

CHAPTER 5

BICYCLING IN THE ISLANDS

Chapter 4 discussed statewide objectives and programs. The purpose of Chapter 5 is to consider variations in bicycle transportation use and preferences across the state, by island and region. Bicycle planning in this chapter reflects a synthesis of policy statements found in local planning documents, input from public officials and workshop participants, and knowledge of an area’s development pattern and economic base.

Virtually all County general plans and regional or community level plans recognize the importance of accommodating alternative modes of transportation that make circulation more efficient and improve quality of life. Building a successful bicycling network will ultimately depend on coordinated efforts throughout the state, but many of the building blocks are already in place.

5.1 ISLAND OF KAUAI

Summary of Kauai Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	14.5	1.2	6.5	22.2
Underway	0.0	0.0	3.4	3.4
Proposed	169.0	3.3	88.8	261.1
Total Network	183.5	4.5	98.7	286.7

Kauai Long-range Land Transportation Plan (1997). This HDOT document incorporates the recommendations of *Bike Plan Hawaii*.

Bicycling-related Policy Statements in Local Plans

The *Kauai General Plan (2000)* refers to *Bike Plan Hawaii* as the county’s long-range bikeway plan. Section 7.3.2 calls on the county to “support funding to develop Kauai’s bikeway system to provide for alternative means of transportation, recreation, and visitor activities (economic development).” In one section, the *General Plan* lays out a desired future for rural roads and highways on Kauai. Some components of this vision have implications for bikeway planning, including the following:

- Maintain the “country character” of rural roads.
- Limit to two lanes, with low speed limits, no sidewalks, curbs, or gutters, minimal traffic signage.
- Safe bicycle and pedestrian routes provided.
- State and county agencies have adopted “flexible highway design,” in order to enhance scenic and historic qualities and to strike a balance between flow of automobile traffic and safe facilities for buses, bicycles and pedestrians.

Objectives of Bikeway Proposals for the Island of Kauai

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop a circumferential bikeway facility along the existing highways.
- Identify scenic routes along existing highways and off-highway corridors to promote areas of safe, comfortable, and attractive bike rides.
- Develop designated bike lanes in communities with relatively high populations or smaller communities with high through-traffic volumes.
- Identify opportunities to incorporate former cane haul roads and other backroads into the bikeway network.
- Where appropriate, provide non-motorized access to the island’s ecologically and culturally important sites.

Areas that will require special design considerations include, but are not limited to the following:

Princeville to Hanalei Bay, to Hanalei Valley

Access to this area along Kuhio Highway is an important asset to residents as well as visitors. The ride along the coastline provides access to the beaches along the coast, to the Kilauea Lighthouse and refuge area, as well as the Haena area. On the mauka side of Kuhio Highway, inland valleys provide examples of traditional farms, wetlands, and native wildlife habitats. Improvements to Kuhio Highway will require special consideration given narrow pavements without shoulders along most of the segment. This is especially true along the Hanalei Valley with its one-lane bridges, narrow roads, and periodic drainage problems. The rewards of fully developed bicycling facilities in the area will include scenic and rustic views combined with an island ambience that is unique to Hanalei.

Kawaihau

Kuhio Highway serves as the main artery through the eastern side of the island. The stretch of roadway between Waipouli and Kealia is heavily developed, especially within the commercial district. In many places, bicyclists are currently required to share the road with motor vehicles, and the right-of-way would have to be widened to be fully utilized by bicyclists. Most of the residential developments are found on the mauka side of the highway. Residents living on the

hillsides travel along a limited number of collector streets to reach Kuhio Highway. Bicycle facilities along these streets, similar to the path on Kawaihau Road, would make it easier for hillside residents to bicycle.

A high-priority proposal on Kauai is a shared use path—sometimes called the Health Heritage Trail—that would eventually stretch 16 miles from Anahola to Lihue, most of which would be located near the coastline. Two segments are proceeding. The first phase includes 2.3 miles of paths within Lydgate Park and will be completed by the end of 2002 (see Box). The second phase measures 4.3 miles, beginning at the boat launch area at Waikaea Canal and extending north past Kealia Beach to Ahihi Point. It is in the design and environmental permitting stage. A third phase will run from Lydgate Park to Waikaea Canal. Major features of the shared use path are both its length and its location adjacent to the scenic Anahola-Lihue coastline. Continuous scenic access along the coastline would provide a significant attraction for mainland and overseas visitors. In addition, the coastal path would provide an alternative route for bicyclists commuting between Kapaa and Lihue, bypassing many congested and narrow roadway sections. For future development to take place, however, major efforts will be needed to acquire sufficient right-of-way, as well as public and landowner support for an uninterrupted bike path.



Existing pedestrian and bike path at Kapaa Beach Park, Kauai.



Part of the alignment for the 4.3-mile Kealia-Kapaa Pedestrian and Bike Path will incorporate a former cane haul road that runs along the coast, Kawaihau, Kauai.

Lydgate Park Bike and Pedestrian Path

Kauai residents and visitors will soon enjoy a 10-foot wide shared use path that extends for approximately 2.3 miles in Lydgate Park. The project was funded with a \$2.6 million grant from the Federal Highway Administration. Funds were secured following the successful construction of Kamalani Kai Pedestrian Bridge and an adjoining play area by volunteers. The value of the community labor—sweat equity—used to build the bridge was estimated at almost \$550,000 and satisfied the required local match.



Bike and pedestrian path, under construction, Lydgate Park, Kauai.

An editorial in *The Garden Island* stated that “this entire project exemplifies the spirit of aloha found on Kaua’i.” Doug Haigh, the County’s Building Superintendent, remarked that the finished improvements will be “an awesome asset” for the island.

Lihue-Puhi

In 2001, work began to add much needed capacity to Rice Street by converting it from three to four lanes, maximize on-street parking by allowing portions of the outside lanes on both sides of the street to be used for parking during non-peak hours, and improve the sidewalk. Bike lanes could not be accommodated within the narrow right-of-way. Nevertheless, *Bike Plan Hawaii* maintains a bike lane designation on the map for future consideration. In the meantime, bikeways should be developed on secondary streets (such as Hardy, Umi, and Puaole) to facilitate bike travel around town.

Just west of Lihue, the Kaumualii Highway widening project is currently underway and will improve bicycle access to Kauai Community College, Puhi Middle School, and the Kukui Grove Shopping Center. Developer Grove Farm is planning to construct a connector road between Kukui Grove Center and Puhi Road along portions of Nuhou Street and Kaneka Street. This roadway will include a bicycle facility and offer bicyclists an alternative to Kaumualii Highway, and also provide a linkage between residential subdivisions, public facilities (school, parks), and commercial areas.

Koloa/Poipu/Lawai

The Koloa/Poipu area of the island requires special consideration because of the resident and visitor traffic in and out of the area. The Kaumualii Highway widening project will improve the roadway by providing a consistent shoulder width from Maluhia Road to Lihue. Community members have also expressed strong support for future improvements along Maluhia Road itself (also called Tree Tunnel Road). This scenic automobile drive into historic Koloa Town could provide a similarly pleasant travel experience for bicyclists.

5.2 ISLAND OF OAHU

Summary of Oahu Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	30.1	33.6	34.3	98.0
Underway	18.8	4.6	14.3	37.7
Proposed*	171.8	49.7	37.4	258.9
Total Network	220.7	87.9	86.0	394.6

* Additional bicycle facilities are proposed in the *Honolulu Bicycle Master Plan*.

Transportation for Oahu Plan 2025 (April 2001). Objective #15, part of the Quality of Life System Goal, addresses bikeway development, as follows:

- Develop and maintain “low-energy” transportation facilities, including bikeways, walkways, and other energy efficient elements which can be safely integrated with other transport modes.

Bicycling is also addressed through the travel demand model which found that bicycling and walking, combined, constitute 11% of total daily trips made on Oahu.

Bicycling-related Policy Statements in Local Plans

(See regional discussions, below)

Objectives of Bikeway Proposals for the Island of Oahu

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop a circumferential bikeway along existing highways, including Farrington Highway, Kamehameha Highway, Kalanianaʻole Highway, Ala Moana Boulevard, and Nimitz Highway.
- Identify scenic routes along existing highways and off-highway corridors to promote areas of safe, comfortable, and attractive bike rides.
- Develop designated bike lanes within communities with high through-traffic volumes. Where bike lanes are not provided on collector roads and arterials, encourage the installation of 14-foot curb lanes.
- Identify routes that promote bicycle commuting and interregional travel.

Areas that require special design considerations include, but are not limited to the following:

Central Oahu

Central Oahu is characterized by plantation-era communities (Waipahu and Wahiawa) and master planned suburban residential communities. The region is still on a growth trajectory with future plans for additional residential subdivisions and employment growth in existing and new commercial and industrial areas.

Central Oahu Sustainable Communities Plan (Draft version): The master-planned residential communities will be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips outside the community.

One of the policies for the region’s general transportation system is a “reduction in automobile use.” To support this policy, the SCP calls for:

- Provision of circulation systems with separated pedestrian and bicycle paths and convenient routes for public transit service
- Design of street systems in new development areas with layouts to facilitate bus routes and encourage pedestrian travel

- Provision of supporting facilities and amenities for pedestrian, bicycle, and public transit use (bicycle racks at commercial centers, bicycle storage facilities at employment centers, and bus shelters at bus stops will be encouraged)

A location requiring special design consideration is the juncture of Waipahu and Pearl City, near Leeward Community College and the Waiawa Interchange. Options include the widening of Kamehameha Highway and Farrington Highway (specifically the bridge over the H-1 and H-2 freeways) and/or the use of former cane haul roads (between Pearl City/Waipahu and Waipio/Mililani).

Another bottleneck is the Kipapa Gulch crossing on Kamehameha Highway. Currently under consideration is a proposal to use Old Kamehameha Highway through Kipapa Gulch in order to develop a shared use path linking Mililani to the Central Oahu Regional Park in Waiola.

Leeward Oahu

The flat terrain and sunny, dry climate of Leeward Oahu favor bicycling as an alternative form of transportation and for recreation. Leeward Oahu includes both the rapidly growing Ewa plain, as well as the Waianae Coast whose vision is “firmly embedded in the rural landscape.” These differences are echoed in the transportation and bikeway needs identified in their respective regional plans.

Waianae Coast Sustainable Communities Plan: There is a need for a “safe bicycle route along the entire Waianae Coast, and up some of the major valley roads, as far as the concentrations of urban/suburban development.” The SCP encourages plans and programs for alternative modes of transportation, “including bikeways, pedestrian walkways and paths, and creative use of existing unutilized transportation corridors such as the old OR&L railroad right-of-way. This ROW could be used for a multiuse path for bikers, roller bladers, skateboarders, and pedestrians that would be safe from vehicular traffic.”

Ewa Development Plan: The DP refers to the *Kapolei Area Bikeway Plan* published by Campbell Estate in 1991. Similarly, *Bike Plan Hawaii* also incorporates the recommendations contained in the *Kapolei Bikeway Plan*. The Ewa DP stresses the need for a road infrastructure that will keep pace with urbanization, but also acknowledges the desirability of reducing automobile use by:

- Providing a circulation system with separated pedestrian and bicycle paths and convenient routes for public transit service
- Use of more traditional “grid” patterns of street systems in new development areas to facilitate bus routes and encourage pedestrian travel
- Providing supporting facilities and amenities for pedestrian, bicycle, and public transit use. The use of bike trails, bicycle racks at commercial centers, bicycle storage facilities at employment centers as well as bus shelters at bus stops will be encouraged.

New bikeways are being constructed in conjunction with new roads. Bike lanes are found on Farrington Highway and Kamokila Boulevard between Kapolei Golf Course and Kalaeloa Boulevard, and on collector roads in the residential areas of Kapolei. In contrast, the new subdivisions in Ewa are taking a different design strategy with the proliferation of sidepaths, rather than bike lanes. (Like sidewalks for pedestrians, sidepaths are separated from motorized traffic. Sidepaths are wider than sidewalks and intended for use by bicyclists and pedestrians.) Unfortunately, sidepaths are sometimes provided in lieu of a bike lane or wide curb lane. When designing sidepaths, care must be given to coordinating the segments so they do not shift from one side of the street to the other (as in Geiger Road and Kolowaka Road, crossing Fort Weaver Road).

A major bicycle project currently underway is the Leeward Bikeway. HDOT acquired a 40-foot right-of-way for the former Oahu Railroad and Land Company (OR&L) railway from the U.S. Department of Transportation. Under the terms of the deed transfer, HDOT is required to develop the Leeward Bikeway. There will be a 10-foot wide path, approximately 14 miles in length from Waipio Point Access Road through the Ewa Plain, between the communities of Kalaeloa and Kapolei, and along the Waianae



Sidepath along Kolowaka Road, Ewa, Oahu.

Coast to Lualualei Naval Road. It will skirt the Hawaiian Railway Society Train Station/Museum and, in places, run alongside an active rail line (with barriers separating the two facilities where clearances are insufficient). Combined with the Pearl Harbor Historic Trail—under the jurisdiction of the City and County of Honolulu—the entire bicycle facility will extend from Halawa, near the USS Arizona Memorial Visitor Center to Nanakuli, a total of 18.6 miles. Because the bikeway links residential communities with employment centers, it could become a major commuting route. There are also numerous opportunities along the bikeway for connections to recreation and commercial destinations.

North Shore

The Koolauloa and North Shore regions are expected to remain uncrowded, rural areas with low population density, small-scale commercial districts, and limited growth. Part of their rural character is the limited roadway infrastructure. Kamehameha Highway provides the only roadway linking the rural coastal communities and the highway is an important facility for non-motorized transportation. For local residents, it serves as “main street,” providing bicycle and pedestrian access to stores, post offices, schools, and parks. Parts of the highway are very scenic with dramatic views of the ocean and mountains, thereby appealing to long-distance touring bicyclists.

North Shore Sustainable Communities Plan:

- Provide more opportunities and support facilities for convenient and safe pedestrian and bicycle travel. Bikeway development should be coordinated with private landowners to ensure that safety, liability, and a mixture of use issues can be adequately addressed.



- Emphasize accessibility from residential streets to bus routes, parks, schools, and commercial centers. Design roadways to facilitate bicycle and pedestrian travel.

Koolauloa Sustainable Communities Plan:

- Provide an integrated system of bikeways for work, school, shopping trips, and recreation, including rides to playgrounds, beach parks, and other recreational areas.
- Provide for bicycle routes along private streets throughout the Laie community.

Ke Ala Pupukea shared use path.
North Shore, Oahu.

Some sections of Kamehameha Highway already provide adequate shoulders for bicycling, but the narrow right-of-way in other sections has reduced shoulder widths. In the Sunset Beach-Pupukea area, the Ke Ala Pupukea shared use path runs parallel to the highway and provides an alternative linear route. Given the path's popularity, the community is exploring extension of the path to Waimea Bay, and possibly to Haleiwa Beach Park. In the Koolauloa region, the Vision Group has studied possible alignments for a shared use path from Laie to Kahuku Village.

Windward Oahu

Koolaupoko Sustainable Communities Plan: One of the key elements of the regional transportation system is to “emphasize alternatives to the private passenger vehicle as modes for travel.”

[E]mphasis on automobiles as the principal means of transportation is inconsistent with other elements of the vision expressed in this *Sustainable Communities Plan*.

Transportation system improvements in Koolaupoko should be directed instead towards alternative travel modes, including public transit and pedestrian and bicycle facilities.

In Windward Oahu, the existing bikeway system consists of discontinuous segments of bike lanes, bike routes, and bike paths in Kaneohe, Kailua, Lanikai, and Waimanalo. There is significant community interest in connecting the segments and expanding the overall bikeway system.

Bike Plan Hawaii proposes additions to the region's bikeway system to create an interconnected grid through the more populated areas, thereby enhancing the attractiveness of bicycling for

commuting and incidental trips. Bike lanes would be an appropriate component of ongoing “traffic calming” efforts in residential areas. Another planning objective is to strengthen interregional linkages: to East Honolulu via Kalanianaʻole Highway and to Koolauloa via Kamehameha Highway.

The Kailua neighborhood has a fairly well-established bicycle grid. In Kaneohe the aim is to improve the link between residential areas and the main commercial areas, schools, and civic center. Unlike Kailua, major highways cut through Kaneohe. The bike boulevard concept may offer a suitable solution for avoiding high-volume, high-speed roads, and should be investigated further.



Bike lane along Kailua Road, Kailua, Oahu.

East Oahu

East Honolulu is nearly built out, but only recently has it reached the critical mass needed for large-scale commercial activity. Demographic shifts also contribute to the region’s evolution, including a growing elderly population, some “empty nesters” moving out, and younger families moving into multi-generational households.

East Honolulu Sustainable Community

Plan: The SCP recognizes the potential for bicycling as an alternative mode of travel, especially for local trips. Among the measures recommended are:

- Modify rights-of-way design in selected area—particularly along designated bike lanes and routes, principal pedestrian routes and street crossings, and near bus stops—change travelway widths of curb radii, pavement texture, introduce appropriate signage, and provide more generous landscaping.
- Implement traffic calming measures in appropriate residential areas to reduce average motor vehicle speeds and make vehicular routes less direct, thereby increasing safety and enjoyment for pedestrians and bicyclists.



Bike lane along Kalanianaʻole Highway, East Honolulu, Oahu.

Kalanianaʻole Highway is a well-used and scenic corridor, characterized in the SCP as “the linkage between [the] hillside and valley neighborhoods. It is a major route for joggers and bicyclists, as well as vehicles, and its attractively landscaped median helps to unify the image of East Honolulu as a distinct region.”

During the *Bike Plan Hawaii* update process, local residents recommended that proposed bike facilities on the residential collector roads be changed from bike lanes to signed shared roads. Other suggestions focused on identifying “child-friendly” routes in Aina Haina and Hawaii Kai, and the Portlock detour to avoid the left-turn movement from Kalanianaʻole Highway onto Lunalilo Home Road.

Primary Urban Center (PUC): Kahala to Pearl City

In updating *Bike Plan Hawaii*, bikeway planning in the PUC was limited to roadways under state jurisdiction. One road segment targeted for near-term improvement is Nimitz Highway between Middle Street and Waiakamilo Road. The absence of bike lanes constitutes a key missing link in the bike corridor from the airport to Waikiki. Heavy vehicles, including delivery trucks, trailers hauling containerized cargo, and tour buses, create uncomfortable riding conditions. One possibility for improving bicycle accommodations in the “missing link” section is to combine this work with a future road resurfacing project. Because the corridor is fully developed, it would be difficult to acquire additional right-of-way; however, the possibility of reallocating existing space, for example by narrowing the median and restriping, should be considered.

The City and County of Honolulu has made great strides in developing bicycle facilities in areas where large numbers of bicyclists are concentrated. A bicycle circuit has been completed at the east end of Waikiki, through portions of Kapahulu, and the mauka side of the Ala Wai Canal—complementing the recreational facilities around Kapiolani Park. A bikeway around Diamond Head, nearing completion, will further extend the Waikiki bike routes. The Diamond Head circuit will also connect to a new bike station being planned on the Kapiolani Community College campus.

Another concentration of bicycle facilities is located around the University of Hawaii at Manoa, linking the academic campus to surrounding residential and commercial areas. Planning studies are currently underway for bicycle improvements on Ala Wai Boulevard (makai side of canal) and Young Street. Cross-town bicycling will get a major boost with development of the proposed bicycle boulevard on Young Street. This street has the advantage of relatively low-volume and low-speed traffic, but it also contains a large number of driveways and signalized intersections that must be addressed.

The Pearl Harbor Historic Trail is a shared use path that has been open to the public for more than two decades. With the proposed construction of the Leeward Bikeway, the overall bicycle facility will benefit communities from Aiea to Nanakuli. The State and County should continue to collaborate on this regional facility, as well as developing connections to and from residential areas and attractions along the pathway.

Honolulu Bicycle Master Plan. Since 1999, the Honolulu Bicycle Master Plan has provided a widely consulted blueprint for the city. The facility development component of the plan revolves around three main themes. Under each theme, specific projects are assigned to one of three priority levels.

- “Lei of Parks”—a system of paths and bike lanes linking regional and local parks in urban Honolulu. The paths are intended to attract many types of users. Because the facilities are generally separated from automobile traffic, they are expected to appeal to family and beginning riders. At the same time, the facilities within the “Lei of Parks” will provide access to many destinations, thus making them suitable for commuters as well.
- Bicycle Friendly Route No. 1—a continuous bicycle facility that provides a direct connection between Kahala and Pearl City. Located primarily makai of the Lunalilo Freeway (H-1), this bikeway is tailored to experienced bicyclists. The intent of Bike-Friendly Route No. 1 is to give commuters and other bicyclists a direct and safer bikeway through urban Honolulu.
- College Access Routes—a series of projects to improve bicycle access to universities and community colleges within Honolulu. The plan recognizes that universities and colleges can generate a disproportionately large share of bicycle trips, especially campuses with limited parking for automobiles.



The Ala Wai Promenade is part of the City and County of Honolulu’s “Lei of Parks”—a network of green spaces connected by bike routes and paths. Waikiki, Oahu.

Priority I projects in *Bike Plan Hawaii* will be coordinated with Priority I projects in the Honolulu Bicycle Master Plan to ensure that bicyclists are able to continue their rides beyond the PUC.

5.3 ISLAND OF MAUI

Summary of Maui Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	37.8	21.6	1.0	60.4
Underway	7.5	11.0	7.0	25.5
Proposed	261.5	13.3	62.4	337.2
Total Network	306.8	45.9	70.4	423.1

Maui Long-range Land Transportation Plan (1997). This HDOT document incorporates the recommendations of *Bike Plan Hawaii*.

Bicycling-related Policy Statements in Local Plans

One of the transportation objectives in the *Maui General Plan (1990)* is “to support an advanced and environmentally sensitive transportation system which will enable people and goods to move safely, efficiently and economically.” Related to this objective is a policy to “support the development of a county-wide network of bikeways and pedestrian paths.”

Objectives of Bikeway Proposals for the Island of Maui:

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop a circumferential bikeway facility along the existing highways.
- Identify scenic routes along existing highways and off-highway corridors to promote areas of safe, comfortable, and attractive bike rides.
- Develop designated bike lanes within certain communities/districts (e.g., between Wailuku and Kahului) with relatively large populations or smaller communities with high through traffic volumes (e.g., Kihei and Paia).

Areas that will require special design considerations include, but are not limited to the following:

Wailuku-Kahului

The Wailuku-Kahului area comprises Maui’s urban core, and the region is well along to providing a bicycle-friendly grid. Bike lanes were recently added to Kaahumanu Avenue as part of a widening and improvement project. They provide a transportation spine for bicyclists, with access to destinations in Wailuku and Kahului. In Kahului, bike lanes can be found on many of the secondary arterials (avenues) in the residential area. Expansion of the network will provide more convenient connections to elementary, intermediate, and high schools, Maui Community College, major shopping centers, the Kahului industrial area, and parks. The Wailuku-Kahului Community Plan specifically addresses the need “to offer safe and pleasant means of access by bicycle along routes accessing school sites.” Improvements on the older streets of Wailuku will be more challenging as they tend to be narrower with limited building setbacks.

Bike lanes installed as part of Kaahumanu Avenue widening project. Kahului, Maui.

Northshore Bikeway, adjacent to Stable Road. Kahului, Maui



There are several bicycle facilities linking Wailuku-Kahului with other regions, including the bike lane on Kahekili Highway, the Northshore Bikeway, and shoulder improvements that will be implemented as part of the Mokulele Highway widening project.

Upcountry-Paia-Haiku

Paia-Haiku Community Plan, Transportation Objectives and Policies:

- Establish a regional network of bikeways and pedestrian paths. This should include providing adequate space to accommodate bicycle traffic throughout the Paia Town area, including along Baldwin Avenue from Paia to Makawao.
- Encourage convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks and public facilities, in order to minimize use of the automobile within residential communities.

Makawao-Pukalani-Kula Community Plan, Transportation Objectives and Policies:

- Establish safe pathways connecting schools, recreation facilities, and commercial and residential centers for use by walkers, joggers, equestrians, and bicyclists.

Upcountry Greenways Master Plan. The Upcountry Greenways Master Plan is currently being developed by the County Planning Department in collaboration with residents and the bicycling community. It will propose a system of multi-user trails covering an area from Ulupalakua to Haiku. The trail system will provide recreational facilities and serve as an alternative interregional transportation system. Based on a preliminary draft of the Greenways Plan, the proposed routes are expected to be compatible with the network that is shown in *Bike Plan Hawaii*.

The Upcountry region is also important for the bicycle tour industry. Most of the bicyclists riding downhill from Haleakala National Park pass through Makawao Town and continue on Baldwin Avenue. A high priority project is to complete bicycle improvements to Baldwin Avenue. Initial designs were modified to avoid the displacement and relocation of large shower trees. *Bike Plan Hawaii* further recommends the provision of pull-out areas along the Haleakala Crater access road so that escort vans can pull over periodically and allow other motor vehicles to pass.



Every year, thousands of people experience Haleakala and the Upcountry region on a downhill bicycling tour. Baldwin Avenue, Maui.

Kihei-Makena

Kihei-Makena Community Plan, Transportation Objectives and Policies:

- Strengthen the coordination of land use planning and transportation planning to promote sustainable development and to reduce dependence on automobiles. New residential communities should provide convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks, and public facilities.

- Plan, design, and construct a pedestrian and bikeway network throughout the Kihei-Makena region which considers the utilization of existing stream beds, drainageways, wetlands and public rights-of-way along coastal and inland areas.

Implementing Actions:

- Preserve and enhance the identity of Kihei’s neighborhoods by designing the north-south collector road in discontinuous segments. Work with landowners, neighborhoods, and community groups to plan and implement an adjacent but separate trail/greenway/bikepath to provide non-motorized public access along the full length of the road reserve. In sections where no roadway is built, the trail/greenway/bikepath may be broadened to form a neighborhood park, public access, or open space area.

The Mokulele Highway widening project will improve the connection between Kihei and Kahului. Once in the Kihei-Makena region, there are two existing north-south corridors for bicyclists: a well-used bike lane on South Kihei Road which is popular despite heavy traffic, and a designated bike route along Piilani Highway. There is a project for interim widening of Piilani Highway; however, shoulder widths will continue to accommodate bicyclists.

Bike lane along South Kihei Road. Kihei, Maui.



A third corridor, called the North-South Connector, is in development about midway between South Kihei Road and Piilani Highway. The new roadway will be integrated with an off-road path called the Kihei Greenway. The first increment, a 3,000-foot segment from East Waipulani Street to Lipoa Street, is underway. The 12-foot wide,

asphalt-paved path will feature landscaping, lighting, and amenities (benches). The entire pathway is envisioned as a four-mile long linear park, running through the middle of Kihei, and will be beneficial for children bicycling to and from schools along the route. For much of its length, the greenway will be adjacent to the North-South Connector Road; however, since the road is not planned as a continuous thoroughfare, the greenway will offer greater connectivity to non-motorized traffic.

Bicycle facilities on mauka-makai connectors are equally important, but the older, narrow streets will be difficult to modify. In contrast, newer streets, such as Kenolio and Alanui Ke Alii, have been designed with bike lanes or wide curb lanes. The shift in roadway design evident in the Kihei region is illustrative of the county’s efforts to make new streets bike friendly.

Hana

Hana Community Plan, Transportation Objectives and Policies:

There are no specific references to bicycling, but the plan includes objectives that will serve bicyclists.

- Improve road conditions through more frequent resurfacing and repair.
- Encourage a program of roadway safety improvements, including shoulder widening, pull-over spots, and installation of new signage and guardrails that do not detract from the region's scenic and rural character.

Significant road work will be required in order to access Hana via the Hana Highway to the north and Piilani highway to the south. It is recommended that future proposed bikeways along these routes be developed concurrently with HDOT and Maui County roadwork activities.

West Maui

West Maui Community Plan, Transportation Objectives and Policies:

- Support improvements for the safe and convenient movement of people and goods, pedestrians and bicyclists in the Lahaina region particularly along Honoapiilani Highway, Front Street, and Lower Honoapiilani Road and seek to establish a regional network of bikeways and pedestrian paths.
- Promote residential communities that provide convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks and public facilities, in order to minimize use of the automobile.
- Establish Front Street and Wainee Street as local roads within Lahaina Town with an emphasis on enhancing pedestrian and bicycle amenities through (a) reduction of on-street parking; and (b) improvements to pedestrian circulation.

Implementing Actions:

- Establish major recreation ways for pedestrians and bicycles from the pali to Lahaina town and to Kapalua along the coastal highways, including Honoapiilani Highway and Lower Honoapiilani Road, and along the southern side of Kahoma Stream and other major drainage channels.
- Redesign mauka-makai streets in Lahaina town to enhance pedestrian and bicycle movement to include enhanced sidewalk/mall facilities, bicycle lanes, and street furniture with particular attention to Lahainaluna Road.
- Modify Front Street and Wainee between Prison and Papalua Streets for pedestrian/bicycle emphasis. Pedestrian connections through block interiors should be encouraged as part of larger development projects.

Currently the longest bicycle facility on Maui is the signed bike route on Honoapiilani Highway from Maalaea to Kapalua. For improved safety, a lighted warning system has been installed at the tunnel to alert motorists when bicyclists are inside.

Opportunities to develop additional bicycle facilities have opened with the decline of agricultural production. One possibility is a greenway on former cane haul roads from Olowalu, passing in front of Pioneer Mill, and extending to Kaanapali.

5.4 ISLAND OF MOLOKAI

Summary of Molokai Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	0.0	0.0	0.0	0.0
Underway	5.8	0.0	0.0	5.8
Proposed	52.0	0.0	0.0	52.0
Total Network	57.8	0.0	0.0	57.8

Molokai Community Plan, Infrastructure Goal:

Maintain the East End Highway at its current pavement width except for blind turns or other places necessary for public safety.

- Provide and maintain safe pedestrian trails, bikeways, jogging paths, and equestrian trails along highways.
- Improve the maintenance of roads and shoulders, particularly for local streets in the Kaunakakai area.

Objectives of Bikeway Proposals for the Island of Molokai:

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop bikeway facilities along the existing highways.
- Identify scenic routes along existing highways to promote areas of safe, comfortable, and attractive bike rides.
- Acquire a street sweeper to maintain bikeways.

Although Molokai has no official bicycle facilities, many of the highways that connect the small towns and villages have good shoulders, including Kamehameha V Highway (to Milepost 8), Maunaloa Highway, and the recently improved Kalae Highway. There is sufficient right-of-way to increase the shoulder width along Kamehameha V Highway between Milepost 8 and Milepost 10. Beyond Milepost 10, confusion over property ownership and the presence of historic artifacts make it difficult to widen the narrow roads, and such widening is specifically opposed in the

Community Plan. Nevertheless, the road to Halawa Valley is very scenic and continues to be a favorite bicycling route for residents and visitors. Bicycling events also use this route. Therefore, to better accommodate bicyclists, judicious placement of signs should be considered as an alternative to engineered improvements.

5.5 ISLAND OF LANAI

Summary of Lanai Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	0.0	0.0	0.0	0.0
Underway	0.0	0.0	0.0	0.0
Proposed	18.2	0.0	0.0	18.2
Total Network	18.2	0.0	0.0	18.2

Objectives of the Bikeway Proposals for the Island of Lanai:

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop bikeway facilities along the existing highways.
- Identify scenic routes along existing highways to promote areas of safe, comfortable, and attractive bike rides.

Lanai has no bikeway facilities, but vehicular traffic on the island is unique in character. Traffic volumes are low, and given the small, close-knit community, motorists drive with much aloha. On the other hand, because bicycling is relatively uncommon, motorists are sometimes surprised when encountering bicyclists on the road.

Bike Plan Hawaii calls for bike facilities to connect the airport and the major resort areas at Koele and Manele Bay. There is also a proposal to formalize a bike route on the scenic, rural road leading to the north end of the island.

5.6 ISLAND OF HAWAII: BIG ISLAND

Summary of Hawaii (Big Island) Bicycle Facilities

	Signed Shared Roads (mi.)	Bicycle Lanes (mi.)	Shared Use Paths (mi.)	All Facilities (mi.)
Existing	18.3	2.8	6.3	27.4
Underway	31.7	9.8	9.4	50.9
Proposed	530.4	49.6	214.4	794.4
Total Network	580.4	62.2	230.1	872.7

Hawaii Long Range Land Transportation Plan (1998): This HDOT document adopts the proposals of *Bike Plan Hawaii*, but also includes “several of the more promising ‘non-motorized roadway’ corridors” that were suggested during the public participation process. Among these proposals are projects now identified as Waimea Greenway and Trails and the Railroad Avenue Bikeway (Hilo to Puna).

Bicycling-related Policy Statements in Local Plans:

Hawaii County General Plan (1989), Transportation Goals

- Provide a transportation system whereby people and goods can move efficiently, safely, comfortably and economically.
- Make available a variety of modes of transportation which best meets the needs of the County.

Thoroughfare and Streets Policy:

- The design of urban streets shall consider their implications for urban design and potential multiple uses of the right-of-way within the limits of feasibility and quality road design.
- The County shall encourage the development of pedestrian and bicycle facilities within designated areas of the community.

Objectives of Bikeway Proposals for the Island of Hawaii:

- Except where bicycling will be prohibited, include bicycle facilities in new roadway construction and during rehabilitation of existing roadways.
- Develop a circumferential bikeway facility along the existing highways.
- Identify scenic routes along existing highways (e.g., Hawaii Belt Road, Queen Kaahumanu Highway, Mamalahoa Highway) and off-highway corridors to promote areas of safe, comfortable, and attractive bike rides.
- Develop designated bike lanes (e.g., Alii Drive, Kuakini Highway) with higher density communities or smaller communities with high volumes of through traffic (Waimea).
- Consider utility easements, abandoned railroad rights-of-way, and old government roads as potential corridors for shared use paths.

Hawaii Volcanoes National Park

In 2002, the Hawaii Volcanoes National Park issued its first comprehensive guide to bicycling in the park. The bicycling project was funded by park fees. An informative pamphlet shows the routes for six bike rides. They range from moderate to challenging and cover some 114 miles through deserts and rain forests, past craters and rift zones.

- Improve connectivity and access between subdivisions by linking dead-end streets with pathways for bicycle and foot traffic.

Hilo

The bike lane on Kanoiehua Avenue, combined with the bike lane on Kamehameha Avenue and proposed bike lane on Bayfront Highway form the basic framework for Hilo’s bikeway network. These facilities provide access to some of the

city's important commercial and recreational areas. Existing bike lanes around the University of Hawaii-Hilo serve another important destination, but could be further improved by linking the campus with the shopping district along Kanoelehua Avenue. Filling in the bikeway grid on the older streets may require right-of-way acquisition or more extensive development (such as covering drainage ditches).



Bike lane along Kanoelehua Avenue. Hilo, Hawaii.

Puna

A top priority of the Puna region is the Railroad Avenue Bikeway, a project supported by County Council Resolution No. 206-2K. The focus of the Puna Railroad Bikeway is to link the bedroom communities in central Puna with schools and businesses in Pahoa, Keaau, and Hilo. The first phase of the project, between Hilo and Hawaiian Paradise Park is under private ownership (W. H. Shipman, Ltd.). At present, use is restricted to those requiring access to farm lots, some private homes, an agricultural dump site, and a powerline utility easement. Low volume, low speed traffic currently on the roadway would be compatible with bicycle use, therefore limited motorized access could continue. With the bikeway as a central spine, feeder bike routes should connect to nearby schools and towns. Future mauka-makai corridors have been identified through several Puna subdivisions; however, the issue of private road ownership will present a hurdle for infrastructure funding. For Keaau town, there are two sets of proposals to develop a bike path system—one by Shipman Ltd and another by the Olaa Historical Society—both are shown on the Bike Plan map, recognizing that the final product may be a blend of the two.



This section of the proposed Railroad Avenue Bikeway, which passes through the Hawaiian Paradise Park subdivision, is composed of packed crushed cinder and currently used for local vehicular circulation. Puna, Hawaii.

Kailua-Kona

The master plan for the Keahole to Keauhou region of North Kona calls for several new north-south arterial and collector roads. The *Keahole to Honaunau Regional Circulation Plan* (expected to be completed in 2003) will map corridors for future rights-of-way and be used to develop ordinances that designate land areas for right-of-way acquisition in pace with development. Several projects are already underway, including widening of Queen Kaahumanu Highway and construction of a



Shoulders along Queen Kaahumanu Highway are well used by athletes in training. Kona Coast, Hawaii.

separate, shared use path in the Queen K right-of-way. Given continuing, high volumes of bicycle riders on the highway shoulders, *Bike Plan Hawaii* recommends the installation of signs that clearly identify Queen Kaahumanu Highway as a bike route. Other projects underway are improvements to Kuakini Highway in Kailua village, the first increment of Ke Ala o Keauhou (previously called the Kahului-Keauhou Parkway or Alii Parkway) from the Lako Street extension to Keauhou, and the Mamalahoa Highway Bypass. All of these road projects will provide and/or improve accommodations for bicyclists.

Walua Road Pedestrian and Bicycle Scenic Route

"Path" section of the Walua Road Pedestrian and Bike Scenic Route.

On May 25, 2000, County officials and residents of Kailua-Kona gathered to celebrate a paved extension around Kaumalumu Gulch. With this link in place, the Big Island built its first shared use path, and the community gained a new amenity—the Old Walua Road Bike and Pedestrian Scenic Route. The 3.6-mile route is actually a combination of off-road path and quiet residential street. Ann Peterson, former executive director of PATH (People’s Advocacy for Trails Hawaii) reports on the favorable feedback from residents, among them:

- “I went out and bought a new bike—mine was so rundown from lack of use.”
- “Now that there’s a safe place to ride, my child is getting a new bike this Christmas.”

"Roadway" section of the Walua Road Pedestrian and Bike Scenic Route.



Waimea

Portion of the alignment for Waimea Greenways and Trails, currently a well-trodden footpath. Waimea, Hawaii.

Many Waimea bikeway segments are on relatively hilly terrain, thereby raising several design challenges, such as limited line-of-sight above hill crests and alignment selection for bicyclists of different skill levels. One of the proposals with broad appeal because of its separation from busy highways and consideration of children’s needs is Waimea Trails and Greenways. This decade-long



initiative is now in the design stage with funding through the TEA-21 Transportation Enhancement program. The long-term plan is for a network of paths that provide routes for non-motorized circulation within and adjacent to the town. The initial phase of the project is focusing on an alignment close to Waikoloa Stream that will provide “back door” access to schools and businesses along Kawaihae Road and Mamalahoa Highway. Another segment is associated with development of the Ulu Laau Nature Park.