



Department of Public Works

Fiscal Year 2019 Annual Report

July 1, 2018 – June 30, 2019

Troy Tanigawa, P.E.
Acting County Engineer

ENGINEERING DIVISION

Michael Moule, P.E., Chief of Engineering

I. MISSION STATEMENT

Protection of the public's health, safety, and property, as well as the environment through proper planning, design, construction, operation, and maintenance of the County's infrastructure, and through administration of codes, ordinances, and resolutions related to sediment and erosion control, storm water runoff, floodplain management, driveway approaches, land use, and complete streets.

II. DIVISION GOALS

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

III. PROGRAM DESCRIPTION

A. Objectives

The Engineering Division provides civil and general engineering services for the Department of Public Works, for other County Departments, and based on requests from the County Council and the general public. It is responsible for rehabilitation 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 personnel and project funding.

Engineering Division is tasked with 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. 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). This ordinance regulates the construction of

all grading, grubbing, and stockpiling activities in the County. This ordinance allows for permit exemptions for government-controlled projects and agricultural properties that fall under conservation plans approved by the East and West Kaua'i Soil and Water Conservation Districts. The Engineering Division issues Grading Permits, Grubbing Permits, and Stockpile Permits in compliance with this ordinance.

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. The Engineering Division issues Driveway Permits in compliance with this ordinance.
4. Speed Hump Ordinance Number 720 (Kaua'i County Code Chapter 16, Article 22). This ordinance regulates the construction of speed humps 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. The Engineering Division issues Road Permits in compliance with this ordinance.
6. Floodplain Management Ordinance Number 831 (Kaua'i County Code Chapter 15, Article 1). This ordinance regulates the County's Floodplain Management Program. The County of Kaua'i is a participant in the National Flood Insurance Program (NFIP), which enables property owners in flood-prone areas of the County to obtain flood insurance and assures 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. The Engineering Division reviews proposed development in flood zones for compliance with the Floodplain Management Ordinance and the regulations of the NFIP.

Engineering Division administers these ordinances by reviewing construction plans, flood and drainage studies, traffic impact and geotechnical reports, road permit and driveway applications, and other documents for projects by private developers as well as other public agencies. When these projects go to construction, engineering Division then inspects and provides construction engineering for these projects.

The Engineering Division also 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 comments and recommendations on subdivision applications, including full review and approval of subdivision construction drawings for roadway and utility improvements; inspecting construction of subdivision improvements.

- b. Providing review comments and recommendations for all zoning changes and amendments, use permits, shoreline management permits, Special Management Area (SMA) permits, variances, and proposed ordinance changes.
 - c. Calculating whether improvements to a structure constitute a “substantial improvement” per the regulations in the Shoreline Setback and Coastal Protection Ordinance.
 2. Assist the Building Division in the review process of building permits including review of sediment and erosion control, driveway approaches, floodplain 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, other public agencies such as the US Postal Service, or members of the public.
 - c. Changing addresses for existing houses and buildings when requested by property owners.
 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 to and/or relocation of traffic signs, pavement markings, other traffic control devices, street lights, parking restrictions, and bus stops. This work includes preparing resolutions for County Council, when required by County ordinances or resolutions.
 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.

B. Highlights

- This fiscal year, Engineering Division continued to provide significant services in response to the RAIN18 flood that occurred on April 15, 2018, including the following:

- Weke Road Repair: This project is funded by FEMA to reconstruct approximately 350 feet of Weke Road that was washed out during the flood. Construction was nearly completed as of June 30, 2019.
 - Kahiliholo Road Culvert Replacement: This project replaced approximately 100 feet of culvert that was washed out during the flood. As of June 30, 2019, construction was mostly complete with minor items such as guardrail and grassing to be completed.
 - Kahuna Road Embankment Reinforcement along Kapa'a Stream: This project is funded by the National Resource Conservation Service (NRCS) and installed boulders to stabilize the Kapa'a Stream bank adjacent to approximately 380 linear feet of Kahuna Road, and at two culvert crossings of Kahuna Road. Construction started shortly after the end of Fiscal Year 2019.
 - Waihohonu Stream Debris Removal: This project is funded by FEMA to clear debris along a portion of Waihohonu Stream. Design and construction of this project are scheduled to be completed in Fiscal Year 2020.
 - Waioli Irrigation System Repairs: This project is funded by Act 12 funds. Surveying and design work are anticipated to begin early in Fiscal Year 2020.
 - Anahulu Road concrete swale repair: This project is funded by FEMA to reconstruct a portion of an existing concrete swale along Anahulu Road. Design is anticipated to be completed in fiscal year 2020.
 - Wainiha Powerhouse Road Repairs: This project is funded by FEMA and will replace broken or poorly located culverts, add new culverts, install wingwalls, provide embankment stabilization, and repair broken pavement surfaces. Design is anticipated to be completed in house during fiscal year 2020.
- Engineering Division is responsible for design and construction of dozens of County projects. All of these projects support the RISE mission. Below is a list of Engineering Division's projects, organized by the stage of construction and/or design completion.
 - Construction was completed on the following projects this fiscal year:
 - Island-wide Bus Stops Improvement, Phase 4: This project constructed 9 accessible bus shelters at various locations on Kaua'i.
 - Pua Nani Street Drainage Improvements: This project rehabilitated large corrugated metal pipes (CMPs) by pouring new concrete inverts and "spincasting" a fiber reinforced concrete liner inside the existing CMPs.
 - Safe Routes to School Rectangular Rapid Flashing Beacon project: This project included sidewalks along Alae Road near Kekaha Elementary School; and crosswalk improvements at Kekaha Elementary School, Kalāheo Elementary School, and Kapa'a Middle School.
 - Construction is underway on the following projects:
 - Līhu'e Town Core Mobility and Revitalization Project (TIGER): This project includes various transportation improvements in several areas within the Līhu'e Town Core, including conversion of Rice Street from four lanes to two lanes with a center turn lane. This project is funded

by a \$15,100,000 TIGER grant from the US Department of Transportation for this project. This project is being managed by Doug Haigh of Building Division, but Engineering Division has been heavily involved in design review and is assisting with project management. As of June 30, 2019, construction is in full swing, on Rice Street and other areas of the project.

- Pu'u'ōpae Bridge Replacement; Federal Aid Project BR-0700(59), 80% Federal, 20% County. This project is replacing the Pu'u'ōpae Bridge on Pu'u'ōpae Road near Kalama Road with a new structure that maintains the historical aesthetics and one-lane nature of the bridge. As of June 30, 2019, construction was mostly complete with the bridge anticipated to open soon.
- Salt Pond Sewer Effluent Disposal System: This project constructed a sewer line to carry sewage from the Salt Pond Beach Park comfort stations to an existing sewer line on Lolo Road, eliminating the need for the previously existing septic tank at Salt Pond Beach Park. As of June 30, 2019, construction was mostly completed.
- Planning and design are completed for the following projects, so these projects will be headed to construction soon:
 - Maluhia Road and Kōloa Road Improvements; Federal Aid Project, 80% Federal, 20% County: This project will improve Maluhia Road and Kōloa Road, including pavement resurfacing (and reconstruction where needed), shoulder widening where feasible, drainage improvements, guardrail installation and replacement, and a roundabout on Kōloa Road at Ala Kalanikaumaka. Bidding is scheduled for December 2019 and construction is anticipated to start in May 2020.
 - 'Ōpaeka'a Bridge Replacement; Federal Aid Project, 80% Federal, 20% County. This project replaces the 'Ōpaeka'a Bridge on 'Ōpaeka'a Road near Pulana Road with a new structure that maintains the historical aesthetics including the iron truss and one-lane nature of the bridge. Notice to proceed has been issued to the contractor, but the start of construction has been delayed due to needed approvals by the Department of Water.
- Planning and design are underway for the following projects:
 - 'Aliomanu Road Repair: This project is intended to reconstruct 'Aliomanu Road to repair damage due to erosion from wave action.
 - Hanapēpē Bridge Repairs, Federal Aid Project BR-0545(001): This project will repair spalling concrete, add structural support to the deck, and repair the existing elevated pedestrian walkway of the historic 1911 bridge. A contract amendment with the County's bridge inspection consultant is being worked on to prepare the environmental permitting and design plans.
 - Hanapēpē Road Resurfacing: Project includes resurfacing and construction of sidewalks/walkways. A public involvement charrette was held in August 2014. Final design by the consultant (AECOM) will begin soon.
 - Island Wide Bus Stop Pedestrian Access: This project is funded by the Statewide Planning and Research Grant Program to develop conceptual plans and preliminary cost estimates to construct

pedestrian access to existing bus stops. Consultant negotiations are underway.

- Kalepa Street and Pikake Street Restriping: This project proposes to restripe these streets to convert from four lane undivided to two lanes with center turn lanes and buffered bicycle lanes, after resurfacing by Roads Division. This project is being designed in house.
- Kanaele Road Slope Stabilization: This project will stabilize slopes along Kanaele Road that have subsided over the years. Design is underway by the consultant.
- Kawaihau Road, Hau'a'ala Road, Mailihuna Road Complete Street and Safety Improvements, Federal Aid Project STP 0700(071), 80% Federal, 20% County: This project includes a roundabout at the intersection of the three project roadways, sidewalks, improved crosswalks, paved shoulders, and other features. The design consultant is working on final design.
- Kilauea Road and Kolo Road (Route 562) Resurfacing and Multi-Modal Access: This project includes pavement resurfacing and reconstruction of portions of Kolo Road and Kīlauea Road, two mini-roundabouts at the intersections of Kīlauea Road with Kolo Road and Keneke Street, and improved pedestrian and bicycle facilities to provide access to the Kīlauea National Wildlife Refuge. The FHWA Central Federal Lands (CFL) Division is producing the design, and a portion of the project is funded by the Federal Lands Access Program (FLAP). Other funding will be provided by normal Federal Aid funds and a County match.
- Material Testing On-Call Services – Procurement is underway for a consultant to perform material testing on County projects – this is a service that is challenging for Engineering Division to perform in house. These services will be used on future small construction projects where the County does not hire a construction management consultant for construction engineering, inspection, and material testing services.
- Moi Road Sidewalks: This project will add a sidewalk on Moi Road between Hanapēpē Road and Kane Road. This project is being designed in house.
- Niupalu Bridge Replacement: Consultant procurement is being finalized.
- Nuhou Street and Kaneka Street Restriping: This project proposes to restripe these streets to convert from four lane undivided to two lanes with center turn lanes and buffered bicycle lanes, with improved crosswalks, after resurfacing by Roads Division. This project is being designed in house.
- Olohena Road (Rte 581, Kukui Street (Rte 581), and Ulu Street (Rte 5805) Improvements, Federal Aid Project, 80% Federal, 20% County: This project will resurface (and reconstruct where needed) these collector roads in the Kawaihau District, add paved shoulders where feasible, and install sidewalks in some areas within Kapa'a Town. The design contract was executed at the end of the fiscal year.
- On-Call Surveying Services: Several task orders have been completed by the consultant for both Public Works and Parks and Recreation since the contract was executed in 2018.

- Po'ipū Road Multimodal Improvements, Federal Aid Project STP 0520(004), 80% Federal, 20% County: A public design charrette completed in May 2013 proposed roundabouts, sidewalks, medians, bike lanes, and other features on Po'ipū Road. Review of the 30% construction plans is underway, and public meetings to vet the 30% plans will be scheduled soon.
- Princeville Substation Fuel Tank Relocation: This project will relocate the existing fuel tank, which is currently partially located on adjacent private property. This project is on hold.
- Puhi Road Rehabilitation Phase 2 (Kaneka Street to Haleukana Street), Federal Aid Project STP 5010(002), 80% Federal, 20% County: This project includes reconstructing Puhi Road with a stronger pavement section to support industrial traffic, as well as sidewalks, bike lanes, and parking improvements. Preliminary design and environmental documentation are complete and the consultant is working on final design. Due to fiscal constraints, this project has been pushed out to federal fiscal year 2023 on the STIP, as the interim paving project completed in 2016 is holding up well. The project is scheduled to be "shovel ready" by early 2021 – if federal funds become available, the project may be constructed sooner than 2023.
- Safe Routes to School – Kalāheo Elementary School: This project will reconstruct a sidewalk on Pu'u Road and add a new sidewalk on Hokua Road. Consultant procurement is scheduled to begin early in fiscal year 2020.
- Safe Routes to School – King Kaumuali'i Elementary School: This federally funded SRTS project includes sidewalks and crosswalks on Hanamā'ulu Road and Akuli Street. The design consultant is working on final design.
- Safe Routes to School – Kōloa Elementary School: This federally funded SRTS project includes sidewalks, bike lanes, and other improvements on Po'ipū Road and Pa'anau Road near Kōloa Elementary School. The design consultant is working on final design.
- Twin Reservoirs Decommissioning: After delays associated with needing agreement from private landowners for survey work, the consultants work will begin early in fiscal year 2020. The consultant will work on initial flood studies to revise the flood maps for the drainage basins affected by the reservoirs, based on past analysis that shows that actual flood elevations are currently higher than the flood maps currently indicate. Then the consultant will design a project to decommission the reservoirs.
- Waimea River Ford Crossing: Funds were received from Hawai'i State DLNR for design and permitting/environmental work to install a concrete ford crossing downstream of the Waimea Swinging Bridge. The contract is anticipated to be executed early in fiscal year 2020.
- West Side Shared Use Path: This project is funded by the Statewide Planning and Research Grant Program to develop preliminary plans, preliminary cost estimate, and environmental documentation for a shared use path between Waimea and Kekaha, and to develop concept plans and a preliminary cost estimate for a shared use path

from Hanapēpē to Salt Pond Beach Park. Consultant negotiations are underway.

- Engineering Division is involved with ongoing development of Policies and Standard Operating Procedures to better manage processes within the division and manage capital improvement projects.
 - Street Design Manual: The manual has been signed by the Mayor and the County Engineer, and is now in use by the County.
 - Electronic Filing System: Engineering Division continues to scan existing plans and maps from our map room on an ongoing basis; we are evaluating options to improve and expand digital document archiving.
 - Permit Tracking: Grading, grubbing, stockpile, and road permits are being tracked in a database, including mapping in GIS.
 - 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. Traffic count information received biannually from HDOT is also being regularly used for projects and other purposes.
 - Crash Data: Engineering Division is regularly tracking crash databases received from HDOT including high crash locations on County Roads; this information is being used to inform decisions for road projects and development review.
 - Road Permit ordinance changes: Construction Section has proposed changes to the County Ordinances to give the County more ability to enforce Road Permit provisions, including increasing the ability to enforce permit closeout. Part of these changes include instituting a fee for road permits.

IV. BUDGET

Fiscal Year Ending June 30, 2019

Division/Expense Type		Budget
Engineering	\$	1,655,305
Employee & Related	\$	1,576,881
Training, Travel	\$	7,275
Services, Dues, Consult., Grants	\$	62,789
R&M, Facilities, & Equip.	\$	2,077
Claims, Rental, Loans, Debt Svc.	\$	6,283

PERSONNEL

Division Chief and Administrative Staff

- (1) Civil Engineer VII
- () Administrative Support Assistant (vacant)

Regulatory/Permitting/Design:

- (2) Civil Engineer VI
- (3) Civil Engineer III
- (4) Civil Engineer I
- (5) Engineering Support Technician III
- (6) Engineering Support Technician III
- (7) Engineering Support Technician I

Project Management/Design:

- (8) Civil Engineer VI
- (9) Civil Engineer IV
- (10) Civil Engineer II
- (11) Engineering Drafting Technician II
- (12) Engineering Support Technician III

Construction Inspection/Design:

- (13) Civil Engineer VI
- () Civil Engineer II (vacant)
- (14) Supervising Construction Inspector
- (15) Construction Inspector III
- () Construction Inspector III (vacant)

Survey:

Land Surveyor II position was reallocated several years ago; topographic surveying for design is being completed by Civil Engineering Staff or under contracts with design consultants; other surveying is being done by an on-call consultant.

Total Number of Personnel: 15 full time staff, 2 vacant positions

V. PROGRAM MEASURES

- Construction plans for major projects reviewed during Fiscal Year 2020: 31 plan sets, with an average review time of 30 days:
 - Construction plan review was finalized for the following large subdivisions or developments:
 - Kōloa Village Commercial Site Fine Grading and Offsite Plans
 - Kukui'ula Parcel F Subdivision
 - Kukui'ula Lopaka Paipa Boulevard Extension
 - Lima Ola Affordable Housing
 - Waimea Huakai Affordable Housing
 - Construction plan review is ongoing for the following large subdivisions or developments:
 - Ahukini Makai Subdivision (S-2005-41)
 - Hōkūala Resort (formerly Kaua'i Lagoons)
 - Hokulei Village Phase II – Road A (connection to Nuhou/Kaneka roundabout)

- Puakea Golf Course Mass Grading
 - Puakea Subdivision, Phase II (S-2009-21)
 - Waiola Subdivision, Phase I (S-2009-13)
 - Waiola Subdivision, Phase II (S-2009-14)
 - Waiola Subdivision, Phase III (S-2009-15)
 - Construction plan review was completed or is ongoing for the following Department of Water projects:
 - Plans Approved
 - Job No. ANI-01 – DOW Anini Road Water Line, Phase 1
 - Plan review Ongoing
 - Job No. ANI-02 – DOW Anini Road Water Line, Phase 2
 - Job No. 11-02 – DOW Grove Farm Tank
 - DOW Kukuilono 0.5 MG Water Tank
 - Job No. 11-04 – DOW Lawai Omao Water Line
- Construction Section is currently inspecting the following major subdivisions or projects:
 - Adolescent Treatment Center
 - AES Solar (Lāwa'i)
 - DOW Hanapēpē Road 6-Inch Main Replacement
 - DOW Kapahi Water Tank
 - DOW Kaumuali'i Highway 16-inch waterline – 'Ele'ele
 - Hōkūala Resort (formerly Kaua'i Lagoons)
 - Koa'e Affordable Housing
 - Kōloa Village
 - Kilauea Lighthouse Village and the associated Ala Namahana Parkway reconstruction.
 - Kukui'ula Kula Makai (Parcel A) Subdivision (S-2013-16)
 - Kukui'ula Major Project Road (Ala Kukui'ula) Phase 3
 - Kukui'ula Manuhonuhonu Borrow Site, phase 3
 - Kulana Subdivision restart (S-99-49)
- Construction Section completed inspection of the following major subdivisions or projects:
 - 'Ele'ele Iluna Subdivision, Phase II, Increment 2 (S-2006-49)
 - Puakea Subdivision, Phase I (S-2006-27)
- The following permits have been issued, inspected, and/or closed out:
 - Grading Permits
 - Issued: 29
 - Inspected and closed out: 21
 - Road Permits
 - Issued: 27
 - Inspected and closed out: 3
 - Driveway Permits
 - Issued: 98

BUILDING DIVISION

Douglas Haigh, Building Division Chief

I. MISSION STATEMENT

The Division of Buildings is responsible for code enforcement and facility development. All programs are responsible for providing the people of Kaua'i with safely constructed public and private facilities.

II. DIVISION GOALS

- A. To develop new facilities and replace old, dilapidated, overcrowded buildings and structures.
- B. To ensure compliance with the minimum construction standards contained within the current Kaua'i County Code and referenced building trade codes.
- C. To continually update the Kaua'i County Code to reflect the latest industry standards, changing technologies, and local conditions.
- D. 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.

III. PROGRAM DESCRIPTION

Administration

The Building Division's Administrative Section manages facility development and construction. The Section also oversees the Building Codes Enforcement Section.

A. Objective

The Administrative Section is currently tasked with the development of new facilities for the Fire Department, Police Department, Department of Finance, and the Parks and Recreation Department.

B. Highlights

Design/Build construction ongoing for the Līhu'e Town Core Mobility and Revitalization Project. Construction completed for the Kaua'i Adolescent Treatment and Healing Center.

Other major projects for which the Section is providing planning, design, and construction management work include Piikoi Building Renovation, Kapa'a Police Substation, Līhu'e Kaua'i Police Athletics League building, Kaua'i Fire Department Helicopter Hangar, Kaua'i Police Evidence Warehouse

Mezzanine, Kalaheo Gymnasium Re-Roofing Project, Līhu‘e Town Core Mobility and Revitalization Project, Lydgate-Kapa‘a Bike/Pedestrian Path, Ahukini-Lydgate Bike/Pedestrian Path, Kuna Bay-Anahola Bike/Pedestrian Path, the Nāwiliwili-Ahukini Bike/Pedestrian Path.

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.

A. 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.

B. Highlights

The Building Division has continued to place emphasis on its electronic plan review (EPR) system.

The Building Division continues to give the highest priority for plans submitted electronically. Paper plans are still accepted for smaller projects that do not require professional design services.

The Building Division processes all Board of Appeals applications and coordinates meetings with the seven members of this commission.

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. BUDGET BY PROGRAM

ADMINISTRATION & FACILITY DEVELOPMENT

Equivalent Personnel (includes 3 \$1.00 funded positions)	6
Salaries & Wages	\$ 502,000
Operations	\$1,366,000
Equipment	\$ 0
PROGRAM TOTALS	<u>\$1,868,000</u>

BUILDING CODES ENFORCEMENT

Equivalent Personnel (Includes 4 contract hires)	19
Salaries & Wages	\$1,426,000
Operations	\$ 4,554
Equipment	\$ 0
PROGRAM TOTALS	<u>\$ 1,431,000</u>

V. PROGRAM MEASURES/EVALUATION

BUILDING CODES ENFORCEMENT

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

	FY 2018	FY 2019
Residential	19	25
Commercial	56	40
Code Enforcement Inspections	FY 2018	FY 2019
Building Code Inspections	7,632	4,638
Electrical Code Inspections	4,884	4,952
Plumbing Code Inspections	6,296	5483

<u>Sign Inspections</u>		<u>27</u>
Total Code Inspections	18,839	18,839
Code Permits Issued	FY 2018	FY 2019
Building Code Permits	774	1,407
Electrical Code Permits	1,367	2,020
Plumbing Code Permits	1,139	1,057
Sign Code Permits	449	396
<u>Photovoltaic/Solar</u>	<u>383</u>	<u>743</u>
Total Code Permits Issued	4,112	5,623
Building Permit Valuations	\$269,720,265	\$244,201,413

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 Section. New facilities for the Police Department, Fire Department, improvements to Līhu'e Civic Center, Kaua'i Adolescent Treatment and Healing Center, and Līhu'e Town Core Mobility and Revitalization Project are being worked on.

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.

DIVISION OF ROADS

Ed Renaud, Chief of Field Operations and Maintenance

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

- A. To make County roadways and bridges safe for public use.
- B. To anticipate and address road, bridge, drainage and levee needs.
- C. To make the best and most efficient use of the Division's resources.

D. To improve internal and public communication.

E. To instill pride in the jobs that we perform

III. PROGRAM DESCRIPTION

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 310.1 miles of roads: 307.9 paved and 2.2 unpaved. Notes: Private roads are not managed by Roads Division

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. During times of emergency disaster declarations, Roads Division forces responds to the immediate safety needs of the people in the hard hit areas.

HIGHLIGHTS

- Drafted Cleaning and Maintaining County Right of Way ORDINANCE, sent County Engineer for review, then to County Attorney and Mayor. Sending to County Council has been put on hold.
- FourWinds Group with M.PET (Maintenance Productivity Enhancement Tool) MMIS (Maintenance Management Information System) Program. Working with Roads Field Operation Staff to post completed jobs.
- iWorQ's Pavement Management Program has GIS Mapping and improved budget reporting capability. Latest pavement condition survey/collection took place September 2016, next pavement condition survey/collection to take place in 2019.
- Another successful annual Maluhia Road Tunnel of Trees vegetation control and ground maintenance cleanup of the "Gateway to the South Shore" by the community, Hotel Association and County Crews. This was in preparation for Kōloa Plantation Days.
- During April 2019 Flooding (RAIN), Roads Division responded to immediate safety needs in the areas of: Wainiha Powerhouse Road; Ala Eke, Ananalu, Anahulu, Hanalei (especially Weke Road); Kalihiwai Ridge; Kapaia Bridge; Wailaau Road/Waihohonou Stream; Kōloa Town.

IV. BUDGET

Fiscal Year Ending June 30, 2019

Division/Expense Type	Budget	Actual + Encumrances	\$ Variance	% Variance
Roads Division	18,775,818	17,998,949	776,869	4.14%
Employee & Related	8,245,357	8,130,898	114,459	1.39%
Utilities, Insurance, Fuels	1,349,918	1,091,932	257,986	19.11%
Training, Travel	12,551	3,941	8,610	68.60%
Services, Dues, Consult., Grants	5,448,080	5,149,870	298,210	5.47%
Other Operating	901,179	866,881	34,298	3.81%
R&M, Facilities, & Equip.	1,818,732	1,755,426	63,306	3.48%
Claims, Rental, Loans, Debt Svc.	1	0	1	100.00%
Indirect Cost	1,000,000	1,000,000	0	0.00%

PERSONNEL

- 1 - Chief of Field Operations & Maintenance
- 1 - Assistant Chief of Field Operations & Maintenance
- 1 - Civil Engineer VI
- 1 - Administrative Services Assistant

- 3 - District Road Overseer (Hanapepe, Kapa'a, Hanalei)
- 3 - Field Operations Clerk (Hanapepe, Kapa'a, Hanalei)
- 2 - Highway Construction & Maintenance Supervisor II (Hanapēpē, Kapa'a)
- 6 - Highway Construction & Maintenance Supervisor I (Hanapēpē 3, Kapa'a 2, Hanalei 1)
- 1 - Equipment Operator IV (Hanapēpē)
- 4 - Equipment Operator III (Hanapēpē 2, Kapa'a 2)
- 12 - Equipment Operator II (Hanapēpē 4, Kapa'a 4, Hanalei 4)
- 4 - Equipment Operator I (Hanapēpē 2, Kapa'a 1, Hanalei 1)
- 4 - Tractor Mower Operator (Hanapēpē 2, Kapa'a 2, Hanalei 1)
- 1 - Baseyard Attendant (Hanalei)
- 2 - Laborer Working Supervisor (Hanapēpē 1, Kapa'a 1)
- 16 - Laborers (Hanapēpē 7, Kapa'a 6, Hanalei 3)

- 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

- 1 - Traffic Signs & Markings Helper
- 2 - Traffic Signs & Markings Laborer
- 77- Total Personnel**

V. PROGRAM MEASURES/ACCOMPLISHMENTS

- C9663 MKB (IWRR 2018) Completed repairs for Kaapuni Road on May 21, 2019. Will return to do overlay of Kaapuni Road after DoW completes their work in August. Change Order # 3 for Kaapuni, Hardy, and Haleko processed. Change Order #4 for Ala Kinoiki portion 1 repairs executed. Processing Change Order #5 for Kapa'a parks parking lots at Kapa'a NC and Kapa'a Beach Park...purchasing requested OCA approval and OCA has approved. But funding clearance req226176 was cancelled & will have to do new on July 8, 2019.
- C210689 MKB (IWRR 2019) Contract executed. Drafted Notice to Proceed and Pre-Con Agenda.
- C9666 GPRS (IWCFSS 2018). Contractor's supplier submitted sealcoating sample that failed lab test for specification compliance. Requisitions for second emulsified sealer testing by 2 different labs (1st for Quality Control and 2nd for Quality Assurance) done and POs issued. Labs notified, & GPRS told to inform their supplier where to send test samples.
- C210507 DMK (IWCFSS 2019) Contract executed. Requested to turn in complete project schedule. Drafting NTP and notice of Pre-Con but holding for complete project schedule.
- C9771 (Repair & Repaving of Kuawa Road) Cost of proposed changes from Common Ground determined and sent to Common Ground. Roads will coordinate C9771 contract and contract work between Maui Kupono and Common Ground. Waiting for overall schedule from Maui Kupono.
- Hanapepe and Waimea Levees United States Army Corps of Engineers Annual Inspections achieved passing grades. Sent request for quotes (Ajar; Aqua Engrs; Oasis Water Systems; ITC Water Management) for video camera inspection of drainage structures in levees.
- 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.
- Open End Contract for FY2020 Pavement Repair at Various Locations has been drafted and sent to Purchasing for preliminary Review. July 8 when funds are available, will process Fund Clearance..
- Final 2020 Road Recon completed. Final 2020 IWRR & IWCFSS road list to be submitted.
- NOTE: Requesting a full-time position for Engineering Support Technician III and two (2) part time contract positions a Project Manager and Construction Inspector.

DIVISION OF WASTEWATER MANAGEMENT

Jason Kagimoto, P.E., Chief of Wastewater Division

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

- A. Protect public health, safety, and the environment through the efficient operation and maintenance of County wastewater systems.
- B. Comply with all permit conditions and applicable regulatory requirements.

III. PROGRAM DESCRIPTION

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. 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 sewer systems in full compliance with permit conditions and environmental requirements, including regulation of wastewater discharges into the County's sewer 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 promote public awareness of the activities of the Division.

B. 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 income-qualified customers' sewer bill discounts.

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. Current rates were established via a Wastewater Rate Study completed in 2010, with scheduled annual rate increases through July 1, 2014. During FY 18-19, progress was made on a new rate study.

- **Planning and Plan Reviews.** Planning efforts include management planning for Division operations and development of CIP projects to implement capital improvements. Major planning studies were last completed in 2008 with an 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.

Operational planning uses the Division's asset management software for scheduling and documenting maintenance activities and requirements. Recently, the asset management software 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 18-19 design activities included upgrading the Wailua WWTP's effluent disposal approach, which is to expand reuse and add a disposal method at the Wailua Golf Course. This will allow the County to only use the existing ocean outfall for emergency purposes. In addition to this

project, an environmental assessment (EA) is being performed to include the upgrades being performed for the Wailua WWTP.

In addition to new design projects, progress was made on three existing design projects: the Wailua WWTP Process, Electrical and Disinfection Improvements, Phase 2 project; the Waimea WWTP R-1 Water Storage and Distribution System; the Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation; and the Wailua SPS No. 3 Rehabilitation. The Waimea project is partially funded by a U. S. Environmental Protection Agency (EPA) grant, with matching County funds. Other design projects are County-funded.

- **Construction of Capital Improvements.** During FY 18-19, the Division had one major CIP project under construction, the Improvements to Existing Hanamaulu and Kapaia Wastewater Pump Stations. This project cost \$3.5 million and is anticipated to finish in the winter of 2020. This project is funded by the State of Hawai'i via a Clean Water State Revolving Fund (CWSRF) loan administered by the Department of Health, Wastewater Branch (DOH WWB). Construction work that will be performed during FY 19-20 includes the Līhu'e WWTP Process Improvement Project, which costs \$3.8 million and is anticipated to finish in November 2021, and the Waimea WWTP UIC Well Cleaning Project, which costs \$78,000. The Līhu'e WWTP Process Improvement Project will be funded by the State of Hawai'i via a CWSRF Loan. The Waimea WWTP UIC Well Cleaning Project will be funded by the County.

Project funding for larger projects continues to be derived primarily through the State of Hawai'i DOH WWB administered CWSRF Loan Program, which provides low-interest loans for wastewater infrastructure projects.

Wastewater Collection and Treatment Facilities Program

The Wastewater Collection and Treatment Facilities Program is 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 preventative 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 WWTPs and twenty pump stations and periodic cleaning and maintenance of the sewage collection systems. Wastewater personnel also routinely respond to after-hour trouble calls generally initiated by the County's Supervisory Control and Data Acquisition (SCADA) system or police dispatch.

The Division also routinely provides equipment and manpower support to other County agencies such as the Solid Waste and Roads Divisions of the Department of Public Works and the Department of Parks and Recreation. There are many situations where our knowledgeable staff and specialized equipment, such as our Vactor truck, pumper truck, crane and camera system, are highly

useful to assist other agencies with their operational needs.

A. 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. Highlights

- **Personnel Safety and Training.** The County seeks to provide for our operating personnel monthly on-island continuing education opportunities on a variety of topics relevant to operation of wastewater systems. The program offers Continuing Education Units (CEUs) needed for our operators to maintain their licensing.

One of the training programs used by the County is the University of Hawai'i (UH) program, which provides the curriculum, on-island training opportunities and CEUs from the program formerly run by the Statewide Wastewater Operator Training Program. In addition, the County receives training from the Hawai'i Rural Water Association. 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, twenty SPSs and approximately 50 miles of sewage collection system comprise the majority of the Division's activities, assets, equipment and staff resources. Of the Division's 37 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 WWTP. In addition, the plant operators are supported by 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 Wastewater Operations Superintendent and Program 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 projects to address ongoing equipment maintenance for wastewater treatment plants and sewage pump stations. Typical projects include replacing 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 WWTP operation, management of biosolids (i.e. sewage sludge) and monitoring effluent and receiving water quality. Effluent is reused as irrigation water (e.g. Wailua, Līhu'e and Waimea WWTPs) and/or disposed via injection wells (Waimea, 'Ele'ele and Līhu'e WWTPs) or an ocean outfall (Wailua WWTP). 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 DOH. Annually, the DOH performs inspections of plant operations to document the status of all required activities for each plant.

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

The permits for the County's Underground Injection Control (UIC) injection wells are issued by the DOH Safe Drinking Water Branch (SDWB). UIC permit conditions include monitoring and reporting requirements, including injection well status reports which the County contracts with an engineering firm to complete. UIC sampling as required by the permit is performed in-house where possible. For tests that cannot be done in-house, they are contracted to a private laboratory.

The National Pollution Discharge Elimination System (NPDES) Permit for the County's Wailua WWTP ocean outfall is issued by the DOH Clean Water Branch. NPDES sampling as required by the permit is performed in-house where possible. For tests that cannot be done in-house, they are contracted to a private laboratory. Monitoring reports are also prepared in-house.

Annual biosolids reports are also created for all 4 WWTPs.

IV. BUDGET

All revenues for the Division's routine program costs are from sewer user fees. Approximate program costs (rounded) from the FY18-19 budget are summarized for the Division as a whole, including administration and operations.

OPERATIONAL COSTS

• Equivalent Personnel Positions	37
• Wages and Other Direct Costs	\$3,924,000
• Operations (Equipment, Supplies, Vehicles, Etc.)	\$1,124,000
• Utilities (Electrical, Water, Gas, Telephone)	\$1,801,000
• Contracted Services (Repairs, Laboratory, etc.)	\$1,665,000
• Debt Service	<u>\$1,730,000</u>
PROGRAM TOTAL	\$10,244,000
OPERATIONAL REVENUES	

Estimated FY 18/19 Revenues \$ 9,000,000

V. ACCOMPLISHMENTS/EVALUATION

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 CIP activities.

During FY 18-19, 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 the Department of Public Works administration and the Department of Human Resources.

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.

Wastewater Collection and Treatment Facilities Program

Facility operations continue to meet most or all program measures. During FY 18-19 the Wastewater Division did not experience many significant weather-related challenges. However, there was one significant sewage spill on Kuhio Highway near Wailua River as a result of a failed/collapsed sewer line. 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 cleanup and mitigate sewage spills and to operate the treatment plants within operational parameters.

VI. STATISTICS

• CIP Projects Under Construction	1
• Total Number of Sewered Units	5,574
• Bills Processed in FY 18-19	25,856
• Number of Customers Receiving Sewer Credit	470
• Spills Reportable to the DOH	2
• Wastewater Received and Treated (avg./day)	2.2
• Wastewater Reused (avg./day)	1.0
• % of Wastewater Reused	45
• DOH acceptable inspections	1
• DOH unacceptable inspections	2

DIVISION of SOLID WASTE MANAGEMENT

Rick Renaud, Acting Chief of Solid Waste

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

- A. Maintain a balance of reliability, efficiency, and cost effectiveness for County solid waste disposal and diversion programs.
- B. Identify and implement appropriate integrated programs to divert solid waste from the County landfill.
- C. Conduct County solid waste management programs and operations in accordance with applicable government regulations.
- D. 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.

- E. Keep abreast of new technologies to maintain a modern and cost effective solid waste management system for the Island of Kaua'i.

Duty and Function

The County of Kaua'i, Division of Solid Waste Management (DSWM) plans and implements 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

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.

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 within regulatory requirements.
- Maintain staff training and safety regulations

B. Highlights

RAIN18 Continued to provide assistance to the north shore community. From July 2018 through May of 2019 the the DWSM the Kepuhi temporary transfer station (Kepuhi Site) was operated under an emergency declaration for RAIN18. At the time the site was utilized, roads and bridges were under repair north of Hanalei, and traffic was shuttled in caravans. The Kepuhi Site allowed residents to manage their green waste, bulky items, scrap metal, and appliances during this time when traveling to the Hanalei Refuse Transfer Station to drop these items was extremely difficult and time consuming. The Solid Waste Division provided curbside refuse collection during this time, so the site did not accept mixed household waste. Hired contractors to haul the following quantities of materials: 10,142 cubic yards of green waste for composting; 1,770 cubic yards of bulky and mixed waste; 520 cubic yards of metals and appliances. Worked with FEMA and HIEMA to get reimbursement for this project and other emergency work performed in FY18 under RAIN18.

Disposal Quantities and Airspace The Kekaha Landfill Operation accepted and buried 91,261 tons of municipal solid waste during Fiscal Year 2019. This figure includes solid waste from residential and commercial sources. This is an increase of 3,545 tons from the previous fiscal year.

The landfill tip fee for commercial customers is currently \$119 per ton, effective July 1, 2014. The 2019 Annual Operating Report for MSW Landfill Phase II prepared by Waste Management in July 31, 2020 indicates that the Airspace Utilization Factor (tons/cy) is .63 which is the same as the prior year. This factor compares the tons of solid waste received at the landfill versus the volume consumed. More efficient compaction and daily cover operations contribute to this success.

All Hands Meetings Environmental Services Management Engineer, Zahid Khan spearheaded half day “All Hands Meetings” with all Operations field staff on 3/18/19 and 4/12/19. The purpose was to engage staff increase communication between operations and admin, as well as build teamwork in each operations section. Admin provided presentations, performed ice breakers, breakout sections, employee recognition, and obtained feedback on best practices and challenges in the field. Developed a summary of staff comments along with action plans for responding to comments were disseminated to all field staff. These meetings build morale. Many employees said they had never had the opportunity to engage with SW Admin and be heard.

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	Total MSW	Tonnage
<u>RTS Location Received FY19 (Tons)</u>		<u>Change from FY18</u>
Hanapepe	7,956	-1,220

Līhu'e	15,572	+444	
Kapaa	9,158		+664
Hanalei	6,561		+302

- Continuing to conduct new Best Management Practice upgrades for storm water runoff. Commenced a contract with JACOBS (formerly CH2M) to provide conceptual design for upgrades to the RTSs for storm water compliance. This will be funded by a loan from the State Revolving Fund from the DOH Clean Water Branch (CWB).
- AECOM has been contracted for another year to provide the County of Kaua'i storm water testing at all the transfer station sites. Services related to compliance with the National Pollutant Discharge Elimination System (NPDES) general permit.
- Refuse Collection at County Facilities. . Provide refuse collection at County facilities continued with the Semi-Automated Refuse Collection operation, consisting of a one-man operation using the single axel side-loader refuse collection truck and refuse carts. The weekly collection route includes pickup of a small number of residential customers not accessible by the larger double axel side loader refuse collection truck.
- Refuse Collection at County Bus Stops. A two-man crew is utilized to provide service County bus stops.
- Island-Wide Automated Curbside Refuse Collection.
 - Automated Refuse Collection. TAs of June 30, 2020, the refuse collection program had 21,000 residential collection accounts and 225 business accounts, including Transient Vacation Rentals. Customer choice of cart size includes 96 and 64 gallon options. This operation is supplemented by a 'Modified Manual Refuse Collection crew servicing customers on Mondays, Thursdays and Fridays, throughout the island from Kekaha to Haena. The Modified Manual Collection crew utilizes the small rear loader truck fitted with a cart tipper and three solid waste workers (driver plus two men to position carts) to service approximately 1,237 carts per week.
- Heavy Equipment Purchases Budgeted in FY19
No heavy equipment was budgeted this FY.

Integrated Solid Waste Management Plan (ISWMP)

Per HRS 342G-24 (2) Counties shall submit revised ISWMP to the State DOH every 10 years. The current ISWMP was Adopted by Council Resolution in 2009. We will be soliciting for Professional Services to update the plan next FY.

Waste Diversion Programs

These 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

- Pay As You Throw (PAYT) In July 2015, Kaua'i became the first County in the State to institute a "Pay As You Throw" variable rate for refuse collection ordinance. Kaua'i is the only County with such a program. Under this rate structure, customers can get weekly refuse collection and chose a 64 gallon refuse cart for \$10 per, or a 96 gallon refuse cart for \$18 per month. If customers opt out of refuse service, the base assessment still applies at \$6 per dwelling per month; this base fee is imbedded in the \$10 and \$18 collections fees and is not in addition to these fees.
 - The RRCA revenue for FY19 was approximately \$3.565 million for 21,000 parcels. The RRCA program revenues have increased about \$37,000 from the prior year.
 - The RRCA fees are collected through Real Property Tax Collection, which is a massive administrative assistance to the division. However, the Billing Section of DSWM manages all other aspects of the RRCA program including customer notifications, education, commencement of service, changes in service, cancellation of service, cart deliveries, retrievals, repairs and switches, and manual refunds.
- Processing of Commercially Generated Recyclables
 - Continued to contract Garden Isle Disposal (GID) to accept and process commercially generated recyclables at their facility. GID is the only permitted recycling facility on island with the capacity to bale and ship recyclable materials to market. The Contract provides a recycling drop point for non-HI5 recyclables that are self-hauled businesses, as well as HI5 containers generated by Certified Redemption Centers. This Contract allows businesses to adopt recycling programs and comply with the landfill restrictions on commercial cardboard. It also enables Certified Redemption Centers throughout the island to operate.
 - Contract 9518 has 3 year term with 2 one year options to extend by mutual agreement between the parties. This is the second year of the contract.
 - The annual tonnages for each recyclable collected under the program are as follows:
 - Corrugated cardboard: 3,232 tons
 - Mixed Paper: 149 tons
 - HI5 Glass: 1,505 tons
 - Non-HI5 Glass: 422 tons
 - Aluminum: 167 tons

- HI5 Plastic: 339 tons
 - Non-HI5 Plastic: 2 tons
- Annual Total – 5,963 tons**

- Home Composting

- 314 Earth Machine Home Composting Bins were distributed to Kaua'i residents this FY free of charge. An increase of over 100 bins from the previous year.
- The main distribution point is at the Kaua'i Resource Center. Residents watch a brief training video to obtain a free bin. An addendum to the video has been uploaded to assist residents with common issues with bin setup and proper compost management. 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.
- Satellite distribution continues with Kaua'i Worms in Kīlauea. The company distributes bins at the Anaina Hou Community parks Farmer's Market where they also market their vermiculture kits. This service allows distribution of the bins to north shore residents that do not want to drive to Līhu'e. Residents will be required to watch the training video online on the County's composting website www.Kaua'i.gov/composting.
- We received 868 additional bins in FY 2018. The price per bin was \$47.45 including shipping. This purchase should last until FY 2021.
- A survey was conducted in FY 2017 and sent to over 900 valid emails collected through the Home Composting program. The response rate was significant at 34.1%. With 93.65% of the respondents reporting they were happy with the functions of the Earth Machine Home Composting bin and 86.2% rated the system good or excellent. 86.2% said County education was good or excellent, while 87.2% think we should invest tax dollars in more bins.
- We hope to conduct an updated survey soon, but staff time constraints have limited this option.
- Each bin diverts an estimated average of 2,039.63 lbs. of food and yard waste per year. This is our most economical waste diversion program at an estimated cost of \$4.65 per ton over the 10 year life of the bin. This program requires no hauling or processing and is by far our least expensive waste diversion program.

- Kaua'i Recycles Residential Recycling Program

- Continued to manage Contract 9748 with GID which has a 5 year term and ends 12/14/23. Under this contract, the County pays a flat monthly fee for rental and maintenance of recycling drop bins, hauling of the bins, cleaning of the sites, and processing of the recyclables.
- There are eight (8) drop bins located throughout the island for residents to deposit source separated recyclables into the following categories:
 - Aluminum food/beverage cans, foil plates/pans, steel food cans.
 - Glass bottles and jars,

- Corrugated cardboard
 - #1 & #2 plastic bottles and jars (no trays or clamshells)
 - Mixed paper including junk mail, food boxes, magazines, phone books, newspaper, office paper, kraft paper bags, etc.
 - Bins are hauled on a frequency that accommodates public use. Sites with heavy traffic such as Hanalei, Kapa'a, and Līhu'e are hauled more than 8 times per week, and sites with lower traffic are hauled approximately every other day. The County tracks overflow of bins, illegal dumping, and other issues and notifies the Contractor of any problems.
 - The annual tonnages for each recyclable collected under the program are as follows:
 - Corrugated cardboard: 940 tons
 - Mixed Paper (incl. newspaper): 675 tons
 - Glass: 318 tons
 - Aluminum: 0.32 tons
 - Steel: 77 tons
 - Plastic: 406 tons
 - County Office Paper: 72 tons

Annual Total – 2,188 tons
 - Due to China's rejection of recyclables worldwide in January 2018, GID was unable to market plastic trays and clamshells collected under the program. Last FY, SW announced the program change to only accept #1 and #2. Signs on the bins were changed, but the public had been slow to change their habits. This year we developed image based signage for the plastic bins, clearly displaying the items that are acceptable and not acceptable. While this has helped reduce contamination, there are many "aspirational" recyclers who deposit non-recyclable plastic in the bins in hopes that it will somehow get recycled.
- Advance Disposal Fee (ADF) Glass Recovery and Recycling Contract
 - As in FY 2018 the County will forfeit ADF glass funding due to the funding level provided by the State which is not sufficient to cover all costs involved in receiving, processing, and managing a buy-back/recycling program as required by the Department of Health. Our unused funds will be distributed to other Counties to provide assistance where needed.
- Food Waste Reduction
 - Created a Food Waste Diversion web page with educational tips and information on how businesses and residents can divert food waste.
- Deposit Beverage Container (DBC) Program
 - **Overview:** The State Department of Health provided annual funding under ASO Log 19-024. The total program budget was \$260,918.64. The contract supports local administration of the Deposit Beverage Container (DBC) program. The contract covers essential services including the funding of two County staff positions. These positions monitor retailers, Certified Redemption Centers (CRC's), the

- contracting of two mobile CRC's in Kōloa and Kekaha, the lease of space for a CRC in Kekaha, educational outreach, technical recycling assistance, and provide administrative functions.
- **Duties:** HI5 Recycling Specialists perform island-wide compliance inspections of retail outlets selling beverage containers at a rate of 20 per month. They also conduct 4 Certified Redemption Center (CRC) inspections per month. Technical recycling assistance is provided to businesses upon request.
 - A total of 16 park inspections were performed in July 2018. During these inspections repairs are made to HI5 Recycling bins and updates. Numerous damaged bins were replaced at the island's most popular parks such as Salt Pond beach park and Po'ipū beach park.
 - **Redemption Centers:** There are currently 6 CRC operations throughout the island, of which, 3 are privately operated and 3 are contracted by the County.
 - Kaua'i Community Recycling Services continue to provide service in Kekaha on Wednesdays and Saturdays from 8 am to 4 pm and at the Kōloa Fire Station on Thursdays and Sundays from 8 am to 4 pm. The event cost is funded under the State Grant. At the Kekaha mobile events, the contractor serviced 6,850 customers and a total of 7,113,724 containers were redeemed (3,618,769 aluminum cans, 1,023,619 glass bottles, 2,452,619 plastic bottles and 18,863 bimetal containers). At the Kōloa mobile events, the contractor serviced 7,766 customers and a total of 7,024,921 containers were redeemed (3,480,404 aluminum cans, 1,134,909 glass bottles, 2,358,902 plastic bottles and 50,705 bimetal containers).
 - 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. Towards the end of FY19, the County learned that the lease on the Kekaha CRC site would not be renewed for FY20, therefore the County worked toward identifying and obtaining approval from an alternate site at the Kekaha Neighborhood Center, which was managed by the County Parks Department.
 - During the FY, several CRC locations were impacted by unscheduled closures due to staffing issues and unforeseen weather conditions. Overall, there were closures or decreased services for seventeen days in FY 2019.
 - The County had issued Notice of Award to Reynold's Recycling LLC on November 28, 2018. Under the contract Reynold's will pay the County \$208 a month to rent the Kaua'i Resource Center space and will also pay the property taxes. Reynold's closed their site at Nawiliwili Harbor on March 30, 2019 and were relocated to the Kaua'i Resource Center on April 4, 2019. A news release was issued for the relocation of the site and the County provided the directional aluminum signage and banners. The vendor serviced 3,266 customers for a total of 2,780,044 containers were redeemed (1,374,402 aluminum cans, 439,027 glass bottles, 948,792 plastic bottles and 17,823 bimetal containers) in FY 19 at this location.
 - **Educational Outreach:** Onsite educational presentations are conducted upon request. Throughout the period, 9 presentations were

conducted, reaching a total of 188 students in Kindergarten thru Eighth grade classes. HI5 program information is the focus of these presentations and slight modifications are made for each presentation based on the age of the students and the needs of the classes.

- County Fair: Staffed a Recycling Education booth at the Kaua'i County Farm Fair August 16 through August 19, 2018. Approximately 1,400 people visited the recycling booth during the course of the fair. Recycling Specialists interacted with and educated residents about the HI5 program and recycling on Kaua'i utilizing a variety of activities and promotional items. The Farm Fair Report is available upon request.
- **Other programs:** Staff managed various HI-5 recycling bin programs throughout the year including: HI5 bins for all County parks and neighborhood centers, HI5 bins for schools or non-profits to be used for their HI5 collection activities, bins for use in business break rooms, HI5 bins for retailers and HI5, trash and compost bins that can be loaned out for special events. Thirty events were conducted with 283 recycling bins, 80 trash cans, and 7 compost bins utilized for short term use. A total of 6 slim jim bins were distributed for business break rooms.
- **Training:** The two HI5 Recycling Specialists received approval for a two-day visit to Oahu on 9/14-15/18 to visit various waste diversion locations and to meet with DOH and City and County of Honolulu to learn more about the various programs that are available and how it impacts the DBC program.
- **Statistics:** According to the latest published State annual report, the statewide redemption rate for HI5 DBC recycling was 61% (FY 2019).
- **Outlook:** Funding for FY 2020 has been secured. The majority of the scope of services remains the same.
- **Household Hazardous Waste (HHW) Collections**
 - The County contracts with EnviroServices and Training Center to perform bi-annual HHW collections at 4 locations. Collection events took place at the Anaina Hou Community Park in Kilauea, Hanapēpē and Kapa'a Baseyards, and the Kaua'i Resource Center in Līhu'e this FY. Only one events was held on January 26 & 27, 2018 with a total of 139.
 - The next HHW collection events are scheduled for July 13 and 14, 2019, and January 18 and 19, 2020.

Item	January 2018
Automotive Batteries,	1,400 lbs.
Lithium Batteries,	200 lbs.
Household Batteries,	450 lbs.
Oil Base Paints, & Ingnitables,	6,400 lbs.
Toxic Liquids,	2,400 lbs.
Corrosive Liquid, Acid,	800 lbs.

Corrosive Liquid, Basic,	800 lbs.
Mercury	4 lbs.
Oxidizers	40 lbs.
Organic Peroxide	40 lbs.
Fluorescent Lamps/Mixed Bulbs	290 lbs.

- Processing of Junk Vehicles, White Goods (Appliances), and Scrap Metal
 - Resource Recovery Solutions Operations (RRS) continued to provide service at the Puhi Metals Recycling Center under Contract 8930 and now Contract 9718 (see below). Under this contract, 4,994 tons of metals was collected and processed including white goods, scrap metals and autos. RRS service includes removal of tires, batteries, oil, fuels, and other liquids, and the compaction and transport of metals to market as well as eWaste collection for shipment to Certified Recyclers who carry R2 or e-steward certifications, and the collection and processing of propane tanks from County Refuse Transfer Stations. The breakdown of items collected was as follows: 1,639 autos processed, receipt of 1,410 loads of scrap metals, acceptance and processing of 4,551 large appliances without Freon, 3,863 large appliances containing Freon.
 - RRS continues to charge commercial fees for businesses. There have been negative feedback from tow truck operators who now pay a \$60 fee per vehicle they bring in without paperwork submitted from a resident.
 - Contract 8930 has an initial term of 5 years and is scheduled to terminate in May 2018. The County extended the contract to fiscal year 2019 at a new price point of \$78,000 for the months of June and July. This allowed funding to be allocated for a new metal recycling contract. Contract 8930 expired on July 31, 2018, and Contract 9718 began August 1, 2018 and has a term of 10 years. Contract 9718 now explicitly includes eWaste and propane tank processing including the pick-up of propane tanks from County Refuse Transfer Stations. The cost for the new contract is \$936,000 per year an increase of \$336,000 per year over contract 8930. The price increase was necessary to allow the contractor to continue servicing Kaua'i Residents free of charge and provide recycling services to businesses at a cost.
 - Metals recycling prices continue to stagnate exacerbated by the shutdown of China markets for scrap metal.
 - With the increased fee structure RRS has agreed to waive fees for residents that cannot complete a Junking Affidavit for vehicles up to three times a year. RRS is implementing stricter policies to prevent abuse of the program by unauthorized peoples and businesses.
- Clean Up of Puhi Metals Site
 - DOH has agreed to the County proposal to use the soil as select waste for the operations layer of the Cell 2 expansion. Soil removal is scheduled for FY 2020.

- Household Battery Recycling Program
 - The County hosts a residential battery collection program at the Kaua'i Resource Center (KRC) in Līhu'e. Batteries are accepted Monday through Friday from 7:45 am to 4:15 pm. Batteries collected through the program are regularly hauled offsite during the bi-annual Household Hazardous Waste (HHW) events as noted below.
 - 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 January 27, 2018 Enviro Services and Training Center, LLC accepted and hauled batteries in conjunction with the HHW collection events. Three (55-gallon) drums of Alkaline (dry cell) batteries; one (55-gallon) drum of NiCad batteries (13.75 gallons full), and one (55-gallon) drum of Lithium batteries, (27.5 gallons full). Batteries were transported to Total Reclaim, LLC in Seattle, Washington.
 - Contamination and un-taped 9 volt batteries continue to be an issue, as well as unauthorized use by businesses.

- Plastic Bag Reduction Law
 - We continue to enforce the Ordinance based on customer and retailer complaints.
 - The Recycling Office staff still recommends revisions the Plastic Bag Reduction language in the County Code. There is a need to modify the code for "housekeeping" purposes. Recommended modifications to the ordinance include:
 - incentivize the use of reusable bags by mandating a minimum fee for paper bags. Store owners could keep the bag fees to support the cost of 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.

- Polystyrene Ban
 - Councilmember Chock wanted to propose a Polystyrene ban at the beginning of FY19, and requested PW review of the draft Bill. The Bill was not supported by the administration at that time.

- Electronics Recycling (eWaste Recycling)
 - The State Department of Health (DOH) has re-implemented funding to all counties for the management of eWaste material. In April of 2018

we received \$45,000, and in FY 19 we received \$160,000. The funding will be used to support the eWaste collections as described below and to conduct radio and news ads promoting recycling, as well as to pay for County administrative costs to run the program.

- The Metals Recycling contract 9718 specifies eWaste recycling as part of the materials to be managed by Resource Recovery Solutions at their Puhi Metals Recycling Facility. Contract 9718 is fully funded by the County without State grants.
 - Puhi Metals agreed to conduct mobile collection of eWaste under contract 9733. The contract also stipulates greater tracking of Covered Electronic Devices and Televisions as well the submission of Certificates of Recycling from R2 and e-steward certified facilities.
 - Mobile collections now occur once a month in Kilauea at the Anaina Hou Community Park on the last Sunday of every month, and at the Hanapepe Base Yard parking lot the last Saturday of every month.
 - Contract 9733 is fully funded through the State Department of Health eWaste grant.
 - Resource Recovery Solutions has recycled approximately 122 tons of eWaste 29 tons less than FY 2018.
 - RRS no longer ships material to IMS Electronics Recycling in Vancouver, WA. RRS now coordinates with the County's previous eWaste contractor T & N Computer Recycling Services to source certified end destination recyclers.
 - T & N has had issues throughout the year sending in all the required documents for the State grant. The documentation comes from Electronic Recyclers International Inc. which receives material on a first come first served basis which means that material could take months to be processed as there are many electronic recycling facilities that have closed due to stricter enforcement of the R2 and e-Steward certifications that require that material does not go to developing countries as an end destination for material.
 - The lower tonnage of material could be attributed to the reduction in weights of eWaste devices and the previous recycling of bulky material such as CRT televisions.
 - Throughout the year attendance at the mobile collection events have been very sparse. We will continue them in to FY 2020, but if attendance is still low we will consider cancelling these events and redirect funding to a more worthwhile endeavor.
- 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, and green waste. The SWMD has developed and implemented policies and procedures for enforcement of this law. At this time, the focus is to educate haulers and generators about compliance instead of penalizing them.
 - During FY 2019, no loads were flagged as non-compliant. The SWMD conducted follow up investigation and education with the non-compliant generators to prevent future violations.

- Green Waste Diversion
 - The County contracts our green waste processing to three State Permitted composting facilities throughout the island. We manage C9437 with Heart and Soul Organics, C9438 with Shredco, and C9436 Kaua'i Nursery and Landscaping. These contracts service regional locations.
 - Collections at County facilities were as follows:
 - a. Hanalei Refuse Transfer Station (RTS)- 15,318 cubic yards
 - b. Kapaa RTS – 37,258 cubic yards
 - c. Līhu'e RTS – 13,422 cubic yards
 - d. Hanapepe RTS –31,331cubic yards
 - e. Kekaha Landfill – 828 tons

- Scrap Tire Recycling
 - The current Contractor, E-H International agreed to a three year contract in 2017 expiring August 2020.
 - In the last year, a total of 15,204 tires were collected at all RTS, the auto shop, and Kekaha Landfill by E-H International. The tires were containerized, and shipped off-island where they were chipped into crumb rubber and burned for fuel.
 - This program provides customer convenience, increases recycling, and is critical in reducing illegal dumping of this item that is banned from disposal.

- 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 Līhu'e . Contractor has agreed to the option to extend the contract for 180 days after its current expiring date on March 29, 2019, leaving the new expiring date at September 25, 2019. Under this contract, refuse centers are serviced a minimum of twice per week; Kekaha Landfill is serviced one per week. A total of 3,046 tons of white goods from the RTS's and Kekaha Landfill were delivered to the Puhi Metals Recycling Center during this period.
 - This program provides customer convenience, increases recycling, and reduces illegal dumping of large items such as appliances.

- Propane Tank Recycling
 - Propane tanks are accepted at all refuse transfer stations, but are restricted to 10 gallons or 40 lbs. due to State Department of Health Permitting, but the County will not be charged more if the contractor must pick these up from the transfer stations.
 - A total of 2,275 propane tanks were collected at RTSs and were recycled throughout the course of the FY under contracts 9159 and 9718.
 - There were issues during the fiscal year where the Hawai'i Gas Company brought in fiberglass propane tanks. The tanks had reached their useful life span in the fiscal year and could not be refilled. The containers are not recyclable, but our contractor still accepted them

under contract and all units were properly degassed, devalved, and landfilled at a cost for our contractor.

- 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.
 - Contract 9585 is a three year contract that facilitates the recycling of residential Used Motor Oil and Motor Oil filters.
 - This program is vital to reducing illegal dumping of used motor oil in to the environment and into our Kekaha landfill.
 - Historically this project started under a State grant, but the grant is no longer available and the contract is now fully funded by the County.
 - 17,210 gallons of used Spec Oil and seven 55-gallon drums of used oil filters were 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.
 - ASix 55 gallon drums were determined by Unitek to be Off-spec/contaminated oil from the Hanapepe and Kapa'a RTS this year. Hazardous waste haulers were able to properly dispose of the contaminated oil in accordance with the State DOH.
 - Contamination of our used motor oil bins have been an ongoing issue with residents bringing in solvents and other liquids that cause the motor oil to become unrecyclable and potentially hazardous waste. New staff will need to be trained to observe the containers and material that are being deposited in to the motor oil recycling bins.

- Waste Diversion Rate – The Waste Diversion Rate (WDR) for the County is normally calculated annually based on figures from annual reports sent to the Department of Health as well as to County collected data from Contracts, and interviews with businesses. Due to reduced staffing and inability by the State to comply with our request for annual reports our last WDR was conducted in FY 2016. This data showed a decrease of 1% diversion to 43%.
 - We hope to analyze and update the Waste Diversion Rate in FY 2020 utilizing FY 2019 data, but the process is labor intensive and will require significant staff time to complete.

Capital Improvement Projects (CIP) and Other Major Planning Activities

- Lateral Expansion Cell 2
 - Began lateral expansion construction Cell 2 at Kekaha Landfill in January 2019. Goodfellow Bothers was the construction contractor, and Geosyntec was construction manager. Construction of this expansion will provide an estimated 8 additional years of landfill life. At the time of construction, we had just over 1 year of life remaining.
- New Landfill.

- Maalo New Landfill Cleared final 60 day OEQC public comment period for Mayor of Kaua'i receiving of the Final EIS. Next steps Land ownership transfer, Land use upgrade, Final design and permitting for the Landfill and access road.
- Gas Collection and Control System.
 - The flare system was started up in May 2017 and operated by Geosyntec. The flare has been operating without any major problems since that time. Geosyntec continues to maintain and monitor.
- Halehaka Landfill.
 - AECOM continues providing post-closure services for the Halehaka Landfill. The work includes ground water monitoring and operation of the flare system as needed. This year we will reduce scope and bid out the repairs again to hopefully fall within our projected budget. We are also looking into options at upgrading security at the site, Road Division has been bringing in logs to help to prevent driving up the site.
- Kekaha Landfill Phase I.
 - Waste Management is providing post-closure services for the Kekaha Landfill Phase I. The work consists of inspections of the site and ground water monitoring and reports.

Operational and Equipment Maintenance Projects

- Puhi Metals Environmental Cleanup
- Repair Drywall at Landfill Office
- Repair Constant Wear to Hydraulics and Motorized Equipment

IV. BUDGET AND PROGRAM RESOURCES FY 2019

TOTAL BUDGET (Adjusted) \$19,274,670

<u>PROGRAM</u>	<u>(FTEs)</u>
1. Administration	7
2. Deposit Beverage Container Program	2
3. Solid Waste Operations	61*
TOTAL FTEs	70

*These are active employees only. We had two on W/C

V. PROGRAM MEASURES - ACCOMPLISHMENTS / EVALUATION

The SW Division maintains a variety of waste diversion and public education programs to maintain a waste diversion rate above 40%. To increase diversion, we would need to increase staffing and focus on impacts to large waste stream

categories including organic waste and Construction Demolition Debris and would need to implement Ordinances requiring commercial recycling and increase program convenience.

The Department has continued with two State Revolving Fund loan projects involving the Kekaha Landfill and Refuse Transfer Stations in close collaboration with DOH CWB. These projects estimated total is \$23.1 Million dollars. Due to the lower interest rate provided under the SRF loan program, the County will realize a substantial amount of savings in loan repayments.

- Kaua'i DSWM Staffing.

- The DSWM went without a Chief in FY19 until December 2018 when Zahid Khan was hired. Mr. Khan provided fresh eyes on our projects and much needed leadership. Unfortunately, he had an allergy to mold in our building and had leave the position and move back to Seattle WA. Superintendent Rick Renaud was Temporarily Assigned to the position upon Mr. Khan's departure on 5/28/19.
- On 6/3/19, Zahid Khan began an 89 day contract to serve as our Solid Waste Engineer.
- We have not been able to fill the Solid Waste Civil Engineer position, which has been on continual recruitment. We interviewed this FY and made an offer to a potential candidate who declined. There were no other viable candidates.
- The State continues to fund two HI5 Recycling Specialist positions.