EXECUTIVE SUMMARY

Kanahā Beach Park Master Plan

County of Maui - Department of Parks and Recreation

The Executive Summary is a condensed version of the full master plan document. It includes the same content but in a shorter and more concise form. Some information has been reorganized or reformatted to be consistent with the purpose of an Executive Summary.

Maps and diagrams also have been simplified and condensed. In addition, strategies and key actions also have been organized and presented as one table.

The Executive Summary was prepared by the Department of Parks and Recreation and is based on the master plan document prepared by Planning Consultants Hawaii.

Project Background and Purpose

Kanahā Beach Park is a favorite retreat for Maui residents seeking to enjoy its 1.31 miles of sandy beach, spend time with family and friends, or enjoy opportunities for outdoor ocean-oriented recreation. The park has world-renowned wind and kitesurfing and attracts many to canoe, surf, and fish.

With increasing population growth and subsequent user demands, careful planning is needed to insure the park's natural and physical resources are managed and protected. The Kanahā Beach Park Master Plan is an interagency effort to develop a long term plan for the park. It addresses critical planning issues, such as public access, environmental protection, and facility needs in the context of erosion and climate-related sea level rise. The purpose of this master plan is to allow for increased use of the park, while protecting the essential character-defining and environmental features that make the park a special place.

Location and Context

Kanahā Beach Park is located on the north shore of Maui just east of Kahului on the north side of the Kanahā Pond State Wildlife Sanctuary (KPSWS) and Kahului Airport. The site is bound by the ocean on the north. On the west end is the county's KWRF. The park boundary is just mauka of Amala Place and Alahao Street, which run along the entire south boundary.

At the east end of the site is an undeveloped area at the west end of the airport runway. Vehicle access is via Amala Place or Ka'a Street along Alahao Street.

Across Alahao Street are vacant lands owned by the State DLNR and the State of Hawaii Department of Transportation (HDOT), as well as the KPSWS. Kanahā Beach Park enjoys a symbiotic relationship with the KPSWS. The park's shoreline, dunes, and wetlands support the larger KPSWS ecosystem, providing essential habitat for the area's wildlife.

The Planning Process

Preparing the plan consisted of five phases over three and a half years years from April, 2015 to October, 2018.

Phase 1: Technical Studies

A series of technical studies were prepared on vegetation and wildlife, wetlands, coastal resources, archaeology, topography, and infrastructure.

Phase 2: Community Assessment

Meetings with agency stakeholders were held and an on-site park use survey was conducted. Over 240 responses were tabulated.

Phase 3: Community Engagement

A series of public meetings and workshops were held with the general public and agency staff. The events attracted a cross section of the park's users along with representatives from public agencies. Results of these meetings are shown in the graph at right.

Phase 4: Preparation and Review of Draft Plan

A draft plan was prepared by the consultant team using information generated through the first two phases. Public meetings and open houses also were held to review the draft plan.

Phase 5: Preparation of a Final Plan

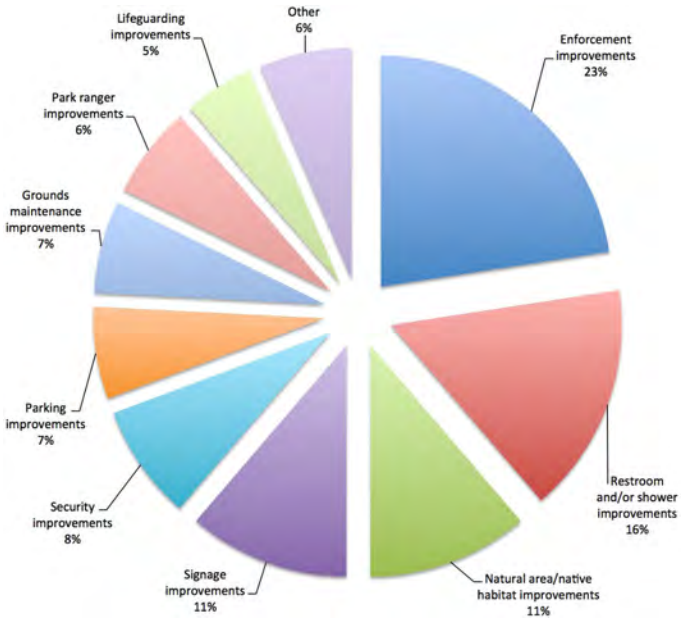
After the draft plan was revised, several meetings wee held with a working group of stakeholders to discuss and resolve several outstanding issues.

In addition to these steps, a parking study was conducted over several weekdays, weekends, and holidays in 2017. The study provided a useful measure of how the park is used throughout the week and during the day.

Public meetings and open houses were interactive and organized so participants could express their ideas and concerns in several ways.

Improvements Needed at Kanahā Beach Park

Source: Stakeholder meetings held 20-21 October 2015.



Natural and Cultural Conditions

Topography and Slope

The park's topography varies from flat zones of grassland, trees, and wetlands to rolling sand dunes along the shoreline covered in coastal trees and shrubs.

Based on an aerial topographic survey (2015), the topography of the site ranges from sea level to 16.5 feet above mean sea level (MSL) at the high point where Amala Place crosses over the existing concrete drainage channel.

Elevations along Amala Place (about 2,600 feet of street frontage) vary from 5.7 feet to 7.2 feet above MSL and along Alahao Street (approximately 4,100 feet) from 2.8 feet to 7.9 feet above MSL.

The interior of the park varies considerably with several dunes between 10 feet to 13 feet above MSL (especially on the west portion of the park) as well as low lying wetland areas which are as low as 0.1 feet above MSL.

Geology and Soils

Soils are classified as Dune Lands (DL) on the eastern half of the site, and as Jaucas Sand, Saline (JcC) in the western half of the site (Foote et al, 1972). Dune Land soils consist of loose unconsolidated particulate sands, while Jaucas Sand, Saline Soils are firmer with accumulations of alluvial material and higher salt content.

The shoreline is classified as Beach Sand. Hard-packed basaltic soil is present closer to Alahao Street and Kalialinui Stream.

Wetlands and Drainage

Nine wetlands were identified and mapped across the length of Kanahā Beach Park. Some areas are as large as 3.6 acres in size. These areas will be maintained as wetlands.

Coastal Dunes and Shoreline

The park has a near continuous beach backed intermittently by sand dunes. Behind these dunes are wetlands that capture and filter runoff, sediment, and pollution from upland and inland sources.

The beach supports habitat for many marine and terrestrial organisms including endangered native Hawaiian plants and animals.

Kanahā Beach Park area contains a remnant sand dune system behind the beach. Fore dunes face the beach and those landward of fore dunes are usually called back dunes.

In a typical development of dunes the slope behind the fore dune becomes more stable, nutrient levels increase, and sand inundation and salt spray levels decrease. This allows the area to be colonized by a range of plant species that take advantage of these more stable conditions.

At Kanahā Beach Park, these back dune areas include swales, some likely resulting from wind scouring (deflation) to an elevation near the water table where moist sand is encountered that cannot be readily transported.

Back dune areas are often heavily modified from human-induced disturbance. This is is true at Kanahā Beach Park where historical military use, construction, and more recent vehicle operation have severely altered these areas. In some areas, the back-dune system is absent or has been altered.

Vegetation and Wildlife

Vegetation varies considerably within the park depending on location. A total of 138 plant species were recorded during four site visits. Of those, 32 were either endemic or indigenous species.

Most were concentrated in the less developed west end of the park, many having been planted by the Community Work Day program as a coastal native species enrichment/restoration project. Two of these plants, the ʻohai and the dwarf naupaka, are endangered species that are federally protected (USFWS, 2015).

Native wildlife comprised four species: the Hawaiian bat which was uncommon, and three insects - the Blackburn's sphinx moth, the green darner, and the globe skimmer. Nēnē *(Branta sandvicensis)* were not seen during the survey but it is possible that they visit the park.

No protected water birds were seen during the survey, but the ae'o or Hawaiian stilt *(Himantopus mexicanus knudseni)*, the ʻalae keʻokeʻo or Hawaiian coot *(Fulica alai)* and the koloa or Hawaiian duck *(Anas wyvilliana)* could be attracted to the park's wetland features.

Hawaiian petrels *(Pterodroma phaeopygia sandwichensis)* and Newell's shearwaters *(Puffinus auricularis newellii)*, may transit over the site when flying between the ocean and nesting sites in the mountains during their breeding season (March through November).

Flood Inundation Area

The park includes two flood zone designations. Most of the park is in the VE flood zone with a small portion adjacent and east of the Kalialinui Channel designated as AEF.

Flood Zone VE represents areas of coastal flood zone with velocity hazard and base flood elevations (BFE) determined. The BFE within the park range from 15 feet to 20 feet. There is a small portion of Zone AEF and X just to the east of Kalialinui Gulch.

Flood Zone AEF represents floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be accommodated without increasing the BFE.

Flood Zone X represents areas outside the 0.2% annual chance floodplain.

Entitlements and Existing Land Use

The zoning classifications of the two parcels in the project site include the following:

State land use: Conservation (Limited sub-zone);
County Wailuku-Kahului Community Plan: Park
County zoning: Airport.

The park is located within the Maui Island Plan's Urban Growth Boundary.

The use of the two parcels as a public park complies with the uses allowed within the designated governmental use zones. The parcels are also within the Special Management Area (SMA) and will require an SMA permit or request for exemption depending on the type of improvement proposed in any phase.

Views

The views from the park site are limited on the mauka side as the topography of the site is relatively flat and large trees block most of the view of Haleakalā. There are numerous significant views from the shoreline to the West Maui mountains and the Waihee coastline.

Historic and Archaeological Resources

An archaeological reconnaissance in 2015 identified eight archaeological sites, all from WWII. All eight sites are believed to have been built during the early 1940s when military build-up in the islands led to the development of the Kahului Naval Station (NASKA; later Kahului Airport).

The features include flood control, sand retention, military storage and protection, structural foundations, and temporary shelters.

Utilities and Infrastructure

Water

The park is serviced by the county water system by two-inch water meters (#96931032 & #96998330) located along Alahao Street near the intersection with Kaʻa Street. This meter is connected to a six-inch waterline along Kaʻa Street and toward the airport area.

The line extends east into the park and services the two existing comfort stations and the irrigation for the eastern section of the park. There are no waterlines between Kaʻa Street and the KWRF.

There are no fire hydrants in the park or along Amala Place and Alahao Street. Existing structures may be under an exemption relative to fire protection. Any new structures or additions to the existing structures may be required to be non-combustible or require an exemption from fire flow requirements from the Maui County Water and Fire Departments.

Wastewater

Wastewater collected from the region is transported to the KWRF located west of the park. An existing 18" sewer line along Alahao Street conveys wastewater from the east to the Kaʻa pump station, east of Kialinui Gulch. The line is connected to the wastewater treatment plant.

The park's two restrooms are connected to the existing 18" sewer line on Alahao St. Showers drain into the ground. The KWRF treats wastewater to R-2 levels.

Electricity

An existing electrical transmission system is located along Amala Place and Alahao Street fronting the park. The existing overhead system currently extends into the eastern section of the park to provide service to the buildings.

Lighting

There is minimal lighting at the park, mainly at the driveway entrances which are mounted on the utility poles.

Drainage

Elevations within the park vary from sea level to approximately eleven feet above mean sea level. There is no drainage infrastructure in the park.

On-site runoff sheet flows to low spots within the park where it percolates into the soils, which have a high infiltration rate. Areas immediately around the water sources such as hose bibs and showers tend to puddle and become muddy as there is no drainage or sewer to capture the water.

Parking and Access

Several driveways providie access into the park, both paved and unpaved. Several formal and informal parking lots are scattered throughout the park. A majority of the existing paved parking area are properly striped, although the condition of the pavement and striping varies with some areas experiencing extensive deterioration.

Based on a 2016 review of parking areas, the park can accommodate about 682 vehicles, divided among 181 formal spaces and 501 informal spaces. This capacity is divided as follows:

Western Planning Area	0 formal	138 informal
Central Planning Area	0 formal	157 informal
Eastern Planning Area	181 formal	206 informal

Restrooms

Three portable toilets and one restroom are in the eastern section of the park. There are also two showers in this area. A single portable toilet and a restroom is near the canoe hale.

Two showers are located in the east-central area. In the former campground area are three additional showers. To the west, at “Keyhole”, there is one portable toilet. Further west, at Ka‘a Point is a single portable toilet. “School Beach” has two portable toilets.

Picnic Facilities

Nine picnic tables and five BBQ facilities are in the eastern end. Near the canoe hale are fifteen picnic tables and eleven BBQs. In the former campground area are five picnic tables and four BBQs.

n the central region of the park, “Keyhole” has three picnic tables and Ka‘a Point also has three picnic tables. In the western section of the park, “School Beach” has three picnic tables.

Water Safety

Two lifeguard stations are located overlooking one of two dedicated and marked swimming areas. One station is located just seaward of the canoe hale, while the second station is located further east and is adjacent to the marked swimming area.

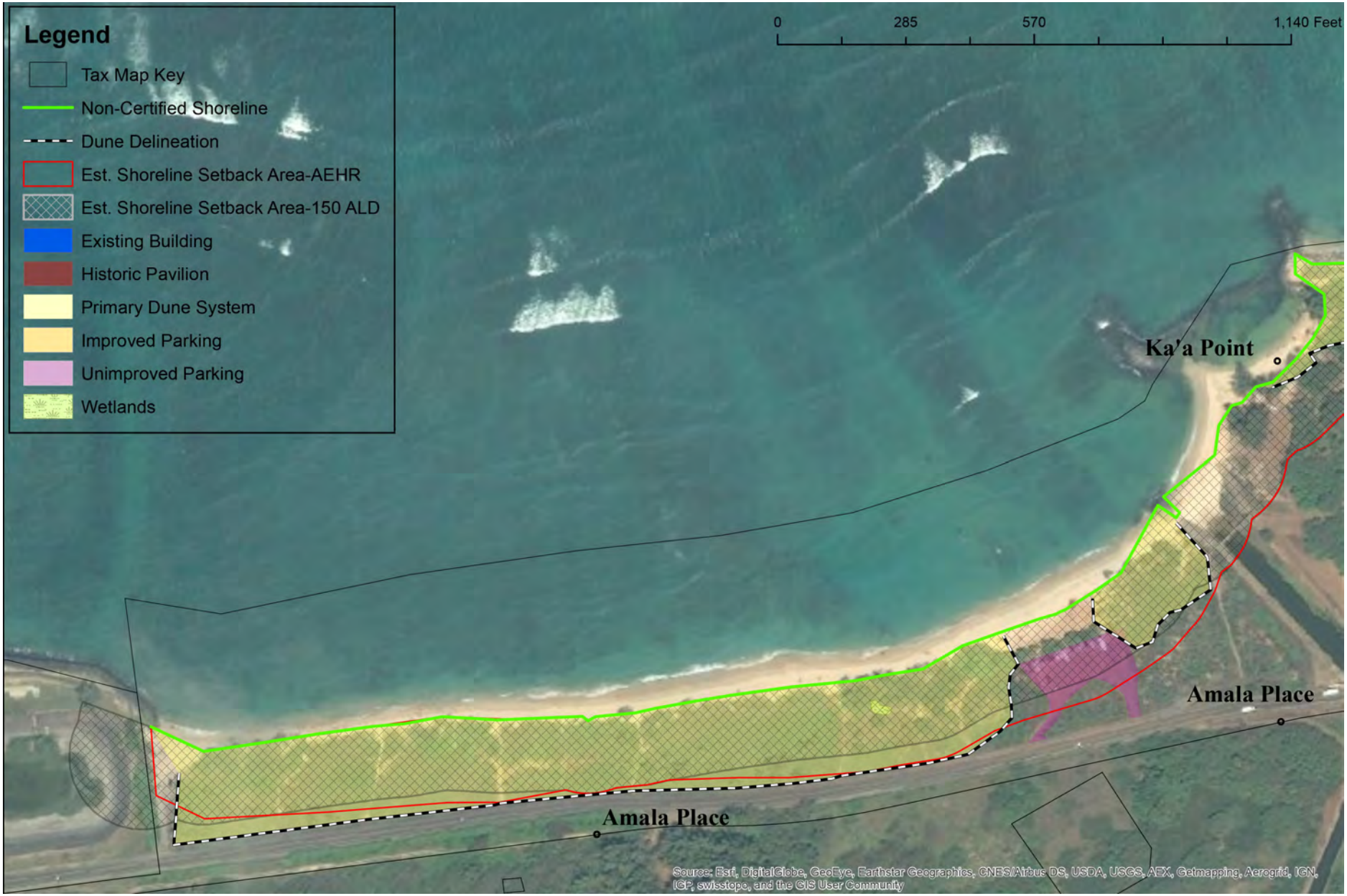
Other Facilities and Improvements

A park office and three containers are in the eastern section of the park. Two information signs and one major entrance sign is in the far eastern section of the park along with one major entrance sign near the campground. Another major entrance sign is in the central part of the park.

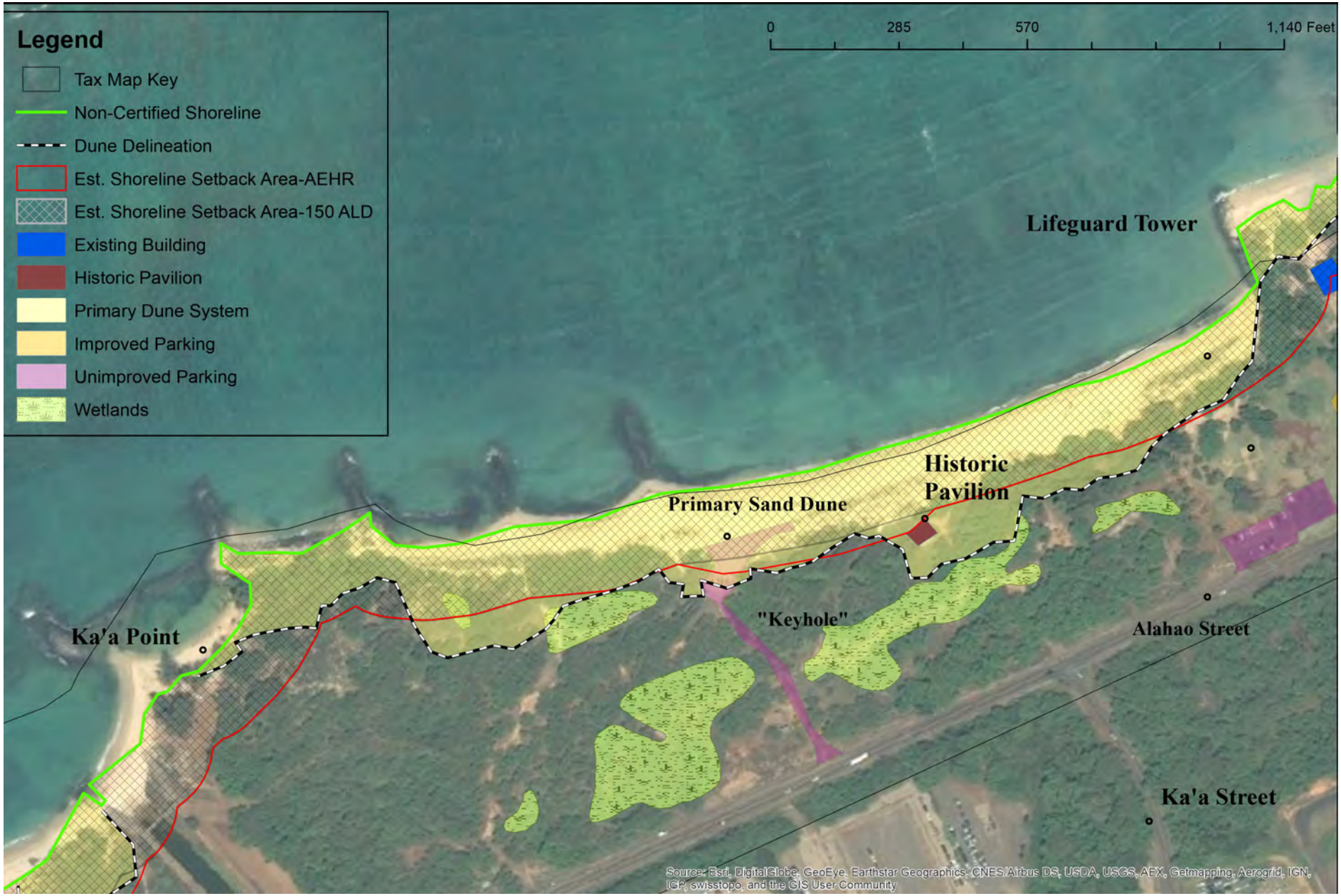
Two water fountains are located in the eastern section of the park. One is in the far eastern section, and the other further west towards the campground.

Three volleyball courts are located adjacent to the canoe hale.

Existing Conditons: West Planning Area



Existing Conditons: Central Planning Area



Existing Conditons: East Planning Area

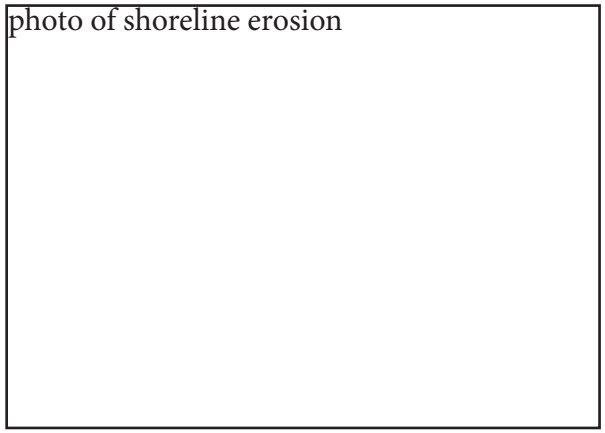
Issues & Challenges

Kanahā Beach Park faces an unusual number of challenges in the future because of its size, shoreline location, environmental attributes, its popularity, and the range of users it attracts. Among the most important issues facing the park are the following.

Rising sea-levels and coastal erosion

According to climate scientists, the rate of sea level rise is likely to increase dramatically in the coming decades. This will be an issue at Kanahā Beach Park because these studies suggest that the erosion episodesat the park k will happen more frequently, causing significant shoreline erosion and damage to park infrastructure.

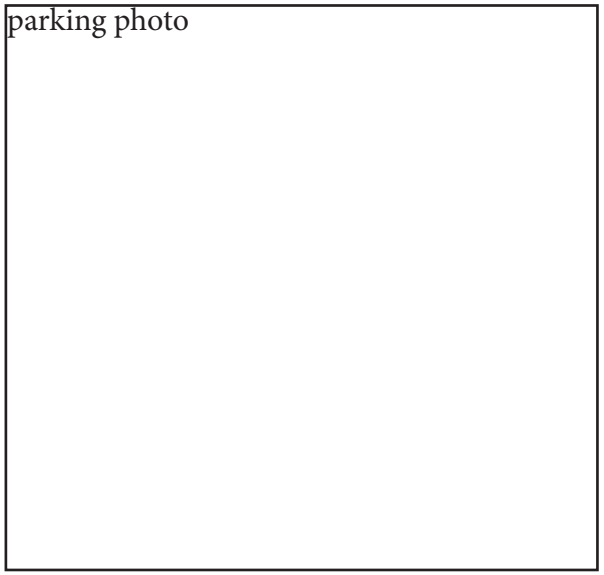
Low lying areas will be more vulnerable to flooding, and the entire park will be more vulnerable to hurricanes and tsunami. Careful planning is needed to ensure that park infrastructure is located well outside the shoreline setback area.



According to the shoreline study prepared for the project, “The parking areas at Key Hole, Ka’a Point, School Beach, and at the west end of the park adjacent to the KWRF are all located along retreating shorelines that are experiencing some of the highest erosion rates on the Island of Maui.”

Maintaining and protecting coastal habitat.

The degradation of wetlands, dunes, and native vegetation is a problem in some areas. This is caused in part by unmanaged pedestrian and vehicular access. Protecting the park’s dunes is especially important to maintain the ecological integrity of sensitive environmental areas.



Safety and security

These two issues were among the top conerns mentioend by park users and stakeholders. Car break-ins were frequently cited as were problems connected to homeless campers.

Insufficient parking, toilets, and lifeguards

According to the Kanahā Beach Park Master Plan user survey, the top four park improvements that are needed include more showers, restrooms, parking, and lifeguards. This was especially pronounced at the east end of the park, where most of the existing facilities are located.

Managing user conflicts

Because Kanahā Beach Park is heavily used for a variety of recreational activities, user conflicts occur periodically. Most tend to be on windy days along the shoreline when many kitesurfers and windsurfers are preparing to launch or have returned.

Fragmented Management

A host of county, state and federal agencies have different roles and responsibilities, and at times conflicting imperatives.

The lack of a single entity responsible for the management of Kanahā Beach Park as a whole complicates the development of policy and programs to address the desires of competing user groups, and impedes timely response to challenges like sea level rise and coastal erosion.

Recommendations

KEY STRATEGIES	Major Actions
CONTINUE TO RESTORE THE PARK'S COASTAL ECOLOGY AND SUPPORT COASTAL RESILIENCE	• Relocate parking and develop a new recreation area at Ka Point. • •
EXPAND RECREATIONAL OPPORTUNITIES.	• Establish a centrally located park headquarters and information center. • Create a park space in the area mauka of Ka'a Point. • Restore and reuse the historic paviliion
IMPROVE PEDESTRIAN , BICYCLE, AND VEHICULAR CIRCULATION AND PARKING.	• Resurface the existing driveway pavement throughout the Park. • Create a network of walkways and trails throughout the park. •
CREATE A SAFER AND MORE SECURE ENVIRONMENT.	• Provide a new lifeguard station at Ka'a Point. • Manage evening access to the park with a gate at the Ka'a St./Alahao intersection.
UPGRADE INFRASTRUCTURE AND FACILITIES.	• Expand the restrooms in the eastern area and by the park headquarters • Install potable water lines • Improve drainage throughout the park
ENHANCE LANDSCAPE PLANTING AND GROUNDS AND FACILITY MAINTENANCE.	• Restore native habitat in selected areas throughout the park. • Remove or thin ironwood trees and replant with native species.

Western Planning Area

MAJOR PLANNING CHALLENGES

- Sea level rise and coastal erosion
- Maintaining and protecting coastal habitat
- Protecting park user's health and safety
- Managing user conflicts

APPROACH

This part of the park is the least developed and is an ecologically sensitive area. The eastern end of this area includes an unimproved parking lot and receives a fair amount of use from wind and kite surfers and commercial operations.

The dune fronting the area next to the drainage canal represents the most intact dune segment within the park, and one of the best examples of natural dunes on Maui.

A focus for this area is to ***keep this area undeveloped and in as near a natural state as possible.*** No expansion of parking areas, paved or unpaved, or installations of park amenities should be allowed in the area.

The ***restoration of the area's dunes and native plants should continue,*** and include installing sand fencing in appropriate locations, using vehicle barriers, removing non-native plants such as Kiawe and ironwoods, planting native plant species.

KEY ACTIONS*

- Continue to maintain and restore the area's dunes and native vegetation.
- Establish controlled pedestrian paths from Amala Place to the beach.
- Restablish and improve the concrete path west of the drainage canal.
- Maintain parallel parking along Amala lace.
- Provide ADA accessible portable toilet(s).
- Construct an approximately 10-foot-wide primary pathway.
- Develop a dedicated bike path along the mauka side of Alahao Street and Amala Place.
- Retain parallel parking along Amala Place in the Western Planning Area.

* The complete list of actions is included in the full master plan report.

Establish controlled pedestrian paths from Amala Pl. to the beach.
Construct a primary pathway
Develop bike path along Amala Pl.
Maintain parallel parking along Amala Pl.
Continue to maintain and restore the area's dunes and native vegetation.
Provide accessible portable toilets
Restablish and improve the concrete path west of the drainage canal.
Est. Shoreline Setback
Primary Pathway
Secondary Pathway
10' Bike Path
New Parking
Re-surfaced Parking
Existing Paved Parking
Other Parking

Central Planning Area

MAJOR PLANNING CHALLENGES

- Severe coastal erosion
- Degredation of wetlands, dunes, flora, and fauna from unmanaged pedestrian and vehicular access
- Safety and security/ user conflicts
- Lack of parking, toilets, and lifeguard facilities

APPROACH

The Central Planning Area comprises a mix of developed facilites, several large wetland areas, and a significant amount of unimproved land. As a result, the area includes key actions that should improve the overall recreation experience for park visitors while enhancing habitat values for the wetland areas.

Improvements in this area focus on four major actions:

Improving coastal resilience while addressing recreation and emergency access needs at the "Keyhole" site. The parking at "Keyhole" will be relocated mauka of the shoreline setback area to allow the dunes to rebuild a reservoir of sand to resupply the beach during periods of erosion.

A controlled path for pedestrians and emergency vehicles will connect the new parking area with the beach and picnic area. It also provides access the shoreline while protecting the adjacent wetlands.

A controlled primary pathway will also provide pedestrian access to the eastern and western portions of the park. An Americans with Disability Act (ADA) accessible portable toilet should be provided.

Providing recreational improvements in the Ka'a Point area. The plan envisions the creation of new beachfront picnic, and landscaped park space along the shoreline at Ka'a Point. The new park space will provide room for families and friends to enjoy some of the most spectacular coastal scenery and shoreline on Maui. The park space will alleviate crowding at the existing picnic tables and along the narrow beach fronting the pocket swimming area.

Expanding parking to improve access to the shoreline. A new, improved parking lot will be created outside of the shoreline setback area just mauka of the pathway leading to the pedestrian bridge that crosses Kalialinui Gulch.

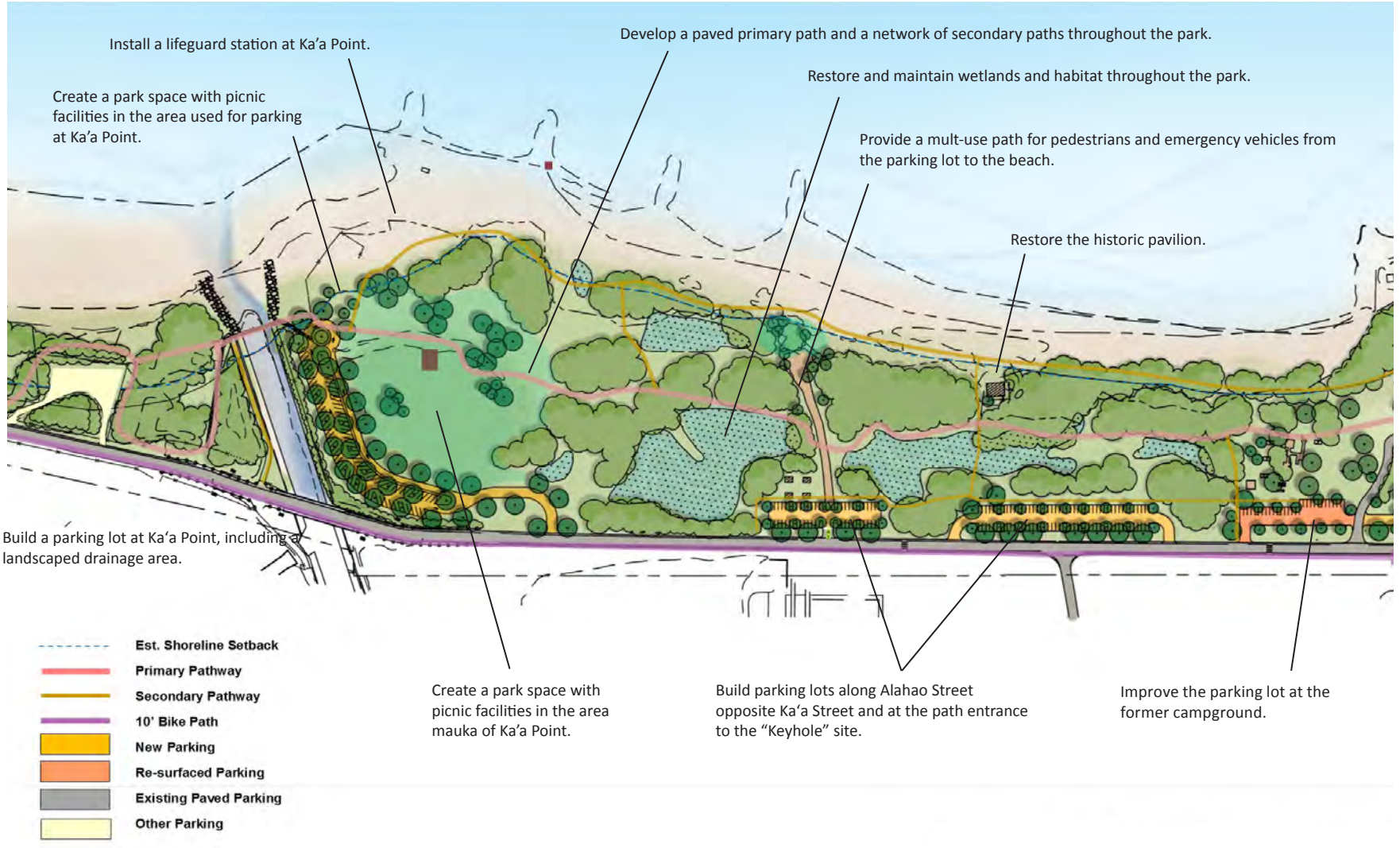
The area to the west of the parking area will be landscaped and will function as an open space drainage retention area. An ADA accessible portable toilet will be provided

Continue restoration activities by removing invasive plants and replacing them with indigenous or Polynesian-introduced species. Wetland areas should also be protected from human instrusion by locating paths outside of these sites .Interpretive signage and other information should also be provided in appropriate locations.

KEY ACTIONS

- Build a multi-use path for pedestrians and emergency vehicles, from the "Keyhole" parking lot to the beach.
- Improve the parking lot at the former campground.
- Build parking lots along Alahao Street opposite Ka'a Street and at the path entrance to the "Keyhole" site.
- Build parking lot at Ka'a Point, inclluding a landscaped drainage area.
- Provide vendor parking near the park headquarters and visitor information.
- Restore the historic pavilion.
- Create a park space with picnic facilities in the area used for parking at Ka'a Point.
- Create a park space with picnic facilities in the area mauka of Ka'a Point.
- Provide ADA accessible portable toilets.
- Install a lifeguard station at Ka'a Point.

* The complete list of actions is included in the full master plan report.


Install a lifeguard station at Ka'a Point.
Develop a paved primary path and a network of secondary paths throughout the park.
Restore and maintain wetlands and habitat throughout the park.
Create a park space with picnic facilities in the area used for parking at Ka'a Point.
Provide a mult-use path for pedestrians and emergency vehicles from the parking lot to the beach.
Restore the historic pavilion.
Build a parking lot at Ka'a Point, including a landscaped drainage area.
Est. Shoreline Setback
Primary Pathway
Secondary Pathway
10' Bike Path
New Parking
Re-surfaced Parking
Existing Paved Parking
Other Parking
Create a park space with picnic facilities in the area mauka of Ka'a Point.
Build parking lots along Alahao Street opposite Ka'a Street and at the path entrance to the "Keyhole" site.
Improve the parking lot at the former campground.

Eastern Planning Area

MAJOR PLANNING CHALLENGES

- Safety and security
- Lifeguard accessibility
- Adequacy of recreation facilities

APPROACH

This part of the park is the primary gathering place, where group picnics are held, where people play volleyball, windsurf, or simply enjoy the beach. It also is the only area in the park where "traditional" park activites and features are found such as open lawn areas, picnic tables, restrooms.

Through meetings, interviews, and surveys, the main issues that need to be addressed are the adequacy of facilities, security, and access to lifeguards.

Because many of the features in this area receive heavy use and in some cases, are old, the focus is on ***improving or expanding existing faciilites.***

Given the likely increase in park use over time, other proposed improvements include additional volleyball courts adjacent to the existing courts, a children's play area located near the roundabout, more BBQ and picnic areas also near the roundabout.

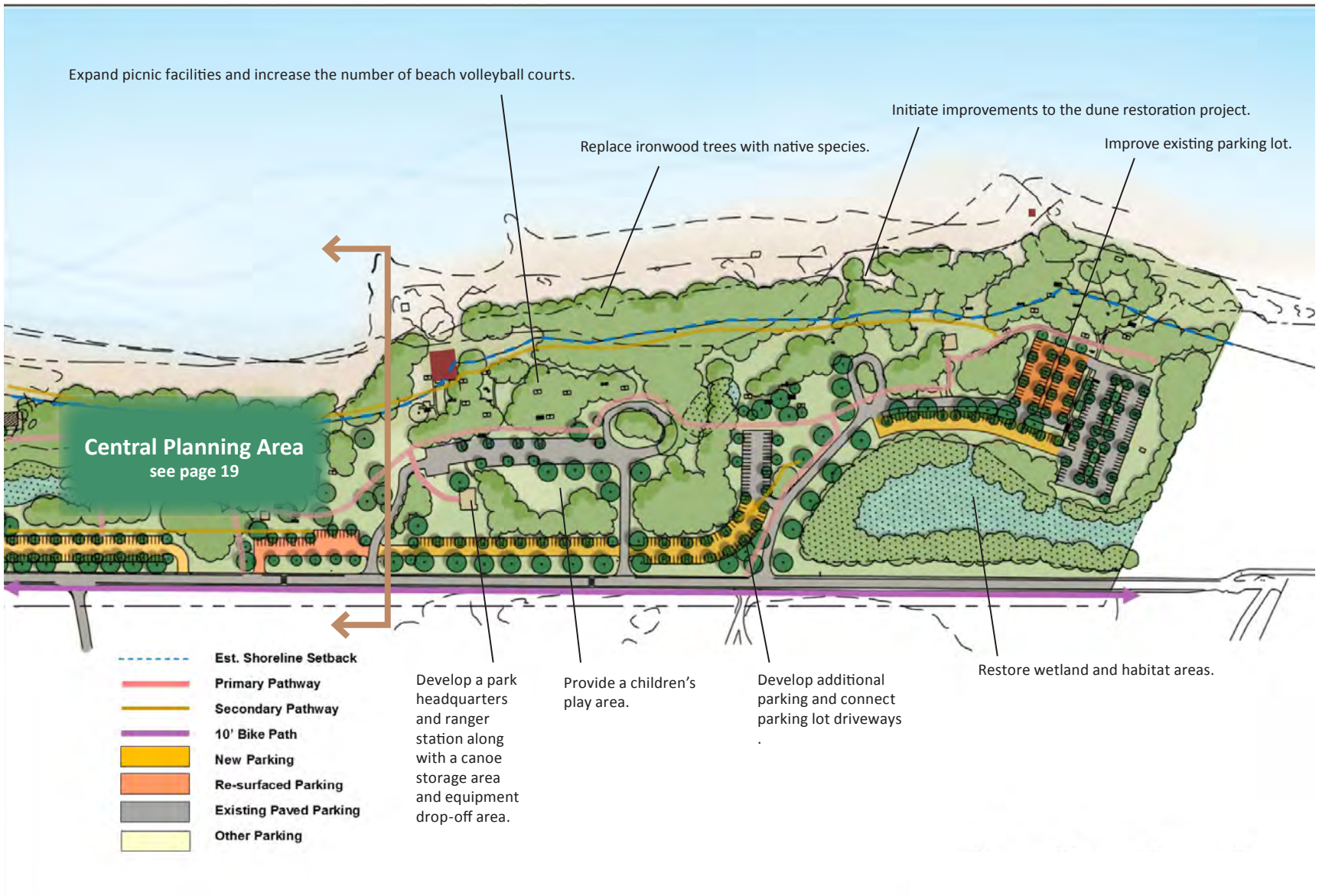
According to the Kanahā Beach Park Master Plan user survey, those surveyed at the east end of the park were the most satisfied park users. However, 28% of those surveyed reported that they were "unsatisfied" or "very unsatisfied" with lifeguard accessibility. Park stakeholders also identified safety and security as a major concern.

When east-end park users were asked what improvements are needed in this area, the top comments were better maintenance of bathrooms and showers, more bathrooms, more showers, and access to a lifeguard. Other comments in public meetings focused on improved landscaping and ground maintenance.

KEY ACTIONS

- Connect driveways within the Eastern Planning Area.
- Improve the easternmost gravel parking lot.
- Develop additional parking.
- Provide an equipment drop-off area fronting the area called "Lowers.
- Update and replace the existing irrigation system.
- Restore wetland and habitat areas.
- Develop a park headquarters to include a ranger station.
- Develop a canoe club storage area.
- Expand picnic facilities and increase the number of beach volleyball courts.
- Provide a children's play area.

* The complete list of actions is included in the full master plan report.


Expand picnic facilities and increase the number of beach volleyball courts.
Initiate improvements to the dune restoration project.
Replace ironwood trees with native species.
Improve existing parking lot.
Central Planning Area
see page 19
Est. Shoreline Setback
Primary Pathway
Secondary Pathway
10' Bike Path
New Parking
Re-surfaced Parking
Existing Paved Parking
Other Parking
Develop a park headquarters and ranger station along with a canoe storage area and equipment drop-off area.
Provide a children's play area.
Develop additional parking and connect parking lot driveways .
Restore wetland and habitat areas.

Summary of Implementing Actions

ACTIONS	ESTIMATED BUDGET[1,2]	PHASE
Restore Coastal Ecology and Support Coastal Resilience		
Subactions: 1.1, 1.2, 1.5, 1.6, 1.7, 1.10,1.11,1.12, 1.13, 1.14, 1.15, 1.16, 1.18, 1.21, 1.22	$1,500,00.00	Ongoing[6]
1.3 Create a brochure that illustrates the important functions of dunes, and explains why staging, walking or sitting on sand dunes should be avoided.	$5,000.00	1
1.4 Provide signage to promote proper stewardship of the park's wetlands, dunes, marine ecology, and other environmental resources.	See Facility/Signage Costs	1
1.9 Commission a dune management study.	$50,000.00	1
Improve Pedestrian, Bicycle and Vehicular Circulation as well as Parking		
2.1 Construct an approximately 10-foot-wide primary pathway.	$120,000.00	2
2.2 Create a network of walkways and trails throughout the park.	$80,000.00	2
2.3 Develop a dedicated bike path along the mauka side of Alahao Street and Amala Place.	$448,000.00	2
2.4 Connect driveways within the Eastern Planning Area.	$7,000.00	3
2.5 Improve the easternmost gravel parking lot.	$84,000.00	1
2.7 Improve the parking lot at the former campground.	$54,000.00	1
2.8 Build parking lots E-1, E-2, and E-3 in the Eastern Planning Area.		
E-1	$132,000.00	3
E-2	$218,000.00	3
E-3	$147,000.00	3
2.9 Build parking lot C-1 along Alahao Street opposite Ka'a Street.	$195,000.00	4
2.10 Build parking lot C-2 at "Keyhole."	$110,000.00	2
2.11 Build an approximately 12-foot-wide pathway, for pedestrians and emergency vehicles only, from the "Keyhole" parking lot to the beach.	$72,000.00	2
2.12 Build parking lot C-3 at Ka'a Point.	$370,000.00	3

2.13 Resurface the existing driveway pavement throughout the Park.	$800,000.00	1
Safety and Security		
3.1 Develop a park headquarters to include a ranger station.	$120,000.00	2
3.2 Provide a new, staffed lifeguard station at Ka‘a Point.	See Facility/Signage Cost Estimates	1
3.3 Extend the hours of the lifeguard at the existing station near the canoe hale to sunset.	Program Cost	1
3.5 Provide appropriate lighting near the restrooms.	TBD	1
3.6 Provide additional signage with park hours and emergency phone numbers.	See Facility/Signage Cost Estimates	1

Summary of Implementing Actions

ACTIONS	ESTIMATED BUDGET	PHASE
Infrastructure (water, wastewater, irrigation, drainage, electrical)		
4.1 Install a potable water lateral.	$20,000.00	2
4.2 Install a new water meter for potable water (potable water meter fee (1-1/2").	$72,000.00	1
4.3 Install potable water distribution lines.	$200,000.00	2
4.4 Install a double check detector assembly (DCDA).	$20,000.00	2
4.5 Install a fire line and hydrants for the park headquarters.	$180,000.00	2
4.6 Miscellaneous drainage improvements throughout the park.	$60,000.00	Ongoing[6]
4.7 Create a landscaped drainage retention area along the western boundary of the Ka‘a Point parking lot.	$70,000.00	3
4.8 Expand the restroom in the eastern part of the park.	TBD	1
4.9 Expand the restroom in the park headquarters area.	TBD	1
9.4 Provide ADA accessible portable toilet(s) - "Keyhole."	See Facility / Signage Cost Estimates	
10.4 Provide ADA accessible portable toilet(s) -"Ka'a Point."	See Facility / Signage Cost Estimates	
Landscape Planting and Grounds and Facility Maintenance		
5.1 Update and replace the existing irrigation system.	$1,560,000.00	1
5.2 Renovate the existing landscape.	$1,040,000.00	Ongoing[6]
5.3.1 Thin ironwood trees.	$50,000.00	2
5.3.2 Plant native shrubs and trees.	$25,000.00	2
Expand Recreational Opportunities and Park Space		
7.1 Provide additional landscaped park space.	$300,000.00	3
7.2 Construct a children’s play area.	$30,000.00	2
7.3 Add more beach volleyball courts.	$25,000.00	1
6.2 Develop a canoe club storage area.	$200,000.00	2
"Keyhole" Area		
9.1 Provide picnic facilities.	$15,000.00	2

Ka‘a Point Area		
10.2 Create park space with picnic facilities.	$130,000.00	4
Key Action 8: Restore and Reuse the Historic Pavilion		
8.1. Prepare HABS documentation.	$4,000.00	1
8.2 Prepare architectural/structural engineering renderings and construction plans.	$7,000.00	1
8.3 Permitting (shoreline certification, shoreline setback, flood development, SMA, CDUA, building permit).	$25,000.00	1
8.4 Restore the historic pavilion.	$25,000.00	1

Cost Estimate