

DEPARTMENT OF PUBLIC WORKS

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

ADMINISTRATION

The Department of Public Works (DPW) 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 DPW include:

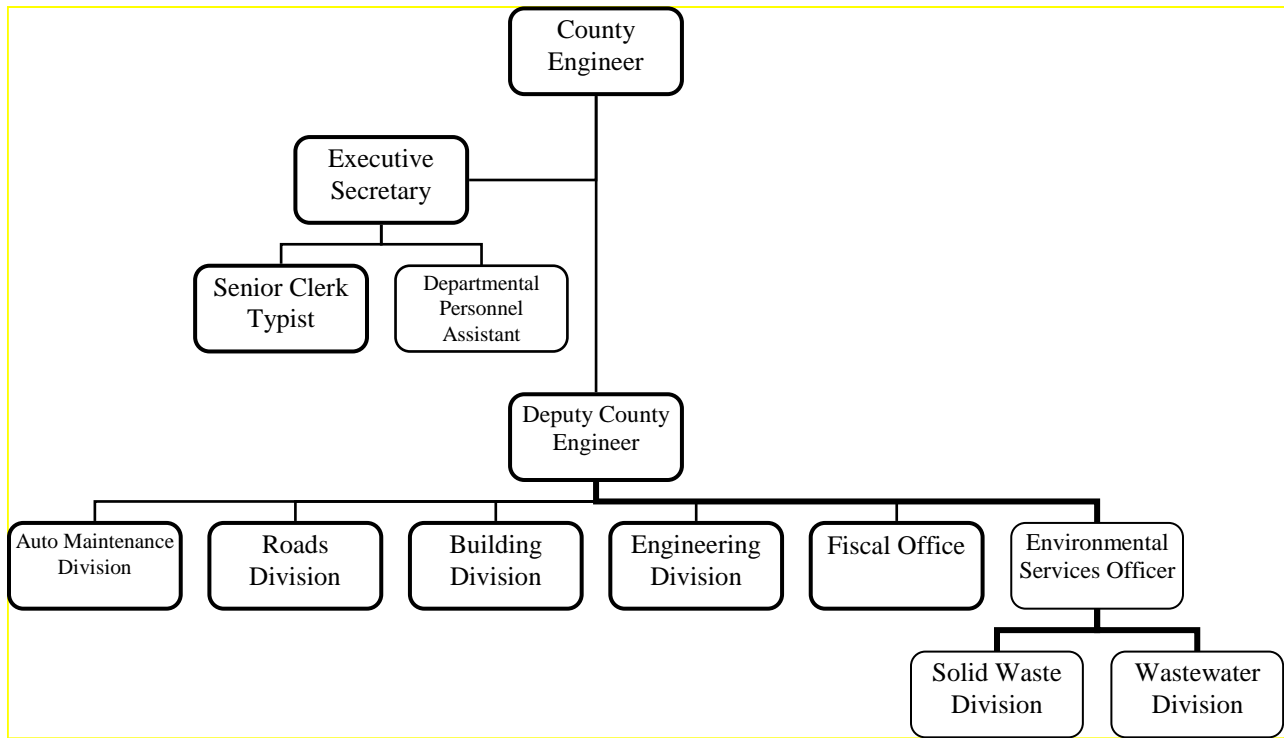
- Four sanitary sewerage facilities
 - Wailua Wastewater Treatment Plant
 - Līhu‘e Wastewater Treatment Plant
 - ‘Ele‘ele Wastewater Treatment Plant
 - Waimea Wastewater Treatment Plant
- Kekaha Landfill
- Kaua‘i Resource Center
- Four refuse transfer stations
 - Hanalei Refuse Transfer Station
 - Kapa‘a Refuse Transfer Station
 - Līhu‘e Refuse Transfer Station
 - Hanapēpē Refuse Transfer Station
- Three road construction and maintenance baseyards
 - Hanalei Baseyard
 - Kapa‘a Baseyard
 - Hanapēpē Baseyard
- Approximately 308 miles of roadways

DPW also provides repair and maintenance and/or custodial services for the following:

- Vidinha Stadium
- Hanapēpē Stadium
- Kaua‘i War Memorial Convention Hall
- Līhu‘e Civic Center
- Historic County Building and Annex
- Police Department / Civil Defense Agency / Transportation Agency
- Ten Neighborhood Centers
- County Parks

Duties and functions of DPW are directed by an administrative staff consisting of the County Engineer, the Deputy County Engineer, Executive Secretary, Departmental Personnel Assistant II,

Business Management Officer, Accountant IV, Accountant II, Environmental Services Officer, Senior Clerk Typist and six Divisions. The six divisions are: Auto Maintenance; Building; Engineering; Roads Construction and Maintenance; Solid Waste Management; and Wastewater Management. Detailed information for these divisions is provided in the pages that follow.



Mission

The Mission of the Department of Public Works is to deliver excellent service to our constituents and support the health and safety of their communities with sustainable services and solutions.

Goals & Objectives

1. The DPW Administration seeks to support the Goals and Objectives of the six Divisions within the Department, ensuring manpower, equipment and materials needs are met adequately.
2. Implement the Goals and Objectives of the County Administration, including Holo Holo 2020.
3. Ensure the health, safety and welfare of the public.

Challenges

1. Planning for future improvements while continuing to meet the day to day needs and demands of the community.
2. Utilizing funds in the most efficient and effective manner to improve levels of service to our internal and external customers.
3. Succession planning and recruiting qualified hires.
4. Continuing to maintain a positive working relationship with our union partners.
5. Improve operational efficiency and effectiveness with outcomes of cost reduction.

Significant Improvements

1. Recruit and hire competent personnel in the Divisions who are making positive changes to the way we do business and service to our community.
2. Improved CIP project delivery through timely follow up of processes.
3. Improved internal customer communication and delivery of services.
4. Improved Department personnel capability with support of HR to address union contract administration.

Key Successes and Achievements

1. Identified Key components to provide significant improvement of the County permitting processes between Planning, Building and Engineering.
 - a. Scoping land management software solution which will aid in dealing with land use zoning needs, permit processing and a host of other items which will benefit from a GIS-based database.
 - b. Continue on-going discussion of ePlan refinement solutions with support of our Bend, Oregon partnership.
 - c. Working on digitizing all County property maps into GIS.
2. The Four tracks towards a County Solid Waste sustainable solution:
 - a. Kekaha Landfill existing needs; LF Gas extraction design, ground water monitoring, and Lateral expansion design.
 - b. The New Landfill EIS in process includes; Wild Life Hazard Assessment followed by a Wildlife Hazard Management Plan to address Federal Aviation Administration and DOT Airports Division concerns and an 8th Landfill access road for the TREFS.

- c. Materials Recovery Facility Preliminary Design and Environmental Assessment design in contract.
- d. Solid Waste system solution RFP that meets the long term needs of the County's Integrated Solid Waste Management Plan.

Upcoming Initiatives

1. Strengthen Community Partnerships: The DPW acknowledges the issues and opportunities that affect the quality of life of our residents and visitors. DPW will continue to seek opportunities for the joint community involvement of infrastructure development in our communities and to develop partnerships to further the department's mission.
2. Maintain and Enhance Functional and Sustainable Facilities: DPW will work with the Administration and the County Council to develop a strategy for funding needed repair and maintenance of our County's facilities. These projects are necessary in enhancing the quality of life of our residents and visitors.
3. Increase Education and Public Participation: DPW seeks to work with the community in developing solutions that benefit and meet the public's expectations. DPW intends to do this by providing community groups and organizations with information exchange sessions and presentations for the planning and development of upcoming projects, while learning more about the community's needs and concerns. The department will also work with the County's Communications Office to disseminate information regarding the initiatives and work being accomplished by the department via social media networks, the County website, newspaper and radio agencies, and other media venues.
4. Providing Quality Customer Service: Employees in every division of DPW interact with residents and visitors on a daily basis. DPW will strengthen its delivery of customer service by developing strategies to increase efficiency and response times responding to requests for service, communication with the public, and our ability to transition smoothly from routine operations to emergency operations during times of need.

FISCAL OFFICE

Staffed by a Business Management Officer, an Accountant IV and an Accountant II, the primary duties of this section are the preparation and monitoring of the DPW's Operating Budget of approximately \$53.5 million, a Capital Improvement Budget of \$19.7 million and federal/state grants of \$38.1 million. This Section is responsible for the payroll of approximately 294 employees, providing support for the Solid Waste and Wastewater billing program, the Department's inventory of approximately \$231,066,497 and also for the preparation of the required financial reports and the reimbursement of federal funds for capital improvement projects including:

- Federal Emergency Management Agency (FEMA) Hazard Mitigation Grants
- Federal Highway Administration (FHWA)
- Environmental Protection Agency (EPA)

For Fiscal Year 2015, a total of 1,952 man-hours of salaries were reimbursed under federal grants. Continued recovery of salaries is expected as we continue to move into construction of roadways,

bridges, bike/pedestrian paths, wastewater treatment plant upgrades and distribution systems of R-1 treated water funded through federal grants in FY 2015. 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.

AUTOMOTIVE MAINTENANCE

I. Successes and Achievements

- The Automotive Division has been successful in meeting the demands and requests of the various departments, agencies and the community in regards to equipment supply and vehicle and equipment maintenance and repairs despite inadequate facility conditions and staffing issues.
- Procurement of new vehicles and equipment to modernize the fleet and keep the County operating efficiently.
- Installation of our new Fuelmaster fuel management system is complete and is operating effectively.

New Vehicles and Equipment received in FY2015 include:

- (3) Side Loading Refuse Trucks – Solid Waste
- (1) Septic Tank Pump Truck – Wastewater
- (1) Toyota Highlander SUV – Civil Defense
- (1) F250 Utility Pickup Truck

- Design of a 1,500 sq. ft. second floor storage area is being completed by Engineering Division. Construction of this additional storage area will allow us to utilize overhead space and create more useable square footage at ground level for vehicle and equipment repair.
- The Fuel Site Renovation Project at Kapaa Baseyard was completed in June. This project included the decommissioning and disposal of two (2) 2,000 gallon above ground storage tanks (AST) and replacing them with one (1) new 8,000 gallon AST. This improvement allows us to store twice the fuel capacity in the same space. Installation of new fuel dispensers, turbine pumps and upgrades for all plumbing, overhead lighting and electrical infrastructure was also included in the project.
 - The Princeville Police/Fire Substation Fuel Site project is ongoing and is scheduled for completion in FY16/17.
- We have established an agreement with SUDZ Car Wash in Lihue to wash all qualified County vehicles once per month. Qualified vehicles include all sedans, sport utility vehicles (SUVs) and vans. Certain pickup trucks that fit the criteria can also be washed.
- Building maintenance such as roof leaks and structural repairs to our 36 year old facility are ongoing.
- Industrial accidents in 2015 = 0

- Average vehicle and equipment turnaround time – currently 4 days

II. Challenges

- Meeting the demands and requests of the many different divisions, departments and agencies we service on a daily basis as the fleet ages and deteriorate.
- Operating productively within our limited space has become a daily battle. The County’s vehicle and equipment inventory has increased by 30% over the last 30+ years and continues to grow while our resources remain constant.

III. Additional Projects - 2016

- Auto Maintenance Facility lot paving
- Facility roof repairs and sealing

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

1. To develop new facilities and replace old, dilapidated, overcrowded buildings and structures.
2. To ensure compliance with the minimum construction standards contained within the current Kaua`i County Codes and referenced building trade codes.
3. To continually update the Kaua`i County Code to reflect the latest industry standards, changing technologies, and local conditions.
4. To 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.
5. To clean and maintain County office buildings and neighborhood centers.
6. To provide repair and construction services to prolong the life and maintain the value of all County facilities.
7. To 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, Police Department, Transportation Agency, Public Works, and the Parks and Recreation Department.

PROGRAM HIGHLIGHTS: Construction completed for the Līhu'e Civic Center Site Improvements and Kapa'a Baseyard Structural Renovation. The present construction of the Hardy Street Improvements is ongoing with a fall 2015 completion date scheduled.

Design and procurement work is ongoing for Pono Kai Seawall and Moanakai Seawall.

Other major projects, for which the Section is providing planning, design, and construction management work include Piikoi Building Renovation, Kapa'a Police Substation, Kaua'i Fire Department Helicopter Hangar, Lydgate-Kapa'a Bike/Pedestrian Path, Ahukini-Lydgate Bike/Pedestrian Path, Kuna Bay-Anahola Bike/Pedestrian Path, the Nāwiliwili-Ahukini Bike/Pedestrian Path and Hardy Street.

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 are 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 and assisted with the construction work to complete major repair contracts at various County facilities. In addition to the completed projects, the Section has also been tasked with the development of plans, specifications, and contract documents for new Capital Improvement Projects. The Section continued on work to upgrade the County's Energy Management System at our major office facilities, to help with monitoring and controlling our energy usage and cost.

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 light fixtures. A significant effort was made to ensure that County facility lighting was retrofitted to meet 'bird friendly' requirements. 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. With the completion of the individual wastewater system upgrades to various types of septic systems at many of the County facilities, 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 problem, requiring many man-hours and material cost, which could be spent on a multitude of other projects and facilities. Many community groups 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 these 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, tracking, 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:

- provide the highest level of customer service to our customers.
- 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 and inspection 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 and Certificates of Inspection
- provide code related training to State and County plans examiners as well as architects, engineers, as other design professionals.
- respond to code related complaints such as illegal signs, or structures that are built without a permit.

PROGRAM HIGHLIGHTS: The Building Division has continued to place emphasis on its electronic plan review (EPR) system. EPR's latest software version was installed. The biggest change is that the new software is now compatible with Macintosh computers as well as internet browsers other than Internet Explorer (such as FireFox, Chrome, and Safari). A revised Applicant User Guide is being developed. As part of this upgrade, updated training was provided for all County and State plans examiners as well as architects, engineers, and other design professionals.

In order to further promote the electronic plan process, the Building Division continues to give the highest priority for plans submitted electronically. Paper plans are still accepted, but the plan review process will favor electronic submittals. Eventually, paper plans will be phased out altogether.

The Building Division 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). As a part of this organization Code officials from all four counties get together annually to discuss code related issues and to explore practical solutions for common problems facing our industry. This year's annual event took place in Kona on May 13- 15, 2015.

Looking to the future:

1. Staff will explore ways for the County to implement on-line electronic applications.
2. Staff will explore ways for the County to implement on-line payment of plan check and permit fees.
3. Efforts are already underway to update the Building Division's presence on the County's website. Updates include new and revised material, a greater emphasis on electronic plan review, and an easier to follow format.

Representing the County of Kaua'i on the State of Hawai'i Building Code Council, we are currently updating our building, energy, electrical and plumbing codes with the goal to have complete uniformity of codes throughout the State of Hawai'i.

In conjunction with the adoption of the new codes, a number of training seminars have been offered to provide updated code information to County code officials as well as interested persons from the design and construction community

IV. PROGRAM MEASURES/EVALUATION

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	2,741
Job Orders Completed	2,860

BUILDING CODES ENFORCEMENT

Number of days for building code enforcement review of permits to be responded to:

	Estimate	Actual
Residential	5	7.6
Commercial	15	17.5

Number of days for permits to be approved by all reviewing agencies:

	Estimate	Actual
Residential	30	134
Commercial	45	109

	Estimate	Actual
Code Enforcement Inspections		
Building Code Inspections	10,000	10,041
Electrical Code Inspections	7,000	6,761
Plumbing Code Inspections	7,000	6,860
Total Code Inspections	24,050	23,662

	Estimate	Actual
Code Permits Issued		
Building Code Permits	1,800	1,071
Electrical Code Permits	1,800	2,560
Plumbing Code Permits	1,600	1,609
Sign Code Permits	180	352
Photovoltaic/Solar		1,156
Total Code Permits Issued	4,380	6,748
New Building Permits	700	
Addition/Alteration Building Permits	700	

Building Permit Valuations	\$300,000,000	\$383,795,460
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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 the Police Department, improvements to Lihu'e Civic Center, and Hardy Street are being worked on.

The Repair & Maintenance and Janitorial Services Section have kept pace with the ever increasing amounts of work order requests being made. The Section received 2,741 new job orders, and worked on and/or completed 2,860 job orders, for work requests submitted for our services during the past fiscal year. However, staffing shortage issues continually force maintenance and janitorial staff to be taken away from their normal duties to cover services needed in other unassigned areas. Vandalism issues continue to waste valuable man-hours and funding that could be directed towards preventive maintenance, or increasing our efficiency for completing requested jobs on schedule. Our standard for completion of normal job orders is 10 days from the time the job order is issued. For FY2015, on an average we were approximately 11 days late in meeting the scheduled completion time for the 2860 job orders that were completed.

The Building Codes Enforcement Section ability to provide efficient and timely service to the public was challenged by significant staffing problems. 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 rebounded to a reasonable level. The number of actual building permits issued, as well as the building permit valuations which coincide with revenue generation, have increased.

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.

V. BUDGET BY PROGRAM

ADMINISTRATION & FACILITY DEVELOPMENT

Equivalent Personnel (includes 4 \$1.00 funded positions)	7
Salaries & Wages	\$ 273,440
Operations	\$ 6,000
Equipment	\$ 2,750
PROGRAM TOTALS	<u>\$ 282,190</u>

REPAIR & MAINTENANCE AND JANITORIAL SERVICES BUDGET

Personnel	46.5
Salaries & Wages	\$ 3,139,026
Operations	\$ 2,519,600
Equipment	\$ 447,450
PROGRAM TOTALS	<u>\$ 6,106,076</u>

BUILDING CODES ENFORCEMENT

Equivalent Personnel (Includes 2 contract hires)	20
Salaries & Wages	\$ 1,496,922
Operations	\$ 10,500
Equipment	\$ 0
PROGRAM TOTALS	<u>\$ 1,507,422</u>

VI. HOLO HOLO 2020 PROJECTS & STATUS

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

- Implement Complete Streets
 - Started construction of the Hardy Street Improvements Design/Build Project which is a complete streets upgrade for Hardy Street.
- Extend Ke Ala Hele Makalae coastal path
 - Lydgate Park – Kapa‘a Bicycle/Pedestrian Phases A & B construction completed.
 - Land acquisition ongoing for the Nāwiliwili-Ahukini Bicycle/Pedestrian path and for the Lydgate Park to Kapa‘a Bicycle/Pedestrian Path Phases C & D.
 - Environmental planning on going for the Ahukini-Lydgate Park Bicycle/Pedestrian and Nāwiliwili-Ahukini Bicycle/Pedestrian paths projects.

ENGINEERING DIVISION – MICHAEL MOULE, P.E., DIVISION CHIEF

I. MISSION STATEMENT: Protection of the public’s health, safety, and property, as well as the environment through proper planning, design, development, operation, and maintenance of the County’s infrastructure, and through administration of the sediment and erosion control, storm water runoff system, driveway approach, land use, and complete streets codes, resolutions, and ordinances.

II. DIVISION GOALS:

1. Protection of public health and safety by planning, designing, and developing safe and cost-effective roadway, bridge, and drainage systems.
2. Protection of public safety and assurance of high quality of life by administering and enforcing subdivision, grading, drainage, complete streets, and other ordinances, regulations, and resolutions.
3. Protection of public safety and investment through effective operation and maintenance of County facilities, roadways, bridges, and drainage systems through systematic planning, systems, processes, and programs.

III. PROGRAM DESCRIPTION:

PERSONNEL

Division Chief

- (1) Civil Engineer VII
- (2) Clerical Assistant

Regulatory/Permitting/Design:

- (3) Civil Engineer VI
- (4) Civil Engineer III
- () Civil Engineer I (Vacant – Building Revolving Fund)
- (5) Engineering Support Technician III
- (6) Engineering Support Technician III
- (7) Engineering Support Technician III
- (8) Engineering Support Technician I
- () Engineering Support Technician I (Vacant – Building Revolving Fund)

Construction Inspection/Project Management/Design:

- (9) Civil Engineer VI
- (10) Civil Engineer V
- (11) Civil Engineer V
- (12) Civil Engineer III
- (13) Civil Engineer III
- () Civil Engineer II (\$1 Funded)
- (14) Supervising Construction Inspector
- (15) Construction Inspector III
- () Construction Inspector II (\$1 Funded)
- (16) Construction Inspector II

Survey and Plans Preparation:

- () Land Surveyor III (Vacant)
- (17) Engineering Drafting Technician II
- () Engineering Drafting Technician I (\$1 Funded)

Total Number of Personnel: 17: plus 1 vacant position, 3 \$1 funded positions and 2 vacant positions funded through the Building Revolving Fund

OBJECTIVES

The Engineering Division provides civil and general engineering services for the Department of Public Works, other County Departments, and based on requests of the County Council and the general public. It is responsible for maintenance and repair projects for roads, bridges, drainage facilities, and flood control facilities. Project design and construction management is accomplished by in-house personnel, or via professional consultant services, depending on the complexity and scope of the project and the availability of project funding. The Division is tasked with the administration of the following Ordinances:

1. Drainage Ordinance Number 778 (Kaua'i County Code Chapter 22, Article 16). This Ordinance adopts the Stormwater Runoff System Manual dated July 2001, which replaces the Storm Drainage Standards dated February 1972. The Ordinance provides

guidelines and standards for the handling of drainage runoff systems within the County of Kaua`i.

2. Sediment and Erosion Control Ordinance Number 808 (Kaua`i County Code Chapter 22, Article 7). Formerly called the “grading ordinance”, this ordinance regulates the construction of all grading, grubbing, and stockpiling activities in the County. This ordinance allows for agricultural exemptions for properties that fall under conservation plans approved by the East and West Kaua`i Soil and Water Conservation Districts.
3. Driveway Approach Ordinance Number 170 (Kaua`i County Code Chapter 15, Article 2). This ordinance regulates the construction of driveway approaches within County road rights-of-way.
4. Speed Hump Ordinance Number 720 (Kaua`i County Code Chapter 16, Article 22). This ordinance regulates the construction of speed humps and speed tables on County roadways.
5. Excavation and Repairs of Streets and Sidewalks Ordinance (Kaua`i County Code Chapter 18, Article 3). This ordinance controls and regulates all construction work within the County Road right-of-way.
6. Flood Plain Management, Ordinance Number 831 (Kaua`i County Code Chapter 15, Article 1). 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 public health, safety, and general welfare; and to minimize public and private losses due to flood conditions.

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

1. Assist the Planning Department in the administration of the Subdivision Ordinance, the Comprehensive Zoning Ordinance, and the Shoreline Setback and Coastal Protection Ordinance by:
 - a. Providing review and comments and recommendations on subdivision applications, including full review and approval of subdivision construction drawings for roadway 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 building permits including review of sediment and erosion control, driveway approaches, flood plain issues, and conditions imposed by the Planning Department and Planning Commission related to zoning, use, and SMA permit conditions for which the Engineering Division is responsible.
3. Provide street addressing and building numbering services, including:
 - a. Assigning new addresses for houses and other buildings as part of the Building Division review process.
 - b. Verifying addresses for existing houses and buildings when requested by other County Departments or members of the public.
4. Respond to personal requests and inquiries from the County Council. Provide testimony as required.
5. Respond to requests from other County Departments, other Divisions of Public Works, and members of the public regarding:

- a. Solutions to engineering problems related to streets, drainage, and flooding.
 - b. Definition of land boundaries, mapping for land acquisitions, easements, rights-of-way, and other land matters.
6. Respond to requests for changes and/or relocation of traffic regulatory signs, pavement markings, street light activation, traffic control devices, parking stall layout, school bus stops, and public transportation bus stops.
 7. Work with other County Departments and other Divisions of Public Works to implement the Complete Streets Resolution, ensuring that the County plans for, designs, and constructs transportation improvement projects to safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles.

IV. PROGRAM HIGHLIGHTS AND ACTIVITIES:

- The following Projects were completed this year:
 - Kamalu Road Culvert Replacement: This project replaced a collapsed culvert on Kamalu Road, maintaining the integrity of the road and reducing the likelihood of flooding of nearby properties.
- The following projects are ongoing:
 - ‘Aliomanu Road Repair: This project is intended to reconstruct Aliomanu Road to be a two-lane road, since the road has been damaged by erosion due to wave action. New permits are being pursued to complete the work.
 - ‘Anini Bridge #2 Bridge Replacement. Professional Services for Geotechnical Studies are currently being solicited.
 - Auto Shop Mezzanine Floor: Drawings anticipated to be completed in house by September 2015.
 - Collector Roads Resurfacing 2014 (Ma‘ilihuna Road, Olohena Road, Hau‘a‘ala Road), Federal Aid Project STP-0700(068), 80% Federal, 20% County: Design completed in house; Construction started in June 2015; Anticipated completion October 2015.
 - Collector Roads Resurfacing 2016, Anticipated Federal Aid Project, 80% Federal, 20% County: Design to be completed in house
 - Hanapēpē Bridge Repairs, Federal Aid Project BR-0545(001): Project delayed due to the need to separate out road bridge repairs from pedestrian walkway repairs. Section 106 documentation is currently being completed. Bid process anticipated to occur in April 2016.
 - Hanapēpē Road Improvements: Project includes resurfacing and complete streets improvements. Public involvement charrette was held in August 2014; charrette report has been completed; project moving toward survey and final design.
 - Hardy Street Complete Streets Project (Federal Aid Project STP 572): This project is being managed by Building Division, but Engineering Division Staff has been providing significant input and review of the plans, in order to ensure the best possible design for complete streets, drainage, etc. Project has been under construction since September 2014 and is anticipated to be completed in October 2015.

- Kanaele Road Slope Stabilization: Right of Entry agreements have been obtained for survey; survey anticipated to occur in September 2015; final design anticipated to start in October 2015.
- Kapaia Swinging Bridge Towers Reconstruction: Working on final decision about who will own the bridge and the property underneath the bridge.
- Kapahi Bridge Replacement, Federal Aid Project BR-0700(53): Federal funding obligation received for construction; bid opening scheduled for October 2015.
- Kawaihau Roads Safe Routes to Schools, County CIP ID W10045: The project will assess the needs for improvements to Kawaihau Road in the area around Kapaa Elementary, Kapaa High, and St. Catherine schools. Phase I of the project included public involvement and concept development; we are finalizing a scope change for the final phase, to include detailed concept drawings and cost estimates.
- Kawaihau Road, Hau‘a‘ala Road, Ma‘ilihuna Road Complete Street and Safety Improvements, Federal Aid Project STP 0700(071), 80% Federal, 20% County: Project includes a roundabout or other intersection improvement, sidewalks, bicycle facilities, and other features. Consultant selection process is underway; construction anticipated in 2017.
- Kōloa Road Safety Improvements, Federal Aid Project HRRP-0530(001), 90% Federal; 10% County: Design was completed by RM Towill Corporation, including safety improvements such as guardrails, pavement markings, and signs along Kōloa Road. Construction began in June 2015 and is anticipated to be completed by November 2015.
- Lae Road Guardrails: Anticipated completion in September 2015.
- Līhu‘e-Hanamā‘ulu Mauka By-Pass and Circulation Study: Study is nearly complete; successful public meetings have been held; County staff is reviewing the submitted product. FAP No. SPR-0100(34)
- `Ōpaeka`a Bridge Rehabilitation; Federal Aid Project, 80% Federal, 20% County: Consultant is working on 60% plans; awaiting final SHPD approval.
- Po‘ipū Road Multimodal Improvements, Federal Aid Project STP 0520(004), 80% Federal, 20% County: Design charrette completed in May 2013 proposed bike lanes, sidewalks, medians, roundabouts and other features on Po‘ipū Road. Consultant selection process is underway; construction anticipated in 2018.
- Puhi Road Rehabilitation Phase 1 (Kaumuali‘i Highway to Kaneka Street), Federal Aid Project STP 5010(001), 80% Federal, 20% County: This project includes reconstructing Puhi Road as a concrete roadway to support industrial traffic, sidewalks, bike lanes, and paved parking. The project has been bid; negotiations ongoing with contractor; working with Council to obtain additional County funds due to high bids; anticipated notice to proceed in December 2015.
- Puhi Road Rehabilitation Phase 2 (Kaneka Street to Haleukana Street), Federal Aid Project STP 5010(002), 80% Federal, 20% County: Consultant selection process is underway; construction anticipated in 2017.
- Pu‘u Road Improvement Study: This is a study of the safety and design concerns on Pu‘u Road. Draft report received from Kodani Associates; working on contract amendment to revise final product.
- Pu‘u`ōpae Bridge Improvements, Federal Aid Project BR-0700(59), 80% Federal, 20% County: Consultant is working on 90% plans; awaiting final SHPD approval.

- Safe Routes to School projects 2015: Project includes sidewalks and crosswalks at several locations near King Kaumuali'i Elementary; sidewalks, bike lanes, and other improvements near Kōloa Elementary; sidewalks along Alae Road near Kekaha Elementary; and crosswalk improvements at Kekaha Elementary, Kalaheo Elementary, Kapa'a Middle. A portion of this project was designed in house, with construction anticipated in 2016. Professional services are being obtained for the design work for Kōloa Elementary and King Kaumuali'i Elementary, and negotiations are underway with consultants.
- Salt Pond Sewer Effluent Disposal System: Readvertised due to potential changes in scope of work; negotiating contract for professional services.
- Wailana Bridge #2 Pedestrian Walkway: Construction began in June 2015; old bridge has been removed; survey anticipated in September 2015; and then bridge construction will take place.
- Wawae Road Guardrail: Design completed in house. Anticipated construction completion in September 2015.
- Ongoing 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.
 - Informal system in place for scanning existing plans and maps in our map room; evaluating options to improve and expand digital document development and archiving.
 - Grading, grubbing, stockpile, and road permits are being tracked in a database, including mapping in GIS.
 - Developing a traffic count program: all old counts have been entered into a database which will be mapped in GIS; the program will eventually include regular traffic counts on major roadways.
 - Working with the Planning Department to develop a new County Roadway Design Manual.
- Assisted various Departments and Divisions with the following survey requests:
 - Hanapepe Road right-of-way survey
 - Kapaia Swinging Bridge Easements
 - Kawaihau Elevated Boardwalk alignment location and staking
 - Kuli Road right-of-way survey
 - Larsens Beach shoreline certification
 - Maluhia Road Survey for collector roads resurfacing
 - Po'ipū Road right-of-way survey near Kipuka Street
 - Police Department temporary gravel parking lot boundary survey
 - Pu'uwai Road at Kaumuali'i Highway right-of-way survey
 - Safe Routes to School project survey (Alae Road, Papalina Road, and Olohena Road)
 - Wawae Road survey for Guardrail installation

V. PROGRAM MEASURES:

- Construction plan review is ongoing for the following large subdivisions or developments:
 - S-2004-33 Tonokawa Makaio & Lalena Estates

- S-2009-15 Waiola III
- S-2009-21 Puakea II
- S-2011-20 Kukui'ula HH-II
- S-2011-21 Kukui'ula Subd U-AA
- S-2013-16 Kukui'ula Lot A
- S-2013-23 Morita Subdivision
- S-2015-14 Makahuena Subdivision
- Kaniko'ō (Rice Camp) Senior Housing, Phase 2
- Kukui'ula Kahela Subdivision
- Kukui'ula Road E
- Islandwide Bus Shelters, Phase II
- Moloaa Bay Ranch Grading
- Philippine Cultural Center
- Puakea Golf Course Mass Grading
- Village at Po'ipū access (Hoaka Street Extension)
- Construction plan review has been completed for the following large subdivisions or developments:
 - S-2006-24 Ho'oluana at Kohea Loa
 - Coconut Beach Resort
 - Kaua'i High School Gymnasium
 - Kīlauea Lighthouse Village
 - Islandwide Bus Shelters, Phase I
 - Waihohonu (Kōloa Camp) (CPR)
- Construction plan review has been completed or is ongoing for the following Department of Water projects:
 - Plans Approved
 - Job No PLH-38A – DOW Admin Building
 - Job No WKK-17 – DOW Kolo Road Water Line
 - Plan review Ongoing
 - Job No 02-14 – DOW Kapahi Water Tank
 - Job No 11-02 – DOW Grove Farm Tank
 - Job No 11-04 – DOW Lawai Omao Water Line
 - Job No 11-10 – DOW Halewili Water Line
 - Job No 12-01 – DOW Hanalei Town Water Line
 - Job No ANI-01 – DOW Anini Road Water
 - Job No K-01 – DOW Kalāheo Waterline
- Construction plan review has been completed or is ongoing for the following Hawai'i Department of Transportation, Highways Division projects:
 - Nāwiliwili Road Improvements
- The following permits have been issued, inspected, and/or closed out:
 - Grading Permits
 - Issued: 23
 - Inspected and closed out: 17
 - Road Permits
 - Issued: 36
 - Inspected and closed out: 18

- Driveway Permits
 - Issued: 66
 - Inspected and closed out: 66

DIVISION OF ROADS

I. MISSION STATEMENT

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

II. DIVISION GOALS

1. To make County roadways and bridges safe for public use
2. To anticipate and address road, bridge, drainage and levee needs
3. To make the best and most efficient use of the Division's resources
4. To improve internal and public communication
5. To instill pride in the jobs that we perform

III. PERSONNEL

- 1 - Chief of Field Operations & Maintenance
- 1 - Assistant Chief of Field Operations & Maintenance
- 1 - Civil Engineer
- 1 - Principal Projects Manager (IWRR & Other Division Projects)
- 1 - Administrative Services Assistant
- 2 - District Road Overseer (Hanapepe, Hanalei)
- 2 - Highway Construction & Maintenance Supervisor II (Hanapepe, Kapaa)
- 6 - Highway Construction & Maintenance Supervisor I (Hanapepe, Kapaa, Hanalei)
- 3 - Field Operations Clerk (Hanapepe, Kapaa, Hanalei)
- 1 - Equipment Operator IV
- 4 - Equipment Operator III
- 13 - Equipment Operator II
- 3 - Equipment Operator I
- 5 - Tractor Mower Operator
- 1 - Baseyard Attendant (Hanalei)
- 2 - Laborer Working Supervisor (Hanapēpē, Kapa'a)
- 16 - Laborers
- 1 - Equipment Logistics Mobilization Supervisor
- 1 - Equipment Operator IV
- 2 - Equipment Operator III
- 1 - Bridge Maintenance Worker II
- 2 - Bridge Maintenance Worker I

- 1 - Traffic Signs & Markings Supervisor
- 1 - Traffic Sign Painter
- 1 - Traffic Signs & Markings Crew Leader
- 1 - Traffic Marker
- 2 - Traffic Signs & Markings Helper
- 1 - Traffic Signs & Markings Laborer
- 77 - Total Personnel**

FUNCTIONS

The Roads Division is composed of four sections: Administrative, Technical, Field Operations and Projects. Field Operations consists of the following branches: Roads Maintenance, consisting of District Base Yards; Roads Construction, consisting of Equipment Logistics Mobilization, Bridge & Road Construction, and Traffic Signs & Pavement Markings. Roads Division manages approximately 309.5 miles of roads: 307.3 paved and 2.2 unpaved. Notes: Private roads are not managed by Roads Division

IV. PROGRAM DESCRIPTION

The Roads Construction and Maintenance Division performs maintenance and repair of road pavements, 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, pavement markings and guardrails. The Roads Construction and Maintenance Division support 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

- Draft: Cleaning and Maintaining County Right of Way ORDINANCE with County Engineer for review, then to County Attorney, Mayor and finally to County Council.
- FourWinds Group with M.PET (Maintenance Productivity Enhancement Tool) MMIS (Maintenance Management Information System) Program. Roads Field Operation Staff is getting comfortable in the use of M.PET MMIS.
- Pavement Management Program with iWorQ Systems Inc. on GIS Mapping and partnering with County IT of County Roads.
- Creating two 5-year Pavement Management Resurfacing Roads Plan working lists to assist final Fiscal Year Island Wide Road Resurfacing Lists for bid proposals.
- Create and assist IWRR List of Collector Roads for Engineering Division.
- Refuse Collection Section has transferred 100% to Solid Waste Division July 6, 2015 under their full Management.
- Another successful annual Maluhia Road Tunnel of Trees vegetation control and ground maintenance cleanup by the community, Hotel Association and County Crews.
- New Annual Project by Roads Field Operation; Maluhia Road Tunnel of Trees dead hazardous branches and trees removal day with County Roads Crews, County Parks Arborist and Coordination by Field Operations Manager went well.

V. PROGRAM MEASURES/ACCOMPLISHMENTS

- In-House reorganization and Creation of a Principal Project Manager position has simplified Roads Projects Section with the Pavement Management Program. Inspection and Inventory Identification of Kaua`i County Existing Roads Pavement. Identify existing County roads and distressed pavement areas, guardrails, manholes, gratings, survey monuments, and miscellaneous on County Right-of-Ways, scheduling of in-house road pavement core sampling, and assist Engineering Division with Complete Streets/Safe Routes to Schools island wide Program.
- FY 2015-2016 IWRR Project on Local Roads bidding has been completed and notice to proceed was August 17, 2015 and completion is November 14, 2015, contract was for \$1,963,630.00 and the contractor is Grace Pacific.
- FY 2015-2016 IWRR-Seal Coating Project on Local Roads is 90% completed to be out for bids shortly.
- Hanapepe and Waimea Levees United States Army Corps of Engineers Annual inspection achieved passing grades thanks to Hanapēpē Base Yard Crews, Supervisors and Field Operation Manager coordination.
- Hanapēpē and Waimea Levees Grassing Irrigation Project are shortly coming to completion by the end of 2015.
- Roads Division employees on-going with re-training on equipment and trucks; annual safety and re-certification that are mandatory requirement.
- Continuing the development of Roads Operations and Maintenance Policy Manual; and Roads Safety and Health Manual.

DIVISION of SOLID WASTE MANAGEMENT

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

II. DIVISION GOALS:

1. Maintain a balance of reliability, efficiency, and cost effectiveness for County solid waste collection, disposal and diversion programs.
2. Identify and implement appropriate integrated programs to divert solid waste from the County landfill. In concert with the adopted “Zero Waste Resolution”, the goal of the Division is to achieve 70% waste diversion through source reduction, reuse, recycling and composting by the year 2023.

3. Further maximize waste diversion by promoting all existing waste diversion opportunities to the residential and commercial sectors as appropriate. Provide technical assistance to the commercial sector and private recyclers. Provide public education in schools and to the community at large.
4. Conduct County solid waste management programs and operations in compliance with applicable government regulations.

DUTY AND FUNCTION.

The Division of Solid Waste Management (DSWM) duty and function is to plan and implement solid waste collection and disposal operations and integrated solid waste management (ISWM) programs within the scope of Departmental and Divisional policies and applicable Hawai'i State regulations. ISWM programs incorporate modern concepts of diversion and disposal to responsibly manage solid waste on the island of Kaua'i.

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 and diversion services to manage solid waste
 - Operate facilities in compliance with regulatory requirements
 - b. Highlights
Phase II of Kekaha Landfill. The Kekaha Landfill Operation accepted and buried 81,485 tons of municipal solid waste during Fiscal Year 2014-2015. This figure includes solid waste from residential and commercial sources. This is an increase of 4,884 tons from the previous fiscal year.

Operations continued with Waste Management of Hawai'i (WMH) d.b.a. Sanifill of Hawai'i with primary oversight responsibility for the management of the landfill daily operations. County provides the equipment operators and labor workforce to perform operations to accept and compact solid waste in the landfill and for site maintenance.

In order to improve levels of compaction at the landfill, a GPS and software system was fixed to the landfill compactor. While this system has assisted in improving compaction levels, it has experienced intermittent problems that are currently being evaluated. The Compactor's self-cleaning compactor wheels however seems to be the most reliable aid to landfill operators in achieving optimum compaction of waste.

Effective July 1, 2014, a new tipping fee rate of \$119 per ton at the Kekaha Landfill became effective, in accordance with Ordinance No. 968.

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

Refuse Transfer Stations (RTS)s.

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 FY15 (Tons)</u>	<u>Change from FY 14</u>	<u>Percentage</u>
Hanapepe	8,063	+186	+2.4%
Lihue	15,914	+2,817	+21.5%
Kapaa	6,878	-2,525	-26.9%
<u>Hanalei</u>	<u>5,426</u>	<u>+407</u>	<u>+8.1%</u>
Totals:	36,281	+885	+2.5%

- Greenwaste Diversion Operations. The County renewed the right of entry agreement with Princeville Mauka Village to allow for the continuation of greenwaste diversion operations at the Hanalei RTS. 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 under both Manual and Automated refuse collection systems. Automated refuse collection is a one-man operation with the side-loader refuse truck and County-issued refuse carts. Manual refuse collection is a three-man operation with a rear load refuse collection vehicle. Refuse collection at 29 County facilities continued as a one-man operation using the side-loader refuse truck and refuse carts.

- Island-Wide Curbside Refuse Collection.
 - The DSWM initiated arrangements to take over the management of refuse collection program from the Roads Division. During the reporting period, the Department conducted negotiations with the United Public Workers (UPW) union to assume the daily management and supervision of the refuse collection operation from the Division of Roads. A memorandum of agreement to memorialize terms of the transfer of management responsibility was executed in April 2015.
 - The DSWM initiated negotiations with the UPW union to finalize the agreement for Phase III of the Automated Refuse Collection Program. By the end of the reporting period, most of the terms were developed and a final draft agreement was issued to the UPW. Both parties agreed upon a goal to sign the agreement in July 2015.
 - The DSWM prepared to convert approximately 9,000 new customers to automated refuse service, the target date to commence the new service was set for the week beginning July 5, 2015. We purchased carts of variable sizes and distributed them to customers beginning at the end of May through the end of the fiscal year. Despite a Cart Manufacturer's delay in delivery of new refuse carts, by the end of the reporting period, all registered customers changing to automated refuse collection had received their refuse collection cart. Existing automated refuse collection customers from Lihue to Anahola wishing to switch to the smaller 64-gallon carts would continue service using their current cart and receive the smaller cart in the next fiscal year. This accomplishment completed our efforts to convert our refuse collection operation from a manual system to an automated system.
 - As of June 30, 2015, the curbside collection program had 18,271 residential collection accounts and 256 business accounts, including Transient Vacation Rentals.
 - Heavy Equipment Purchases in FY 2015. Three (3) each 22 Cubic Yard Automated Side Loading Refuse Trucks.
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): On October 8, 2014 the County passed a "Pay As You Throw" ordinance establishing variable rates for refuse collection. Under this rate structure, customers can choose a 64 gallon refuse cart for \$10 per month, or a 96 gallon refuse cart for \$18 per month. If customers opt out of curbside refuse collection service, then the customer is

charged the base assessment of \$6 per month. The ordinance went into effect in July 2015, so the fiscal impacts will be seen next FY.

- Implementation tasks for this new program included conducting a survey to estimate the number of each cart size to order, revising the billing system to include the new fee structure, notifying and obtaining cart size choice from 20,000 customers, receiving and distributing carts, and switching out carts for existing automated customers as necessary. These tasks created a significant amount of additional work for the DSWM, and were very challenging.
- The RRCA revenue for FY 2015 was approximately \$2.8 million on 18,271 parcels. The RRCA fees continue to be collected through Real Property Tax Collection. Note that the PAYT program is a waste diversion initiative, not a revenue enhancement initiative, so the fee structure is designed to create total program revenue in an amount approximately equal to the previous RRCA fee structure.
- Beginning July 1, 2012 pursuant to Section 21-9.1 (a) of Ordinance 905, TVR's were no longer eligible for refuse collection service under the Residential Refuse Collection Assessment which was established for residential accounts. At the end of the FY we had 256 combined TVR & Business accounts with the county at a rate of \$84.00 per month. These Commercial Refuse Accounts, which are tracked and billed separate from RRCA accounts, are projected to generate total revenues of \$258,048 in FY 2015.

- Kaua'i DSWM Staffing.

- The Senior Account Clerk position was vacant during a critical period during the fiscal year. This vacancy was a burden on our Accounting Technician who worked a significant amount of overtime to assure success of billing issues, conversion to automated refuse collection, and the new PAYT program.
- We hired a new Collections Supervisor position to oversee collections crew starting next fiscal year. As his first task, the Collections Supervisor oversaw the distribution of refuse carts to new automated customers.

- Kaua'i Resource Center (KRC).

- Recycling Operations: Garden Isle Disposal (GID) continued to provide services at this facility under concession contract 7495. The operator pays the County \$1,000 per month to use the space 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. This contract will expire in December 2015. We plan to extend the contract on a limited term until construction for a Materials Recovery Facility begins at this site.
- During this fiscal year, the KRC diverted a total of tons 854 of material from the landfill, which is a 125 ton decrease from FY 2014. The breakdown was as follows: 157 tons (T) cardboard, 7 T newspaper, 50 T mixed paper, 17 T non-deposit beverage container (DBC) glass, 0 T #1 molded plastic, 1 T #2 non-DBC plastic, 451 T DBC glass, 74 T DBC aluminum, 97 T DBC plastic.

- Home Composting
 - 335 Earth Machine Home Composting Bins were distributed to Kaua'i residents at the Kaua'i Resource Center. The Satellite distribution center Aiyah's Garden in Kapa'a closed this FYI. Bins are distributed from 8:00 am to 3:30 pm on Fridays without an appointment. This distribution schedule has worked for residents and staff and has allowed us to bypass the process of making appointments which was administratively burdensome. We purchased 550 additional bins in FY 2014. Approximately 450 bins remain in stock for distribution.
 - Each bin diverts an estimated average of 1,500 lb. of food and yard waste per year. This is our most economical waste diversion program at an estimated cost of \$6 per ton over the 10 year life of the bin.
- Kaua'i Recycles Residential Recycling Program
 - In 2012, we signed a three (3) year contract with two (2) one year options to extend with Garden Island Disposal, and exercised our first extension for six months through December.
 - We recently added recycling opportunities for plastic, glass, and metal at the Lihue Civic Center in the loading dock area of the former Big Save. An additional cardboard drop bin was also added to this location. The receptacles are similar to the Kauai Recycles drop bins and are designed to provide County employees with a convenient drop-off location for recyclables that are collected in break rooms. These bins are serviced on an on-call basis.
 - There are eight drop bins located throughout the island for Kauai's residential recycling convenience. The collection of aluminum food/beverage cans, foil plates and pans, and steel food cans was added, and glass, corrugated cardboard, aluminum, newspaper, #1 & #2 plastic containers, and mixed paper continue to be accepted for recycling. Due to the high volume of mixed paper, the Kapa'a and Līhu'e sites are now equipped with 10-cubic yard mixed paper bins, which replaced the 3-cubic yard bins under the prior contract. The existing 6-cubic yard bins are used for plastics #1 and #2 collection only:

Līhu'e and Kapa'a sites:

- One compartmentalized 34-cubic yard bin for source separated cardboard, newspaper and glass
- One 6-cubic yard bin for plastic #1 & #2
- One 3-cubic yard bin for aluminum and steel
- One 3-cubic yard bin for mixed paper
- One additional, up to 34-cubic yard bin for cardboard on the weekends

There are a maximum number of 42 hauls per week at all eight locations; however we have the flexibility to increase or decrease the number of hauls per week within the range indicated below:

Location	# Hauls per week
Hanalei	6-8
Kapa'a*	7-9
Līhu'e*	7-9
Po'ipū	2-4
Lāwa'i	2-4
'Ele'ele	2-4
Waimea	1-2
Kekaha	1-2

*Figure includes weekends when two sets of containers are left on site to accommodate the public.

The average monthly tonnages for each recyclable collected under the program are as follows:

- Corrugated cardboard: 62.90 tons
- Newspaper: 8.64 tons
- Glass: 27.43 tons
- Aluminum: .24 tons
- Steel: 3.77 tons
- Plastic: 6.97 tons
- Mixed Paper: 41.51 tons

Under the current contract, we were more stringent with enforcing the maintenance of the drop-off site areas, making it clear that it is the contractor's responsibility to thoroughly clean drop sites every time the containers are hauled. In addition to radio and television ads placed by the vendor, the County recycling office continues to field calls and provide program information through quarterly distributions of our Recycling Guide and various special events.

- Acceptable Non-Deposit (ADF) Glass Recovery and Recycling Contract
 - The State Department of Health provided annual funding under a new ASO Log 15-003 in the amount of \$53,200 to support non-HI5 glass recycling efforts on Kaua'i.
 - In December 2014, the State Auditor issued a report on the ADF program which was very critical of the law and the DOH's administration of the program. The report stated that Kaua'i County receives funding despite the lack of a formal "buy back" program, and recommended that funding be suspended to Kaua'i County until a "buy back" program exists.
 - Despite the audit, the County was able to utilize ADF funding to reimburse the County for the ADF portion of Kaua'i Recycles glass collected through

the third quarter of FY 2015. In quarters 1-4, the program collected 290 tons of residential ADF glass. During the period, a total of 607 tons of glass reuse was distributed to both commercial and residents. Reused glass was used for backfill and ground cover in both residential and commercial projects. The County's reimbursement for eligible expenses through 4 quarters was \$53,200 which was all the ADF funding available to the County. The total eligible expenses through 4 quarters exceeded the available grant funds by approximately \$20,000.

- Deposit Beverage Container (DBC) Program
 - The State Department of Health provided annual funding under ASO Log 14-047 Modification 1 in the amount of \$240,751 to support local administration of the DBC program for the 2015 FY. The contract covered essential services, 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, as well as promotional signage, and retailer clear top recycling bins.
 - 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.
 - Specialists perform island-wide compliance inspections of retail outlets selling beverage containers at a rate of 16 per month. They also conduct 4 Certified Redemption Center (CRC) inspections per month as well as 10 surveys done at hotels, bars, and restaurants to assist with HI5 recycling and to assess the impact of the HI5 program on these entities.
 - There are 8 CRC operations throughout the island, of which, 5 are privately operated and 3 are contracted by the County
 - County contracted CRC operations continue near the Kekaha Sugar Mill, at the Koloa Fire Station, and the Kaua'i Resource Center.
 - Kaua'i Community Recycling Services continue Kekaha and Kōloa Fire Station events at \$312 per event.
 - The County has a Right of Entry agreement with Kekaha Agriculture to lease the space for the Kekaha CRC. The monthly lease price is \$500 and is paid through the State DBC contract.
 - Educational Outreach: Onsite educational presentations are conducted upon request. Throughout the period, 23 presentations were conducted, reaching a total of 800 attendees. County of Kaua'i educational out flyers are promoted, as well as HI5 program information distributed at the presentations.
 - The Division continued to manage various HI-5 recycling bin programs under which HI5 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, provided for use in business break rooms, and loaned out for special events. 32 events were conducted with 368 recycling bins and 25

trash cans distributed for short term use while 88 blue recycling bins were distributed to non-profits to encourage recycling by their participants.

- According to the latest published State annual report, the statewide redemption rate for HI5 recycling was 68% (FY 2015).
- Funding for FY 2016 has been reduced for the program to \$228,751 from \$240,751 FY 2015 budget.

- Household Hazardous Waste (HHW) Collections

- Vendor Contract- There was two collection events that took place at the Hanalei, Hanapepe and Lihue Transfer Stations and at the Kapa'a Baseyard during this FY. The events were held on September 27 & 28, 2014 and April 11 & 12, 2015.

Description	September, 2014	April 2015
Automotive Batteries, each	93	45
Lithium Batteries, 5 gal. drum	1	1
Household Batteries, 55 gal. drum	7	7
Oil Base Paints, & Ignitables, 55 gal. drum	19	23
Toxic Liquids, 55 gal drum	6	11
Corrosive Liquid, Acid, 55 gal. drum	2	3
Corrosive Liquid, Basic, 55 gal. drum	3	4
Oxidizer, 55 gal. drum	1	0
Mercury, 5 ga. Drum	0	0
Fluorescent Lamps, each	129	247
Mixed Bulbs, 55 gal. drum	1	1
Mixed Bulbs, 20 gal. drum	4	NA

- Processing of Junk Vehicles, White Goods (Appliances), and Scrap Metal

- Resource Recovery Solutions Operations continued to provide service at the Puhi Metals Recycling Center under Contract 8930. Under this contract, 4,363 tons of metals was collected and processed including white goods, scrap metals and autos.
- As of June 1, 2013, services for the towing of derelict vehicles are procured separately. A total of 356 abandoned and derelict vehicles were towed. Unclaimed vehicles were processed and exported for recycling.

- Clean Up of Puhi Metals Site

- Phase I (Scrap Metal & Debris Separation) of the contaminated soil stockpile cleanup was completed by August 2014. The Soil was then stockpiled along the western boundary of the vehicle storage area. Analytical data from soil samples taken prior to Phase I separation work revealed elevated contaminant levels that rendered landfill disposal as the only option to manage the material. Grove Farm and Resource Recovery Solutions received approval

from DOH for its soil screening program and continued work to secure necessary equipment.

- Household Battery Recycling Program
 - Per the State permit, batteries are being accepted in 55 gallon plastic barrels in 3 separate categories:
 - Lithium batteries common uses are electronics, cameras, computers
 - NiCad batteries rechargeable battery, common uses are hand-held tools
 - Alkaline (Dry Cell) general purpose household (9-volt, D, C, AA, AAA)
 - On September 28, 2014 Enviro Services and Training Center, LLC collected batteries in conjunction with the County of Kaua'i's Household Hazardous Waste (HHW) collection events. Four (55-gallon) drums of Alkaline (dry cell) batteries; one (55-gallon) drum of NiCad batteries, and one (55-gallon) drum of Lithium batteries, estimated to be 27.5 gallons. Six drums total were removed by the contractor and transported to Burlington Environmental Inc., in Kent, Washington.
 - On April 12, 2015 Enviro Services and Training Center, LLC collected batteries in conjunction with the County of Kaua'i's HHW collection events. Three drums (55-gallon) of Alkaline (dry cell) batteries; one (55-gallon) drum of NiCad batteries (estimated to be 27.5 gallons); and one (55-gallon) drum of Lithium batteries (estimated to be 18.33 gallons) were removed by the contractor and transported to Total Reclaim, LLC in Seattle, Washington.
 - The County has contracted EnviroServices and Training Center, LLC to collect and recycle batteries in FY 2016. Events will be scheduled in October 17 and October 18, 2015.

- Disposal of Abandoned Vehicles and Derelict Vehicles
 - Compliance per HRS 290, Kaua'i 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 Kaua'i County Code.
 - An average of 25 abandoned and derelict vehicles are towed each month.
 - The Abandoned Vehicle Coordinator receives an average of 70 complaint calls each month.

- Zero Waste Resolution
 - Zero Waste Resolution adopted 10/19/11 calling upon all County agencies, residents, businesses, and visitors to adopt Zero Waste practices to meet the goal of 70% diversion by the year 2023.
 - County staff attend monthly meetings of Zero Waste Kaua'i to keep abreast of the group's activities and to provide support as needed.

- Plastic Bag Reduction Law
 - Continue to enforce based on customer and retailer complaints.

- The Recycling Office staff is considering revisions to the Plastic Bag Reduction language in the County Code. The need to modify the code arose from a vendor's distribution of plastic shopping bags. Recommended modifications for consideration include:
 - incentivizing the use of reusable bags by mandating a minimum fee for paper bags
 - editing Section 1 Findings and Purpose to address mandatory fees for the distribution of paper shopping bags
 - revise "reusable bag" definition to exclude thick plastic film bags
 - remove "biodegradable bags"
 - remove the requirement to display the word "reusable" on recyclable paper bags

- Electronics Recycling (eWaste Recycling)
 - Continued to receive funding from the State Department of Health to operate a eWaste recycling program on Kaua'i. Entered into ASO Log No. 12-126. The State notified the County that contract funding will end in December 2015.
 - Contract 8886 operated by T&N Computer Recycling Services, LLC to provide eWaste recycling collection events 2nd Friday/Saturday of the month at the County's Kaua'i Resource Center in Līhu'e at no charge to the County.
 - Contract 8886 is set to expire in May 2016. We will attempt to extend the contract into FY 2017 and then solicit a new contract.

- Construction/Demolition Diversion and Recycling Ordinances:
 - Continued to work on proposed ordinances requiring recycling of designated recyclables generated by businesses and C&D projects. Presented the proposals to the Administration, individual Council Members, and trade associations and business groups in October through January.
 - Formed an Advisory Committee of stakeholders to review and discuss the ordinances, and provide input and recommendations for improvement in FY 2014. In FY 2015 met with Advisory committee on July 17 and March 24.
 - Committee comments were used to make necessary revisions to the proposed ordinances.
 - Met with Council to update them on the proposed ordinances and Advisory Committee process.

- Development of a Materials Recovery Facility (MRF)
 - CalRecovery is still working under Contract 8993 to conduct conceptual design work on the MRF. Contract includes recommendations for sizing, process flow, and providing site specific facility layout. Contract also includes drafting an Environmental Assessment for the facility, and assisting with the development of procurement document for facility design and the operating contract.
 - The Papaya Disinfestation Facility adjacent to the Līhu'e Refuse Transfer Station was not able to be utilized as planned because the State was

unwilling to transfer site control to the County. The Kaua'i Resource Center has been the selected as the new site for the MRF.

- Siting issues caused a delay in the project, and CalRecovery's contract was suspended, amended, and extended during this FY.

- Programs Operated at Refuse 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 has developed and implemented policies and procedures for enforcement of this law. At this time, the focus is on educating haulers and generators about compliance instead of penalizing them.
- During FY 2015, four loads were flagged as non-compliant. This is a decrease from the seven non-compliant loads in FY 2014. This is a very low percentage of incoming loads, considering an average of 600 commercial loads are delivered to the landfill each month. The SWMD conducts follow up investigation and education with non-compliant generators to prevent future violations.
- Green waste Diversion- Greenwaste collected and/or shredded at all Transfer Stations and the Landfill was tracked at 93,546 cubic yards, which is almost a 9% decrease over last FY at 87,603 yards. At 400 pounds per yard, this is 18,709 tons.
- Scrap Tire Recycling- The current Contractor, E-H International agreed to exercise their first option to extend the contract for a period of 12 months. There was a total of 14,661 tires collected at all transfer stations and the landfill by E-H International. The tires were hauled from the refuse transfer stations, containerized,, and shipped off-island where they were chipped into crumb rubber and used for fuel.
- White Goods and Scrap Metal Collection and Hauling
 - Hooklifts Hawai'i has been contracted to load and haul white goods from all County RTSs except Lihue and the Kekaha LF. Under this contract, refuse centers are serviced twice per week; Kekaha LF is serviced one per week. A total of 2,300 tons of white goods from the RTS's and Kekaha LF were delivered to the Puhi Metals Recycling Center during this period.
- 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 791 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- awarded \$55,000 plus another \$8,333 to spend on promotions.
- 15,772 gallons of used Spec Oil Recycling was collected and recycled over the period. Unitek Solvent Services provided services for removal and recycling of recovered oil. Oil is shipped to Oahu, where it is recycled.
- No Off-spec Oil Disposal/No contaminated oil was reported.
- Motor Oil Filter Recycling – Motor oil filter collection drums continue to be in place at all RTSs. Public participation in the program is increasing. DSWM is planning to conduct promotional radio and newspaper ads this FY to increase awareness and participation.
- Used Cooking Oil
 - This program was funded, but difficulties with permitting prevented the launch this FY. We are hopeful to reinstate next FY.

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

- Infrastructure Improvements, Phase II of the Kekaha Landfill.
 - The Kekaha Landfill Vertical Expansion up to 120 feet MSL was approved by the DOH in March of 2014. This vertical expansion will provide an additional 5.4 years of capacity until June 2019.
 - Lateral Expansion Cell 2 received the Draft Permit from DOH on April 29, 2013 The Cell 2 Design will be modified to address groundwater monitoring issues and to reduce the high operating and construction costs.
- New Landfill. The Maalo site was selected as the New Landfill site. Under Contract No. 8561, AECOM completed the updated New Landfill Siting Study, the Resource Recovery Park Feasibility Study, the Final Environmental Assessment/Environmental Impact Statement Preparation Notice (FEA/EISPN), and conducted several public meetings and one County Council briefing during the reporting period. The contract was amended to incorporate a Wildlife Hazard Assessment WHA to address potential impacts to the Lihue Airport. The required WHA and Wildlife Hazard Mitigation Plan will ensure that all safety measures are implemented in the design and operation of the New Landfill to address FAA guidelines for the safe operation of the Lihue Airport. This process will add another 2 years to the schedule and the new target completion date for publishing of the DEIS for public comment is projected to occur in May of 2016.
- Host Community Benefits
 - The Office of Economic Development now oversees the Kekaha Citizen's Advisory Committee and the associated Host Community Development projects.

IV. Operational and Equipment Maintenance Projects

- Puhi Metals Environmental Cleanup
- Kekaha Landfill Liner Investigation
- Kekaha Landfill Office Mildew Mitigation and Flood Repair

- Kauai Resource Center Drain Repair
- Lihue Refuse Transfer Station Fire Sprinkler Repair
- Hanalei Refuse Transfer Station New Chain Link Fencing and Gates

V. PROGRAM MEASURES - ACCOMPLISHMENTS / EVALUATION

The County of Kaua‘i became the first County in the State to pass a Pay As You Throw variable rate for refuse fees, which are proven to significantly reduce waste destined for landfill. While the launch of this program has been extremely challenging, we are excited about the education, awareness, and diversion results that will result from this ordinance. The Residential Refuse Collection Assessment program is functional and generating revenue of approximately \$2.8 million per year.

The Waste Diversion Program Advisor has provided leadership in the area of waste diversion strategies recommended in the Integrated Solid Waste Management Plan which was adopted in January 2010. This position will be cut at the end of FY 2015 and replaced with a Solid Waste Engineer position. We are hopeful that this new staff will provide needed assistance in this area.

During the reporting period, the Department made substantial progress in the County’s refuse collection program, which involved working closely with the UPW union. A memorandum of agreement to memorialize terms of the transfer of management responsibility of the refuse collection operation to the Division of Solid Waste Management was executed in April 2015. A new worksite supervisor was hired, trained and successfully assumed oversight of the refuse collection operation. A final draft agreement for Phase III of the Automated Refuse Collection Program was issued and a tentative date to finalize and execute the agreement in July 2015 was agreed upon by both the County and UPW. Additionally, through a coordinated effort using a combination of labor and equipment from the Roads Division, Parks Department, and the Division of Solid Waste Management, as well as staff from the various DPW Divisions, Human Resources Department, Transportation, Housing and other County agencies, new refuse carts were distributed to more than 9,000 refuse collection customers on the West, South and North Sides of the island. Also noteworthy are the volunteers from the Planning Department, Mayor’s Office, and Office of the County Attorney who served on cart distribution teams. In April, Mayor Carvalho accompanied cart distribution staff in the Lawai Road area for a half-day.

Progress towards completion of CIP projects continue as various issues are addressed. The complexity of various issues have caused schedules to lengthen due to the time required to formulate resolutions. Close coordination and cooperation from sister agencies on the State level will be increasingly important for the New Landfill Project, especially Department of Transportation – Līhu‘e Airport Division.

VI. BUDGET AND PROGRAM RESOURCES FY 2015

RESOURCES

<u>PROGRAM</u>	<u>(FTEs)</u>
1. Administration	10.5*
2. Deposit Beverage Container	

Program	2
3. Solid Waste Operations	<u>64</u> (Landfill Supervisor retired in 12/14)
TOTAL FTEs	76.5
* Half time position is the Environmental Services Officer	
TOTAL BUDGET (Adjusted)	\$17,051,456

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

1. Protect public health, safety, and the environment through the efficient operation and maintenance of County wastewater systems.
2. Comply with all permit conditions 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; efforts to meet the Division’s goals and objectives; and administers customer accounts, sewer user charge system, budgeting and monitoring of revenues and expenditures. It also receives, evaluates and responds to correspondence, information requests and complaints; coordinates environmental monitoring and regulatory compliance activities; and administers planning, operations and financial activities of the Division. Engineering staff oversee and monitor the Division’s Capital Improvement Program (CIP), review subdivision construction plans, land use permit applications and building permit plans.

a. Program Objectives

To administer the County’s sewer infrastructure and operations, planning and engineering, and management of the customer accounts and user charge system.

- Plan for, secure funding, design and construct the County wastewater CIP projects to ensure adequate wastewater infrastructure is in place to support community development plan objectives of the County.

- 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; efficient disposal and reuse of the treated effluent; and proper management of sludge (biosolids).
- Perform reporting and communication with government agencies and the public to provide public information; communicate wastewater system needs and requirements; comply with the regulatory requirements; and to promote public awareness of the activities of the Division.

b. Program Highlights

- **User Charge System.** Customer billing and account management is a core function of Wastewater Administration, including: processing sewer service applications and account changes; processing bills; customer accounting; and collection efforts. Customer account management includes administration of the County’s sewer credit program that involves annual application and processing for renewal of qualified customers’ sewer credits.

The most recent Wastewater Rate Study (2010) established the current schedule of wastewater user fees, with scheduled annual rate increases through July 1, 2014. The purpose of the system of rates and charges is to generate sufficient operational revenue for the County’s wastewater utility functions to cover operational costs, with user fees that are consistent with the cost of providing wastewater service to each class of rate-payer. During FY 14-15, a new rate study was initiated with consultant selection and negotiation of a professional services contract for an updated rate study.

- **Planning and Plan Reviews.** Planning efforts include management planning for Division operations, and development of CIP projects to implement capital improvements. Several current CIP projects were identified in the 2008 update of all four of the County’s Wastewater Treatment Plant (WWTP) Facility Plans. The Facility Plan updates provided a comprehensive summary of the wastewater system and identified long term CIP needs for each facility, providing a management tool to schedule and prioritize among various projects.

More recently, additional focus has been directed at the energy requirements for wastewater operations. With the assistance of the County’s Office of Economic Development energy audits were conducted for County Wastewater facilities. Energy audits identified capital improvement projects to improve wastewater treatment processes, efficiency of operations, and for renewable energy development. Going forward, the County will be pursuing energy efficiency improvements via our pending and future CIP projects.

Operational planning uses the Division’s Maintenance Management Information System (MMIS) for scheduling and documentation of maintenance activities and

requirements. This year, the MMIS system was migrated to being hosted as an internet Cloud application.

In addition to planning activities for management of the Wastewater Division, administration and engineering staff perform review of Building Permits, Land Use Permits and Subdivisions along with other similar private developer plans, as one of the Counties' reviewing agencies for those processes.

- **Design of Capital Improvements.** The Division's CIP project design work is funded via budget appropriations for initiation of design projects. The CIP generally follows the improvement priorities identified in the Facility Plans, as modified by more recently identified priority projects.

FY 14/15 design activities included the initiation of new design projects for cleaning of Lihue WWTP injection wells, and rehabilitation of the Wailua Sewage Pump Station (SPS) No. 3. Design consultants were selected and contracts negotiated for these two projects.

Additional progress was made on two existing projects: the Wailua WWTP Process, Electrical and Disinfection Improvements, Phase 2 project; and the Preliminary Engineering and Environmental Assessment for the Waimea R-1 Distribution System. The Waimea project is partially funded by a U. S. Environmental Protection Agency (EPA) grant, with matching County funds.

During FY 14/15, two significant consultant studies were initiated at the Wailua WWTP. These studies are requirements of the County's recently issued National Pollutant Discharge Elimination System (NPDES) permit. The permit, issued with an effective date of November 1, 2013, required the County to conduct a Zone of Mixing Dilution Study and an Effluent Limits Compliance Alternatives Evaluation Study. Consultants have been selected and contracted to perform both of these permit-required studies. The conclusions and recommendations of these studies are anticipated to lead to future design and construction of capital improvements at the Wailua WWTP.

- **Construction of Capital Improvements.** During FY 14/15 the Division has had three major CIP projects under construction. These include: the \$2.4 million Wailua Process, Electrical and Disinfection Improvements, Phase 1 project; the \$4.2 million Eleele WWTP Process Equipment, Electrical System and Disinfection System Improvements project; and the \$5 million Island-Wide Wastewater SCADA System project. Additionally, the second phase of Coco Palms Pump Station Odor Controls was bid for construction this year, and the additional Odor Control improvements will be installed during FY 15/16.

Project funding for larger projects continues to be derived primarily through the State of Hawai'i Department of Health (DOH) administered Water Pollution Control Revolving Fund (SRF) Loan Program, which provides low-interest loans for wastewater infrastructure projects.

The \$2.4 million Wailua Process, Electrical and Disinfection Improvements, Phase 1 project, completed during FY 14/15, was funded by a combination of SRF funds and EPA grant funds. The \$4.2 million Eleele WWTP Process Equipment, Electrical System and Disinfection System Improvements project, currently under construction, is funded by SRF funds. The Island-Wide SCADA project, also under construction, is funded with County Bond funds. The Coco Palms Pump Station Odor Control Project was funded with County Bond funds.

B. Wastewater Collection and Treatment Facilities Program

The Wastewater Collection and Treatment Facilities Program are focused on operation and maintenance of all County wastewater collection, treatment and disposal facilities. Program Objectives include consistent and reliable level of performance of the sewer collection system and treatment facilities 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. Ongoing field activities include daily operation of the four WWTP's and nineteen pump stations, and periodic cleaning and maintenance of the sewage collection systems. Wastewater personnel also routinely respond to after-hour trouble calls either occurring at facilities or generated by sewer service problems from the public.

The Division also routinely provides equipment and manpower support to other County agencies such as Building, Roads and Solid Waste Divisions of the Department of Public Works. There are many situations where our knowledgeable staff and specialized equipment, such as our Vactor truck, crane and camera system, are highly useful to assist other agencies with their operational needs. During FY 14/15, the Division took delivery of a new 3,500 gallon sewage pumper truck, expanding our capability to provide septic system and related pumping and hauling services to County facilities that are not connected to County sewer systems.

a. Program Objectives

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

b. Program Highlights

- **Personnel Safety and Training.** The County sponsors, through ongoing support of 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.

The Statewide Training Center has undergone a management transition, and is now operated by the University of Hawai'i (UH). UH has maintained the program offerings and availability of on-island training opportunities and CEU credits from this program. The Division recognizes that there continues to be a need for alternate training opportunities, and that higher costs associated with training should be anticipated for the future.

- **Collection System and WWTP Operation and Maintenance.** Operation and Maintenance activities for the County's four WWTP's, nineteen SPS's and approximately 50 miles of sewage collection system comprise the majority of the Divisions activities, assets, and equipment and staff resources. Of the Division's 37½ full time positions, 29 positions are allocated directly to operation and maintenance crews.

Staffing levels for each WWTP has been standardized at 5 Treatment Plant Operators and Assistant Operators, most of whom are individually licensed as Treatment Plant Operators by the State of Hawai'i. The WWTP operators are also responsible for the operation of the pump stations situated within the collection system served by the respective treatment plant. In addition, the plant operators are supported by a crew of mechanics, an electrician, and a crew of sewer maintenance repairers (line crew). The support mechanics, electrician, and line crew, along with the Divisions' two chemists, the field superintendent and field support technician are based at the Līhu'e WWTP, and support all four of the County's wastewater system operational staff.

In an ongoing effort of scheduled maintenance, the Division staff, with the assistance of our contractors and suppliers, completed various replacements to address ongoing equipment maintenance 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. Day to day plant operations and maintenance activities required to keep the wastewater systems operating properly on a 24/7 basis involves a focus on safety; continuous improvements for work processes; work order scheduling; implementation of maintenance procedures; and maintenance scheduling.

- **Regulatory Compliance and Monitoring.** The County's Wastewater operations are subject to various regulations governing plant operation, management of bio-solids (sewage sludge) and monitoring effluent and receiving water quality. Effluent is either reused as irrigation water (Wailua, Līhu'e and Waimea WWTPs) or disposed via injection wells (Waimea, Elelee

and Līhu‘e WWTPs) or via the Wailua WWTP ocean outfall. Regulatory compliance requires periodic (in some cases daily) water quality monitoring; testing and evaluation of injection well capacity; and periodic reporting on various plant operational activities to the State DOH. Annually, the DOH performs inspections of plant operations to document the status of completion of all required activities for each plant.

Permits for effluent disposal, via either injection wells or the Wailua ocean outfall, are renewed at five year intervals. All permits are current.

In November 2013, the Wailua WWTP National Pollution Discharge Elimination System (NPDES) permit was issued by the State of Hawai‘i, Department of Health (DOH). The new permit significantly increased requirements for water quality monitoring, particularly with respect to receiving waters (Pacific Ocean), and imposed new and highly restrictive effluent limitations. The NPDES permit acknowledged that immediate compliance with the new permit limits is not possible, and interim limits were established, along with compliance schedules for permit-required studies. The County does not agree that the new permit effluent limits were justified by the available data, and has petitioned for a contested case hearing on the new NPDES permit. Nonetheless, the County has proceeded with the permit-required studies.

The main permits for the other County WWTP’s are Underground Injection Control (UIC) permits issued by the DOH. UIC permit conditions also include monitoring and reporting requirements, including annual injection well status reports, which the County contracts with a consulting engineering firm to complete. Monthly and annual water quality monitoring reports are prepared in-house for the Wailua WWTP pursuant to the NPDES permit. Semi-annual water quality monitoring reports pursuant to UIC permits are prepared in-house along with semi-annual and annual reports to document the management of bio-solids from all the WWTPs.

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. PROGRAM MEASURES AND EVALUATION

A. Wastewater Administration and Engineering Program

Program Measures include those measures associated with sewer billing; processing of building and land use permits; administrative support for operations such as budget, purchasing, personnel management, training, regulatory compliance support, etc.; and management of the Division’s capital improvement program activities.

During FY 14/15, administrative functions including billings, plan review activities,

personnel support, etc. were successfully completed, maintaining existing levels of support and service to customers and other agencies. Annual Division budget and purchasing processes were successfully completed, resulting in all major goods and services required by the Division being acquired. All required regulatory compliance reports and activities were completed. Staffing needs resulting from retirements and periodic turn-over require on-going assistance from public works administration and the County HR Department; during FY 14/15 several new employees were hired to fill vacant positions.

With respect to our Capital Improvement Program, the major CIP projects in progress required considerable management oversight. Our pending CIP projects addressing WWTP needs and collection system upgrades will continue to 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.

B. Wastewater Collection and Treatment Facilities Program

Facility operations continue to meet most or all program measures, and during FY 14/15 the Wastewater Division did not experience many significant weather-related challenges or significant sewage spills. Wastewater operations staff responded to numerous call-outs for emergency conditions resulting from power outages, equipment failures and other unanticipated conditions. 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.

V. BUDGET

All revenues for the Division’s routine program costs are from sewer user fees. Approximate actual program costs (rounded) from the FY 2014-2015 budget are summarized for the Division as a whole, including administration and operations.

OPERATIONAL COSTS

• Equivalent Personnel Positions	37.5
• Wages and Other Direct Costs	\$ 3,372,000
• Operations (Equipment, supplies, vehicles, etc)	\$ 1,757,000
• Utilities (Electrical, Water, Gas, Telephone)	\$ 2,195,000
• Contracted Services (Repairs, Laboratory, etc)	\$ 1,024,000
• Debt Service	\$ 1,791,000
PROGRAM TOTAL	\$10,139,000

OPERATIONAL REVENUES

Estimated FY 14-15 Revenues	\$ 8,900,000
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VI. STATISTICS

	<u>Measure</u>	<u>Number</u>
•	CIP Projects under construction	3
•	Total number of sewer units	5,363
•	Bills processed in FY 14/15	25,155
•	Number of customers receiving sewer credits	625
•	Spills reportable to DOH	11
•	Wastewater processed (average - million gallons per day)	2.25
•	DOH unacceptable inspections	1
•	DOH acceptable inspection	3
•	% of flow being reused (approximate)	65