



Department of Public Works

Fiscal Year 2020 Annual Report

July 1, 2019 – June 30, 2020

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 was funded by FEMA to reconstruct approximately 350 feet of Weke Road that was washed out during the flood. Construction was completed in July 2019.
 - Kahiliholo Road Culvert Replacement: This project replaced approximately 100 feet of culvert that was washed out during the flood. Construction was completed in September 2019.
 - Kahuna Road Embankment Reinforcement along Kapa'a Stream: This project was 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 was completed in September 2019.
 - Waihohonu Stream Debris Removal: This project was funded by FEMA to clear debris along a portion of Waihohonu Stream. This project was completed in May 2020.
 - Waioli Irrigation System Repairs: This project was funded by Act 12 funds and will be complete by fall 2020.
 - Anahulu Road concrete swale repair: This project was funded by FEMA to reconstruct a portion of an existing concrete swale along Anahulu Road. Construction was completed in July 2020.
 - Wainiha Powerhouse Road Repairs: This project will be 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 was completed in house. Construction procurement has been completed; construction will start as soon as FEMA provides final approval and obligation of construction funds.
- 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:
 - Pu'u'ōpae Bridge Replacement; Federal Aid Project BR-0700(59), 80% Federal, 20% County. This project replaced 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.
 - 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.
 - 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. Construction is nearly complete, with only minor punch list items.

- 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. Construction is underway and is anticipated to be largely completed by January 2021.
 - '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. The bridge is mostly completed with final completion estimate to be in late October or November.
 - Planning and design are completed for the following projects, so these projects will be headed to construction soon:
 - 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. Final design is complete and construction is scheduled to begin during Spring 2021.
 - 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. This project is scheduled to go to construction in spring 2021.
 - 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. This project is estimated to go to construction in spring 2021.
 - 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. The consultant is preparing the final plans.
 - Bridge Inspections and Appraisals 2020: This project will conduct the required biennial bridge inspections of all federal aid County bridges (bridges over 20 feet in length). This year's inspections are underway.
 - 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. Environmental permitting and final design plans are being prepared by the County's bridge inspection consultant.
 - 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) is underway.
 - 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. Final negotiations with the consultant 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 Improvements: This proposed Federal Aid project includes pavement resurfacing and reconstruction, possible shoulder widening, and pedestrian and bicycle facility improvements between Hau'a'ala Road and Ka'apuni Road. Negotiations with a design consultant are underway.
- Kekaha Road Improvements: This proposed Federal Aid project includes pavement resurfacing and reconstruction, as well as pedestrian and bicycle facility improvements on Kekaha Road between Kaumuali'i Highway and 'Amakihi Road. Negotiations with a design consultant are underway.
- 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.
- Kīpū Bridge Repair: This project will conduct structural repairs to the existing bridge on Kīpū Road over Huleia Stream. The design consultant is finalizing environmental permitting and construction plans.
- Kōloa Bridge Repair: This project will conduct structural repairs to the existing bridge on Kōloa Road over Waikomo Stream. The design consultant is finalizing environmental permitting and construction plans.
- Material Testing On-Call Services – Procurement is completed 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 and the design is in final review.
- Niumalu Bridge Replacement: Notice to proceed to the design consultant was issued in March 2020.
- 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 final design of phase 1 of this project is nearly complete, and construction is scheduled to start in late 2021.
- On-Call Surveying Services: Several task orders have been completed for both Public Works and Parks and Recreation. Procurement has just started for a new consultant to perform services in 2021 and beyond.
- 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. The 30% construction plans by the design consultant have been reviewed by the County and vetted at several public meetings. The project is moving into the final design phase.
- 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. Negotiations with a design consultant are underway.
- Twin Reservoirs Decommissioning: The consultant is working on the 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 environmental permitting and preliminary design work are nearing completion.
- 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. Final negotiations with the consultant 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.
 - 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.
 - Traffic Calming Measures: Engineering Division is working with the Fire Department, Police Department, and the Office of the County Attorney to draft revisions to County ordinances to allow for the construction of physical traffic calming measures on collector streets, to supplement the existing ordinance allowing speed humps on local residential streets.

IV. BUDGET

General Fund - Fiscal Year Ending June 30, 2020

Division/Expense Type		Budget
Engineering	\$	1,855,091
Employee & Related	\$	1,754,600
Training, Travel	\$	2,938
Services, Dues, Consult., Grants	\$	77,945
R&M, Facilities, & Equip.	\$	13,055
Claims, Rental, Loans, Debt Svc.	\$	6,553

PERSONNEL

Division Chief and Administrative Staff

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

Regulatory/Permitting/Design:

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

Project Management/Design:

- () Civil Engineer VI (Staff member currently temporarily assigned as Acting County Engineer)
- (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; 1 position temporarily assigned elsewhere; 2 vacant positions

V. PROGRAM MEASURES

- Construction plans for major projects reviewed during Fiscal Year 2020: 39 plan sets, with an average review time of 32 days:
 - Construction plan review was finalized for the following large subdivisions or developments:
 - Kukui'ula Kahela (Parcel H) Subdivision (S-2016-02)
 - Kukui'ula Parcel E Subdivision
 - Kukui'ula Parcel FF Subdivision
 - Kukui'ula Parcel G Subdivision
 - Kulana Subdivision restart (S-99-49)
 - Pua Loke 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)
 - Kukui'ula Parcel CC-West Phase II (S-2020-xx)
 - 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. K-01 – DOW Kalāheo Waterline (3 plan sets)
 - Plan review Ongoing
 - Job No. ANI-01 – DOW Anini Road Water Line, Phase 2
 - Job No. 11-02 – DOW Grove Farm Tank
 - DOW Kukuiolono 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:
 - 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
 - Kukui'ula Manuhonuhonu Borrow Site, phase 3
 - Kukui'ula Parcel E
 - Kukui'ula Parcel FF
 - Kukui'ula Parcel G
 - Kulana Subdivision restart (S-99-49)
 - Pua Loke Affordable Housing
 - Waimea Huakai Affordable Housing
- Construction Section completed inspection of the following major subdivisions or projects:
 - Adolescent Treatment Center
 - AES Solar (Lāwa'i)
 - Kilauea Lighthouse Village and the associated Ala Namahana Parkway reconstruction.
 - Kōloa Village
 - Kukui'ula Kula Makai (Parcel A) Subdivision (S-2013-16)
 - Kukui'ula Lopaka Paipa Boulevard Extension
 - Kukui'ula Major Project Road (Ala Kukui'ula) Phase 3
- The following permits have been issued, inspected, and/or closed out:
 - Grading Permits

- Issued: 23
- Inspected and closed out: 19
- Road Permits
 - Issued: 26
 - Inspected and closed out: 128 (Construction Section staff went through a significant effort this year to inspect old permits and confirm completion for close out)
- Driveway Permits
 - Issued: 91

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

Construction completed for the Līhu'e Town Core Mobility and Revitalization Project and 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, Kaua'i Fire Department Helicopter Hangar, Kaua'i Police Multipurpose Building, Kalaheo Gymnasium Re-Roofing Project, Black Pot Beach Park Restoration, Kapule Building IT AC Renovation, 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 1 \$1.00 funded positions)	4
Salaries & Wages	\$ 525,000
Operations	\$1,338,000
Equipment	\$ 0
PROGRAM TOTALS	<u>\$1,863,000</u>

BUILDING CODES ENFORCEMENT

Equivalent Personnel (Includes 4 contract hires)	23
Salaries & Wages	\$ 1,534,000
Operations	\$ 3,500
Equipment	\$ 0
PROGRAM TOTALS	<u>\$ 1,537,500</u>

V. PROGRAM MEASURES/EVALUATION

BUILDING CODES ENFORCEMENT

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

	FY 2019	FY 2020
Residential	25	24
Commercial	40	7
	FY 2019	FY2020
Code Enforcement Inspections		
Building Code Inspections	4,638	6,306
Electrical Code Inspections	4,952	4,719
Plumbing Code Inspections	5,483	5,286
<u>Total Code Inspections</u>	<u>17,761</u>	<u>18,839</u>
	FY 2019	FY 2020
Code Permits Issued		
Building Code Permits	1,407	1,429
Electrical Code Permits	2,020	1,677
Plumbing Code Permits	1,057	976
Sign Code Permits	396	317
Photovoltaic/Solar	743	928
<u>Total Code Permits Issued</u>	<u>5,623</u>	<u>5,327</u>
Building Permit Valuations	\$244,201,413	\$305,916,819

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.

ROADS DIVISION

Edmond 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.
- iWorQ’s Pavement Management Program has GIS Mapping and improved budget reporting capability. Latest pavement condition survey/collection took place September 2019, next pavement condition survey/collection to take place in 2022.
- During March 28, 2020 flash flood event (RAIN18), Roads forces assisted recovery.

IV. BUDGET

Fiscal Year Ending June 30, 2020

Division/Expense Type	Budget	Actual + Encumrances	\$ Variance	% Variance
Roads Division	17,803,185	16,491,889	1,311,296	7.37%
Employee & Related	8,507,663	8,002,884	504,779	5.93%
Utilities, Insurance, Fuels	1,449,364	1,162,053	287,311	19.82%
Training, Travel	12,551	0	12,551	100.00%
Services, Dues, Consult., Grants	3,279,139	3,059,257	219,882	6.71%
Other Operating	1,040,274	987,456	52,818	5.08%
R&M, Facilities, & Equip.	2,514,193	2,280,239	233,954	9.31%
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 – (IWCFSSC)
- 1 - Civil Engineer IV (vacant)
- 1 - Project Assistant – (IWRR)
- 1 - Assistant to the Chief of Field Operations & Maintenance

- 3 - District Road Overseer (Hanapepe, Kapa’a, Hanalei)
- 3 - Program Support Technician II (Hanapepe, Kapaa, Hanalei)
- 1 - Highway Construction & Maintenance Supervisor II (Hanapepe)
- 6 - Highway Construction & Maintenance Supervisor I (Hanapēpē 3, Kapa’a 2, Hanalei 1)

- 1 - Equipment Operator IV (Hanapēpē)
- 5 - Equipment Operator III (Hanapēpē 3, 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
- 79- Total Personnel**

* Civil Engineer IV (vacant) is being recruited and Project Assistant – (IWRR) is paid for in GET Budget

V. PROGRAM MEASURES/ACCOMPLISHMENTS

- C9663 MKB (IWRR 2018) Substantially Complete. Waiting on final striping of Hardy Street & Ala Kinoiki.
- C210689 MKB (IWRR 2019) Substantially Complete. Waiting on final striping of Kaulana Rd, Kihei Rd, Haleilio Rd, Mala St, Papalina Rd (not necessary since overlay will happen in FY2020 C98098), Moi Rd, Niele Rd, Oioi Rd, Ulili Rd, Olohena Rd mauka, Keālia Rd, Malu Rd, Apopo Rd, Opaekaa Rd, Halelani Rd, Kalena Rd, Kress St, Wailaau Rd, Aloha Pl, Waihohonou Rd, Hokua Rd, Polaris Rd, Puu Rd, Puu Kulana Rd, Oma Rd, Huakai Rd, Haiki Rd, Malama Rd
- C9666 GPRS (IWCFSS 2018). GP conducted seal coating in Ulu Ko Subdivision and crack filling on Molokoa Subdivision. Problem with quality of seal coating and seal coating material. Resubmitting seal coating material from Manufacturer.
- C210507 DMK (IWCFSS 2019) Crackfill/surface seal completed in Pua Loke and in Anahola. Final subdivision on this contract (Kōloa: Hoolei St, Maki St, Ohuohu St, Oloha St, Tapa St, Palaa Pl, Mamaki St and Mamaki Pl) will be done in October.
- Hanapepe and Waimea Levees United States Army Corps of Engineers Annual Inspection the week of August 5-7, 2020 this year had tentatively unacceptable results, Pending Conditional Letter by the end of October 2020.
- 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.
- 2020 IWRR bid opening took place and Contract 9809 was executed. Notice to Proceed has been issued.
- 2020 IWCFFS bid openings took place but contracts for both contractors were cancelled for lack of funds.
- Open End Pavement Repair Contract is on hold because funds were used for the Kōloa/Maluhia STIP project match.
- Tentative 2021 IWRR and IWCFFS roads list drafted but need to be finalized by field inspection of these roads.

REQUEST ASSISTANCE APPROVAL OF THE FOLLOWING:

- Engineering Support Technician III/SR-17. (GET Funding)
- Construction Inspector II/SR-19. (GET Funding)

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 19-20, progress was made on a new rate study. However, due to the COVID-19 pandemic, it was decided to hold off on proposing new rates for the County Council to approve.

- **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. All of the facility plans should be updated since it has been 12 years since the last plans were completed. In FY19-20, consultants were contracted to update the Līhu'e and Eleele

Facility Plans. The Facility Plans provide a comprehensive summary of the wastewater system and identify short- and 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 19-20 design activities included designing the rehabilitation for two manholes on Kuhio Highway in Wailua, updating the Līhu'e and Eleele Facility Plans and assessing more of the sewer collection system in the Līhu'e area.

In addition to new design projects, progress was made on two existing design projects: the Wailua WWTP Process, Electrical and Disinfection Improvements, Phase 2 project and the Wailua SPS No. 3 Rehabilitation project. These projects are County funded.

Finally, two design projects were completed: the Waimea WWTP R-1 Water Storage and Distribution System and the Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation. The Waimea project was partially funded by a U. S. Environmental Protection Agency (EPA) grant, with matching County funds. The Wailua SPS No. 1 Rehabilitation Project will be bid out in FY20-21 and will be funded via a Clean Water State Revolving Fund (CWSRF) Loan issued by the State of Hawai'i, Department of Health Wastewater Branch (DOH WWB).

- **Construction of Capital Improvements.** During FY 19-20, the Division had two major CIP projects under construction: the Improvements to Existing Hanamaulu and Kapaia Wastewater Pump Stations, which cost \$3.5 million and is anticipated to finish in the winter of 2020; and the Līhu'e WWTP Process Improvement Project, which costs \$3.8 million and is anticipated to finish in November 2021. These projects are 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 20-21 includes the Waimea WWTP UIC Well Cleaning Project, which costs \$78,000 and the Wailua SPS No. 1 Rehabilitation Project. If the

Wastewater Management Division receives approval to move forward with the Waimea WWTP R-1 Water Storage and Distribution System Project, this project could also be bid out in FY20-21. The Wailua SPS No. 1 Rehabilitation Project will be funded by the DOH WWB 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. Program 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 FY19-20 budget are summarized for the Division as a whole, including administration and operations.

OPERATIONAL COSTS

•	Equivalent Personnel Positions	37
•	Wages and Other Direct Costs	\$4,156,000
•	Operations (Equipment, Supplies, Vehicles, Etc.)	\$1,132,000
•	Utilities (Electrical, Water, Gas, Telephone)	\$1,878,000
•	Contracted Services (Repairs, Laboratory, etc.)	\$2,283,000
•	Debt Service	<u>\$2,223,000</u>
	PROGRAM TOTAL	\$11,672,000

OPERATIONAL REVENUES

Estimated FY 19-20 Revenues	\$ 8,949,000
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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 19-20, 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 19-20 the Wastewater Division experienced significant weather-related challenges which lead to 4 wastewater spills, 2 each in the Waimea and Wailua/Kapa’a service areas. 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	2
• Total Number of Sewered Units	5,647
• Bills Processed in FY 19-20	26,544
• Number of Customers Receiving Sewer Credit	461
• Spills Reportable to the DOH	7
• Wastewater Received and Treated (avg./day)	2.0
• Wastewater Reused (avg./day)	TBD
• % of Wastewater Reused	TBD
• DOH acceptable inspections	0
• DOH unacceptable inspections	2

DIVISION of SOLID WASTE MANAGEMENT

Allison Fraley, Aching 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

County Took Over Landfill Operations On December 1, 2020, the County entered into a Termination Agreement with Waste Management Hawai'i. The long term C4308 was terminated, invoices paid, and the old bulldozer and compactor were purchased. The County issued and awarded an IFB to rent all necessary equipment to operate the landfill including: smooth drum roller, excavator, loader, 4,000 gallon water truck, super dump truck, dump truck, compactor, and landfill bulldozer. Secured a professional service contract with Geosyntec to provide assistance with landfill compliance under the newly issued Permit LF-0042-16. Secured a contract with RM Towill for bi-annual aerial flyovers.

The assumption of landfill operations will save funding in the long term; however, equipment rental costs were high during this FY. We did not obtain approval for hire additional County staff this FY. Necessary staff include mechanics, and office support.

Disposal Quantities and Airspace The Kekaha Landfill Operation accepted and buried 87,716 tons of municipal solid waste during Fiscal Year 2018. This figure includes solid waste from residential and commercial sources. This is a decrease of 4,088 tons from the previous fiscal year.

The landfill tip fee for commercial customers is currently \$119 per ton, effective July 1, 2014. The 2020 Annual Operating Report for MSW Landfill Phase II prepared by Geosyntec July 31, 2020 indicates that the Airspace Utilization Factor (tons/cy) is .66 as compared to 0.63 in 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.

Landfill Flood March 17, 2020 100 year flood in Kekaha breached berm and flooded new Cell 2A and 2B with 7 ft. of water. Staff pumped flooded areas overnight and then for several days in order to keep the landfill operational. This additional water that was pumped to the leachate pond resulted in sulfide emissions that were very odorous and needed to be tested for safety of staff. Designed and built a bubbler diffusion system to aerate water in the leachate pond. Received guidance from Geosyntec to repair erosion damage to the operations layer of Cell 2B.

Refuse Transfer Stations (RTS)

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 FY20 (Tons)</u>		<u>Change from FY19</u>
Hanapepe	10,477	+2,522
Līhu'e	14,953	-619
Kapaa	10,270	+1,112
Hanalei	6,091	-470

- Continuing to conduct new Best Management Practice upgrades for storm water runoff. The design contract with JACOBS (formerly CH2M) provided conceptual design for upgrades to the RTSs for storm water compliance. We received a commitment of \$14.4M in loan under 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. . 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 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 21,500 residential collection accounts and 31 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 1,224 carts per week.

- Heavy Equipment Purchases Budgeted in FY 2020
 - (1) Backhoe (converted to Mini Excavator purchase)
 - (1) Truck Tractor
 - (1) Loader

- Landfill Heavy Equipment Approved through Money Bill FY 2020
 - (1) Excavator
 - (1) Wheel Loader
 - (1) 15-yd Dump Truck
 - (1) 4,000 Gallon Water Truck
 - (1) Landfill Compactor
 - (1) Landfill Bulldozer

Integrated Solid Waste Management Plan (ISWMP)

Contracted JACOBS for the ISWMP Update at the beginning of the FY. Project timeline is 698 calendar days, and is projected to be completed in June of 2021. Kicked off the project and provided technical and quantitative information to the consultant for the update. Formed a Solid Waste Advisory Committee and conducted four meetings throughout the FY. Posted all meeting agendas and notes on the County website per Sunshine Law. Per HRS 342G-24 (2) Counties shall submit revised ISWMP to the State DOH every 10 years.

Waste Diversion Programs

These programs are implemented to manage materials that are prohibited or recyclable 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 FY20 was approximately \$3.63 million for 21,500 parcels. The RRCA program revenues have increased about \$65,000 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.
 - Revenues from Transient Vacation Rentals were reduced due to lack use and service associated with the COVID19 pandemic.

- Kaua'i Resource Center (KRC) HI5 Recycling Operations
 - The County administers Contract 9766 for a CRC Concession at the Kaua' i Resource Center in Līhu'e . Under the Contract, Reynold's pays the County \$208 per month to rent the KRC space and will also pay property taxes in FY21. Hours of operation are Monday through Saturday; open 9 am to 5 pm with a lunch break from noon to 1:30pm.
 - The contract commenced on April 4, 2019 and has a 3 year term. The contract may be extended on a month to month basis or terms, or an additional period or periods not to exceed a total of thirty-six (36) months with the same terms and conditions.
 - During FY20, the total number of customers serviced was 14,183 and the total number of redeemable containers was as follows: 7,935,805 (3,977,951 aluminum cans, 1,248,766 glass bottles, 2,660,779 plastic containers and 48,309 bimetal containers). (See DBC section for more information on Reynold's Recycling operations)
 - There was one case of COVID for a Reynolds staff member which caused the shutdown of the facility for two weeks from April 6 through April 20. Previous to the shutdown, staff had been using social distancing, PPE, and hand washing. It is unclear whether the infection occurred at the facility or at home.

- 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.
 - Markets for recyclables continue to drop due to instability in the world market. However, our contractor has held their pricing and continued to find markets for recyclable products even when markets drop below \$0.
 - The annual tonnages for each recyclable collected under the program are as follows:
 - Corrugated cardboard: 2,866 tons
 - Mixed Paper: 146 tons
 - HI5 Glass: 1,280 tons
 - Non-HI5 Glass: 411 tons
 - Aluminum: 135 tons
 - HI5 Plastic: 317 tons
 - Non-HI5 Plastic: 2 tons

Annual Total – 5,157 tons
- Home Composting
 - 381 Earth Machine Home Composting Bins were distributed to Kauaʻi residents this FY free of charge. An increase of 67 more units than the year before.
 - Under COVID the requests for compost bins have skyrocketed. We estimate that we will be out of stock three months earlier than expected, but the quote for new bins have been received and more bins will be purchased in FY 21.
 - The last two years have shown a great increase in compost bin distributions. This could be because of the greater effort on compost education with staff doing on-site visits and distribution to schools and updated information on the County’s composting website www.Kaua'i.gov/composting.
 - The main distribution point is at the Kauaʻi 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 Kauaʻi 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 Līhuʻe. Residents will be required to watch the training video online on the County’s composting website www.Kaua'i.gov/composting.
 - In FY 2020 the County partnered with Kauaʻi Worms to conduct educational outreach to schools which includes worm farms and training on how to take care of them to create their own compost.

- Overall cost for the program was higher than expected and this service was to conclude at the end of the fiscal year, but due to the COVID shutdown services were prematurely terminated in March.
- 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. A 2018 Survey will be sent out in September.
 - 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.
 - Markets for recyclables continue to drop due to instability in the world market. However, our contractor has held their pricing and continued to find markets for recyclable products even when markets drop below \$0.
 - The annual tonnages for each recyclable collected under the program are as follows:
 - Corrugated cardboard: 1,048 tons
 - Mixed Paper (incl. newspaper): 792 tons
 - Glass: 366 tons
 - Aluminum: 0.39 tons
 - Steel: 86 tons
 - Plastic: 88 tons
 - County Mixed Paper – 68 tons
- Annual Total – 2,449**

- Advance Disposal Fee (ADF) Glass Recovery and Recycling Contract
 - Allocated State funding for Kaua'i is inadequate to operate the programs required for County reimbursement. The necessary programs are very expensive to operate with little impact on waste diversion. Funds declined by Kaua'i go back to the pool of monies used by the other Counties for use in their ADF programs.

- Deposit Beverage Container (DBC) Program
 - **Overview:** The State Department of Health provided annual funding under ASO Log 19-024 Modification 1. The total program budget was \$300,994.42. 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 with a quota of 20 per month. They also conduct 4 Certified Redemption Center (CRC) inspections per month. Technical recycling assistance is provided to businesses upon request.
 - In October 2020, HI5 specialists recommenced conducting four park inspections per month. These inspections are an opportunity for immediate improvements to be made to the bins. Several damaged bins were also replaced. These inspections were paused in April 2020 due to Covid-19, but got back on track in May 2020.
 - **Redemption centers:** At the beginning of FY20, there were 6 CRC operations throughout the island, of which, 4 were privately operated and 2 were contracted by the County. As of January 2020, there were 5 CRC operations throughout the island due to the closure of Reynold's Recycling Kapahi Site. The lease expired at the end of December 2019 and plans to relocate were put on hold due to the COVID-19 pandemic. There are currently no plans for Reynold's to reopen a Kapa'a location. Due to this closure, the KRC Reynold's site expanded their days of operation and will be open on Wednesdays until further notice.
 - In Q1 the County finalized Contract 210917 with Kaua'i Community Recycling Services (KCRS). KCRS will operate the Kekaha and Kōloa Fire Station events 2 days per week at each location at a State subsidized rate of \$480.00 per event.
 - The KCRS Kekaha Mobile site operated at the Kekaha Neighborhood Center for the first half of FY20. On March 18, 2020, the site was relocated back to the Kekaha Mill site which is operated by the State Agribusiness Development Corporation. The County received approval for the ROE and indemnity agreement through the County Council and will continue to lease the space for \$500 a month that is paid through the State DBC contract.
 - KCRS serviced 6,368 customers and collected 6,798,005 containers were redeemed in Kekaha. Total containers by material type included

- 3,522,921 aluminum cans, 835,079 glass bottles, 2,420,472 plastic bottles and 19,531 bimetal containers.
- In Kōloa KCRS serviced 7,520 customers collecting a total of 6,793,144 containers. Total containers by material type included 3,645,026 aluminum cans, 930,668 glass bottles, 2,174,145 plastic bottles and 43,303 bimetal containers.
 - Weather caused several CRC closures during the year. Overall, there were closures or decreased services for eight days in FY 2020.
 - **Educational Outreach:** Onsite educational presentations are conducted upon request. Throughout FY20, seventeen presentations were conducted, reaching a total of two hundred and twenty nine students. Students were a range of ages, and included third 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. All educational outreach was halted and cancelled in April 2020 due to the Covid-19 pandemic.
 - **County Fair:** Staffed a Recycling Education booth at the Kaua'i County Farm Fair August 15 through August 18, 2019. 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:** We continued to manage various HI-5 recycling bin programs. These programs include: 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. Nineteen events were conducted with 238 recycling bins, 72 trash cans, and 3 compost bins utilized for short term use.
 - In Q3 a plan was developed to convert the State HI5 bins to replace the stock in the event bin loaner program. The County has not received a request for use of the State bins in several years. Conversion of the bins will allow the program to continue the bin distribution to schools and non-profits without expending funds. A total of 119 bins will be converted. Steps in the conversion process began at the end of FY20 with cleaning, organizing and ordering new stickers to relabel the bins.
 - **COVID:** Due to COVID-19, one HI5 Specialist teleworked from March 24, 2020 until June 30,2020.
 - Under the initial COVID restrictions, 3 CRCs were visited in the month of April 2020. The County also received approval to temporarily cease retailer inspections for the month of April 2020. Retailer and CRC inspections resumed in May 2020 with minor modifications for safety guidelines.
 - **Legislation:** House Bill 1607 was introduced to repeal the Deposit Beverage Container Program. It was introduced and passed First Reading on January 15, 2020. The bill claimed that the program, through its physical nature, is detrimental to kupuna. However, the

reality is that many kupuna actually rely on the program to supplement their income. The bill was dropped from consideration soon after.

- **Training:** Though funded, the Department of Health declined to allow the HI5 Specialists to fly up for a face to face meeting this fiscal year. The State felt that sufficient training, reporting, and discussion was being done via phone calls and emails and a face to face meeting was not necessary.
 - As there has been major turnover in the management of the DBC Grant fund managers at the Department of Health, the Solid Waste Division strongly feels a face to face meeting is warranted and we will bring this concern up again once the COVID pandemic is resolved.
 - **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 2021 has been secured. The majority of the scope of services remains the same.
- **Household Hazardous Waste (HHW) Collections**
 - The County contracts with Enviro Services 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 base yards, and the Kaua‘i Resource Center in Līhu‘e this FY. The events were held on July 13 and July 14, 2019 with 279 residents attending, January 18 and 19, 2020 with a total of 196 residents attending, and June 27 and 28, 2020 with a total of 319 residents attending.
 - The current contract expires in FY 2021. Events will be scheduled once the new contract commences.

Item	Jan. 2020	July 2020
Automotive Batteries,	1,400 lbs.	3,500 lbs.
Lithium Batteries,	200 lbs.	200 lbs.
Household Batteries,	400 lbs.	1000 lbs.
Oil Base Paints, & Ingnitables,	6,400 lbs.	10,000 lbs.
Toxic Liquids,	2,400 lbs.	3,600 lbs.
Corrosive Liquid, Acid,	800 lbs.	800 lbs.
Corrosive Liquid, Basic,	800 lbs.	1,200 lbs.
Mercury	4 lbs.	5 lbs.
Oxidizers	40 lbs.	40 lbs.
Organic Peroxide	40 lbs.	0 lbs.
Aerosols	0 lbs.	50 lbs.
Fluorescent Lamps/Mixed Bulbs	290 lbs.	55 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 9718 (see below). Under this contract, 4,488 tons of metal 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: 2005 autos processed, receipt of 726 loads of scrap metals, acceptance and processing of 3,853 large appliances without Freon, 3,967 large appliances containing Freon.

- RRS continues to charge commercial fees for businesses. There continues to be issues with several tow operators who try and work around the system of payment for vehicles.
- RRS also contends with a significant amount of break-ins every year. Vehicles are stripped of valuable parts including catalytic converters that are sold to local vendors as valuable non-ferrous metals. This reduces the value of the scrap vehicles while increasing RRS's costs for security and processing.
- 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 and paired with the increased cost of shipping and labor there may be issues continuing service at the current contracted price.
- Clean Up of Puhi Metals Site
 - Approximately 10,000 tons of contaminated soil was used in the Cell 2 expansion of the Kekaha landfill as an operation layer on side slopes. 2,000 tons of soil of contaminated soil is scheduled to be landfilled as waste in FY 21.
 - RRS will be testing the remaining sections of the facility that require remediation in FY 21. Based upon these test results clean-up procedures and requirements can be implemented in late FY 21 or early 22. No further remediation should be required once this work is done.
- 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 July 14, 2019 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.
 - On January 19, 2020, three (55-gallon) drums of alkaline (dry cell) batteries; one (55-gallon) drum of NiCad batteries and one (55-gallon) drum of Lithium batteries.
 - On June 26, 2020 one (55-gallon) drum of alkaline batteries were removed.
 - All batteries were taken 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.
- Act 254 Plastic Source Reduction Working Group
 - Allison Fraley served as the Kaua’i County representative stakeholder for the State Plastic Source Reduction Working Group on mandated under Act 254. There were a total of 4 meetings this FY. Travel to O’ahu was for first 2 meetings were hosted by DOH, and the remainder of the meetings were held via Zoom. The group had the following tasks to report to the State Legislature. The final report will be developed in FY21.
 1. Formulate a plan for reducing and recovering plastic from the Hawai’i waste stream;
 2. Develop strategies to encourage plastic reduction and reuse in the food service industry, such as reusable container incentive programs for customers;
 3. Provide recommendations to encourage reuse, reduction, recycling, and recovery of waste and create value added products to innovate and responsibly manage the life cycle of existing resources;
 4. Consult with each county that has already enacted ordinances related to single-use plastics such as plastic bags and polystyrene foam containers and develop recommendations for the implementation of a uniform, statewide policy for these items that

can replace existing county ordinances and provide businesses with laws that are consistent throughout the State;

5. Consult with stakeholders to develop appropriate exemptions to address concerns

- Polystyrene Ban

- Councilmembers Evslin and Kuulii introduced Bill 2775 to ban the use and sale of expanded Polystyrene on Kaua'i . The DSWM reviewed the draft Bill and provided input and also provided testimony in support of the Bill at County Council.

- Mayor's Plastic Reduction Policy

- Due to the finding that disposable plastic is harmful to our environment and contributes to the potential death of marine and avian life Mayor Derek Kawakami drafted and signed a Policy declaring that the County shall prohibit the purchase, use, or distribution of disposable plastics with County funds, at County permitted events, by County employees, or by County Facility Users. The County will invest in environmentally preferred alternatives to disposable plastics. This policy goes into effect on 1/20/21. The DSWM is providing promotion and education around the policy.

- Electronics Recycling (eWaste Recycling)

- The State Department of Health (DOH) awarded the County \$160,000 in grant funding for FY 2020. The same amount appropriated in FY 2019. The funding will was 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 occurred 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.
- Mobile events were cancelled on March, 2020 due to COVID and overall low attendance.
- Contract 9733 is fully funded through the State Department of Health eWaste grant.
- Resource Recovery Solutions has recycled approximately 149 tons of eWaste 27 tons more than FY 2019.
- RRS now coordinates with T & N Computer Recycling Services to source certified end destination recyclers.
- T & N has continued to have issues 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.
- Due to difficulties in acquiring the shipping and end destination recycling documentation from T & N, the County has suspended contract 9733 at the end of the fiscal year until a solution is available to expedite the documentation process for electronic recycling.
 - The County has requested and the State has approved a modified grant in FY 2021 that does not require the processing documentation as the eWaste recycling is already covered under Contract 9718. The County will continue to promote eWaste recycling under MOA OSWM-EW-KAUA'I -21.
 - Higher tonnages were recorded in FY 20, possibly due to increased promotion of the program. It is unlikely that the mobile events impacted the program as these events generated only 0.01% of the total tonnage per month.
- 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 2020, one load was 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 two State Permitted composting facilities throughout the island. We manage contracts with Heart and Soul Organics and Shredco, who accept and process the green waste.
 - Collections at County facilities were as follows:
 - Hanalei Refuse Transfer Station (RTS)- 13,735 cubic yards
 - Kapaa RTS – 45,056 cubic yards
 - Līhu'e RTS – 18,042 cubic yards
 - Hanapepe RTS – 31,317 cubic yards
 - Kekaha Landfill – 1,013 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 16,659 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
 - The County's contract with Hooklift Hawai'i expired in March of FY 2020.
 - The new contractor Green Earth Matters (GEM) signed a 5 year contract to expire in FY 2025.
 - The new contract is a significant savings for the County with an estimated \$100,000 over the life of the contract.
 - Total of 3152 tons of scrap metal was hauled in FY 2020
 - 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 2,263 propane tanks were collected at RTSs and were recycled throughout the course of the FY under contract 9718.
- 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.
 - In the past, the State of Hawai'i, Department of Health awarded funds to the County in order to implement the Used Motor Oil and Used Motor Oil Filter collection programs. The County received approximately \$63,000 each year for the collection of used motor oil and filters, public promotion including supplies and materials, cleaning supplies, equipment and wage reimbursement to County staff. Unfortunately, the State DOH will no longer be funding this program. Continuation of this critical program is necessary to avoid illegal dumping. Consequently, county funding has been appropriated to continue the program in the amount of \$50,000.
 - 15,543 gallons of used Spec Oil Recycling was collected and recycled over the period. Unitek Solvent Services provided services for removal and recycling of recovered oil. Oil is shipped to Oahu, where it is recycled.
 - A total of eight 55 gallon drums were determined by Unitek to be Off-spec/contaminated oil from the Kapa'a RTS this year. Enviroservices, LLC. was able to properly dispose of the contaminated oil in accordance with the State DOH. Immediately following the discovery of the contaminated oil, a news release

was sent out indicating proper disposal techniques including the appropriate containers to store and transport used motor oil for recycling.

- Motor Oil Filter Recycling – Motor oil filter collection drums continue to be in place at all RTSSs. Public participation in the program is increasing. Four 55-gallon drums of used filters were removed in the last year.
- 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 will be requesting updated annual reports again from the State, but if they are unable to comply with our request, we will work with our current data collected data sets for County programs and phone interviews to populate a FY 2018 WDR.

Capital Improvement Projects (CIP) and Other Major Planning Activities

- Lateral Expansion Cell 2.
 - Construction of Cell 2 was completed at the end of FY19 and we began to fill Cell2B at the beginning of this FY. This expansion added approximately 8 years of life to Kekaha Landfill. Worked with State Revolving Fund program to settle all payments for the \$18.6 M expansion project.
- DOH Permit Kekaha Landfill.
 - The State DOH issued the new SW Management Permit no. L-0042-16 in September of 2019. A Change of Operator notification was provided to the County in December of 2019 to remove Waste Management from the permit and name the County as the sole operator of the landfill.
- New Landfill.
 - Gathering updated information on 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.
 - In the first half of the FY, Waste Management was providing post-closure services for the Kekaha Landfill Phase I. The work consists of inspections of the site and ground water monitoring and reports. In December 2019, Geosyntec began providing these services.

Operational and Equipment Maintenance Projects

- Puhi Metals Environmental Cleanup
- Annual safety inspection for 10 ton Capacity Crane

IV. BUDGET

BUDGET AND PROGRAM RESOURCES FY 2020

RESOURCES

<u>PROGRAM</u>	<u>(FTEs)</u>
1. Administration	6
2. Deposit Beverage Container Program	2
3. Solid Waste Operations	58
TOTAL FTEs	66
TOTAL BUDGET (Adjusted)	\$22,191,366

Kaua'i DSWM Staffing.

- Superintendent Rick Renaud was Temporarily Assigned to the SW Chief position on 5/28/19 and he resigned on 9/16/19. Landfill Worksite Supervisor John Ruiz was Temporarily Assigned to the SW Chief position on 9/18/20 and he resigned on 11/20/20. Solid Waste Program Coordinator was Temporarily Assigned to the SW Chief position on 1/15/20 and continues to serve in that capacity. She continues to do some work necessary in her prior position.
- County Recycling Coordinator, Keola Aki was Temporarily Assigned to the Solid Waste Program Coordinator in late January 2020. He continues to cover Recycling Coordinator duties.
- We recruited for the Environmental Management Service Engineer position (SW Chief) but the applicants were not pulled for interviews.
- Zahid Khan continued on 89 day contracts 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.
- Extended leaves for critical positions had a great impact on the function of the SWMD causing a need for OT to keep projects and operations afloat:
 - Project Manager Elise Yost went on maternity leave and then on COVID19 family leave during FY20 and was out of the office for several months. She put in her resignation at the end of the FY.
 - Superintendent Rick Renaud was put on leave from 1/9/20 to 6/16/20.
- The State continues to fund two HI5 Recycling Specialist positions

V. PROGRAM MEASURES - ACCOMPLISHMENTS / EVALUATION

The services provided by the DSWM are essential during the COVID19 pandemic. All facilities continued to operate, and all programs and services continued during the pandemic. Essential staff worked their normal schedules. A limited number of Administrative staff worked from home for a few months, but all had returned to the office by the end of the FY. At the beginning of the pandemic, some field staff expressed concern about exposure to the virus. At the beginning of the Mayor's Stay at Home Order, a News Release was issued to notify the public that the RTSs were for emergency use only. This created confusion among staff and facility users so shortly thereafter, RTSs allowed normal use. The Stay at Home Order and shut down of tourism and many businesses caused a change in waste generation with commercial waste tonnage dropping significantly and residential waste and use of the RTSs increasing.

CDC and SWANA circulars were distributed to all staff regarding the use of PPE and protocols to avoid contraction of the virus. PPE continues to be provided to staff. Large sandwich board signs were posted at the entrance and exit of all facilities requiring customers to use masks and practice social distancing.

A flood event in Kapa'a resulted in an emergency declaration RAIN20. The DSWM was tasked with contracting dumpsters for green waste, mixed debris, and metal for flooded properties. These costs will be submitted to FEMA and HIEMA for reimbursement.

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.