

DEPARTMENT OF PUBLIC WORKS

LARRY DILL, P.E., COUNTY ENGINEER
LYLE TABATA, DEPUTY COUNTY ENGINEER

ADMINISTRATION

The Department of Public Works is responsible for the planning, design, and construction of all new improvements to County-owned facilities, excluding Department of Water projects. The maintenance, repair and upkeep of all County facilities, the collection and disposal of garbage and refuse, the collection and treatment of sewage, the review and enforcement of the various codes and other regulations pertaining to public and private construction work are also responsibilities of this Department.

Facilities managed by the Department of Public Works include four sanitary sewerage facilities- Wailua, Lihue, 'Ele'ele and Waimea; one sanitary landfill in Kekaha, and four refuse transfer stations-Princeville, Kapaa, Lihue and Hanapepe. Also being managed are three road construction and maintenance base yards – Hanalei, Kapaa, and Hanapēpē; and approximately 235 miles of paved roadways and 40 miles of unpaved roadways. Public Works provides repair and maintenance to the buildings within two stadium complexes– one in Hanapepe and another in Līhu'e as well as ten neighborhood centers and the island's convention hall.

Duties and functions of the Department are directed by an administrative staff consisting of the County Engineer, the Deputy County Engineer, and Executive Secretary, a Personnel Officer, a Business Management Officer, a Senior Clerk Typist and six Divisions. The six divisions are: Auto Maintenance and Motor Pool; Building; Engineering; Roads Construction and Maintenance; Solid Waste Management; and Wastewater Management. Detailed information of these divisions is fully described in the pages that follow.

Fiscal

Staffed by a Business Management Officer, a Budget/Fiscal Specialist and an Accountant III, the primary duties of this section are the preparation and monitoring of the Department's Operating Budget of approximately \$46.1 million, a Capital Improvement Budget of \$83.2 million and federal/state grants of \$36.6 million. Included as part of the Fiscal section primary duties are the coordination and compilation of the Department's projected six-year CIP requirements, which are updated annually. This Section is responsible for the payroll of approximately 289 employees, providing support for the Solid Waste and Wastewater billing program, the Department's inventory of approximately \$168,628,736 and also for the preparation of the required financial reports and the reimbursement of federal funds for capital improvement projects including American Recovery and Reinvestment Act (ARRA) stimulus funds. Federal agencies include Housing & Urban Development (HUD), Community Development Block Grant (CDBG), Federal Emergency Management Agency (FEMA); Hazard Mitigation Grants; Federal Highway Administration (FHWA), Natural Resources Conservation Service (NRCS) and Environmental Protection Agency (EPA). For Fiscal Year 2011, a total of 1500 man-hours of salaries were recovered from federal grants. Continued recovery of salaries is expected as we continue to move into construction of

roadways, bridges and bike/pedestrian paths funded through federal grants in FY 2012. Additionally, the Fiscal section will be tasked in the preparation of the required financial reports and reimbursement requests from State agencies that include the Department of Health, Department of Transportation, and the State Civil Defense.

PERSONNEL

Staffed with one Personnel Officer and one Departmental Personnel Assistant, the Personnel Section is committed to working strategically with the Department's division managers in identifying and responding to their changing personnel needs. The Section assists its managers in:

meeting staffing needs by promoting and supporting recruitment and selection strategies that attract, select, and promote employees based on merit.

- increasing organizational effectiveness by ensuring the proper and uniform alignment of positions and to recognize and record position changes.
- identifying and coordinating training to enhance employee skills, performance and job satisfaction.
- ensuring fair and equitable administration of union agreements, personnel policies and procedures, and civil service rules and regulations.
- managing employer-union relations that include grievance handling, union consultations and communications, and contract interpretation and administration.
- effectively administering employee benefit, leave, personnel file maintenance, and workers compensation programs.

AUTOMOTIVE DIVISION

MISSION STATEMENT: The Automotive Division strives to update and maintain the equipment and vehicle fleet of the Department of Public Works and other County agencies, enabling the County of Kaua'i to provide core services to all communities of Kaua'i.

DIVISION GOALS:

- Modernize and maintain the County's vehicle and equipment fleet, providing all agencies with economical and reliable vehicles and equipment thereby allowing the County to operate effectively and efficiently.
- Provide quick vehicle and equipment service and repair turnaround, allowing all agencies to perform their duties and responsibilities.
- Offer support and disaster relief services to all agencies and the community in emergency situations.

Automotive Division personnel include:

- 1 – Superintendent
- 1 – Auto Services Supervisor
- 1 – Program Support Technician II

1 – Storeroom Clerk
1 – Heavy Vehicle & Construction Equipment Mechanic II
4 – Heavy Vehicle & Construction Equipment Mechanic I
1 – Auto Mechanic II
6 – Auto Mechanic I
2 – Welder
2 – Auto Body Repairer
1 – Machinist
1 – Field Service Attendant
1 – Lubrication Worker
1 – Utility Worker

New Hires: Gilbert Serrao, Auto Body Repairer

Retirees: None

Total Personnel: 24

PROGRAM DESCRIPTION: The Automotive Division performs all aspects of automotive, construction equipment, and small-engine repair and includes the following services:

A. PROGRAM OBJECTIVES:

- Repair and maintain all DPW vehicles and heavy equipment.
- Repair and maintain all Police vehicles and equipment.
- Repair and maintain vehicles from other agencies including OEA, Planning, Housing, Parks, Finance, AEA and Real Property, etc.
- Perform D.O.T. inspections for all Department of Water vehicles.
- Assist Fire Dept. with maintenance and repair issues periodically
- Small engine repair and maintenance services.
- Fueling and servicing of equipment in the field.
- Tire repair services.
- Welding services.
- Machine shop services.
- Auto body repair and repainting of vehicles and equipment.
- Manage and maintain 4 island wide gasoline and diesel fuel distribution stations.
- Emergency callout services on weekends and after-hour emergencies.
- Support all County agencies in emergency situations.
- Service and maintain all emergency standby generators.
- Service and maintain generators at all 800 mhz. repeater sites.
- Service and maintain levee pumps and flood gates at Hanapēpē and Waimea levees.
- Repair and maintenance of Compacting Refuse Transfer Stations at Hanalei, Kapa‘a and Hanapēpē.
- Monitoring, maintenance and management of a Fleet maintenance program for all County owned vehicles.

- Monitoring, maintenance and management of the Gasboy computerized fuel distribution system.
- Provide auxiliary power for community events.

PROGRAM MEASURES:

1. We strive to promote safety and provide safe working conditions within the facility for all employees and visitors.
2. Perform preventive maintenance on all vehicles and equipment to maximize uptime and minimize costly equipment repairs.
3. Update the fleet with the most technologically advanced vehicles and equipment enabling the County to reduce fuel consumption and make a positive contribution to the environment.

ACCOMPLISHMENTS / EVALUATION: The Automotive Division continues to pursue training opportunities for our service technicians to keep abreast with the ever changing technology of the automotive and equipment industry. Various workshops have been attended by our office staff to keep up with the constantly updated software which controls our Fleet Management system as well as our Gasboy program. An overall safety program for the Automotive Division has been created and implemented in order to provide guidelines for safety for our employees as well as visitors. A preventive maintenance program has been created for all Solid Waste Transfer Stations in an effort to reduce costly and time consuming repair and maintenance issues and extend the life of the compactors.

New Equipment Received in FY 10-11 includes:

- 2 – Side Load Refuse Trucks
- 1 – Hybrid Sedan
- 2 – Pickup Trucks
- 3 – 15 Passenger Vans

BUILDING DIVISION

I. MISSION STATEMENT

The Division of Buildings is responsible for code enforcement, facility development, building construction and maintenance, and janitorial services. All programs are responsible for providing the people of Kaua`i with safely constructed public and private facilities, and well-maintained County facilities.

II. DIVISION GOALS

To develop new facilities to replace old, dilapidated, overcrowded buildings and structures.

To ensure that the minimum construction standards contained within the Kaua`i County Codes and referenced building trade codes, are adhered to.

Continually update the Kaua'i County Code to meet current building industry codes, which reflect the latest industry standards and changing technologies.

Provide effective training and adequate staffing to increase the efficiency of services to the public in the review, issuance, and enforcement of building, electrical, plumbing, and sign permits.

To maintain and clean County office buildings and neighborhood centers.

Provide repair and construction services for all County facilities, to prolong the life, and maintain the value of a variety of structures.

Provide necessary services in the preparation, and management of construction and service contracts.

III. PROGRAM DESCRIPTION

ADMINISTRATION

The Building Division's Administrative Section manages facility development and construction. The Section also oversees the operation of the Facility Maintenance Section, and the Building Codes Enforcement Section.

PROGRAM OBJECTIVES: The Administrative Section is currently tasked with the development of new facilities for the Fire Department, Council Services, and the Parks and Recreation Department. The Section also is required to implement the modification of existing facilities to meet the American's with Disabilities Act (ADA) requirements.

PROGRAM HIGHLIGHTS: The Division is working on the following Holo Holo 2020 Projects:

- Increase Use of Alternative Energy Sources
 - Līhu'e Civic Center Solar Energy System – Construction completed and system operations.
 - Kaiākea Fire Station Photovoltaic Power System – System under construction.
 - Līhu'e Police/EOC/OPA Solar Energy System - Consultant services procured and started for the Design/Build Contractor Procurement.
- Extend Ke Ala Hele Makalae coastal path – Lydgate Park – Kapa'a Bicycle/Pedestrian Phase A construction contract procured.
- Implement Complete Streets, Hardy Street Improvements – Consultant services have been procured and started for the Design/Build Contractor Procurement.
- Increased (Leadership in Energy and Environmental Design) LEED certified buildings – Construction contractor retained to secure existing building LEED certification for the recently completed Kaiākea Fire Station.

Construction has started, and is in various stages of completion to renovate various Park facilities to meet ADA requirements, Kaiākea Fire Station, Wailua Golf Course Maintenance Building,

the Historic County Building, Līhu‘e Carriage House, Police Evidence, and the Storage Area Mechanical Renovation Kapa‘a Baseyard Structural Renovation.

Design and procurement work is ongoing for the Lihue Civic Center Site Improvements, Pono Kai Seawall, Lydgate Pond Repairs, and Moana Kai Seawall.

Other major projects, for which the Section is providing planning, design, and construction management work, include Island-wide Cesspool Conversion Project, Kamalani Pavilion Reconstruction, Kapa‘a-Kealia Bike/Pedestrian Path Project, Lydgate-Kapa‘a Bike/Pedestrian Path, Ahukini-Lydgate Bike/Pedestrian Path, Kuna Bay-Anahola Bike/Pedestrian Path, and the Nāwiliwili-Ahukini Bike/Pedestrian Path.

REPAIR & MAINTENANCE AND JANITORIAL SERVICES SECTION

The Facility Maintenance Section consists of building trades repair and maintenance workers, and janitorial services workers. The personnel are responsible for providing necessary services to repair, maintain, and clean County facilities located between Kekaha and Haena. Additionally, the program has also been called upon to handle various new construction and major renovation projects for the County.

PROGRAM OBJECTIVES: The Repair & Maintenance and Janitorial Services Section is directly responsible for the maintenance and cleaning of all multi-agency County facilities. The Section also provides requested maintenance and janitorial support to the Parks and Recreation Department, Wastewater Division, Police Department, Fire Department, Civil Defense Agency, the Housing Agency, and Agency of Elderly Affairs with various construction, repair, and janitorial needs.

PROGRAM HIGHLIGHTS: The Section managed the completion of contracts for major repairs totaling approximately 2 million dollars at various County facilities. Major repair and renovation work was completed at the Līhu‘e Fire Station, Līhu‘e Ballpark Complex, and Līhu‘e Civic Center AC Improvements and Repairs. In addition to the completed projects, the Section has also been tasked with the development of plans, specifications, and contract documents for new projects going out to bid, with an estimated cost of approximately 1 million dollars.

The Section’s electrical trade personnel continued with the lighting retrofits at various County facilities. Energy efficient types of light fixtures, bulbs, and equipment are continually being installed or upgraded, replacing older fluorescent and incandescent equipment. The project to upgrade all our traffic signal lights to new light emitting diode (LED) fixtures has been completed, and included work to install ADA compliant, user friendly pedestrian button controls and signals. With the installation of newer, more efficient equipment, the staff has been able to direct more of their job hours to preventive maintenance types of work. This has reduced the amount of emergency and/or urgent repairs arising throughout the County, and has also reduced the amount of general maintenance repairs job orders being requested by the users.

The plumbing trade personnel continued with work to replace old plumbing fixtures at County park facilities. Additionally, upgrades to water fountains and other plumbing fixtures continue at

various County facilities to meet ADA requirements. With the completion of the individual wastewater system upgrades at many of the County facilities with the installation of various types of septic systems, the staff has taken on additional work with training, and developing a systematic procedure for the inspection and maintenance of all the new systems.

Required work to repair and/or replace items due to vandalism continues to be a major problem. Approximately 200 vandalism related job orders were issued this past fiscal year, requiring various amounts of man-hours and material cost. Many community groups, as well as youth groups associated with the Police Department have assisted with needed man-power in painting over graffiti, and doing minor repair work at numerous sites around the island to help address the increased amounts of work associated with acts of vandalism.

BUILDING CODE ENFORCEMENT SECTION

The Building Code Enforcement Section is responsible for the review of projects, plans, specifications, and related documents to ensure compliance and enforcement of all applicable building codes and ordinances associated with building construction. As the central coordination agency in the building permitting process, the program is responsible for the circulation and consolidation of comments from County, State, and Federal agencies, prior to permit approval. The program is also responsible for building, electrical, plumbing, energy, and sign code enforcement, as well as inspections of the above as part of the overall process.

PROGRAM OBJECTIVES: The ongoing objectives of this program are to:

- address fire, life, health, and safety concerns through the use of locally adopted model codes.
- promote the design of safe residential and commercial buildings from conception through the plan review process.
- ensure that these structures are built according to the approved set of plans.
- assist the public in their understanding of the County's adopted codes and ordinances and the process that will ultimately result in safe buildings for our community.
- issue Certificates of Occupancy.
- provide the highest level of customer service to our customers.

PROGRAM HIGHLIGHTS: In an effort to streamline the building permit process, the section has established and operated the One Stop Permitting Center. Applications that meet prescribed guidelines are submitted to the appropriate State and County agencies for processing in a timely manner.

In an effort to promote greater community awareness, the Section has been actively involved in the yearly Contractors Association of Kauai (CAK) Home Show. During this annual event, an information booth was manned by staff members who presented educational material to the public, answered questions, and heightened community awareness of our role in providing Kaua'i with a safely built environment. A similar effort was made at the County Housing Agency's Housing Fair in June 2011.

The Section is working closely with the other Counties and the Hawai'i State Energy Office to develop a permitting wizard for selected renewable energy technologies. When complete, developers of biofuel, geothermal, hydroelectric, ocean thermal/energy conversions, solar, waste to energy/biomass, wave and hydrokinetic, and wind projects will be able to determine what permits will be required for their particular project.

This Section processes all Board of Appeals applications and coordinates meetings with the seven members of this commission.

Staff members of this Section actively participate in the Hawai'i Association of County Building Officials (HACBO). Code officials from all four counties get together annually to discuss code related issues and to come up with solutions for common problems facing our industry.

With an eye to the future, Section supervisors have had discussions with the IT Department on ways to implement an electronic plan review system. When fully operational, plans will be submitted, reviewed and stored electronically. Electronic plans can be sent to all applicable agencies at the same time. This system is expected to save the applicant time and money.

The Section has been actively involved with our Building Permit Task Force Committee and created a dialogue between the permit issuance agencies discussing and addressing new permit and construction issues, instituted new policies and code revisions with updating of ordinances.

Representing the County of Kauai in the State of Hawaii Building Code Counsel, we are currently updating our building, electrical and plumbing codes with the goal to have complete uniformity of codes throughout the State of Hawaii. All Counties will introduce legislation to adopt the 2006 International Building Code, 2006 International Residential Code, 2008 National Electrical Code and the 2006 Uniform Plumbing Code.

IV. BUDGET BY PROGRAM

ADMINISTRATION & FACILITY DEVELOPMENT

Equivalent Personnel (includes 4 \$1.00 funded positions)	7
Salaries & Wages	\$ 278,234
Operations	\$ 9,500
Equipment	\$ 0
PROGRAM TOTALS	<u>\$ 287,734</u>

REPAIR & MAINTENANCE AND JANITORIAL SERVICES BUDGET

Personnel	46.5
Salaries & Wages	\$ 2,601,103
Operations	\$ 1,967,243
Equipment	\$ 290,250
PROGRAM TOTALS	<u>\$ 4,858,596</u>

BUILDING CODES ENFORCEMENT

Equivalent Personnel (Includes 2 contract hires)	20
Salaries & Wages	\$ 1,523,731
Operations	\$ 5,000
Equipment	\$ 3,400
PROGRAM TOTALS	<u>\$ 1,532,131</u>

V. PROGRAM MEASURES

REPAIR & MAINTENANCE AND JANITORIAL SERVICES

Facilities Managed by Building Division	<u>Actual</u>
West/South District	0
Central District (square feet)	153,256
East/North District	0
Facilities w/ Maintenance Assistance	
West/South District (square feet)	206,844
Central District (square feet)	297,267
East/North District (square feet)	114,810
Job Orders Processed	2,699
Job Orders Completed	2,632

BUILDING CODES ENFORCEMENT

Number of days for building code enforcement review of permits to be responded to:	<u>Estimate</u>	<u>Actual</u>
Residential	5	8
Commercial	20	7

Number of days for permits to be approved by all reviewing agencies:		
Residential	30	16.4
Commercial	50	22.25

Code Enforcement Inspections		
Building Code Inspections	7,000	6,847
Electrical Code Inspections	5,000	4,708
Plumbing Code Inspections	6,000	6,774
Sign Code Inspections	100	3
Total Code Inspections	18,100	18,332

Code Permits Issued		
Building Code Permits	1,400	1,271
Electrical Code Permits	1,400	1,630
Plumbing Code Permits	1,400	1,262

Sign Code Permits	180	245
Total Code Permits Issued	4,380	4,408
New Building Permits	700	789
Addition/Alteration Building Permits	700	482
Building Permit Valuations	\$200,000,000	\$148,556,347

VI. EVALUATION

For all programs within the Building Division, the program objectives were met this past fiscal year. Our goal to meet or exceed the estimated program measures had varying results.

The Administration Section has continued to develop new facilities for the county agencies and oversee the Code Enforcement and Repair & Maintenance and Janitorial Sections. New facilities for Fire Department, Council Services, and the Parks Division are being developed. Work is also proceeding with compliance to the Americans with Disabilities Act requirements.

The Repair & Maintenance and Janitorial Services Section have kept pace with the ever increasing amounts of work order requests being made. However, the increasing amounts of new construction projects assigned to the maintenance section, and the continued problems with vandalism still remains a concern, taking away valuable man-hours and funding that could be directed towards preventive maintenance.

The Building Codes Enforcement Section continues to provide efficient and timely service to the public. With the hiring of temporary staff through the use of the revolving fund and increased training of existing staff, the permit response and approval time have been maintained at a reasonable level. The number of actual permits issued, as well as the building permit valuations which coincide with revenue generation, have had mixed results.

The Building Division concentrated its efforts to provide adequate and efficient services to the public. Our overall mission of providing the people of Kaua'i with safely constructed public and private facilities, and well-maintained County facilities was accomplished.

ENGINEERING DIVISION

MISSION STATEMENT: Protection of the public's health, safety, property and the environment through proper planning, development, maintenance, and operation of the County's infrastructures, and administration of the sediment and erosion control, storm water runoff system, driveway approach and land use codes and ordinances.

DEPARTMENT/DIVISION GOALS:

- Protection of public health and safety by planning and developing safe and cost-effective roadway, bridge and drainage systems.
- Protection of public safety and assurance of high quality of life by

administering and enforcing subdivision, grading and drainage ordinances and regulations.

- Protection of public safety and investment through effective maintenance of County facilities, roadways, bridges and drainage systems through systematic planning, systems, processes and programs.

PERSONNEL

- Division Chief** (1) Civil Engineer VII
General Administration
Annual Budget
Special Projects: Northerly Leg Western ByPass Road;
Procurement of consultant services for Kapahi Bridge;
Pu`u`ōpae Bridge; `Opaeka`a Bridge; Hanapēpē Bridge; Rice
Street Crosswalk vicinity of Haleko Road and Līhu`e Town
House; and ADA improvements at Rice/Umi and Rice/Hardy-
Kalena Intersection.
Subdivision Review/Construction Plan Review Zoning, SMA,
Variances, and Use Permits Reviews
- (2) Clerical Assistant
- (3) Engineering Program Administrator
Project Management
County CIP
Construction Management
STIP (Statewide Transportation Improvement Program)
Project Identification Document (PID)
Drafting Standard Operating Policy and Procedures
(SOP's) for ENG Division
- (4) Project Management Program Manager
- (5) Civil Engineer V
Bridge Inspection Program
Special Projects: Kamalu Road Bridge Repair;
Kamalu Road Culvert Repair;
Kapahi Bridge;
Hanapēpē Walkway & Pedestrian Bridge;
Hauaala Ford Crossing Emergency Repairs;
`Ōpa`eka`a Bridge Repair;
Pu`u`opae Bridge Repair.
- () Civil Engineer II (\$1 Funded)

Regulatory/Design/Permitting:

- (6) Civil Engineer V

- Flood Plain Management Program
- (7) Civil Engineer III
 - Grading, Grubbing, and Stockpiling Permits
 - Notice of Intent to Grade, Grub, and Stockpile
 - Best Management Plans (BMP's)
 - Grading Exemptions (Soil & Water Conservation Plans)
 - Traffic Controls/Street Lighting
 - Speed Hump Program Administers Storm Water Management regulations
 - Special Projects: (Puhī Road Ultra Thin Whitetopping) STP-5010(1); Lae Road Guard Rail Improvements.
- (8) Civil Engineer I
- (9) Engineering Support Technician III
- (10) Engineering Support Technician I

Construction Inspection/Management:

- () Civil Engineer VI (Vacant)
- (11) Civil Engineer II
 - Construction Inspection/Management
 - Roadway Construction Inspection\
 - Driveway Approach Permitting and Inspection
 - Grading, Grubbing, and Stockpiling Inspection
 - Special Projects: (Kōke`e Road Resurfacing STP-0552(2); Piikoi Renovations for Fire Dept Offices; Procurement of Speed Board Signage; Hanapēpē Road Resurfacing; Kōloa Road Guard Rail Improvements.
- (12) Supervising Construction Inspector III
- () Construction Inspector III (Vacant)
- () Construction Inspector II (\$1 Funded)
- () Construction Inspector I (\$1 Funded)

Plans and Survey:

- (13) Land Surveyor III
 - Road Right of Way Surveys
 - Topographic & Location Surveys
 - Survey Datum Information
 - Technical Descriptions of Land Matters
 - As Built Plan Information
 - Subdivision/Easement Mapping
 - Property Boundary and Shoreline Surveys
 - Road Inventory Program
 - Island Wide House Numbering System
 - Special Projects: Rice Street Crossing Improvements,

- Consultant Procurement (SEY)
Special Projects Drafting
- (14) Engineering Drafting Technician II
 - (15) Engineering Support Technician III

Total Number of Personnel: 15; plus 3 dollar funded positions; 2 vacant positions

PROGRAM DESCRIPTIONS:

The Division of Engineering provides civil and general engineering services primarily for, and as required by, the Department of Public Works. It is responsible as well for maintenance and repair projects for roads and bridges, parks, drainage and flood control facilities. Project design and construction management is accomplished by in-house personnel, sometimes utilizing professional consultant services, depending on the complexity and scope of the project and the availability of project funding. The Division of Engineering is tasked with the administration of the following Ordinances.

1. Storm Water Runoff System Ordinance. This Ordinance replaced the Storm Drainage Standards dated February 1972. The Ordinance provides guidelines and standards as to the handling of drainage runoff system for the County of Kaua`i. The Storm Water Runoff System Manual was developed using hydrological and hydraulic criteria used by other cities and counties in the United States and incorporated residents' concern and State and Federal Clean Water regulations regarding 1) maintenance of predevelopment flow rates from developments to mitigate increase in storm runoff as a result of the construction of structures, roadways and other impermeable surfaces; 2) minimizing of pollutants being drained into streams, rivers and natural watercourses by providing water quality provisions and regulating illicit discharges for erosion and sediment control of construction activities required by State Water Quality Pollutant Discharge Elimination System Phase II (NPDES) Permit; 3) Protection of structures from the one hundred (100) year storm as required by Flood Plain Management Ordinance; and 4) the establishment of hydrological and hydraulic methodology and criteria designs for drainage system for more frequent storms, using streets, roads, streams, rivers and natural watercourses to handle the more infrequent storms, with the intent that streams, rivers and natural watercourses shall not be replaced with lined drainage or closed systems except at road crossing and to provide affordable infrastructures while maintaining the rural street concept desired by residents.
2. Sediment and Erosion Control Ordinance. This ordinance regulates the construction of all grading, grubbing, and stockpiling activities in the County as well as agricultural exemptions that fall under an approved conservation plan approved by the East and West Kaua`i Soil and Water Conservation Districts.
3. Driveway Approach Ordinance. This ordinance regulates the construction of driveway approaches within the County Road right of ways.

4. Speed Hump Ordinance. This ordinance regulates the construction of speed humps and speed tables on County roadways.
5. Work within County Road Right of Way Ordinance. This ordinance controls and regulates all construction work within the County Road right of way.
6. Flood Plain Management, Ordinance No. 831. This ordinance regulates the County's flood plain management program: The County of Kaua'i is a participant of the National Flood Insurance Program which enables property owners in flood-prone areas of the County to obtain flood insurance and to assure future federal financial assistance for the County. The purpose of the ordinance is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions by:
 - (1) To protect human life and health;
 - (2) To minimize expenditure of public money for costly flood control projects.
 - (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - (4) To minimize prolonged business interruptions;
 - (5) To minimize damage to public facilities and utilities located in areas of special flood hazard.
 - (6) To help maintain a stable tax base by minimizing future flood loss;
 - (7) To assist in notifying potential buyers that property is in an area of special flood hazard; and
 - (8) To insure that those who occupy areas of special flood hazard assume responsibility for their actions;

In addition, the Division of Engineering provides the following support services:

1. Assist the Planning Department in the administration of the Subdivision Ordinance and Comprehensive Zoning Ordinance by (a) providing review and comments and recommendations on subdivision applications, including full review and approval of subdivision construction drawings for roadways and utility improvements; (b) providing review comments and recommendations for all zoning changes and amendments, use permits, shoreline management permits and variances.
2. Assist the Building Division in the review process of all building permits including, sediment and erosion control and driveway approaches and conditions imposed by the Planning Department and Planning Commission as it relates to zoning, use and SMA permit conditions for which the Engineering Division is responsible for.
3. Respond to personal requests and inquiries from the County Council. Provide testimony as required.

4. Respond to requests for solutions to engineering problems, definition of land boundaries, mapping for land acquisitions, easements, right-of-ways and other land matters.
5. Respond to requests for changes and/or relocation of traffic regulatory signs, markings, street light activation, traffic control devices, parking stall layout, school bus stops, and public transportation bus stops, drainage, flooding, etc.

PROGRAM HIGHLIGHTS:

- **\$0.3M Kamalu Road Bridge Erosion Control Repair.** Federal Aid Project **BR-0700(48)**. In house design was completed by Public Works Engineering and submitted to the State DOT for review and approval.
- Pursued with State DOT, Highways and Federal Highway Administration in the functional classification for classifying the **Northerly Leg of the Western Bypass Road** as a major collector roadway, which in turn would qualify the roadway to placed on the State's Statewide Transportation Improvement Program (STIP) and qualify for FHWA funding for the design and construction of the roadway. Letter dated July 7, 2009 from Liz Fischer of FHWA confirms the functional classification by FHWA and makes it eligible for federal-aid funding. The Northern Leg of the Western ByPass Road is included in the current 2008-2011 STIP as KC-12. Public Informational Meeting was held on November 12, 2009 to solicit comments from the public on the project pursuant to Section 106 of the National Historic Preservation Act of 1966. Working with the State DOT to obligate the Design Funds up till Final Design due to pending Section 106 concurrence by the State DOT and FHWA.
- **Kōke`e Road Resurfacing Federal Aid Project STP-0552(2).** Engineering Division provided the in house design and construction procurement along with procuring all permits and clearances prior to construction. The project was advertised on June 2, 2011 and bid opening is scheduled for July 23, 2011.
- **\$2.1M Contract No. 8464 Pi`ikoi Building Renovation.** Engineering Division administered the design contract and construction procurement of the Project. The design consultant service was provided by Architects Hawai'i, Ltd. The Construction bids were opened on January 26, 2011 and award was subsequently made to Resort Construction Managers Inc. The bid came under our estimated budget with a cost saving of \$1.2 M. Construction management of the project will be provided by Building Division.
- Severe storms and flooding occurred during the period of November 13-25, 2009. A preliminary damage assessment was conducted on November 27, 2009 by the Engineering Division. The 2009 rains and flooding which amounted to more than 6 inches in the Kapahi area undermined and damaged the **Hauaala Ford Crossing**

making it impassable and non-functional. On November 27, 2009, concrete barriers were placed on both ends of the Ford Crossing and residents in the area were informed to seek other alternative routes. The Engineering Division prepared and initiated an emergency procurement to fix the damaged Ford Crossing by replacing the corroded corrugated arch steel culvert with three concrete cells box culvert. The Ford Crossing design and construction management was accomplished in-house. Notice to proceed was issued on August 13, 2010 and was formally accepted on October 11, 2010.

- Personnel have completed the Field Sampling and Testing Qualification Program and are certified for the Soils & Aggregate and Concrete Units as well as the Soils & Aggregate Concrete and Bituminous (Asphalt) Units, sampling and testing. They are qualified to inspect Federal Highway Projects. This is an ongoing program to train our construction inspectors.

- Other projects of importance:

Work with Department of Land Natural Resources to decommission Lower Kapahi Reservoir with a County of Kaua‘i contribution to effort of \$1.8 M.

Work with United States Army Corps of Engineers to develop an analysis of Kekaha Flood Plain flooding issues, preliminary engineering for Hanapēpē and Waimea Levees, and Konihiki Stream system as it relates to the issues of Twin Reservoirs.

Completed Space Master Plan for County facilities except for Council Services and Water.

Began work with Department of Water to develop a storage building to house items currently in the Civic Center allowing expansion opportunities within the Civic Center.

Embarked on the development of Policies and Standard Operating Procedures to better manage the division along with the development of systems to manage capital improvement projects as assigned to the Engineering Division.

Contract No 8289, Road Resurfacing 2007-2008: Notice to Proceed was issued on September 20, 2010 to Grace Pacific Corporation. Recommended project completion as of February 16, 2011 to Director of Finance.

'Aliomanu Road Repair: Construction plan prepared by Oceanit. Construction plan review is ongoing. Consultant work is being prepared by emergency procurement. Purchase Order No. 152744.

Contract No. 8282, Kapa‘a Beach Sand Movement & Evaluation Study: Notice to Proceed is July 19, 2010 with a contract time of 460 calendar days and completion date of October 21, 2011. The Design Consultant is Sea Engineering Inc.

- Assisted various Departments and Divisions with the following survey requests:
 - Ali`i Road/ Kaunaloa Street Right of Way;
 - Hanapēpē Bridge Survey;
 - Hanapēpē Grading Violation Survey;
 - Hauaala Bridge Survey;
 - Honsador Old Stable CPR;
 - 06-49Kahumoku Right of Way;
 - Kalāheo Neighborhood Boundary Survey;
 - Kamalu Road Culvert Crossing Survey;
 - Kapa`ka Street;
 - Kanaele Road Right of Way Survey;
 - Keālia Fire Station Easements;
 - Lae Road - Puuwai Road right of way survey;
 - Larsen Beach Public Access Re-Survey;
 - Līhu'e Post Office Survey;
 - Papaloa Road Right of Way Survey;
 - Wa`a Road Rail Road and Drain Line Survey;
 - Papaloa Road Right of Way Survey;
 - Piko Road Dead Trees Location;
 - Puni Road Right of Way;
 - Uha Road Survey;
 - Wailua Golf Course Easement Survey;
 - Wailua Park (Proposed Dog Pound) Survey;
 - Waipouli Canal Surveys;
 - Wehe Road (Cemetery) Right of Way.

PROGRAM MEASURES:

- Completed the construction of the Hauaala Road Ford Crossing Emergency Repair.
- Embarking on the development of Policies and Standard Operating Procedures setting formal performance standards to better manage processes within the division along with the development of systems to manage capital improvement projects as assigned to the Engineering Division such as the formulation of and use of Project Information Documents and the use of a Sharepoint program to document, communicate and share project information. Evaluating options to improve and expand digital document development and archiving.

- Plan review is ongoing for the following large subdivisions:
 - S-2005-39 Molokoa IV (Wailani)
 - S-2005-40 Ahukini Mauka
 - S-2005-41 Ahukini Makai
 - S-2006-12 Kohea Loa (Hanamā'ulu Triangle)
 - S-2006-24 Ho`oluana at Kohea Loa
 - S-2007-27 Puakea I (Ulu Ko III)
 - S-2009-13 Waiola I
 - S-2009-14 Waiola II
 - S-2009-15 Waiola III
 - S-2006-49 `Ele`ele Luna Phases 2 & 3, Increments 1, 2 & 3

- The following subdivision construction plans were approved:
 - S-93-50 Brydeswood Phase II
 - S-2006-04 Brydeswood Phase III
 - S-2009-08 KMN, LLC
 - S-2007-20 Paanau Village Phase II

- The following construction plans were reviewed and/or approved by the Engineering Division for the following agencies:

Department of Water:

12” Main Replacement for Kaumuali‘i Hwy. Plan approved 9/15/08. Construction is ongoing.

12” Waterline Kaumuali‘i Hwy & Waimea Canyon Drive. Plan approved 7/1/09. Construction is ongoing.

Job No. 04-02 Pipeline Replacement for Vivian Heights & Kanaele Road. Plan review is ongoing. Approved construction plans. Construction is ongoing.

Kekaha Well B Renovations. Plan review is ongoing.

Piiwai 677’ 0.5 MG Storage Tank & Connecting Pipeline. Plan review is ongoing.

Job No 04-04-PLH-09 Pipeline Replacement for Līhu‘e Town. Plan approved 4/13/09. Construction is ongoing.

Job No. 04-05, WK-14, Vivian Heights - Kanaele Road Water Line Replacement. Plans approved. Construction is ongoing.

Waimea Water Improvements Job No. 05-01. Plan approved 7/1/09. Construction is ongoing.

Job No. 05-05, PLH-30, Nāwiliwili, Niumalu & Kupolo Water Main Replacement. Plan review ongoing. Construction plan approved 6/4/2010 for work within County Right of Way. Construction is pending.

Job NO. 05-06, PLH-25, Līhu'e Water System Improvements: Plan approved 6/4/2010. Construction is ongoing.

Job No. 02-15 Wailua Houselot Main Replacement. Plan review is ongoing.

Job No. 02-16. WK-36, Kuamo`o Road, Wailua Road, 'Ohana Street, Anolani Street and Lehia Lane Pipe Line Replacement. Plans approved August 4, 2010. Construction is pending.

Job No. 02-19, WK-36, Waipouli Main Replacement. Plan review ongoing.

Job 10-01 Pipeline Kīlauea to 'Anini; Plan review is ongoing.

Job 05-02 Wainiha Booster Pump Station & Hā'ena Steel Tank; Plan review is ongoing.

Job No. 02-03 HW-02, HW-03 Wainiha Booster Pump Sta. & Hā'ena Steel Tank; Plan review is ongoing.

Job No. 02-08 Rehabilitate Twin 0.4 MG Steel Tanks, 'Ele'ele Water System; Plan review is ongoing.

State Department of Transportation, Highways Division:

Kūhi'ō Hwy Intersection Improvements at Waiakalua Street and North Waiakalua Street, Project No. 50C-01-09. Plan approved 4/23/09.

Kūhi'ō Hwy Short Term Improvements Kuamo`o Road to Temporary ByPass Road and Undergrounding of Utility Lines. Plan review ongoing.

Kamuali`i Hwy Widening Vicinity of Anonui Street to Vicinity of Līhu'e Mill Bridge. FAP Project No NH-050-1(31). Plan approved 1/11/2010. Construction is ongoing.

Kaumuali'i Hwy Drainage Improvements Vicinity Mile Post 25.9 TMK: 1-3-003-001; Review ongoing.

Kaumuali'i Hwy Resurfacing Kīpū Road to Hulei Bridge Federal Aid Project STP-0501(037); Plans approved 4/5/2011. Construction is pending.

Kāpule Highway Resurfacing Ahukini Road to Kūhi'ō Highway Project No. 51B-01-11M. Plan approved 1/12/2011. Construction is pending.

- **Grading, Grubbing and Stockpile Permits:**

Issued: 21 Inspected and Closed Out: 13

Road Permits

Issued: 23 Inspected and Closed Out: 18

Driveway Approach Permits:

Issued: 108 Inspected and Closed Out: 53

DIVISION OF ROADS

MISSION STATEMENT

To maintain County roadways in a manner that will safely convey vehicular and pedestrian traffic. To maintain major drainage facilities and levees. To provide county wide support with equipment and labor.

DIVISION GOALS

- To anticipate and address road and drainage needs
- To make the best and most efficient use of the Division's resources
- To improve internal and public communication
- To instill pride in the jobs that we perform

PERSONNEL

- 1 - Chief of Field Operations & Maintenance
- 1 - Administrative Service Assistant
- 1 - Civil Engineer
- 1 - Projects/Inspections Coordinator
- 1 - Vehicle Equipment Operator Trainer
- 1 - Superintendent of Highways Construction & Maintenance
- 3 - District Road Overseer
- 2 - Highway Construction & Maintenance Supervisor II
- 5 - Highway Construction & Maintenance Supervisor I
- 3 - Field Operations Clerk
- 1 - Equipment Operator IV
- 7 - Equipment Operator III
- 12 - Equipment Operator II

- 2 - Equipment Operator I
- 6 - Tractor Mower Operator
- 6 - Baseyard Attendant
- 3 - Laborer Working Supervisor
- 18 - Laborers
- 1 - Traffic Signs & Markings Supervisor
- 1 - Traffic Sign Painter
- 1 - Traffic Signs & Markings Crew Leader
- 1 - Traffic Marker
- 3 - Traffic Signs & Markings Helper
- 6 - Refuse Collection Crew Leader
- 12 - Refuse Collector
- 1 - Equipment Operator III
- 1 - Equipment Operator I

101 - Total Personnel

FUNCTIONS

The Roads Division is composed of four sections. Administrative, Technical, Vehicle Equipment Operator Training & Safety Compliance, and Field Operations. Field Operations consists of three branches: Roads Construction & Maintenance Base Yards; Traffic Signs & Pavement Markings; and Refuse Collections. Roads Division manages approximately 275 miles of roads: 235 paved and 40 unpaved. There is approximately 29 miles of private roads that are not managed by Roads Division.

PROGRAM DESCRIPTION

The Roads Construction and Maintenance Division performs maintenance and repair of road pavements and shoulders, bridges, sidewalk/driveway/curb/gutter, levees and appurtenances maintenance and repairs; installation and maintenance of traffic and safety devices; installation and maintenance of traffic signs and pavement markings. The Roads Construction and Maintenance Division supports the Solid Waste Division and the Department of Parks and Recreation on a regular basis and supports other agencies on an as needed basis.

PROGRAM HIGHLIGHTS

- Island Wide Resurfacing Projects: In-house design.
- This fiscal year, the Roads Division crews have been more aggressive using the bucket truck in tree trimming and removal of dead trees in the County road right-of-way, but we are not specialized in pruning trees and beautification. We do road maintenance “rough” vegetation control.
- Heavy concentration and effort in right-of-way vegetation control.

ACCOMPLISHMENTS

- Island Wide Resurfacing FY 2011-2012 Proposal being finalized to let out for bidding.
- Hanapepe and Waimea Flood Control Levees: Roads Division completed a Levee Maintenance Remediation Plan and is making great efforts to implement this plan in order to restore Hanapepe and Waimea Levees to Active Status in the U.S. Army Corps of Engineers (USACE) Continuing Eligibility Inspection program.
- A “naturally accumulated island” in the levee section of the Hanapepe River has been grubbed clear of vegetation and cut down to the low tide river elevation thus improving channel flow at the levee during storm events.
- Contract to remove trees in water at the Waimea and Hanapepe levees has been issued and work is in progress.
- Contract to remove and replace sluice gates and flap gates at the Hanapepe Levee has been issued and work is in progress.
- Contract to remove and replace gates in the Waimea Levee is being drafted.
- Aliomanu Road: Completed sand bag replacement and construction work for temporary emergency repairs.
- Provided emergency response services for several rainstorms during the year.
- Kapa‘a Round About Olohena Road – Malu Road Pedestrian Path & Crosswalk Project completed.
- 80% of Roads Division field staff are cross trained and certified as back-up operators/dump truck drivers to ensure continuity of operations
- New Roads Division Staff is redefining the Road Maintenance Management Plan and the MicroPAVER program.
- Lala Road drainage: Defined problem with the help of County’s Wastewater Division maintenance crew and HDOT maintenance crew. Solution pending HDOT and County Engineering Division.
- Countywide Bridge Inspection & Appraisal (Federal-Aid Project No.BR-NBIS-43) of 23 bridges. Under a Bridge Inspection Service Agreement, State Department of Transportation Bridge team inspected 23 County Bridges, completed report August 24, 2010. Issues regarding report are being addressed.

List of bridges:

Akulikuli	Kīpū	Omao
Hanapepe	Kokee	Opaekaa
Hoomana	Koloa Road	Poipu
Kainahola	Lāwa‘i	Puukumu
Kamalu	Mānā	Puuopae
Kapahi	Nawiliwili	Wailana #2
Kiaki	Olohena #1	Wailana #4
‘Anini Road	Kīlauea	

Federal Highway Administration (FHWA) queries re Bridge Report being fielded by Roads Division & DOT-Bridge Team.

- Roads personnel working on week-ends have assisted Solid Waste Division in the bin distribution for the conversion to the new automated refuse collection system.
- Roads and other DPW divisions assisted the County Anti-Drug Agency with coordinating and placement of 3 new Office Trailers class rooms at Kauai High School, King Kaumualii School and Kapaa High School.
- Roads personnel have often diverted from their regular road maintenance projects to assist Parks Department and other agencies in their projects (2 major cleanups and maintenance of the Kealia Bike Path, assorted tree trimming and access easement maintenance)
- Roads assisted IT and KPD with battery replacement for island wide repeater sites.
- Roads assist Engineering Division in the implementation of the Complete Streets/Safe Routes to Schools island wide by providing maintenance and installing traffic signs and street markings.

DIVISION of SOLID WASTE MANAGEMENT

I. MISSION STATEMENT: Maintain Public health and safety by providing reliable programs to properly manage municipal solid waste (MSW) for the Island of Kauai, and maximize waste diversion on Kauai by providing cost-effective, convenient, and reliable waste diversion opportunities to Kauai residents through source reduction, reuse, and recycling.

II. DIVISION GOALS:

1. Maintain a balance of reliability, efficiency, and cost effectiveness for County solid waste management and diversion programs.
2. Identify and implement appropriate integrated MSW management programs to divert waste from MSW landfills.
3. Further maximize waste diversion by promoting all existing waste diversion opportunities to the residential and commercial sectors. Provide technical assistance to the commercial sector and private recyclers. Provide public education in schools and to the community at large.
4. Conduct County waste management programs and operations in accordance with applicable government regulations.

DUTY AND FUNCTION.

The County of Kauai, Division of Solid Waste Management (DSWM) plans and implements waste disposal operations and integrated solid waste management (ISWM) programs within the scope of Departmental and Divisional policies and applicable Hawaii State regulations. ISWM programs incorporate modern concepts of diversion and disposal to responsibly manage MSW on the island of Kauai.

III. DESCRIPTION OF DSWM PROGRAMS

1. Administration. The DSWM administrative section oversees solid waste management operations and integrated program activities.
 - a. **Objective.** Provide administrative support to further progress towards achieving DSWM goals.
 - b. **Highlights.** Tasks include: (1) develop and administer operating and capital improvement project (CIP) budgets, (2) develop and administer policies and standard operating procedures for DSWM programs and employees, (3) maintain appropriate records, (4) develop and maintain systems to compile data, information, and monitor progress on programs/ projects/ various contracts and agreements, (5) regulatory compliance, (6) inter-governmental/public relations.

2. Solid Waste Management Operations. This Section oversees the day-to-day operation of the County’s various solid waste management facilities and operations.
 - a. **Objectives.**
 - Provide reliable and sanitary disposal services for solid waste
 - Operate Facilities within regulatory requirements
 - b. **Highlights**
Phase II of Kekaha Landfill. Operations continued with Waste Management of Hawaii d.b.a. Sanifill of Hawaii with primary oversight responsibility over the management of the landfill daily operations. County provides the equipment operators and labor workforce to perform operations to accept waste and site maintenance.

See CIP project section narrative for activities related to the Lateral Expansion of Phase II of the Kekaha landfill.

Refuse Transfer Stations (RTS)s. RTS continued normal operating hours and scheduled workdays. During the reporting period, the hours that transfer stations are open to the public were modified, 7:15 am to 5:15pm, daily. Operational dates at RTSs remained the same. Table 1, below, provides tonnage of mixed solid waste received and transported to the landfill during the reporting period and also provides the change in quantity transported compared to the prior Fiscal Year.

Table 1

<u>RTS Location</u>	<u>Total MSW Received (Tons)</u>	<u>Tonnage Change from FY 10</u>
Hanapepe	7,228	+257

Lihue	11,014	+949
Kapaa	9,700	-20
Hanalei	4,892	-419

- Greenwaste Diversion Operations. Greenwaste diversion sites maintained operations as normal. See “Greenwaste Management Program” under “Integrated Solid Waste Management Programs” for information on management of diverted greenwaste.
- Refuse Collections at County Facilities. The DSWM continued refuse collection services with the semi-automated side-loader. A total of 27 County facilities are serviced. Twenty Five (25) locations are serviced daily; the Hanalei Fire/Police Station and Kilauea NC are provided two times per week pickup.
- Island-Wide Curbside Refuse Collection. On July 1, 2010, the DSWM began Phase I of Automated refuse collection in the Central Līhu‘e area, transitioning and servicing approximately 2600 homes. With this implementation, we were able to reduce overtime costs for refuse collection by at least 33%. Along with the implementation of Phase I, the DSWM was able to balance/equalize the house count for the remaining six manual collections crews. This included assigning new routes to crews, thus making their serviceable areas strategically located to provide less travel time to and from their base yards and disposal facilities.

Following the initial rollout, the County and the UPW union began and completed negotiations for Phase II of Automated refuse collections. A major change in the second agreement which is to begin September 5, 2011, is the maximum number of pickups allowed for refuse collection a day per truck from 800 homes to 1000 homes. The DSWM plans for Phase II implementation to include transitioning two manual routes in the Wailua-Kapa‘a-Anahola areas to Automated collections service. This is to include approximately 5700 homes.

Another significant change that will impact refuse collection is an update to ordinance 902 and the implementation of the new Residential Refuse Collection Assessment (RRCA). The major update to Ordinance 902 is the total number of trash receptacles allowed per benefitted property. In the past there was no maximum amount of trash receptacles a resident could leave out for curbside collection. With the new Ordinance 902 update, the maximum allowed is now three (3). With the implementation of the RRCA, all residents will have to pay a base fee of \$6/month, which will cover cost for the disposal of trash to the Landfill. Residents will also have the option to have County curbside collection service or take the trash themselves to the refuse transfer station. If the resident elects to have the County service their property, an additional \$6 will be charged. Also with the new RRCA, our refuse count has changed to where only “benefitted” properties will be counted and not individual residences.

As of April, 2010, the refuse count for residence was at 23,076 with 106 businesses. With the new RRCA, and the options given to residents and businesses to opt out of County service, there has been a significant drop. As of June 30, 2011, the new count stood at 19,665 for residents and 37 business accounts. If these numbers stand, the total OT cost for refuse collection will drop an additional 80%.

- Heavy Equipment Procurement Program. Purchased was one (1) each 38-foot transfer trailers @ \$122,603.60 and two (2) each 45-foot transfer trailers @ \$241,732.18 each = \$354,335.78.

3. Integrated Solid Waste Management Programs. Integrated solid waste management programs are implemented to manage materials that are prohibited from the landfill and also to divert recyclable material from the Landfill.

A. *Objectives.*

- Provide the public with reliable and convenient options to divert and recycle materials and manage special solid waste.
- Decrease the volume of recyclable solid waste landfilled

B. *Highlights.*

- Residential Refuse Collection Assessment (RRCA): As recommended in the Integrated Solid Waste Management Plan, County Ordinance 902 passed in September 2010 allowing the Division to assess charges for refuse collection.
 - All benefitted properties will be charged a \$6 base assessment per benefitted property, which is mandatory and covers the operating cost of the refuse transfer stations. An additional \$6 collection assessment will be charged for curbside refuse service, which owners can opt out of if they wish to haul their own garbage.
 - Hired a Solid Waste Account Technician and Senior Clerk whose primary responsibilities are to administer this program.
 - Began establishing program policies and procedures.
 - Received technical support from Real Property's billing system technician, Tyler Tech, who added a special assessment module to the Real Property Tax system to allow for RRCA charges.
 - In March a notice was sent to all property owners to notify them of pending charges on their Real Property Tax Bill, and to allow them to make any necessary changes to the assessment. Most feedback and phone calls resulting from the notice were for clarification purposes. There were fewer complaints than anticipated, and even some positive feedback about how charges were necessary.
 - The RRCA is anticipated to reduce the division's reliance on the general fund by approximately \$1.9 million per year.
- Kauai Resource Center. The Recycling Specialists working on the Deposit Beverage Container program continued to conduct office functions out of the Kauai Resource Center (KRC).
 - Recycling Operations: Garden Isle Disposal (GID) continued to provide a public drop point for segregated recyclables, a certified redemption center for

residential and commercial use, and a drop point for commercial recyclables at no charge to individual businesses as well as haulers. During this fiscal year, the Kauai Resource Center diverted a total of 1,135 tons of material from the landfill. The breakdown was as follows: tons (T) 155 cardboard, 20 T newspaper, 59 T mixed paper, 24 T non-deposit beverage container (DBC) glass, .27 T #1 molded plastic, 1 T #2 non-DBC plastic, .08 T plastic bags, 688 T DBC glass, 83 T DBC aluminum, 102 T DBC plastic.

- Home Composting

- Earth Machine Home Composting Bins were out of stock at the beginning of the Fiscal Year, but we purchased a full container load of 868 bins February.
- Will continue to distribute bins out of the Kaua‘i Resource Center using the 20 minute training video and registration process. Electronic surveys will be used to assess program participation.

- Kauai Recycles Residential Recycling Program

Eight locations throughout the island for residents to recycle container glass, corrugated cardboard, aluminum, newspaper, #1 and #2 plastic containers, and mixed paper.

- Vendor Contract- The Contract with Garden Isle Disposal was extended, and entered the sixth year to supply, haul, and service 8 recycling drop bins throughout the island, provide public education for the program, and provide mixed paper and cardboard recycling at County offices. During the reporting period, the tonnage recovered/recycled averaged approximately 137 tons per month, which is up six tons per month from the average tonnage for the past three years. Annual program tonnage for FY 2011 was 1,640 tons. Cardboard continues to account for the majority of the tonnage collected each month, at an average of 58 tons per month (tpm), followed by mixed paper at 30 tpm, glass at 21 tpm, and newspaper at 17 tpm, plastic at 4 tpm, and aluminum at less than 1 tpm.
- GID continues to get paid a flat monthly fee of \$15,643 for servicing bins up to a threshold of 63 hauls per month. Additional hauls above that threshold are subject to a charge of \$210 per month. Over the fiscal year, GID hauled an average of 28 hauls per month above the 63 hauls per month threshold, resulting in a total of 336 additional hauls for a total cost of \$70,560. An additional set of bins are continued to be placed at high traffic locations (Lihue and Kapaa) every weekend.
- Public Education- In addition to radio and television ads placed by the vendor, the County recycling office continues to field calls and provide program information.

- ADF Glass Recovery and Recycling Contract

- The State Department of Health provided a grant of \$60,000 to fund non-HI5 glass recycling efforts. Grant funds are utilized to cover the glass recycling portion of the expenses associated with the Kaua‘i Recycles drop bin program.

- Deposit Beverage Container (DBC) Program

- State Funding Contract – The FY 2010 budget continues to be funded at a minimal level of \$265,000 to cover essential services only, and paid for two County staff positions that ran the program, reimbursement of administrative

- oversight of the grant, and the contracting of two certified redemption centers in Koloa and Kekaha.
- The Recycling Specialist positions working on this program were paid through State DOH grant funds and implemented local program administrative and inspection tasks. These positions are being utilized to oversee all recycling projects that are related to DBC recycling, including school education, parks recycling, special event recycling, and general public education.
 - Island-wide compliance inspections of retail outlets selling beverage containers, and Certified Redemption Centers are ongoing.
 - There are nine CRC operations throughout the island, of which, 6 are privately operated and 3 are contracted by the County
 - County contracted CRC operations continue at the Kekaha Landfill, the Koloa Fire Station, and the Kauai Resource Center.
 - The contract for services to operate redemption centers in Kekaha and the Koloa Fire Station will be extended in July 2011.
 - The Kekaha site continues its second year at old mill in Kekaha. The right of entry agreement from the property owner to lease the space for \$500 per month has been extended and is being paid through the State DBC grant.
 - Public Education- Receipt and dissemination of educational materials is coordinated with the state. Education and promotions are provided at the grade-school level, at redemption centers, via live radio interviews/talk-shows, and at special events upon request.
 - Continue to monitor the programs in which HI-5 bins were distributed at all County parks and neighborhood centers, given to schools and non-profits upon request to be used for their HI5 collection activities, and loaned out for use at special events.
 - According to the state annual report, the statewide redemption rate for HI5 recycling was 76%, which is down 4% from last fiscal year, but still retentively high.
- Household Hazardous Waste (HHW) Collections
 - Vendor Contract- Contract for collection events was executed and is planned for the weekend of July 9 - 10.
 - Public Education- DSWM posted banners at transfer stations to promote the events about 2 weeks prior. Radio and newspaper ads were also run to promote the events. Also, residents who contacted the Recycling Office throughout the year regarding HHW disposal were contacted by phone to notify them of the days and times of the event near their home.
 - Operation of the Puhi Metals Recycling Center
Junk Vehicles, White Goods (Appliances), and Scrap Metal Recycling Operations Contract
 - In May 2009, the facility operator, Abe's Auto Recyclers, was found to be in noncompliance with their County Contract and with the Puhi Metals Recycling Center (PMRC) facility permit due to exceeding onsite stockpile limits for the facility. The operator exceeded the limits because a barge was not available to move stockpiled metal off site.

- The DSWM has been conducting weekly site visits and meetings with the Contractor in order to assure they are in compliance.
- The Contractor continues to ship out metal on flat racks and in containers. They have met contract compliance in the area of white goods and vehicle processing, but fail to meet compliance on the amount of scrap metal stockpiled on site, pollution liability insurance, and making repairs to the ground (liner) of the facility.
- The land owner, Grove Farm, has discontinued the land lease with the County and has expressed interest in taking over the Puhī Metals Facility recycling operations when Abe’s Auto Recyclers’ contract expires in October 2011.
- The DSWM is working to ensure that programs to accept and divert vehicles, white goods, and scrap metals are in place when the contract ends with Abe’s Auto Recyclers.
- Household Battery Recycling Program
 - Obtained a permit by rule from the State Department of Health to accept household batteries generated by residents at the Kaua‘i Resource Center in Līhu‘e. The permit allows storage of up to six 55-gallon drums of material for a one year period prior to removal.
 - Conducted multi-media promotional activities to publicize the new program.
 - The program commenced on March 21, 2011. Per the permit requirement, batteries are being accepted in 55 gallon plastic barrels in 3 separate categories:
 - Lithium batteries (9-volt, C, AA, coin, button, rechargeable).
 - NiCad batteries
 - Dry Cell batteries to include alkaline and carbon zinc (9-volt, D, C, AA, AAA), mercuric-oxide (button, some cylindrical and rectangular), silver-oxide and zinc-air (button)
 - On June 30, 2011, there were approximately 25 gallons of Dry Cell batteries, 15 gallons of Lithium batteries, and 15 gallons of NiCad batteries in their respective collection drums.
- Disposal of Abandoned Vehicles
 - Towing Contracts- A new contract for services is in the process of being executed. Contract rates per vehicle towed comply with HRS 290.
 - Compliance per HRS 290, Kauai County Code Chapter 16- The abandoned vehicle coordinator is tasked to run each abandoned vehicle through the disposition procedure outlined by the statute and the Kauai County Code.
- Plastic Bag Reduction Law
 - Ordinance 885 went into effect on January 11, 2011. The purpose of the legislation is to reduce the significant impacts of plastic checkout bags on the environment. The law requires businesses to provide only recyclable paper or reusable bags to their customers and all bags distributed must comply with the law’s definition of these bag types. Paper bags must contain a minimum of 40% post consumer content, contain no old growth fiber, and be printed with the words “recyclable” and “reusable”.

- DSWM conducted multi-media promotion and outreach to prepare local vendors for compliance with the ordinance, including a series of public meetings in November 2010.
- Adopted Administrative Rules in January and commenced enforcement activities based on complaint calls. As of June 2011, DSWM has received six reports of non-compliance, and resulting notices to correct and to cease distribution of non-compliant bags has resulted in compliance.
- Electronics Recycling
 - Secured a contract with EnviroServices and Training Center to provide a two day collection event for businesses and the general public at Vidinha Stadium. The event is planned for October 21 and 22, 2011. The mobilization and per pound price to process electronics was much higher than anticipated, as no non-profit organizations or manufacturer recyclers bid for the contract. However, the price was not inconsistent with our prior bid for service from hazardous waste disposal companies.
 - The Hawaii Electronic Waste Recovery Law went into effect in January, 2010, and included televisions in January 2011. Under this program, manufacturers of covered electronic devices (CEDs) and televisions are required to operate recycling programs. Covered electronics include computers, printers, monitors and televisions. The intent of the law was to encourage better end of life design on the part of manufacturers, and will to save taxpayer dollars to fund recycling programs for this material. However, the DSWM has noted that the current mail back programs that manufacturers offer to the neighbor islands are not adequate and the public is not participating in them. Instead, they are waiting for the County to fund collection events. DSWM provided testimony on bills to amend the law, but they did not pass in the legislative session. At this point, our goal is to modify the existing legislation to require “on the ground” programs on the neighbor islands in order to provide the most effective and convenient programs to the public.
 - DSWM continues to field calls from the public and work with retailers to educate about the new law and existing diversion options for electronics.
 - Budgeting for a County run event was secured for FY 2012.
- Pilot Curbside Recycling.
 - 96 gallon recycling carts with grey bodies and blue lids, along with educational literature, was distributed to the pilot group of 1,300 August 2010. The pilot group was two automated refuse collection routes in the Līhu‘e and Puhī areas. The program commenced in September 2010. A spare automated refuse collection truck with one driver serviced the routes.
 - Residents received pickup every other Thursday. All items currently accepted in the county’s Kauai Recycles Drop Bin program were accepted in the recycling carts.
 - As of June 2011, the average weight of material collected from each home is 28.96 pounds per month. Materials collected by weight in descending order were:
 - Mixed paper – 29.5%

- Cardboard - 24.7%
 - Newspaper – 16.5%
 - Glass – 9.6%
 - Plastic – 5.2%
 - Aluminum - .1%
- The cost of sorting and processing the recyclables was a program challenge which was anticipated during the planning phases, as there is not a MRF on island that has the equipment and capacity to sort mixed stream recyclables. The initial contract cost for sorting services for the first six months of the program was \$2,198.00 per month. However, the price for a six month extension of the contract is \$16,499.89. Justification for the significant price increase was that the contractor underestimated the cost to process the single stream curbside recyclables in the original contract.
 - The one year term of the contract will end in August 2011. The DSWM will retrieve the carts and replace the covers with black lids so that they may be reused as refuse carts. Under the contract, RW Beck will be conducting a pre and post-pilot survey of the pilot group, and drafting a final program report.
- Increased Diversion Efforts:
A Waste Diversion Program Advisor was hired on contract in March 2011 and was assigned the following tasks with the goal of significantly extending the life of the Kekaha Landfill:
 - Develop a Construction/Demolition diversion ordinance targeting materials where adequate processing capacity and markets currently exist.
 - Develop a commercial mixed paper recycling ordinance requiring businesses generating a significant amount of mixed paper to set up recycling programs.
 - Initiate the implementation of curbside greenwaste collection in conjunction with the automation of refuse collection.
 - Expedite the construction of a Material Recovery Facility to allow the expansion of existing recycling efforts and the development of island-wide curbside recycling
 - Provide technical assistance to the commercial sector and private recyclers.
 - Provide public education in schools and to the community at large.
 - Programs Operated at Reuse Transfer Stations and the Kekaha Landfill:
 - Limits on Cardboard, Metals and Green Waste – Ordinance 902 was signed in to law in August 2010, restricting the disposal of commercially generated loads that exceed 10 percent of the volume for corrugated cardboard, ferrous and non-ferrous metal or green waste. The SWMD is developing policies and procedures for enforcement of this law, which may include load rejection and penalties for non-compliant loads.
 - Greenwaste Recycling- Greenwaste collected and/or shredded at all Transfer Stations was tracked at 74,973 yards, which is a significant decrease over last FY at 89,044 yards. The landfill tracked 610 tons collected, which was a decrease from the 930 tons collected last FY.
 - Scrap Tire Recycling- A total of 13,699 tires were collected at all transfer stations and the landfill during the period. Unitek Solvent Services hauls tires from the refuse centers, containerizes them, and ships all tires to their

operation on Oahu. Tires are chipped into crumb rubber and provided to AES power company for fuel.

- White Goods Recycling
 - Under two separate contracts with Kaua‘i Veterans Express through April, and Hooklifts Hawai‘i thereafter, contractors loaded and hauled white goods from all County RTSs except Lihue. Under this contract, refuse centers are serviced once per week. A total of 1,440 tons of white goods from the RTSs were delivered to the Puhi Metals Recycling Center during this period, which is an increase of 269 more tons than in FY 2010.
 - A scrap metal bin was added to the Lihue RTS to collect this material. The bin is hauled by the County. White goods are not accepted at the Lihue RTS and are directed to Puhi Metals.
- Propane Tank Recycling
 - Refrigerant Recycling is under a formal Contract for services to remove and recycle propane tanks from the transfer stations.
 - A total of 734 propane tanks were collected at RTSs and were recycled throughout the course of the FY.
- Lead Acid Battery Recycling- DSWM personnel transported lead acid batteries on an ongoing basis, to PS&D. PS&D accepts batteries at no charge. Lead acid batteries are abandoned at County refuse transfer stations on a regular basis.
- Do-it-Yourselfer (DIY) Used Motor Oil Recycling at the Kekaha Landfill and RTSs.
 - State Funding Contract- The level of funding remained at \$55,000 per annum. Received notification from the State that funding would drop in FY 2012 and may even be discontinued. At the end of the FY, we learned that funding for 2012 would be \$24,000, which is the bare minimum to support motor oil pumping services at the Refuse Transfer Stations.
 - Spec Oil Recycling. Unitek Solvent Services provided services for removal and recycling of recovered oil. Oil is shipped to Oahu, where it is recycled.
 - Off-spec Oil Disposal- EnviroServices was contracted to remove off-Spec oil. Off-Spec oil is shipped as a hazardous waste to the State of Washington.
- Motor Oil Filter Recycling – Motor oil filter collection drums continue to be in place at all RTSs. Public participation in the program continues to be low, but have seen a slight increase. DSWM is planning to conduct promotional radio aids this FY to increase awareness and participation.
- Used Cooking Oil
 - 100 gallon collection tanks are located at Hanapepe and Lihue RTSs. Used oil is pumped and transported to Kauai Farm Fuels for conversion into biodiesel.
 - We continue to contract for services with Kauai Grease Trap to accept and recycle used cooking oil.
 - A total of 1,190 gallons was collected over the course of the FY. DSWM will be amending the Department of Health, Solid Waste Management

Permit to expand the program to include the Hanalei and Kapa‘a RTS’s and the Kekaha Landfill.

4. Capitol Improvement Projects (CIP) and Other Major Planning Activities

- Cell 1 Lateral Expansion, Phase II of the Kekaha Landfill. Under Contract No. 8166 Goodfellow Brothers Inc continued construction of Cell 1 in two phases: Cells 1C & 1D first, and then Cells 1A & 1B next. Cell 1C and 1D received the Department of Health construction certification on June 24, 2010 and began accepting select solid waste in July 2010 pursuant to conditions in the operating permit. According to the operating permit, a minimum six-foot thick layer of select waste (3-foot minus material) was first placed over the floor of Cell 1, then larger waste could be deposited on top of the select waste. A tipping area was simultaneously operated in the original Phase II area to accommodate loads of solid waste materials larger than three-feet. The original Phase II area last received waste in August 2010. By May 1, 2011, the entire floor of Cell 1 received the required layer of select waste. Additionally, an aerial survey conducted in April 2011 indicated that the entire Phase II landfill area including Cell 1 had an estimated capacity of 3.8 years worth of additional capacity for waste at the current rate of disposal.
- New Landfill. The driving force behind the need for a new landfill is the limited remaining capacity for waste at the Kekaha Landfill, which is estimated to be between 7 to 10 years depending on the effectiveness of increased waste diversion programs and whether a third vertical expansion is undertaken. During the reporting period, other options to extend the life of the Kekaha Landfill were evaluated including shipping of County waste to HPOWER on O‘ahu, and proved to be costly and less desirable.

As reported for Fiscal Year 2010, the Administration announced that it would pursue the Umi Site in Niumila as the site for the new landfill. The Administration considered Important Agricultural Land information and input from the landowner, businesses and the community near the Umi Site and determined that the Umi Site could not be secured on a timely basis. Alternative landfill sites needed to be considered further.

Following the Umi Site experiences, it became increasingly evident that the timely acquisition of a landfill site hinged heavily on whether the landowner was willing to allow the development of the landfill. Following discussions with landowners of the other six potential sites covered in the MACLS report of 2009, the Ma‘alo Site emerged as the most plausible option to develop the new landfill in the given time. On October 2010, the Mayor held a community meeting in Hanamā'ulu to discuss the proposal to have the Ma‘alo Site as the next landfill. The same communications team headed by consulting RM Towill and Resolutions Hawai'i provided relevant information, facilitated, and documented the event.

Work during the period also included weekly meetings by the Mayor's administrative Landfill Task Force to work through related issues, enabling the Division of Solid Waste Management to complete negotiation of a contract to conduct the necessary preliminary engineering and environmental impact studies necessary to move forward in the process to confirm the site for the new landfill. By the end of the reporting period, a draft contract was submitted to the Office of the County Attorney for review.

- Conversion Technology Ownership Analysis. The County awarded RW Beck a contract to assess ownership options for "MSW conversion technologies". The final project report was completed in November 2010.
- Host Community Benefits An additional \$80,000 was added to the Host Community Benefits (HCB) appropriation for the Kekaha community as a form of compensation for the upcoming expansion of the Kekaha Landfill. The total sum for this project is \$810,000.
 - Monthly meetings with the Citizen's Advisory Committee (CAC) occurred throughout the year. As of June 2011, a total of seventeen meetings had taken place, and no recommendations have been made to the Mayor as to how the HCB funds should be spent.
 - In September of 2010, an ordinance was passed to provide an additional \$95,000 to the CAC so that they may continue their work with the community. In June 2011, the DSWM issued a professional services contract to Kapa'a Planning and Action Alliance to provide facilitation services to the group.

IV. ACCOMPLISHMENTS / EVALUATION

The introduction of the Residential Refuse Collection Assessment program this year was a major step forward for the DSWM. This program will provide public awareness about the cost of collection programs, lay the groundwork for a Pay As You Throw program in the future, and provide much needed subsidy for the County. Other new programs and legislation have kept the DSWM extremely busy over the course of the fiscal year. Such programs include: the roll out of automated refuse collection; the plastic bag reduction law; the curbside recycling program; restrictions on commercially generated cardboard, greenwaste, and metals.

The addition of the Waste Diversion Program Advisor had added much needed leadership in the area of waste diversion strategies recommended in the Integrated Solid Waste Management Plan which was adopted in January 2010. When the Recycling Specialist is hired next FY, we will be fully staffed in the area of waste diversion.

An overall effort to reduce the FY 2011 budget required the dollar funding of several critical positions in other areas. A combination of factors resulted in higher than anticipated overtime costs in operations, including furloughs and the inability to transition from four 10-hour days to five 8-hour days as planned.

V. BUDGET AND PROGRAM RESOURCES FY 2011

RESOURCES

<u>PROGRAM</u>	<u>(FTEs)</u>
1. Administration	4.5*
2. Integrated Solid Waste Management Programs	4**
3. Deposit Beverage Container Program	2
4. Solid Waste Operations	<u>67***</u>
TOTAL FTEs	77.5

* Half time position is the Environmental Services Officer

**Recycling Coordinator position was vacant

*** Solid Waste Collection Supervisor position (currently unfilled) is \$1 funded

TOTAL BUDGET **\$11,660,739**

DIVISION OF WASTEWATER MANAGEMENT

I. MISSION STATEMENT

To protect the public's health, safety, and the environment by developing and operating the County's wastewater infrastructure.

II. DIVISION GOALS

- Protect public health, safety, and the environment through the efficient operation and maintenance of County wastewater systems.
- Meet and comply with all related and applicable regulatory requirements.

III. PROGRAM DESCRIPTION

A. Wastewater Administration and Engineering Program

Administration manages the overall planning and implementation of the Division's operations and efforts to meet the Division's goals and objectives; and administers customer accounts and the sewer user charge system, including the monitoring of revenues and expenditures. It also receives, evaluates and responds to correspondence including requests for information and complaints; coordinates the environmental monitoring and regulatory compliance activities; and administers planning, operations and financial activities of the Division. Engineering staff

oversee and monitor the Capital Improvement Program (CIP) of the Division, review subdivision construction plans, land use permit applications and building permit plans.

1. Program Objectives

- a. To administer the County's sewer customer accounts and user charge system.
- b. To plan for, design and construct the County wastewater CIP construction projects, along with securing the necessary funding for the CIP projects, to ensure adequate wastewater infrastructure is in place to support community development plan objectives of the County.
- c. To provide for operation of the County's sewerage systems in full compliance with permit conditions and environmental requirements, including regulation of wastewater discharges into the County Systems and efficient disposal and reuse of the treated effluent and proper management of sludge and solids.
- d. To perform reporting and communication with government agencies and the public to inform; communicate wastewater system needs and requirements; comply with the regulatory requirements; and to promote public awareness of the activities of the Division.

2. Program Highlights

- a. **Rates and Charges.** The Wastewater Rate Study and Long-Term Financial Analysis project was finalized and a new schedule of wastewater user fees adopted. The first of four scheduled rate increases went into effect July 1, 2011, and annual increases are scheduled for July 1 of 2012, 2013 and 2014. Each of these rate increases will yield an approximate 10 percent increase in Division revenues. Actual changes vary depending on customer classification, as the new rates include adjustments to more closely align user fees to the cost of service for each customer class.
- b. **Planning.** Planning efforts included design of CIP projects for the near-term improvements identified in the updated Facility Plans for each of the four County-owned Wastewater Treatment Plants (WWTP's) adopted during FY 08/09. The Facility Plans provide a comprehensive review of the wastewater system conditions, identify CIP needs, collection system deficiencies, and WWTP Operation and Maintenance (O&M) requirements, including providing projections of when expansion of the WWTP's will be needed.

The Division continues operational planning using our Maintenance Management Information System (MMIS) for scheduling and documentation of maintenance activities and requirements. The project to document current condition of all the Division's capital facilities protective coatings was completed, providing further input on our facility maintenance requirements.

With the assistance of the County's Office of Economic Development, a project to evaluate energy savings opportunities at County Wastewater facilities was initiated, and a Energy Services Company (ESCO) was selected to perform energy audits for County Wastewater facilities.

c. Design of Capital Improvements.

The Division's CIP project design work generally follows the schedule of improvements identified in the Facility Plans consistent with County CIP budget appropriations. Current design work includes work in progress at our Eleele and Wailua WWTP's and the Island-wide SCADA project. Design work for the Waimea WWTP expansion, completed as part of the design-build project, was mostly completed during early 2010, and that project moved fully into construction. New design work initiated this year includes additional work at the Wailua WWTP under the Division's Wailua WWTP Process, Electrical and Disinfection Improvements, Phase 2 Project.

Design for the Wailua Process, Electrical and Disinfection Improvements, Phase 1 was completed, and construction is scheduled to be bid in 2011-2012. Design for the planned improvements at the Eleele WWTP proceeded, and the initial construction work from that project, replacement of the back-up generator, was bid. Also, bids were obtained for renovations of the County's wastewater laboratory located at the Līhu'e WWTP. Design was substantially completed for the Island-Wide Wastewater Supervisory Control and Data Acquisition (SCADA) System, which is expected to be bid during 2011-2012.

- d. Construction of Capital Improvements.** The major construction project this year was the Waimea WWTP Expansion Project. Additionally, construction activities were completed at the Līhu'e WWTP R-1 Upgrade project constructed by Kaua'i Lagoons Resort. Construction was also completed for a replacement sewer main along Waialo Road in Eleele (\$276,000). Renovation of the existing Force main attached to the State's Wailua River Highway Bridge was substantially completed this year at a cost of approximately \$400,000. Bids for pending construction during 2010-2011 included the Emergency Generator replacement at the Eleele

WWTP (\$650,000), the Līhu‘e Laboratory Renovation (\$340,000), along with several smaller equipment replacement contracts.

The Division’s major current is the expansion of the Waimea WWTP. The construction commenced in May 2010 on this \$15.7 million design build project, and is ongoing. Partial funding for the project is provided via the federal stimulus funds of the American Recovery and Reinvestment Act of 2009 (ARRA).

Project funding continues to be derived primarily through the State of Hawaii Department of Health (DOH) administered Water Pollution Control Revolving Fund (WPCRF) Loan Program, which provides low-interest loans for wastewater infrastructure projects. For upcoming projects a combination of WPCRF and County Bond funds will be used.

B. Wastewater Treatment Facilities Program

The Wastewater Treatment Facilities Program is responsible for the operation, maintenance and repair of all County wastewater collection, treatment and disposal facilities. Objectives of the program include providing a consistent and reliable level of performance of the sewer collection system and WWTP’s necessary to protect health and the environment. Activities include preventive maintenance, treatment process control, wastewater effluent reuse and/or disposal, solids management, safety and training, and laboratory monitoring for regulatory compliance.

1. Program Objectives

- a. To provide a safe working environment and ensure that all employees are properly trained.
- b. To comply with all permits and related regulatory requirements.
- c. To minimize wastewater spills, and odor complaints from the public.
- d. To efficiently and effectively operate, maintain and repair all County Wastewater facilities.

2. Program Highlights

- a. **Personnel Safety and Training.** The County sponsors, through the Statewide training program, monthly on-island continuing education opportunities on a variety of topics relevant to operation of wastewater systems. The program offers Continuing Education Credit (CEU’s) needed to maintain Operator licensing.

- b. **Collection System and WWTP Operation and Maintenance.** Completed various replacements to address maintenance deficiencies for wastewater treatment plants and sewage pump stations. Typical replacements include pumps, flow meters, fluid level sensors, etc., all of which are subject to periodic replacement as part of ongoing maintenance expenditures. In addition to completing the day to day plant operations and maintenance activities required to keep the wastewater systems operating properly on a 24/7 basis, our operation and maintenance staff continue to focus on improved work processes, work order scheduling, implementation of maintenance procedures, and maintenance scheduling.
- c. **Regulatory Compliance and Monitoring.** Status reports for effluent injection wells at Eleele and Lihue WWTPs were prepared and completed in conformance with their respective Underground Injection Control (UIC) permit requirements, and monthly monitoring reports are prepared for the Wailua WWTP's ocean outfall National Pollution Discharge Elimination System (NPDES) permit. The Division's Sanitary Chemists perform the required sampling and analyses and administers laboratory service contracts for compliance with our NPDES and UIC permits.

IV. BUDGET

All revenues for the Division's routine program costs are from sewer user fees. Approximate program costs (rounded) from the FY 2010-2011 budget are summarized for the Division as a whole, including administration and operations.

OPERATIONAL COSTS

• Equivalent Personnel Positions	35
• Wages and Other Direct Costs	\$2,800,000
• Operations (Equipment, supplies, vehicles, etc)	\$1,000,000
• Utilities (Electrical, Water, Gas, Telephone)	\$1,700,000
• Contracted Services (Repairs, Laboratory, etc)	\$ 600,000
• Debt Service	\$2,000,000
PROGRAM TOTAL	\$ 8,100,000

OPERATIONAL REVENUES

Projected FY 09-10 Revenues	\$ 7,700,000
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V. PROGRAM MEASURES

	Number
• CIP Projects under construction	5
• Total sewer accounts (approximate)	5,260
• Spills reportable to DOH	3

• Wastewater processed (average - million gallons per day)	2.55
• DOH unacceptable inspection (prior year results)	4
• DOH acceptable inspection	0
• % of flow being reused (approximate)	70

VI. EVALUATION

The Wastewater Division is currently under construction for a significant capital improvement project at the Waimea WWTP. Our pending CIP projects addressing WWTP needs and collection system upgrades will continue modernize facilities, improve system reliability, and improve effluent water quality. These projects lead directly to improving our compliance with environmental regulations and providing higher effluent water quality for reuse as a valuable resource.

Wastewater operations staff responded to numerous call-outs for emergency conditions resulting from power outages, equipment failures and other unanticipated conditions. Staffing within the Division continues to be a constraint; however, the operations personnel continue to meet all the challenges, responding quickly to emergency conditions in order to prevent or clean-up and mitigate sewage spills and to operate the treatment plants within operational parameters.