



Lihu'e Airport, Lihu'e District (Credit: Andrew Baerst, <https://www.flickr.com/photos/baerst/>)

SECTOR: IV. CRITICAL INFRASTRUCTURE

Infrastructure to provide water and dispose of wastewater and solid waste is critical to supporting growth on Kaua'i, yet current systems are stressed and not keeping pace with demand. If Kaua'i is to grow sustainably it must meet the infrastructure needs of today and make smart investments in planning, maintenance, and facilities to meet future needs. We must also ensure that our airports and harbors are well maintained and equipped to withstand unexpected events.

Meeting Current Infrastructure Needs

We depend upon our public and private systems for water, wastewater treatment, and solid waste disposal to sustain our daily activities in a way that protects our public health and natural environment. Yet, Kaua'i's landfill is near capacity, and the island is heavily reliant on individual septic systems and cesspools. These conditions have potentially severe consequences for public health and environmental quality, and both could require costly fixes. Kaua'i is like many rural areas in that it has a small tax base and limited resources to fund infrastructure improvements. Strategic infrastructure investments must support

these systems in ways that are environmentally and economically responsible and equitable in their outcomes.

Two General Plan studies document existing infrastructure conditions and estimate future need:

- The *General Plan Update Kaua'i Infrastructure Analysis* (2015) describes existing infrastructure systems on Kaua'i.
- *Assessment of the Adequacy of Kaua'i Infrastructure for Current and Future Needs* (2015) estimates infrastructure needs for the island and by planning district to 2035.

These studies identified projected deficits of water and wastewater capacity in some districts, indicating

a need for more capacity to accommodate the 2035 population (see Figure 3-7). Other key findings are summarized in the sub-sections on Water, Wastewater, and Solid Waste. Maps showing key infrastructure systems can be found in Section 5.5.

This Sector also includes Airports and Harbors, which are critical facilities that support the transport of people and goods to and from Kaua'i.

Improving How Infrastructure Supports New Growth

Typically, the burden of paying for the infrastructure to service new development falls on the developer. In turn, these costs are carried over to the buyer. In order to alleviate the housing crisis by supporting growth in the desired areas, government will need to help provide this infrastructure. The County should use its ability to invest in infrastructure as a tool to encourage growth where it is desired. However, for this to occur, infrastructure improvements and land use planning will need to be more closely coordinated. We need to look to partnerships to provide the funding needed for new infrastructure required by growth. Examples include the creation of special districts and innovative public-private partnerships.

Aligning Facility Plans with the General Plan

As a high-level policy document, the General Plan is not a facility plan or master plan. Infrastructure systems run by the County or State are guided by specific plans that provide direction, needs assessment, and capital expenditures for entire systems and individual facilities. Typically, these plans are highly technical and conform to regulatory requirements. However, the update of these specific plans should be guided by the General Plan and align with policies and actions. Moreover, the County has limited to no jurisdiction and less involvement in the update of facility plans for privately run systems, such as in Princeville. Given the need to focus and prioritize infrastructure improvements and explore public-private partnerships, Community Plans are an important opportunity to develop district-level guidance on the development and improvement of regional infrastructure.

1. DOMESTIC WATER

Kaua'i is endowed with ample water supply in our aquifers, but water distribution is limited by a system that requires expansion to meet projected demands through 2035.

Objective: To ensure water for Kaua'i's water needs under the Public Trust Doctrine and integrate traditional ahupua'a methods of preserving water for future generations—not taking more than is needed and leaving enough for everyone.



1.1 Reconciling Water Supply and Infrastructure

Kaua'i's aquifers have sufficient sustainable yields to accommodate future growth. The State Commission on Water Resource Management (CWRM) has not imposed any Ground Water Management Areas on Kaua'i, which would be required if there were dangers of exceeding sustainable yields in any of our aquifers. The CWRM is expected to issue an updated Water Resource Protection Plan that will have new sustainable yield estimates based on a more cautious approach than previous estimates.

1.2 Improving System Reliability and Addressing Growth

Kaua'i's 2014 groundwater well production exceeded 2011 water consumption by about 3.25 million gallons per day (mgd). Groundwater supplies were sufficient within each area except Lihu'e, which supplemented its water needs with Grove Farm's privately owned system. The Department of Water (DOW) has 13 service areas with approximately 20,500 customers (as of November 2013). The State Department of Health Safe Drinking Water Branch regulates ten private water systems on Kaua'i. These range from large systems owned by the Pacific Missile Range Facility and Princeville Utilities Company, Inc. to smaller private systems in Keālia, Kōke'e State Park, Polihale State Park, Pākalā Village, and the Department of Hawaiian Home Lands water system in Anahola. See Figure 3-8 for the locations of public and private water service areas on Kaua'i.

Based on future projections, the DOW will need to complete system and facility improvements to address an additional 6.48 mgd of production and supporting facilities by 2035. This includes replacing an estimated 237 miles of pipeline (out of 400 total pipeline miles) due to deterioration, age, and capacity issues.

The *Water Plan 2020*, updated in 2001, is revisited yearly by the Department of Water (DOW) to reprioritize improvements and be in sync with current land development needs. However, the coordination between DOW improvements and long range planning can and must be improved. The lack of coordination has led to inefficiencies and delays as the DOW requires lead time in process permitting and funding. This has had the effect of delaying or even halting construction of new housing and commercial projects. Additionally, in some areas there are legal challenges that question the validity of diverting water resources for any purpose based on the public trust doctrine. Before water and associated facilities for extraction, storage, and distribution can be allocated to support growth, these legal cases and planning gaps need to be addressed.

The DOW *Water Plan 2020* incorporated housing unit and population forecasts from the 2000 *Kaua'i General Plan*. The DOW will update its *Water Plan 2020* to a 2040 planning horizon after this General Plan is complete, incorporating updated housing unit and population forecasts. Additionally, DOW prepares a *Water Use and Development Plan*.

The General Plan actions for domestic water support water planning and investments in infrastructure that focus on priority growth areas. They also support measures for water conservation and recycling. General Plan policies and actions that focus growth around existing centers will help to reduce costs associated with water system upgrades by minimizing the extent of new water distribution networks that must be built and maintained.

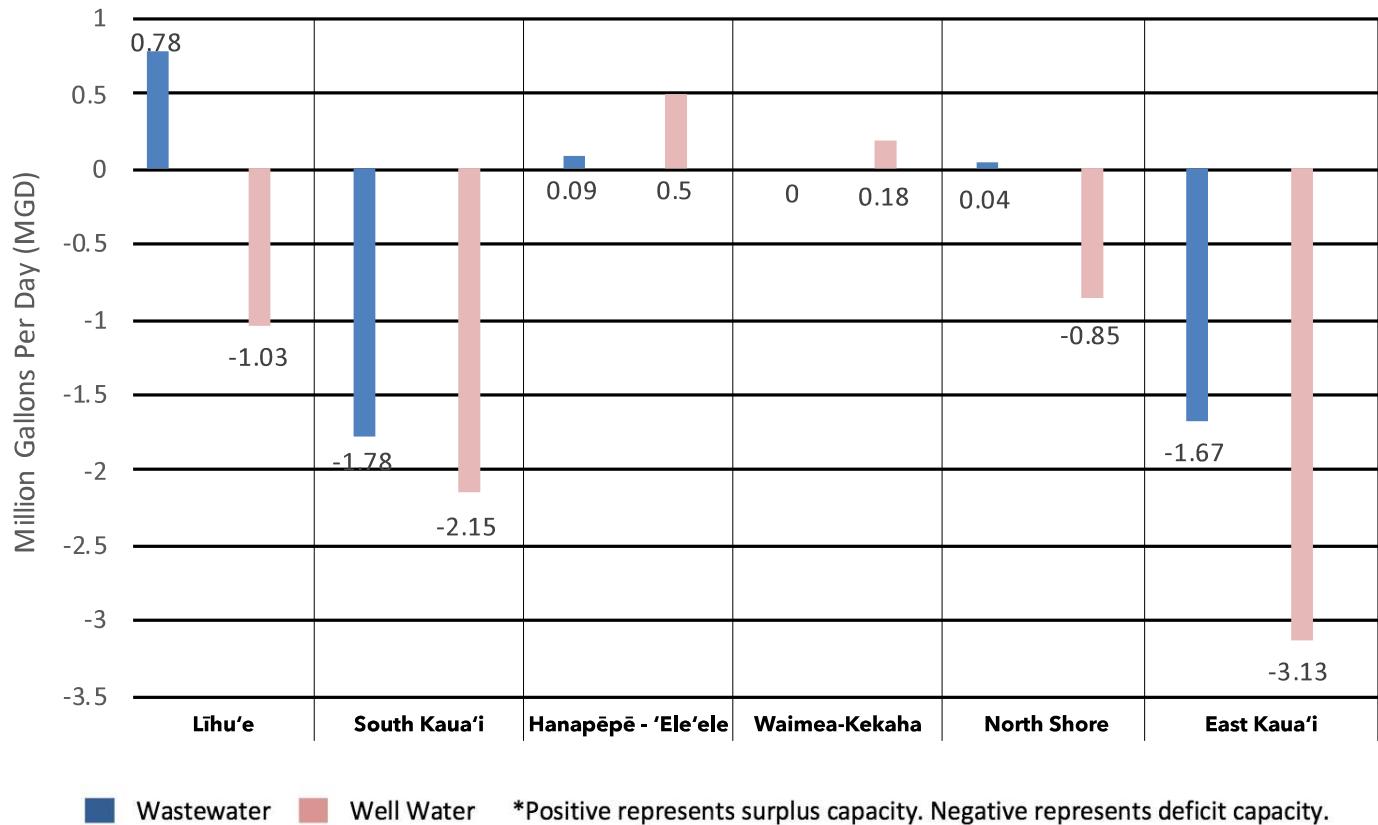
1.3 Enhancing Water Conservation

While there is little concern that we will exhaust the water supply in our aquifers, minimizing water demands will conserve existing system capacity and reduce or forestall the need to expand costly water extraction, storage, and transmission/distribution infrastructure. Use of recycled "greywater" or rain catchment for irrigation and some types of cleaning is another way to minimize demands on potable water supply. Likewise, more efficient buildings and land use patterns can also reduce overall demand for water. Kaua'i residents have been conserving water over recent years. DOW has a range of historic and recent strategies and measures to encourage water conservation, including 100 percent customer metering, leak detection, plumbing code regulations, and public outreach and education programs. The *Water Plan 2020* goals include reducing average daily demand by 2.2 million gallons per day and reducing maximum daily demand by 3.2 million gallons. DOW reports that revenues have been dropping annually, most likely due to rate increases that incentivize customers to use less water.

A. PERMITTING AND CODE CHANGES

1. Prioritize increasing domestic water supply, storage, and distribution systems to meet projected needs while encouraging conservation.
2. Prioritize water infrastructure improvements in infill development areas.
3. Encourage alternatives for non-potable water usage, such as rainwater catchment and greywater recycling.
4. Support water savings through land use practices like low impact development (LID), Ahwahnee Water Principles for Resource Efficient Land Use, new green building programs, and onsite and offsite conservation land use practices.

Figure 3-7 Projected Wastewater and Domestic Water Capacity by District in 2035



- Conduct an audit of the County's dependency on surface water regarding future development, based on legal availability and water regulations.

B. PLANS AND STUDIES

- Implement and update the County Water Plan to guide system expansion, improvement, rehabilitation, and rate structures to support growth consistent with the General Plan and Community Plans.
- Reduce potable water usage through recycled water and alternative individual water systems such as rainwater catchment and greywater recycling, and incorporate these into the County Water Plan Update.
- Update sustainable yield of aquifers, incorporating most recent United States Geological Survey (USGS) low-flow studies and surface water data into the County Department of Water budget, with appropriate reservations for public trust purposes including environmental protection, traditional and customary Native Hawaiian

rights, appurtenant rights, domestic water uses, and the needs of the Department of Hawaiian Home Lands.

- Reconcile water service areas with County planning districts to integrate facilities with Community Plans.

C. PARTNERSHIP NEEDS

- Encourage water conservation at the individual, business, and municipal levels.
- Collaborate with community groups on cooperative approaches to water management.

2. WASTEWATER, SEPTIC SYSTEMS, AND CESSPOOLS

Sustainable growth means providing safe and sanitary wastewater disposal solutions for growing areas and converting communities off of cesspools that create environmental pollution and potential health hazards.

Objective: To preserve and protect our fresh and ocean waters and other water resources from wastewater and other pollutants.



2.1 Maintaining and Expanding Regional Wastewater Treatment

Kaua'i's wastewater treatment and disposal is addressed through a combination of County and private systems. Treated effluent is either disposed of via injection well and ocean outfall or is recycled as R-1 or R-2 water for irrigation. The County's wastewater treatment plants are located at Waimea, 'Ele'ele, Līhu'e, and Wailua, and they have a combined design capacity of 5.5 million gallons per day (mgd). The Infrastructure Maps at the end of this section and in Chapter 5 show the locations of the plants.

All four plants were built before 1980 and have had capacity and system upgrades. The Waimea and Līhu'e plants produce R-1 water (oxidized, filtered, and disinfected) while the Wailua plant produces R-2 water (oxidized and disinfected). Both forms of recycled water are suitable for irrigation and some other nondrinking uses, but the primary use is for irrigation of County parks, State Department of Education (DOE) property, and golf courses.

In addition to County systems, there are over 35 privately owned wastewater treatment plants serving various developments on Kaua'i. The largest private systems are in Puhi, the Kaua'i Beach Resort, Po'ipū (HOH Utilities), Princeville (Princeville Utilities), and at the Pacific Missile Range Facility. These five systems have a combined design capacity of 3.42 mgd. The Princeville and Po'ipū systems produce R-1 and/or R-2 water that is reused by

nearby private golf courses.

The other private systems are package treatment plants serving small beach resorts, and sludge from them is trucked to the County treatment plants in 'Ele'ele and Līhu'e.

While total wastewater treatment capacity was sufficient to address the levels of wastewater generated in 2015, projected growth indicates the need to expand wastewater treatment facilities by a little over 2.5 mgd to accommodate islandwide generation in 2035. The greatest projected needs are on the South and East sides of the island. Only the Līhu'e wastewater treatment plant is projected to have significant excess capacity. New regional wastewater solutions will be needed to accommodate planned growth in South Kaua'i and Kīlauea.

Water recycling is a sustainable approach to wastewater management. It decreases the diversion of water from sensitive systems such as the aquifer or streams and also decreases discharge into the ocean. When adequately treated, recycled water can be used for a variety of water needs such as agriculture and landscaping.

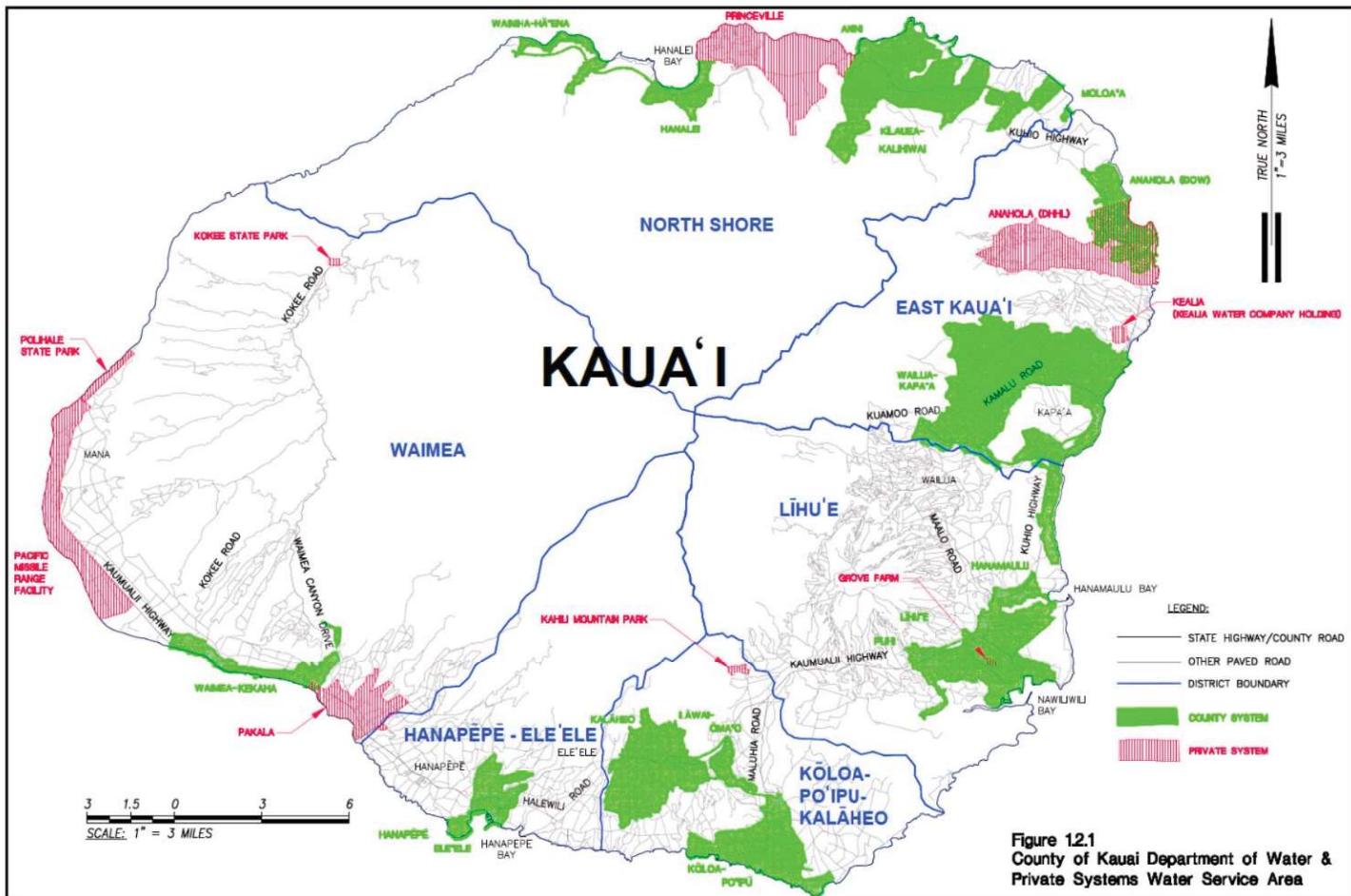
2.2 Addressing Cesspool Conversion

A large number of homes and businesses are not connected to a regional sewer system and must use a cesspool or septic system. These Individual Wastewater Systems (IWS) are regulated by the State Department of Health and had an estimated capacity of 4.06 mgd in 2015. The DOH estimated there were 13,688 cesspools and 5,300 septic and aerobic units on Kaua'i in 2016.

HAWA'I COUNTY HAS MORE CESSPOOLS THAN KAU'A'I, BUT KAU'A'I HAS THE HIGHEST DENSITY OF IWS AT 32 UNITS PER SQUARE MILE.

The State no longer allows construction of cesspools. Large capacity cesspools were banned by the Environmental Protection Agency (EPA) in 2005. DOH offers incentives for septic system conversion through Act 120, a State tax credit of up to \$10,000 per qualified cesspool. However, this is only for properties within 200 feet of streams, ocean, or SWAP zone (Source Water Assessment and Protection Program) near wells. The tax credit program is set to expire in 2020 unless the State legislature extends its horizon. At this time the DOH uses the County building permitting process to determine if a property needs to upgrade a cesspool to septic system, depending on the location of the property and/or the extent of the project.

Figure 3-8 Public and Private Water Service Areas



■ County System ■ Private System

Source: R.M.Towill (2015)

2.3 Anticipating Emerging Water Quality Concerns

The Wailua plant discharges up to 1.5 million gallons of treated effluent per day through a permitted ocean outfall that begins approximately 670 feet offshore of Lydgate Beach and 30 feet below the ocean surface. The County is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit, issued by the State Department of Health (DOH). As part of the compliance measures for the permit, the County must strive to meet updated water quality standards.

A wide-ranging concern is coastal water quality near high concentrations of cesspools and underground

injection wells. DOH is exploring the environmental impact of Kauai's large number of cesspools and injection wells, with a special focus on South Kauai, Nāwiliwili, and Wailua.

A. PERMITTING AND CODE CHANGES

1. Require large-scale developers to contribute funds toward improved recycled water production and distribution, or to construct their own wastewater reclamation facility.
2. Manage wastewater treatment and disposal in a manner that safeguards human health while accommodating current needs of local residents before any consideration of future growth. These systems are to be efficient and cost-effective, and use recycled water from treatment where possible.
3. Improve the quality of effluent discharged into injection wells, especially those in the Special Management Areas.
4. Support innovative treatment systems that produce effluent at appropriate water quality levels to encourage reuse such as irrigation, industrial uses, and other non-potable use.

B. PLANS AND STUDIES

1. Develop and update wastewater facility plans to guide decisions regarding the allocation of treatment capacity, the expansion of wastewater systems, and system improvement priorities.
2. Coordinate public and private planning, development, operation, and management of wastewater treatment and disposal systems.

C. PROJECTS AND PROGRAMS

1. Locate and relocate wastewater facilities in appropriate geographic areas, based on traditional, cultural, and biological natural filtration systems for the optimization and expansion of wastewater systems and system improvement, considering alternative reclamation technology or tertiary treatment.
2. Provide adequate trunk sewer and collection main capacities to serve existing and future urban development.
3. Plan for and implement regional wastewater treatment solutions for South Kaua'i and Kīlauea.
4. Monitor the disposition and potential effect of cesspool seepage and injection wells on the groundwater and nearshore water quality.
5. Support water reuse projects and increase the use

of recycled water.

6. Explore opportunities to utilize the Clean Water State Revolving Fund Program for financing water quality infrastructure projects, including energy savings at plants, capacity increases including new pump stations, and drainage improvements.
7. Improve wastewater infrastructure through grant and loan programs, such as the USDA Rural Development Program.

D. PARTNERSHIP NEEDS

1. Reduce the number of cesspools through septic conversion or through connection to a new or existing regional wastewater system.
2. Institute best practices for diverting and reusing wastewater.

3. SOLID WASTE DISPOSAL AND RECYCLING

With a landfill nearing capacity and a fragile island ecosystem, all people must do their part to recycle, reduce waste generation, and properly dispose of hazardous and green waste. The County should continue to explore and embrace programs and strategies that reduce our waste footprint.

Objective: To provide environmentally-sound waste disposal and collection services with a goal to reduce the solid waste stream by 70 percent.



3.1 Managing the Solid Waste Stream through Increased Diversion

There are significant challenges to managing solid waste disposal on a small island with a growing residential and visitor population. The Department of Public Works (DPW) provides islandwide service for collecting and disposing of solid waste generated by residents. This includes a limited number of commercial customers, including Transient Vacation Rentals. The majority of businesses requiring dumpster service are collected by private refuse hauling companies. The DPW currently does not have curbside recycling or curbside green waste collection programs. All residential recycling is voluntary, and residents must transport material to various centers located throughout the island.

In 2015, total islandwide waste generation was approximately 150,000 tons (roughly estimated at 11.6 pounds per person a day). An estimated 44 percent of total waste is diverted from the landfill through recycling and other diversion efforts. The diversion rate has increased steadily over the past ten years; however, it cannot be assumed the diversion rate will continue to climb. Reaching the County's goal of 70 percent diversion by 2023 will require a new materials recycling facility (MRF), curbside recycling,

recycling mandates for businesses, and curbside collection of green waste.

THE COUNTY HAS A GOAL OF 70% DIVERSION BY 2023

In July 2016, Kaua'i became the first County in the State to introduce a variable rate refuse collection fee for residential customers. This "Pay as You Throw" system charges for service in relation to the volume of the refuse cart requested by customers and provides an economic incentive to reduce trash and increase recycling and waste diversion behaviors.

Green waste recycling is among the most cost-effective programs for reducing landfill demand since its byproducts can be marketed and it comprises a substantial portion of solid waste generated on Kaua'i. In FY 2015, 31,450 tons of green waste was diverted at County transfer stations, Kekaha landfill, and through commercial efforts.

This undiverted amount of green waste was estimated to be over 6,000 tons in 2010, based on a waste composition analysis conducted for the County's *Integrated Solid Waste Management Plan* (2009). In addition, green waste accounted for two-thirds of the tonnage in the County's diverted waste stream and over 30 percent of the tonnage for private sector waste diversion programs. In order to maximize the potential of green waste diversion from the landfill, the County would need to initiate curbside recycling for green waste. There are currently five green waste recycling locations, listed in the table below.

Green Waste Recycling Locations

Hanalei Transfer Station

Kapa'a Transfer Station

Līhu'e Transfer Station

Hanapēpē Transfer Station

Kekaha Landfill

The County offers a variety of residential recycling opportunities for various recyclables from appliances

to household hazardous waste. Items are accepted free of charge at various locations throughout the island. The County also offers free backyard composting bins for residents to manage food and yard waste. These programs are coupled with strong education and outreach efforts.

Disposal of commercially generated cardboard, metal, and green waste is restricted at the landfill. This has been very effective to ensure that large generators do not dispose of recyclable items. The County is looking to reinforce this existing legislation by mandating that local businesses have recycling programs in place for materials that are easily recyclable.

The Hawai'i Deposit Beverage Container (DBC) law was implemented in 2005 and covers water and other beverages packaged in aluminum, bi-metal, glass, and certain plastics. This provides an economic incentive to recycle and has significantly increased the diversion of these containers. The current recycling rate is 68 percent.

Food waste is another opportunity to divert waste from landfills, especially since food waste emits high levels of greenhouse gas in landfills. The County's "Food: Too Good to Waste" public awareness campaign provides tools and tips for residents and businesses to save money by reducing food waste. The County will explore other remedies to solid waste disposal through new technologies and new methods.

3.2 Developing a New Landfill

DPW manages the County's only landfill at Kekaha, where all municipal solid waste from residents and businesses is disposed. The landfill has a limited lifespan with less than 700,000 cubic yards of capacity remaining³⁰. The estimated remaining lifespan of the landfill is approximately 4.9 years.

This requires increasing waste diversion and capacity at the Kekaha Landfill, while expediting the development of a new landfill site. Decisive action is needed, as the required environmental studies, land acquisition, and program implementation for a new landfill site will be a lengthy process.

In addition to increased recycling, a new landfill will be needed to address solid waste disposal. The current Kekaha landfill site is the only permitted municipal solid waste site on the island and can continue to accept waste only up through 2020 without

approvals to expand it. If existing proposals to expand are approved, the Kekaha landfill will likely reach capacity by 2028. It is extremely important to note that estimates of remaining time before the Kekaha landfill is full are based on typical conditions for solid waste generation. These can change dramatically after a major storm or other natural disaster. For context, Hurricane Iniki in 1992 produced more solid waste in a 24-hour period than five years of the typical rate of solid waste generation on Kaua'i.

The County has proposed to create a combined new landfill and materials recycling facility on a 270-acre site owned by the State in Ma'alo, near Lihue. The proposed Resource Recovery Park provides the possibility of more preferable locations for long-term management of some of Kaua'i's solid waste disposal and recycling programs that are not already operational.

Long-term management of Kaua'i's solid waste streams will require diligent efforts by the community, businesses, and government. Coordinated programs are needed to "reduce, reuse, and recycle" in ways that are effective and convenient. Programs that reduce waste from building materials, packaging, or other major waste generators can be particularly effective since they target larger volume businesses that can adjust their systems, often with cost savings as a byproduct. Targets, such as the County's 70 percent diversion rate goal by 2023, help focus efforts and bring attention to programs and strategies that work best.



Automated truck and cart

³⁰ The Waste Management of Hawai'i (WMH) Annual Report released in February 2015

A. PERMITTING AND CODE CHANGES

1. Reduce construction and demolition debris disposal in landfills by requiring recycling, particularly for large contractors and construction projects.

B. PLANS AND STUDIES

1. Update and implement the *Solid Waste Integrated Management Plan* to set policies for solid waste programs, facility planning, capital improvements, operations, user fees, and financing facilities and operations.
2. Plan and prepare for emergency debris management and disposal due to future major storms and tsunamis.

C. PROJECTS AND PROGRAMS

1. Site and construct a new landfill.
2. Establish an automated weekly, curbside collection system for residentially generated green waste and recyclables.
3. Reduce solid waste volume through source-reduction through new technology and programs that reuse building materials, minimize packing materials, and other measures. Focus attention on large volume purchasers and developers.
4. Divert at least 70 percent of solid waste through increased source reduction, recycling, biodiversion, and landfill diversion methods.
5. Maximize effective life of existing and future landfill capacity.
6. Increase the convenience of recycling centers for users.
7. Provide commercial volume-based collection with enhanced recycling programs, including incentives for businesses to adopt zero-waste collection programs.

4. AIRPORTS AND HARBORS

Ocean and air travel are what keep Kaua'i connected to the world. We rely on our airports and harbors to bring people and essential goods to and from the island. Their reliability and longevity are critical to maintaining Kaua'i's economy.

Objective: To support the modernization and user-friendliness of Kaua'i's airports and harbors.



4.1 Modernizing Airports to Serve Current and Future Needs

Kaua'i's main airport in Lihu'e is managed by the HDOT Airports Division. In addition, the HDOT operates the Port Allen airport, a general aviation airport. HDOT is undertaking a statewide Airports Modernization Program. In Lihu'e, improvements include upgrades to the ticket lobby, construction of a consolidated car rental facility, and an expansion of the parking area and airport loop road.³¹ The State of Hawai'i Office of Planning recently completed a Technical Assistance Memorandum (TAM) to guide planning of land uses within five miles of airports to ensure land uses that are compatible with airport operations, including aircraft landing and takeoff.³² While improvements to airports are justified to serve existing and projected demand, there is concern that increasing the capacity of Lihu'e Airport would support and encourage increased visitor traffic. Such improvements should be balanced with the objectives of managing tourism impacts and keeping visitor arrivals at reasonable levels.

4.2 Accommodating Demand for Commercial Harbor Facilities

Kaua'i's two commercial harbors at Nāwiliwili Harbor and Port Allen are also owned and operated by the State through the HDOT's Harbors Division. Nāwiliwili Harbor serves as the primary commercial harbor for Kaua'i with facilities for handling both overseas

³¹ Hawai'i Airports Modernization Program, 2008

³² TAM-2016-1, August 1, 2016

and inter-island general and containerized cargo. The harbor is also used for charter boat fishing and recreational boating and is a port-of-call for passenger cruise ships. Port Allen is a popular port for excursion and charter boat operations but is not currently equipped to accommodate cruise ships.

The *Kaua'i Commercial Harbors 2025 Master Plan* (CHMP) was updated in 2001 and contains recommendations for both harbors through the year 2025. Kaua'i depends almost entirely on ocean transport for its essential commodities, including food, clothing, fuel, automobiles, and many other goods. Ocean freight is also used to export goods within and outside the State. The CHMP emphasized the need to ensure commercial harbors can accommodate projections of cargo volumes through the year 2025, which were used to develop facility recommendations.

Nāwiliwili Harbor should be able to accommodate demand for overseas and inter-island shipments through 2025, but beyond that, expansion may be needed. A State-owned area adjacent to the existing terminal was identified for possible expansion of the overseas terminal in the CHMP. Inter-island terminal needs may also be met by harbor reconfiguration or additional land acquisition.

In addition to handling overseas and interisland containerized cargo, Nāwiliwili Harbor can accommodate the domestic and international cruise ships that come to Kaua'i. At Nāwiliwili Harbor, Pier 2 is primarily used as the cruise ship terminal with a berth length of 531 feet and a depth of 35 feet at pier side.³³ In 2017, 21 cruise ship companies anchored at Nāwiliwili Harbor with Pride of America accounting for the majority of the trips to Kaua'i.³⁴ With the exception of Pride of America, a Hawai'i Cruise line, most cruise ships that come to Kaua'i are part of a longer route that comes from either Los Angeles or Mexico.

In the *Commercial Harbors 2025 Master Plan* (2001), there were several recommendations for Nāwiliwili Harbor that included providing sufficient berthing facilities for the growing industry and ensuring the safety of passengers from commercial cargo operations. To implement the *Commercial Harbors 2025 Master Plan*, the Hawai'i Department of Transportation - Harbors Division has recently included in their draft environmental assessment a

proposal for Nāwiliwili Harbor drainage and pedestrian improvements. The paving and construction of the roadway connecting Pier 2 and Pier 3 will improve safety by designating a pedestrian walkway for cruise ship passengers separate from the commercial cargo activities.

4.3 Valuing Small Boat Harbors as Important Recreational Resources

Small boat harbors are a valued recreational amenity on Kaua'i. They are managed by the State Department of Land and Natural Resources (DLNR) Division of Boating and Recreation (DOBOR). There may be opportunities for the County to support DOBOR in applying for grants and funding, providing parking, and seeking expedited permitting for maintenance of small boat harbors.

A. PERMITTING AND CODE CHANGES

1. At airports, accommodate shuttles that transport visitors to resort destinations.
2. Do not expand the Princeville Airport, except for use as a parking hub and gateway for visitors to the North Shore.

B. PARTNERSHIP NEEDS

1. Support DOBOR with master planning and acquiring funding for expansion and maintenance of all small boat harbors.
2. Update the Līhu'e Airport Master Plan and address capacity issues.
3. Collaborate with HDOT Airports Division in the implementation of the TAM.
4. Collaborate with HDOT Airports Division and other agencies in future planning of land uses at Burns Field in Port Allen as a part of the Hanapēpē-'Ele'ele Community Plan.
5. Support HDOT - Harbors Division to implement and update the *Kaua'i Commercial Harbors 2025 Master Plan*.

³³ HDOT - Harbors Division, Port of Call Handbook: <http://hidot.hawaii.gov/harbors/files/2012/10/Nawiliwili-Harbor-Kauai.pdf>

³⁴ HDOT - Harbors Division, Passenger and Cruise Schedules: <https://hidot.hawaii.gov/harbors/files/2013/01/DOC001.pdf>