Bike Plan Hawaii

State of Hawaii
Department of Transportation

Federal Highway Administration

In cooperation with
City and County of Honolulu
County of Kauai
County of Maui
County of Hawaii

Bike Plan Hawaii

Consultants:

Kimura International Inc.
Sprinkle Consulting Inc.
Bike Plan Hawaii
Purpose of this Workshop

- Review planning process
- Bicycle use and preferences
- Bike Plan goals, objectives, and recommended actions
- Bikeway design possibilities
- Evaluation process
- Outcome of Workshop 1
- Your input

Bike Plan Hawaii
PLAN UPDATE

- A statewide bike master plan was completed in 1994
- Our workshop tonight continues the updating process
What is... Bike Plan Hawaii?

- A blueprint for improving the bicycling environment across the state
  - Pictures (maps) and statements (policies) of desired outcomes
  - Strategic program for achieving goals and objectives

What does the Bike Plan cover?

- State and county facilities on six islands
- On Oahu, Bike Plan Hawaii will fold in recommendations from the Honolulu Bicycle Master Plan (1999)
- Development proposals over the next 20 years
- Bicycle facilities of all types, but not mountain bike trails
Why is it important?

- Part of the State’s transportation plan
- Necessary to obtain federal transportation funds
- Consistent with County plans
- Integrate land use development and transportation systems

Bike Plan Hawaii

THE PLANNING PROCESS
What we learned about bicycle use and rider preferences

- Survey of workshop participants
- Random telephone survey
- School survey

Workshop Survey Results

- How often do people ride bikes and for what purposes:
  - Two-thirds of respondents ride at least a few times every month

Frequency of Bicycle Use
(includes activities of 257 persons)

Importance of Bicycling for Different Purposes

- Recreation is the most common reason for riding, by far
- But more than half use bikes to run errands or commute to work
Workshop Survey Results

- What do people like about bicycling?
  - Alternative form of transportation
  - Exercise
  - Being outdoors, enjoying scenery

- What problems do people face?
  - Lack of road space
  - High traffic volume/speed
  - No off-road facilities ("paths")

Telephone Survey Results

- Conducted scientific survey - can generalize about entire population from the sample
- 402 respondents selected randomly
- Interviewed by phone in February 2002
- Representation of population on four major islands

- Demographics indicate sample contains a mix of gender, age, ethnicity, and income similar to state profile
- Margin of error: +/-5%
Telephone Survey Results

- Statewide Bike Ownership

![Pie chart showing bike ownership](chart1.png)

Households without Bikes 41%

Avg. 2.18 bikes per household

Household with Bikes 59%

If data is extrapolated to all households statewide, there are an estimated 516,600 bikes, or 1 bike for every 2 motor vehicles.

Telephone Survey Results

- Frequency of bike use

![Bar chart showing bike usage](chart2.png)

*Workshop participants similar to rest of the state in frequency of bike use*

- Workshops daily
- Several times a week
- Several times a month
- Once a month or less

- Workshop Participants
- State Sample
Telephone Survey Results

- Why do people bike?

Purpose varies, general population of bike riders less likely to commute or do errands by bike

![Bar chart showing reasons for biking]

- Support for Changes to Make Hawaii more Bike Friendly

A strong majority of residents support efforts to improve the bicycling environment. Attitudes are consistent across the state.

![Bar chart showing support for bike-friendly changes]
Telephone Survey Results

- Use of Government funds to Address Biking Issues

An even larger percentage support government funding for bicycling improvements

Telephone Survey Results

- Specific ideas to improve the bicycling environment
  - Bike lanes
  - Wide shoulders
  - Bike paths
  - Maintenance
  - Bike education
  - Signage

- Enforcement of traffic laws
  - Bike Parking
  - Orientation rides
  - Bike questions on driver’s exam
Telephone Survey Results

- Top 5 ideas with strongest statewide support

1. Maintenance
2. Bike paths
3. Bike education (tie)
4. Bike Parking (tie)
5. Signage

Single most favored idea: 
bike paths

Telephone Survey Results

- Top 5 ideas with strongest support on Oahu

1. Maintenance
2. Bike paths (tie)
3. Bike Parking (tie)
4. Bike education (tie)
5. Enforcement (tie)

Single most favored idea: 
maintenance
Telephone Survey Results

- Most favored ideas on other islands

  **Maui**
  - bike paths
  - bike lanes
  - bike education

  **Kauai**
  - widen shoulders
  - revise driver's exam

  **Big Island**
  - bike paths

Dividends of Bicycle Improvements

- Improving bicycling safety and convenience could have a dramatic impact on bicycle ridership

Almost twice as many people would ride if improvements made

- Bicycle is important for this purpose today
- Likely to use bicycle if safer
School Survey Results

- School Policy on commuting to school by bicycle

Few schools actively encourage bicycling to school

![Bar Graph]

No. of Schools

Oahu Maui Big Island Kauai

- None
- "Discourage"
- "Encourage"

Main Components of Bike Plan Hawaii

- Proposed Goals, objectives and recommended actions
  - What are the aims of the plan?
  - What should the bicycling environment be like in 2025?
  - 5 “E”s: Engineering, Enforcement, Education, Economics, Encouragement

- Future Bikeway Network
- Implementation Program
  - Funding sources
  - Phasing
  - Grassroots activities
Proposed Goals, Objectives and Policies
Bike Plan Hawaii

- Overall Goal of Bike Plan Hawaii
  - To establish bicycling as a safe and convenient mode of transportation for residents and visitors throughout the state.

Proposed Goals, Objectives and Policies
Bike Plan Hawaii

- Engineering and Planning
  - Objective: Plan and design new and improved transportation facilities to accommodate and encourage use by bicyclists of different skill levels.
  - Recommended Actions:
    - Design roadway projects with adequate space for bicyclists
    - Expand bikeway networks for utilitarian and recreational travel
    - Adopt accepted design guidelines and standards
    - Develop innovative design solutions when environmental conditions warrant
Proposed Goals, Objectives and Policies
Bike Plan Hawaii

Engineering and Planning

Recommended Actions (continued)
- Maintain bikeways in a smooth, clean and safe condition
- Inspect roadways after being repaired
- Encourage counties to adopt Bike Plan Hawaii and any local bike plan as a legal foundation to enforce land development regulations
- Encourage counties to adopt land use plans and regulations that promote bicycling through compact development with suitable bike accommodations
- Continue integrating bicycles with other modes of transportation
- Expand future Bike Plan Hawaii to include pedestrians

Education

Objective: Expand the range of education activities to reduce bicycle crashes and increase ridership.

Recommended Actions:
- Support statewide bicycle education programs for children in schools
- Curricula should include use of bicycle safety equipment, on-road bicycling skills and judgment, and observance of laws
- Incorporate bicycle awareness into the driver education program, Hawaii drivers' manual, and drivers' license written exam.
- Monitor and analyze bicycle crash data to improve bicycle safety
Proposed Goals, Objectives and Policies
Bike Plan Hawaii

Education
- Recommended Actions: (continued)
  - Evaluate crash reporting system and recommend changes to improve usefulness
  - Support continuing education programs on state-of-the-art bicycle facility planning and design for transportation professionals.
  - Create an on-line resource center. Website should allow feedback from bicyclists.
  - Increase awareness about the health and fitness benefits of bicycling.
  - Support the establishment of a Safe Routes to Schools Program

Enforcement
- Objective: Strengthen enforcement efforts to prevent illegal and reckless behavior by motorists and bicyclists and safeguard those using the bicycle network
- Recommended Actions:
  - Work with law enforcement to reduce traffic violations by bicyclists that might result in serious crashes with motor vehicles or pedestrians
  - Work with law enforcement to reduce motorist errors and aggressive behaviors
Proposed Goals, Objectives and Policies
Bike Plan Hawaii

■ Enforcement

 ■ Recommended Actions: (continued)
  ■ Review and update, as needed, bicycle-related traffic laws
  ■ Review, modernize, and streamline the bicycle registration system.
  ■ Work with law enforcement agencies to reduce crime on bicycle corridors

Proposed Goals, Objectives and Policies
Bike Plan Hawaii

■ Economics

 ■ Objective: Increase awareness about the economic benefits of increased bicycle use

 ■ Recommended Actions:
  ■ Identify opportunities to enjoy the islands’ diverse scenic beauty via bicycle
  ■ Consider visitors when designing bicycle facilities, such as signs or markers that facilitate way-finding
Proposed Goals, Objectives and Policies
Bike Plan Hawaii

- **Economics**
  - Recommended Actions: (continued)
    - Work with the Hawaii Tourism Authority and other appropriate entities to develop promotional material
    - Disseminate informational material about the individual and societal cost-savings of replacing car trips with bike trips

- **Encouragement**
  - Objective: Increase bicycle trips by promoting the personal and community benefits of this mode of travel
  - Recommended Actions:
    - Sponsor statewide promotions and events to increase awareness of bicycling opportunities
    - Distribute maps and guides about bicycle facilities and programs
    - Support bicycle advisory committees in all counties