corrodes and leaches lead out of old plumbing and fixtures. Consequently, lead in the area's drinking water has sometimes

exceeded the level regulated under the EPA Lead and Copper Rule implemented by the Hawai'i Department of Health (DOH) Safe Drinking Water Branch (SDWB).

In order to comply with the U.S. EPA and the DOH SDWB, the Maui Board of Water Supply added corrosion-control chemicals, either zinc phosphate or plain phosphate, to the local water system.

Following the addition of the zinc phosphate or plain phosphate to the water system, some members of the public have complained of itching or irritated skin and respiratory problems. The DOH worked to address concerns expressed from persons in the Upcountry Maui area about the use of corrosion control chemicals being the cause of skin irritation and itching. Because of the complaints, alternative corrosion control treatments were proposed and implemented by the Maui Department of Water Supply.

Analytical laboratory results found an unusual microbe, Pseudomonas aeruginosa, in samples collected from piping located at upcountry Maui homes. This sparked interest in the possibility that it was the real cause of the skin irritation. The focus was shifted to the problems that the Maui Department of Water Supply encounters with proper disinfection of upcountry Maui water. A consultant on disinfection and microbiology was hired with grant money from the U.S. Environmental Protection Agency. The next public meeting will be in FY 2006, when the consultant finishes his study and presents his report to the upcountry Maui community.

6. Possible chemical air pollution affecting residents in Keaukaha, Hilo, Hawai'i

Various health complaints including respiratory problems and headaches among residents of Keaukaha, a Hawai`ian Home Lands neighborhood between Hilo Airport and Hilo Harbor, led to speculation about an environmental cause to the health problems. Community members sent letters to the Governor and to Congressman Ed Case, who sent letters to the U.S. Environmental Protection Agency and the U.S. Department of Health and Human Services.

In May 2004, air-sampling instruments were set up throughout Keaukaha, including the southern and western boundary fences separating the neighborhood from the Hilo Airport and light industrial district, respectively. The HEER Office toxicologist and an environmental consulting firm hired by the HEER Office performed the sampling project, with the assistance of the Hawai'i Department of Hawai'ian Home Lands and Transportation, Airports Division.

Various health complaints including respiratory problems and headaches among residents of Keaukaha, a Hawai`ian Home Lands neighborhood between Hilo Airport and Hilo Harbor, led to speculation about an environmental cause to the health problems. Community members sent letters to the Governor and to Congressman Ed Case, who sent letters to the U.S. Environmental Protection Agency and the U.S. Department of Health and Human Services.

In May 2004, air-sampling devices were placed throughout Keaukaha, including the southern and western boundary fences separating the neighborhood from the Hilo Airport and light industrial district, respectively. A HEER Office toxicologist and an environmental consulting firm, AMEC Earth and Environmental Inc., performed the sampling project with the consent of the Hawai'i Department of Hawai'ian Home Lands and Transportation, Airports Division.

The final report prepared by AMEC for the HEER Office, "Keaukaha Hawai`ian Homelands Site Ambient Air Study," was printed in March 2005. The report concluded that air pollutants detected during the sampling event could not have come from Hilo Airport, and that all the levels of air pollutants were far below the levels that would potentially cause any health effects.

A public meeting was held in Keaukaha in March 2005 to present the final report to the community. The Hawai'ian community expressed its appreciation to the Department of Health for its concern for their health, and for the partnership between the Department and the community from the beginning of the design of this study until the last draft of the final report. This study was unique in the State and the Nation in its use of new air samplers that collected air pollutants for 24 hours per day on 7 consecutive days, placed in 75 locations over a very wide community area, rather than the old, standard 8-hour "snapshots" at only 3-4 locations.

#### 7. Mold in indoor environments, Statewide

The fallout continued from newspaper and magazine articles on "toxic mold" which alarmed the public and led to the highly visible closing of a tower at a large Waikiki hotel. HEER again fielded dozens of calls and letters from homeowners and renters who were concerned about possible asthma, memory loss, and dizziness from growths of fungus and mildew. The DOH Indoor Air Office also received dozens more.

### 8. Protests against roadside weed killing, Kauai

Private citizens on Kauai are claiming that the County Department of Transportation's application of RoundUp herbicide, used to kill roadside weeds, is the major contributor to their illnesses. They have called and written letters to the state Department of Agriculture's Pesticides Branch, the HEER office toxicologist, the Governor, and the U.S. EPA who licensed and permitted the weed killer to be sold in the United States. The issue has also featured in at least two local newspaper articles. To date, no licensed physicians or veterinarians have confirmed their claims.

# 9. Air quality at Campbell Industrial Park, Oahu

HEER evaluated the DOH Clean Air Branch (CAB) Annual Summary of Air Quality Data for the Campbell Industrial Park (CIP) Area, 2003. The CAB used this evaluation in their annual air quality report for the CIP area.

#### 10. Ala Wai Canal, Oahu

DOH is working with Oceanic Institute to assess the health risk of consuming barracuda and papio from the Ala Wai Canal. Organochlorine pesticides, PCBs and lead will be measured in fish tissue. The results will be available in 2006.

#### 11. Sale of Ironite fertilizer in Hawai'i, Statewide

Hawai'i homeowners are purchasing a product made of the recycled mine tailings collected from a hazardous waste Superfund site in Arizona. The product is available for purchase at large lawn and garden stores. The product is selling as a brand of fertilizer named "Ironite". Mainland sources have published the fact that Ironite may contain levels of arsenic, lead, and iron that may be hazardous to health since 1997.

In June 2004, a sample of Ironite was analyzed by the University of Hawai'i. The sample contained over 127 times the arsenic guideline level for short-term health effects, and over 7,500 times the arsenic level for a long-term cancer hazard.

Because the Hawai'i Department of Agriculture does not regulate fertilizers, the EPA, Hawai'i Department of Agriculture, HEER Office, and Solid and Hazardous Waste Branch (SHWB) are working together to address exposure and contamination issues, and provide solutions for public and environmental safety. To date, according to the EPA, Ironite is classified as a recycled material, which means that the SHWB has little control over the sale and handling of

Ironite. The Department of Health plans to propose legislation to control the sale of fertilizers that contain more than guideline levels of arsenic and lead.

#### 12. PVT landfill, Oahu

AMEC Earth and Environment, a contractor for the DOH conducted a human health risk assessment of fugitive dust and surface soils at the PVT landfill. The purpose of the study was to determine if fugitive dust from soil delivery or soil disposal at the landfill pose a long-term health risk to downward residents. Respirable dust concentrations were measured during disposal activities at PVT landfill. Respirable dust concentrations within the community were estimated using EPA approved air dispersion models. Chemical concentrations in the dust were estimated using historical data. The results of the risk assessment indicated that disposal of soil containing heavy metals and PCBs at previously accepted concentrations does not pose a health risk to residents living downwind of the landfill.

#### 13. Arsenic levels in former sugar cane fields, Statewide

Elevated levels of arsenic have been identified in several former sugar cane fields across the islands, as well as former golf courses (e.g., refer to Kea'au studies noted above). Many of these areas are being redeveloped for residential and commercial purposes. EHA staff is working with property owners, developers, consultants and the public to determine if the arsenic poses an adverse risk to human health and the environment. Protocols are being developed to reduce health risks in areas where potential concerns are identified.

# 14. Fish and Mercury Inquiry, Statewide

The Hazard Evaluation staff continues to receive calls from the public as well as obstetrician-gynecologist physician's offices on inquiries about fish and mercury. There are regular requests for the brochure entitled, "A Local Guide to Eating Fish Safely for Pregnant Women, Nursing Mothers, and Young Children." The office has had more of these brochures printed for distribution. The brochure is also available on the Department of Health's website, at: <a href="http://www.hawaii.gov/health/family-child-health/wic/pdf/fishsafety.pdf">http://www.hawaii.gov/health/family-child-health/wic/pdf/fishsafety.pdf</a>.

#### 15. Ampules Containing Chemicals Found at Paula Drive

A Hazard Evaluation staff assisted in responding to an incident regarding ampules containing chemicals found at the home of a Paula Drive resident. Staff from the HEER office volunteered to assist in notifying the neighborhood to evacuate or shelter in place during the removal process.

#### 16. West Nile Virus (WNV) team activities

It is difficult to fight against West Nile virus and other mosquito-borne diseases without public cooperation. In an effort to prevent mosquito-borne diseases, the Hazard Evaluation staff along with other DOH staff went from door to door to educate the public about West Nile Virus. Information on mosquito population control was provided and instruction was given on dead bird disposal. Instruction was given on how to inspect for mosquito presence on their property (i.e. area where water collects in plants such as bromeliads, discarded tires, clogged gutters, water holding containers that have accumulated outdoors, and shaded areas under trees and bushes). Corrective action was suggested and varied prevention measures such as eliminating standing water that provides breeding sites was suggested. Using diluted dishwashing liquid was suggested to kill mosquito larvae (or "wigglers"). The public's role in eliminating potential breeding habitats for mosquitoes is a critical step in reducing the risk of mosquito-borne disease transmission. Instructions on how to avoid being bitten by mosquitoes (i.e. repair window screens, wear clothing that covers skin when out doors, and

use of effective mosquito repellent) were given as well. Use of mosquito fish in ditches and ponds to eat mosquito larvae was also suggested.

# 17. State Response Program, Statewide

The Hazard Evaluation staff worked on developing a flow chart of the various outcomes of the health hazard evaluation. In addition, the staff worked on evaluating exposure and health effects by taking an exposure history.

# 2.3.5 Committees, Advisory Boards, and Community Presentations

The following is a summary of committee, advisory board, exercises, and community presentation activities for FY 2005.

1. Strategic National Stockpile Exercise

The Hazard Evaluation staff participated in the state's bio-terrorism Strategic National Stockpile exercise entitled, "Ho'opakele" at the Neal S. Blaisdell Exhibition Hall in August 2004 to test Hawai`i's preparedness for a bio-terrorism incident.

2. Interstate Working Group on Chemical Terrorism, Statewide

A HEER office toxicologist is Hawai'i's representative on the voluntary Interstate Working Group on Chemical Terrorism, which is a collaboration of state, federal, and a few county government scientists and academic experts. The group shares the latest information and well-developed educational tools so that all states are equally well informed on chemical terrorism. However, based on a national questionnaire distributed within the group, no state is adequately prepared for a chemical terrorism incident. In this fiscal year, the toxicologist and a HEER Office epidemiologist attended a preparatory class in agricultural terrorism, which is terrorism directed against food animals or crops, which was conducted in Honolulu by the U.S. Department of Homeland Security. This was in preparation for a nationwide exercise in agricultural terrorism, scheduled for the Fall of 2005.

3. Scientific Advisory Committee

A toxicologist in the Risk Assessment Section continues to be an active member of the Scientific Advisory Committee for VOG and participates in the monthly teleconferences and weekly work in progress meetings. This is a joint committee of federal, state, university, and community representatives. The discussion of ongoing technical projects and potential new research areas such as the Vog Health Assessment Study (section 2.2.2) are key areas of interest of the Scientific Advisory Committee.

4. Pesticide Advisory Committee, Statewide

Governor Lingle appointed a HEER Office toxicologist to the Pesticide Advisory Committee, Department of Agriculture.

5. Third Annual Public Health Information Network (PHIN) Stakeholders' Conference in Atlanta, Georgia.

A Hazard Evaluation staff member attended the  $3^{\rm rd}$  Annual Public Health Information Network (PHIN) Stakeholders' Conference in Atlanta, Georgia on May 10-12, 2005. CDC is working on developing a tracking system that integrates data about environmental hazards and exposures with data about diseases that are possibly linked to the environment. This tracking system will allow the monitoring and distribution of information about environmental hazards and disease trends. It will also advance research on possible linkages between

environmental hazards and disease. In addition, this system will help to develop, implement, and evaluate regulatory and public health actions to prevent or control environment-related diseases. In order to make PHIN a success, continued involvement is necessary at the local, state, and federal levels. The PHIN network will keep the Hawai'i Department of Health abreast as to how PHIN is expanding beyond preparedness and moving forward.

6. Annual Conference of the Council of State and Territorial Epidemiologists, Albuquerque, New Mexico

A HEER Office toxicologist attended the annual conference of the Council of State and Territorial Epidemiologists, held this year in Albuquerque, New Mexico, from June 5-9, 2005. This was an opportunity to meet some of the members of the Interstate Chemical Terrorism Committee who have advised Hawai'i on issues such as chemical terrorism and other States' experiences with clean-up of methamphetamine and other illegal drug manufacturing sites. The HEER Office toxicologist noted that his 2004 presentation on methyl-mercury found in Hawai'ian commercial fish spurred a similar 2005 study and presentation of mercury in store-bought fish by the Washington State Department of Health. His attendance was sponsored by an Adult Blood Lead Epidemiology and Surveillance grant from the U.S. Centers for Disease Control and Prevention.

7. Epidemiological Surge (Epi-Surge) Capacity Training.

Hazard Evaluation staff attended the Epi Surge Capacity Training provided by the Disease Outbreak Control Division's Disease Investigation Branch. The seminars consisted of 6 monthly stand-alone presentations led by Epidemiological Specialists in the Disease Investigation Branch. The training covered the many aspects of epidemiological investigations (i.e. Communicable Disease in Hawai'i, Overview of Epidemiology, Essentials of Disease Investigation Interviewing, Role of the Lab, and Outbreak Investigations with a Scenario) and provided background knowledge so that the attendees can be prepared to assist in a large investigation.

# 2.4 Site Discovery, Assessment, and Remediation

The Site Discovery, Assessment, and Remediation (SDAR) Section State Remedial Project Managers (RPMs) are responsible for assessing the near and long-term relative threat of sites contaminated with hazardous substances and for the oversight and implementation of response actions at sites with suspected and confirmed releases of hazardous substances, including petroleum.

SDAR RPMs perform oversight for sites managed under the state's non-emergency response program and two State of Hawai'i assessment and cleanup programs: the Voluntary Response Program (VRP) and the Brownfields (BF) Program. The ERRF and the EPA State Response Program grant fund the development efforts for these programs.

The Preliminary Assessment/Site Inspection (PA/SI) RPMs perform oversight for sites managed under the PA/SI Program within the HEER Office SDAR Section. This program provides the basis for discovery, identification, and assessment that has occurred at a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site in the state of Hawai'i. The EPA Superfund PA/SI Cooperative Agreement grant funds the HEER Office PA/SI Program activities to assess contaminants on eligible CERCLA listed sites

During FY 2005, the HEER Office Site Discovery, Assessment, and Response (SDAR) Section completed 137 project activities at 137 facilities. The completed activities included 25 site assessments, 24 removal actions, 1 remedial action, and 14 Unregulated Storage Tank (UST) closures. SDAR

Remedial Project Managers (RPM) also reviewed records for 73 sites. Following the completion of a project RPMs recommended either a next-phase follow-on activity or no further action for the site.

SDAR RPMs issue a No Further Action (NFA) determination based on the criteria that a facility or vessel is no longer the subject to a response action under the Environmental Response Law Section 128D-7, HRS, and that no further response appears appropriate based on all of the information that may then reasonably be obtained.

SDAR RPMs make two types of NFA determinations that are then documented in either an NFA letter or Letter of Completion issued by the DOH. A letter may be issued to a facility, site within a facility, or a vessel, whereby no land use controls are applied to the property, and therefore unrestricted use of the property is allowed. The second type of NFA letter applies land use control(s) to an industrial use property that has been cleaned up to state regulated standards, and when complete removal of all contaminants is not feasible or practical. Land use controls, or institutional controls (ICs), prevent the improper use of contaminated land. An example of improper use of contaminated land would be development of land for residential purposes when such a property had been cleaned up to industrial-use standards only.

SDAR RPMs issue two types of NFA letters to a facility, site within a facility, or a vessel. DOH issues one type of letter whereby no land use controls apply to a property, and allows unrestricted use of the property. DOH issues another type of NFA letter whereby land use control(s) are applied to an industrial use property that has been cleaned up to state regulated standards, and when complete removal of all contaminants is not feasible or practical. Land use controls, or institutional controls (ICs), prevent the improper use of contaminated land. An example of improper use of contaminated land would be development of land for residential purposes when such a property had been cleaned up to industrial-use standards only.

During FY 2005, one remedial action, 24 response actions, 14 site assessment actions, and 44 file review/ranking actions were determined to require no further action.

#### **SDAR** responsibilities include:

- Site Discovery Identify all sites in the State of Hawai'i jurisdiction that are contaminated or potentially contaminated. This is accomplished through the federally supported PA/SI program and through the HEER Office Notification process. Special situations (e.g., arsenic on former sugarcane lands) have been brought to the attention of the HEER Office mainly through the development of properties for housing.
- Support the U.S. Environmental Protection Agency (EPA) by conducting Preliminary Assessments (PA) and Site Inspections (SI) to determine which sites have the potential to be listed on the Superfund National Priority List (NPL).
- Assessment Coordinate the State's setting of assessment and clean-up priorities to identify and prioritize sites as low, medium, or high risk, or as a No-Further-Action (NFA) site.
- Provide oversight and technical expertise to governmental agencies and private entities
  that conduct site investigation activities for defining the extent of contamination on
  individual properties.
- Remediation Provide oversight to responsible parties (RPs) who are conducting response actions to insure that hazardous materials and contaminated sites are cleaned-up in a timely manner that is protective of human health and the environment.

- Brownfields Assist State and private development efforts with the identification of sites
  that have low contamination and high potential for commercial development and
  overseeing that the cleanup meets State laws;
- Voluntary Response Program Overseeing and assisting private parties with the voluntary cleanup of sites.
- Cost Recovery Insure the reimbursement of State expenditures and/or the payment of natural resource damages when appropriate.

# 2.4.1 State Non-emergency Response Program

The HEER Office Site Discovery, Assessment, and Remediation (SDAR) Section has oversight responsibility for all sites identified through the spill/release notification system after an initial emergency response activity is completed. This section provides and overview of response and/or remediation activities being performed on State listed sites.

1. Del Monte Corp (Oahu Plantation)

EPA issued a Record of Decision (ROD) for the Del Monte National Priority List (NPL) site in September 2003. The ROD requires Del Monte to cap the site to prevent future contaminant leaching, to treat contaminated soil with soil vapor extraction, and to treat contaminated groundwater using a combination of pump-and-treat technology and natural attenuation. Del Monte is currently working with EPA to implement the Record of Decision (ROD). HEER Office is monitoring progress of this remedy.

2. Domestic Commercial Fishing Village, Oahu

Permanent vapor barriers were placed under two new commercial buildings at the site to prevent methane buildup/hazards from developing under or within the buildings. The barriers are passively vented. An initial monitoring/maintenance plan associated with operation of the methane barriers has been submitted by DOT-Harbors.

3. Arsenic Assessment Kea'au Area, Hawai'i

High levels of arsenic were discovered on a 5-acre site in Kea'au during 2004. Additional grab samples from soil in a number of areas around the Kea'au town area by the major landowner in the area also revealed high soil arsenic levels in other spots around Kea'au. The source of the arsenic in soils of this area is believed to have resulted from use of an arsenicbased herbicide in sugarcane production, more than 50 years ago. Based on initial findings, HDOH committed to investigating soil arsenic levels in the Kea'au area to address public health concerns. In late 2004, HDOH worked with a contractor to collect ~ 1,200 soil increments at schools, parks, community gardens, and some undeveloped lands adjacent to residential neighborhoods, as part of the first phase of the investigation. This sampling incorporated multi-increment sampling strategies as detailed in the sampling and analysis plan developed for the investigation. Soil samples were analyzed for total arsenic, arsenic bioaccessibility, and other chemical and physical characteristics. Preliminary results of the testing were received in March 2005, and several community garden sites showed both higher arsenic and higher bioaccessibility results than other samples. The people using these gardens were informed of these preliminary results as a precaution. In addition, testing of vegetables and fruits from these gardens was begun, and voluntary urine testing of individuals using the gardens is being started in late August 2005 in conjunction with ATSDR/CDC.

A presentation to the Kea`au community on results from the soil arsenic investigation is scheduled for August 2005. Additional soil arsenic investigations in this region of the Big Island are anticipated in the future.

4. Lance Goya's Chevron Service (Tom Tomita's Chevron), Oahu

This is a former (leased) gas station site being cleared for return to the owner. The HEER Office is reviewing soil lead contamination issues at the site, while the SHWB-UST section is handling a number of leaking UST issues. An additional soil removal and site characterization plan is being prepared by a new contractor for the site, after previous work at the site was delayed due to various discrepancies between (past) consultants and lab results (for petroleum hydrocarbons).

5. Aiea Stream, Aiea, Oahu

In March 2003, DOH directed Alexander & Baldwin to conduct sampling in and along Aiea Stream downstream of the old Aiea Sugar Mill. Elevated levels of lead were found in a vegetable garden plot near the streambed. Neighboring residents were informed of the results and advised to avoid contact with streambed soils and to avoid consuming vegetables grown in the streambed area.

Alexander and Baldwin commissioned a more extensive report to determine the extent of lead contamination at the site. Report indicated additional areas of lead contamination. DOH concurs with further delineation of lead especially downstream of the property.

6. BHP Gasco Benzene Site, Honolulu, Oahu

The former Gas Company site is located on a four-acre parcel in Iwilei, which is a part of the Honolulu Harbor district. The Gas Company processed heavy petroleum hydrocarbons to produce gas for domestic and industrial use on the island of Oahu from 1904 to 1988. The soil and groundwater at the site contains elevated levels of benzene and other petroleum products.

In March 2004, BHP Hawai'i, Inc. signed an Agreement for Remedial Action with DOH, which structures the remediation process for the Gasco Site. An in-situ air sparge and soil vapor extraction system has been installed and remains operational at the site. BHP also installed a reactive barrier to prevent off site migration of contaminants. Work continues on the vertical and horizontal delineation of contaminants.

To date 27 tons of volatile organic compounds (VOCs) (mainly benzene) have been removed from the site. Remediation continues.

7. Ewa Pesticide Mixing/Loading Area, 'Ewa, Oahu

DOH agreed with a proposal by the Department of Land and Natural Resources (DLNR), the landowner, to install fugitive dust and erosion control measures at the site.

8. Ewa Sugar Mill/Oahu Sugar Co. - Pesticide Mixing/Loading Site, Oahu

DOH agreed with a proposal by the Department of Land and Natural Resources (DLNR), the landowner, to install fugitive dust and erosion control measures at the site. The site is one of the sites funded under the State Response Program. Ecology and the Environment submitted a sampling and Analyses Plan to further characterize the site.

9. Grace Pacific Corporation, Halawa Valley Street

Continuing monitoring and free product removal.

# 10. Hawai'i Agriculture Research Center - Kunia Substation, Oahu

The work plan is being reviewed by the responsible party (RP). The consultant who wrote the work plan is no longer available to conduct the work and new consultant needs to be hired, review the work plan and work with PRP on any changes to the original work plan.

#### 11. Hawai'i Meat Company Ltd., Honolulu, Oahu

There was a large petroleum release from the Hawai'i Meat Company site that contaminated the neighboring Yee Hop property and produced a sheen on Kalihi Stream. The City condemned the property for a bus barn. There was a large remediation effort but no reports sent to DOH. Letter sent to Parker Ranch owner of Hawai'i Meat Company on September 23, 2004 requesting required reports for tank 1 and NFA for tank 3. A reply is pending.

#### 12. Hawai'ian Fluid Power Company

Site has arsenic in soil and groundwater. Met with consultant Clayton group services and they were going to modify the report using SHWB rationale why groundwater not a problem and providing a soil management plan.

#### 13. Honolulu Harbor, Oahu

The consortium of responsible parties, the Iwilei District Participating Parties (IDPP), has been conducting site assessment and response actions generally in the area of the Honolulu Harbor and in particular in the Iwilei District (District). These voluntary efforts have proceeded under the Environmental Response Agreement (ERA) (signed February 1, 2001) between the Iwilei District Participating Parties (IDPP) and the State of Hawai'i Department of Health (DOH), Hazard Evaluation and Emergency Response Office (HEER). The ERA provides for site assessment work, response actions and remediation to address the effects of petroleum hydrocarbon releases in the Iwilei District under the Hawai'i Environmental Response Law (Chapter 128 D, HRS), and State Contingency Plan (HAR 11-451). The IDPP group participants include:

- a. BHP Hawai'i, Inc.,
- b. Castle & Cooke Properties, Inc.,
- c. Chevron U.S.A. Inc.,
- d. City Mill Company,
- e. DIL Trust,
- f. Hawai'ian Electric Company, Inc.,
- g. Phillips Petroleum Company,
- h. Equilon Enterprises LLC dba Shell Oil Products U.S.,
- i. State of Hawai'i Department of Transportation, Harbors Division,
- j. Texaco Downstream Properties, Inc.,
- k. Tosco Corporation,
- 1. Union Oil Company of California,
- m. The Harry and Jeanette Weinberg Foundation (pending).

The scope of the oil contamination problem includes Iwilei, Kapalama, Sand Island and Downtown Districts and makes this project one of the largest, if not the largest ever confronting the DOH HEER Office. The Iwilei District covers approximately 315 acres. It contains 187 individual land parcels, with land uses ranging from industrial to commercial and does not include any residences or schools. The District includes major road systems, including the Nimitz Highway, and port facilities. The initial Honolulu Harbor effort was principally an emergency response. Because of the potential for releases to the harbor, and the magnitude of the problem, Region 9 EPA On-Scene Coordinators (OSCs) were involved with the initial response actions and assisted by the HEER Office. The Region 9 OSCs addressed the emergency nature of the problem to bring it under control. The HEER Office assumed direct control of the site for both emergency response and remediation efforts as a result of the voluntary environmental response agreement (ERA).

The IDPP has worked cooperatively with the HEER Office to address short-term emergency and long-term remediation following a Scope of Work (SOW) that was developed as a result of the ERA. The IDPP group submitted several key documents (Project Management Plan, the Rapid Assessment, and the Site Assessment and Prioritization (SAP) Report) that provide the basis for planning and implementing environmental response actions in the first unit, the Iwilei District. The IDPP group has conducted pilot tests, pipeline investigations, plume sampling and definition along with ongoing environmental response actions, including separate phase hydrocarbon (SPH) monitoring, and SPH extraction evaluations. The scope of the IDPP effort suggests a considerable budget supporting their proactive actions at this time. As part of the ERA, the IDPP has been reimbursing DOH personnel for oversight efforts at the rate of up to \$20,000 per quarter.

The IDPP has taken the lead to initiate efforts that include the division of the Iwilei District into three operable units (OUs) and to describe the steps needed to evaluate the necessary long-term remediation activities. The level of effort for this work is coordinated principally by the IDPP with DOH oversight. The IDPP has consistently exhibited a cooperative working relationship by providing the necessary contractors and budget to have a significant impact on the assessment and remediation of the subsurface oil in the Iwilei District. Their overall planning routinely adheres to the DOH Technical Guidance Manual (TGM) in delineating the OUs based on risk prioritization of the different areas of the Iwilei District. Each OU incorporates different groups of parties with individual as well as joint liabilities for site assessment and remediation. Both the IDPP and individual facility owners have undertaken response actions aimed at the removal of SPH or preventing its migration into Honolulu Harbor. While not all of these actions were emergencies, these activities are generally consistent with the emergency response assessment process in the HEER Office Technical Guidance Manual (TGM). Concurrent with the response actions, site assessment activities have been conducted to further evaluate and define the extent of petroleum hydrocarbons in the District

The efforts to cleanup the Iwilei Unit of the Honolulu Harbor by the DOH and the Iwilei District Participating Parties (IDPP) is in its fourth year. The IDPP continue their efforts to conduct removal and response actions to locate (and map), identify, and drain the abandoned petroleum pipelines and subsurface petroleum contamination associated with petroleum pipelines and former facility operations. Petroleum recovery efforts continue along with the development of project plans for the remedial assessment of the OU1C area of the Iwilei District. From a broader perspective, the IDPP will follow the OU1C efforts with the development of remedial action plans for OU2 (the Nimitz Corridor) and the remainder of

OU1, i.e., A and B. These activities will follow or run parallel with the interim effort to locate and drain pipelines that are immediately accessible in these areas.

Two major efforts have begun during this fiscal year that are both preventative and maintenance in character. Plans have been developed for the complete replacement of the Pier 26 storm water drain that has been a pathway for minute amounts of oil reaching the harbor. This work will replace the entire 300 or more feet of storm water drain to keep the drain above the ground water levels, thus avoiding the possibility of oil 'leaking' into the drain and then into the harbor. Plans have been developed for the Pier 29 area as well. This effort will replace the deteriorating sheet piling along the waterfront to support the use of the area as a primary loading area for trans-Pacific shipping.

14. Honolulu Skeet Club, Kailua, Oahu

Preliminary work (site inspection) at this site should commence in the fall of 2005.

15. Hanua Street, Southern Terminus Lead Contamination, Kapolei, Oahu

The site is owned by Campbell Estate but is the process of being sold to a potential buyer. Given that the State is not privy to the terms and conditions of the sale until it is finalized, remedial work on this site has been delayed.

16. Kapalama Incinerator, Honolulu, Oahu

Lead is the primary contaminant in soil at 757 Kōkea Street in Honolulu, where the former Kapālama Incinerator operated from the 1940s to the 1970s. HEER Office issued a Response Action Memorandum (RAM) for the site in 2002, directing the City & County of Honolulu to excavate and dispose of contaminated soil. The City & County excavated and disposed of approximately 15,000 tons of contaminated soil from the incinerator property from May 2004 through March 2005. Additional soil contamination extending beyond the mauka and makai boundaries of the incinerator property remains and will be addressed in a future phase of work. HEER Office is providing oversight for the cleanup.

17. Pukoloa Wood Treating Site, a.k.a. Servco (2481 Pukoloa Street), Honolulu, Oahu

Arsenic, chromium, pentachlorophenol, and dioxins are present at 2841 Pūkōloa Street in Honolulu. The contamination appears to have resulted from past practices of a wood treating company located at the site from the 1960s to the 1980s. HEER Office issued a Response Action Memorandum (RAM) for the site in October 2004, directing the responsible parties to install a cap over the contaminated soil at the site, and to monitor groundwater at the site, in order to prevent exposure to the public. The RAM has not yet been implemented.

18. Queen Emmalani Tower, Honolulu, Oahu

Reviewed Remedial Investigation & Remedial Alternatives Analysis Report. Proposed remedial alternative for the site is to remove the hot spots (disposal) and exposure prevention for lead in surface soils. They will leave the re-interred contaminated soil on site rather than excavate and dispose of the soil at the PVT landfill as originally proposed. Phase I of the project has been completed and the residential tower is under construction. Phase II is now underway based on an approved work plan.

19. Sears Facility #1578 at Pearlridge Mall, Oahu

Dissolved analytes; acenaphthene, naphthalene, floranthene, benzo(a)pyrene, halogenated volatile organic, total lead, total cadmium, polychlorinated biphenyls and TPH-O were below HDOH Tier I Action Levels or the new EALs in monitoring wells (MW) FF and GG therefore

groundwater monitoring will be suspended in these two MWs. Sears to submit a work plan for more aggressive free product removal at the site. Groundwater monitoring continued and a work plan is being prepared for free product removal.

#### 20. Wailua Homestead Wells 0421-01& 02, Kapaa, Kauai

In 1999, mercury was detected in Well A and Well B at the Wailua Homestead Wells in Kauai due to the mercury used in the pumps. The pumps were removed individually and placed on tarps on the ground adjacent to the wells. Mercury leaked into the soil during the removal of the pumps. Brewer Environmental Systems was contracted to delineate the soil contamination around the two wells and the temporary pump storage area. Contaminated soil was excavated. The wells were put back in service, putting them through a granulated activated carbon (GAC) treatment facility. The HEER office contacted the Kauai Department of Water to discuss the mercury contamination found along the site boundaries. A sampling plan to delineate further contamination in the soil around the site, near the outfall and ditch was suggested to the Kauai officials.

#### 21. Yee Hop Building Maunakea Street, Honolulu, Oahu

A tank was found and there was a confirmed release. The tank was closed in place because or building footing considerations. DOH asked for a monitoring well to determine if there is any free product. Awaiting Report

# 22. Maui Electrtic Company (MECO) Generating Station: Maalaea, Maui

There has been 13 releases at this facility 10 have been NFA by OSCs. Three releases remain current and require further investigation especially the large release of July 30, 2002.

Free product recovery is complete. Groundwater monitoring is scheduled for a semi annual basis. The site appears to be remediating naturally. Groundwater monitoring is continuing with a reduced number of wells. Free product recovery continues to decline. MECO is developing a proposal that may lead to a NFA.

#### 23. Pioneer Mill Company, Lahaina, Maui

The Pioneer Mill Company, a wholly owned subsidiary of Amfac Corporation, ceased operations in September 1999. The HEER Office is working with the Pioneer Mill Company's contractor in assessing the mill site for any hazardous material contamination from 150 years of sugar cane cultivation and processing. On a immediate level, the HEER Office requested that dust control fences be erected along Mill Street and Kuhua Street, adjacent to the mill, to address resident's concerns of potentially contaminated soil blowing into their homes from the mill.

Sampling was conducted by EPA contractors in February 2003 and a community meeting was held in conjunction with this effort. Results of the analyses show elevated levels of lead in three locations and elevated level of arsenic in one location. EPA reported that based on the result of this limited sampling the site does not pose a significant risk to human health and the environment, however, there is a need to further characterize the site to determine the full extent of contamination. DOH will oversee further work by Amfac for the site characterization, remediation and cleanup. Amfac has agreed to characterized the site, delineate the extent of contamination, cover the contaminated soil, and put warning signs around the mill to warn the public of the potential hazard and keep them from entering the area.

Amfac Incorporated hired Brewer Environmental Industries LLC Brewer Environmental Services (BEI) to characterize and cleanup the site. BEI excavated the contaminated soil and collected confirmation samples for analyses. A Soil Removal Action Report for Pioneer Mill was submitted by BEI to DOH in June 2004 for review. The site was given a "No Further Action" by the State of Hawai'i in July 2004.

# 2.4.2 Voluntary Response Program (VRP)

The Voluntary Response Program (VRP) encourages voluntary cleanup of contaminated properties. Under the law, DOH has the authority to grant prospective purchasers or developers an exemption from future liability if cleanup is performed to DOH specifications under the program. Past, current, or future property owners can participate in this program, but exemptions from liability can only be given to future purchasers or tenants. Completion of the voluntary cleanup action is accompanied by a Letter of Completion (LOC), issued by the Department of Health and noted on the property deed.

Under the State VRP program, each site accepted into the program is required to deposit \$5,000 into the ERRF and maintain a balance of no less than \$1,000 in order to fund the DOH personnel providing oversight. This requires the State to track deposits and expenditures individually for each site accepted into the program for voluntary response and/or cleanup. The site specific/project specific Voluntary Response Agreement with the State provides the participating parties with technical advice based on the latest technologies and a one on one working relationship with the project manager overseeing the cleanup actions.

The number of total Voluntary Response Program (VRP) sites increased to twenty-five sites, with twelve projects at nine sites completed. One site was issued a Letter of Completion with Unrestricted Use. At the close of FY 2005, the program was addressing twenty-one ongoing projects at seventeen active VRP sites.

During FY 2005, the HEER Office issued three Letters of Completion were and added five new VRP sites to the program. Applications to the VRP program should continue to grow as the economic outlook for property development remains positive within the State.

The following lists identify sites that have received Letters of Completion during FY 2005 and sites that are currently working under a signed a voluntary response agreement with the DOH.

# VRP sites issued a FY 2005 Letter of Completion with unrestricted use:

1. Evershine X, 1230 Kapiolani Boulevard, Oahu (VRP-05)

A 6.2-acre site owned by Evershine X, a limited partnership, on the corner of Kapiolani Boulevard and Piikoi Street is to be developed as luxury high-rise condominiums. The site characterization determined that there was no contamination on the site. A Letter of Completion with Unrestricted Use was issued August 18, 2004.

#### VRP sites issued a FY 2005 Letter of Completion with institutional controls:

1. Flynn-Learner Property (Former), Pahounui DP LLC VRP Site, Oahu

Pahounui DP LLC installed a cap to eliminate the potential for exposure to contaminated soil at this VRP site. HEER Office issued a Letter of Completion with Institutional Controls for the site in July 2004. The property owner must prohibit any activity that may disturb the integrity of the capping system.

#### 2. Town Inn, Honolulu, Oahu

Joined the Voluntary Response Program (VRP) in December 2002. Removal action at the site was successful in removing all the petroleum-contaminated soil. DOH issued a Letter of Completion with Institutional Controls on August 18, 2004. This site has restrictions on its use that prohibits any activity that may disturb the integrity of the monitoring system. The property requires monitoring for 2 years.

# <u>VRP sites with ongoing Operations and Maintenance (O&M) requirements continuing for FY</u> 2006:

1. 825 Kapiolani Blvd Chuei Shokoh Inc, Oahu

This is a 0.9-acre site owned by LSDM Properties, LLC next to Flamingo Restaurant: The public participation phase is complete and the Letter of Completion with Institutional Controls was signed on July 2, 2003 with a two year monitoring requirement and conditions on soil if the area is excavated. Operation and maintenance continues. Monitoring since July 2, 2004 has confirmed that there has been no free product rebound. Further O&M will not be required for FY 2006.

2. Home Depot Iwilei, Honolulu, Oahu

Letter of Completion with Institutional Controls was issued in 1999. This site has restrictions on its use that prohibit any activity that may disturb the integrity of the monitoring system. Monitoring of water and gas continue as required.

3. Town Inn, K-Green Corporation VRP Site, Oahu

A Letter of Completion with Institutional Controls was issued on August 18, 2004. This site has restrictions on its use that prohibits any activity that may disturb the integrity of the monitoring system. The property requires monitoring for 2 years. Monitoring for dissolved analytes was successfully completed. Monitoring for free product rebound continues.

#### VRP sites with oversight work continuing for FY 2006:

1. Kea'au VRP Site, W.H. Shipman, Ltd., Keeau, Hawai'i

W.H. Shipman, Ltd. entered the VRP in September 2003 to investigate a 5.3-acre property for development of a motel. The site investigation was completed in March 2004. High levels of arsenic and lead in soil were documented at the site. The Remedial Alternatives Analysis Report and Draft Response Action Memorandum were completed in May 2004. A public meeting on the project and proposed remediation was held in June 2004, and the Final Response Action Memorandum was completed in July 2004. Capping was the remedial alternative chosen for this site. Implementation of the remediation plan was not completed, due to cost considerations as well as a decision to conduct an additional risk assessment at the site. This additional risk assessment, including sampling for lead and arsenic bioaccessibility, was conducted in August and September 2005. The risk assessment will be utilized to develop a new plan to address arsenic and lead contamination at the site.

2. Honsador Lumber Corporation at Nawiliwili, Kauai

The VRP agreement was signed October 2004. The 9.3 acres mixed industrial use site is presently used as a concrete and building materials supply outlet. Previously two wood treatment plants existed on site. We are presently awaiting the revision of the general work plan for the remediation of the site.

#### 3. Maui Corn Mill Camp, Pukalani, Maui

Maui Land and Pineapple Company applied to the VRP in August 2003 to investigate a 24,000 square foot former pesticide storage and mixing area on a larger parcel planned for commercial development. The VRP Agreement for this site was signed on May 19, 2004. VRP work at this site has not begun, as the proposed development is still in the planning stages.

#### 4. Aiea Sugar Mill Remedial Lot 15, Aiea, Oahu

This site received two Letters of Completion during FY 2004. The 15.6-acre site that was formerly the Aiea Sugar Mill site is being remediated in three phases. Phase I Letter of Completion issued November 2002. Phase II and Phase III Letters of Completion were issued in November 2003. There are no use restrictions for Lots 1-5 and 16 or 19. Any soil removed on lots 6-14 and 17-18 must go to a landfill.

Lot 15 requires further remediation for lead and benzo(a)pyrene. A Risk Assessment is under review for lot 15.

The VRP agreement has been transferred by the Bank of Hawai'i to Alexander and Baldwin.

#### 5. 1414 Kalakaua Avenue Aloha/King LLC, Honolulu, Oahu

The site was accepted into the VRP program in June 2004. The <sup>3</sup>/<sub>4</sub> acre site is a former gas station. The VRP agreement was approved in August 2004. Presently at the detailed site investigation work plan stage..

#### 6. Komohana Park, Kapolei, Oahu

VRP Agreement with the Bank of Hawai'i was signed in December 2001. The site is located in Campbell Industrial Park and includes up to five separate sub-areas where different contaminants are being investigated. Contaminants of concern include petroleum hydrocarbons in soil and water, and metals in soil. The remedial investigation work has been completed and a draft risk assessment and draft remedial alternatives analysis have been submitted.

#### 7. Costco Wholesale Iwilei Gas Station and Warehouse, Honolulu Oahu

Costco entered the VRP Program in June 2001. The Costco Gas Station remedial Investigation is complete and the remedial alternatives analysis report is being prepared.

The remedial investigation and risk assessment have been completed for the warehouse site.

Upon completion of remedial alternatives analysis report a draft response action memorandum for both parcels will be prepared prior to the public participation stage.

#### 8. Honolulu Wood Treating Company Kapolei, Oahu

VRP agreement signed in October 2004. The 8.8 acres site presently consists of a wood treatment and storage facility. We are presently awaiting the general work plan for the remediation of the site.

### 9. Honsador Lumber Corporation Kapolei, Oahu

VRP Agreement was signed October 2004. The 7.4 acres site is presently used as wholesale lumber and buildings materials business. Presently awaiting the summary of environmental work completed to date.

10. Lowes at 311 and 411 Pacific St, Honolulu, Oahu

The site consists of two distinct properties; Tosco Honolulu Bulk Distribution Terminal and the Brewer Environmental Industries-Pacific Street. The properties will be remediated separately on different time schedules under the VRP agreement. DOH is presently awaiting the summary of environmental work completed to date for both properties.

11. Kahuku Sugar Mill (Former), Oahu

A VRP Agreement was signed with Tetra Tech, Inc. on February 17, 2004. The property to be investigated and cleaned up is approximately 14.5 acres, including existing retail businesses on a portion of the property. Contamination issues on the site include petroleum, arsenic, lead, and chlorinated solvents in soil and groundwater. A remedial investigation for the site has been conducted.

12. Oahu Sugar Mill (Former) Lot 32, Waipahu, Oahu

A VRP Agreement with Sugar Mill Glen, LLC was effective May 13, 2004. The property consists of 15.3 acres that is currently zoned for industrial and commercial uses. Contamination issues include petroleum, chlorinated solvents in groundwater, and arsenic in soil. Based on a review of existing arsenic soil data as well as the proposed use, a no further action letter was issued for arsenic at the site. A remedial investigation for the petroleum hydrocarbons in groundwater at the site was completed in 2005. In-situ remediation has occurred in a number of the wells that had free product. A remedial investigation for the chlorinated solvents in groundwater at the site was completed in 2005. A draft remedial alternatives analysis document for the site was also completed in 2005.

13. Oahu Sugar Mill (Former) Mill Town Subdivision Diesel Plume, Waipahu, Oahu

A VRP Agreement was signed with A&B Properties in November 1998. This is a 40-acre industrial subdivision, part of former Oahu Sugar Mill, Waipahu, Oahu. A&B is conducting periodic groundwater monitoring of a number of wells around a former leaking diesel underground storage tank. The leaking tank and soil to about 20 foot depth around the tank was removed years ago, however some residual free product has remained in groundwater wells in the vicinity. A&B is also assessing remediation alternatives for the site.

14. Waialua Sugar Mill VRP Site, Oahu

A VRP Application for the site was approved in February 2005. The draft VRP Agreement for the site has recently been submitted for review and approval.

#### 2.4.3 **Brownfields (BF) Revitalization Program**

Members of the SDAR Section are actively engaged in developing a Hawai'i Brownfields Economic Redevelopment Initiative to complement the National Brownfields Program sponsored by the U.S. Environmental Protection Agency (EPA). The brownfields activities are supported in part by the EPA State Response Program (SRP) grant to the HEER Office under the Small Business Liability Relief and Brownfields Revitalization Act of 2002. In this regard, the HEER Office works in partnership with the Office of Planning (OP) in the Department of Business, Economic Development and Tourism (DBEDT) and closely with the U.S. EPA Region 9 to do the following:

 Implementing the Hawai'i Voluntary Response Program (Chapter 128D Part II, HRS), which is aimed at facilitating the voluntary cleanup of contaminated property by interested purchasers.

- Performing brownfields environmental site assessments at properties for other state and county agencies throughout Hawai'i.
- Providing technical assistance and guidance to brownfields developers regarding cleanup options and compliance with environmental laws.
- Encouraging and supporting state and county agencies in applying for U.S. EPA competitive brownfields grants.
- Providing technical oversight of cleanup projects funded through the Hawai'i
  Brownfields Cleanup Revolving Loan Fund that was created by a grant from U.S. EPA
  to the DBEDT Office of Planning.
- Working closely with DBEDT Office of Planning and county agencies to build a statewide inventory of brownfields for future cleanup and redevelopment.

The Brownfields Program continues to develop as EPA funding and activities increase throughout the State. The goal of the Program is to facilitate the assessment, cleanup, and redevelopment of brownfields properties. These are properties that are abandoned or underutilized due to real or perceived environmental issues associated with the property. With support from EPA, the State and counties are working to identify the inventory of brownfields, focusing priority attention on those sites with the highest potential for successful redevelopment.

Ten Brownfields targeted site assessments were completed during FY 2005. One site, the Cannon Club site on Oahu, was issued a No Further Action (NFA) letter. The other nine sites with completed targeted site assessments were issued a recommendation to continue site work with a next-phase assessment, removal, or remedial activity. At the close of FY 2005 there were twenty-two sites on the Brownfields list, with ten active and twelve recommended project activities.

A brief summary of the Brownfields environmental site assessments performed this past year are as follows:

#### Brownfield site issued a FY 2005 Letter of No Further Action (NFA) with unrestricted use:

1. Cannon Club, Honolulu, Oahu

A Phase I environmental site assessment was completed. This site is available for unrestricted use

# Brownfield sites with FY 2005 completed targeted site assessments and with recommendation for follow-on activities:

1. Anahola Project Faith, Anahola, Kauai

The Anahola Homesteaders Council received an environmental assessment under the Brownfields Program. The site is slated for use as a multi-purpose facility consisting of commercial, cultural, educational, and health care and kupuna housing components. The site was formerly agricultural land used in the production of sugar cane. As a result of these activities, potential pesticide and metal soil contamination are the primary environmental concerns for the site. A Phase I and Phase II investigation were completed. Based on the results of the Phase I and Phase II, a Phase III has been recommended to remediate the site.

2. DHHL East Kapolei Affordable Housing Project, Kapolei, Oahu

The Ecology and the Environment (E&E) completed the Sampling and Analysis Plan (SAP) for the site characterization of the former herbicide mixing plant. This site is under evaluation for use restriction.

3. DOH Waimano Home Road Campus at Waimano Training School and Hospital, Waimano, Oahu

The HEER Office completed an extensive Phase I Environmental Site Assessment to help facilitate the transfer of this property from the Department of Health (DOH) to the Department of Land and Natural Resources (DLNR). Historical records were examined, the buildings and grounds were inspected, and items of potential environmental concern were identified. Ultimately, DOH decided not to pursue the transfer of this property to DLNR.

4. Kakaako Brownfield Project Unit 6

An environmental site assessment was completed. This site is under evaluation for use restriction.

5. Kakaako Brownfield Project Unit 7, Honolulu, Oahu

An environmental site assessment was completed. This site is under evaluation for use restriction.

6. Kakaako Brownfield Project Unit 8, Honolulu, Oahu

An environmental site assessment was completed. This site is under evaluation for use restriction.

7. Kakaako Pump Station, Honolulu, Oahu

A Phase I site assessment was completed on September 2004. Based on the results of the Phase I, a follow-on Phase II assessment has been recommended for further surface, subsurface, and groundwater investigation.

8. Kokua Kalihi Valley Active Living Center, Honolulu, Oahu

The HEER Office performed a Phase I Environmental Site Assessment to assist Kokua Kalihi Valley non-profit agency in securing a large parcel of land from DLNR. Historical records were examined, the buildings and grounds were inspected, and no significant items of potential environmental concern were identified. The goal of the project, which is still in progress, is to create an Active Living Center for public use

9. Kuhio Park Terrace Units D1 and D2, Honolulu, Oahu

The Housing and Community Development Corporation of Hawai'i (HCDCH) received an environmental assessment from DBEDT for Kuhio Park Terrace, a public housing community. Elevated levels of dieldrin from application of pesticides were detected. HCDCH is applying for funds in HUD HOPE VI for the revitalization of Kuhio Park Terrace. The revitalization will replace the 641-unit project with a mixture of low and mid-rise apartments and single-family dwellings. Limited Phase I report was completed and submitted to DOH and HCDCH for review. The revised Sampling and Analysis Plan (SAP) was submitted to DOH for review. However, DBEDT decided to temporary delay the actual sampling event until the further planning of the revitalization program is complete.

10. Sand Island State Recreation Area, Honolulu, Oahu

A Sampling and Analyses Plan for Sand Island State Recreation area was completed on September 2004. Based on previous investigation conducted by Ecology and Environment, Inc, various sampling approaches is recommended to characterize the site. Surface, subsurface and berm soils will be sampled. Groundwater will also be sampled from biased temporary wells.

# **Brownfield sites with ongoing activities:**

- 1. Kea`au Affordable Housing Project
- 2. This is a proposed affordable housing project located on about 80 acres in Kea'au, Hawai'i. The Phase 1 Site Assessment was completed at the end of June 2005. Planning for site characterization of soil contamination (primarily for arsenic) is now underway.
- 3. Building Industry Association (BIA) Construction Training Center of the Pacific

A Phase I environmental site assessment was completed.

4. DLNR Manana Valley Land Purchase

A Phase I environmental site assessment was completed.

5. HCDA Heeia Land Transfer

An environmental site assessment was completed.

6. Iwilei Project Site, Oahu

Housing and Community Development Corporation of Hawai'i (HCDCH) and Department of Accounting Services (DAGS) received an environmental assessment from Department of Business, Economic Development and Tourism (DBEDT) on a property located at the corner of North King Street and Iwilei Road. The sampling event was completed in July 2003 and the final site assessment report was submitted to EPA in March 2004. In August 2005, the Solid and Hazardous Waste Branch-Underground Storage Tank gave "No further action" to the former gasoline Underground Storage Tank C as a result of the Phase I and Phase II investigations conducted under the Targeted Site Assessment.

# 2.4.4 <u>CERCLA Preliminary Assessment/Site Inspection (PA/SI) Cooperative Agreement Program</u>

The Preliminary Assessment/Site Inspection (PA/SI) Program within the HEER Office Site Discovery, Assessment and Remediation (SDAR) Section provides the basis for discovery, identification, and assessment for any contamination that has occurred at a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site in the state of Hawai'i. The program's activities are supported by cooperative agreement within the EPA CERCLA Superfund program, and are consequently closely coordinated with the EPA.

1. Waialua Sugar Company, Waialua, Oahu

The Waialua Sugar Mill closed operations in October of 1996. The mill and power plant were dismantled and shipped to Indonesia. Remaining structures at the mill site have been leased to small businesses and to individual farmers for diversified agriculture. The apparent problems associated with the Waialua Sugar Mill site are as follows:

Several areas of the mill are being investigated because of practices during the period of operations. There is potential for soil and groundwater contamination due to runoff from former pesticide mixing and loading sites and from equipment maintenance facilities. Contamination may have occurred at an inland landing strip formerly used for aerial application of herbicides and pesticides. Former wastewater settling basins across Kealohanui Street from the mill complex may contain residues and other potential contamination. Arsenic and Dioxin levels in the settling ponds exceed the residential Preliminary Remedial Goal (PRG) values, although these results are less than the EPA cleanup level of 1 ug/kg. There are

several areas with stained soil in the area of the vehicle maintenance building, particularly near former lubricant storage tanks and leaking drums.

The Waialua Sugar Company produced much of their power by burning waste oil. The waste oil was stored in above ground storage tanks (ASTs) at the site. This area is targeted for sampling based on a potential for leaks to have occurred from the ASTs. No contamination was detected at the above ground ASTs.

Further sampling was planned and completed by January 2004 because of samples that showed elevated levels (above the residential USEPA Region 9 preliminary remedial goals (PRGs) of dioxin (1.68 and 2.02  $\mu$ g/kg) and arsenic (323 mg/kg and 599 mg/kg). Results of this new sampling effort are being evaluated and will be reported in an Extended Site Inspection document. The drainage area between the former Transformer storage area and the wood storage rack has Dioxin and Arsenic levels above cleanup levels. All three samples taken at the Pesticide Mixing buildings have Dioxins and Arsenic above cleanup levels.

#### 2. Del Monte Fresh Foods NPL Site - Poamoho Tract, Oahu

Initial site visits have been made. After the Galbraith Trust performed a land survey, it was discovered that one of the areas of the Poamoho Tract is actually Castle & Cooke (Dole) property. The Dole parcel includes the former rag-burning site, which was also the former Wahiawa Dump, a dump and burn site operated by the City and County of Honolulu (C&C).

# 3. Pioneer Mill Company, Lahaina, Maui

The Pioneer Mill Company, a wholly owned subsidiary of Amfac Corporation, ceased operations in September 1999. The HEER Office is working with the Pioneer Mill Company's contractor in assessing the mill site for any hazardous material contamination from 150 years of sugar cane cultivation and processing. On an immediate level, the HEER Office requested that dust control fences be erected along Mill Street and Kuhua Street, adjacent to the mill, to address resident's concerns of potentially contaminated soil blowing into their homes from the mill.

Sampling was conducted by EPA contractors in February 2003 and a community meeting was held in conjunction with this effort. Results of the analyses show elevated levels of lead in three locations and elevated level of arsenic in one location. EPA reported that based on the result of this limited sampling the site does not pose a significant risk to human health and the environment, however, there is a need to further characterize the site to determine the full extent of contamination. DOH provided oversight for site characterization, remediation and cleanup. Amfac characterized the site, delineate the extent of contamination, cover the contaminated soil, and put warning signs around the mill to warn the public of the potential hazard and keep them from entering the area.

BEI Environmental Services (BEI) was hired by Amfac, Inc. to characterize and cleanup the site. BEI excavated the contaminated soil and collected confirmation samples for analyses. A Soil Removal Action Report for Pioneer Mill was submitted by BEI to DOH in June 2004 for review. DOH issued a No Further Action letter in July 2004.

#### 4. Kanaha Pond Industrial West Site, Maui

The HEER Office completed sampling in the East Pond and West Pond sites as of August 2003. The U.S. EPA Region 9 Superfund Office is reviewing the subsequent report. The results of the sampling effort for the West area are being prepared in a formal report to EPA Region 9. The final report for the Kanaha Pond West Industrial Site was submitted to EPA Region 9 for review and acceptance.

#### 5. Kauai Agricultural Research Center (Agent Orange/Pesticide Sites), Kauai

Between 1967 and 1968, the University of Hawai'i, in collaboration with Department of Army (Fort Detrick, Frederick, Maryland), conducted an experiment to assess the defoliation effects of various pesticides, including Agent Orange, on jungle vegetation on Kauai. This site includes three areas of contamination: the drum disposal area; the actual spray sites located at Waikoko Block, Hanahanapuni; and the Sam Thronas area. The areas were applied with different rates of Agent Orange and pentachlorophenol (PCP), respectively, that were applied singly or in combination with other herbicides. The DOH Solid and Hazardous Waste Branch (SHWB) is overseeing the removal and disposal of drums at the drum disposal area.

Soil sampling was conducted in September 2001 to determine if foliar application of various pesticides is affecting soils in the area. Given the concentrations of contaminants detected, it appears that no further CERCLA actions are warranted. However, EPA suggested evaluating the potential threat to fish and sediment samples.

#### 6. Kekaha Sugar Company, Ltd., Kekaha, Kauai

The areas of potential sources of contamination in Kekaha Sugar Mill are the settling ponds, the seed dipping plant, the former transformer storage area inside the mill and other operations related to sugar cane production. The Environmental Company, Inc., the State of Hawai`i environmental contractor was hired to conduct on-site sampling. Soil and water samples were collected in July 2003. Laboratory analytical results show elevated levels of mercury, dioxin, and PAH's. The elevated levels of mercury were detected in sediment samples collected from the former seed dipping plant. The final Site Inspection (SI) report was submitted to EPA for review in August 2005.

#### 7. Kekaha Former Wood Treatment and Herbicide Mixing Plant, Kauai

The apparent problem of the site is the pesticide/herbicide contamination brought about by sugarcane productions and operations. These operations involved generation and storage of used oil, use of fungicide for wood treatment and seed treatment, accumulation of contaminated sediments in the settling pond, and the use of pesticides and herbicides in the mixing plant. Amfac Sugar Hawai'i, Kauai, who owns Kekaha Sugar Company, Ltd. and Lihue Plantation Company, Ltd., hired Brewer Environmental Services (BES) to conduct clean-up and remediation of all areas of environmental concern. The BES Phase II Site Investigation from the analysis of the soil samples showed elevated levels of benzo(a)pyrene, benzo(a)anthracene, benzo(b) flouranthene, methylene chloride, and pentachlorophenol (PCP) above the DOH environmental screening levels for a response (clean-up) action.

Soil sampling conducted by the HEER Office in May 2002 showed elevated levels of benzo(a)pyrene, arsenic, and dioxin. The levels of benzo(a)pyrene, arsenic and dioxin are above the USEPA Region 9 preliminary remedial goal (PRG) level for residential use. Based on HEER recommendation, Department of Land and Natural Resources (DLNR) placed warning signs around the contaminated area in August 2002 to warn the public of the hazard and restrict access to the site. DLNR is also working with environmental consultants to address the problem posed by uncontrolled dust and potential migration of soil due to runoff. HEER Office personnel reviewed and approved the proposal submitted by DLNR for the use of erosion control blanket to minimize soil erosion and exposure to dioxin in contaminated areas. The final Site Inspection report was submitted to EPA for review in August 2005.

## 8. Lihue Plantation Company Ltd., Lihue, Kauai

This site is similar to Kekaha Sugar Company, Ltd. The apparent problem of the site is the contamination brought about by sugarcane production. There are four sources of contamination; the herbicide mixing plant located at Hanamaulu; the seed dipping plant; the settling pond; and areas around the Lihue Sugar Mill. Analyses of soil samples collected by Brewer Environmental Inc. in the former herbicide mixing plant showed elevated levels of dichlorodiphenyl trichloroethane (DDT), chlordane, heptachlor, and arsenic. A site reconnaissance was completed in July of 2003 to determine the sampling locations. A preliminary scoring was completed by DOH and reported to EPA. A Sampling and Analysis Plan (SAP) is being prepared to complete further efforts to evaluate arsenic and dioxin contamination. The Lihue Plantation consists of the following divisions: the Mill and Power Plant, the Seed Dipping Plant, the Hydroseparators, the Hanama`ulu Garage, and the Hanaam`ulu Pesticide Mixing Facility. Sampling at the Lihue Plantation was completed in September 2004 and complete validation of the data was completed by March 2005. Work has commenced on evaluating the data and writing the Site Inspection Report, which a contractor will complete.

Hanamaulu Garage: Dioxin level above 1  $\mu$ g/kg was found at the former Flume Shops located at the Hanama`ulu Shop. The area of contamination must be delineated and remediated.

Herbicide Mixing Plant: Very high dioxin levels (up to  $17\mu g/kg$ ) occurred at the Herbicide Mixing Plant. High Arsenic levels (1000 mg/kg) were also found within and outside the footprint of the demolished Herbicide Mixing Plant building.

Power Plant: The Power Plant was evaluated along with the Mill proper.

Sugar Mill: The following contaminants were detected above cleanup level at the Mill/Power Plant: arsenic, Aldrin, Dieldrin, Heptachlor, alpha chlordane, gamma chlordane, benzo (a) pyrene, benzo (b) fluoranthene, and dioxin-TCDD.

Seed Dipping Plant: No contamination above cleanup levels was detected at the Seed Dipping Plant.

Settling Ponds: No contamination was detected at the Lihue Plantation Settling Ponds.

#### 9. Hamakua Sugar Co. - Assessment along Hamakua Coast, Hawai'i

A site reconnaissance effort was conducted in April 2003 at eleven former sugar mill sites along the Hamakua Coast on the Big Island. These sugar mill sites have been closed for more than 30 years. A sampling and analyses plan for these mills will be prepared to determine if these sites pose a threat to human health and the environment. Sites for assessment are as Paauhau Seed Dipping Plant, Paauhau Sugar Mill, Paauilo Seed Dipping Plant, Paauilo Sugar Mill, Papaiko Sugar Mill, and Waipunalei Seed Dipping Plant.

#### 10. Ka'u Agribusiness Herbicide Mixing Plant, Kau, Hawai'i

A document submitted to Hawai'i Department of Health (DOH) regarding arsenic investigation at Ka'u Agribusiness herbicide Mixing plant was reviewed. The investigation report failed to address the potential dioxin contamination at the site. Further soil sampling is justified because samples collected from other former herbicide mixing plants in Hawai'i have shown elevated levels of dioxins/furans above residential and industrial Preliminary Remedial Goals (PRGs). A letter was issued to Ka'u Agricultural Business requiring further investigation for dioxin/furans before any remedial activities or soil control measures are implemented. A work plan was submitted by Brewer Chemicals to collect soil samples for

dioxin/furans analyses. HDOH reviewed and approved the sampling plan in June 2004. Analytical result of one composite sample showed elevated level of dioxin 2,3,7,8 TCDD (TEQ) above the 1 ppb clean-up level. A meeting was conducted between the Kamehameha School, C. Brewer, and their respective contractors on the remedial design and further site characterization

#### 11. Ka'u Sugar Mill, Kau, Hawai'i

The Ka'u Sugar Mill ended operations in March 1996. Most of the buildings were dismantled, and the PCB transformers were removed and shipped to the mainland. The only buildings left on site are the warehouse, carpentry shop, and boiler room for the seed dip tank. Concrete foundations are all that remain of the other structures. The area where the hydro separator was located is now filled with a soil with an earthen berm. There are two seed dipping tanks. A company from El Salvador bought most of the equipment.

The site owners were contacted and a site reconnaissance was conducted in November 2003.

The possible problems associated with the Ka'u Sugar Mill are as follows:

- a. Pesticide/herbicide contamination brought about by sugarcane production and operations, including onsite fertilizer storage and seed dipping tank material that may have impacted the soil throughout the site.
- b. Run-off of oils and solvents from vehicle maintenance and equipment.
- c. Lead contamination from lead based paint along with lead and heavy metals from areas where used oil was stored.
- d. The transformers that were cleaned and removed contained PCBs.
- e. There are residents and workers within 200 feet of the mill.

#### 12. Puna Sugar Mill, Kea'au, Hawai'i

The Puna Sugar Mill closed its operations in 1984. The land was divided into two parcels. Hawai'i Electric and Light Company (HELCO) bought one half, and the other is currently owned by Puna Sugar Mill, LLC. Space in this second half is rented out to different people. Some of the mill structures remain onsite.

The HEER office contacted the owner of the Puna Sugar Mill, LLC parcel, and a site reconnaissance was conducted in July 2003.

Apparent problems associated with the Puna Sugar Mill site include:

- a. The pesticide/herbicide contamination brought about by sugarcane production and operations.
- b. The unknown sludge leaking from an above ground storage tank installed after the mill closed down
- c. Possible contamination of lead and heavy metals occurring in the soil from used oil runoff and structural paint.
- d. HELCO workers are currently employed within 200 feet of the former mill.
- e. Two drinking water wells are located on the HELCO parcel of the former mill.

## 13. Paia Sugar Mill, Paia, Maui

The Paia Sugar Mill closed its operations in September 2000. The warehouse and hydro separator have been dismantled. The rest of the sugar mill structures remain onsite, and include the mill, machine shop, cane truck shop, and boiling house. A Philippine based company bought and shipped some of the mill equipment to the Philippines. One tenant leases space in the machine shop. HC&S consolidated its sugar productions to its Puunene Mill where the cane seed dipping plant and pesticide storage operations were conducted for both mills.

A site reconnaissance was conducted in April 2003. A sampling and analysis plan (SAP) was completed and approved by EPA in February 2004. Field sampling was conducted in March 2005. The Environmental Co., completed the draft report for the SI to DOH for review in August 2005.

Apparent problems associated with the Paia Sugar Mill site include:

- a. The petroleum contamination brought about by several fuel underground storage tanks (UST). Diesel, gasoline, and fuel oil #6 were some of the petroleum products used at the Paia sugar mill. There was a former service station located on the site.
- b. There is a transformer yard near the warehouse. Currently there are no records that the transformers contained PCB's, though no testing has been performed.
- c. Contamination of lead, heavy metals, and solvent may occur in the soil from used oil runoff.
- d. Residents, workers, and a school are located within one-quarter mile of the former Paia Sugar Mill, but greater than 200 feet.
- e. Paia Bay, which opens into the Pacific Ocean, is approximately one mile down gradient from the former Paia Sugar Mill.
- f. Paia Bay is a habitat for endangered animals as well as the Pacific Ocean, which is considered a fishery.

#### 14. Wailua Homestead Wells, Kapaa, Kauai

In 1999, mercury was detected in Well A and Well B at the Wailua Homestead Wells in Kauai due to the mercury used in the pumps. The pumps were removed individually and placed on tarps on the ground adjacent to the wells. Mercury leaked into the soil during the removal of the pumps.

Brewer Environmental Systems was contracted to delineate the soil contamination around the two wells and the temporary pump storage area. Contaminated soil was excavated. The wells were put back in service, putting them through a granulated activated carbon (GAC) treatment facility. The HEER office contacted the Kauai Department of Water to discuss the mercury contamination found along the site boundaries. A sampling plan to delineate further contamination in the soil around the site, near the outfall and ditch was suggested to the Kauai officials.

#### 15. Kapaa Landfill - Kapaa Quarry Road, Kailua, Oahu

The Kapaa Landfill is comprised of an active landfill area located adjacent to an abandoned basalt quarry, two inactive landfills located adjacent to and within the Kawainui Marsh, and a quarry waste site within Kawainui Marsh. The Kawainui Marsh covers more than 740 acres and provides habitat to four federally listed endangered species. Groundwater depth ranges

from 0.3 meters to 30 meters below the ground surface (bgs) and flows in an east to northeast direction, discharging from the landfill areas into Kawainui Marsh. It is not known if hazardous materials were deposited at the landfills. Available data for the site indicate levels of copper and zinc above their respective ambient water quality criteria (AWQC).

A field sampling was conducted in August 2001 to determine if leachate from the landfill is adversely impacting the marsh. Sediment and surface water samples were collected from the Kawainui Marsh and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/PCBs, and metals. Analytical data for groundwater and leachate samples collected for landfill monitoring requirements will be reviewed to assess the likelihood of the landfill as the contaminant source. As such, sediment and surface water samples were also analyzed for various general chemistry parameters to facilitate this comparison. The wet season sampling was conducted in April 2004. The final SI report was completed and submitted to EPA for review.

#### 16. Kahului, Kanaha Pond Industrial Sites (East & West), Maui

The HEER Office completed sampling in the East Pond and West Pond sites as of August 2003. The subsequent report is being reviewed by the U.S. EPA Region 9 Superfund Office. The results of the sampling effort for the West area are being prepared in a formal report to EPA Region 9.

#### 17. Hawai'i Army National Guard Waiawa Gulch, Oahu

The preliminary assessment and site inspection data for the Waiawa Gulch site were evaluated by the HEER Office using EPA's federal hazard ranking system based on sampling data collected in December 2000. Due to staffing problems and higher priorities, the report for this site was not completed. The HEER Office will use the non-emergency response contractor to complete the report in collaboration with the Army. The report is expected to be completed by the end of the calendar year 2005. We will use this site information and writing exercise as a training mechanism for the new hire coming on board in early August, 2005.

# 2.4.5 <u>Department of Defense State Memorandum of Agreement (DSMOA)</u> Program

The Department of Defense continued to provide support to the HEER Office through the Department of Defense/State Memorandum of Agreement (DSMOA) program in FY 2004. While program staff vacancies have influenced the progress of the Department of Defense sites, all of the work requested by the Services was completed in a timely manner. The HEER Office is continuing recruitment in order to fill the vacant positions in this program.

#### 2.4.5.1 Army Installation Significant Sites

The following sites are being managed by the U.S. Army with oversight from the HEER Office and work being performed by contractors. Site work continues at many sites throughout the Islands.

## 1. Kunia Field Station, Oahu

Kunia Field Station is an underground communication facility. The station is located one mile south of Schofield Barracks along Kunia Road. In 1994, a 305,000-gallon concrete underground storage tank (UST) was removed. During the removal the Army discovered that there was an uncontrolled release of diesel fuel. Some of the diesel contaminated soil was removed at the site.

Initial investigations failed to properly delineate the full extent of the contamination. In March 2000, the Army conducted further subsurface investigations by drilling fifteen borings down to 200 feet below grade. The remedial investigation report showed that there was significant diesel oil contamination in the subsurface soils. DOH reviewed the report and recommended to the Army that a cap be installed over the area with the diesel oil contaminated subsurface soil. The Army agreed to install a cap over the diesel contaminated subsurface soil area. The Army completed the 60% design plan of the cap. The State reviewed and identified some deficiencies in the cap design. The Army is addressing the deficiencies by revising the cap design.

DOH received a request from the Army Corps of Engineer to truncate the cap at the property line in February 2005. The cap truncate request was made because the Army does not own the surface property outside of Kunia Field Station property line. Percolation test of the fill material above the diesel contaminated soil area was conducted in an attempt to waive the cap installation. However, the percolation model indicated that it is necessary to install a cap over the former UST location for the protection of groundwater. The Army completed the 100% cap design plan and submitted to DOH in July 2005. DOH approved the 100% design, and the construction began on July 25, 2005. The liner installation should be completed in August 2005, and the Operation and Maintenance (O&M) plan will be submitted to DOH afterward.

#### 2. Schofield Barracks, Oahu

Trichloroethylene (TCE) has been detected in the drinking water wells at Schofield Barracks. The Army has been aerating the water to volatilize the solvent out of the water for the protection of human health. The Army had conducted further investigation to determine the source of TCE contamination with an attempt to eliminate future threat. The source of the contamination is still unknown. The Army chose groundwater treatment system as a final remedy, and regular monitoring of groundwater in the area will continue.

A Record of Decision (ROD) was signed for the remaining sites. The Army submitted a request to the U.S. EPA to have the site de-listed from the National Priority List (NPL). The site was removed from the NPL on August 10, 2000.

Regular monitoring of the ground water in the area has shown that the level of TCE contamination is fairly constant. The Army continues to repair the landfill cap when cracks are discovered.

The Army completed a five-year review. The report indicated that TCE contamination in the groundwater has not migrated very much, and the aeration treatment of groundwater is working effectively in removing TCE for drinking water standard. The Army continues to monitor the groundwater regularly.  $CCl_4$  continues to be below the maximum contaminant level (MCL) of 5  $\mu$ g/l. Landfill cap inspections and soil gas monitoring are also conducted on a regular schedule. The Army continues to submit reports to DOH.

The Army has signed a new contract with a Performance Based Contractor, Versar Inc. (Versar), to conduct environmental work for the Army at Schofield Barracks. Versar had recommended the Army to reduce the groundwater monitoring frequency for 5 wells from quarterly and semiannually to annually. DOH concurs with the recommendations. This action may require an amendment of the ROD approved by DOH and the Environmental Protection Agency (EPA).

## 3. Tripler Army Medical Center, Oahu

The Tripler Army Medical Center (TAMC) Landfill is located on the west side of the TAMC installation. The landfill was active from 1947 through 1974. Early landfill use was restricted to construction debris from the construction of TAMC. The landfill was subsequently used to dispose of incinerated medical waste, laboratory wastes, maintenance waste, food waste, and construction and landscaping debris.

Unspecified waste from Fort Shafter was also disposed in the landfill. The Army conducted a Preliminary Field Screening Investigation to determine the presence or absence of hazardous substance contamination from the landfill operation. The investigation found polynuclear aromatic hydrocarbons, pesticides, lead, and dioxin chemicals in the surface and subsurface soils in the interior of the landfill. Monitoring wells were installed down to the basal groundwater aquifer and laboratory analysis of the water found no chemical contamination. The remedial investigation (RI) conducted by the Army confirmed the levels of dioxin, polychlorinated biphenyls (PCBs), and pesticides in the surface soil, subsurface soil, and sediment.

The Army installed a cap over the landfill to address any human health risk posed by the contaminants. A drainage channel was also installed to handle the rainwater runoff from the landfill. Rainwater runoff from a storm severely eroded the drainage channel piping and the soil fill material. The Army is redesigning the drainage channel and working on developing a Long-Term Monitoring Plan for ground water under the landfill in order to maintain the integrity of the soil cap.

The Hawai'i Department of Health (DOH) was notified that the Army had funding approval for the emergency repair of the landfill drainage system in February 2005. The repair work will be divided into two phases. The emergency repair fund only covers Phase 1 for partial shotcrete drainage channel construction on the edge of the landfill cap to protect the landfill cover. Phase 1 will include partial construction of a one-sided open-drainage channel on the southern edge of the landfill cap. Phase 2 will complete the construction of the open-drainage channel on the opposite side of the same channel. The Phase 1 construction of the landfill drainage system and cap repair is expected to begin in the later part of 2005. Phase 2 funding is pending upon future request and approval, possibly in 2006.

# 2.4.5.2 Navy Installation Significant Sites

#### 1. Barbers Point Naval Air Station (NAS), Oahu

In 1993, the Base Closure and Realignment Commission placed NAS Barbers Point on the Base Realignment and Closure (BRAC) list. The base closed on July 2, 2000. The airport has been transferred to the State Department of Transportation. Other parcels are in the process of either being transferred or remediated first and then transferred.

The Navy, the EPA, and the State of Hawai'i make up the Barbers Point BRAC Cleanup Team. The Navy formed BRAC to make decisions on closure-related environmental issues. The Governor signed the Community Redevelopment Plan providing an overall reuse strategy for the conversion of the base to civilian use after its closure in 2000.

A Restoration Advisory Board (RAB) was established in 1994 to support community involvement in the environmental decision-making process. Cleanup of the Navy sites is being correlated with the strategy to make the sites usable in an expedited time.

The Navy has completed a removal action by excavating lead and antimony contaminated soil from the former firing ranges. The Navy has also completed removal actions at the Old Engine Test Cell Area, the Coral Sea Road Coral Pit, the Former Sewage Treatment Plant, the Southern Trap and Skeet Range, the Northern Trap and Skeet Range, and the Hazardous Waste Accumulation Area #6

An ecological risk assessment was completed on Ordy Pond as the Navy is proceeding to clear the site for transfer to the University of Hawai'i. The Navy has closed and capped the Consolidation Unit and is continuing to find recipients for the remaining available parcels (i.e. former northern and southern trap and skeet ranges).

#### 2. Camp Smith, Oahu

The Navy completed removal site evaluation sampling operation and the removal site evaluation report for the Old Pistol Range site. The report showed that there is a large amount of lead contaminated soil on the site that requires cleanup. The Navy is working to develop a plan to cleanup the lead contaminated soil at the site.

#### 3. Kaneohe Marine Corps Base, Oahu

While a landfill and a fuel farm facility require further evaluation, work is not planned for the immediate future. At present, the Navy did not budget for any required work during the last fiscal year.

The following is a list of planned cleanup activities.

- a. Range Disposal Area, Assessment/Site Inspection (PA/SI), FY 2013
- b. Fire Fighting Training Area, medium priority, Remedial Investigation/Feasibility Study (RI/FS), FY 2010
- c. Ordinance Munitions Area, RI/FS, FY 2013
- d. Fuel Farm Sludge Disposal, RI/FS, FY 2010
- e. Above Ground Storage Tank (AST), RI/FS, FY 2006

#### 4. Naval Computer and Telecommunications Area Master Station Pacific, Oahu

The Naval Computer and Telecommunications Area Master Station (NCTAMS), facility was placed on the National Priorities List (NPL) in May 1994. NCTAMS is composed of two sites, a Naval Radio Transmitting Facility (NRTF) at Lualualei, the main station, and a receiver site in Wahiawa. NCTAMS Wahiawa is located on the eastern side of the highest part of the Schofield Plateau and about one mile east of Whitmore Village. The Lualualei Naval Radio Transmitting Facility is located in Lualualei Valley and is contiguous with Naval Magazine Lualualei.

Earlier site investigations detected polychlorinated biphenyls (PCB) contamination in the soil around electrical transformers. The investigation found that maintenance technicians checking the transformer oil, which contained PCBs, were discarding the oil samples directly onto the ground around the transformers. In 1991, the Navy conducted a removal action by excavating the PCB contaminated soil around several of the transformers and sending it to the mainland for proper disposal. This site investigation identified 15 sites that require further investigation at NRTF Lualualei and NCTAMS Wahiawa.

The Navy has completed the remedial investigation at the Old Wahiawa Landfill and the Building 6 Disposal Area. The Navy has also completed the removal action at the transformer

sites at both NCTAMS facilities by excavating PCB contaminated soil and storing it for treatment

The Navy selected a contractor to perform the thermal desorption treatment of the PCB contaminated soil from NCTAMS, Pearl Harbor Naval Complex, Waikele Branch Naval Magazine, Lualualei Branch Naval Magazine, and the Former Barbers Point Naval Air Station. The thermal desorption treatment unit was constructed and successfully treated a total of 44,500 cubic yards of PCB contaminated soil in August 2004.

## 5. Pearl Harbor Naval Public Works Center-Pearl City Peninsula Landfill, Oahu

The landfill is located on the north shore of Middle Loch and operated from 1965 until 1976. The site is currently capped with a two-foot thick layer of crushed basalt. An Investigation indicated the presence of dioxin, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), trichloroethylene (TCE), and fuel products. The Navy completed a removal action, which involved repairing large cracks in the landfill cap, covering some black sand that was on the surface of the landfill and capping some asbestos material that was recently discovered on the border of the landfill.

The Navy is presently preparing an ecological risk assessment on the Waiawa Unit National Wildlife Refuge, which is adjacent to the landfill. The Navy is also accomplishing long-term monitoring of the groundwater under the landfill and has completed eight quarterly Long-Term Monitoring Reports. The reports show some elevated levels of metals contamination in the ground water. The Navy also completed the Baseline Risk Assessment Work Plan for more field sampling for the Waiawa Unit.

# 6. Pearl Harbor Naval Shipyard Battery Shop Building 394, Oahu

The Battery Shop is an open-air facility used to clean, disassemble, and restore lead-sulfuric acid batteries before 1990. An estimated 60,000 gallons of battery acid fluid was discharged into an unlined disposal pit on the site. Lead residues from battery disassembly operations were also disposed in the pit.

Site investigations have found high lead contamination in the former pit area and in the surface soil around the battery disassembly area. Lead contamination in the soil was as high as 214,000 parts per million (mg/kg). The Navy conducted a complete site characterization and determined the full extent of the lead contaminated soil on the site. The Navy conducted a removal action on the lead contaminated soil utilizing an in-situ electrokinetic treatment process. The electrokinetic treatment process was not successful in removing enough lead from the contaminated soil. The Navy completed a removal action work plan to use soil stabilization to treat the lead contaminated soil. The Navy has subsequently changed the removal action work plan from soil stabilization to installing a cap over the lead contaminated soil.

#### 7. Pearl Harbor Naval Shipyard Building 8, Oahu

Building 8 is located in the Naval Shipyard Industrial Area on the East Loch of Pearl Harbor. It served as a power plant, an equipment test facility and a pipefitting shop. Site investigations revealed that subsurface oil is accumulating within Building 8 sumps and other subsurface structures adjacent to the building. During heavy rainfall events, oil sheens in Pearl Harbor around Dry Dock No. 1 are suspected to be caused by oil migrating along the conduits of the Building 8 storm drain system and into Pearl Harbor. An oil plume up to several feet thick has been identified in the ground around Building 8. The Navy has installed an active

extraction system to contain and extract the oil from the plume under the site. To date, the Navy has recovered a total of 24,823 gallons of oil at the site.

# 8. Pearl Harbor Naval Shipyard Oscar 2 Pier, Oahu

The Oscar 2 Pier is located on the western corner of the naval shipyard. The site is adjacent to Building No. 177, a power plant that is no longer in service. Black oil was noted on the northwest shore off the Oscar 2 Pier. The oil appears to be old residual fuel oil with a tar like viscosity much like the Navy Special Fuel Oil and contains PCBs at just above the 2 ppm level. Two permanent oil extraction wells, installed in the past to collect oil in the ground and prevent it from going into Pearl Harbor, are located near the site. To stop the release of oil presently going into Pearl Harbor, the Navy has decided to install a passive trench recovery system about 150 feet long along the shoreline at the site. The passive trench recovery system is the primary technique for recovering oil in the subsurface areas of the site. The system is working well with a total of 16,262 gallons of oil recovered to date.

# 9. Pearl Harbor Naval Station Aiea Laundry, Oahu

Aiea Laundry is a laundry facility owned and operated by the Navy, which did dry cleaning from the early 1950's to 1998. The facility is located on the corner of Moanalua Road and Kaimakani Street in Aiea. St. Elizabeth Church and School are on the west side of the laundry with Aiea Elementary School to the east. Site investigations have found releases of drycleaning solvent (perchloroethylene) and Stoddard solvent from several underground storage tanks and from a drainage swale outside the facility. Solvent and solvent vapors remain in the soil beneath the site. The contaminants include perchloroethylene, trichloroethylene, dichloroethylene, and vinyl chloride, a known carcinogen.

A soil vapor extraction system was installed on the site to remove contaminate vapors especially vinyl chloride from the soil. Ground water sampling from installed monitoring wells found diesel fuel in one well and perchloroethylene in three wells on the south side of the site. The diesel fuel free product that is floating on the groundwater is being recovered by the Navy. The Navy installed nine offsite ground water monitoring wells and sampling results showed the perchloroethylene contamination in the ground water had migrated offsite to Pearl Harbor. This site is slated to be transferred to the State Department of Hawai`ian Home Lands (DHHL) from the federal government.

The HEER Office is working with DHHL to ensure that all needed remedial activities are completed to the satisfaction of the State before the property is accepted. The Navy has completed the draft remedial investigation/feasibility study report. The State reviewed the report and sent comments to the Navy. The Navy has resumed the ground water monitoring program for the solvent and diesel contaminated groundwater. The ground water analytical results continue to show high levels of perchloroethylene contamination in the ground water in offsite monitoring wells.

#### 10. Pearl Harbor Naval Station Ford Island Landfill, Oahu

The Ford Island landfill is located on the southwestern end of Ford Island. This site was used for burning and disposal of solid waste from the 1930's through the 1980's. The solid waste came from the Naval Air Station on Ford Island and consisted of part solid waste and part metal scrap.

A site investigation revealed hazardous substance contaminate concentrations in the ground water under the landfill below levels that would pose a threat to Pearl Harbor. However, debris on the surface of the landfill required some corrective action. The Navy accomplished

a removal action by placing a cap over the landfill in December 1996. Long–term ground water monitoring was performed on the landfill, which detected elevated levels of cadmium, zinc and copper in the water that exceeded state surface water quality standards. The Navy resumed the ground water monitoring program and continues to monitor the metals contamination in the ground water.

#### 11. Pearl Harbor Sediment Study, Oahu

The Navy is conducting a study of the sediments in the Pearl Harbor Basin to determine what effect the Navy's operation at Pearl Harbor has had on the harbor itself. The site encompasses the entrance channel to the estuary, West Loch, Middle Loch, East Loch, and Southeast Loch. Naval operations conducted adjacent to the site have included fuel storage, handling, transfer, and recycling facilities as well as operation, maintenance and support facilities, and military landfills. Past waste handling and disposal methods, although acceptable at the time, may have caused unexpected long-term problems at some locations through the release of toxic and hazardous substances into the soil and ground water at sites surrounding the estuary as well as the estuary itself.

The Navy developed a sampling and analysis plan and completed the sampling of sediment and fish in November 1996. Analytical results of sediment, fish and crab tissue were received. An evaluation of analytical results for fish and crab tissue samples confirmed PCB and pesticide contamination. As a result, the Department of Health issued a fish advisory against eating fish caught in Pearl Harbor. The Navy recently completed an ecological risk assessment to determine whether contaminates present in the harbor sediments pose a threat to the environment. The Navy is in the process of completing the remedial investigation report which will determine the threat that the contaminates in the sediment pose to the environment.

#### 12. Pearl Harbor Subsurface Fuel Investigation, Oahu

The subsurface fuel investigation site encompasses three areas: Area 1 consists of abandoned underground tanks; Area 2 includes the Public Works Center gas station, the fuel reclamation facility and the diesel purification plant; and Area 3 consists of scattered underground storage tanks and fuel lines in the Halawa Service Station and Hotel Pier Area. The types of fuel that are present on the site are diesel, gasoline, JP-5 (a jet petroleum fuel), kerosene, Navy special fuel oil, Bunker C, and lubricating oil.

Free product plumes have been found in all three areas. The Navy completed a remedial investigation and assessed the nature and extent of the fuel contamination at the site.

Based on the results of the remedial investigation, the Navy installed removal action alternatives that involved trench barrier walls and passive oil recovery systems at the Hotel Pier Area (July 2001), Magazine Loch Area (March 2002), and the Quarry Loch Area (July 2002). These passive oil recovery systems have not performed very well in recovering oil with only 323 gallons recovered at Hotel Pier, 236 gallons recovered at Magazine Loch, and 2 gallons recovered at Quarry Loch. The Navy has completed work plans to accomplish characterization sampling to determine the subsurface fuel contamination situation in the lower tank farm/shipyard geographic study area.

# 13. Red Hill Oily Waste Disposal Pit, Oahu

This site was constructed in the early 1940's and is located within the Red Hill fuel tank farm area. An unlined pit located in the central portion of the site was used for the disposal of oily residues generated during periodic fuel tank cleaning operations and oily waste generated by

leaks and drips from fuel piping systems associated with the Red Hill fuel storage tanks. The unlined pit was replaced with a stilling basin made of gunite and asphaltic-concrete in 1972.

The Navy conducted a remedial investigation of the site and found petroleum hydrocarbon and polynuclear aromatic hydrocarbon (PAH) contamination in the subsurface soils where the old unlined pit was located and under the stilling basin. Petroleum hydrocarbon contamination was also found in the shallow groundwater system located under the stilling basin. Based on these results, the Navy conducted a removal action which involved removing the stilling basin and the petroleum contaminated soils under the stilling basin and where the old unlined pit was located.

To determine whether the petroleum hydrocarbon contamination did infiltrate into the basal groundwater aquifer, the Navy has installed monitoring wells into the basal aquifer and sampled the basal groundwater. Analytical results have shown no contamination in the basal aquifer. However, soil samples taken on various areas of the site show some high levels of petroleum contamination.

The Navy has completed the characterization report for the diesel release at the 8000-gallon aboveground storage tank area. The Navy has submitted a request for a no further action (NFA) determination for the petroleum releases at the Red Hill Oily Waste Disposal Facility. The State evaluated the Navy's NFA request and concurred with the no further action determination for the petroleum releases at the facility.

# 2.4.5.3 Air Force Installation Significant Sites

The DOH oversight at Air Force (USAF) installations has been hampered by the lack of a full-time project manager. Hiring a Remedial Project Manager exclusively for USAF sites is a priority of the HEER Office. The review and oversight responsibility for the Air Force sites will be performed by the Army and FUDS project manager ABW until the new remedial project manager is hired.

Among the seven 15<sup>th</sup> Air Base Wing (15) managed installations (six on Oahu and one on Kauai), more than 140 environmental projects have been inventoried, including over 100 sites and over 40 areas of concern. The vast majority of the projects are located at two installations, Hickam Air Force Base (AFB) and Bellows Air Force Station (AFS). The USAF and its contractors have updated Management Action Plans (MAPs) for major sites during FY 2004.

# Bellows Air Force Station (AFS) Installation Restoration Program, Oahu

The Installation Restoration Program (IRP) at Bellows includes 20-IRP sites and 17 Areas of Concern (AOCs). Site investigation, sampling and remediation at Bellows AFS continue.

- 1. Landfill LF01 Former Base Landfill
  - The project is still in the Remedial Investigation/ Feasibility Study phase. Landfill sites LF23 and LF24 as well as AOC 18 (now called DA101) have been combined with LF01 into one RI/FS for all four sites. The scope of work has been changed for the treatability study that was initially proposed for DA101.
- 2. Landfill LF23 Bellows Hardfill (aka EA07)
  - The remedial investigation for this site has been incorporated into the LF01 Remedial Investigation/Feasibility Study.

## 3. Landfill LF24- Bellows Pier Dump

The remedial investigation for this site has been incorporated into the LF01 Remedial Investigation/Feasibility Study.

4. Sub-Depot Sites: EA01-Former Heat Treatment Shop, EA02- Former Drum Area, SD08- Former Wash Rack, WP07- Former Grease Rack, OT02- Former Septic Tank System

The above-mentioned sites have been designated as No Further Response Action Planned.

## 5. Areas of Concern (AOC)

The remedial investigation for AOC 18 (DA101) has been incorporated into the LF01 Remedial Investigation/Feasibility Study. AOC20 and AOC21 have been designated as No Further Response Action Planned.

#### Hickam Air Force Base Installation Restoration Program (IRP), Oahu

Hickam Air Force Base (AFB) Installation Restoration Program (IRP) includes 42 IRP sites and 25 AOCs (including Fort Kamehameha sites). Site investigation, sampling and remediation at Hickam AFB are an ongoing process. Multiple areas of concern are subjects of on-going investigation.

#### 1. Base-Wide Projects

PCB Site Evaluation and Removal – Four more sites were identified that exceeded the TSCA screening level of 1 ppm. Discussion is still ongoing for whether a TCRA or EE/CA will be used for these sites.

UST Program – All four Comprehensive Remediation Verification Reports are being submitted for signatures from both the Air Force and the State of Hawai`i. The UST Program Manager has been extremely proactive and assertive in coordinating with the HEER Office and the Hawai`i UST Section.

Waste Management Plan – The status of the Waste Management Plan has not changed.

Multiple AOC Site Inspection – The results of these AOCs have not been released as of this date. Preliminary data has been screened and it appears that potential IRP sites will be added to the inventory. A meeting to discuss the data is pending data validation by.

#### 2. SS01 Subsurface Fuel Plume

A Supplemental Remedial Investigation, Feasibility Study, Proposed Plan, and Record Decision document has been submitted and reviewed. A finalized version of the document was submitted on June 10, 2005. Plume monitoring and Monitored Natural Attenuation are still in effect.

#### 3. Former Tank Farm (SS10)

A Category III NFRAP document has been submitted and reviewed for this site. The responses to HDOH comments were found to be sufficient and concurrence with the NFRAP decision was granted. The decision document is currently out for public review.

#### 4. SS11 North and South

The storm drain lining Time Critical Removal Action was completed on May 17<sup>th</sup>-18<sup>th</sup>, 2005. Groundwater Monitoring reports were also submitted and reviewed for this site.

5. John Rodgers Tank Farm (SS13) & Par 3 Golf Course (SS15)

No changes have occurred regarding this IRP site. A meeting to discuss project endpoints is still in progress.

6. Three Drainage Canals: the Manuwai (SD02), Kumumauu (SD03), and Motor Pool Storm Drain (SD04) Canals

Site SD02 – Data from the second work plan addendum has not been submitted to the Department of Health. Preliminary discussions of the data seem to indicate that the extent of PCB accumulation in larger fish is greater than that in smaller fish, which is to be expected. Submittal of the data is expected in the fall of 2005.

Site SD04 – The Remedial Investigation and Feasibility Study were reviewed and finalized. A peer review was held from March 30<sup>th</sup> to April 1<sup>st</sup> and concluded that further sampling was required where hot spots of PAHs were detected. A work plan addendum was submitted and reviewed for the additional sampling event.

Site LF14 – Landfill (LF14) within the Runway 8L Out-Grant Area - The site has been in the proposed plan stage since July of 2004. The proposed remedy for this site is 1) to restrict site access and 2) perform long term groundwater monitoring for the contaminants of concern (PAHs). The proposed plan is still slated for a public meeting in 2005.

7. Landfills (LF01 & LF17) with potentially hazardous wastes

Site LF01 – The peer review has been completed and a proposed plan has been submitted to Air Staff for review as of late May 2005. The proposed remedy involves Land Use Controls preventing excavation of the subsurface soil and Five Year reviews.

Site LF17 – The Remedial Investigation report has been reviewed and finalized as of April 22, 2005. A Category III NFRAP decision document is being prepared for review.

8. Mamala Bay Golf Course Landfill LF05

Site LF05 – The public meeting was held on March 29<sup>th</sup> and the comment period ended as of early April. A Record of Decision document is currently being prepared for submittal in early June.

9. Atomic Energy Commission Area (OT02)

This site is still in the Proposed Plan stage. The contaminants of concern are vinyl chloride and dichloroethylene, both of which are thought of to be degradation products of other chlorinated compounds. A public meeting is still slated for the fall of 2005.

Former Kamehameha Drum Site (SD37) and other Areas of Concern (AOCs):
 EA56b – Petroleum, Oil, and Lubricant (POL) Valve Pit B, EA57 - Former Base Motor Pool, and EA58 - Former Motor Pool

Category II No Further Response Action Planned documents have been submitted and sent for Air Staff review.

#### **Other Significant Air Force Sites**

1. Fort Kamehameha, Oahu

This property was received from the Army as part of a land trade for Wheeler Field. This area is part of the multiple AOCs work plan. The AOCs associated with this area are EA17, EA18, EA65, EA80, and AF01.

- 2. Hickam POL Pipeline and Fuel Storage; including Kipapa Fuel Storage Annex (FSA), Valve Pit #17 (VP17) and Waikakalaua Fuel Storage Annex, Oahu
  - a. Hickam POL Pipeline Cleaning Project -

Cleaning of multiple pipeline sections on Kamehameha Highway has commenced. The goal is to clean out the pipeline from ST18A to Pearl Harbor.

b. Hickam POL Site 18A -

Rights of entry are still being worked on. Public Storage is working with the Air Force on this issue.

c. Hickam POL Kipapa Fuel Storage Area-

No new information has been presented regarding this project.

d. Hickam POL Waikakalaua Fuel Storage Area -

A peer review of the Feasibility Study for this site has been slated for August 2005. The proposed alternative is to implement land use controls to prevent the drilling of wells in the middle of the tank farm.

e. Hickam POL Valve Pit 17 -

Bioventing optimization is proceeding as planned by the contractor.

# 2.4.6 Formerly Used Defense Sites (FUDS) Program

The Formerly Used Defense Sites (FUDS) Program is a massive national undertaking to identify hazardous-materials-contaminated properties which were formerly owned, leased, possessed, or operated by the Department of Defense (DOD) or its contractors prior to 1986, and which are no longer under the control of DOD (i.e., the land is public or privately owned). The inventory or properties are being evaluated for risk, and the properties will be cleaned up.

The Army is the executive agent for the FUDS Program and the US Army Corps of Engineers (USACE) is the operational segment that manages and executes the Program. Regulatory authority for the FUDS program lies with the State, Territory, or Commonwealth via the DSMOA Cooperative Agreement.

U.S. EPA under various environmental statutes (CERCLA, Resource Conservation and Recovery Act (RCRA), Safe Drinking Water Act (SDWA) may become involved in reviewing, compelling, or undertaking cleanups when imminent and substantial endangerment of the public health and the environment is threatened, but they are not the lead authority at non-NPL sites. Various other agencies may also have jurisdictional interests in the Program: Federal land and resource managers, health risk managers, and State, Territorial, and tribal agencies.

Community involvement in the process is important. Nationally there are over 9,000 FUDS properties; within Region 9 there are more than 2,000 of these, and of that number, about 600 are within the Pacific Ocean Division (POD), which includes the State of Hawai'i. As of December 2002, there were 474 FUDS Projects within Hawai'i (as of this date the inventory showed there were 377 eligible FUDS Properties in Hawai'i).

FUDS Management Action Plan – The FUDS POD annual meeting was held on June 13, 2005. Issues concerning the State Management Action Plan were raised and answered and an updated version of the SMAP should be presented soon. The USACE contractor has prepared a Statewide Management Action Plan (MAP) for the Defense Environmental Restoration Program Formerly Used Defense Sites (DERP-FUDS) in Hawai'i (2003). The purpose of the Statewide MAP is to provide a compilation of pertinent

data and restoration activities for all active DERP-FUDS properties located within the state to allow meaningful involvement by regulators in the planning and prioritization process, determine the lead regulatory agency for each DERP-FUDS project, and develop a strategy for reaching property closure. In general, the Statewide MAP summarizes the status of restoration programs for each property, prioritizes ordnance and explosive waste (OEW) sites by risk, and anticipates future actions to address environmental damage.

DOH has reviewed this document and provided comments to the USACE. High risk categorization for Hawai'i OEW sites includes seventeen sites: Waikoloa Maneuver Area – Waikola Village; Waikoloa Maneuver Area – Parker Ranch; Nansay, Hawai'i – Ouli; Nansay,

Hawai'i – Puako; Firing Range and Camp; Heeia Combat Training Camp; Pali Training Camp; Gunnery Site; Offshore Waianae Sewage Outfall; Papohaku Ranchlands Subdivision; Kamaole Training Area; Hickam Military Air Field; Ahukini; Oahu Island Target; Pacific Jungle Training Camp; and Popoki Target Area. The USACE is currently involved in fourteen projects under the State of Hawai'i's purview.

1. Waikoloa Maneuver Area, Waikoloa, Hawai'i

A Restoration Advisory Board meeting was held in Waikoloa Elementary School in April. Monies in the range of \$10,000,000 will be appropriated to this project on an annual basis...

2. Maui Airport, Puunene, Maui

A work plan and chemical data acquisition plan for the site investigation at Maui Airport Landfill has been submitted for review. PCB removal work has been stalled due to a dispute between the contractor and the USACE.

3. Opana Point and Gunnery, Makawao, Maui

The removal actions are currently in progress at this site.

4. Heeia Combat Training Camp & Pali Training Camp, Oahu

A Restoration Advisory Board has been formed for both. EE/CA work plans for each site have been slated for submittal during the upcoming fiscal year.

5. Molokai Punakua Bombing and Papohaku Ranchland Target Areas, Molokai

Removal action still in progress with a target end date of summer 2005.

6. Nansay, Hawai'i

Work on this site has been incorporated into the Waikoloa Maneuver Area Phase III Removal Action.

7. Waikane Training Area, Oahu

A Restoration Advisory Board meeting was held on April 12<sup>th</sup> to discuss the Work Plan for the EE/CA.

8. Grove Farm Artillery Range, Kauai

An EE/CA for this site has been submitted and reviewed. A Restoration Advisory Board (RAB) meeting has been scheduled.

9. FUDS Management Action Plan

The FUDS POD annual meeting was held on June 13<sup>th</sup>. Issues concerning the State Management Action Plan were raised and answered and an updated version of the SMAP should be presented soon.

This page left intentionally blank

#### 3 SITE LISTS SUBJECT TO THE STATE CONTINGENCY PLAN

<u>Chapter 128D, HRS, Environmental Response Law</u>, requires that the department publish a list of the sites with releases of hazardous substances for which the department has identified a responsible party, and the responsible party is in compliance, as determined by the department, with an order issued, or an enforceable agreement entered into. Chapter 128D, HRS, also requires the DOH to submit to the legislature an annual report to address the following:

A listing to identify sites eligible for remedial action under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), including a statement as to any appropriation that may be necessary to pay the State's share of the plan.

The Department shall publish and revise, at least annually, a listing of the sites subject to Chapter 128D and any de minimus settlements made under this chapter.

During FY 2005 there were no de minimus settlements.

All of the facility/sites listed in this section have voluntarily entered into agreements to conduct site work such as preliminary assessment, site inspection, removal, or remedial action. Furthermore, the cost for investigation and/or cleanup of the sites is being assumed by the Potentially Responsible Party (PRP) owner/operators of the sites.

The public record State Priority List for sites managed under the state's non-emergency response program, and the VRP, Brownfields, and PA/SI programs are presented in Section 3 and Appendix A.

# 3.1 Hawai'i Sites Listed on the Federal National Priority List (NPL)

Once a site has been ranked and identified as a CERCLIS site, and has been ranked above 28.5 by the Hazard Ranking System (HRS), it may be added to the National Priority List and the EPA may manage the cleanup. There are currently three sites in Hawai`i listed on EPA's National Priority List (NPL) for cleanup. Schofield Barracks was de-listed on August 10, 2000.

- 1. Oahu Del Monte, Kunia
- 2. Oahu Naval Computer and Telecommunication Area Master Station (NCTAMS)
- 3. Oahu Pearl Harbor Naval Complex

# 3.2 <u>Hawai`i Sites Eligible Under the Comprehensive Environmental</u> <u>Response, Compensation and Liability Act (CERCLA)</u>

The following is a list of sites that may be eligible for possible listing under CERCLA. Assessment for the sites listed below is being managed by the HEER Office Preliminary Assessment/Site Inspection (PA/SI) Program portion of the Site Discovery, Assessment and Remediation (SDAR) Section.

- 1. Hawai'i Hamakua Sugar Co (Former) Paauhau Seed Dipping Plant
- 2. Hawai'i Hamakua Sugar Co (Former) Paauhau Sugar Mill
- 3. Hawai'i Hamakua Sugar Co (Former) Paauilo Seed Dipping Plant
- 4. Hawai'i Hamakua Sugar Co (Former) Paauilo Sugar Mill
- 5. Hawai'i Hamakua Sugar Co (Former) Papaiko Sugar Mill
- 6. Hawai'i Hamakua Sugar Co (Former) Waipunalei Seed Dipping Plant
- 7. Hawai'i Kau Agribusiness Co Inc (Former) Kau Sugar Mill
- 8. Hawai'i Mauna Kea Agribusiness (Former) Hakalau Seed Dipping Plant
- 9. Hawai'i Puna Sugar Co (Former) Puna Sugar Mill
- 10. Kauai Kauai Agricultural Research Center Agent Orange and Pesticide Sites
- 11. Kauai Lawai Valley Cannery
- 12. Kauai Lihue Plantation Co Ltd (Former) Lihue Sugar Mill Combined Sites
- 13. Kauai McBryde Sugar Company
- 14. Maui Hawai'ian Commercial & Sugar Co (Former) Paia Sugar Mill
- 15. Maui Hawai'ian Commercial & Sugar Co (Former) Puunene Sugar Mill Cane Hauler Shop
- 16. Maui Kanaha Pond Industrial West Site
- 17. Oahu Del Monte Oahu Plantation Poamoho Tract
- 18. Oahu Hawai'i Army National Guard Waiawa Gulch Pearl
- 19. Oahu Kapaa Landfill Kapaa Quarry Road Oahu
- 20. Oahu Waialua Sugar Co (Former) Waialua Sugar Mill and Settling Pond

# 3.3 State Site Priority List

The majority of cleanup sites on the State Priority List are identified through the spill/release "notification system" defined by the State Contingency Plan. The notification system requires that all spills and releases, both Comprehensive Environmental Response Compensation and Liability Act (CERCLA) eligible and non-CERCLA eligible (i.e. oil contaminated), are reported to the DOH. All reported spill/release sites are potential candidates for the State Site List. The remainders of State Priority List sites are from referrals by other programs and the HEER Office's site discovery process.

Chapter 128D, Section 7, HRS mandates that sites with potential or known hazardous substances or pollutants or contaminants be ranked for priority for removal and remedial action. Excluding sites subject to emergency response action, every site that is discovered and considered for the state non-emergency response program having potential or known contaminants is ranked and assigned a priority of either high, medium, low, or no-further-action (NFA) by the Initial Site Screening Team (ISST).

The Initial Site Screening Team (ISST) screening and ranking process is one tool used by staff in the HEER Office to determine the potential risk to public health, and welfare, and environment, including natural resource damages that may be posed by contamination or associated with exposure to the contamination. Knowing the cleanup priority and complexity of the contamination aids staff in their determining the most appropriate and applicable cleanup technologies.

The ISST is composed of members of the Site Discovery, Assessment and Remediation (SDAR) Section. The SDAR notifies Potential Responsible Parties (PRPs) associated with contaminated sites by letter reporting the priority ranking of their sites. Sites that are ranked low, medium, or high priority by the ISST may be assigned to a State Remedial Project Manager (RPM) for response action.

Chapter 128D, Section 7, HRS mandates that a list of sites be published annually listing the sites with potential or known hazardous substances or pollutants or contaminants. The list provided in this section presents significant sites undergoing removal and remedial actions. The RPMs within the SDAR Section are managing the oversight for assessment and response actions at the following sites.

- 1. Hawaii 774 Kamehameha Ave Bayside Chevron Service
- 2. Hawaii BEI Pepeekeo Facility BEI Downslope of Former HCPC Maintainance Garage
- 3. Hawaii Equilon Enterprises LLC Hilo Terminal
- 4. Hawaii Excelsior Dairy, Inc.
- 5. Hawaii Hawaii Air National Guard at General Lyman Field
- Hawaii Hawaii Pest Control
- 7. Hawaii Hawaii Volcanoes National Park
- 8. Hawaii Hilo Coast Power Company (Former) Pepeekeo Mill Black Oil Drum Sites
- 9. Hawaii Hilo Coast Processing (Former) Pepeekeo Mill Fuel Storage Tank
- 10. Hawaii Hilo Quality Washerette
- 11. Hawaii Kau Agribusiness Co Inc Kau Herbicide Mixing Plant

- 12. Hawaii Kawaihae Ranch
- 13. Hawaii Keaau Area Arsenic Investigation
- 14. Kauai Borden Meadow Gold Dairy
- 15. Kauai Brewer Chemical Corp Puhi Facility
- 16. Kauai Equilon Enterprises LLC Nawiliwili Fuel Distribution Terminal
- 17. Kauai Island Self Storage LLC
- 18. Kauai Kauai Test Facility
- 19. Kauai Kekaha Sugar Co Ltd (Former) Kekaha Sugar Mill Combined Sites
- 20. Kauai Renaissance Waiohai Beach Resort aka Stouffer Poipu Beach Resort
- 21. Kauai Wailua Homestead Wells
- 22. Maui Chevron Products Company Marketing Kahului Bulk Terminal
- 23. Maui Equilon Enterprises LLC Kahului Bulk Terminal
- 24. Maui Hawaii Wood Preserving Company
- 25. Maui Hobron Ave Area at Kahului Harbor Kahului Harbor
- 26. Maui Maui Electric Co Inc (MECO) Maalaea Power Plant
- 27. Maui Maui Petroleum Inc at Kahului Terminal
- 28. Maui Rex Tire & Supply
- 29. Maui Valley Isle Motors
- 30. Maui Valley Isle Produce (VIP) Food Service Warehouse
- 31. Maui Waiale Landfill Waiale Ash Pile
- 32. Oahu 1189 Waimanu St Koolani Tower Project
- 33. Oahu 1212 Queen Emma St Capitol Place Developmental Project
- 34. Oahu 134 Hamakua Dr GTE Hawaiian Tel Kailua Baseyard
- 35. Oahu 2819 Pukoloa St Pukoloa Wood Treating Site
- 36. Oahu 373 N. Nimitz Hwy Harry and Jeanette Weinberg Foundation
- 37. Oahu 501 Sumner St Iwilei Business Center Ltd
- 38. Oahu 504 N School St Lance Goya's Chevron Service
- 39. Oahu 6640 Hawaii Kai Dr ARCO AM/PM #82102 (Texaco 61-100-0043)
- 40. Oahu 91-1669 Fort Weaver Rd Zippy's Parcel
- 41. Oahu Ala Wai Cove Condominium Apartments
- 42. Oahu Aloha Tower Development Corporation Honolulu Harbor Pier 8 to 14
- 43. Oahu BHP Gasco at Iwilei Benzene Site
- 44. Oahu Chevron Products Company Hawaii Refinery Pipeline Honolulu Harbor Pier 35

- 45. Oahu Chevron Products Company Marketing Honolulu Terminal Marine
- 46. Oahu Chevron Products Company Marketing Honolulu Transportation Terminal
- 47. Oahu Chevron Products Company Marketing Kapalama Terminal Northeast Parcel
- 48. Oahu Chevron Products Company Marketing Kapalama Terminal Northwest Parcel
- 49. Oahu Chevron Products Company Marketing Kapalama Terminal South Chevron Fuel Farm
- 50. Oahu Chevron Products Company Marketing Kapalama Terminal Southwest Parcel
- 51. Oahu City Mill Home Improvement Center at Iwilei
- 52. Oahu Del Monte Fresh Fruit Packing Facility at Kunia
- 53. Oahu Del Monte Oahu Plantation NPL Site
- 54. Oahu DIL Trust
- 55. Oahu Domestic Commercial Fishing Village Honolulu Harbor Pier 36 to 38
- 56. Oahu Equilon Enterprises LLC Honolulu Terminal
- 57. Oahu Fort Ruger Transformer 33
- 58. Oahu Grace Pacific Corporation at Halawa Valley Street
- 59. Oahu Hanua Street Southern Terminus
- 60. Oahu Hawaii Agricultural Research Center Aiea Stream Bed
- 61. Oahu Hawaii Agriculture Research Center Kunia Substation
- 62. Oahu Hawaii Army National Guard at Fort Ruger (Former) Firing Ranges
- 63. Oahu Hawaii Fueling Facilities Corporation at Pier 51A
- 64. Oahu Hawaii Meat Co Ltd
- 65. Oahu Hawaiian Electric Co (HECO) Fuel Oil Pipeline
- 66. Oahu Hawaiian Electric Co (HECO) Iwilei Tank Yard
- 67. Oahu Hawaiian Electric Co (HECO) Mokuone Electrical Substation
- 68. Oahu Hawaiian Miso & Soy Co Ltd
- 69. Oahu Honolulu Harbor
- 70. Oahu Honolulu Harbor Honolulu Harbor Pier 19 BTU Storage Tanks
- 71. Oahu Honolulu Skeet Club
- 72. Oahu Imai Brothers Enterprises (Former) Kalakaua Transmission Inc
- 73. Oahu Kaimuki Pump Station
- 74. Oahu Kaneohe Ranch
- 75. Oahu Kapalama Incinerator Off-Site Contamination
- 76. Oahu Nimitz Highway from Sumner Street to Queen Street
- 77. Oahu Oahu Sugar Co (Former) Ewa Sugar Mill Site

- 78. Oahu Oahu Sugar Co (Former) Ewa Sugar Pesticide Mixing & Loading Area
- 79. Oahu Oahu Sugar Co (Former) Ewa Sugar Southeast Side Site
- 80. Oahu Parcel 8 and 9 Gas Distribution Center (Former) Honolulu Harbor Pier 38
- 81. Oahu Pearl Harbor Kai Elementary School
- 82. Oahu Prince Kuhio Hotel Report
- 83. Oahu PVT Landfill Inc
- 84. Oahu Queen Emmalani Tower
- 85. Oahu Scott's Plating
- 86. Oahu Sears Facility 1578 at Pearlridge Mall
- 87. Oahu Symphony Park East Parcel
- 88. Oahu Tesoro Hawaii Corporation Deep Draft Harbor Barbers Point Pier 5
- 89. Oahu Tesoro Hawaii Corporation Pier 34 Terminal Honolulu Harbor Pier 34
- 90. Oahu Texaco Iwilei
- 91. Oahu University of Hawaii Waimanalo Experimental Farm
- 92. Oahu Waiawa Ridge Development Project
- 93. Oahu Waikiki Bazaar
- 94. Oahu Women's Community Correctional Center
- 95. Oahu Yee Hop Building Maunakea Street
- 96. Oahu Zippy's 580 North Nimitz

# 3.4 <u>Brownfields (BF) Revitalization Program Site List</u>

The DOH, through funding provided by the Environmental Protection Agency, Region 9 (EPA) provides no-cost, environmental site assessments to qualified public or non-profit community organizations. This process focuses on projects that have firm redevelopment plans and can demonstrate a strong commitment to facilitating the redevelopment. The list of active Brownfields project sites is as follows.

- 1. Hawai'i Kea'au Affordable Housing Project
- 2. Kauai Anahola Project Faith
- 3. Oahu BIA Construction Training Center of the Pacific
- 4. Oahu DHHL East Kapolei Affordable Housing Project
- 5. Oahu DLNR Manana Valley Land Purchase
- 6. Oahu DOH Waimano Home Road Campus at Waimano Training School and Hospital
- 7. Oahu HCDA Heeia Land Transfer
- 8. Oahu Iwilei Project
- 9. Oahu Kakaako Brownfield Project Unit 1
- 10. Oahu Kakaako Brownfield Project Unit 2
- 11. Oahu Kakaako Brownfield Project Unit 3
- 12. Oahu Kakaako Brownfield Project Unit 4
- 13. Oahu Kakaako Brownfield Project Unit 5
- 14. Oahu Kakaako Brownfield Project Unit 6
- 15. Oahu Kakaako Brownfield Project Unit 7
- 16. Oahu Kakaako Brownfield Project Unit 8
- 17. Oahu Kakaako Brownfield Project Unit 9
- 18. Oahu Kakaako Brownfield Project Unit 10
- 19. Oahu Kakaako Pump Station
- 20. Oahu Kokua Kalihi Valley Active Living Center
- 21. Oahu Kuhio Park Terrace Units D1 and D2
- 22. Oahu Sand Island State Recreation Area

# 3.5 <u>Defense/State Memorandum of Agreement (DSMOA) Site List</u>

The HEER Office continues to provide oversight to all military site cleanups through the Department of Defense/State Memorandum of Agreement (DSMOA) grant. The military installations listed below are covered by the agreement.

# 3.5.1 **Army Installations**

- 1. Oahu Fort Shafter, Oahu
- 2. Oahu Kunia Military Reservation, Oahu
- 3. Oahu Schofield Barracks, Oahu
- 4. Oahu Tripler Army Medical Center, Oahu
- 5. Oahu Wheeler Army Airfield, Oahu

# 3.5.2 Navy Installations

- 6. Kauai Pacific Missile Range Facility
- 1. Oahu Barbers Point Naval Air Station
- 2. Oahu Lualualei Naval Magazine
- 3. Oahu Naval Computer and Telecommunications Area Master Station (NCTAMS) Pacific
- 4. Oahu Pearl Harbor Fleet Industrial Supply Center
- 5. Oahu Pearl Harbor Naval Public Works Center
- 6. Oahu Pearl Harbor Naval Shipyard
- 7. Oahu Pearl Harbor Naval Station

#### 3.5.3 Air Force Installations

- 8. Kauai Kokee Air Force Station
- 1. Oahu Bellows Air Force Station
- 2. Oahu Hickam AFB
- 3. Oahu Hickam POL Pipeline and Storage Area
- 4. Oahu Kaala Air Force Station
- 5. Oahu Kaena Point Satellite Tracking Station

# 3.6 Formerly Used Defense Site List

- 1. Hawai'i Firing Range and Camp, Lalamilo
- 2. Hawai'i Nansay Hawai'i, North Kohala
- 3. Hawai'i Pakini Bombing Range, Kau
- 4. Hawai`i Wiakoloa Maneuver Area
- 5. Heeia Combat Training Camp
- 6. Kauai Grove Farm Artillery Range
- 7. Lanai Lanai Radar Station
- 8. Maui Gunnery Site, Makawao
- 9. Maui Maui Airport, Puunene
- 10. Maui Opana Point
- 11. Molokai Molokai Punakua Bombing and Papohaku Ranchland Target Areas
- 12. Oahu Offshore Waianae Sewage Outfall
- 13. Oahu Pali Training Camp
- 14. Oahu Waikane Training Area

# 3.7 Department of Health Release Notification Log

The Environmental Health Administration Hazard Evaluation and Emergency Response Office Release Notification Log is presented in Appendix B and contains a listing of all release notifications received during the fiscal year

During FY 2005, the HEER Office received 351 emergency response notifications for the release of hazardous chemicals or oil spills. EP&R SOSCs performed a site visit and/or off-scene coordination was provided to 61 of the emergency response cases, 23 cases were referred to the HEER Office Site Discovery, Assessment, and Remediation (SDAR) Section for follow-on investigation and ranking, and 56 were referred to other agencies. Twenty-two training drill and 14 were sewage spill notifications were also reported.

This page left intentionally blank

#### 4 HEER OFFICE FUNDING AND EXPENDITURES

<u>Chapter 128D, HRS, Environmental Response Law</u>, requires the DOH to submit to the legislature an annual report to address the following:

An annual budget to implement remedial action plans requiring funding by the Environmental Response Revolving Fund (ERRF).

This section presents the FY 2005 HEER Office report on budget and expenditures. The text and tables present State Environmental Response Revolving Fund (ERRF) and State General Fund appropriation and expenditure data, as well as Federal grant funding and expenditure data.

The federal funding data presented in this section has been adjusted to coincide with the State fiscal year as reflected in the Annual Operating Budget and the Financial Accounting Management Information System (FAMIS) Expenditure Reports. The State FY 2005 extends from July 1, 2004 to June 30, 2005, while the Federal FY 2005 extends from October 1, 2004 to September 30, 2005.

# 4.1 **HEER Office Funding Summary**

Table 1 HEER Office Funding Source and Budget FY 2005

Funding Source	Budgeted FY 2005
State General Fund	409,647
State Revolving Fund (ERRF)	2,941,054
EPA Superfund Core Grant	448,444
EPA Superfund PA/SI Cooperative Agreement Grant	189,000
EPA State Response Program (SRP) Grant	*1,500,000
DOD DSMOA Program Grant	271,839
TOTAL STATE AND FEDERAL FUNDING	\$5,759,984

• Applied for \$1,500,000, however the DOH received \$700,000

The State FY 2005 combined total budget for both the State and Federal funding for the HEER Office was \$5,759,984.

During the State FY 2005, the State General Fund appropriation for operations of the Emergency Preparedness and Response and the Hazard Evaluation sections of the HEER Office was \$409,647.

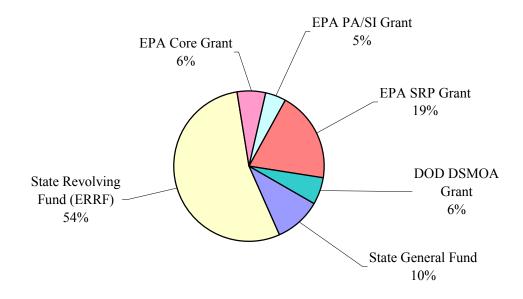
The ERRF budget appropriation to the HEER Office for emergency response and operations was \$2,941,054. The HEER Office utilized the ERRF appropriation for four purposes: operations, response; personnel, and equipment purchases. The original and major purpose of the ERRF is to have money available immediately to respond to a major chemical release or oil spill.

The Emergency Preparedness and Response and the Hazard Evaluation sections of the HEER Office functions are concerned with hazardous materials, emergency responses and the assessment of chemical exposures on human health and are vitally important in protecting Hawai'i's environment. These functions cannot be funded with the federal grant dollars currently received by the office.

A response budget of \$1,094,000 was portioned from the ERRF appropriation to conduct emergency response actions and for remedial contract services that support the Office's response capacity. An operations budget of \$1,847,054 was portioned from the ERRF to conduct oil spill cleanups, enforce Chapter 128D, HRS, fund the counties' used oil recycling programs that are managed and overseen by staff in the Solid and Hazardous Waste Branch (SHWB), and fund the Environmental Crimes Unit managed within the State Department of Attorney General. The ERRF allocation for equipment was \$50,000.

For FY 2005, the HEER Office also received grants from four federal programs: Superfund Core, Superfund Preliminary Investigation/Site Inspection (PA/SI) Cooperative Agreement, State Response Program (SRP); and DOD/State Memorandum of Agreement (DSMOA) Program. It is important to note that the budget total of \$2,137,444 presented in Table 1 represents collated budget appropriations data defined in the FY 2004-2005 Annual Operating Budget. Although the FY 2004-2005 Annual Operating Budget shows total HEER Office federal grant appropriations were \$2,409.283, with an SRP grant budget of \$1,500,000, the actual EPA SRP grant received for federal FY 2005 was \$700,000. To present the most correct relationships for the data presented in Charts 1 and 2, the actual state FY 2005 SRP grant amount (\$612,500) was used.

# **Chart 1** HEER Office Funding Sources by Percentages FY 2005



# 4.2 HEER Office Expenditures Summary

Table 2 HEER Office Funding Source and Expenditures FY 2005

Funding Source	Expenditures FY 2005
State General Fund	348,574
State Revolving Fund (ERRF)	1,872,834
EPA Superfund Core Grant	211,733
EPA Superfund PA/SI Cooperative Agreement	157,668
EPA State Response Program (SRP) Grant	672,257
DOD DSMOA Program Grant	199,766
TOTAL STATE AND FEDERAL EXPENDITURES	\$3,462,832

The HEER Office expended \$3,462,832 in federal and state funds appropriated for the FY 2005 operating budget.

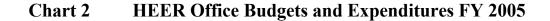
The HEER Office expended a total of \$348,574 in State General Funds. This is below the \$409,647 budgeted for State FY 2005. Expenditures from General Funds are vital for hazard evaluation, preparedness, and emergency response operations in the HEER Office. Chapter 128D, Environmental Response Law, established four State On-Scene Coordinators (SOSCs) positions funded with General Funds. The SOSCs have delegated authority under the Director of Health to act on behalf of the Governor to protect Hawai'i's human health, welfare and environment. These functions cannot be expended with the federal grant dollars currently received by the office.

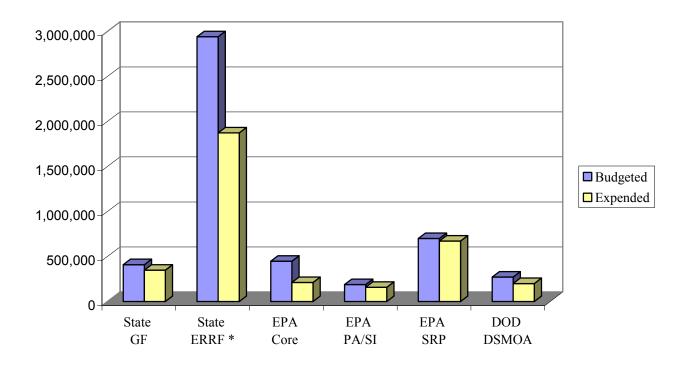
The HEER Office expended \$1,872,834 from the ERRF during State FY 2005. The HEER ERRF appropriation was utilized for four purposes: operations; response; personnel, and equipment purchases. The operations expenditures were used to conduct oil spill cleanups and enforce Chapter 128D, HRS. The response expenditures were used to conduct responses to releases or threats of releases of hazardous substances.

Portions of the HEER Office ERRF operations budget were portioned to other state programs. HEER Office budgeted \$200,000 for use by the Department of Health (DOH) Solid and Hazardous Waste Branch (SHWB) Hazardous Waste Section for the "Counties' Used Oil Collection" Programs. This program provides the counties with funds for waste oil and hazardous waste education and outreach and the Residential "Do It Yourself" Used Oil collection programs. These funds cover a portion of the cost for the operation of collection centers on the neighbor islands and the provision of "Oil Eater Boxes" to residents on Oahu. Technical guidance on the best management practices regarding used motor oil is also provided to recreational boaters and other small generators as part of the SHWB Hazardous Waste Section program.

The HEER Office also portioned \$142,787 of the ERRF appropriation to fund the Department of the Attorney General to fund two criminal investigators assigned to the new Environmental Crimes Unit (ECU), and \$75,000 to the Oiled Wildlife Response Program veterinarian (\$75,000) under contract by the Department of Land and Natural Resources (DLNR),

The HEER Office expended \$1,241,424 of the \$2,409,283 Federal grants operating budget during FY 2005. The U.S. Environmental Protection Agency, Region 9 provided three grants for the HEER Office and the fourth grant came from the U.S. Department of Defense. Expenditures from the grants were as follows: Superfund Core (\$211,733); Superfund Preliminary Investigation/Site Inspection (PA/SI) Cooperative Agreement (\$157,668); State Response Program (SRP) (\$672,257); and DOD/State Memorandum of Agreement (DSMOA) Program (\$199,766).





\* Note: It is important to have money available for immediate response to a major chemical spill or release. For that reason DOH tries to avoid spending the entire ERRF appropriation.

# 4.3 HEER Office State and Federal Funding

# 4.3.1 HEER Office General Funds

**Table 3 HEER Office General Funds** 

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Env Management Program Manager		
	1	Epidemiological Specialist IV, SR 22		
	4	Env. Health Specialist IV, SR 22		
	1	Env. Health Specialist III, SR 20		
	1	Clerk Typist, SR 08		
	8	Subtotal	360,229	342,568
B&C Funds			49,418	6,006
		TOTAL GENERAL FUNDS:	\$409,647	\$348,574

General funds support the HEER Office Hazard Evaluation Section, as well as the Emergency Response and Preparedness Section. These functions are vitally important in protecting Hawai'i's environment as these sections are concerned with hazardous materials, emergency responses and the assessment of chemical exposures on human health. These functions cannot be funded with the federal grant dollars currently received by the office.

# 4.3.2 HEER Office Environmental Response Revolving Funds

Table 4 HEER Office Environmental Response Revolving Funds

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Epidemiological Specialist III, SR 20		
	2	Env. Health Specialist V, SR 24		
	1	Clerk Typist II, SR 08		
	5	Env. Health Specialist IV, SR 22		
	1	Toxicologist I, SR 26		
	1	Toxicologist I, SR 26 (T)		
	_1	Eco Risk Assessor, SR 26 (T)		
	12	Subtotal	790,641	580,374
B Funds		Response		
		Operations B		
		Subtotal	2,150,413	1,289,738
Q.F. 1				2,722
C Funds				
		TOTAL ERRF FUNDS:	\$2,941,054	\$1,872,834

The Hazard Evaluation and Emergency Response (HEER) Office provides state leadership in addressing all aspects of releases of hazardous substances into the environment. This work includes preventing, planning for, and responding to hazardous substance and oil releases, or risk of releases. The office is comprised of three operating sections, each addressing an important aspect of its mission: 1) Emergency Preparedness and Response; 2) Site Discovery, Assessment and Remediation; and 3) Hazard Evaluation. The office works closely with State Civil Defense, first responders and other federal, state, county and local agencies to strengthen the state's ability to respond to public health and environmental health emergencies.

The three HEER Office sections utilized the ERRF for four purposes: operations; response; personnel, and equipment purchases.

# 4.3.3 **HEER Office Federal Funding**

The following table presents a summary of the HEER Office Federal funding. Details for the EPA Superfund grant (Core and Preliminary Assessment/Site Inspection (PA/SI) Cooperative Agreement grant), the State Response Program grant, and the Department of Defense/State Memorandum of Agreement (DSMOA) program grants are presented in the following sections.

Table 5 HEER Office Federal Funding Summary

	Budgeted	Expended
	FY 2005	FY 2005
Superfund Core Grant		
A Funds	117,739	139,098
B&C Funds	330,705	72,635
Subtotal	448,444	211,733
Superfund PA/SI Agreement		
A Funds	132,260	69,606
B&C Funds	56,740	88,062
Subtotal	189,000	157,668
State Response Program*		
A Funds	178,000	350,580
B&C Funds	1,322,000	321,677
Subtotal	1,500,000	672,257
DOD DSMOA Program		
A Funds	173,877	167,530
B Funds	87,962	32,236
C Funds	10,000	-0-
Subtotal	271,839	199,766
TOTAL FEDERAL FUNDS:	\$2,409,283	\$1,241,424

<sup>\*</sup> Applied for \$1,500,000, however, the actual FY 2005 Superfund Core grant from EPA was \$700,000, reflecting the low expenditure amount from the budgeted amount.

The Federal fund data presented in this section were adjusted to coincide with the State fiscal year (July 1 through June 30). The expenditures for Federal grants were derived based on the State fiscal year, which includes the last quarter of Federal FY 2004, and the first three quarters of Federal FY 2005. Since federal grants received by Hawai'i are based upon the federal fiscal year (October 1 through September 30), these numbers do not match exactly with the federal grant amounts recorded in the Federal Financial Status Report.

# 4.3.3.1 EPA Superfund Core Grant

The EPA has notified the HEER Office that Superfund Core grant funding will terminate starting in Federal FY 2007 (October 1, 2006). The federal FY 2006 Superfund Core grant was reduced to \$150,000 from \$260,000 in FY 2005

**Table 6** HEER Office EPA Superfund Core Grant Funds

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Planner V, SR-24		
	1	Env. Health Specialist IV, SR 22		
	2	Subtotal	117,739	139,098
B&C Funds			330,705	72,635
		TOTAL CORE FUNDS:	\$448,444	\$211,733*

<sup>\*</sup> The actual FY 2005 Superfund Core grant from EPA was \$260,000, reflecting the low expenditure amount from the budgeted amount.

HEER Office Superfund Core grant funds are utilized for the state response program development. The Core program provides for non-specific activities to develop and enhance the base capabilities of State cleanup programs, promote meaningful participation in Superfund implementation, and build State program capabilities to meet CERCLA response requirements.

The HEER Office utilizes the Core funds for activities such as the following:

- Preparation of technical manuals
- Development of procurement procedures
- Response agreement administration
- Operation and maintenance capability development
- Cost recovery program development
- Training, travel, and meetings
- General program management
- Computer-based systems/accounting and data systems
- Records management
- Fiscal Planning
- Auditing capabilities
- Minority Business Enterprises/Women's Business Enterprises MBE/WBE program development
- Voluntary Cleanup Program reforms
- Brownfields Remediation and Redevelopment Program reforms

# 4.3.3.2 EPA Superfund PA/SI Cooperative Agreement Grant

Table 7 HEER Office EPA Superfund Preliminary Assessment/Site Inspection Cooperative Agreement Funds

			Budgeted FY 2005	Expended FY 2005
A Funds	2	Env. Health Specialist IV, SR 22		
	1	Env. Health Specialist III, SR 20		
	0.5	Clerk Typist II, SR 08		
	3.5	Subtotal	132,260	69,606
B&C Funds			56,740	88,062
		TOTAL PA/SI FUNDS:	\$189,000	\$157,668

Since October 1989, Hawai'i has entered into a Preliminary Assessment/Site Inspection (PA/SI) Cooperative Agreement (CA) with the EPA. A specificity for receiving the PA/SI partnership agreement between the State and the U.S. EPA Region 9 is: *The PA/SI funds, consisting of \$189,000, should be utilized for only those costs associated with continuing the Federal PA/SI Program in the State.* 

# 4.3.3.3 EPA State Response Program Grant

**Table 8 HEER Office State Response Program Funds** 

			Budgeted FY 2005	Expended FY 2005
A Funds	3	Voluntary Cleanup Specialist, SR 22 (T)		
	2	Env. Health Specialist IV, SR 22		
	1	Env. Health Specialist III, SR 20		
	1	Secretary II, SR 14		
	7	Subtotal	178,000	350,580
B&C Funds			1,322,000	321,677
		TOTAL SRP FUNDS:	* \$1,500,000	\$672,257

Applied for \$1,500,000, however, the actual FY 2005 Superfund Core grant from EPA was \$700,000, reflecting the low expenditure amount from the budgeted amount.

The State of Hawai'i, Hazard Evaluation and Emergency Response Office (HEER) applied for and received the State Response Program (SRP) grant under Section 128(a) of the Small Business Liability Relief and Brownfields Revitalization Act of 2002 (SBLRBRA). This SRP grant provides funding for development of the state managed response program and generally addresses the assessment, cleanup, and redevelopment of brownfields sites and with actual or perceived contamination. The SRP grant will displace the existing Consolidated Superfund grant in Federal FY 2007. It is anticipated that this funding will be available for three more years to assist the state in developing their capacity to clean up sites contaminated by hazardous chemicals and petroleum. The SRP grant places priority on the following:

- Program development activities to establish or enhance the four elements identified in the grant guidance and to comply with the grant's public record requirement;
- Program development activities to enhance clean up capacity;
- Site-specific activities that enhance cleanup capacity, including targeted brownfield site assessments;
- Environmental insurance mechanisms; and
- Capitalizing Brownfields clean up revolving loan funds.
- This grant also places a heavy emphasis on public information and public involvement in the clean up of contaminated sites.

The SRP grant is also providing support for development of the Voluntary Response Program (VRP), an operating State program located in the HEER Office. Under the State VRP program, each site accepted into the program is required to deposit \$5,000 into the ERRF and maintain a balance of no less than \$1,000 in order to fund the DOH personnel providing oversight. This requires the State to track deposits and expenditures individually for each site accepted into the program for voluntary response and/or cleanup. The site specific/project specific Voluntary Response Agreement with the State provides the participating parties with technical advice based on the latest technologies and a one on one working relationship with the project manager overseeing the cleanup actions.

# 4.3.3.4 Department of Defense/State Memorandum of Agreement Program Grant

Table 9 HEER Office Department of Defense/State Memorandum of Agreement Program Funds

			Budgeted FY 2005	Expended FY 2005
A Funds	4	Env. Health Specialist IV, SR 22		
	0.5	Clerk Typist II, SR 08		
	4.5	Subtotal	173,877	167,530
B Funds		Response	87,962	32,236
C Funds			10,000	-0-
		TOTAL DSMOA FUNDS:	\$271,839	\$199,766

The Department of Defense/State Memorandum of Agreement (DSMOA) program was established by the federal government to cover reimbursement of costs incurred by the state in providing oversight services to the Department of Defense (DOD) installations conducting environmental cleanup activities funded under the Defense Environmental Restoration Program (DERP). A two-year Cooperative Agreement (CA) application was submitted in April 2004 and an approval was received to obtain reimbursement funding to cover FY 2005 and FY 2006 costs incurred by Hawai'i in the DSMOA Program. The DSMOA funds are given to the State based on the State's request for advanced or reimbursement payment. If there is need for additional funding the Cooperative Agreement allows for the renegotiation for increased funding.

This page left intentionally blank

# 5 ENVIRONMENTAL RESPONSE REVOLVING FUND BUDGET AND EXPENDITURES FOR EHA PROGRAMS

This section presents the FY 2005 report on all revenues and expenditures from the Environmental Response Revolving Fund (ERRF).

#### 5.1 Environmental Response Revolving Fund

The Environmental Response Revolving Fund (ERRF), established in Chapter 128D, HRS, is supported by a tax of five cents per barrel on petroleum sold in the State of Hawai'i, fines and penalties for environmental violations, grants, legislative appropriations, and costs recovered from response actions.

The fund supported by the tax of five cents per barrel on petroleum sold in the State of Hawai'i, fines and penalties for environmental violations, grants, legislative appropriations, and costs recovered from response actions is used to conduct removal or remedial actions consistent with Chapter 128D. The fund supported by the oil tax is also used for the following:

- Oil spill planning, prevention, preparedness, education, research, training, removal, and remediation.
- For direct support for county used oil recycling programs.
- To support environmental protection and natural resource protection programs; including but not limited to energy conservation and alternative energy development; and to address concerns related to air quality, global warming, clean water, polluted runoff, solid and hazardous waste, drinking water, and underground storage tanks (UST), including support for the UST program of the department and funding for the acquisition by the State of a soil remediation site and facility.

#### **5.2 Environmental Response Revolving Fund Revenues**

Table 10 presents the actual revenues collected as of June 30, 2005

Table 10 ERRF Revenues FY 2005

Revenue Source	FY 2005
Environmental Response Tax	1,867,117
Fees, Filing of Tier II Chemical Inventory	67,500
Violations of Air Pollution	190,168
Violations of Hazardous Waste	649,915
Violations of Water Pollution	168,645
Violations of Community Noise Control	7,500
Violations of Safe Drinking Water	4,975
Other	5,660
TOTAL ERRF REVENUES:	\$2,961,480

# 5.3 Environmental Health Administration Budget and Expenditure Summary

Budgets were appropriated for the Hazard Evaluation and Emergency Response (HEER) (\$2,941,054), the Environmental Management Division (EMD) (\$50,197), the Office the Solid and Hazardous Waste Branch (SHWB) (\$512,382), the Safe Drinking Water Branch (SDWB) (\$722,169), and the Clean Water Branch (CWB) (\$264,973). The total ERRF appropriation for the five programs was \$4,490,775.

ERRF funding to the HEER Office was made available to three special state programs. HEER Office operations budget funds were transferred to the (1) Oiled Wildlife Response Program veterinarian (\$75,000) under contract by the Department of Land and Natural Resources (DLNR), (2) county's oil recycling program (\$200,000) that is managed and overseen by the Solid and Hazardous Waste Branch (SHWB), and (3) Environmental Crimes Unit (ECU) (\$142,787) within the Department of the Attorney General.

The State expended \$3,301,334 of \$4,490,775 appropriated to fund five HTH 849 and HTH 840 environmental programs. The individual draw-downs from the ERRF were \$1,872,836 to the Hazard Evaluation and Emergency Response (HEER) Office, \$599,077 to the Solid and Hazardous Waste Branch; \$549,108 to the Safe Drinking Water Branch; \$263,383 to the Clean Water Branch; and \$16,930 to the Environmental Management Division.

Chart 3 presents a graphic summary of the budget and expenditures for the five Environmental Health Administration (EHA) programs receiving funding from the ERRF.

Chart 3 ERRF HTH 849 and HTH 840 Budget and Expenditure Summary FY 2005

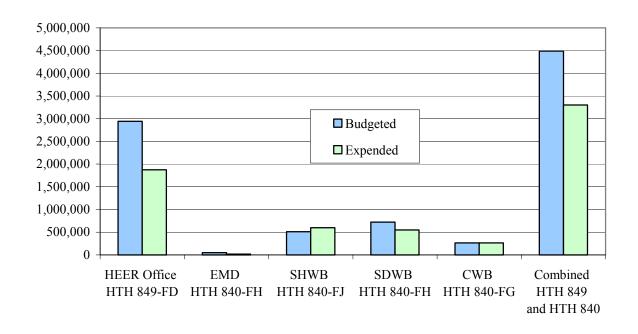


Table 11 presents a summary of the budgets and expenditures for the five DOH programs utilizing ERRF funds.

Table 11 Environmental Response Revolving Fund HTH 849 and HTH 840 Programs Budget and Expenditures Summary FY 2005

		Budgeted FY 2005	Expended FY 2005
HEER-HTH 849-FD			
A Funds		790,641	580,374
B Funds		2,150,413	1,289,738
C Funds			2,722
	HEER Subtotal	2,941,054	1,872,834
EMD-HTH 840-FH			
A Funds		50,197	16,930
	EMD Subtotal	50,197	16,930
SHWB-HTH 840-FJ			
A Funds		497,382	598,897
B Funds		15,000	180
	SHWB Subtotal	512,382	599,077
SDWB-HTH 840-FH			
A Funds		567,176	507,807
B Funds		154,993	41,301
	SDWB Subtotal	722,169	549,108
CWB-HTH 840-FG			
A Funds		99,973	110,195
B Funds		160,000	150,099
C Funds		5,000	3,089
	CWB Subtotal	264,973	263,383
	TOTAL ERRF:	\$4,490,775	\$3,301,334

# 5.4 Environmental Health Administration Programs Receiving HTH 840 and 849 ERRF Funding

Five programs in the Environmental Health Administration (EHA) received funding from the ERRF during FY 2005. They are the Hazardous Evaluation and Emergency Response (HEER) Office, Environmental Management Division (EMD), Solid and Hazardous Waste Branch (SHWB), Safe Drinking Water Branch (SDWB), and the Clean Water Branch (CWB).

#### 5.4.1 Hazard Evaluation and Emergency Response Office

Table 12 HEER Office Environmental Response Revolving Fund

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Epidemiological Specialist III, SR 20		
	2	Env. Health Specialist V, SR 24		
	1	Clerk Typist II, SR 08		
	5	Env. Health Specialist IV, SR 22		
	1	Toxicologist I, SR 26		
	1	Toxicologist I, SR 26 (T)		
	_1	Eco Risk Assessor, SR 26 (T)		
	12	Subtotal	790,641	580,374
B Funds		Response		
		Operations B		
		Subtotal	2,150,413	1,289,738
C Funds			-0-	2,722
		TOTAL ERRF FUNDS:	\$2,941,054	\$1,872,834

The Hazardous Evaluation and Emergency Response (HEER) Office serves the people of the State of Hawai'i by addressing all aspects of releases of hazardous substances including oil into the environment. Work includes preventing, planning for, and responding to hazardous substance releases or risks of releases. The HEER Office accomplishes this mission by addressing contaminated sites with the highest risk to human health and the environment first, preventing contamination rather than cleaning up after the fact, and basing decisions on sound scientific principles and common sense.

The HEER Office utilized their ERRF \$2,941,054 operating budget for four purposes: operations; response; personnel, and equipment purchases. The response budget of \$1,094,000 was primarily used for emergency response and remedial contract services, which support the HEER Office response capacity. The operations budget of \$1,847,054 was used to conduct oil spill cleanups, enforce Chapter 128D, HRS, and fund the counties' used oil recycling programs.

The HEER Office expended \$1,872,834 from the ERRF during FY 2005. The operations expenditures of were used to conduct oil spill cleanups; enforce Chapter 128D, HRS, fund personnel, the counties' used

oil recycling program (\$200,000), the Attorney General's new Environmental Crimes Unit (ECU) (\$142,787) crimes enforcement program, and the Oiled Wildlife Response Program veterinarian (\$75,000) under contract by the Department of Land and Natural Resources (DLNR). The response expenditures were used to conduct responses to releases or threats of releases of hazardous substances. The ERRF personnel and equipment purchase expenditures were \$580,374 and \$2,722 respectively.

The HEER Office FY 2005 activities are summarized in Section 2.

#### 5.4.2 Environmental Management Division

Table 13 Environmental Management Division Environmental Response Revolving Fund

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Data Processing System Analyst V, SR 24	50,197	16,930
		TOTAL EMD:	\$50,197	\$16,930

The ERRF funds the Data Processing Systems Analyst computer network manager position for the Environmental Management Division (EMD). The network manager supports and maintains the Local Area Network/Wide Area Network (LAN/WAN) connections for the division. Responsibilities of this position include providing a reliable daily backup, ensuring users have access to their data files, and providing email and internet connectivity. The network manager is also working to improve and upgrade network servers and connections. During FY 2005, the network manager was involved in various IT projects. These projects included the Division's One Stop project, the CWB Water Quality Web application project, and the CAB database project. In addition, the network manager coordinated the use of a Video Conferencing Center (VCC). The VCC will be used by all tenants in the Army Air Force Exchange Systems (AAFES) building located at 919 Ala Moana Boulevard.

#### 5.4.3 Solid and Hazardous Waste Branch

Table 14 Solid and Hazardous Waste Branch Environmental Response Revolving Fund

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Env. Engineer IV, SR 24 (SW)		
	2	Env. Health Specialist IV, SR 22 (HW)		
	1	Env. Health Specialist III, SR 20 (LUST)		
	1	Env. Health Specialist IV, SR 22 (LUST)		
	1	Geologist I, SR 24 (LUST)		
	2	Env. Health Specialist III, SR 20 (UST)		
	1	Env. Health Specialist IV, SR 22 (UST)		
	1	Clerk Typist II, SR 08 (UST)		
	10	Subtotal	497,382	598,897
B Funds			15,000	180
C Funds			-0-	-0-
		TOTAL SHWB:	\$512,382	\$599,077

The Environmental Response Revolving Fund provides support for the following program activities within the Solid and Hazardous Waste Branch (SHWB):

#### 5.4.3.1 Used Oil Management and Recycling

The Hazardous Waste Program is responsible for all aspects of used oil management. The used oil management regulations are found in Hawai'i Administrative Rules (HAR) 11-279. There are approximately 45 active used oil transporter permits; 13 of which are considered transporters/processors of used oil.

The number of used oil permit applications received by the Department average between 3-4 per year. Non-permitted used oil handlers are usually identified through complaints and during hazardous waste inspections.

Because of increasing awareness from the general public, the Department continues to receive and respond to used oil complaints and illegal dumping, on all islands. Since January 2005, the Hazardous Waste Section has received and responded to 25 used oil related complaints. The used oil/hazardous waste inspectors have been working together to respond to the complaints.

The EHS IV Permit Writer, which is supported by the oil fund, provides oversight of contaminated facilities undergoing groundwater monitoring (Chevron Refinery, Tesoro Refinery, Hawai`ian Western Steel, and Chemwood). Facilities such as Midpac Lumber, Hale Kauai, Brigham Young University – Hawai`i and Hawai`i Wood Preserving are all undergoing closures of contaminated sites. Makua Military Reservation continues to be a highly charged site. However, due to national defense, Makua is once again being used as a live fire training ground. The Army has agreed that upon cessation of training, they will do a complete Environmental Impact Statement. The Army's decision to bring the Stryker Brigade is also being closely monitored by the Department

#### 5.4.3.2 Special Waste Management

The Special Waste permitting engineer is responsible for permitting and monitoring activities over a wide range of special waste management facilities including petroleum contaminated soil (PCS) remediation facilities. Another major focus is the permitting and oversight of Auto Salvage facilities where a primary concern is the proper management of gasoline, oil and other automotive fluids removed from the vehicles. Currently the Engineer has responsibility for more than 35 permitted entities, which deal directly or indirectly with oil related issues.

#### 5.4.3.3 Management of Leaking Underground Storage Tank (LUST) Sites.

The SHWB total number of active Leaking Underground Storage Tank (LUST) sites is 311. The EHS III has an active caseload of 70 LUST sites at this time and provides project oversight to all remedial efforts of his cases. The EHS IV provides team unit leadership for four other EHS III staff. The EHS IV also works on additional active LUST sites.

#### 5.4.3.4 Inspection of Underground Storage Tank Facilities

Effective May 2004, the EHS IV position has been vacant. The EHS IV would review and issue permits for the installation and operation of new USTs at regulated UST facilities. This position provides team unit leadership for four other EHS III staff. The EHS IV would track and review the daily work activities of the EHS IIIs, maintained the database for the UST Section and was the Safety Coordinator for the Solid and Hazardous Waste Branch.

The EHS IIIs continues to conduct operational inspections at UST facilities and issue field citations as necessary. These inspections include review of release detection records, documents demonstrating evidence of financial responsibility, and spill and overfill prevention equipment and corrosion protection standards. The goal of these inspections is to prevent releases of petroleum and hazardous substances from UST systems and to minimize the volume of release if one does occur.

The field citation is similar to a traffic ticket and is issued for easily verifiable and correctable violations. The citation penalty amounts are lower than tradition enforcement tools. Citations are usually issued in the field at the time of an inspection. The owner or operator must return to compliance and pay the penalty within 30 days of issuance of the citation.

The UST EHS IIIs and EHS IV also provide assistance to consultants and contractors who request and review UST facilities files. Timely review of facility files assists the banking, real estate, and petroleum industry to complete transactions involving the sale or return of properties that were affected by petroleum releases.

#### 5.4.4 Safe Drinking Water Branch

Table 15 Safe Drinking Water Branch Environmental Response Revolving Fund

			Budgeted FY 2005	Expended FY 2005
A Funds	3	Env. Engineer IV		
	1	Env. Health Specialist III		
	2	Clerk		
	1	Underground Injection Control Clerk		
	1	Data Processing System Analyst		
	2	Underground Injection Control Geologist I		
	1	_ Underground Injection Control Geologist II		
	11	Subtotal	567,176	507,807
B Funds			154,993	41,301
		TOTAL SDWB:	\$722,169	\$549,108

The ERRF continued to support Safe Drinking Water Branch (SDWB) personnel and activities related to the protection of public health and drinking water quality through many activities during FY 2005. These funds support activities that have both direct and indirect drinking water protection benefits.

#### **5.4.4.1** Lead and Copper Rule Administration

Lead and copper concentrations in Hawai'i's drinking water are regulated under state implementation of the Federal Lead and Copper Rule. Administration of this rule is one of the responsibilities of the Safe Drinking Water Branch staff supported by the Environmental Response Revolving Fund (ERRF). The Rule requires drinking water systems to collect and analyze "first draw" water samples from kitchen or bathroom cold water taps in homes most likely to have elevated levels of lead or copper. Typically, these homes were built before 1982 with copper pipes and lead solder.

The number of samples collected is based on the population served by the water system. Initially samples are collected every six month, and if found to be satisfactory, the sample frequency can be reduced to annually for two years, and then once every three years. If the water is non-corrosive, corrosion control treatment is not required. In Hawai'i, water from surface water sources, shallow wells and springs, are usually corrosive and require corrosion control treatment. Safe Drinking Water Branch (SDWB) is required by the Rule to review and approve all corrosion treatments proposed by the water systems.

Action levels for lead or copper concentrations are exceeded when more than 10 percent of the samples collected have lead concentrations of 15 micrograms per liter (parts per billion) or higher, or copper concentrations greater than 1.3 milligrams per liter (parts per million). Exceeding the lead or copper action level requires the water system to propose a corrosion control treatment recommendation to the SDWB. There are currently 12 water systems in the State that have had to implement corrosion control

treatment to reduce the lead and copper concentration in tap water below the action levels. The SDWB anticipates other water systems will require corrosion control treatment as surface water sources are developed.

The Upcountry Maui area is served by the Department of Water Supply County of Maui (DWS Maui), Upper Kula, Lower Kula, and Makawao water systems. These systems have surface water sources and all systems had previously exceeded the lead action level. The systems received skin irritation and other health problem complaints from customers when a zinc phosphate corrosion control treatment was implemented. The same corrosion control treatment is in use on the islands of Hawai'i and Kauai without any noted complaints. DWS Maui with SDWB approval, switched to an alternative corrosion control treatment to stop the use of phosphates and instituted a distribution system flushing program. DWS Maui also temporarily instituted a switch in disinfectant from chloramines to chlorine for about 6 months in the Upper Kula system. Per the Maui District Health Services Administrator, the number of complaints from Upcountry Maui area is now statistically the same with other parts of the island.

By the end of FY 2005, all public water systems in the state had lead and copper concentrations in the tap water below the lead and copper action levels.

# 5.4.4.2 Development and Maintenance of Disinfectant/Disinfection By-Products Rule and Interim Enhanced Surface Water Treatment Rule

The ERRF supports a staff person who was originally responsible for administration of the Surface Water Treatment Rule (SWTR) which was promulgated by EPA in 1991. This rule imposed treatment, monitoring, and reporting requirements on surface water systems for the removal or control of several microorganisms. Since that time, EPA has become aware of and concerned with additional microorganisms, which are more difficult to filter and are more resistant to conventional disinfectants. In response, they have promulgated more stringent requirements for surface water systems in the form of the Interim Enhanced Surface Water Treatment Rule (IESWTR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1 ESWTR) and the Long Term 2 Enhanced Surface Water Treatment Rule (LT2 ESWTR) (proposed 8/11/03).

At the same time, EPA has recognized that the addition of disinfectants to water (primarily surface waters), which have "precursors", can generate by-products. Some of these by-products are thought to be harmful. In response, EPA has generated the Stage 1 Disinfectant/Disinfection By-Products Rule (D/DBPR) that seeks to limit the concentration of disinfectants added to drinking water as well as limit the presence of disinfections by-products in the water. A Stage 2 D/DBPR was proposed on August 18, 2003.

The D/DBPR and the IESWTR currently work together to increase public health protection by increasing protection from exposure to additional microbes in drinking water, while assuring that the disinfectant and disinfection by-product levels in the water are limited to safe levels.

A new rule package for the LT1 ESWTR and the Filter Backwash Recycling Rule (FBRR) is currently under development.

# 5.4.4.3 Protection of Existing and Potential Underground Sources of Drinking Water (Hawai'i Underground Injection Control Program)

The Hawai'i Underground Injection Control (UIC) Program is directly responsible for protecting existing and future underground sources of drinking water (USDW) from contamination by underground injection of waste fluids.

In the early 1980's, work to identify the important USDW areas was completed. This work was accomplished by the DOH and technical advisory committees from each county. The county water supply and public works agencies, the U.S. Geological Survey, the Department of Land and Natural Resources (DLNR), private business, and involved consultants were some of the major participants in the technical advisory committees.

Following the identification of the state's USDWs, an individual-permit system was implemented to control discharge quantities, effluent quality and injection practices. These permits identify operating conditions as well as monitoring and reporting requirements.

The ERRF currently supports a staff of three geologists and one clerk-typist who administer the entire program for over 800 facilities statewide. Each facility may involve multiple injection wells. Injection wells support many vital facilities, for example, municipal and private wastewater treatment plants, energy generation facilities, and storm water runoff control. In addition to protection of USDWs and the environment, the UIC program makes underground injection possible as a wastewater disposal alternative in lieu of ocean outfalls.

In December 1999, the U.S. Environmental Protection Agency passed a ban on large capacity cesspools (lccs). A large-capacity cesspool is one that serves multiple dwellings or serves 20 or more people per day. Under the terms of the ban, no new large capacity cesspools can be constructed after April 2000 and existing lccs need to either upgrade treatment or close by April 5, 2005. Since that time, the UIC program has been working with the EPA to implement the federal rule to close all large capacity, injection-well cesspools in Hawai'i.

#### 5.4.4.4 Certification of Operators of Public Water Systems

One way of protecting drinking water is to ensure that staff operating the public water systems has sufficient training to do their duties properly. Congress felt so strongly about the need for state operator certification programs for public water systems that they authorized the EPA to withhold 20% of a state's capitalization grant beginning 2001 if a state failed to achieve a certification program meeting minimum EPA criteria. In Hawai'i, this would have equated to the loss of \$1.4 million in funds intended for low interest loans for public water system protection and improvements.

Hawai'i's program consists of a five-member Board of Certification, appointed by the Governor, which meets to set policy, act on all applications for certification, assign continuing education units to training events, and more. The ERRF supports a staff of two, an environmental engineer and a clerk-typist. This staff compiles and maintains files on all existing certified operators, receives and prepares all applications for Board review, receives and processes all certification and testing fees, prepares the examinations, prepares all correspondence, conducts training, administers examinations, and tracks other state programs to see how they handle specific issues and more.

At the end of FY 2005, the program had 459 certified public water system operators, 192 certified water treatment plant operators, and 359 certified distribution system operators. Some operators have duel certifications.

#### 5.4.4.5 Assistance to Owners and Users of Rainwater Catchments Systems

Act 218 of 1997 authorizes the use of ERRF monies to administer a subsidized lead and copper testing program and to lend technical assistance to owners and users of rainwater catchments systems. The responsibility for this act is vested with the SDWB in recognition of the need by many users of catchments for additional information concerning water quality and proper maintenance of the catchments. This measure sought to provide assistance without the imposition of regulations which were

recognized as being expensive, and most probably insufficient given the wide range of building materials, paints, and coatings used to collect rainwater.

During 2005, the Safe Drinking Water Branch continued to respond to inquiries by individuals using rainwater catchments systems on a wide variety of subjects. Many individuals had questions concerning the maintenance of their systems. Some did not have any experience at all with rainwater catchments. Others called to report results of testing that they had done to determine whether or not additional remedial actions were required or to determine what range of actions were available or made sense.

One of the ways in which the SDWB provides technical assistance to rainwater catchments users is to assist in the printing of the College of Tropical Agriculture and Human Resources brochure "Guidelines for Users of Rainwater Catchments Systems for Hawai`i". The brochure was first published in 2001 and was very well received by the public. In FY 2005, the brochure was reprinted.

#### 5.4.4.6 Capacity Development Program

The capacity development program is administered within the Safe Drinking Water Branch (SDWB).

The Safe Drinking Water Act Amendments of 1996 mandated that before approvals to operate the systems are granted, new water systems must demonstrate technical, managerial, and financial capacity. The Act also required States to develop a strategic plan to identify and prioritize those existing water systems most in need of assistance and to improve the technical, managerial, and financial (TMF) capacity of existing public water systems.

The DOH revision to Hawai'i Administrative Rules, Title 11, Chapter 20, Rules Relating to Potable Water Systems took effect on November 30, 2002. The Rule was revised to require new water systems to demonstrate adequate technical, managerial, and financial (TMF) capacity before granting approval for a new water system to begin operation. In summary, the revision requires the following:

- a. Prior to starting work on the new water system's infrastructure (excluding wells), the new water system must: (1) first obtain a satisfactory review by the DOH that the proposed raw water source can approved as a new drinking water source, (2) obtain DOH approval for the construction plans for the new water system, and (3) demonstrate that selected pre-construction technical, managerial, and financial TMF capacity attributes are adequate.
- b. After the new water system's infrastructure is completed and prior to obtaining DOH authorization to begin operation of the new water system, the system must first: (1) obtain DOH approval of the raw water source for potable water use, (2) provide a licensed professional engineer's certification that the water system has been constructed in accordance with the approved plans and specifications, and (3) demonstrate that the remaining TMF capacity attributes in the Hawai'i Administrative Rules, Title 11, Chapter 20 are adequate.

#### **Existing Water Systems Identified and Prioritized for Improvement**

The Safe Drinking Water Act also requires states to develop a strategic plan to identify and prioritize those existing water systems most in need of assistance and to improve the technical, managerial, and financial (TMF) capacity of existing public water systems. The State's initial strategic capacity improvement plan provides for SDWB assistance to improve the TMF capacity of the five water systems identified as most in need of improvement. The SDWB provided assistance training to water system management and operations aware of their system's shortcomings. However, because most of the systems were financially strapped, substantial improvements to the infrastructure could not be implemented.

#### **Certification for Operators**

The Safe Drinking Water Act Amendment of 1996 mandates that water system operators be certified. The SDWB implemented a contract to provide training to prepare public system operators for the national operator certification examinations. Training was provided to water system operators on all islands except Lanai, and Lanai operators were offered training on Molokai or Maui. The examination results indicated that 75 percent of the operators passed the national certification examination on the first attempt.

#### **Circuit Rider Program**

The capacity improvement strategic plan was revised in January 2004 and again in April 2004 to include implementation of a circuit rider program requiring an individual experienced in water system operation to visit privately owned small water systems on a periodic basis.

The SDWB entered into a five-year contract with a non-profit organization to provide this service in October 2004. The circuit rider visits small privately owned water systems to provide a variety of services as follows:

- Assist water system operators in correcting any operational problems.
- Train operators on how to prevent contamination of their water source(s) and storage tank(s).
- Help managers understand the drinking water regulations.
- Help prepare new water system operators for the national certification examination.
- Provide assistance to improve the capacity of the system.

The program has shown positive results. The SDWB staff have noted improvements when performing sanitary surveys of water systems previously visited by the circuit rider.

#### **Continuing Education Program for Drinking Water System Operators**

The SDWB worked with the University of Hawai'i's Outreach College to develop and implement a long-term continuing educational training program for drinking water system operators throughout the state so water system operators may maintain their certification. The SDWB implement a two-year contract with the Outreach College. The training program and training classes on all islands began in August 2005.

#### 5.4.5 Clean Water Branch

Table 16 Clean Water Branch Environmental Response Revolving Fund

			Budgeted FY 2005	Expended FY 2005
A Funds	1	Data Processing System Analyst		
	1	Env. Health Specialist IV		
	2	Subtotal	99,973	110,195
B Funds			160,000	150,099
C Funds			5,000	3,089
		TOTAL CWB:	\$264,973	\$263,383

The ERRF provides support for the following activities within the Clean Water Branch (CWB).

#### 5.4.5.1 Quality Assurance

The 2001 Legislature authorized an Environmental Health Specialist (EHS) position and a Data Processing Systems Analyst IV (DPSA) position for the CWB. The tasking for the EHS position insures that monitoring data submitted by CWB permitted facilities meets acceptable standards for sampling, transportation, and reporting as required by DOH policies and under EPA rules. The DPSA performs tasks to integrate various federally required data systems, and provide technical support to the CWB staff in the areas of data recording and reporting.

#### 5.4.5.2 Polluted Runoff Control

The Legislature authorized \$150,000 for continued funding of contract funds to support the creation of three Conservation Specialists (CS) positions on the neighbor islands and Oahu. These positions assist the CWB's Polluted Runoff Control (PRC) program by providing technical assistance and oversight in the control of non-point source pollution resulting from activities in areas such as agriculture, urban, commercial, boating, and dealing with the general public. Due to the State's lengthy contract process, and the need to develop a scope of services that would add value to the program's mission, the FY 2002 contract was not awarded until the end of the fiscal year. The FY 2002 contract award was made to the Hawai'i Association of Conservation Districts (HACD) in June 2002. The contract is running concurrently with the FY 2003 award made to the University of Hawai'i Sea Grant program in July 2002. The two contracts provide for six CS positions, with one each in Lihue, Kahului, Waimea, Hilo, Windward and Leeward Oahu. Both contracts are for one year. FY 2004 funds were used to extend the HACD contract for another year for Conservation Specialists on Oahu, Kauai, and Waimea. The FY 2005 funds were used to extend the UH Sea Grant contract for Oahu, Hilo and Maui.

This page left intentionally blank

#### APPENDIX A

# FY 2005 DEPARTMENT OF HEALTH ENVIRONMENTAL HEALTH ADMINISTRATION HAZARD EVALUATION AND EMERGENCY RESPONSE OFFICE STATE SITE LIST

APPENDIX A

This page left intentionally blank

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Baker	Baker Island	Baker Island National Wildlife Rufuge	State Site	CERCLIS Ranked Low	File Review	Ongoing
Hawaii	Captain Cook	Ataraxia Farms	State Site	-	Ranking	Ongoing
	Haina	Hamakua Sugar Co at Haina (Former) Haina Sugar Mill Site	State Site	ISST Ranked Low	File Review	Ongoing
	Hakalau	Mauna Kea Agribusiness (Former) Hakalau Seed Dipping Plant	PA/SI	-	PA1	Ongoing
	Hawi	Hawaii Conference Foundation Hawi Property	State Site	-	Ranking	Ongoing
	Hilo	Alamo Rent A Car Hilo International Airport	State Site	-	Screen for Site Assessment Completed	Ongoing
	Hilo	Aloha Petroleum Hilo Bulk Plant	State Site	ISST Ranked Medium	File Review	Ongoing
	Hilo	Bayside Chevron Service	State Site	-	Unregulated UST	Ongoing
	Hilo	Chevron Products Company Marketing Hilo Terminal	State Site	-	Ranking	Ongoing
	Hilo	Duke's Downtown Chevron Service Station	State Site	-	Unregulated UST	No Further Action (NFA)
	Hilo	Equilon Enterprises LLC Hilo Terminal	State Site	-	Site Assessment	Ongoing
	Hilo	Excelsior Dairy Inc	State Site	-	Unregulated UST	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Hilo	GTE Hawaiian Tel Kawailani Central Office	State Site	-	Ranking	Ongoing
	Hilo	Hatada Bakery	State Site	ISST Ranked Medium	File Review	Ongoing
	Hilo	Hawaii Air National Guard Hilo International Airport General Lyman Field	State Site	-	File Review	Ongoing
	Hilo	Hawaii Cane Products Plant Waiakea Pond	State Site	ISST Ranked Medium	File Review	Ongoing
	Hilo	Hawaii Electric Light Co Inc (HELCO) Pipeline Hualani Hilo	State Site	-	20040113-1045 Referral to ISST	Ongoing
	Hilo	Hawaii Pest Control	State Site	-	Remedial	Ongoing
	Hilo	Hilo Arsenic Spill Site	State Site	-	File Review	Ongoing
	Hilo	Hilo Bay Front Soccer Field	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Hilo	Hilo Judiciary Center Project	State Site	-	Screening	Screening No Further Action (NFA) with Institutional Controls
	Hilo	Hilo Landfill	State Site	ISST Ranked Low	File Review	Ongoing
	Hilo	Hilo Quality Washerette	State Site	-	Site Assessment	Ongoing
	Hilo	Hilo Shopping Center	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Hilo	HPM Building Supply dba Hawaii Wood Protection, Inc	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Hilo	Kawailani Laundromat Removal of 1000 Gallon Diesel Tank	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Hilo	KTA Davies Property	State Site	ISST Ranked Medium	File Review	Ongoing
	Hilo	Larry's Waiakea Chevron	State Site	-	20041001-1403 Referral to ISST	Ongoing
	Hilo	Mauna Kea Agribusiness at Hilo (Former) Wainaku Sugar Mill Bunker Fuel AST	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Hilo	Pacific Machinery Inc Wash Rack	State Site	-	Removal	No Further Action (NFA) Letter
	Hilo	Sun Sun Lau Chop Suey House	State Site	-	File Review	No Further Action (NFA) - Cleanup Goals Achieved
	Hilo	Tesoro Hawaii Corporation Hilo Terminal 595 Kalanianaole	State Site	-	Ranking	Ongoing
	Hilo	Tesoro Hawaii Corporation Hilo Terminal 607 Kalanianaole Ave	State Site	-	Ranking	Ongoing
	Hilo	University of Hawaii at Hilo Auto Shop	State Site	-	File Review	Ongoing
	Hilo	Wailuku River Hydroelectric Project Base Yard Fueling Station	State Site	-	Ranking	Ongoing
	Hilo	Western Auto Store	State Site	-	Ranking	Ongoing
	Hilo	Young Brothers Ltd at Hilo Hilo Harbor Pier 2	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Honokaa	State DOH - Honokaa	State Site	ISST Ranked Low	File Review	Ongoing
	Honokaa	Unocal Honokaa Bulk Plant	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Kailua-Kona	Alii Linen Service Kuakini (Former) Snow White Linen	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Kailua-Kona	Hawaii Electric Light Co (HELCO) Transformer 9269	State Site	-	20040503-1615 Referral to ISST	Ongoing
	Kailua-Kona	Hawaii Petroleum Kailua Kona Tosco Bulk Plant 0316	State Site	ISST Ranked Low	File Review	Ongoing
	Kailua-Kona	Honokohau Industrial Park Lower Boat Park	State Site	-	File Review	No Further Action (NFA) by SOSC
	Kailua-Kona	Kona Airport Kona Airport Fire Training Area	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kailua-Kona	Queen Liliuokalani Children's Center Pawai Street Oil and Diesel Minor Leak	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kamuela	Kamuela Baseyard	State Site	-	Ranking	Ongoing
	Kamuela	Mauna Kea Beach Hotel	State Site	-	File Review	Ongoing
	Kapoho	University of Hawaii Drilling Mud Toxicity Study Kapoho Scientific Observation Holes #1 and #2	State Site	-	Ranking	Ongoing
	Kawaihae	ConocoPhillips Kawaihae Terminal	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Kawaihae	Pioneer Lumber Treating Inc	State Site	-	Ranking	Ongoing
	Keaau	(Former) Nakamura Sales and Service Ltd	State Site	-	File Review	No Further Action (NFA) - No Contamination Found
	Keaau	Keaau Affordable Housing Brownfield Project	Brownfields	-	Phase II	Ongoing
	Keaau	Keaau Area Arsenic Investigation	State Site	-	Site Assessment	Ongoing
	Keaau	Keaau Hotel Site	State Site	-	Site Assessment	Ongoing
	Keaau	Keaau Hotel Site VRP Site	VRP	-	Site Assessment	Terminated
	Keaau	Puna Sugar Co LLC at Keaau (Former) Puna Sugar Mill Site	PA/SI	-	PA1/SI1	Ongoing
	Kealakekua	Kona Hospital	State Site	-	Removal	No Further Action (NFA) with Institutional Controls
	Keauhou	Waieli Drilling and Development Keauhou Mechanics Yard	State Site	-	Ranking	Ongoing
	Kukaiau	Kukaiau Ranch	State Site	-	Ranking	Ongoing
	Laupahoehoe	Laupahoehoe High and Elementary School Building A Heating Oil Tank	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Mauna Kea	Canada France Hawaii Telescope Observatory	State Site	-	20040617-1051 Referral to ISST	Ongoing
	Mauna Kea	Motorola Inc Iolehaehae Cinder Cone Diesel Generator Site	State Site	ISST Ranked Low	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Naalehu	Kawaihae Ranch Diesel USTs	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use
	Naalehu	Kawaihae Ranch Weedone Release	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use
	Naalehu	Waiohinu Hwy at Route 11 Mile Marker 66 Hawaii Petroleum Distributors Tanker Diesel Spill	State Site	-	Screening	Ongoing
	Paauhau	Hamakua Sugar Co at Paauhau (Former) Paauhau Seed Dipping Plant	PA/SI	-	PA1	Ongoing
	Paauhau	Hamakua Sugar Co at Paauhau (Former) Paauhau Sugar Mill Site	PA/SI	-	PA1	Ongoing
	Paauilo	Hamakua Sugar Co at Ookala (Former) Ookala Fuel Station	State Site	-	Ranking	Ongoing
	Paauilo	Hamakua Sugar Co at Paauilo (Former) Paauilo Seed Dipping Plant	PA/SI	-	PA1	Ongoing
	Paauilo	Hamakua Sugar Co at Paauilo (Former) Paauilo Sugar Mill Site	PA/SI	-	PA1	Ongoing
	Pahala	Ka'u Agribusiness (Former) Herbicide Mixing Plant	State Site	ISST Ranked Medium	Remedial	Ongoing
	Pahala	Ka'u Agribusiness at Pahala (Former) Kau Sugar Mill Site	PA/SI	-	PA1/SI1	Ongoing
	Pahoa	Pahoa Air Traffic Control Beacon Installation	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Papaiko	Hamakua Sugar Co at Papaiko (Former) Papaiko Sugar Mill Site	PA/SI	-	PA1	Ongoing
	Papaikou	Hilo Coast Power Co at Papaikou (Former) Papaikou Sugar Mill Site	State Site	-	Screening	Screening No Further Action (NFA)
	Pepeekeo	Brewer Environmental Industries Pepeekeo Facility Downslope of Former HCPC Maintainance Garage	State Site	-	Site Assessment	Ongoing
	Pepeekeo	Hilo Coast Power Co at Pepeekeo (Former) Pepeekeo Mill Black Oil Drum Sites	State Site	-	Site Assessment	Ongoing
	Pepeekeo	Hilo Coast Power Co at Pepeekeo (Former) Pepeekeo Mill Fuel Storage Tank	State Site	-	Site Assessment	Ongoing
	Pepeekeo	Hilo Coast Power Co at Pepeekeo (Former) Pepeekeo Sugar Mill Transformer	State Site	-	Screening	Screening No Further Action (NFA) by SOSC
	Volcano	Hawaii Volcanoes National Park Removal of 15,000-Gallon Aboveground Storage Tank	State Site	-	Site Assessment	Ongoing
	Volcano National Park	Hawaii Volcanoes National Park Building Q17 Unregulated UST	State Site	-	Screening	Screening No Further Action (NFA) - Unrestricted Use
	Volcano National Park	Hawaii Volcanoes National Park Removal of Electrical Equipment	State Site	-	Ranking	SDAR Ranked No Further Action (NFA) with Institutional Controls
	Waikoloa	Hilton Waikoloa Village Sewage Pump Station #2	State Site	-	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Hawaii	Waikoloa	Hyatt Waikoloa	State Site	-	Ranking	Ongoing
	Waimea	Waimea Chevron Service Station	State Site	-	20050519-1520 Referral to ISST	Ongoing
	Waipunalei	Hamakua Sugar Co at Waipunalei (Former) Waipunalei Seed Dipping Plant	PA/SI	-	PA1	Ongoing
Kauai		McBryde Sugar Company	PA/SI	-	PA1/SI1	Ongoing
	Barking Sands	Kauai Test Facility	State Site	-	Site Assessment	Ongoing
	Eleele	Kauai Electric Port Allen Generating Facility Generator Unit Number 5	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Eleele	Kauai Electric Port Allen Generating Facility Lube Oil Berm	State Site	-	File Review	No Further Action (NFA)
	Караа	4-1532 Kuhio Hwy	State Site	-	Screening	Screening No Further Action (NFA)
	Караа	Leonard's Inc	State Site	-	20050204-0816 Referral to ISST	Ongoing
	Караа	Waiakea Road Contaminated Soils	State Site	-	Ranking	Ongoing
	Караа	Wailua Homestead Wells	State Site	ISST Ranked High	Remedial	Ongoing
	Kekaha	Hawaii Army National Guard at Kekaha	State Site	-	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Kauai	Kekaha	Kekaha Sugar Co Ltd at Kekaha (Former) Kekaha Sugar Mill Combined Sites	State Site	ISST Ranked High	Remedial	Ongoing
	Kekaha	Kekaha Sugar Co Ltd at Kekaha (Former) Kekaha Sugar Mill Site	PA/SI	-	SI1	Ongoing
	Kekaha	Kekaha Sugar Co Ltd at Kekaha (Former) Kekaha Sugar Seed Dipping Plant	PA/SI	-	SI1	Ongoing
	Kekaha	Kekaha Sugar Co Ltd at Kekaha (Former) Kekaha Sugar Settling Pond	PA/SI	-	SI1	Ongoing
	Kekaha	Kekaha Sugar Co Ltd at Kekaha (Former) Kekaha Sugar Wood Treatment Plant	PA/SI	-	SI1	Ongoing
	Koloa	Stan's Koloa Chevron	State Site	-	Ranking	Referred to SHWB
	Koloa	Stouffer Waiohai Beach Resort	State Site	-	Unregulated UST	Ongoing
	Koloa	Up-to-Date Cleaners Kauai	State Site	-	Screening	Screening Referred to SHWB
	Lawai	Lawai Valley Cannery	PA/SI	-	PA1	Ongoing
	Lihue	3429 Elima Rd	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Lihue	Air Service Hawaii Lihue Airport	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Kauai	Lihue	Anahola Project Faith Brownfield Project	Brownfields	-	Phase III	Ongoing
	Lihue	Equilon Enterprises LLC Nawiliwili Fuel Distribution Terminal	State Site	-	Site Assessment	Ongoing
	Lihue	Gary's Chevron Service Station	State Site	-	Removal	Ongoing
	Lihue	Honsador Lumber Corporation at Nawiliwili VRP Site	VRP	-	Remedial	Ongoing
	Lihue	Island Self Storage LLC	State Site	-	Site Assessment	Ongoing
	Lihue	Lihue Airport (Former) Masterworks	State Site	-	Screening	Referred to SHWB
	Lihue	Lihue Plantation Co Ltd at Lihue (Former) Lihue Sugar Plantation Combined Sites	PA/SI	-	SI1	Ongoing
	Lihue	Nawiliwili Harbor Nawiliwili Harbor Pier 1 Fuel Contamination	State Site	ISST Ranked Low	File Review	Ongoing
	Lihue	Nawiliwili Harbor Nawiliwili Harbor Pier 2 Oil Spill	State Site	-	File Review	Ongoing
	Lihue	Nawiliwili Harbor Nawiliwili Harbor Pier 3 Bollard Foundation	State Site	-	Ranking	Ongoing
	Lihue	Nawiliwili Harbor Nawiliwili Harbor Pier 3 Improvements	State Site	-	Ranking	Ongoing
	Port Allen	Tesoro Hawaii Corporation Port Allen Terminal	State Site	-	Screening	Screening Referred to SHWB

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Kauai	Puhi	Brewer Chemical Corporation Puhi Facility	State Site	-	Site Assessment	Ongoing
	Wailua	Coco Palms Sewer Pump Station	State Site	ISST Ranked Low	File Review	Ongoing
	Wailua	Kauai Agricultural Research Center Agent Orange and Pesticide Sites	PA/SI	-	SI1	Ongoing
	Waimea	(Former) Downie's Unocal	State Site	-	Screening	Screening No Further Action (NFA) by SOSC
	Waimea	Borden Meadow Gold Dairy	State Site	ISST Ranked Low	File Review	Ongoing
Kure Atoll	Kure Atoll	Kure Atoll	State Site	CERCLIS Ranked High	File Review	Ongoing
Lanai	Lanai	Koele Lodge	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Lanai City	Dole Food Company Hawaii Plantation Lanai City Facility	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Lanai City	Manele Bay Golf Course	State Site	-	Ranking	Ongoing
Maui	Haliimaile	Maui Land and Pineapple at Haliimaile Road	State Site	-	Ranking	Ongoing
	Kaanapali	Consolidated Metals Inc	State Site	-	File Review	Ongoing
	Kaanapali	Kaanapali Beach Apartment Condominium	State Site	-	Ranking	No Further Action Letter Unrestricted Use

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Maui	Kahana	Maui Electric Co Inc (MECO) at Pohailani Maui Resort MECO Pad-mount Transformer 7498	State Site	-	20050523-1005 Referral to ISST	Ongoing
	Kahului	(Former) E and E Black Contractors	State Site	-	Addressed Under Kanaha Pond East Site	Ongoing
	Kahului	(Former) Maui Meat Company Facility	State Site	ISST Ranked NFA	Ranking	Ongoing
	Kahului	32 Lono Ave Petroleum Release from Adjacent Property	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kahului	Alii Linen Service Aliamanu (Former) Snow White Linen	State Site	-	Ranking	Ongoing
	Kahului	Bird Bilders	PA/SI	-	Addressed under Kanaha Pond Industrial West Site	Ongoing
	Kahului	Chevron Products Company Marketing Kahului Bulk Terminal	State Site	ISST Ranked Medium	Site Assessment	Ongoing
	Kahului	Equilon Enterprises LLC Kahului Bulk Terminal	State Site	-	Site Assessment	Ongoing
	Kahului	F and M Contractors Inc	State Site	-	File Review	No Further Action (NFA)
	Kahului	Fong Construction Inc	State Site	-	Ranking	Ongoing
	Kahului	Hawaii Army National Guard at Kahului	State Site	-	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Maui	Kahului	Hawaii Wood Preserving Co	State Site	-	Site Assessment	Ongoing
	Kahului	Hobron Ave Area Kahului Kahului Harbor	State Site	-	Site Assessment	Ongoing
	Kahului	Kahului Service Inc dba Lloyd's Kahului Chevron	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Kahului	Kanaha Pond Industrial West Site	PA/SI	-	SI1	Ongoing
	Kahului	King's Towing	State Site	-	Addressed Under Kanaha Pond East Site	Ongoing
	Kahului	Maui Business Park	State Site	ISST Ranked Low	File Review	Ongoing
	Kahului	Maui Petroleum Inc Kahului Terminal Kahului Harbor	State Site	-	Site Assessment	Ongoing
	Kahului	Maui Shell Service Station	State Site	-	Screening	Screening No Further Action (NFA)
	Kahului	Pacific Machinery Inc Four Areas	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kahului	Rainbow Hauling	State Site	-	Addressed under Kanaha Pond West Site	Ongoing
	Kahului	Rex Tire and Supply	State Site	-	Unregulated UST	Ongoing
	Kahului	Sears Auto Center at Kahului	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Maui	Kahului	Smile's Auto Specialists	State Site	-	Addressed Under Kanaha Pond East Site	Ongoing
	Kahului	Valley Isle Produce (VIP) Food Service Warehouse	State Site	-	Site Assessment	Ongoing
	Kahului	Young Brothers Ltd Kahului Kahului Harbor Pier 2 Operations Area	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kihei	Selland Construction Inc Kihei Base Yard	State Site	ISST Ranked Low	File Review	Ongoing
	Lahaina	Codac's Chevron Gasoline Station	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Lahaina	Maui Disposal Company Inc at Lahaina	State Site	-	Ranking	Ongoing
	Lahaina	Royal Lahaina Resort, The	State Site	-	Unregulated UST	No Further Action (NFA) Letter
	Maalaea	Maui Electric Co Inc (MECO) Maalaea Power Plant	State Site	-	Remedial	Ongoing
	Makawao	Maunaolu Smith Well State Well No. 5320-02	State Site	-	Screening	Screening No Further Action (NFA)
	Paia	Hawaiian Commercial and Sugar Co at Paia (Former) Paia Sugar Mill Site	PA/SI	-	PA1/SI1	Ongoing
	Paia	Paia General Store	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Maui	Pukalani	Maui Land and Pineapple (Former) Chemical Mixing Storage Area VRP Site	VRP	-	Site Assessment	Ongoing
	Puunene	Hawaiian Commercial and Sugar Co at Puunene (Former) Puunene Sugar Mill Cane Hauler Shop	PA/SI	-	20040206-0909 Referral to ISST	Ongoing
	Puunene	Hawaiian Commercial and Sugar Co at Puunene (Former) Puunene Sugar Mill Site	State Site	-	20040113-0904 Referral to ISST	Ongoing
	Puunene	Maui Wood Treating Company Ltd	State Site	-	Ranking	Ongoing
	Puunene	Puunene Airport	State Site	-	Ranking	Ongoing
	Wailuku	1790 Mill St	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Wailuku	Alvin's Uptown Chevron Service Station	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Wailuku	Hawaii Army National Guard at Wailuku Organizational Maintenance Shop #3 (OMS #3)	State Site	-	File Review	Ongoing
	Wailuku	Hawaii Land and Farming Co Wailuku Development Site	State Site	-	Ranking	Ongoing
	Wailuku	Maui Electric Co Inc (MECO) Substation 3 MECO Transformer 7597	State Site	-	20050412-1240 Referral to ISST	Ongoing
	Wailuku	Valley Isle Motors	State Site	-	Unregulated UST	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Maui	Wailuku	Waiale Landfill	State Site	ISST Ranked High	Remedial	Ongoing
Molokai	Kaunakakai	Hawaiian Eye Center	State Site	ISST Ranked Low	File Review	Ongoing
	Kaunakakai	Island Petroleum Inc Kaunakakai Terminal Kaunakakai Harbor	State Site	-	20040817-0825 Referral to ISST	Ongoing
	Kaunakakai	Molokai Oil	State Site	-	File Review	Ongoing
	Kaunakakai	Molokai Ranch Southeast Corner Kamehameha V Hwy & Mohala Street	State Site	-	Screening	Screening No Further Action (NFA)
	Kaunakakai	Molokai Ranch Wharf Road	State Site	-	Unregulated UST	No Further Action (NFA) by SOSC
	Kaunakakai	Rawlins' Chevron Service Station Hydraulic Hoist and Sand-And- Grease Trap	State Site	-	20040121-0943 Referral to ISST	NFA Letter Issued
	Molokai	Kualapuu Well 17	State Site	-	Ranking	Ongoing
Oahu	Aiea	(Former) Aiea Sugar Mill Lot 15 Aiea Sugar Mill VRP Site	VRP	-	Remedial	Ongoing
	Aiea	1294 Aiea Heights Dr Residence	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use (HHA shows no sign of risk)
	Aiea	Grace Pacific Corporation Halawa Facility	State Site	ISST Ranked Low	Remedial	Ongoing
	Aiea	Halawa Animal Quarantine Station	State Site	-	Screening	Screening No Further Action (NFA)

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Aiea	Halawa Corportation Yard	State Site	-	File Review	No Further Action (NFA) by SOSC
	Aiea	Hawaii Agricultural Research Center Aiea Stream Bed	State Site	-	Remedial	Ongoing
	Aiea	Hawaii Baking Company	State Site	-	File Review	Ongoing
	Aiea	Hawaiian Cement at Halawa Quarry	State Site	-	Ranking	Ongoing
	Aiea	Hawaiian Electric Co (HECO) Transformer 52091	State Site	-	Ranking	Ongoing
	Aiea	Sears Facility 1578 at Pearlridge Mall Elevator Jack	State Site	-	Site Assessment	No Further Action (NFA) with Institutional Controls
	Aiea	Sears Facility 1578 at Pearlridge Mall Hydraulic Hoist	State Site	-	Remedial	Ongoing
	Ewa Beach	Ala Kona Corp	State Site	-	Screening	Screening No Further Action (NFA)
	Ewa Beach	BHP Gas Express Station 43 Ewa Repair Shop Zippy's Ewa Beach Parcel	State Site	-	Removal	No Further Action (NFA) Letter
	Ewa Beach	Ewa Beach Chevron	State Site	-	Unregulated UST	No Further Action (NFA) Letter
	Ewa Beach	Hananui St Landfill	State Site	-	Screening	Screening Referred to SHWB
	Ewa Beach	Leeward Auto Wreckers Inc	State Site	-	Screening	Screening Referred to SHWB
	Ewa Beach	Oahu Sugar Co at Ewa Beach (Former) Ewa Sugar Mill Site	State Site	-	Remedial	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Ewa Beach	Oahu Sugar Co at Ewa Beach (Former) Ewa Sugar Mill Southeast Side	State Site	-	Removal	Ongoing
	Ewa Beach	Oahu Sugar Co at Ewa Beach (Former) Pesticide Mixing & Loading Area	State Site	ISST Ranked High	Remedial	Ongoing
	Ewa Beach	Pacific Concrete and Rock Ltd (Former) Puu Palailai Quarry and Landfill	State Site	-	Screening	Screening No Further Action (NFA)
	Ewa Beach	Tesoro Hawaii Corporation Pipeline Kamokila Blvd b/w Makakilo Rd and Road I	State Site	-	Ranking	SDAR Ranked No Further Action (NFA) - Unrestricted Use
	Ewa Beach	Zippy's Parcel	State Site	ISST Ranked Low	Removal	Ongoing
	Haleiwa	(Former) Haleiwa Canoe Club	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Haleiwa	Haleiwa Chevron (OK Chevron)	State Site	-	20050630-1400 Referral to ISST	Ongoing
	Haleiwa	Sunset Beach Chevron	State Site	-	Site Assessment	No Further Action (NFA) - Nothing above EAL
	Haleiwa	Waimea Valley Adventure Park	State Site	-	Ranking	Ongoing
	Honolulu	(Former) ARCO AM/PM 82102 (Texaco 61-100-0043)	State Site	-	Unregulated UST	Ongoing
	Honolulu	(Former) ARCO AM/PM 82111 (Texaco 61-100-0045)	State Site	-	Unregulated UST	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	(Former) Flynn Learner Property VRP Site aka Pahounui LLC	VRP	-	Remedial	Letter of Completion (LOC) with Institutional Controls
	Honolulu	(Former) Gasco Parcel 8 and 9 Gas Distribution Center Honolulu Harbor Pier 38	State Site	-	Site Assessment	Ongoing
	Honolulu	(Former) Monarch Building Supply	State Site	-	Ranking	Refer to SHWB
	Honolulu	(Former) Motor Imports	State Site	-	Removal	No Further Action (NFA) with Institutional Controls
	Honolulu	(Former) Pauley Petroleum Honolulu Harbor Pier 32 to 33	State Site	ISST Ranked Medium	20050518-1415 Referral to ISST	Ongoing
	Honolulu	(Former) Roberts Hawaii	State Site	-	Site Assessment	No Further Action (NFA) with Institutional Controls
	Honolulu	(Former) Trans Hawaiian Site	State Site	-	Ranking	Refer to SHWB
	Honolulu	(Former) Young Brothers Ltd at Honolulu Honolulu Harbor Pier 24 to 29	State Site	-	Ranking	Ongoing
	Honolulu	(Former) Ziegler Steel Site	State Site	-	File Review	No Further Action (NFA) - No Contamination Found
	Honolulu	1305 Hart St	State Site	-	Removal	No Further Action (NFA) - No Contamination Found
	Honolulu	1510 Frear St Unit A	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use
	Honolulu	2121 S King St	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	2147 Aoao St	State Site	-	Ranking	Ongoing
	Honolulu	215 North King Street Construction Site Tanks 1 & 2	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	2161 N School St	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	2326 Kalihi St	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Unrestricted Use
	Honolulu	2546 Lemon Rd	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	2855 Kaihikapu St	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	373 N Nimitz Hwy	State Site	SDAR Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	373 N Nimitz Hwy	State Site	ISST Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	4142 Round Top Dr UST Closed In Place	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	420-470 North Nimitz Highway	State Site	SDAR Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	420-470 North Nimitz Highway	State Site	ISST Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	4338 Puu Panini Ave Residence	State Site	-	20040228-1130 Referral to ISST	Ongoing
	Honolulu	438 Kamakee St	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use
	Honolulu	501 Cooke St	State Site	-	Site Assessment	No Further Action (NFA) with Institutional Controls
	Honolulu	580 North Nimitz Hwy	State Site	SDAR Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	861-869 North Nimitz Hwy	State Site	-	Ranking	SDAR Ranked No Further Action (NFA) with Institutional Controls
	Honolulu	Airport Group International Honolulu International Airport Maintenance Yard	State Site	-	20041215-1115 Referral to ISST	Ongoing
	Honolulu	Ala Moana 2 Wastewater Pump Station (WWPS)	State Site	-	Screening	Screening No Further Action (NFA) with Institutional Controls
	Honolulu	Ala Wai Cove Condominium Apartments	State Site	-	Unregulated UST	Ongoing
	Honolulu	Ala Wai Service Inc	State Site	-	Screening	Screening No Further Action (NFA)

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Allstate Industrial and Marine Cleaning Inc Honolulu Harbor Pier 32	State Site	-	Ranking	Ongoing
	Honolulu	Aloha 7-Eleven City Square	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Aloha Petroleum Nimitz Terminal Honolulu Harbor Pier 29	State Site	-	Ranking	Ongoing
	Honolulu	Aloha Tower Development Corporation Honolulu Harbor Pier 8 to 14	State Site	-	Defer to Honolulu Harbor Downtown Unit	Ongoing
	Honolulu	Aloha/King LLC VRP Site	VRP	-	Remedial	Ongoing
	Honolulu	Alsco American Linen Division	State Site	-	Removal	No Further Action (NFA) with Institutional Controls
	Honolulu	Ameican Linen Warehouse	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	AMELCO Corporation	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	American Pacific Transport Inc	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	Andy's Kahala Chevron Service	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Honolulu	Best Buy at Iwilei	State Site	-	20041029-1530 Referral to ISST	Ongoing
	Honolulu	BHP Gasco Iwilei Benzene Site	State Site	-	Remedial	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	BHP Honolulu Terminal Facility Honolulu Harbor Pier 29	State Site	ISST Ranked NFA	Ranking	Ongoing
	Honolulu	Cannon Club Brownfield Project	Brownfields	-	Phase I	No Further Action (NFA) - Closeout Letter
	Honolulu	Capitol Place Development Project	State Site	-	Site Assessment	Ongoing
	Honolulu	Cartwright Neighborhood Park	State Site	-	File Review	No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Century Aviation Inc Honolulu International Airport	State Site	-	Regulated UST	Referred to SHWB
	Honolulu	Chevron Products Company Hawaii Refinery Pipeline Honolulu Harbor Pier 35	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Chevron Products Company Marketing Honolulu Terminal Marine	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Chevron Products Company Marketing Honolulu Transportation Terminal	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Chuei Shokoh Inc VRP Site	VRP	-	O&M	Ongoing
	Honolulu	Costco Wholesale at Iwilei Gas Station VRP Site	VRP	-	Remedial	Ongoing
	Honolulu	Costco Wholesale at Iwilei Warehouse VRP Site	VRP	-	Remedial	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Cutter Chevrolet	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Cutter Dodge	State Site	-	Ranking	Ongoing
	Honolulu	DIL Trust	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Dillingham Blvd and Mokauea St	State Site	-	File Review	No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Dole Food Company Hawaii Packing Plant Iwilei Facility	State Site	-	Ranking	Ongoing
	Honolulu	Domestic Commercial Fishing Village Honolulu Harbor Pier 36 to 38	State Site	-	Removal	Ongoing
	Honolulu	Equilon Enterprises LLC Honolulu Terminal	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Evershine X VRP Site	VRP	-	Site Assessment	Letter of Completion (LOC) - Unrestricted Use
	Honolulu	Farrington High School	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Fort Ruger Transformer 33	State Site	-	Site Assessment	Ongoing
	Honolulu	Garlow Petroleum Inc	State Site	-	Ranking	Ongoing
	Honolulu	Gateway Park	State Site	-	Ranking	Ongoing
	Honolulu	GTE Hawaiian Tel	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	GTE Hawaiian Tel Base Yard	State Site	-	Ranking	Ongoing
	Honolulu	GTE Hawaiian Tel Employees Federal Credit Union	State Site	-	File Review	No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Hakuyosha Hawaii Inc	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Hall Mark Dry Cleaners	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Hart Street Wastewater Pump Station (WWPS) Nimitz Hwy Relief Sewer	State Site	-	Ranking	Ongoing
	Honolulu	Hawaii Army National Guard at Fort Ruger (Former) Firing Ranges	State Site	-	Site Assessment	Ongoing
	Honolulu	Hawaii Convention Center	State Site	-	File Review	Ongoing
	Honolulu	Hawaii Fueling Facilities Corporation Honolulu Harbor Pier 51A	State Site	ISST Ranked Medium	Remedial	Ongoing
	Honolulu	Hawaii Fueling Facilities Corporation Honolulu International Airport	State Site	-	File Review	Ongoing
	Honolulu	Hawaii Fueling Facilities Corporation Sand Island Lockheed Tank Yard	State Site	-	Ranking	Ongoing
	Honolulu	Hawaii Grain Corporation Fred L. Waldron Feed Mill	State Site	-	Ranking	Ongoing
	Honolulu	Hawaii Job Corps Center	State Site	ISST Ranked Low	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Hawaii Meat Co Ltd	State Site	ISST Ranked Medium	Remedial	Ongoing
	Honolulu	Hawaii Metal Recycling Co Honolulu Harbor Pier 35	State Site	-	Ranking	Ongoing
	Honolulu	Hawaii Stevedores Inc Honolulu Harbor Pier 26	State Site	-	Ranking	Ongoing
	Honolulu	Hawaii Transfer Company Ltd Honolulu Harbor Pier 36	State Site	-	Ranking	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) at Kapiolani Blvd and Chapin Lane Soil Contamination	State Site	-	Ranking	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) Fuel Oil Pipeline	State Site	-	Site Assessment	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) Honolulu Generating Station	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) Iwilei Tank Yard	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) Mokuone Substation	State Site	-	Site Assessment	Ongoing
	Honolulu	Hawaiian Electric Co (HECO) Transformer 26127	State Site	-	File Review	Ongoing
	Honolulu	Hawaiian Flour Mill	State Site	-	Ranking	Ongoing
	Honolulu	Hawaiian Fluid Power Co	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Hawaiian Miso and Soy Co Ltd	State Site	-	Unregulated UST	No Further Action (NFA) Letter Issued
	Honolulu	Hawaiian Tug and Barge Corporation Honolulu Harbor Pier 21	State Site	-	Ranking	Ongoing
	Honolulu	Hertz Rent A Car Vehicle Maintenance Facility	State Site	-	Screening	Screening No Further Action (NFA) with Institutional Controls
	Honolulu	Home Depot at Iwilei VRP Site	VRP	-	O&M	Ongoing
	Honolulu	Honolulu Community College Gas Station	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Honolulu Design Center	State Site	-	Screening	Screening No Further Action (NFA) - Unrestricted Use
	Honolulu	Honolulu Harbor Honolulu Harbor Pier 19 BTU Storage Tanks	State Site	ISST Ranked High	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Honolulu International Airport	State Site	ISST Ranked Medium	File Review	Ongoing
	Honolulu	Honolulu Shipyard Inc Honolulu Harbor Pier 40	State Site	ISST Ranked Medium	File Review	Ongoing
	Honolulu	House Foods Hawaii (Former) Foremost Dairies Hawaii	State Site	-	Ranking	Ongoing
	Honolulu	Imai Brothers Enterprises (Former) Kalakaua Transmission Inc	State Site	-	Site Assessment	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Iolani School	State Site	-	Ranking	Ongoing
	Honolulu	Island Movers Inc	State Site	-	Ranking	Ongoing
	Honolulu	Iwilei Brownfield Project	Brownfields	-	Referred for Phase III	Ongoing
	Honolulu	Iwilei Business Center Ltd	State Site	-	Site Assessment	Ongoing
	Honolulu	Kaimuki Pump Station	State Site	-	Unregulated UST	Ongoing
	Honolulu	Kakaako Makai Gateway Park (Former) Y Hata Property TMK 1- 2-1-060-007	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Honolulu	Kakaako Pump Station Brownfield Project	Brownfields	-	Referred for Phase II	Ongoing
	Honolulu	Kakaako Unit 1 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing
	Honolulu	Kakaako Unit 10 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing
	Honolulu	Kakaako Unit 2 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing
	Honolulu	Kakaako Unit 3 Brownfield Project	Brownfields	ISST Ranked Medium	Referred for Assessment	Ongoing
	Honolulu	Kakaako Unit 4 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing
	Honolulu	Kakaako Unit 5 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Kakaako Unit 6 Brownfield Project	Brownfields	-	Phase III	Ongoing
	Honolulu	Kakaako Unit 7 Brownfield Project	Brownfields	-	Phase III	Ongoing
	Honolulu	Kakaako Unit 8 Brownfield Project	Brownfields	-	Phase III	Ongoing
	Honolulu	Kakaako Unit 9 Brownfield Project	Brownfields	-	Referred for Assessment	Ongoing
	Honolulu	Kalihi Palama Bus Facility	State Site	-	Ranking	Ongoing
	Honolulu	Kamehameha School Kapalama Campus Rifle Range	State Site	-	Ranking	Ongoing
	Honolulu	Kapalama Incinerator Off-Site Contamination	State Site	-	Site Assessment	Ongoing
	Honolulu	Kapalama Incinerator On-Site Contamination	State Site	-	Remedial	No Further Action (NFA) Letter - Unrestricted Use
	Honolulu	Keeaumoku Partners Superblock Project	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Keehi Lagoon Canoe Facility	State Site	-	Site Assessment	Restricted Use Letter
	Honolulu	Kekaulike Revitalization Project	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	Kewalo Incinerator Ash Dump	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Koolani Tower Project	State Site	-	Site Assessment Area 2	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Kuhio Park Terrace Brownfield Project Units D1 and D2	Brownfields	-	Referred for Phase II	Ongoing
	Honolulu	Lance Goya's Chevron Service	State Site	-	Site Assessment	Ongoing
	Honolulu	Like Like Plaza	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Lockheed Air Terminal Inc Honolulu International Airport	State Site	ISST Ranked Medium	File Review	Ongoing
	Honolulu	Lowes at 311 Pacific St Brewer Environmental Industries VRP Site	VRP	ISST Ranked Medium	Site Assessment	Ongoing
	Honolulu	Lowes at 411 Pacific St Tosco Honolulu Terminal VRP Site	VRP	-	Remedial	Ongoing
	Honolulu	Lunalilo Home Facility	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Matson Navigation Company Honolulu Harbor Pier 51	State Site	-	Ranking	Ongoing
	Honolulu	McCabe Hamilton & Renny Company Ltd Honolulu Harbor Pier 1	State Site	-	Ranking	Ongoing
	Honolulu	Meadow Gold Ice Cream Plant	State Site	ISST Ranked Low	File Review	Ongoing
	Honolulu	Mid Pacific Institute	State Site	-	Unregulated UST	Ongoing
	Honolulu	Miyazaki Honolulu Airport Service Station	State Site	-	Ranking	Ongoing
	Honolulu	Nestle USA	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	New Office Lounge	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Nimitz Highway from Sumner Street to Queen Street	State Site	-	Remedial	Ongoing
	Honolulu	Oceanic Communications	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	One Archer Lane	State Site	-	Ranking	Ongoing
	Honolulu	Pacific Marine and Supply Co Ltd. Honolulu Harbor Pier 13 to 14	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Honolulu	Pacific Poultry Company Ltd	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	Paradise Landscape Maintenance Inc.	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Honolulu	Polynesian Hospitality	State Site	-	Ranking	Ongoing
	Honolulu	Prince Kuhio Hotel	State Site	-	Unregulated UST	No Further Action (NFA) - Unrestricted Use
	Honolulu	Pukoloa Wood Treating Site	State Site	CERCLIS Ranked Low	Remedial	Ongoing
	Honolulu	Puuwai Momi Housing Complex Hawaii Mercury	State Site	-	Ranking	Ongoing
	Honolulu	Queen Emmalani Tower	State Site	-	Remedial	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Resource Recovery Ltd Residence	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Saint Francis Medical Center	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	Sand Island Access Road Buried Drum Site	State Site	-	Ranking	Ongoing
	Honolulu	Sand Island State Recreation Area Brownfield Project	Brownfields	-	Referred for Phase II	Ongoing
	Honolulu	Sand Island Waste Water Treatment Plant (WWTP)	State Site	-	Ranking	Ongoing
	Honolulu	Sause Brothers	State Site	-	Ranking	Ongoing
	Honolulu	Schuman Carriage	State Site	-	Ranking	Ongoing
	Honolulu	Sea Land Service	State Site	-	Ranking	Ongoing
	Honolulu	Servco Pacific Inc at Auiki St	State Site	-	Ranking	Ongoing
	Honolulu	Shizuko & Masuo Hamaoka Trusts Contaminated Soil	State Site	-	Site Assessment	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	Sierra Shell Service Station	State Site	-	Ranking	Ongoing
	Honolulu	Sprint PCS Call Center Parking Lot	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	State Poultry Processors Facility	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Symphony Park	State Site	-	Site Assessment	Ongoing
	Honolulu	Takamiya Property	State Site	-	Screening	Screening No Further Action (NFA)
	Honolulu	Tesoro Hawaii Corporation Honolulu Terminal Honolulu Harbor Pier 34	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	Tesoro Hawaii Corporation Sand Island Terminal	State Site	SDAR Ranked Medium	File Review	Ongoing
	Honolulu	Texaco Iwilei	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Honolulu	The Pavillion	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	Thoht Property	State Site	-	Screening	Screening Referred to SHWB
	Honolulu	Towco at Sand Island	State Site	-	Ranking	Ongoing
	Honolulu	Town Inn VRP Site	VRP	ISST Ranked Low	O&M	Ongoing
	Honolulu	Travel Plaza Transportation LLC	State Site	SDAR Ranked Medium	Referred for Assessment	Ongoing
	Honolulu	Uaukewai Diving Salvage & Fishing Inc	State Site	-	Ranking	Ongoing
	Honolulu	University of Hawaii at Manoa	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Honolulu	University of Hawaii at Manoa Bilger Hall Mercury	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	University of Hawaii at Manoa Food Science Technology Building	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	University of Hawaii at Manoa Hawaii Hall Renovation	State Site	-	Ranking	Ongoing
	Honolulu	University of Hawaii at Manoa Lower Campus	State Site	-	Ranking	Ongoing
	Honolulu	University of Hawaii at Manoa Stan Sheriff Special Events Arena	State Site	-	Ranking	Ongoing
	Honolulu	University of Hawaii Marine Center Used Oil Spill Release Case 20030523-0900	State Site	-	Removal	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Honolulu	University of Hawaii Medical School	State Site	-	Screening	Screening No Further Action (NFA) with Institutional Controls
	Honolulu	US Coast Guard Base Honolulu	State Site	-	Ranking	Ongoing
	Honolulu	US Postal Service Vehicle Maintenance Facility	State Site	-	Ranking	Ongoing
	Honolulu	Vermiculite of Hawaii	PA/SI	-	PA1	Ongoing
	Honolulu	Von Hamm Textiles Inc	State Site	-	Ranking	Ongoing
	Honolulu	Waikiki Bazaar	State Site	-	Unregulated UST	No Further Action (NFA) Letter
	Honolulu	Waikiki Sand Villa II	State Site	ISST Ranked Low	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Honolulu	Waipahu Auto Company	State Site	-	20050805-1442 Referral to ISST	Ongoing
	Honolulu	Weyerhaeuser	State Site	-	Ranking	Ongoing
	Honolulu	Wiliwili and King St Excavation	State Site	-	Ranking	Referred to SHWB
	Honolulu	Yacht Harbor Towers	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Honolulu	Yee Hop Building at 950 Maunakea St	State Site	-	Remedial	Ongoing
	Honolulu	Yee Hop Property at 621 Middle St	State Site	-	Screening	Screening No Further Action (NFA) by SOSC
	Honolulu	Young Brothers Ltd at Honolulu Honolulu Harbor Pier 39 and 40	State Site	-	Ranking	Ongoing
	lwilei	City Mill Home Improvement Center at Iwilei	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Kaaawa	51-344 Kamehameha Hwy	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Kahuku	(Former) Kahuku Sugar Mill VRP Site	VRP	-	Site Assessment	Ongoing
	Kahuku	Hawaiian Electric Co (HECO) Kahuku Wind Farm Kahuku Wind Farm Transformer Leak	State Site	-	Screening	Screening No Further Action (NFA)

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kailua	(Former) Windward Volkswagen	State Site	-	Site Assessment	No Further Action (NFA) with Institutional Controls
	Kailua	21 Malunui Ave	State Site	-	Ranking	Ongoing
	Kailua	GTE Hawaiian Tel Kailua Baseyard	State Site	-	Site Assessment	Ongoing
	Kailua	Honolulu Skeet Club	State Site	ISST Ranked Low	Remedial	Ongoing
	Kailua	Kailua Corporation Yard	State Site	SDAR Ranked Low	Referred for Assessment	Ongoing
	Kailua	Kaneohe Ranch	State Site	-	Unregulated UST	Ongoing
	Kailua	Kapaa Landfill at Kapaa Quarry Oahu	PA/SI	-	ES1	Ongoing
	Kailua	Women's Community Correctional Center	State Site	-	Unregulated UST	Ongoing
	Kalihi	BIA Construction Training Center of the Pacific Brownfield Project	Brownfields	-	Phase I	Ongoing
	Kalihi	Kalihi Texaco	State Site	-	File Review	Ongoing
	Kalihi	Kokua Kalihi Valley Active Living Center Brownfield Project	Brownfields	-	Phase I	Ongoing
	Kaneohe	(Former) Unocal Station 4393	State Site	-	Site Assessment	Referred to SHWB
	Kaneohe	Flag lot adjacent to 45-130 Lilipuna Road	State Site	-	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kaneohe	Hawaiian Electric Co (HECO) Transformer 28851	State Site	-	Ranking	Ongoing
	Kaneohe	HCDA Heeia Land Transfer Brownfield Project	Brownfields	-	Phase I	Ongoing
	Kaneohe	Kaneohe Chevron Service	State Site	-	Ranking	Referred to SHWB
	Kaneohe	Safeway Store 207 Kaneohe Bay Sediments	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Kaneohe	Scott's Plating	State Site	CERCLIS Ranked High	Site Assessment	Ongoing
	Kaneohe	US Coast Guard Omega Station	State Site	-	Screening	Screening Referred to SHWB
	Kapalama	Chevron Products Company Marketing Kapalama Terminal Northeast Parcel	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Kapalama	Chevron Products Company Marketing Kapalama Terminal Northwest Parcel	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Kapalama	Chevron Products Company Marketing Kapalama Terminal South Chevron Fuel Farm	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Kapalama	Chevron Products Company Marketing Kapalama Terminal Southwest Parcel	State Site	-	Addressed under Honolulu Harbor Iwilei Unit	Ongoing
	Kapolei	Aloha Petroleum Barbers Point Terminal Barbers Point Harbor	State Site	ISST Ranked Medium	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kapolei	Ameron Concrete Pipe Fabrication Facility	State Site	-	Ranking	Ongoing
	Kapolei	Barbers Point Harbor Barbers Point Barge Harbor Soil Contamination	State Site	ISST Ranked Medium	File Review	Ongoing
	Kapolei	Barbers Point Harbor Barbers Point Harbor Expansion	State Site	ISST Ranked Medium	File Review	Ongoing
	Kapolei	Barbers Point Harbor Barbers Point Harbor Lead Contaminated Soil	State Site	-	Ranking	Ongoing
	Kapolei	Brewer Chemical Corporation Campbell Industrial Park Facility	State Site	ISST Ranked Low	File Review	Ongoing
	Kapolei	Chevron Products Company Hawaii Refinery Pipeline Hanua Street and Komohana Street	State Site	-	Ranking	Ongoing
	Kapolei	Chevron Products Company Hawaii Refinery Pipeline Hawaiian Refractories	State Site	-	Screening	Screening No Further Action (NFA)
	Kapolei	Chevron Products Company Hawaii Refinery Tank Sludge	State Site	ISST Ranked Medium	File Review	Ongoing
	Kapolei	CoVan Warehouse	State Site	-	Ranking	Ongoing
	Kapolei	Covanta HPOWER	State Site	-	Removal	No Further Action (NFA) with Institutional Controls
	Kapolei	DHHL East Kapolei Affordable Housing Brownfield Project	Brownfields	-	Referred for Phase II	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kapolei	Hanua St Southern Terminus	State Site	-	Remedial	Ongoing
	Kapolei	Hawaii Metal Recycling Co at Campbell Industrial Park	State Site	-	Screening	Screening Referred to SHWB
	Kapolei	Hawaii Raceway Park	State Site	-	Screening	Screening No Further Action (NFA) - No Contamination Found
	Kapolei	Hawaiian Cement at Kaomi Lp (Former) Cyprus Hawaiian Cement Corp	State Site	-	Ranking	SDAR Ranked No Further Action (NFA)
	Kapolei	Hawaiian Meat Packers	State Site	-	Screening	Screening Referred to SHWB
	Kapolei	Hawaiian Western Steel Ltd Hanua St Plant Area	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use (Zoned Industrial)
	Kapolei	Hawaiian Western Steel Ltd Hanua St Waste Pile Area	State Site	-	Site Assessment	No Further Action (NFA) - Unrestricted Use (Zoned Industrial)
	Kapolei	Hawaiian Western Steel Ltd Kaomi Loop Kapolei Beach Area	PA/SI	-	SI1	No Further Action (NFA) - Unrestricted Use (Zoned Industrial)
	Kapolei	Honolulu Wood Treating Company at Kapolei VRP Site	VRP	ISST Ranked NFA	Site Assessment	Ongoing
	Kapolei	Honsador Lumber Corporation at Kapolei VRP Site	VRP	-	Remedial	Ongoing
	Kapolei	Industrial Technology Kauhi St	State Site	-	Ranking	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kapolei	Kalaeloa Cogeneration Plant	State Site	-	File Review	Ongoing
	Kapolei	Kenai Industrial Park Beyond the Property Line	State Site	-	Screening	Screening No Further Action (NFA) - Unrestricted Use (Zoned Industrial)
	Kapolei	Komohana Park Industrial Lots VRP Site	VRP	-	Site Assessment	Ongoing
	Kapolei	Land O'Lakes Inc Western Feed Division	State Site	-	Screening	Screening No Further Action (NFA)
	Kapolei	Marisco Ltd Barbers Point Harbor	State Site	-	File Review	Ongoing
	Kapolei	Tesoro Hawaii Corporation Barge Loading Facility Barbers Point Pier 5 Deep Draft Harbor	State Site	-	Site Assessment	Ongoing
	Kapolei	Tesoro Hawaii Corporation Kapolei Refinery	State Site	-	Screening	Screening No Further Action (NFA)
	Kapolei	Tileco Inc	State Site	ISST Ranked Medium	File Review	Ongoing
	Kualoa	Kualoa Regional Park	State Site	-	File Review	Ongoing
	Kunia	Central Oahu Wells	State Site	-	Site Assessment	Ongoing
	Kunia	Del Monte Fresh Fruit Packing Facility	State Site	-	Site Assessment	Ongoing
	Kunia	Del Monte Oahu Plantation NPL Site	State Site	CERCLIS Ranked High	Remedial	Ongoing
	Kunia	Del Monte Oahu Plantation NPL Site	State Site	ISST Ranked High	Remedial	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Kunia	Del Monte Oahu Plantation Poamoho Tract Kunia Wells	PA/SI	-	PA2	Ongoing
	Kunia	Hawaii Agricultural Research Center Kunia Substation	State Site	ISST Ranked Medium	Remedial	Ongoing
	Kunia	Oahu Sugar Co at Ewa Beach (Former) Kunia Staging Area	State Site	ISST Ranked Medium	File Review	Ongoing
	Makakilo	Grace Pacific Corporation Makakilo Facility	State Site	-	Ranking	Ongoing
	Manana Valley	DLNR Manana Valley Land Purchase Brownfield Project	Brownfields	-	Phase I	Ongoing
	Mililani	Mililani Chevron Service Station (Waipio Service)	State Site	-	Screening	Screening Referred to SDWB
	Nanakuli	Hakimo Road Hanson Property TMK 8-7-10-2	State Site	-	Ranking	Ongoing
	Nanakuli	Kaiser Cement Corp at Waianae Point	State Site	SDAR Ranked Medium	File Review	Ongoing
	Pearl City	2375 Akalakala St Residence	State Site	-	Screening	Screening No Further Action (NFA)
	Pearl City	Hawaii Army National Guard at Waiawa Gulch Pearl City Industrial Park Installation 15080	PA/SI	-	SI1	Ongoing
	Pearl City	Hawaiian Electric Co (HECO) Waiau Generating Station	State Site	ISST Ranked NFA	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Pearl City	Waimano Training School and Hospital Waimano Home Road Campus Brownfield Project	Brownfields	-	Phase III	Ongoing
	Pearl City	Waimano Training School and Hospital Waimano Home Road Campus Unregulated UST	State Site	-	Unregulated UST	No Further Action (NFA) Letter - Cleanup Goals Achieved
	Pearl City	Waterfront Manor	State Site	ISST Ranked Medium	File Review	Ongoing
	Pearl Harbor	Pearl Harbor Kai Elementary School	State Site	-	Site Assessment	Ongoing
	Wahiawa	Wahiawa Chevron Service	State Site	-	Removal	No Further Action (NFA) - Unrestricted Use
	Waialua	(Former) Waialua Sugar Mill VRP Site	VRP	-	Site Assessment	Ongoing
	Waialua	Dillingham Airfield and Glideport	State Site	-	Ranking	Ongoing
	Waialua	Waialua Sugar Co Inc (Former) Waialua Sugar Mill and Settling Pond	PA/SI	-	PA1/SI1	Ongoing
	Waianae	87-1641 Ulehawa Rd	State Site	-	Screening	Screening No Further Action (NFA) by SOSC
	Waianae	Fong Property Kapiki Junk Yard	State Site	-	Ranking	Ongoing
	Waianae	Hawaiian Electric Co (HECO) Mikilua Substation	State Site	-	Ranking	Ongoing
	Waianae	Industrial Technology Lualualei Homestead Rd	State Site	ISST Ranked Medium	File Review	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Waianae	Leeward Petroleum Site L-0837	State Site	-	Regulated UST	Referred to SHWB
	Waianae	Nanakuli Groundwater Contamination	State Site	-	Screening	Screening No Further Action (NFA)
	Waianae	PVT Landfill Inc	State Site	-	Risk Assessment	Ongoing
	Waianae	Waianae Corporation Yard	State Site	-	Screening	Screening Referred to SHWB
	Waianae	Waianae Private Landfill Waianae Landfill Fire	State Site	-	Ranking	Ongoing
	Waiawa	Waiawa Ridge Development Project	State Site	-	Site Assessment Phase I	Ongoing
	Waikiki	1609 Ala Wai Blvd	State Site	-	20050523-1552 Referral to ISST	SDAR Ranked No Further Action (NFA)
	Waimanalo	Hawaii Fruit Fly Production Facility	State Site	-	Screening	Screening No Further Action (NFA) - Cleanup Goals Achieved
	Waimanalo	University of Hawaii Waimanalo Experimental Farm	State Site	-	Site Assessment	Ongoing
	Waimanalo	Waimanalo Areawide Groundwater Contamination	State Site	-	Ranking	Ongoing
	Waipahu	(Former) Waipahu Sugar Mill Lot 32 Arsenic VRP Site	VRP	-	Site Assessment	No Further Action (NFA) Letter
	Waipahu	(Former) Waipahu Sugar Mill Lot 32 Chlorinated Solvent Plume VRP Site	VRP	-	Site Assessment	Ongoing

Island	Locality	Facility / Site Name	Program	Ranked for Priority	Activity Type	Activity Status
Oahu	Waipahu	(Former) Waipahu Sugar Mill Lot 32 Diesel Plume VRP Site	VRP	-	Site Assessment	Ongoing
	Waipahu	94-500 Kamehameha Hwy	State Site	-	Ranking	Ongoing
	Waipahu	Complete Auto Repair and Estimates Five Hydraulic Hoists Removed	State Site	-	Unregulated UST	No Further Action (NFA) Letter
	Waipahu	Mill Town Subdivision (Former) Waipahu Sugar Mill Diesel Plume VRP Site	VRP	-	Site Assessment	Ongoing
	Waipahu	Village Park	State Site	-	Screening	Screening No Further Action (NFA)
	Waipahu	Waiawa Correctional Facility	State Site	-	Screening	Screening Referred to SHWB
	Waipahu	Waipahu Fire Station	State Site	-	Screening	Screening Referred to SHWB
	Waipahu	Waipahu St Dump Site	State Site	-	File Review	Ongoing

#### **APPENDIX B**

#### **FY 2005 DEPARTMENT OF HEALTH**

#### ENVIRONMENTAL HEALTH ADMINISTRATION

# HAZARD EVALUATION AND EMERGENCY RESPONSE OFFICE

**RELEASE NOTIFICATION LOG** 

APPENDIX B

This page left intentionally blank

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
	Oakland CA	20041110-1659 SS Maui Unknown Material Release 555 12th Street	Unknown  Material released from a container on the vessel due to unknown causes.	Pint(s)	Unknown	SOSC NFA
Hawaii	Hilo	20050104-1021 Alleged Illegal Cabinet Factory - Melia Street Melia Street	Unknown alleged cabinet-making factory - spray lacquers, glue adhesives, thinners, making complainant suffer health effects		Inadequate Procedure/Policy	Refer to Toxicology
	Hilo	20040704-1830  Barge namoku naptha fire Hilo Harbor Pier 2	Naphtha Fuel transfer pump caught fire during transfer of naptha fuel from barge to pier 2 Hilo	Unknown	Mechanical Failure	SOSC NFA
	Hilo	20041103-1200 Cargo Pipeline Leak - Pier 3 999 Kalanianaole Ave	Gasoline, Premium Unleaded 6" cargo pipleine for unloading fuel leaking	5 Gallons	Structural Failure	SOSC NFA
	Hilo	20041012-1635 HELCO Transformer 15614 286 East Kawailani St	Shell Diala Oil release of transformer due to rust-decayed transformer housing	3 Gallons	Structural Failure	SOSC NFA
	Hilo	20050606-1535 HELCO Transformers 11045 and 21668 Release Leilani Street/Railroad Avenue	Oil Pacific Waste Inc. garbage truck knocked down four power poles (three poles had 5 transformers on them). Two of transformers leaked.	34 Gallons	Inattention	SOSC NFA
	Hilo	20040913-1100 Hilo Harbor - Pier 3 Hilo Harbor Pier 3	Fuel Oil #6  Jointly owned pipeline. Pipeline right below Pier offloading black oil from barge. Discovered unknown gallons	60 Barrels	Mechanical Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Hawaii	Hilo	20040712-0755  Kulani Correctional Facility Dump truck punctured fuel tank Stainback Hwy	Diesel Fuel Isemoto Contracting doing work. Dump truck run off road and punctured fuel tank, spilling 50-60 gals diesel.	50 Gallons	Unknown	SOSC NFA
	Hilo	20050225-1248  Premium Unleaded Gasoline release 761 Kekuanaoa St	Gasoline, Premium Unleaded While drilling, driller struck a 3" pipeline connected to a dispenser of a UST	200 Gallons	Inaccurate Computation	Refer to SHWB
	Hilo	20041203-1030 Reeds Bay Beach Park Kuhio Kalanianaole Hwy.	Unknown Covering of Solid Waste Material.	> 20 Pounds	Inadequate Implementation of Procedure/Policy	Refer to Noise and Radiation
	Hilo	20041001-1403 Removal of hoist, sand and grease trap 2188 Kinoole St	Lead Remove hoist, sand and grease trap. Pipeline attached. Lead above levels in soil. Will go back and over excavate.		Other Equipment Failure	Refer to ISST
	Hilo	20041116-1328  Shrapnel from bomb cuts hydraulic lines on equipment Saddle Rd	Hydraulic Oil Incident happened on 11/11/2004. Bomb missed target, landed by construction equipment. Shrapnel cut hydraulic oil line on Grader and Ram on Roller. Total of 6-8 gals spilled on ground. Not able to access site due to investigation.	8 Gallons	Improper Equipment Use	SOSC NFA
	Hilo	20040704-0258 Tesoro Barge Fire Hilo Harbor Pier 21	Naphta While off loading Naphta fuel the central pump caught on fire.	> 1 Barrels	Mechanical Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Hawaii	Hilo	20041115-1423	Mineral Oil	5 Gallons	Inaccurate	SOSC NFA
		Transformer Overflow 54 Halekauila St	Oil released while transformer was being filled due to overflow. Approx 5 gal spill onto blacktop pavement. Cleanup in progress.		Computation	
	Hilo	20041021-1344	Unnown Oil	Unknown	Unknown	SOSC NFA
		Unknown Sheen Hilo Harbor 739081 Hilo Harbor	Unknown sheen was discovered in the Hilo Harbor.			
	Honaunau	20050107-1540	Pentachlorophenol		Historical Use	SOSC NFA
		Kamehameha Schools - Hilo 83-5494 Middle Kei Rd	As structure was being demolished, automobile batteries that were leaking was discovered. Soil sampling showed elevated levels of lead. Also found, bottles of Pentachlorophenol (500 parts per million).			
	Honaunau	20050107-1540	Lead Acid Battery.pentachlorophenol	Liters	Historical Use	SOSC NFA
	Honokaa	20040714-1404	Helicopter Fuel	70 Gallons	Mechanical Failure	SOSC NFA
		Blue Hawaii helicopter emergency landing Honokaa-Paauilo Pasture land	Helicopter made emergency landing in pasture. Possible fuel spill of 70-80 gal. Crash on July 8, hit boulder and flipped over.			
	Hualalai	20050422-1140	Shell Diala Oil	60 Gallons	Improper Equipment	SOSC NFA
		Pole Transformers - Leaking 8366, 8368, and 8927 75-346 Hualalai Road	At 1:49 am on 4-21-05 a truck hit an electricial pole on which Transformers 8366, 8368, and 8927 were on. The oil from the transformers was released to the asphalt roadway, concrete sidewalk, and the back bed of the truck.		Use	

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Hawaii	Kailua Kona	20041123-1015 Kona Heavens Air Realease 73-1377 Hamiha St	Solvent Odor Solvent odor reported as coming from hillside containing cesspool	Unknown	Sabotage/Intentional Violation	SOSC NFA
	Kailua- Kona	20050202-1437 HELCO Transformer 13760 75-5629 Kuakini Hwy	Shell Diala Oil Rusted Transformer Housing, Release of transformer oil Shell Diala Insulating Oil	< 25 Gallons	Other Equipment Failure	SOSC NFA
	Kailua-Kona	20050114-1507 Cruise Ship Diesel Fuel Spill Kailua Bay	Diesel Fuel Caller reporting a diesel fuel spill into the Kailua Bay from a cruise ship. Quantity released unknown; Quantity in water unknown.	Unknown	Unknown Equipment Failure	SOSC NFA
	Kailua-Kona	20041012-1636 Transformer 10195 75-5841 Alii Dr	Shell Diala Oil Rusty Transformer Housing causins oil to leak.	10 Gallons	Other Equipment Failure	SOSC NFA
	Kawaihae	20041004-1520 Cargo released from Barge Maukana Kawaihae Harbor Pier 2	Diesel Fuel #2 piece of cargo being hauled leaked diesel	10 Gallons	Mechanical Failure	SOSC NFA
	Kawaihae	20040920-1432  Maukana Barge Hydraulic Oil Release Kawaihae Harbor Pier 2	Hydraulic Oil A top lift on a barge caught on fire causing a hydraulic line to rupture and spill hydraulic fluid.	10 Gallons	Other Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qı	uanti	ity	Causal Factor	Result
Hawaii	Kawaihae Harbor	Harbor Mid Pac - Sheen discovered 06/22/2005	Unknown sheen discovered yesterday; no sheening today. Will be testing pipelines next week.			Sheen	Unknown	SOSC NFA
	Keaukaha	20050216-1610 Discharge of motor oil Baker's Street	Motor Oil  Caller phoned to report, a company on Baker's St. continues to dumped large volumes of motor oil on the ground.	>	25	Gallons	Unknown Organizational/Manag ement Failure	Refer to SHWB
	Kona	20041227-0831 Island Princess off Port of Kona	Diesel Fuel #2 Fuel nozzle broke after refueling hose fell onto fueling platform		4	Liters	Mechanical Failure	SOSC NFA
	Kona	20050620-0728 Jet Fuel Release Kalaeloa Airport	JP-8 Release of 25 gal. of JP-8 jet fuel		25	Gallons	Other Human Error	SOSC NFA
	Kona	20041011-1255 Tender # 6 oil sheen Kailua Bay	Octyl Decyl Adipate Oil sheen release from Tender #6 when doing approaching maneuver to pier.			Sheen	Unknown Equipment Failure	SOSC NFA
	Laupahoeho e	20050209-1210 HELCO Pole Transformer 17839 Pole 53, Highway 19	Shell Diala Oil Rusted Pole Transformer leaked oil onto trees and ground surrounding the pole.	<	25	Gallons	Structural Failure	SOSC NFA
	Naalehu	20040805-0921 Kona Concrete & Soil Lurline Lane	Diesel Fuel Release of 50 Gallons of diesel onto the soil and roadway.		50	Gallons	Other Human Error	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity		Causal Factor	Result
Hawaii	North Kona	20041213-1811 Lihau Station Chlorine Release Lihau Station	Chlorine Gas  Defective valve of a 150 pound chlorine cylinder. HazMat responded and applied A kit. BEI to be responsible for transporting and repairing the cylinder	< 1	Pounds	Other Equipment Failure	SOSC NFA
	Pacific Ocean North of Kailua- Kona	20050309-1409 Sinking Vessel (NRC# 752261)	Unknown oil  A material release discovery from a sunken vessel. Unknown what cause the vessel to sink. Caller was notified through a third party. Qty released: unknown; Material Name: unknown oil	Uı	nknown	Unknown	SOSC NFA
	Pahoa	20041129-1100 Alleged Illegal Dumpsite - Melia Street Melia Street	Unknown at least 100 vehicles stored on site that is zoned residential/agricultural; runs diesel trucks for hours			Other	Refer to SHWB
	Pepeekeo	20040728-1300 Hawaiian Rainbows Oil Petroleum Impacted Soil	Oil Oil seepage from soil near corner of Hilo Coast above garage area.	U	nknown	Lack of Planned Maintenance Program	Refer to ISST
	South Kohala	20040810-1745 HELCO Transformer 26357 Hapuna Beach Prince Hotel	Shell Diala Oil 50 gallon non-PCB release; during construction, contractor pulled insulating cable; affected: Well #2 (irrigation well for golf course)	50	Gallons	Judgement	SOSC NFA
	Volcano National Park	20041222-1327 Building Q17 - Unregulated UST closures Hawaii Volcanoes National Park	Oil Closures for 21 x 175 gallon unregulated underground storage tanks. To date, only one analytical result of over 7,000 ppm TPH for one of the tanks.			Other Equipment Failure	Refer to ISST

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Hawaii	Waiakoloa	20041208-0930 Waiakoloa - School bus dry chemical release Waiakoloa	Ammonium Phosphate vandals released dry chemical fire extinguishers inside a school bus; kids complained of breathing problems, itching, irritation to skin	Unknown	Sabotage/Intentional Violation	SOSC NFA
	Waimea	20050519-1520 Chevron Waimea Eastern Cesspool Release 65-1200 Mamalahoa Hwy	Oil TPH-oil - 13,000 ppm; TPH-diesel 4,000 ppm in the eastern cesspool. Will be working with SDWB to close the cesspools and anticipate excavation and filling in with concrete.		Unknown Equipment Failure	Refer to ISST and SDWB
Kauai	Anahola	20040706-0910 Aliomanu Bay blue 55- gallon drum Aliomanu Bay	None 55-gallon blue drum on water;s edge; drum has a lot of barnacles visible		Sabotage/Intentional Violation	SOSC NFA
	Hanamaulu	20040708-1157 Abandoned Drum - containing inert material Hanamaulu Beach Park	Inert material Kauai DHO iniitally responded to a complaint of a drum leaking oil, which turned out to a inert, foam-like material. Request for County to conduct removal.		Sabotage/Intentional Violation	SOSC NFA
	Hanapepe	20040705-1245 Kent Miller Boat Grounding 3708 Akea Road	Gasoline  20' Power Boat grounded at Eleele Point Kauai. Containing approx. 20 gallons of gasoline.	20 Gallons	Mechanical Failure	SOSC NFA
	Караа	20050204-0816 Chevron Kapaa Gasoline Station Dry Well Cleanup 994 Kuhio Hwy	Petroleum Analytical tests indicate concentration above action levels. Analytical tests of soil/sediment from dry well indicate concentrations greater than action levels.		Unknown	Refer to ISST

Island	Locality	Case Number	Substance(s)	Quantity	Causal Factor	Result
		Release Identification	Incident			
Kauai	Kapaa	20040827-0755 Kauai Coast Resort at The Beachboy 55-gallon drum 520 Aleka Loop	55-gallon drum stored on hotel grounds; found by hotel to have washed ashore previously		Sabotage/Intentional Violation	Pending
	Kekaha	20041021-1000 Missile Controlled Detonation W Kamualii Hwy	Hydrazine (60%) Unstable Drone missile to be detonated	70 Pounds	Other Equipment Failure	SOSC NFA
	Kekaha	20041021-1000	Nitric Acid	200 Pounds	Other Equipment Failure	SOSC NFA
	Koloa	20040816-1306 Motor Oil/Diesel Release 3486 Poipu Rd	Motor Oil  Lab results indicated motor oil and diesel fuel in soil. Excavation of UST and hydraulic hoist of sandtrap.	Unknown	Unknown Equipment Failure	SOSC NFA
	Lihue	20040927-0743  RCI Vessel Vision of the Seas Oil sheen reported by cruise ship	Oil Sheen reported by the Vision of the Sea crew. Sheen visible near ship.	< 1 Gallons	Unknown	SOSC NFA
	Lihue	20050218-1134 Sand and grease trap removal 3187 Kuhio Hwy	Petroleum Hydrocarbons TPHDiesel, gasoline, oilhigh levels found in samples taken from sand and grease trap. Excavated until samples taken were clean. Soil excavated was sent to Kekaha Landfill. Final report to be sent in. Written 2/22/05: cont.		Inadequate Implementation of Procedure/Policy	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Kauai	Lihue	20050202-0638 Sinkhole and Force Main Break Spill Fronting 3610 Rice Street	Sewage Sewage spill - force main break due to pre-existing sinkhole fronting Marriott Hotel getting bigger		Land Slide	Refer to WWB & CWB
	Lihue	20040715-1249 White Goods Fire Ahukini Rd	Freon white goods fire; approximately 50 feet wide, 70 feet long, 20 feet high of white goods. Fire spreading and smoke heading towards Lihue Town	Unknown	Inadequate Procedure/Policy	Refer to SHWB
	Poipu	20050204-1946 Diesel fuel spill - Poipu Road Poipu Road	Diesel Fuel release from 500xgallon diesel fuel tank	300 Gallons	Sabotage/Intentional Violation	Pending
Maui	Haiku	20050404-0848  Transformer Oil Release - Natural Phenomenon W Kuiaha & Ua Noe Pl	Transformer Oil  Caller reported a pole mounted transformer was knocked over due to forceful winds. Transformer split open releasing non-PCB oil.	12.5 Gallons	Wind	SOSC NFA
	Hana	20050523-0945  MECO Pole-Mount  Transformer 2691 Pole E- 132 Hana Highway	Shell Diala Oil Rust-decayed transformer housing caused release	< 25 Gallons	Structural Failure	SOSC NFA
	Hana	20041116-1457 MECO Transformer 2684 Keanae Beach Rd	Shell Diala Oil AX Insulating (non-PCB) Oil spill due to rust decayed transformer hoursing. Date/time of release: unknown	7 Gallons	Other Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Q	uantity	Causal Factor	Result
Maui	Kahana	20050523-1005  MECO Pad-mount  Transformer 7498 4435  Lower Honoapiilani Rd.	Shell Diala Oil Rust-decayed tranformer housing caused a release	<	25 Gallons	Structural Failure	Refer to ISST
	Kahului	20040930-1330	Oil, Used		40 Gallons	Mechanical Failure	SOSC NFA
		40 gallons Used Oil Spill 330 Hukilike St	Hose unsecured from transfer point, releasing 40 gallons of used oil	_			
	Kahului	20040721-1514	TPH gas			Unknown	Refer to ISST
		Hoist & Sand Grease Trap Removal 130 W Kamehameha Ave	High level of TPH gas and other substances detected from lab report of soil samples taken during hoist and sand grease trap removal. Removal date: 7/8/04	-			
	Kihei	20050523-1015	Shell Diala Oil	<	25 Gallons	Structural Failure	SOSC NFA
		MECO Pad-mount Transformer 11070 2219 S. Kihei Rd.	Rust-decayed transformer housing caused release	-			
	Kihei	20050620-1039	Shell Diala Oil		2 Gallons	Structural Failure	SOSC NFA
		MECO Pad-mount Transformer 8809 2695 South Kihei Road	transformer release	-			
	Kihei	20050620-1040	Shell Diala Oil	<	25 Gallons	Other Equipment	SOSC NFA
		MECO pad-mount Transformer 9732 439 Kaiolohia Street	Housing rusted and decayed causing release	-		Failure ' '	

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qua	antity	Causal Factor	Result
Maui	Kula	20040816-1548 MECO Recloser 349 Kakaulike Hwy	Shell Diala Oil Recloser malfunction led to release of oil	<	1 Gallons	Other Equipment Failure	SOSC NFA
	Lahaina	20041008-1823 Charter Boat for Atlantis Submarine Lahaina Harbor	Oil  Caller on 3:00 tour observed 2 quarts of greyish black oily product coming from charter boat while moored next to submarine.		2 Quarts	Unknown Human Error	SOSC NFA
	Lahaina	20040709-1455  Design Pro Pool & Spa Inc. Incompatibles Reaction 278 Will Ko Pl	Chlorine  Dumpster fire - cause: 8 chlroine tablets mixed with petroleum product	<	1 Pounds	Lack of Procedure/Policy	SOSC NFA
	Lahaina	20040709-1455	Oil		Unknown	Lack of Procedure/Policy	SOSC NFA
	Lahaina	20040719-1615 Hydraulic Hoist Removal Release 240 Papalaua St	TPH oil  Release of TPH-O observed during removal of 2 hoists. Analytical result - 790 mg.kg			Unknown	Refer to ISST
	Lahaina	20041012-1122 Serande of the Seas - seal failure Lahaina Harbor	Extra heavy duty oil Extra heavy duty oil released from vessel due to seal failure.		1 Liters	Mechanical Failure	SOSC NFA
	Lahaina	20050408-1313 Sinking Vessel Lahaina Harbor	Oil 2-D  Caller stated that a sunken vessel was raised causing a release of materials.  Vessel lowered and release of materials stopped. Sheen on water.			Other	Refer to CWB

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Maui	Maalaea	20041029-1602 Maalaea Power Plant Injection Wells N Kihei Rd	Chromium UIC Permit No.: UM-1592, Facility ID #6-4829.01. Discharge of unpermitted wastestream from a boiler tube leak.	1000 Gallons	Mechanical Failure	Refer to SDWB
	Paia	20050408-1440 Remediation at Paia General Store 149 Hana Hwy	Various Hydrocarbons  During excavation discovered 2 UST's and contaminated soils surrounding UST's.	6 cubic yards	Other Organizational/Manag ement Failure	Refer to ISST
	Puunene	20050216-1012 Hydraulic Oil Broken Line Hansen Rd	Hydraulic Oil Caller reported approximately 30 gallons of hydraulic oil spill from a broken hydraulic fuel line. Incident occurred during night shift and noticed next day.	Gallons	Other Equipment Failure	SOSC NFA
	Puunene	20050303-1406 Hydraulic Oil Spill - Field 711 1 Hansen Rd	Hydraulic Oil Spill release due to broken hydraulic line on backhoe equipment.	50 Gallons	Judgement	SOSC NFA
	Puunene	20041102-2230 Keahua Farm Office spill 1 Hansen Rd	Diesel Fuel Approximately 75 gallons of diesel oil released due to operator error	75 Gallons	Inattention	SOSC NFA
	Puunene	20050322-1324 Lube Oil Spill Hansen Rd	Lube Oil Oil spill due to turbine equipment malfunction causing oil to spill instead of wastewater. Estimated 150-200 gallons spilled.	150 Gallons	Mechanical Failure	SOSC NFA
	Puunene	20050304-1520 Oil Release Resevoir 73 Hansen Rd	Used Motor Oil Found approx. 25 gals of waste motor oil. From unknown source	25 Gallons	Unknown External Conditions	SOSC NFA

REPORT TO TWENTY-THIRD LEGISLATURE STATE OF HAWAII 2006

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Maui	Puunene	20040830-1407 Puunene Sugar Mill Sugarcane Field 710 - Illegally dumped Waste Oil Hansen Rd	Waste Oil unidentified person illegally disguared 3 drums containing approx. 80 gals of waste motor oil and 25 gals of old waste diesel oil.	105 Gallons	Dumping	SOSC NFA
	Puunene	20040903-1350 Puunene Sugar Mill Sugarcane Field 908 - Illegally dumped waste oil Hansen Rd	Waste Oil approx. 60 gals of waste oil illegally dumped on Field 908.	60 Gallons	Dumping	SOSC NFA
	Seattle	20041129-1008  Vessel Statedam, Oil Release 300 Elliott Ave., West	Hydraulic Oil  Caller stated that hydraulic oil relesed from the hydraulic system on life boat #12 duei to equipment failure. Caller was unsure if oil released to the water. Qty released: Unknown		Other Equipment Failure	SOSC NFA
	Wailea	20050523-1021  MECO Pad-mount  Transformer 13306 100  Wailea Golf Club Dr.	Shell Diala Oil Rust-decayed transformer housing caused release	< 25 Gallons	Structural Failure	SOSC NFA
	Wailuku	20040909-1500 1360 Kilou Loop 1441 ShakeLast Application 1360 Kilou Loop	2-Aminoethanol 09/05/2004 application of 1441 Shakelast causing strong odor.		Inaccurate Computation	Refer to DOA
	Wailuku	20040909-1500	Naphthenic acid, copper salts		Inaccurate Computation	Refer to DOA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Maui	Wailuku	20041011-1135 1790 Mill Street Soil Disposal 1790 Mill St	Waste Oil Chronic spillage of waste petroleum oil.	> 25 Gallons	Inadequate Implementation of Procedure/Policy	Refer to ISST
	Wailuku	20041104-0737 MECO pole-mount Transformer 7168 Pole E-1 Kiele	Shell Diala Oil  Due to overload of system transformer leaked oil onto the asphalt.	< 25 Gallons	Structural Failure	SOSC NFA
	Wailuku	20050412-1240 MECO Transformer 7597	Transformer Oil (Non-PCB)  Non-PCB transformer spilled during an electrical incident on 4/11/05.	30 Gallons	Electronic Failure	Refer to ISST
	Wailuku	20041111-1619 MECO Transformer 8369 927 Anohea Way	Shell Diala AX Oil  Leaking Transformer due to rusting of the housing.	< 25 Gallons	Other Equipment Failure	SOSC NFA
Molokai	Kaunakakai	20040817-0825 Kaunakakai Bulk Terminal Diesel Release Beach PI & Wharf Rd	Diesel Fuel There was a release between November 4 and December 1, 1982 at the mauka tank farm at the corner of Kaunakakai Place and Beach place. Approximately 20,000 gallons of recovered fuel and water was shipped to the Chevron refinery on Oahu. See SOSC Report.	1700 Gallons	Unknown Equipment Failure	Refer to ISST
	Kaunakakai	20040722-0850 Oil Spill Kaunakakai Harbor Kaunakakai Harbor	Motor Oil Generator on board the Barge "Kahoku" leaked oil and spilled into the harbor.	< 2 Gallons	Mechanical Failure	SOSC NFA

Island	Locality	Case Number	Substance(s)	Quantity	Causal Factor	Result
		Release Identification	Incident			
Oahu	Aiea	20040708-1748 98-1040 Moanalua Road Suspicious Letter 98-1040 Moanalua Rd	None Suspicious letter received. Letter contained cotton ball with brown powder.		Other	SOSC NFA
	Aiea	20041007-1217	Gasoline	1 Gallons	Other Equipment	SOSC NFA
	Δiea	Frito Lay 99-1260 Iwaena St	An unknown oil material spilled into a storm drain from the engine on a tractor trailer truck.		Failure	
	Aiea	20050407-1702	Oil (No. 2-D)		Mechanical Failure	SOSC NFA
		Oil Fuel Spill (No. 2-D) 99- 994 Iwaena St	The material released from a site tube attached to a crane on the barge due to equipment failure (site tube broke).			
	Aiea	20050601-0943	TPH		Unknown	Refer to ISST
		TPH Release 98-1277 Kaahumanu Street	Removal of Hydraulic lift, found high concentartions of TPH			
	Aliamanu	20050129-1903	Sewage		Other Equipment	Refer to
		Navy Marine Golf Course, Aliamanu Sewage Spill Navy Marine Golf Course, Aliamanu	Sewage Spill due to heavy rain		Failure	WWB
	Aliomanu	20050129-2017 Aliamanu No.1 WW Pumping Station, sewage spill 1429 Oleander PI	Sewage Wastewater spill due to heavy rain - 37- 74 Salt Lake Boulevard		Other Equipment Failure	Refer to WWB

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Aliomanu	20050129-2018 Aliamanu No.2 WW Pumping Station, sewage spill 1429 Oleander PI	Sewage Wastewater spill due to heavy rain - 4230 Salt Lake Boulevard		Other Equipment Failure	Refer to WWB
	Chinatown	20050111-1322 Allegations of Mold Problems 920 Maunakea	Mold Complainant called Councilmember Rod Tam's Office about someone doing sidewalk cleaning and people getting sick		Unknown Human Error	Refer to Noise and Radiation
	Ewa	20050629-1322 Transmission fluid spill 17 gal Fort Weaver Road and Papipi Street	Transmission Fluid Driver states that keg containing transmission fluid fell off truck. Appx 17 gal, some went into storm drain, some recovered.	17 Gallons	Unknown	SOSC NFA
	Fort Shafter	20050201-1654 Lyz Inc. Oil spill Fort Shafter Flats	Oil oil spill; soil has been excavated down to 18 inches, soil covered, awaiting analytical results.		Other Equipment Failure	Pending
	Haiku	20041025-0815 45-519 Keaahala Road Odor 45-519 Keaahala Road	Malathion strong odor since 10/24/04; called Honolulu Fire 3 times between 1900 - 2100 and they responded. Smell still present.	Unknown	Judgement	SOSC NFA
	Haleiwa	20050630-1400 Contaminants found while sampling 62-594 Kamehameha Hwy	TPH Sampling cesspool and found contaminants in cesspool sludge.		Unknown	Refer to ISST

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qu	antity	Causal Factor	Result
Oahu	Haleiwa	20041206-0902 Giovanni's Shrimp Shack Exhaust vapors Kamehameha Hwy.	Exhaust  Received call stating the exhaust from the Giovanni's Shrimp Wagon enters her home and is affecting nearby residence. Occurs from 9 am to 3pm daily.	<	1Unknown	Poor Oversight	Refer to CAB
	Haleiwa	20041015-0010 Waialee Beach sunken vehicle Waialee Beach	Unknown sunken vehicle (1983 Datsun)			Sabotage/Intentional Violation	SOSC NFA
	Hauula	20041004-1308 54-0265 Kawaihemo Place Odor 54-0265 Kawaihemo Place	Chlorine Tablet Unusual odor led to evacuation of nearly 20 people from 10 homes	<	1 Each	Poor Oversight	SOSC NFA
	Hauula	20050426-0710 54-235 and 54 Kamehameha Highway Alleged Illegal Discharge 54-235 and 54 Kamehameha Highway	Unknown allegations of illegal discharge from a house with a pipe into the ocean			Sabotage/Intentional Violation	Refer to CWB
	Hickam Air Force Base	20050321-1019 Hickam AFB JP-5 Fuel Spill Aircraft Ramp	Jet Fuel JP-5 Fuel spill occurred during refueling operation of aircraft.		50 Gallons	Inaccurate Computation	SOSC NFA
	Hickam Air Force Base	20040714-0826 Hickam AFB Tank F-126A Site ST30 Fuel Spill 5th St & Signer Blvd	Fuel Oil  Contractor digging and hit old fuel oil tank spilling 40-100 gal fuel oil. Did not know tank was there.		40 Gallons	Poor Oversight	Refer to DSMOA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Hickam Air Force Base	20041116-0911 Hickam AFB UST F-873A & F-873B Removed, 5th Street	Fuel Oil Tank #F-873A and F-873B were removed. Found contaminated soil around fill ports. Piping was rusted. Cleanup is being done.	Unknown	Other Equipment Failure	SOSC NFA
	Hickam Air Force Base	20050510-1020 Hickam AFB UST ST20 F- 531	Fuel Oil Sheen discovered during UST removal. Cleanup completed. Soil stockpiled near site. Quantity: unknown		Unknown	SOSC NFA
	Hickam Air Force Base	20050513-0910 ST20 3564, Battery Closson Mamala Bay Drive	Sheen discovered during excavation of UST.		Unknown	SOSC NFA
	Honolulu	20040701-1532 1239 Olomea Street Abandoned Drums 1239 Olomea St	Empty 8 x 55 gallon drums abandoned	<b>&amp;</b> rum (55)	Sabotage/Intentional Violation	Refer to SHWB
	Honolulu	20050314-1030 1611-A Paula Drive Unknown Vials 1611-A Paula Drive	Methyl Bromide  Little vials with unknown yellowish liiquid. Previous owner (deceased) was the head of chemical warfare of Army in 1943 and worked in Pacific Chemical and Fertilizer Company in the 60's and 70's.		Poor Oversight	SOSC NFA
	Honolulu	20050308-1050 2032 South Beretania Unknown Odor 2032 S Beretania St.	Unknown complainant alleging horrible smell and strange drilling noises during early mornings, lasting for 1 1/2 years		Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20041020-1441 2326 Kalihi Street UST release 2326 Kalihi St	Heating Oil release from an underground storage tank used for heating oil	Unknown	Unknown Equipment Failure	Refer to ISST
	Honolulu	20050128-1330	None		Sabotage/Intentional	SOSC NFA
		24 Sand Island Access Road, Unknown Compressed Gas Cylinders 24 Sand Island Access Road	Unknown compressed gas cylinders		Violation	
	Honolulu	20050310-0730	Oil	Unknown	Unknown	SOSC NFA
		4819 Kilauea Avenue, Abandoned Transformer 4819 Kilauea Avenue	Possible abandoned transformer General Electric 11TM18; Serial No 688681; Volts 50/60.			
	Honolulu 20050620-0800 Rai	Rainwater	810 Gallons	Dumping	SOSC NFA	
		5 Abandon Totes Tantalus Drive	5 Abandon Totes adjacent to Tantalus Drive		810 Gallons Dumping	
	Honolulu	20050129-2024	Sewage		Other Equipment	Refer to
		5307-L Kalanianaole Hwy Sewage Spill 5307-L Kalanianaole Hwy	Sewage Spill due to heavy rain		Failure	CWB
	Honolulu	20050226-1203	Sewage	3000 Gallons	Mechanical Failure	Refer to
		5677 Kalanianaole Highway Sewage Spill 5677 Kalanianaole Highway	3,000 gallons; force main break in front of Niu Valley; Reached waters. Signs to be posted and traffic delays anticipated.			CWB
	Honolulu	20050623-1600	Unknown		Unknown	SOSC NFA
		760 9th Avenue Alleged Odor 760 9th Avenue	Alleged odor from an illegal pipe			

REPORT TO TWENTY-THIRD LEGISLATURE STATE OF HAWAII 2006

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20041026-1134 Air Service Hawaii JP-8 Jet Fuel Release 300 Rodgers Blvd	Jet Fuel Valve on Jet failed causing jet fuel to be released onto pavement.	40 Gallons	Mechanical Failure	SOSC NFA
	Honolulu	20041215-1115 Airport Tank Farm Release 200 Rodgers Blvd	Jet Fuel JP-8 Release of 75 Gals of Jet Fuel from over pressure valve.	> 75 Gallons	Improper Equipment Use	SOSC NFA
	Honolulu	20050304-1457 Ala Wai Canal Unknown (Paint) Sheen - 751753 Ala Wai Canal	Unknown  Caller reporting the discovery of an unknown paint material in the Ala Wai Canal.		Unknown	SOSC NFA
	Honolulu	20050321-1327 Ala Wai Harbor Paint Spill Ala Wai Harbor	Paint A vessel released one gallon of paint, due to unknown causes.	1 Gallons	Improper Equipment Use	SOSC NFA
	Honolulu	20050226-1026 Allegations of Bed Bugs in Room 2426 Kuhio Avenue	Bugs Allegations of guests bitten by bed bugs		Unknown External Conditions	Refer to Sanitation
	Honolulu	20040809-0648 Ammonia Odor 949 Mapunapuna St	Ammonia Honolulu HazMat 1 responded to a call about an ammonia odor.	Unknown	Unknown	SOSC NFA
	Honolulu	20050516-0820 Asia Pacific Airlines Boeing 727 N705AA jet fuel spill Honolulu International Airport	Jet Fuel A jet-A fuel spill	10 Gallons	Unknown Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qu	antity	Causal Factor	Result
Oahu	Honolulu	20041013-1135 Asia Pacific Environmental Technology International 1088 Bishop St	Medical Waste Owner tried to ship 5 Matson containers of Regulated Medical Waste as Non Regulated Hazardous Waste.		5 ship containers	Other	Refer to SHWB
	Honolulu	20041029-1530  Best Buy Site Alakawa  Street and Nimitz Highway	Petroleum  Petroleum diesel odor coming from 6 ft trench. During high tide, gw reaches trench and odor is present, no sheen.	<	Unknown	Unknown	Refer to ISST
	Honolulu	20050113-0923 Bilge Slops Discharge from Vessel Nania Ala Wai Small Boat Harbor - E Dock	Bilge Slops  A vessel seems to be pumping their bilge at the Waikiki Yacth Club.		Unknown	Sabotage/Intentional Violation	SOSC NFA
	Honolulu	20041213-1305  Biomedical Building Acetic Acid Release Biomedical Building	Glacial Acetic Acid  Driver dropped box containing approx. 1 gallon of Glacial Acetic Acid		1 Gallons	Judgement	SOSC NFA
	Honolulu	20050105-1326  Brewer Environmental Boring Sheen 311 Pacific St	Oil Report of oil sheen in bore hole		Unknown	Unknown	Refer to ISST
	Honolulu	20050309-1109 Broken Thermometer 1564 N King St	Mercury small thermometer broken	<	1 Pounds	Improper Equipment Use	SOSC NFA
	Honolulu	20040929-1407 Container # MATU249648 Leak Sand Island Access Rd	Soap  Material (Placard Label 8 - Corrosive) leaking from container. Expected arrival at midnight.		1 Pints	Other Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20041223-1230 Del Monte/IBC Black Oil Tank 501 Sumner St	Bunker C Oil 75000 gal unregulated lack oil tank noted on old maps , confirmed by mgr of lwilei Business Center	Unknown	UST Closure	Refer to ISST
	Honolulu  20050418-0722  Discharge of Gray Water & Release of 1100 Gals of Fuel & Gray  Fuel NOAA Ship Sette  Diesel Fuel  Release of 1100 Gals of Fuel & Gray  Water	1100 Gallons	Mechanical Failure	SOSC NFA		
	Honolulu	20050419-0751  Dollar Rental Car Gas Release Honolulu International Airport	Gasoline  Mechanical Failure to gas pump causing 25-30 gals to be released on to the concrete pad.	30 Gallons	Mechanical Failure	SOSC NFA
	Honolulu	20050428-1628 Duck Tours Dumping Hawaii Kai Launch Ramp	Unknown Bilge oil being dumped at ramp by Duck Tours	< 1 Ounces	Unknown	SOSC NFA
	Honolulu	20041025-1045  Duffle bag with unknown contents 919 Ala Moana Boulevard	Unknown Suspicious Black bag discovered; contents unknown.	Unknown	Other Human Error	SOSC NFA
	Honolulu	20050224-0249 F/V Jane Aground Fronting Kewalo Basin 1320 Alexander St. #605	Diesel Fuel  F/V Jane run aground fronting Kewalo Basin at 1 am, possible fuel release.	< 1 Ounces	Unknown Human Error	SOSC NFA
	Honolulu	20050302-1153 F/V Seahawk Oil Smell Kewalo Basin	Oil Strong oil smell	Sheen	Unknown	Refer to CWB

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20050511-1531 Failed Fuel Vent 300 Rodgers Blvd	Jet Fuel JP-8  Jet fuel spilled onto the concrete from a failed fuel vent on a commercial aircraft.	25 Gallons	Mechanical Failure	SOSC NFA
	Honolulu	20041018-0652 Fuel Spill Gate 13 738677 300 Rodgers Blvd	Diesel Fuel #2  10 gallons of diesel released to a ramp	10 Gallons	Unknown	SOSC NFA
	Honolulu	20050527-0729 Gate Gourmet Diesel Release 300 Rodgers Blvd	Diesel Fuel Diesel Discharge from truck due to faulty fuel pump	5 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20041004-1522 Hart Street Groundwater 1305 Hart St	vinyl chloride,lead vinyl chloride and lead found in groundwater well during phase two preceeding development. Area is next to Kapalama Canal.	Unknown	Unknown	Refer to ISST
	Honolulu	20041022-1223 Hawaiian Isles Petroleum release 205 Mokauea Street	Oil, Engine Plastic tote cracked	275 Gallons	Procedural Error	SOSC NFA
	Honolulu	20040830-1130 HECO Pad-Mount Transformer 50971 3254 Waialae Ave	Shell Diala Oil Rust-decayed trasnformer housing released oil	3 Gallons	Structural Failure	SOSC NFA
	Honolulu	20050104-1726 HECO Switch Explosion 446 Coral Street	Shell Diala Oil HECO Transformer Switch explosion.	51 Gallons	Electronic Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20040802-0930 HECO Transformer 32627 5852 Haleola St	Shell Diala Oil tranformer failed, overheated, and caught fire. Oil released.	100 Gallons	Electrical Failure	SOSC NFA
	Honolulu	20041101-1540 HECO Transformer East- West Substation Unit 1 Pope Rd	Oil Lightning struck a station class unit transformer, releasing 100 gallons of non-PCB oil	100 Gallons	Lightning	SOSC NFA
	Honolulu	20040701-1200 Homerule Street 4 x 55 gallon abandoned drums 1714 Homerule	Oil, Waste  4 x 55 gallon drums that were left abandoned on Puuwai; owner transported drums to 1714 Homerule to protect from the elements	<b>1</b> Drum (55)	Sabotage/Intentional Violation	SOSC NFA
	Honolulu	20041126-1225  Honolulu Disposal Service, Inc. overturned truck	Oil Hazardous substances released as a result of an accident	Unknown	Inattention	SOSC NFA
	Honolulu	20040708-0700  Honolulu Generating Station Seawater Intake 170 Ala Moana Blvd	Oil Sheen Oil Sheen on water fronting the Intake for the gererating plant.	< 1 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20041105-1014  Hydraulic Oil Release Tyco Dependable 1001 Sand Island Pkwy	Hydraulic Oil Hydraulic oil leaking from Bow Thruster.	< 1 Gallons	Mechanical Failure	SOSC NFA
	Honolulu	20040705-1005 Hydraulic Oil Spill on Deck 1 Sand Island Acess Rd	Hydraulic Oil Broken Hydraulic Hose spilling oil on the deck of the Kilo Moana .		Mechanical Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20040805-1333 Hydraulic Oil Spill Release 300 Rodgers Blvd	Hydraulic Oil  Material released from a piece of equipment (loader) due to a ruptured hose.	6 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20050613-0656  Jack Knife Trailer 1150  Sand Island Parkway	Diesel Fuel Trailer Jack knifed causing diesel to be released into storm drain basin.	40 Gallons	Other Human Error	SOSC NFA
	Honolulu	20040705-1845  Jet Fuel Release - Premier Jets 300 Rodgers Blvd	Jet Fuel Overfill of jet fuel spilled on concrete. Approx. 4.5 gals.		Other Equipment Failure	SOSC NFA
	Honolulu	20050407-0939  Jet Fuel Spill JP-5 400 Sand Island Access Rd	Jet Fuel JP-5 Caller stated that oil spilled onto the main deck and into the water due to unknown causes. 7 gallons spilled into the water. Location: Honolulu Harbor Berth CD	15 Gallons	Unknown	SOSC NFA
	Honolulu	20050129-1556 Kalanianaole Highway & Puu Ikena Sewage Spill Kalanianaole Highway & Puu Ikena	Sewage Sewage Spill due to heavy rain		Equipment Design	Refer to CWB
	Honolulu	20040709-1558 Kalihi Pumping Station Mercury from a plugged drain 1381 N King St	Mercury  1/8 pound of mercury found in a plugged drain		Dumping	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20040903-0944  Katherine Y Diesel Fuel Spill Kewalo Basin	Diesel Fuel Fishing vessel spilled 5 gallons of diesel fuel into the Kewalo Basin during fueling.	5 Gallons	Inattention	SOSC NFA
	Honolulu	20040902-1034	Flurosine	1 Cups	Test	SOSC NFA
		Kauhi Street Dye Test	Dye test of storm drain to stream connection.			
	Honolulu	20050129-1659	Sewage		Other Equipment	Refer to
		Kawaihae & May Way Sewage Spill Kawaihae & May Way	Sewage Spill due to heavy rain		Failure	CWB
	Honolulu	20041124-0305	oil/sewage	Unknown	Unknown Human	SOSC NFA
		Keehi Lagoon Ramp Sheen Keehi Lagoon Boat Ramp	Caller reports oil slick near boat ramp one quarter mile long		Error	
	Honolulu	20050128-0821	Unknown Material		Unknown	SOSC NFA
		Keehi Marine Center Unknown Vessel Sinking 24 Sand Island Rd	Caller reporting a vessel that sank and material leaking from it.			
	Honolulu	20041203-1436	Lithochrome	< 1 Gallons	Structural Failure	SOSC NFA
		Lithochrome Release 999 Wilder Ave.	Home owner found Lithochrome from a previous project leaking in her garage.			
	Honolulu	20041021-1207	Potassium Hydroxide	1 Pounds	Unknown	SOSC NFA
		Lou's Drugs and Market Chemicals 1402 Lusitana st	Owner says there are chemicals left from his fathers drugstore business/ No release,material onshelf		Organizational/Manag ement Failure	

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20050216-1540 Lube Oil Sheen 123 Ahui St	Lubricating Oil  Caller reporting a lube oil sheen discovery in the Pearl Harbor. Reference NRC 750293	2 Gallons	Unknown	SOSC NFA
	Honolulu	20041030-1931 Manoa Flooding Manoa Area	Unknown Flooding of Manoa Stream causing flooding in area	Unknown	Rain	SOSC NFA
	Honolulu	20050215-1306  Matson Pier 52 Hydraulic Oil Spill Honolulu Harbor Pier 52	Hydraulic Oil Hydraulic oil spilled onto the deck of a container ship from a failed hydraulic hose on a crane. Vessel: Maunawila; Amount released unknown.	Unknown	Mechanical Failure	SOSC NFA
	Honolulu	20040824-1030 Matson Ship RJP Spill from container Pier 51B Sand Island Access Rd.	Dishwash Soap  Chiefmate notice green liquid coming from container #FSCU 602911. Two hazardous materials in container.  PENCO will meet ship to do a HAZCAT and inform Matson what to do next.	5 Gallons	Unknown Equipment Failure	SOSC NFA
	Honolulu	20050221-2106 Mercury Release 2188 Kaululoa Place	Mercury Broken mercury thermometer in home.	< 2 Ounces	Other Human Error	SOSC NFA
	Honolulu	20050129-1930 Milolii Place Sewage Spill Milolii Place	Sewage Spill Sewage Spill due to heavy rain		Other Equipment Failure	Refer to CWB
	Honolulu	20040807-2326 Motor Oil release from an accident 100 Holomoana St	Motor Oil  Due to a vehicular accident, approximately 2 gallons of oil released	2 Gallons	Other External Conditions	SOSC NFA

REPORT TO TWENTY-THIRD LEGISLATURE STATE OF HAWAII 2006

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20050227-1027 Non-compliance Odor Station #3 1350 Sand Island Pkwy	Unknown non-compliance: 0.02575 between 8:25 - 9:20 a.m.	_	Unknown Equipment Failure	Refer to CAB
	Honolulu	20041006-1820 Northwest Airlines, Gate 13 Spill 300 Rodgers Blvd	Jet Fuel JP-8 Fuel vented from the left wing	_ 25 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20040811-1115  Norwegian Cruise LineHull Cleaning 700 Bishop Street Suite 900	Paint  Norwegian Wind in process of hull cleaning released hull paint dust and barnacles into Honolulu Harbor.	_ 16 Ounces	Inadequate Planned Maintenance Program	Refer to CWB
	Honolulu	20050603-0831 NRC 760901 Unknown Sheen Ala Wai Yacht Harbor	Oil Unknown sheen	Sheen	Unknown	SOSC NFA
	Honolulu	20050226-1701 Nuuanu Stream, green substance 114 N Kuakini St	Fluorescein green substance in Nuuanu Stream reported	-	Sabotage/Intentional Violation	SOSC NFA
	Honolulu	20040825-1018 Oil in Groundwater 1670 Makaloa St	TPH oil Oil in groundwater reported during excavation for a new development (Palama Supermarket). Trench still open; 4-5 ft below street level.	-	Unknown	SOSC NFA
	Honolulu	20041108-0747 Oil Sheen at French Wrench 520 Ward Ave	Oil Caller stated after the rain a oil sheen was seen at the station.	_ < 1 Gallons	Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qu	antity	Causal Factor	Result
Oahu	Honolulu	20040804-0956 Oil Sheen fronting slips 60-63 Ala Wai Boat Harbor	Oil Sheen Oil sheen fronting slips 60 - 63.	<	1 Gallons	Unknown Equipment Failure	SOSC NFA
	Honolulu	20050118-1517 Pearl Harbor Jet Fuel Spill 123 Ahui St	Jet Fuel JP-5 Caller stated there was a release of materials from a barge due to a ruptured gasket.		1 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20041220-1130 Pesticide Dumping Across the street from 45050 Kam Highway	Pesticides & Disinfectants  Received notification from HazMat 1 about pesticides dumping	>	8 Gallons	Sabotage/Intentional Violation	SOSC NFA
	Honolulu	20050518-1415 Petroleum contamination found in trenches 795 N Nimitz Highway	Oil  Petroleum contamination in 3 of 4 trenches dug to locate old pesticide tanks. Excavations located on the mauka portion of the parcel. DOT to be providing a report to the HEER Office			Unknown	Refer to ISST
	Honolulu	20041213-1130 Rotting Chicken Shipping Container 1818 Kanakanui st	decomposed chicken blood  Neighbors complain of intense odor from unloading of shipping container of frozen chickens, washdown of container to street.		Unknown	Mechanical Failure	SOSC NFA
	Honolulu	20050119-1111 Slight Sheen on water at drain Sand Island Access Rd	Sheen A slight sheen was observed on water entering drain 2a and at the 2 outfall at HORIZON LINES, LLC			Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20050317-1535 Suspicious Letter 919 Ala Moana Blvd	Unknown Two suspicious envelopes were received in the mail. Packages given to Police.		Sabotage/Intentional	SOSC NFA
	Honolulu	20041105-1715 Transformer Explosion 820 Ward Ave	Shell Diala Oil  A transformer that services the facility exploded, discharging approximately 100 gallons of non PCB oil. Due to rain, the oil entered a storm drain that leads to either Honolulu Harbor or directly to the Pacific. Crews are on scene performing a clean up.	100 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20041104-0803 Transformer oil spill from transformer on utility truck 820 Ward Ave	Transformer Oil  Equipment failure resulted in a spill of 20 gal of transformer oil from on board utility truck onto concrete and subsequently one cup entered stormdrain.	20 Gallons	Other Equipment Failure	SOSC NFA
	Honolulu	20050531-1240 United Parcel Service Mercury Spill 128 Mokuea Pl	Mercury  Mercury spill from a broken 3 ft. long thermometer. Mercury leaked on the conveyor belt, below the belt, and stayed on ground. Global Environmental contracted by UPS	< 1 Pounds	Unknown Equipment Failure	SOSC NFA
	Honolulu	20050411-1230 Unknown blue pills 919 Ala Moana Boulevard	Sildenafil citrate unknown blue pill	4 Each	Lack of Procedure/Policy	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Qua	antity	Causal Factor	Result
Oahu	Honolulu	20040722-1658 Unknown Sheen 729212 Kewalo Basin Small Boat	Unknown Oil Unknown sheen located on the Kewalo Basin Small Boat Harbor.		Unknown	Unknown	SOSC NFA
	Honolulu	Harbor 20050118-0958 Unknown Sheen - 747520	Unknown Oil Caller reporting an unknown sheen in		Unknown	Unknown	SOSC NFA
	Honolulu	Ala Wai Canal 20041105-1248	the water. Quantity Released: unknown  Diesel Fuel	<	1 Sheen	Unknown	SOSC NFA
		Unknown Sheen #740572 1651 Ala Moana Blvd	Diesel fuel released from yacth due to unknown causes.				
	Honolulu	20040720-1456 Unknown Sheen 1085 Ala Moana Blvd 1085 Ala Moana Blvd	Unknown Sheen An unknown sheen was discovered in the Pacific Ocean off of Waikiki Beach.			Unknown	SOSC NFA
	Honolulu	20050318-0917 Unknown Sheen Kewalo Basin - 753066 Kewalo Basin	Unknown Caller reporting an unknown sheen.	<	1 Ounces	Unknown	SOSC NFA
	Honolulu	20050406-1057 Unknown Substance 501 Sumner St	Unknown  Caller reported unknown substance discovered in groundwater during excavation. Substance and quantity unknown.			Unknown	SOSC NFA
	Honolulu	20040923-1530 Unknown Vessel Discharged Material Kewalo Basin	Unknown Oil Caller stated responsible party was salvaging a vessel and the vessel discharged materials.			Sabotage/Intentional Violation	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu	20040928-0931 Unusual Odors 1515 Liliha	Complainant alleges strong chemical odor emanating from the library	< 1Unknown	Wind	SOSC NFA
	Honolulu	20050406-1106 USCGC Jarvis Jet Fuel Spill 400 Sand Island Access Rd	Jet Fuel JP-5 Jet fuel spilled onto the deck and into the Honoluu Harbor from a transfer hose on board the vessel.	60 Gallons	Other Human Error	SOSC NFA
	Honolulu	20041105-1850 Ward Avenue Blown Transformer 170 Ala Moana Blvd	Shell Diala Oil Received a call regarding Blown Transformer at the Ward facility.	100 Gallons	Mechanical Failure	SOSC NFA
	Honolulu	20050104-1435 White Chemical on street 2522 Rose Street	Latex Paint  Caller phoned and stated a lot of white chemical is flowing down the roadway and into the stormdrain.	1 Gallons	Lack of Supervision	SOSC NFA
	Honolulu Harbor	20050323-0941  Between the 30 ft. and 100 ft. mark Honolulu Harbor Pier 20	sheen Light oil sheen Pier 20 between the 30 foot and 100 foot mark.	< 1 Ounces	Unknown	SOSC NFA
	Honolulu Harbor	20041108-0746 Hoku - Loa Honolulu Harbor - Young Brothers	Diesel Fuel Discharge of Diesel fuel into the ocean.	10 Gallons	Improper Equipment Use	SOSC NFA
	Honolulu Harbor	20050217-1014 Honolulu Harbor - Pier 43 Honolulu Harbor Pier 43	Oil Sheen  Caller is reporting a sheen discovery in the Honolulu Harbor coming from an unknown vessel.	< 1 Ounces	Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu Harbor	20050623-0000 Honolulu Harbor 2-D spill 763200 Honolulu Harbor 2- D	Diesel Fuel #2  MATERIAL RELEASE FROM A  VESSEL DUE TO UNKNOWN CAUSES AT THIS TIME.  Booms applied.	3 Gallons	Unknown	SOSC NFA
	Honolulu Harbor	20050110-0848 Honolulu Harbor Pier 19 ERNS 746711 Honolulu Harbor Pier 19	Oil UNKNOWN SHEEN SIGHTING. 10 feet by 10 feet.	Unknown	Unknown	SOSC NFA
	Honolulu Harbor	20041217-0730  Honolulu Harbor Pier 26 Sheen 744630 Honolulu Harbor Pier 26	Oil Unknown sheen in Honolulu Harbor.	_		SOSC NFA
	Honolulu Harbor	20050623-1011 Honolulu Harbor Pier 28 M/V Explorer Honolulu Harbor Pier 28	Diesel Fuel RELEASE OF DIESEL FUEL INTO THE HONOLULU HARBOR FROM A TUG VESSEL.	15 Gallons	Improper Equipment Use	SOSC NFA
	Honolulu Harbor	20050410-1058 Honolulu Harbor Pier 30 Chevron Bunker Pier Honolulu Harbor Pier 30	Diesel Fuel #2  THE MATERIAL RELEASED FROM A SOUNDING TUBE ON THE VESSEL DURING REFUELING DUE TO AN OVERFILL. CHRIS Code: OTD Official Material Name: OIL, FUEL: NO. 2-D Also Known As: Qty Released: 2 GALLON(S) Qty in Water: .5 GALLON(S) Tug NOHEA.	2 Gallons	Inattention	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu Harbor	20050519-1032 Honolulu Harbor Pier 30 Diesel Fuel Honolulu Harbor Pier 30	Diesel Fuel DIESEL FUEL SPILLED INTO THE HONOLULU HARBOR FROM A FAILED TRANSFER HOSE CONNEDTED TO A PUMP HOUSE.	1 Quarts	Mechanical Failure	SOSC NFA
	Honolulu Harbor	20050519-1017 Honolulu Harbor Pier 30 Spill at Young Brothers Honolulu Harbor Pier 30	Diesel Fuel #2 MATERIAL RELEASED FROM A VESSEL DUE TO A VENT FAILURE.	1 Gallons	Mechanical Failure	SOSC NFA
	Honolulu Harbor	20050228-0724 Honolulu Harbor Pier 51 NRC 751161 Honolulu Harbor Pier 51	Oil Sheen	Sheen	Unknown	SOSC NFA
	Honolulu Harbor	20050615-0822 Light oil sheen at 200 ft marker Honolulu Harbor Pier 19	Sheen Pilot 5 reported to Aloha Tower light oil sheen at pier 19. It should dissipate. Clarence, operator 1073 called in report.	< 1 Ounces	Unknown	SOSC NFA
	Honolulu Harbor	20050326-1416 Naupaka Fuel Release Honolulu Harbor Pier 30	Diesel Fuel Over filling of fuel tank causing fuel to spill onto the deck of ship and into the Harbor.	2 Ounces	Judgement	SOSC NFA
	Honolulu Harbor	20050222-0815 Oil Sheen at Pier 11 Honolulu Harbor Pier 11	Oil Sheen Oil Sheen observed at Pier 11	< 1 Ounces	Unknown	SOSC NFA
	Honolulu Harbor	20050127-1250 Oil Sheen Pier 26 Honolulu Harbor Pier 26	Oil Sheen Oil Sheen seen inside of boomed area.	< 1 Ounces	Unknown	SOSC NFA

Island	Locality	Case Number	Substance(s)	Quantit	.y	Causal Factor	Result
	-	Release Identification	Incident				
Oahu	Honolulu Harbor	20041126-0832 Pier 11 Honolulu Harbor white discoloration Honolulu Harbor Pier 11	Unknown Aloha Tower reporting white discoloration in Pier 11, probably from a sorm drain, approximately 30 feet in diameter			Sabotage/Intentional Violation	Refer to CWB
	Honolulu Harbor	20050503-1000 Pier 17-29 Oil Sheen Honolulu Harbor Pier 17 - 29	Oil Oil sheen, mostly small patches, visible rainbow sheen at Pier 19 and Piers 22-23. USCG observed collecting samples at Pier 19		Sheen	Unknown	SOSC NFA
	Honolulu Harbor	20050404-1355 Pier 20 Oil Sheen Honolulu Harbor Pier 20	Oil Visible Oil Sheen 30 x 20 Feet Driting towards Pier 21, source unknown.		Sheen	Unknown	SOSC NFA
	Honolulu Harbor	20050125-0830 Pier 21, Honolulu Harbor Unknown Sheen 748199 Honolulu Harbor Pier 21	Unknown Oil Caller reported an unknown sheen in the water.	< 1	Ounces	Unknown	SOSC NFA
	Honolulu Harbor	20050222-1608  Pier 51A, Honolulu Harbor Unknown Sheen Honolulu Harbor Pier 51A	Unknown Oil Caller reporting an unknown sheen incident.	< 1	Ounces	Unknown	SOSC NFA
	Honolulu Harbor	20050613-0715 Rainbow sheen reported by Tug Namahoe Honolulu Harbor Pier 10	Sheen Aloha Tower called in report from Tug Namahoe. Light rainbow sheen covers wide area.			Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Honolulu Harbor	20041103-2259 Sheen 740375 Honolulu Harbor Pier 26	Oil Sheen inside boom around outfall of p36 stormdrain following grouting of stormdrain pipe.	Unknown	Installation	SOSC NFA
	Honolulu Harbor	20041110-0953 Sheen 741014 Honolulu Harbor Pier 26	Oil Sheen inside boom at p26 stormdrain outfall	Unknown	Other Equipment Failure	SOSC NFA
	Honolulu Harbor	20041111-0000 Sheen 741133 Honolulu Harbor Pier 26	Oil sheen inside boom at p36 stormdrain outfall		Other Equipment Failure	SOSC NFA
	Honolulu Harbor	20050225-1133 Sheen 751094 Honolulu Harbor Pier 26	Sheen inside the containment boom at P36 stormdrain outfall.		Inadequate Implementation of Planned Maintenance Program	SOSC NFA
	Honolulu Harbor	20050602-0130 Sheen 760827 Honolulu Harbor Pier 26 - 27	Oil Unknown sheen.	Unknown	Unknown	SOSC NFA
	Honolulu Harbor	20050315-1009 Unknown Sheen - Honolulu Harbor Honolulu Harbor Pier 26	oil sheen Unknown Sheen	< 1 Ounces	Unknown External Conditions	SOSC NFA
	Honolulu Harbor	20050531-0740 Unknown Sheen 5-31-2005 Honolulu Harbor	Sheen Unknown sheen discovered in Honolulu Harbor	< 1 Ounces	Unknown	SOSC NFA

Island	Locality	Case Number	Substance(s)	Quantity	Causal Factor	Result
		Release Identification	Incident			
Oahu	Honolulu Harbor	20050211-1646 Unknown Sheen 749861 Honolulu Harbor Pier 26	Unknown Oil Caller reporting an unknown sheen discovery in the Honolulu Harbor.vicinity of pier 26	Unknown	Unknown	SOSC NFA
	Honolulu Harbor	20040915-1328 Unknown Sheen Honolulu Harbor Corner of Pier 8 & 9 Honolulu Harbor Corner of Pier 8 & 9	Unknown Oil  Caller eported an unknown sheen sighting. Quantity released/in water: unknown. Sheen is moving towards the middle of the harbor.		Unknown	SOSC NFA
	Honolulu Harbor	20041008-1520  Unknown substance in water between Piers 11-12 - Honolulu Harbor Honolulu Harbor Piers 11 - 12	Unknown Unknown milky substance. Looks like came from drain.	2 Quarts	Unknown Sheen	SOSC NFA
	Honolulu Harbor	20050201-1029 Waste Oil Release, Pier 2 Honolulu Harbor Pier 2	Waste Oil While pumping off a space on the vessel, waste oil released into the water due to oil already being in the space from a wave that crashed up against the vessel earlier.	< 0.5 Gallons	Tidal Conditions	SOSC NFA
	Kaaawa	20050605-1856 49-817 Kamehameha Highway Alleged Illegal Discharge 49-817 Kamehameha Highway	Unknown allegations of illegal discharge from a house via a hole in the wall to the ocean		Judgement	SOSC NFA

Island	Locality	Case Number	Substance(s)	Qua	antity	Causal Factor	Result
		Release Identification	Incident				
Oahu	Kaawa	20040804-1430	Unknown		<b>2</b> Drum (55)	Unknown	Refer to
		Two 55 Gal. Drums on Beach Kalaeolo Beach Park	Caller phoned the NRC to report two 55gal. Drums that have washed onto the beach.		. ,		USCG
	Kahaluu	20050321-0651	Gasoline	<	1 Gallons	Unknown Human	SOSC NFA
		Car in Kahaluu Resevoir Kahaluu Resevoir	Stolen car was found in Kahaluu Resevoir			Error	
	Kahaluu	20050608-1605	Rubbish			Dumping	Refered to
		Dump Site 47-559 Ahi Lama Rd.	Alledged dump aite for various materials	ls			C&C Building Dept.
	Kahuku	20041018-1130	Unknown		Sabotage/Intentional	SOSC NFA	
		Kahana Bay, unknown compressed gas cylinder	cylinder washed ashore	Violatio	Violation		
	Kailua	20050120-1135	None			Dumping	SOSC NFA
		Allegations of Unknown Substance Oozing from Ground Kapaa Quarry Rd	Need to conduct a site evaluation				
	Kailua	20041019-1115	Unknown			Sabotage/Intentional	Refer to
		Kalama Beach, unknown compressed gas cylinder Kalama Beach	cylinder washed ashore			Violation	USCG
	Kailua	20050324-1759	None			Sabotage/Intentional	SOSC NFA
		Kawainui Marsh Abandoned Vehicle Kapaa Quarry Rd	allegation of abandoned vehicle in swamp			Violation	

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kailua	20040901-1628 Shell Diala AX Oil Release 1020 Keolu Dr	Shell Diala Oil Release of Shell Diala Oil due to car accident.	15 Gallons	Other Equipment Failure	SOSC NFA
	Kaneohe	20040723-1445 Alledged Discharge of gas and used oil 45-590 Paleka	Gas and Oil Alledged dumping of oil and gasoline.	< 0 Drops	Unknown	SOSC NFA
	Kaneohe	20041210-1813 Kaneohe - Concern over Water Main Break	None citizen called via Hawai'i State Hospital dispatch concerned about health problems related to a water main break		Other Equipment Failure	SOSC NFA
	Kaneohe	20050222-1120 Over spraying of gelcoat 45- 12 Mahalani Circle	Gelcoat  Person at 45-12- Mahalani Circle is spraying a boat. Lots of overspray, vapors entering neighbors homes	> 1 Ounces	Improper Equipment Use	Refer to CAB
	Kaneohe	20050529-1147 Paint Runoff 46-047 Kamehameha Hwy.	Paint Paint washings from Kaneohe Bay Shopping Center discharged onto Lilipuna St. and into stormdrain	5 Gallons	Inadequate Implementation of Procedure/Policy	Refer to C&C Stromwater Quality
	Kaneohe	20041031-1315 Sewage Spill for Kailua 45- 230 Kulauli St	Sewage spill	900 Gallons	Rain	Refer to WWB
	Kaneohe	20040810-1225 Unknown Sheen Sighting 731426 Heeiakea Wharf	Unknown Oil An unknown sheen sighting. Material was possibly dumped.	Unknown	Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kaneohe	20050103-0830 White Chemical Substance 45-995 Wailele Rd	Unknown Report of a white chemical substance flowing down the stream leading to Kaneohe Bay	Sheen	Unknown	SOSC NFA
	Kapolei	20050519-1300 92-618 Akaula Street Jugs 92-618 Akaula Street	Water 42 x 1-gallon jugs (milk and juice jugs) containing an unknown liquid found under a residential structure.		Poor Oversight	SOSC NFA
	Kapolei	20040709-1925 Abandoned Trailer outside Tesoro Tank Farm Olai Street, between Lots 157 and 199	Water Abandoned trailer parked outside Tesoro Tank Farm	Unknown	Sabotage/Intentional Violation	SOSC NFA
	Kapolei	20050623-0941 Allegations of Mercury Release 91-480 Malakole St	Mercury  Anonymous complainant alledging that mercury is being released in effluent and steam vapor, impacting water and atmosphere. Allegedly, Chevron has been importing high mercury content crude oil since last week Tues	Unknown	Installation	Refer to CAB
	Kapolei	20050202-1206  Cape Flattery - bulk carrier aground Pacific Basin Shipping	Oil vessel running aground; no material release - vessel fully loaded with cement		Unknown Equipment Failure	SOSC NFA
	Kapolei	20050202-1206	Cement		Unknown Equipment Failure	SOSC NFA

Island	Locality	Case Number	Substance(s)	Quantity	Causal Factor	Result
	-	Release Identification	Incident			
Oahu	Kapolei	20050607-1435  Cement Vessel Stuart Island Air Release Barber's Point Harbor	Cement  During off-loading of cement, allegations of air and water quality being compromised due to air releases.  Allegedly, nearby workers off-loading bunker oil stopped work due to environmental condition from air releases.	Unknown	Inadequate Procedure/Policy	Refer to CAB
	Kapolei	20041209-0955	Nitric Oxide	10.67 Pounds	Mechanical Failure	Refer to CAB
	Порого	Compressor Shut Down - Nitric Oxide Release 91- 480 Malakole St	Caller stated compressor shut down occurred at 3:00 a.m., causing material to vent . At 9:06 a.m. material exceeded reportable quantity levels.  Approximately 10.67 lbs of Nitric Oxide was released.			
	Kapolei	20050122-0653	Bildge water	< 1 Gallons	Unknown	Refer to
	·	Dark Bildge Water Barbers Point Harbor	Dark Bildge water seen in harbor.			USCG
	Kapolei	20040823-1111	Diesel Fuel	5 Gallons	Other Equipment	SOSC NFA
	•	Five Gallon Diesel Fuel Spill 91-607 Malakole St	Diesel fuel spill less than five gallons, due to valve alignment.		Failure	
	Kapolei	20050213-1520	nitrogen dioxide, sulfur dioxide	70 Pounds	Mechanical Failure	SOSC NFA
	·	flare 91-325 Komohana St	compressor failure caused venting to flare of RQ exceedence beyond CAB permit amount			

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kapolei	20050404-0901 Flare Release 4/2/05 91- 325 Komohana St	Nitrogen Dioxide  Materials are releasing to the flare due to excess light ends in the refinery crude oil.	70 Pounds	Unknown	Refer to CAB
	Kapolei	20050126-0725 Flare Stack Nitrogen Oxide Release 91-480 Makaloa St.	Nitrogen Oxide Control Valve Falure, causing release	1Unknown	Mechanical Failure	Refer to CAB
	Kapolei	20040710-1937 Flare Stack Release 727903 91-325 Komohana St	Nitrogen Oxide  Report of a flare stack release of material due to unit start up.		Other Equipment Failure	SOSC NFA
	Kapolei	20041124-1559 HECO Pole Mount Transformer 15527 91-195 Hanua Street	Shell Diala Oil Corrosion to transformer	15 Gallons	Other Equipment Failure	SOSC NFA
	Kapolei	20041120-1801 HECO Tank At Chevron Diesel Release 91-480 Malakole St	Diesel Fuel diesel release during heater test	50 Barrels	Procedural Error	SOSC NFA
	Kapolei	20041108-0748  HECO Transformer 91-195  Hanua Street 91-195  Hanua St	Shell Diala Oil At 91-195 Hanua Street blown Trasformer	20 Gallons	Other Equipment Failure	SOSC NFA
	Kapolei	20050408-1700 High levels SO2 91-325 Komohana St	Sulfur Dioxide High Levels SO2 emissions		Other Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kapolei	20050324-2147 Nitric Oxide Emissions - 03/24/2005 91-325 Komohana St	Nitric Oxide  Nitric Oxide emissions from cogen unit	10 Pounds	Other Equipment Failure	SOSC NFA
	Kapolei	20050325-1001 Nitric Oxide Emissions - 03/25/2005 91-480 Malakole St	Nitric Oxide emissions exceeding permitted levels		Other Equipment Failure	SOSC NFA
	Kapolei	20050603-1021 Nitric Oxide Release 6-3-05 91-480 Malakole St	Nitric Oxide Exceeded Emmissions Limit	10 Pounds	Mechanical Failure	Refer to CAB
	Kapolei	20041227-0822 Nitric Oxide release due to heavy rain 91-480 Malakole St	Nitric Oxide  Material is releasing from flare stack due to heavy rain.	12 Pounds	Rain	Refer to CAB
	Kapolei	20040806-1540 Nitrogen Dioxide 91-325 Komohana St	Nitrogen Oxides  Nitrogen dioxide. Still investigating. Unknown quantity. Caller is reporting a nitrogen oxide release from the flare. The cause of the release is unknown at this time.	23 Pounds	Mechanical Failure	SOSC NFA
	Kapolei	20040802-0804 Nitrogen Dioxide #730369 91-325 Komohana St	Nitrogen Dioxide At start up of Catalytic Reformer release of Nitrogen Dioxide to Flare stack.	< 1 Pounds	Mechanical Failure	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kapolei	20041126-0758  Nitrogen Dioxide Release - NRC# 742485 91-325 Komohana St	Nitrogen Dioxide  Nitrogen dioxide flaring as a result of burning of Hydrogen and hydrocarbon burning gases associated with startup of Hydrogen unit. Started on 11/25/04 and expected to last untik 11/27/04.	Unknown	Other Equipment Failure	Refer to CAB
	Kapolei	20040724-1510 Nitrogen Oxide release 729449 91-325 Komohana St	Nitrogen Oxide  Plant is being taken down for maintenace which resulted in flaring.Release exceeded permit by RQ	Unknown	Mechanical Failure	SOSC NFA
	Kapolei	20050423-1234 Nitrogen Oxide Release 04/23/2004 91-325 Komohana St	Nitrogen Oxide  Nitrogen Oxide released from the flare due to a unit shutdown	70 Pounds	Mechanical Failure	Refer to CAB
	Kapolei	20050523-0759 NRC # 759467 Oil Sheen Pacific Ocean	Oil Oil sheen reported to NRC on 5/21/2005	Sheen	Unknown	SOSC NFA
	Kapolei	20050121-0805 Oil Sheen in Harbor Barbers Point Harbor	Sheen Oil Sheen seen in harbor between 2 barges	< 1 Ounces	Unknown	Refer to USCG
	Kapolei	20041226-2348 Oily sewer pump failure 91- 480 Malakole St	Reclaimed Oil  Power failure to pump caused release of oily water.	84 Gallons	Other Equipment Failure	SOSC NFA

Island	Locality	Case Number	Substance(s)	Quantity	Causal Factor	Result
		Release Identification	Incident			
Oahu	Kapolei	20041005-1258  Phase 2 testing 91-291  Hanua St	Chromated Copper Arsenate  Phase 2 test results show that 2 out of 11 sites had high PRJ level 1 results for arsenic or chromiun. Waiting for other results.	Unknown	Judgement	Refer to ISST
	Kapolei	20040901-1100 Refinery Blending & Shipping area 91-480 Malakole St	Recovery oil Leaking in pipeline. Depressure line, clamping leak	35 Gallons	Structural Failure	SOSC NFA
	Kapolei	20040714-0900 Single Point Mooring Release 91-325 Komohana St	Oily Water  A single point mooring hose was being removed for maintenance when some oily water spilled out. 8/6/04 Follow up, during maintenance, spill occurred while one of floating hoses was being removed from Single Point Mooring terminal, 1.5 miles cont.	1 Pints	Other Equipment Failure	SOSC NFA
	Kapolei	20050211-1223 SO2 Sulfur Dioxide Leak 91- 480 Malakole St	Sulfur Dioxide Release caused by leak in pipe. Amount unknown until investigation is complete. No off site impact involved.	Unknown	Mechanical Failure	SOSC NFA
	Kapolei	20050526-1055 Tesoro Hawaii Corporation Refinery Sulfur Dioxide Release 5/25/05 91-325 Komohana St	Sulfur Dioxide Release started around 11pm 5/25 due to air pollution control not working properly. Approx 800# released and on going.	555 Pounds	Other Equipment Failure	Refer to CAB

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Kapolei	20041222-2005 Tesoro Refinery NOX and SOX 91-325 Komohana St	SOX	984 Pounds	Electrical Failure	SOSC NFA
	Kapolei	20050124-1427 Unknown Sheen Incident Barbers Point Harbor Pier 5	Unknown Oil Caller reporting an unknown sheen discovery in the Barbers Point Harbor.	< 1 Ounces	unknown	SOSC NFA
	Kunia	20050318-1410 Nemacur III Release 92- 1770 Kunia Rd	Nemacur Nemacure III released into the soil while loading sprayer	1 Gallons	Other Human Error	SOSC NFA
	Makaha	20041126-1359 Makaha Muriatic Acid Spill	Muriatic Acid 1 gallon of muriatic acid spilled	< 1 Gallons	Unknown	SOSC NFA
	Makakilo	20041028-1510 Asphalt Cement Spill 91- 920 Farrington Hwy	Asphalt Cement Tank overflow during loading	500 Gallons	Inattention	SOSC NFA
	Mililani	20050228-2059 Gasoline Smell from Catch Basins 95-1141 Ukuwai St	Petroleum Hydrocarbon Gasoline smell from catch basins.		Unknown	SOSC NFA
	Mokuleia	20040706-1530 Alleged illegal dumping of tar	Tar Alleged illegal dumping of approximately 700 gallons of tar on Dillingham Airfield	700 Gallons	Sabotage/Intentional Violation	Refer to SHWB
	Nanakuli	20041124-0830 Abandoned Drum 87-951 Paakea Road	Asphalt Received email from C&C Road Maintenance regarding abandonded drum at 87-951 Paakea Road.	<b>1</b> Drum (55)	Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s)	Quantity	Causal Factor	Result
		Release identification	incident			
Oahu	Ocean	20050531-0710 Hawaii State Waters 3 mi. SE of Honolulu Hawaii State Waters	Sheen Unknown sheen observed 3 miles southeast of Honolulu	1 Ounces	Unknown	SOSC NFA
	Open Ocean	20040727-1334	Unknown Oil	Unknown	Unknown	SOSC NFA
		Unknown Sheen 729781	Caller reported a half mile long oil slick about 40 miles NE off the island of Oahu. Source unknown.			
	Pearl City	20050103-0930	Di Chlor	15 Gallons	Rain	SOSC NFA
	·	3 five gallon Pails Di Chlor 2201 Waimano Home Road	3 buldging pails of Di Chlor, Organic Dry Bleach Concentrate			
	Pearl City	20050104-1000	None		Sabotage/Intentional	SOSC NFA
	Pean Oily	Abandoned Infectious Waste Aloha Stadium	infectious waste reported left in the facility	Violation	Violation	
	Pearl City	20040712-1335	Arsenic Pentoxide	Unknown	Unknown	SOSC NFA
	·	Anonymous Complaint - Sand Blast Grit 475 Kamehameha Hwy	Anonymous complaint about alleged waste behind ponds makai of Combustion Turbines Waiau Units No. 9 and 10			
	Pearl City	20041223-1544	Ammonium Chloride	< 1 Pounds	Procedural Error	SOSC NFA
	-	Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway	chemicals dropped off			
	Pearl City	20041223-1544	potassium iodide	< 1 Pounds	Procedural Error	SOSC NFA

Locality	Case Number Release Identification  20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway	Substance(s) Incident  Ferrous Sulfate chemicals dropped off	Qu	antity	Causal Factor Procedural Error	Result
Pearl City			_ <	1 Pounds		SOSC NFA
Pearl City	20041223-1544	Citric Acid	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Iron	_ <	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Sodium Silicate	_ <	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Borax	_ <	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Sodium Sulfate	_ <	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Copper	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Calcium Nitrate	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	methylene blue	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	aluminum ammonium sulfate	<	1 Pounds	Procedural Error	SOSC NFA
•	Pearl City	Pearl City         20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway           Pearl City         20041223-1544           Pearl City         20041223-1544	Pearl City         20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway         Ferrous Sulfate chemicals dropped off           Pearl City         20041223-1544         Citric Acid           Pearl City         20041223-1544         Iron           Pearl City         20041223-1544         Sodium Silicate           Pearl City         20041223-1544         Borax           Pearl City         20041223-1544         Sodium Sulfate           Pearl City         20041223-1544         Copper           Pearl City         20041223-1544         Calcium Nitrate           Pearl City         20041223-1544         methylene blue	Pearl City         20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway         Ferrous Sulfate chemicals dropped off chemicals dropped off            Pearl City         20041223-1544         Citric Acid            Pearl City         20041223-1544         Iron            Pearl City         20041223-1544         Sodium Silicate         <	Pearl City         20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway         Ferrous Sulfate chemicals dropped off chemicals dropped off sold of the chemicals dropped off chemicals dropped off sold of the chemicals dropped of the chemi	Pearl City         20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway         Ferrous Sulfate chemicals dropped off         < 1 Pounds         Procedural Error           Pearl City         20041223-1544         Citric Acid         < 1 Pounds

	Case Number Release Identification  20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway	Substance(s) Incident  Sodium Carbonate chemicals dropped off		antity	Causal Factor	Result
Pearl City			<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Aluminum	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Cobalt Chloride	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	biuret reagent		1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	fehling's solution	<	1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Sodium Carbonate		1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Copper Sulfate		1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	magnsium sulfate		1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	phenolpthalein		1 Pounds	Procedural Error	SOSC NFA
Pearl City	20041223-1544	Zinc		1 Pounds	Procedural Error	SOSC NFA
	Pearl City	Goodwill 98-018 Kamehameha Highway  Pearl City 20041223-1544  Pearl City 20041223-1544	Goodwill 98-018   Kamehameha Highway	Goodwill 98-018   Kamehameha Highway	Goodwill 98-018   Kamehameha Highway	Goodwill 98-018 Kamehameha Highway  Pearl City 20041223-1544 Aluminum < 1 Pounds Procedural Error  Pearl City 20041223-1544 Cobalt Chloride < 1 Pounds Procedural Error  Pearl City 20041223-1544 biuret reagent < 1 Pounds Procedural Error  Pearl City 20041223-1544 fehling's solution < 1 Pounds Procedural Error  Pearl City 20041223-1544 Sodium Carbonate < 1 Pounds Procedural Error  Pearl City 20041223-1544 Copper Sulfate < 1 Pounds Procedural Error  Pearl City 20041223-1544 Copper Sulfate < 1 Pounds Procedural Error  Pearl City 20041223-1544 magnsium sulfate < 1 Pounds Procedural Error  Pearl City 20041223-1544 phenolpthalein < 1 Pounds Procedural Error

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Pearl City	20041223-1544 Chemicals Dropped Off at Goodwill 98-018 Kamehameha Highway	Calcium Hydroxide chemicals dropped off	_ < 1 Pounds	Procedural Error	SOSC NFA
	Pearl City	20040902-0930 Pesticide Discharge into Stormdrain 96-1368 Waihona Place	Pesticide Discharging of unused pesticide into stormdrain from trucks.	_ < 1 Ounces	Procedural Error	SOSC NFA
	Pearl City	20050203-0830 RHS Lee - Oil leaving facility - 96-1414 Waihona Place 96-1414 Waihona Place	Diesel Fuel Site inspection with RCRA and EPA; observed sheen and oil leaving premises into storm drain	Sheen	Equipment Design	Refer to EPA
	Pearl City	20050203-0900 RHS Lee Baseyard - 2nd Street 96-1414 Waihona Place	None Site inspection with DOH RCRA and EPA	-	Other	SOSC NFA
	Pearl City	20040726-0830 Service Station 15W-40 100 gallons oil release 1200 Waimano Home Rd	Oil, Motor equipment failure released 100 gallons of virgin 15W-40 oil	150 Gallons	Mechanical Failure	SOSC NFA
	Pearl City	20040805-1835 Tarballs After Heavy Rain 475 Kamehameha Hwy	Tar Balls  Tar Balls found in the intake area. On Occasion tar balls appear after after a heavy rain from the old Chevron spill 1996.	> 1Unknown	Rain	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Pearl City	20041222-1242 Unknown source sheen 475 Kamehameha Hwy	Oil sheen of unknown origin discovered near sheet piling in stream that runs through the facility. Sheening has stopped	Sheen	Unknown	SOSC NFA
	Pearl City	20041126-0916 Waiau Power Plant - Pearl Harbor Unknown Sheen 475 Kamehameha Hwy	Unknown Oil Caller reported unknown sheen in water.		Unknown	SOSC NFA
	Pearl City	20041126-0837	solid waste		Sabotage/Intentional	Refer to
		Waimano Training School and Hospital illegal dumping 2201 Waimano Home Rd	illegal dumping of food waste, plastic bags, oil containers, car parts outside fence alongside trail, approximately 1 mile in.		Violation	SHWB
	Pearl Harbor	20040829-1925	Diesel Fuel	10 Gallons	Mechanical Failure	SOSC NFA
		10 gal fuel Spill Pearl Harbor Pier Pier 3 Bravo	10 Gal fuel Spill while transfering fuel. Diesel entered the water via a vent.			
	Pearl Harbor	20040907-0648	Oily Wastewater	15 Gallons	Inadequate	SOSC NFA
		Bilgewater Release Pearl Harbor Bravo 2 Pier	Ship personnel were pumping from one of the ship's bilge collection tank to a pier side collection tank, and tank overflowed		Procedure/Policy	
	Pearl Harbor	20041027-0001 Continuing Release Notification for the Arizona Arizona Memorial	Oil Continuing Release Notification for slow leak from the wreck.		Other	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Pearl Harbor	20041027-0000 Continuing Release Notification for USS Utah National Park Services National Park Services USS Utah	Oil Continuing Release Notification for slow leak from the wreck.		Other	SOSC NFA
	Pearl Harbor	20050622-1205 Diesel Spill @ Bravo Pier 13 Pearl Harbor Bravo 13	Diesel Fuel While transfering contaminated diesel fuel , storage tank was allowed to overflow.	5 Gallons	Other Human Error	SOSC NFA
	Pearl Harbor	20040702-1130 Gray paint dropped off roller into water Pearl Harbor Bravo Pier	Gray paint Gray paint dropped of a roller into water, less than quart.	1 Quarts	Other Human Error	SOSC NFA
	Pearl Harbor	20041024-1330 H1 Pier Pearl Harbor Pearl Harbor H1 Pier	Fuel Oil Overfilling of tank.	30 Gallons	Judgement	SOSC NFA
	Pearl Harbor	20050527-0813 Hotel 4 Pier Sheen Pearl Harbor Naval Shipyard	Diesel Fuel Sheen observed on water fronting Hotel 4 Pier	25 Gallons	Unknown	SOSC NFA
	Pearl Harbor	20041004-0738  Hydraulic Oil Sheen Pearl Harbor Bravo 2.5 Pier	Hydraulic Oil Report of a sheen discovered. Cause: Drain Pump Test aboard a naval vessel	Sheen	Other Equipment Failure	SOSC NFA
	Pearl Harbor	20040925-1625 Lubricating Oil Release Pearl Harbor Sierra 21-B Pier 667 Safeguard Suite	Lubricating Oil Discharge of approx. 1 gal. of lubricating oil.	1 Gallons	Other Equipment Failure	SOSC NFA

Island	Locality	Case Number Release Identification  20050124-0654 Oil Sheen siting Piers M2 & B26 Pearl Harbor Piers M2 & B26	Substance(s) Incident	Quantity		ty	Causal Factor	Result
Oahu	Pearl Harbor		Oil Sheen Unknown Oil Sheen coming from under Piers M2 & B26	<	1	Ounces	Unknown	Refer to USN
	Pearl Harbor	20040719-1425 Oily Bilge Water Discharge Pearl Harbor Pier B-15	Oil, Motor  Overfill of Storage tank, causing oil to seep into bilge and discharged into harbor.				Other Human Error	SOSC NFA
	Pearl Harbor	20040704-1400 Paint Spill Pier 15 Pearl Harbor Pier B-15	Paint Worker spill a cup of grey paint into the water.				Unknown Human Error	SOSC NFA
	Pearl Harbor	20041026-0918 Pearl Harbor Basin Pearl Harbor Bravo Pier 3 517 Russel Ave	Unknown Material  Caller stated that oily waste was being discharged into a barge. There was a sheen noticed on the water.	<	1	Gallons	Unknown	SOSC NFA
	Pearl Harbor	20041116-1637 Pearl Harbor Hotel Pier 1 & 4 JP-5 Fuel Spill Pearl Harbor Hotel Pier 1 & 4 850 Ticonderoga St	Jet Fuel JP-5  Jet fuel released from a pipeline due to equipment failure (crack in the line).			Gallons	Other Equipment Failure	Refer to ISST
	Pearl Harbor	20050617-0952 Pearl Harbor Pier S-1A Oil Spill Pearl Harbor Pier S-1A	Unknown Oil  Material released from the vessel (USS Buffalo) due to pumping the sonar dome. There was a leak in the hose.		5	Gallons	Other Human Error	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Pearl Harbor	20050211-0900 Pearl Harbor Pier Y-3B Cooking Oil Spill Pearl Harbor Pier Y-3B 850 Ticonderoga St	Cooking Oil Oil spill knocked over during transportation.	5 Gallons	Unknown Human Error	SOSC NFA
	Pearl Harbor	20040928-1100 Residual Bilgewater Release Pearl Harbor Bravo 2.5 Pier	Bilge Slops Forklift transporting an empty collection tank containing bilgewater and overturned;	10 Gallons	Inadequate Planned Maintenance Program	SOSC NFA
	Pearl Harbor	20041108-1027 Sheen Reported at Pier S14 Pearl Harbor Pier S-14	Oil Sheen reported.	< 1 Gallons	Unknown	SOSC NFA
	Pearl Harbor	20040723-1352 Undetermined Oil Sheen Pearl Harbor FISC Pier K-7	Unknown Oil  A sheen was discovered on the water, the origin was undetermined. The spill is contained within a boom around the ship.		Unknown	SOSC NFA
	Pearl Harbor	20050407-0856 USS Buffalo Lubricating Oil (WL-69) Release	Lubricating Oil (WL-69)  The material released due to the venting of a piece of equipment that caused an oil mist.		Mechanical Failure	SOSC NFA
	Pearl Harbor	20040725-0929 USS Defender Lubricating Oil Spill Pearl Harbor Pier Mike 4	Lubricating Oil Engineers doing work on vessel, oil spilled into water.	1 Gallons	Inattention	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Pearl Harbor	20050509-0635 USS Port Royal Raw Sewage	Sewage The caller is reporting a release of synthetic lube oil from a vessel into Pearl Harbor due to an overflow of materials during a transfer. The caller is also reporting a raw sewage line that ruptured and released into Pearl Harbor.		Unknown	SOSC NFA
	Sand Island	20050314-0745 HECO Transformer 68518 1006 Mikole Street	None Inspection was conducted at above address and noticed a transformer Vault 7603. Called HECO and requested to send an inspector of transformer and make sure that the it is not leaking any oil. According to HECO, transformer is fairly new.		None	SOSC NFA
	Sand Island	20050303-1448 Oil Spill Leaving facility to Sand Island State Parks 1006 Mikole Street	Oil oil leaving facility to Sand Island State Parks (approximately 1/10 mile from gate on right side of park upon entering); oil leading to a storm grate	Gallons	Dumping	Refer to SHWB
	Schofield Barracks	20040709-1257 Transformer Oil release Headquarters, United States Army Garrison, Hawaii	Transformer Oil Transformer toppled over onto parking lot causing oil from within to leak.	30 Gallons	Other Human Error	SOSC NFA
	Wahiawa	20040904-1325 1650 California Avenue sewage spill 1650 California Avenue	Sewage Sewage spill	255 Gallons	Unknown	Refer to WWB

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Wahiawa	20040825-0808 Removal 3 hoist and 1 sand grease trap 1011 California Ave	Found substance above detection levels. Called to notify. Needs to submit written report about levels and amounts.		Unknown	Refer to ISST
	Wahiawa	20041015-1235	Oil, Waste	<b>2</b> Drum (55	Dumping	SOSC NFA
	Wahiawa	Waikalani Abandon Drums Waikalani Drive	Received call from Lynn Nakamoto, Two 55 gal Drums located on the side of the roadway.			
	Wahiawa	20050506-0730 Whitmore Avenue Abandon Drum Whitmore Avenue	Solvent Dewaxed Residual Oil  Abandon drum with black substance oozing from drum. Drum is located approx. 1/4 mi above the GYM, on the eastside of the roadway laying on its side.	20 Gallons	Sabotage/Intentional Violation	SOSC NFA
	Waianae	20050620-1043	Oil Sheen	< 1 Ounces	Unknown	SOSC NFA
		Oil Sheen Waianae Boat Harbor Waianae Boat Harbor Pier 8	Oil Sheen observed in Waianae Boat Harbor			
	Waianae	20040914-0922 Vessel Valhalla Fuel Release 85-371 Farrington Hwy	Diesel Fuel Caller stated that a 32' power vessel sunk due to unknown causes and released diesel into the water.	Unknow	Other Equipment Failure	SOSC NFA
	Waianae	20050603-1133 Waianae Boat Harbor Unknown Sheen, 6/3/05 85- 371 Farrington Hwy	Unknown Oil Caller reporting an unknown sheen. Unknown amount.		Unknown	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s) Incident	Quantity	Causal Factor	Result
Oahu	Waikiki	20050523-1552 1609 Ala Wai Diesel Release 1609 Ala Wai	Diesel Fuel unregulated underground storage tank release; steel tank, formerly used as a water heater; tank appeared to be in poor shape. Free phase observed in tank pit, tank was approx 6 in. submerged in water.	Sheen	Structural Failure	Refer to ISST
	Waikiki	20041103-2130 Waikiki Elementary School Sewage Spill 3710 Leahi Avenue	Sewage Sewge spill	300 Gallons	Structural Failure	Refer to WWB
	Waimanalo	20050129-1941 1/29/2005 Wastewater Spill 41-1060 Kalanianaole Hwy	Sewage Spill overflowing from injection wells		Unknown Equipment Failure	Refer to CWB
	Waimanalo	20050222-0709 Oil Sheen Bellows Beach Bellows Beach Offshore	Oil Sheen Caller reported seeing sheen 1 mile off the shore at Bellows beach on 2-18-2005	< 1 Ounces	Unknown	SOSC NFA
	Waipahu	20050129-1200 HECO Transformer 14931 Hanawai Circle 94-342 Hanawai Circle	Transformer Oil transformer leak; heavy rain washed all of oil down into a storm drain	15 Gallons	Mechanical Failure	SOSC NFA
	Waipahu	20040714-1130 Polyaluminum chloride solution Release 94-1420 Moaniani St	Polyaluminum chloride 1000 Liter (approx 300 gallons) tote containing polyaluminum chloride solution punctured by an auger releasing approximately 200 gallons.	265 Gallons	Procedural Error	SOSC NFA

Island	Locality	Case Number Release Identification	Substance(s)	Quantity	Causal Factor	Result
		Release Identification	Incident			
Oahu	Waipio	20040922-1022 Four The Birds II 94-1491 Waipio Uka	4 the Birds Glue like substance placed on top of fence by property manager to deter birds.	2 Gallons	Maintenance	SOSC NFA
	Waipio	20040703-1432 Waipio Point Upper Parking Lot Fire Waipio Point	Napta Brush Fire Exposes small shed containing paints & solvents	< 2Drum (55)	Poor Oversight	SOSC NFA
Palmyra	Palmyra Atoll National Wild Life Refuge	20041021-1034 Oil Release in Palmyra Atoll Lagoon Palmyra Atoll Lagoon	Oil, No. 2-D  Caller reported sheen around an old sunken wreck on the reef.Non US  Waters	Unknown	Structural Failure	SOSC NFA
Wake	Wake Island	20040830-1238 Fuel Spill Wake Island Air Field	Jet Fuel JP-5 Fuel Line Valve Malfunction	300 Gallons	Other Equipment Failure	SOSC NFA
	Wake Island	20041011-0726 JP-5 release Wake Island	Jet Fuel JP-5 valve failure during a fuel transfer releasing 300 gallons of JP5	300 Gallons	Mechanical Failure	SOSC NFA
	Wake Island	20041006-1303 Wake Island Unleaded fuel release Wake Island	Gasoline, Unleaded Pipeline transfer fuel release	24500 Gallons	Structural Failure	SOSC NFA