

**N.J.  
BICYCLE  
ADVISORY COUNCIL  
REPORT**



JULY 1987

**Thomas H. Kean**  
Governor

**Hazel Frank Gluck**  
Commissioner

### *Acknowledgements*

*The New Jersey Bicycle Advisory Council would like to express its appreciation to Pamela Brett Struhl and Wendy Wolfe whose efforts were instrumental to the creation of the Council; also to the New Jersey Department of Transportation for its support of the Council's efforts in the production of this report.*

*We would also like to thank the bicycle clubs and organizations and members of other agencies who responded to our requests for comments or information; the counties and municipalities which responded to our questionnaire; and bicyclists and other citizens who took the time to attend public meetings held by the Council and provide us with their comments.*

*Special thanks are due Roger Kellman, special technical consultant, who gave unstintingly of his time and expertise to assist the Council in the development of its findings and recommendations.*

*-- William Feldman, Acting Chairperson  
New Jersey Bicycle Advisory Council*



HAZEL FRANK GLUCK  
COMMISSIONER

STATE OF NEW JERSEY  
DEPARTMENT OF TRANSPORTATION  
1035 PARKWAY AVENUE  
CN 600  
TRENTON, N.J. 08625  
609-530-3535

July 1987

Dear Governor Kean:

In Executive Order 101, you directed the New Jersey Bicycle Advisory Council (NJBAC) to examine the status of bicycling in New Jersey and its use as a safe and viable mode of transportation and to develop programs which improve the bicycling environment in this state. In addition, you asked the NJBAC to study and recommend other potential uses of the bicycle, for example, for touring, trails and tourism and to consider safety, education, health and fitness, funding and law enforcement programs.

I am pleased to submit this report, which contains the findings of a study begun in January 1986 and many significant recommendations. The report is the result of serious, cooperative and fruitful study by those who have a public and private interest in the successful implementation of your Executive Order.

Sincerely yours,

Hazel Frank Gluck  
Commissioner of Transportation  
Chairwoman, New Jersey Bicycle Advisory Council

**New Jersey Bicycle  
Advisory Council Report  
on Bicycling in New Jersey**

***Findings and Recommendations***

*Prepared By:*

New Jersey Bicycle Advisory Council  
Hazel Frank Gluck, Chairwoman

*Staff to the Council:*

New Jersey Department of Transportation  
Pedestrian/Bicycle Unit  
1035 Parkway Avenue  
Trenton, New Jersey 08625

# TABLE OF CONTENTS

	PAGE
<b>INTRODUCTION</b> .....	4
Governor's Charge to the Council.....	5
The Council's Approach.....	5
 <b>FINDINGS</b> .....	 8
Legal Status of the Bicycle.....	8
Current and Potential Bicycle Use in New Jersey.....	9
Bicycle Program Activities in New Jersey.....	11
New Jersey's Transportation System - Its Condition and Accessibility for Bicycles.....	15
Bicycle Safety/Accidents.....	19
Education.....	21
Enforcement and Registration.....	22
Bicycle Touring.....	25
Bicycle Racing.....	28
Health and Fitness.....	30
Funding.....	31
 <b>RECOMMENDATIONS</b> .....	 33
1. Comprehensive State Program.....	33
2. Continuation of NJBAC.....	33
3. Increased County/Municipal Involvement.....	34
4. Clarify Status/Operating Requirements.....	35
5. Improve Data Collection.....	35
6. Improve Transportation Infrastructure.....	37
7. Education.....	38
8. Enforcement.....	39
9. Registration.....	39
10. Information Resources, Touring, Racing.....	39
11. Utilitarian Tripmaking.....	40
12. Funding.....	41
 <b>ISSUES FOR FUTURE INVESTIGATION</b> .....	 43
 <b>APPENDICES</b>	
1. Executive Order 101.....	i
2. Executive Order 153.....	iii
3. List of Council Members.....	v
4. List of Meetings.....	vi
5. Resolution 86-1.....	vii
6. Resolution 86-2.....	viii
7. Resolution 86-3.....	ix
8. Memo to Record - Public Meeting #1.....	x
9. Memo to Record - Public Meeting # 2.....	xiii
10. Memo to Record - Public Meeting # 3.....	xv

# **INTRODUCTION**

New Jersey is a good place for bicycling. It has an equable climate, varied but generally moderate terrain and a relatively dense network of paved roads.

There are 34 active bicycling clubs whose members, numbering in the thousands, participate in ride schedules which span not just the peak cycling season from April to November but the entire year. In recent years New Jersey has played host to GEAR-Up, one of the major recreational bicycle touring rallies in the nation, sponsored by the League of American Wheelmen and affiliated clubs. Each year, New Jersey bicycle clubs hold organized invitational rides and rallies which attract thousands of participants.

Bicycle racing has become an increasingly popular sport in the state with New Jersey playing host to major criterium races, like the Tour of Nutley, and the Tour of Somerville, which attract thousands of spectators, and stage races like the Garden State Bicycle Race For Health sponsored by the University of Medicine and Dentistry to promote fitness and a reduction of health risk factors.

Commercial bicycle tour operators have begun to discover New Jersey, too. Several such companies now offer a variety of day trips and multi-day tours within New Jersey between April and November.

These organized activities barely scratch the surface of bicycling activity in the state. Along the Jersey shore, the bicycle is ubiquitous during the warm weather months. Thousands of bicyclists from New York City and Philadelphia come to New Jersey for recreational bicycle touring. They join the literally hundreds of thousands of New Jersey bicyclists who annually make many millions of trips by bicycle, for recreation, for fitness, for sport and for personal transportation.

And yet, the bicycling environment in New Jersey is not ideal. Numerous barriers exist both physical and institutional, which keep bicycling from achieving its full potential as means of recreation and personal transportation. These include things such as roadways which are not capable of safely accommodating bicycle traffic, unskilled and untrained bicyclists and motorists who fail to share the road with bicyclists.

Governor Thomas Kean created the New Jersey Bicycle Advisory Council by Executive Order #101 in May 1985, recognizing that:

- bicycling is an immensely popular form of outdoor recreation as well as an increasingly popular mode of personal transportation;
- it is in the public interest to encourage the residents of the state to bicycle since increased use can result in many personal and societal benefits such as reduced pollution; reduced use of non-renewable energy sources; reduced congestion; improved public health; reduced transportation costs; increased mobility; and improved quality of life for New Jersey's citizens;
- as a state with many desirable areas in which to bicycle and located adjacent to large population centers, it is in the economic interest of the state to encourage non-residents to visit New Jersey for bicycle touring, bicycle races and other leisure activities; and
- there is a need to create an improved environment for bicycling by working toward solutions to those problems and eliminating barriers which prevent bicycling from achieving its full potential.

The New Jersey Bicycle Advisory Council (NJBAC) is comprised of a combination of public members with a demonstrated active interest or expertise in the various aspects of bicycling and representatives of state agencies whose activities directly or indirectly affect the bicycling environment or the interests of bicyclists. These agencies include New Jersey Departments of Transportation, Environmental Protection, Law and Public Safety (Division of Motor Vehicles), Commerce (Division of Travel and Tourism), and Community Affairs, as well as NJ TRANSIT and the Governor's Office. The Department of Transportation was designated as the lead agency.

### THE GOVERNOR'S CHARGE TO THE COUNCIL

In Executive Order 101, the Council was directed to:

- examine the status of bicycling in New Jersey and make recommendations regarding the promotion of the use of the bicycle as a safe and viable mode of transportation and the development or expansion of programs leading to an improved bicycling environment;
- study and make recommendations regarding other potential uses of the bicycle and aspects of bicycling such as: bicycle touring, recreation trails and maps, safety, education, health and fitness, law enforcement, potential funding sources and tourism promotion;
- prepare and submit to the Governor a report of its findings and recommendations.

This report contains the findings and recommendations of the Council and has been prepared and submitted to Governor Kean in fulfillment of his charge.

### THE COUNCIL'S APPROACH

The New Jersey Bicycle Advisory Council examined a broad range of bicycling issues, activities, and problems and has recommended in this report a wide variety of programmatic and other solutions which could be effected primarily through governmental action or public/private cooperation.

As established in Executive Order #101, the Council was given one year following its initial meeting to complete its work. The initial meeting of the Council was held on January 23, 1986. Eventually, due to the depth of analysis with which the Council examined the issues, it was determined that additional time would be needed and Governor Kean extended the time for the Council to complete its work until May 30, 1987, in Executive Order #153.

During 1986 and early 1987 the Council held a series of 10 meetings. The purpose of the meetings was to discuss in detail the various aspects of bicycling in New Jersey, to determine the problems which confront bicyclists and bicycling, and to assess the various potential remedies which would lead to the solution of those problems and encourage bicycling.

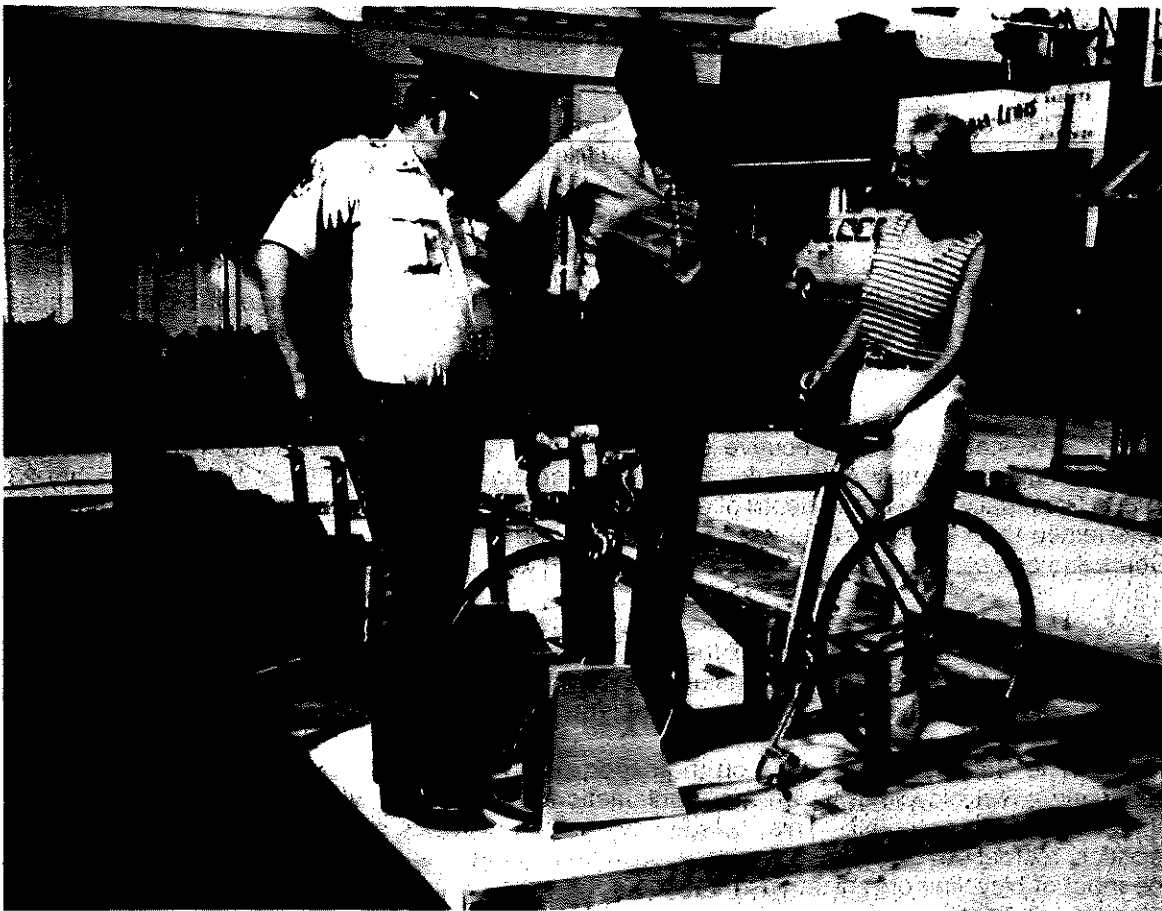
The Council initially drew on the expertise of its members to identify conditions which adversely affect bicycling, which are problematic to bicyclists or which inhibited bicycling from achieving its full potential. This included discussion of topics such as bicycle safety, bicycle facilities, recreational touring, racing, legislation and liability issues. In addition the Council sought the input of bicycling organizations throughout the state to further identify and define issues and suggest solutions.

The Council examined in detail the mission and programs of various state agencies whose activities impacted or could potentially impact bicycling. The purpose of this examination was to identify what these agencies were currently doing to meet the needs of New Jersey's bicyclists

and to identify what could be done within the context of the mission of each agency to solve the problems faced by bicycling and thereby lead to an improved bicycling environment.

During the course of these discussions three issues of emergent nature came under review about which, due to their timely nature, the Council decided to make an immediate recommendation to the Governor in the form of a Council Resolution. In these resolutions the Council supported (a) the development of the proposed Philadelphia-Atlantic City rail service in a way which would not preclude the possibility of a full-sized bicycle carriage demonstration program on that rail service; (b) legislation which would grant immunity from civil liability to those acting as volunteers of bicycle clubs and other non-team sport and recreational organizations and (c) the planning and implementation of trans-Hudson ferry service by the New York/New Jersey Port Authority that will accommodate bicycles during all hours of operation.

The Council recognized that improving the bicycling environment and addressing bicyclists' needs was a task for county and local levels of government as well as the state. All counties and municipalities were surveyed to determine the extent of bicycle program activities at the county and local level. Since bicycling is largely a local phenomenon and most bicycling takes place on county and municipal roadways, an effort was made to identify activities which should be carried out by county and local levels of government and in which state agencies could cooperate with local agencies in meeting the needs of New Jersey's bicyclists.



*Bicycle advocates in Cranford sponsored the installation of secure bicycle parking facilities.*



In early March 1987, the Council held a series of public meetings to present preliminary findings and to solicit additional comments and insights to assist the Council in the preparation of its final report. These meetings were well attended and elicited considerable public support for the Council and its activities. The comments and recommendations presented strongly corroborated the preliminary findings and positions taken by the Council. In addition, several new issues were brought up for consideration.

**As a result of its study the Council recognized that problems confronting bicycling are wide-ranging and that their effective solution requires a comprehensive approach which involves the 4 E's: Education, Enforcement, Engineering and Encouragement:**

- **Education** of bicyclists regarding effective bicycling skills, the rules of the road, and safety issues; education of motorists regarding cyclists' rights and how to share the road with bicyclists; education of transportation professionals on the needs and capabilities of bicycle traffic; education of public officials and administrators of the needs of bicyclists as well as the social and personal benefits of bicycling; education of law enforcement agencies on the statutory rights and responsibilities of bicyclists;
- **Enforcement** of the law with regard to bicyclists who violate the rules of the road and fail to live up to their responsibilities as co-users of transportation facilities, and enforcement with regard to the motorist who transgresses bicyclists' rights;
- **Engineering** or carrying out the planning, design and implementation of a transportation system which effectively and safely accommodates bicycle traffic. This includes the provision of roadways capable of safely accommodating shared use by motor vehicle and bicycle traffic, special facilities such as bike paths, bike lanes, or signed bike routes when warranted by special conditions; appropriately located secure bicycle parking devices; and the establishment of intermodal linkages with public transit;
- **Encouragement** of bicycling through positive promotion by the establishment of programs and activities leading to a physical and institutional environment conducive to bicycling, over and above the elimination of hazards and barriers to bicycle use.

This report is the culmination of the Council's efforts. It discusses those issues and activities important to bicycling in New Jersey and it identifies the problems which bicycling faces; problems which prevent it from achieving its full potential as a means of personal transportation and recreation. Finally it presents a series of recommendations for solving specific problems and for the general improvement or enhancement of the bicycling environment. Where appropriate, activities or programs are recommended for specific agencies or levels of government.

# FINDINGS

## Legal Status of the Bicycle

New Jersey statutes, in general, confirm the status of the bicycle as a legitimate mode of conveyance and user of the state's roadways. Title 39 of the New Jersey Statutes defines the status and prescribes the operating regulations and mandatory equipment required for operating bicycles.

Under the statutes, (39:4-14.1) bicycles are NOT defined as vehicles; however persons operating a bicycle on the roadway are granted all rights and are subject to all the duties applicable to the driver of a vehicle. Bicycle drivers must ride as far to the right as practicable (not as far as possible) and they may move left under certain specified circumstances. There are penalties prescribed for violating this section of the statutes. The courts have further confirmed bicycle drivers' responsibilities as being essentially the same as vehicle operators by ruling that a bicycle driver may be cited for specific vehicular traffic offenses (e.g., running a red light or drunk driving).

A bicycle may not be ridden by more people than it is designed and equipped for and the bicyclist is required to ride astride the seat with hands on the handlebars and feet on the pedals. Hitching onto a vehicle is prohibited.

The statutes are less clear in defining a bicyclist's rights in certain situations. It may be inferred that a bicyclist may move to the center or left hand portion of a through lane to make a left turn onto a roadway or abutting property, but this is not clearly specified in the statutes. Although the statutes say nothing about the bicycle driver's right to operate on a shoulder of a roadway, a legal opinion issued by the state allows that there is nothing in the statutes which should be interpreted as precluding bicycle traffic from operating on the shoulder of a roadway.

No roadway in the state is closed to bicycle traffic by statute; however, the statutes do enable transportation agencies to enact regulations prohibiting classes of traffic (including bicycles) from controlled access roadways or where special circumstances warrant. Relatively few highways in the state (including only one land service roadway) have been closed to bicycle traffic under these provisions.

The statutes make no reference to bicycle riding on sidewalks. A number of municipalities have passed ordinances restricting bicycle traffic on sections of sidewalk, and this has been held to be appropriate by the New Jersey Department of Transportation.

All bicycles must be equipped with brakes which enable the operators to make the braked wheels skid on dry, level, clean pavement and a horn or bell capable of being heard at 100 feet. If operated at nighttime a bicycle must be equipped with a white front light and a red rear light visible from 500 feet and a red reflector mounted on the rear, the reflection of which is visible in high beams from a distance of between 50 and 300 feet.

The statutes give the state the authority to promulgate regulations concerning how a bicycle must be equipped for sale; however no such regulations have been promulgated by the state.

**Note:** *The Federal Consumer Product Safety Commission does require that all bicycles being sold must have an array of front, rear, pedal and side-facing spoke reflectors.*

There are several areas in which the New Jersey Statutes are mute or are not in conformance with the bicycle related portions of the Uniform Vehicle Code (UVC) published by the National Committee on Uniform Traffic Laws and Ordinances. The UVC defines the bicycle as

a vehicle, making certain distinctions between motorized and human powered vehicles. For example, the UVC specifically allows bicycle traffic to move left when preparing to turn left at an intersection or into a private road or driveway, not just to make a left turn from a left turn lane or pocket as the New Jersey Statutes prescribe. The UVC prohibits motor vehicle operators from opening the door of a motor vehicle until this can be done without interfering with the movement of other traffic. Under the UVC, bicyclists may signal a right hand turn by extending their right arm.

## Current and Potential Bicycle Use in New Jersey

It is difficult to estimate the amount of bicycling which takes place in New Jersey, but there are strong indications that its use for both recreation and personal transportation is considerable and that bicycle use is increasing at a rapid pace. Nevertheless there is a vast potential for even further increase in the use of the bicycle as a means of personal transportation.

Most estimates of total bicycle use have been developed on a national scale. According to the Bicycle Federation of America, we are in the midst of a bicycling renaissance in America with a current total of more than 82 million bicyclists in the United States. This total includes approximately 42 million adult bicyclists with 28 million cycling occasionally and over 12 million cycling regularly (at least once a week).

In 1986, two million Americans commuted regularly by bicycle, more than three times the number who commuted by bicycle in 1975. This accounts for more than 700 million commuting trips annually. The Bicycle Federation of America estimates that as many as three times this number of trips are made for other (non-commuting) utilitarian trips.

Trends in bicycle sales mirror the increased level of bicycle use. In the past three year period ('84-'86) bicycle sales have topped 10 million each year. Bicycle sales in 1986 were more than 13 million units. The last (and only other) time this occurred was during the energy crisis of the early 1970s. During the past 10 years 99.7 million bicycles have been sold in the United States, exceeding motor vehicle sales in 7 of the past 10 years.

By extrapolating these figures to New Jersey's experience it is estimated that there are three million people who bicycle in New Jersey with 400,000 adults bicycling regularly (average once a week). There may be as many as 70,000 New Jerseyans commuting at least occasionally by bicycle accounting for seven million commuting trips per year, with another 21 million non-commuting utilitarian trips made by bicycle.

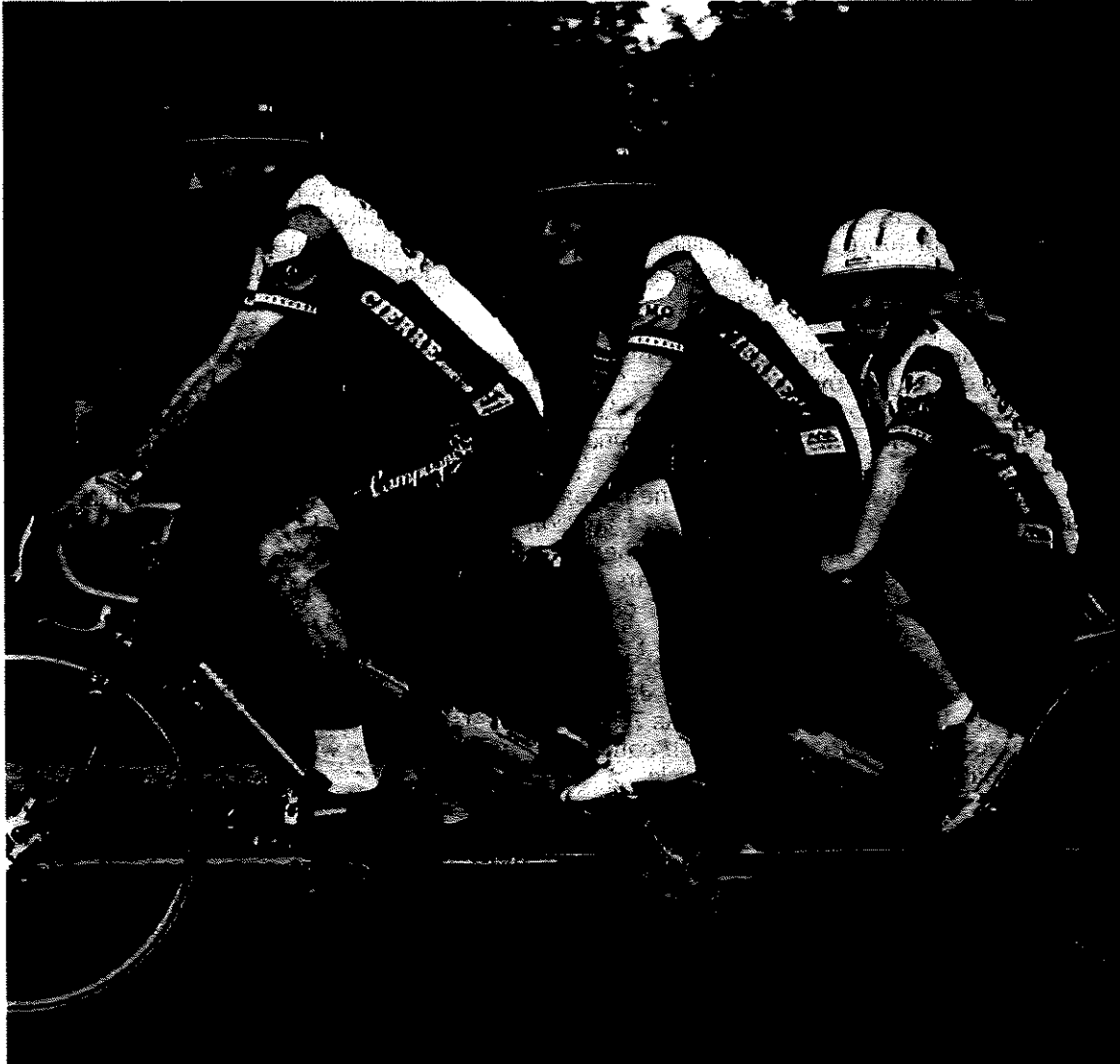
Bicycle sales in New Jersey were estimated to be over 400,000 units in 1986 with over 3.2 million bicycles sold in New Jersey during the past decade.

The *Outdoor Recreation Plan of New Jersey* published in 1984 by the New Jersey Department of Environmental Protection (NJDEP) identifies bicycling as the most popular form of outdoor recreation in the state. Based on detailed survey information collected for a previous edition of the Plan, it is estimated that over 250 million recreational trips will be made by bicycle this year. Projections indicate that bicycling will continue to outpace other outdoor recreational activities beyond the year 2000 when it is estimated that over 280 million recreational trips will be made by bicycle and bicycling will have increased its lead (popularity) over other forms of outdoor recreation.

Since the figures presented are in terms of "activity days," the number of "trips" by bicycle is in all probability higher since some proportion of those who bicycle would likely take more than one trip by bicycle on some days.

A very high proportion of trips currently made by automobile could easily be made by bicycle. Nationally, over 60% of the more than 100 billion trips made annually are five miles or less

in length. This accounts for almost 17% of all vehicle miles traveled. Since the average commuting trip by bicycle is approximately four miles most of these motorized trips could, from the standpoint of distance, easily be made by bicycle. Even if the majority of this potential were discounted because of such inhibiting factors such as vehicle load factors, age or physical condition of the tripmaker, inclement weather, darkness, difficult terrain, physical hazards or barriers to bicycle use, etc., this would still leave tens of billions of trips nationally and perhaps as many as a billion trips in New Jersey, which could be converted to bicycle use. The positive impacts of such a conversion in terms of reduced congestion on our roadways and parking areas, reduced energy consumption, reduced air pollution and improved personal physical fitness and quality/pace of life would be astounding.



*Bicycling in New Jersey is frequently a family affair.*

In summary, it is estimated that there are currently 2.5 million bicycles being ridden at least occasionally by over three million bicyclists in the Garden State. These bicyclists account for as many as 25 million utilitarian trips and 250 million recreational trips annually. This activity represents 4% of the total trips and 2% of the total vehicle miles traveled in the state.

## **Bicycle Program Activities in New Jersey**

Despite the large numbers of New Jersey's citizens who bicycle, there is a relatively low level of bicycle program activity by state, regional, county and local levels of government in New Jersey. This may well have to do with the fact that almost half of those who bicycle are under 16 years old. As such they are not involved in the political process and are unable to voice their needs for the activities in which they are involved. Also, organized bicycling groups have largely been based around avocational recreational interests and until recently these groups have tended to shun advocacy and political involvement.

Increasing numbers of adult cyclists and increased use of the bicycle as a mode of personal transportation have begun to change this. The result is the beginning of increased awareness of the bicycling community's responsibility to express its needs and concerns to preserve and enhance the bicycling environment. This is an important prerequisite to increased governmental activity.

### **State**

There is no comprehensive or coordinated state bicycle program in New Jersey, but several state agencies have been involved in bicycle program activities in recent years:

**The New Jersey Department of Transportation.** Currently, the New Jersey Department of Transportation is the only state agency with staff and programmatic activities dealing with the needs of bicyclists and bicycle traffic. Since 1980 the NJDOT has assigned one staff person, the Pedestrian/Bicycle Advocate, to deal with the needs of pedestrians and bicyclists.

Acting as a point of contact with the public and a source of technical information on bicycling and bicycle facilities, the Pedestrian/Bicycle Advocate has served as an ombudsman for the interests of non-motorized transportation within the Department. This functional area was internally created, i.e. it is not as a result of a gubernatorial or legislative mandate. Bicycle program activities carried out by the NJDOT have included:

- development and dissemination of general information on bicycling to the public;
- development of a series of bicycle touring route descriptions (seven currently available);
- development of a series of long distance touring route descriptions;
- development and implementation of policies, procedures and guidelines requiring that the Department's programs and projects take into account the needs of bicyclists;
- serving as point of contact with the public and a source of technical information on bicycling; and
- encouragement of activities by others which are conducive to an improved bicycling environment.

**Department of Law and Public Safety.** In the past, the Office of Highway Safety in the Department of Law and Public Safety, Division of Motor Vehicles was involved on a regular basis in bicycle program activities. That unit, the designated Governor's Safety Council, is

responsible for developing highway safety programs and disseminating federal funding for highway and traffic safety programs.

Prior to 1981 that office had on staff a Safety Specialist assigned full time to a variety of pedestrian and bicycle safety activities, including the development and distribution of pedestrian and bicycle safety curricula to New Jersey's school districts and the preparation and dissemination of literature on pedestrian and bicycle safety.

Since 1981 the National Highway Traffic Safety Administration of the U.S. Department of Transportation has not identified pedestrian or bicycle safety as a "priority" area and the Office of Highway Safety has not assigned staff on a regular basis to bicycling issues.

In response to numerous requests by schools, service organizations, and law enforcement agencies, the Division of Motor Vehicles recently developed a general bicycle safety booklet entitled *The New Jersey Bicyclists Guide*. The booklet has been distributed by the Division of Motor Vehicles and has proven to be extremely popular with 140,000 copies distributed to date.

Another publication of the Division of Motor Vehicles, the State of New Jersey *Driver Manual* as revised in May 1985 contained additional references to the rights and responsibilities of bicyclists. The latest revision contains a number of changes recommended earlier this year by the Council. These changes make the publication, and New Jersey's motorists more sensitive to the needs of bicycle traffic. The Division has also issued public service announcements on bicycle safety.

**Division of Travel and Tourism.** Until recently the Division of Travel and Tourism was not involved directly in the development or distribution of bicycle touring information or the promotion of bicycling activity in New Jersey. The Division now retains a supply of bicycle touring information (developed by NJDOT) and distributes it on request. Also, in the fall of 1986, the Division began to include a separate listing of bicycling events and activities on its quarterly New Jersey Events Calendar. The Division has awarded two grants to assist in the development of bicycling events: The Tour of Somerville and the Bicycle Race for Health.

**Department of Environmental Protection.** The New Jersey Department of Environmental Protection (NJDEP) has not assigned staff to specifically work on bicycling issues and has not developed any specific bicycle program objectives or activities. However the NJDEP has long been supportive of bicycling in New Jersey as a means of fostering both enhanced recreational opportunities and improved environmental quality.

The Division of Environmental Quality administers New Jersey's Air Quality Program. That unit has supported the inclusion of bicycle transportation improvements as reasonable available control measures in the *State Implementation Plan* for the attainment of national ambient air quality standards.

The Division of Coastal Resources, which administers various programs implementing the Coastal Area Facilities Review Act, (CAFRA) and the Waterfront Development Act, has recognized the value of bicycling as both a form of recreation and mode of transportation. The Division requires consideration of bicycling facilities in CAFRA and Waterfront Development Act permit applications.

The Green Acres Office administers the Green Trust Program which provides financial assistance to municipalities and counties in the acquisition and development of recreational lands. The Office serves as the acquisition agency of NJDEP using funds from a variety of sources. In this capacity, the office has been involved in the development of a number of recreational bicycle paths and multi-use trails used by bicyclists. Examples include the bicycle path system in Veterans Park (Hamilton Township, Mercer County), Patriot's Path (Morris County) and the multi-use trail along the Delaware and Raritan Canal Feeder.

The Green Acres Office is also responsible for the development of the State *Outdoor Recreational Plan* which has recognized bicycling as the states most popular form of outdoor recreation and has made a number of recommendations for seeing that the needs created by the large demand for this activity are adequately addressed.

The New Jersey Trails Council, which derives staff support from NJDEP's Office of Natural Lands Management, has long advocated increased public support of bicycling in New Jersey. The Trails Council was instrumental in getting the Department of Transportation to create the Pedestrian/Bicycle Advocate position.

The Division of Parks and Forestry administers over 300,000 acres of state park and recreation lands. Much informal recreational bicycling activity takes place on the trails, abandoned rail rights-of-way, and paved and unpaved roads which traverse Division lands. The Delaware Raritan Canal feeder and the Island Beach Park bikeway (bike lanes) are specifically designated for bicycle use. The Division has recently proposed the acquisition of the 26-mile New York, Susquehanna and Western abandoned rail right-of-way for development as a multi-use trail.

Public roads traversing 186,000 acres of land under the jurisdiction of the Division of Fish, Game, and Wildlife are frequently used for bicycling.

**The New Jersey Department of Education.** The New Jersey Department of Education was involved in the past in the placement of bicycle education curricula in New Jersey school districts.

### **County and Municipal Bicycle Activities**

In order to determine the extent of county and municipal bicycle program activities, the Council distributed a survey questionnaire to all counties and municipalities in the state. The results indicate that there is an extremely limited level of bicycle program activity being carried out by county and local levels of government in New Jersey.

**Counties.** Fourteen of New Jersey's 21 counties indicated that they are not involved in any bicycle program activities. Of the seven which indicated some type of involvement in bicycling activities, six mentioned provision of facilities (bikeways), two mentioned safety education or effective cycling training, four mentioned encouragement of bicycling, primarily through the provision of suitability maps or tour guides, and two specifically mentioned enforcement activities directed towards bicyclists.

One county specifically mentioned that it provides bicycle parking facilities and five mentioned that they provided maps or other information for bicyclists.

Bergen, Union and Monmouth Counties have developed bicycle suitability maps, all of which are currently out of print. Salem County participated in the production of a regional bicycle route map which covers Salem County, and Hunterdon and Cape May Counties have produced and distribute bicycle route descriptions for tours in their respective counties.

Most counties that responded mentioned that local civic groups or municipalities within the county sponsored bicycling events or activities.

No county has assigned staff to deal with bicycling issues on either a full or part time basis and 5 counties indicated that staff were assigned on an "as needed" basis. No county had developed policies, produced, guidelines or has other ongoing program activities dealing with bicycling issues, although several counties had in the past developed bikeways plans or a bikeways element for their transportation plans.

Several counties indicated that they would be interested in receiving information or assistance in developing bicycle programs or otherwise meeting the needs of bicyclists.

*Note: Since the completion of this questionnaire process, two counties, Atlantic and Monmouth, have designated a bicycle contact person within county government. Atlantic County has developed a county program to deal specifically with bicycling issues.*

**Municipalities.** As is the case with counties there is a relatively low level of bicycle program activity by New Jersey's municipalities. In the NJBAC survey, 104 of New Jersey's 567 municipalities responded indicating that some sort of bicycling activity took place in and was sponsored or supported by the municipality. Most commonly this took the form of an assembly or bicycle safety instruction provided annually in the schools by local law enforcement personnel.

Thirty-five municipalities indicated they provided or had developed bicycle facilities; 18 mentioned they offered encouragement activities; 45 specifically mentioned that they carried out bicycle enforcement activities; and 51 stated that local law enforcement personnel would issue summons to (adult or juvenile) bicyclists for bicycling infractions.

Eighty municipalities stated that they had bicycle registration programs.

No community had on staff a person who dealt with bicycle issues on a full time basis. Sixty municipalities assigned staff responsibilities dealing with bicycling on a part time or "as needed" basis and seven communities had a citizen advisory council which helped direct and carry out bicycling activities.

Only a handful of communities in New Jersey provide what might be considered a comprehensive effort, i.e., an array of activities along with staff support, and few communities have made an attempt to develop a municipal bicycling plan or action agenda.

One notable exception is the Township of Cranford, which has developed since the mid-1970s what might be considered a model bicycling program. Sponsored by the Cranford Bicycle Board and the Cranford Police Department, the program takes a comprehensive approach, dealing with the engineering, education, enforcement, and encouragement aspects of bicycling.

The community sponsors a variety of events and activities to promote bicycling and bicycle safety. Bicycle safety is presented in the schools in grades 1-6 in a curriculum which includes "on bike" skills testing. The program stresses that bicyclists and motorists must share the road, and in addition to this emphasis on shared use roadways, the community has developed a system of signed bike routes and bike paths which provide access to the vicinity of many community facilities and activity areas.

Secure bicycle parking is provided throughout the town including bike racks and lockers at the Cranford train station. In addition, the Cranford land use ordinance requires bicycle parking at all future developments.

A bicycle facilities map has been produced and distributed within the township. Finally there is an effective enforcement program for both juvenile and adult bicyclists, as well as a mandatory bicycle registration program.

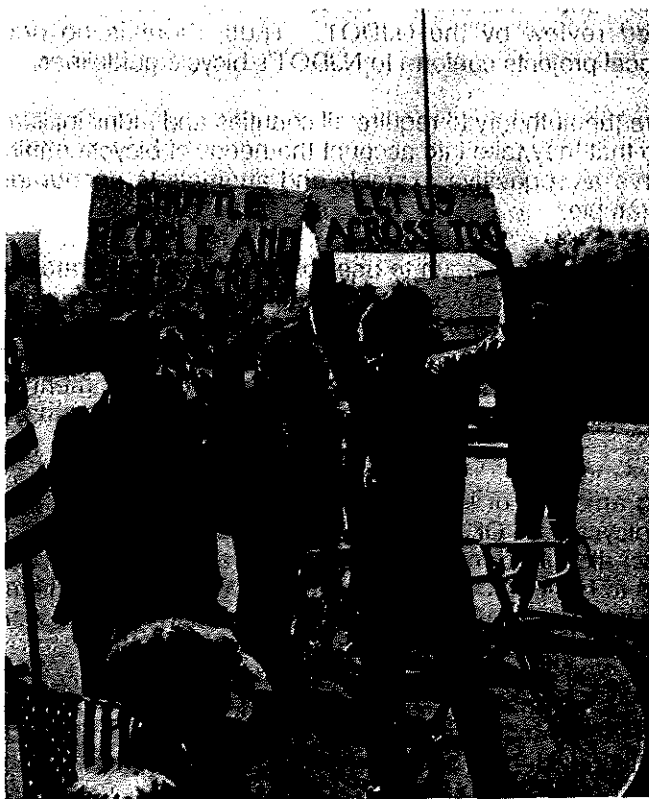
The community has reaped benefits from the program in the form of reduced bicycling accidents, increased motorist courtesy, reduced bicycle traffic violations, and increased bicycle use for both recreation and utilitarian trips. Cranford is unique in that it has taken the steps necessary to implement such a program; however, there are many municipalities with similar characteristics and potential whose citizens would benefit from a similar program in their community.



## New Jersey's Transportation System - Its Condition and Accessibility for Bicycles

**Roadways.** There are over 33,000 miles of paved roadway in New Jersey including over 2,200 miles of state system roadways, 6,000 miles of county roadways, and over 24,000 miles of municipal roads. The vast preponderance of the hundreds of million of miles of bicycling activity in the state takes place on this system of roadways.

With some notable but limited exceptions almost all of these roadways are open to bicycle traffic. Roads operated by the toll road authorities (New Jersey Turnpike, Garden State Parkway, Atlantic City Expressway) as well as some of the freeways under NJDOT jurisdiction are closed to bicycle traffic by regulation.



The NJDOT issues a permit on request which enables a bicyclist to ride on the shoulder of some interstate roadways. Bridges which provide access to the barrier islands, to New York City (Manhattan and Staten Island) and to Pennsylvania are especially problematic. Access for bicycle traffic on these facilities is limited or non-existent.

Unfortunately much of this roadway system though technically accessible and to some degree suitable for bicycle traffic was designed almost exclusively to meet the needs of motor vehicles. In a few areas of the state, mobility by bicycle is limited due to a shortage of bicycle accessible routes.

Though our roadways do in many cases, accommodate bicycle traffic, in many other instances there exist roadway conditions which are uninviting, unsafe or which contain barriers to bicycle use such as insufficient pavement width or hazardous sewer grates.

*Bicyclists require access to transportation facilities.*

To address this concern the Pedestrian/Bicycle Unit of the NJDOT developed *Bicycle Compatible Roadways - Planning and Design Guidelines*. This booklet contains a series of detailed guidelines which prescribe how a roadway should be constructed so that it can accommodate shared use by motor vehicle and bicycle traffic. The guidelines are based on the recognition that arterial, collector and primary roadways may need extra pavement in the form of wide curb lanes or shoulders for bicycle traffic and that all roadways should be free from hazards or obstructions to bicycle traffic especially along the roadway margins.

Ultimately, in May 1984, official policies and procedures were promulgated within the Department requiring that all *state funded* projects being developed by the NJDOT should be designed, constructed and maintained to accommodate shared use by motor vehicles and bicycle traffic, and that consistent with the scope of each project all feasible guidelines should be incorporated into the projects being developed by the Department. It was recognized that the

implementation of the policy, procedures, and guidelines would not transform New Jersey's roadways into a bicycle compatible system overnight, but that the persistent application of the guidelines, project by project, would eventually yield a safer and more accessible system of roadways for bicycle traffic.

At the time of their promulgation, these policies, procedures, and guidelines applied not only to state system roadway projects being processed by NJDOT, but also the large number of county and local projects which were being developed through the use of Federal Aid Urban System (FAUS) funding. As such they were reviewed by the NJDOT and were required to satisfy the Department's bicycle guidelines.

Subsequently, a new funding procedure was implemented (the state-aid or FAUS substitution program) in which the NJDOT retains FAUS funds to develop a number of larger projects eligible for this type of funding and the counties now receive a grant of state aid or FAUS Substitution funds in lieu of the FAUS funds. Under this system the counties are free to develop projects without the necessity of detailed review by the NJDOT. Thus, there is no new mechanism to see that these county and local projects conform to NJDOT's bicycle guidelines.

The NJDOT currently does not have the authority to require all counties and municipalities to carry out their roadway improvements so that they take into account the needs of bicycle traffic. However, the Department has tried to serve as a positive example and attempts to encourage counties and municipalities to follow that example.

A number of counties and municipalities have begun to use "bicycle" drainage grates in their projects but beyond this little has been done by either counties or municipalities to affirmatively or consistently take into account the needs of bicyclists in the development of their roadway projects. Until this occurs the majority of the roadway mileage in the state, including those road systems used predominantly by bicyclists will not be subject to development or improvement in a way that would improve their ability to accommodate shared use by motorized and bicycle traffic.

Poor maintenance and staggering amounts of litter along New Jersey's roadways are clearly evident to and adversely affect bicyclists. Of particular concern to bicyclists is the tremendous amount of broken glass strewn along the margins of our roadways. Broken glass accounts for a considerable economic cost to bicyclists in terms of replacement tubes and tires. The nuisance of flat tires is a disincentive to bicycling. But broken glass is more than a nuisance, it is a hazard to bicyclists who must swerve (possibly into traffic) to avoid it or who fall upon it.

The League of American Wheelmen, a national bicycling organization, as well as bicyclists who have toured throughout New England, report that the problem of roadside litter in general, and broken glass in particular, is clearly less evident in states which have enacted mandatory beverage container deposit legislation.

**Bikeways.** In addition to the normal system of roadways, special facilities referred to generally as bikeways, have been developed to serve the needs of bicyclists. Bikeways can be either signed *bike routes*, striped *bike lanes* or separate *bike paths*.

Bike routes and bike lanes are located along and within the right of way of existing streets or roadways. Bike paths are located on independent alignments (though they may be located within the right of way of a given roadway). Detailed information on the planning and design of bikeways is contained in *Guide for Development of New Bicycle Facilities, 1981*, published by the American Association of State Highway and Transportation Officials (AASHTO).

Over the past decade a number of communities in New Jersey have developed bikeways. For the most part they were developed with FAUS funds. Some of these existing bikeways were developed as part of what may once have been envisioned as a comprehensive community bikeway system though not necessarily to serve a specific purpose or need.

With rare exception these systems were never implemented, and most bikeways developed with federal aid funding in New Jersey are relatively short segments not well integrated with the roadway network. In addition many of these bikeways did not fully conform to appropriate design guidelines and are poorly maintained and thus their ability to meet bicyclists' needs is further compromised.

Even though federal aid highway funds can be used for the development of both bikeways and non-construction bicycle transportation projects, there has been a reduced interest in recent years in the development of bikeways using transportation funding sources. FAUS funds are no longer made directly available to the counties. Although FAUS substitution (state aid) funds could be used for the development of bicycle transportation projects, few counties have chosen to do this.

In addition to these "federal aid" bikeways a number of communities have developed recreational bikeways primarily through the use of state Green Acres development funds.

The NJDOT has developed a couple of bikeways as incidental features of roadway projects but has not developed any independent bikeway projects. No inventory of the state's bikeways has been compiled to date.

Boardwalks along the New Jersey beaches have also been popular places for bicycling. Bicycle traffic must share these facilities with pedestrians. In recent years, to reduce use conflicts, some communities have placed time restrictions on bicycle use of these facilities.

In the Netherlands and in other selected cities in northern Europe where over 25% of total trips are made by bicycle, a comprehensive system of bikeways totally integrated with the system of roadways is a reasonable goal, the cost of which is more than justified. In New Jersey, for the foreseeable future, our system of roadways will continue to be the primary locus of bicycling activity and it would appear that bikeways would best be developed for a specific purpose or in response to a specific barrier or safety problem which cannot be solved by improvements to the existing system of roadways.

**Intermodal Considerations.** In a number of areas of the United States, throughout Europe and in Japan, the ability of the bicycle to serve both transportation and recreational needs is enhanced through the integration of the bicycle with other modes of public transportation.

Policies and programs which enable collapsible or full-sized bicycles to be carried on bus, commuter rail, intercity rail and ferry systems enable the bicycle to be used as part of a portal to portal multi-modal commute. The bicycle can be used to access transit and then be used to reach the destination following the transit portion of the trip. Other special arrangements with transit operating agencies to allow access for groups of recreational bicyclists can provide urban dwellers the opportunity of taking their bicycle on transit to the vicinity of desirable areas in the state for bicycle touring.

Secure bicycle parking at transit facilities encourages access to transit by bicycle and could expand markets for transit service. Provisions for bicycle carriage on buses either in under carriage storage areas or external racks can and have been used in selected instances where bridges are inaccessible to bicycle traffic or other impediments create barriers to bicycle use.

Currently these intermodal linkages in New Jersey are barely developed. The PATH rail system, operated by the Port Authority of New York-New Jersey, between Newark, Jersey City,

Hoboken and Manhattan, allows collapsible bicycles at all times and allows (by permit) full sized bicycles on off-peak trains. NJ TRANSIT which operates a variety of commuter rail lines throughout the state allows collapsible bicycles on off-peak trains only and makes no provision for full-sized bicycle carriage on any of its lines, nor does it make arrangements with groups for group bicycle carriage.

By contrast, other commuter rail lines in the New York metropolitan area, such as Metro North and The Long Island Railroad do have programs which allow full-sized bicycle carriage under limited circumstances and the LIRR does make advance arrangements with groups for bicycle carriage.



*Some train commuters are cyclists.*

The Lindenwold Line operated by the Delaware River Port Authority (DRPA) between points in Camden County and Philadelphia allows folding bicycles but makes no provisions for full-sized bicycle carriage.

None of the major bus carriers in the state, including NJ TRANSIT, makes any provision for the carriage of bicycles on buses.

It is unknown at this point whether proposed trans-Hudson ferry service to be operated by the Port Authority between New Jersey and Manhattan will be accessible to bicycles. Bicycle carriage on trans-Hudson ferries would provide a key link for bicycles which is currently unmet.

**Bicycle Parking.** Bicycle theft and vandalism are significant impediments to bicycle use. Thus, secure bicycle parking is critically important to the use of the bicycle especially for commuting and other utilitarian trip-making. Unless bicycle parking devices are available which provide security from theft and vandalism plus some protection from the elements, travelers will be inhibited from using the bike for their trip-making needs, especially for regular commuting purposes. Lack of secure bicycle parking has been identified specifically as a major impediment to the increased use of the bicycle as a means of accessing transit.

Many bicycle racks currently available do not provide adequate security against theft. They are designed to secure only one wheel, therefore, the bicycle is vulnerable to theft by detaching the wheel that has been secured. High security racks are designed to secure both wheels and the frame of the bicycle, with the bicyclist usually needing only to provide the lock itself.

Secure bicycle parking should consist not only of high security bike racks. At locations where a bicyclist would park their bicycle on a regular basis, such as at the work site or at transit stops or rail stations, a combination of racks plus bicycle storage lockers or guarded bicycle areas or garages is essential.

Bicycle racks, and in a few scattered instances, bicycle storage lockers' have been provided by public agencies at community facilities, by employers at work sites or by commercial establishments. Some bicycle racks have been located at all the Lindenwold Line stations in New Jersey and at a limited number of rail stations along lines operated by NJ TRANSIT. NJ TRANSIT is including bicycle racks in a number of stations being refurbished under their rail station

improvement program and intends to provide some lockers and racks at additional stations where requests indicate demand for the facilities.

In addition to the direct security function provided by racks and lockers, they serve the additional function, particularly if properly located and promoted, of identifying the bicycle as an acceptable modal choice and thus encouraging increased bicycle use.

## **Bicycle Safety - Accidents**

There is a widespread perception that bicycling on roadways in traffic is a terribly risky activity, due primarily to the high possibility of an accident with a motor vehicle. The studies and data currently available do not support this perception. Considering the number of bicyclists, the number of bicycle trips and the amount of miles ridden by bicyclists in the state, driving a bicycle in New Jersey is hardly more dangerous in terms of the risk of serious injury or death resulting from an accident with a motor vehicle than driving or riding in an automobile. This is particularly surprising given the existing deficiencies in effective cycling education, education of motorists regarding cyclists' rights, enforcement, and the transportation infrastructure.

There is undoubtedly a strong emotional component which contributes to the public misperception regarding the degree of risk of injury from a bicycle - motor vehicle collision. Intuitively one suspects that the bicyclist inevitably faces a considerable likelihood of serious injury or death.

Latest available figures indicate that in 1984, 4199 bicyclists sustained an injury in 4023 bicycle - motor vehicle accidents. This was approximately 3.2% of the total injured in motor vehicle accidents. Of this number 2367 were listed as "possible [presumably minor] injury." Of the remaining, 1564 were listed as non-incapacitating and 289 were listed as incapacitating injuries. This is 3.6% of the total of incapacitating motor vehicle injuries.

In 1985 there were 20 fatalities arising from bicycle-motor vehicle collisions. This was 2.1% of the total 964 fatalities involving motor vehicles in that year. In that year approximately 7% of reported bicycle-motor vehicle accidents resulted in an incapacitating injury or death as compared to 4% for all motor vehicle accidents.

There would seem to be a fairly clear picture available of bicycle motor vehicle accidents in New Jersey because law enforcement personnel routinely file *motor vehicle* accident reports, whenever there is a bicycle-motor vehicle accident. If a bicyclist is involved in an accident which does not involve a motor vehicle, e.g., bike-bike, bike-stationary object, etc., then no data is routinely collected.

Motor vehicle accident reports may present close to the total accident experience for pedestrians and for those in motor vehicles, however they present only a portion of the bicycle accident picture. Bicyclists face risks other than those posed by the motor vehicle. Bicyclists can be involved in a variety of accident types which do not involve a collision with a motor vehicle. They may run into another bicyclist or a pedestrian. They may lose control and fall or strike an object because of problems with the condition of the roadway. Bicycle accidents also result from inadequate bicycling skills, because the cyclist is chased by a dog, or because of equipment failure.

While bicycle-motor vehicle risks are fairly well known, the magnitude of safety problems associated with non-motor vehicle-bicycle accidents has been shrouded because data on this type of accident is not collected on a routine basis.

Some recent studies have begun to sketch out the magnitude and true nature of non-motor vehicle bicycle accidents and highlight other aspects of the problem. These studies generally have compared reported bicycle-motor vehicles accidents in a given locality with hospital

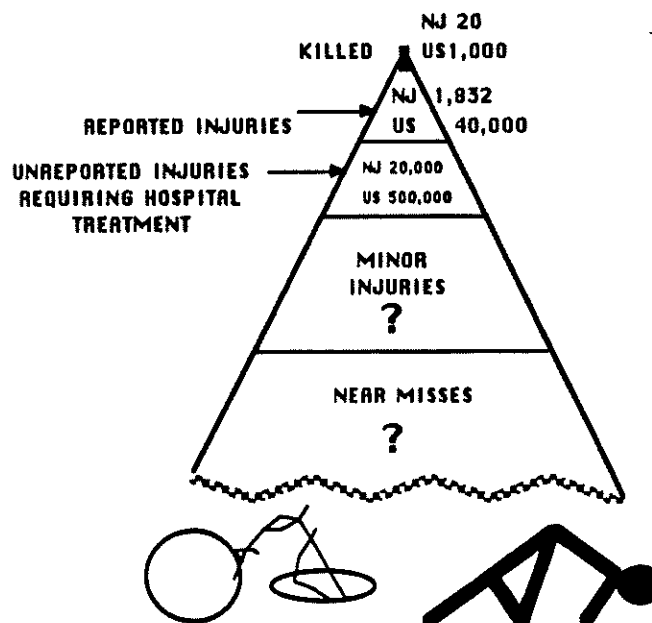
admissions or emergency room treatments resulting from bicycle accidents. The results of these studies indicate:

- police reported (bicycle-motor vehicle) accidents account for a very low proportion of total injury producing bicycle accidents; as low as 10.7 percent in one study;
- police reports identify essentially none of these non-motor vehicle bicycle accidents;
- police accident reports may even fail to identify many bicycle-motor vehicle accidents;
- by relying on bicycle-motor vehicle accident data, an inaccurate picture of those involved in bicycle accidents is presented, with motor vehicle accident reports overstating the proportion of males and understating the involvement of younger riders.

These studies support the findings of the Consumer Product Safety Commission which has identified bicycling as a leading cause of sports/recreational injuries seen in hospital emergency rooms. Some of these studies strongly suggest that many bicycling injuries are preventable by helmet use and bicycle safety/effective cycling instruction.

Some of the studies referred to above have also begun to provide some information on the causative factors involved, for example, a North Carolina study revealed that 8% of accidents involve another bicycle, 11% involve wrong way riding, 11% involve more than one person on a bicycle and 16% involve some sort of mechanical defect of the bicycle.

The current situation with respect to bicycle accident reporting can be likened to an "iceberg" in which the tip is the relatively well documented fatal accidents involving motor vehicles beneath which are other injury producing bicycle-motor vehicle accidents. Below the "water line" are a large number of unreported (but estimable) injury producing accidents, requiring hospital admission or emergency room treatment (including some bicycle-motor vehicle accidents which went unreported). Beneath these are accidents which result in minor injuries and finally, near misses, accident situations in which no injury actually occurs. The pyramid below depicts this situation.



(AFTER ANALYSIS OF BICYCLE ACCIDENT DATA.  
JANE STUTTS, UNC HIGHWAY SAFETY RESEARCH CENTER)

Although these figures are approximations they give a more realistic picture of the bicycle accident problem than that provided by motor vehicle accident reports alone.

The actual risk to an individual cyclist of being involved in an injury-producing accident both motor vehicle and non-motor vehicle related, is quite variable. Studies show that experienced club bicyclists and bicycle tourists are clearly much less likely on a per mile basis to be involved in a bicycle accident of any type than are children or the average untrained adult cyclist, despite (or maybe because of) the fact that their exposure (the amount they ride) is much greater than average. There is a higher accident rate for bicyclists travelling on bike paths than on roadways and the rates are higher on major arterials than on local streets and minor arterial roadways.

Considering all bicycle accident types, the trained bicyclist who obeys the rules of the road and uses the proper safety equipment (lights at night, helmet) is essentially as safe as the average motorist on a per mile basis and may even be safer on a time exposure basis. On the other hand children and untrained adult cyclists are at considerably greater risk.

Additional studies are needed to determine the number and specific causes of bicycle accidents in New Jersey both motor vehicle related and non-motor vehicle related. Without a clear picture of the nature and magnitude of the bicycle accident problem, it is not possible to identify the complete array of causative factors related to bicycle accidents.

Without this knowledge it is not possible to allocate resources effectively to correct conditions or develop appropriate counter-measures to reduce the number and severity of bicycle accidents. However, currently available data clearly suggests a need for universally available bicycle safety and effective cycling education, increased bicycle helmet usage, improved bicycle maintenance, selected roadway improvements and improved maintenance of the roadway margins.

**Personal Security.** There is anecdotal information indicating that bicyclists are occasionally at risk from aggressive or assaultive behavior from motorists or passengers in motor vehicles who harass, use obscene language, throw objects, push or strike bicyclists or try to run them off the road. Occasionally, there have been incidents reported of sexual harassment of female bicyclists.

Often this behavior seems to be for no apparent reason or for no reason other than the annoyance of the motor vehicle driver over the bicyclist's use of the roadway. The latter suggests that there are some motorists who are either unaware of the statutory rights which bicycle drivers have to use New Jersey's roadways or who are generally ignorant of the needs and capabilities of bicycle traffic.

Also, by the very nature of the bicyclists exposure to their environment, they are subject to or at risk of criminal attack. No systematic effort has been made to document incidents of this type and the degree to which this represents a real hazard to bicyclists is unknown.

## **Education**

While bicycling is widespread in New Jersey, knowledge of bicycle safety, effective cycling skills and the rules of the road on the part of bicycle drivers is not. It would seem that many parents buy bicycles for children and send them off to ride with little more preparation than the admonition not to ride in traffic. Even though bicycling is a primary means of mobility for New Jersey's school aged children, traffic safety and bicycling skills are not required to be taught in our

schools. Most school aged children in the state (and adults as well) have not received any formal instruction in bicycle safety, skills or safety equipment.

The bicycle safety education curriculum developed by the Office of Highway Safety and the Department of Education which was placed in the various school districts through 1981 has been used only sporadically and is currently outdated. The NJBAC survey indicates that practically no school districts offer bicycling as a unit of instruction with "on bike" skills training or testing.

In the minority of New Jersey communities which do provide bicycle education the approach is typically a "one shot" effort in which law enforcement personnel or service organizations conduct an assembly, special classroom session or event, such as a bicycle rodeo to impart information, assess skills or check equipment. These sessions usually occur only once a year and may be limited to certain grades. While these volunteer efforts and the cooperation between schools and local police agencies is laudable, it is inadequate.

Educational opportunities for developing bicycling skills among adults is also limited. The Effective Cycling (EC) program operated by the League of American Wheelmen has established a comprehensive curriculum for effective cycling instruction and it certifies EC instructors who may teach courses in effective cycling. However, there are only four certified instructors in New Jersey.

Lack of training combined with ignorance of the laws results in the existence of many unskilled cyclists on our roadways. These cyclists knowingly or unknowingly disregard the rules of the road.

This not only results directly in accidents, but also contributes to the common perception by motorists that bicyclists as a group are generally not law-abiding roadway users, and by extension that bicyclists have no right to use the roadways in the state. Motorists need to be taught that bicycle traffic is legally entitled to use our roadways; that they need to be sensitive to the needs and capabilities of bicycle traffic; and that they must learn to "share the road" with bicyclists.

Lack of skills also undoubtedly contributes substantially to the large number of non-motor vehicle bicycle accidents and resultant injuries.

Cyclist complaints indicate that some law enforcement personnel do not have a clear understanding of the statutes as they pertain to bicycle traffic. Law enforcement agency personnel must be educated on the need and benefits of carrying out a law enforcement effort with respect to bicyclists who violate the law, juveniles as well as adults, and motorists who violate bicyclists' rights. To do so, they must have a clear understanding of bicyclists' rights and responsibilities under the statutes so they can enforce the law with consistency and accuracy.

In another vein, transportation professionals have not received adequate education or instruction on the needs and capabilities of bicycle traffic. In-service training is required to create an awareness of the existence, needs, and possibilities of travel by bicycle as well as to impart specific technical knowledge. Similarly, public officials need to be "educated" to the potential uses and benefits of bicycling.

## **Enforcement and Bicycle Registration**

Who has not seen bicyclists, juveniles and adults, riding against traffic, running stop signs or red lights, or making abrupt maneuvers in traffic without signaling their intentions? These are common violations of the rules of the road by bicyclists which can lead directly to accidents resulting in injury or death. So why do they do it?



It may be ignorance of the law and of the potential consequences in terms of accidents of disregarding the rules of the road. However, a contributing factor is the fact that there are rarely any legal sanctions associated with violating the law. Bicyclists learn that they can disregard the law with impunity, and soon violating the rules of the road is done without a second thought. Juveniles begin to learn a disrespect for the rules of the road in general as they realize that police officers may say something is unlawful but in practice will look the other way.

While law enforcement personnel in New Jersey make a creditable attempt in many communities to cooperate with schools and present information on safe cycling and the rules of the road, their involvement in enforcing the rules of the road is spotty at best. This is because bicycle enforcement is, unfortunately, a low priority to many police officers and local law enforcement agencies.

Yet even if police were inclined to be serious about bicycle enforcement, the stopping and ticketing of juveniles is not a popular activity. Police are sensitive to public reaction. Who wants to be seen as a bully harassing kids? Who wants to incur parental wrath, and who wants to issue a summons which the courts may not sustain?

Another reason commonly cited for non-enforcement is the numerous demands placed on law enforcement personnel and the higher priority placed on other law enforcement activities such as dealing with "serious" criminal issues. Unfortunately this attitude (along with the negative attitude exhibited by some parents to bicycle law enforcement) ignores the fact that a juvenile killed because he ran a stop sign is just as dead as a victim of a criminal homicide and the juvenile's act was probably more preventable.

The need for increased bicycle enforcement is based on the following:

- the large number of bicycle accidents and injuries;
- the predictability of types of bicycle accidents;
- bicyclist responsibility in a majority of bicycle-motor vehicle accidents; and
- overrepresentation of young children in bicycle-motor vehicle accidents

Part of the problem is that most police agencies do not have a policy or operating procedure to deal with bicycle infractions. In the Bicycle Advisory Council survey, 67 of New Jersey's municipalities indicated that law enforcement personnel at least occasionally enforce the rules of the road as they pertain to bicyclists and 45 communities indicated that law enforcement was actually an aspect of their bicycle program activities. This means that there may be as many as 500 communities which pay little or no attention to bicycle enforcement. And yet, in communities where enforcement programs for bicycle offenses have been implemented, they have generally been quite well received and parents and the courts have generally been supportive.

There is no magic formula for a successful local enforcement program. Each community should base its approach on the assessment of needs, observed violations, and accident types which occur in that community.

Successful enforcement generally involves a program of selective enforcement directed at particular infractions or improper riding behaviors which have been observed or which have resulted in accidents or injuries. Those infractions which usually require attention are: wrong-way riding, failure to stop at stop sign or red light, failure to make proper left turn; riding double and riding at night without lights.

While enforcement efforts may be emphasized at certain times of the year, some level of enforcement activity should be ongoing throughout the year. Any enforcement effort must be preceded and supplemented by substantial publicity and the forging of support of local organizations such as Parent-Teacher Organizations. Parental and community support is easier to achieve if sanctions against juveniles are graduated or modulated such as a verbal warning with parental notification for a first or second offense, mandatory parental conference for a subsequent offense followed by issuance of a summons for further offenses.

Implementation of an enforcement program should be predicated on the existence of sufficient education so that the bicyclists in the community know their rights and responsibilities as bicyclists. These programs can actually achieve broad community support and an enhanced image for law enforcement personnel.

Without bicycle law enforcement, there will continue to be repeated violations of the law by bicyclists, degradation of the image of cyclists as responsible road users and an unnecessarily high accident rate.

Bicycling law enforcement problems also occasionally involve a lack of understanding by law enforcement personnel as to just what a bicyclist's needs, capabilities, and rights actually are. Some bicyclists, particularly experienced bicyclists practicing vehicular style bicycling consistent with the statutes, claim they are given warnings by police for cycling behavior which is totally consistent with the rules of the road. Of particular concern in this regard is the bicyclist's right to move left.

The statutes require a bicyclist to ride as far to the right as practicable, not as far to the right as possible. Bicyclists should ride out from the right hand margin as far as necessary to avoid conditions which would make bicycling hazardous, taking the lane if necessary. Bicyclists may also ride two abreast *unless* they are clearly impeding the flow of traffic. Excessively conservative interpretation of the statutes in this area by law enforcement personnel is an abrogation of bicyclist's rights.

**Registration.** Another law enforcement problem associated with bicycle use is bicycle theft. While this problem doesn't get the "press" it once did, it remains a serious one. The threat of vandalism or theft has been identified as a major inhibitor to the use of the bicycle for utilitarian tripmaking. Bicycle registration is at least a partial remedy to this problem.

Registration actually can serve a variety of purposes:

- theft prevention and recovery;
- accident victim identification;
- generation of funds;
- mechanism for gathering data on bicycle exposure, use, etc.;
- establishing a link for information purposes to owners of registered bicyclists;
- as an educational mechanism.

Permanently affixing a registration number on a bicycle may act as a deterrent to the theft of that bicycle. It also aids in the recovery and return of stolen bicycles. Towns which have bicycle registration, particularly mandatory registration, have a reduction of thefts and a higher rate of return of stolen bicycles.

Bicycle-motor vehicle accident victims are often juveniles who carry no identification. Bicycle registration enables law enforcement personnel to quickly trace the owner and get in touch with parents or guardians for approval of emergency treatment.

Registration fees can be used to cover the costs of registration programs. Receipts in excess of costs can be used to fund other bicycle program activities.

The registration process can be used to directly educate bicyclists on their rights and responsibilities as road users. It reinforces the concept of bicyclists as legitimate road users who must follow these rules of the road. It can also serve as a means of inspecting the bicycle to make certain that it is properly equipped and in good working order. The registration system can also be used to contact bicyclists to alert them of important information such as changes in the law which may affect bicyclists.

Finally, since data on bicycle use, particularly at the state and local level, is scanty, information compiled during the registration process can be used to develop a bicycle use data base.

Eighty municipalities in New Jersey currently have bicycle registration programs. It is not known to what extent these community based programs are mandatory or voluntary. There is no mechanism which systematically links these programs. Since the activities of bicyclists and bicycle thieves are not confined by municipal boundaries, the effectiveness of these individual programs is significantly diminished.

One state, Minnesota, has enacted a statewide "umbrella" bicycle registration system. Under this program the basic administration of the program, the procedures, forms, stickers, fee schedule, and the data base are set up and maintained by the state. Local communities may elect to establish bicycle registration programs; however those programs must be a part of the state system. In this way, a registration data base is available statewide at all times to maximize the benefits mentioned above. The Minnesota program more than covers program costs and funds are returned to participating municipalities for the development of local bicycle program activities.

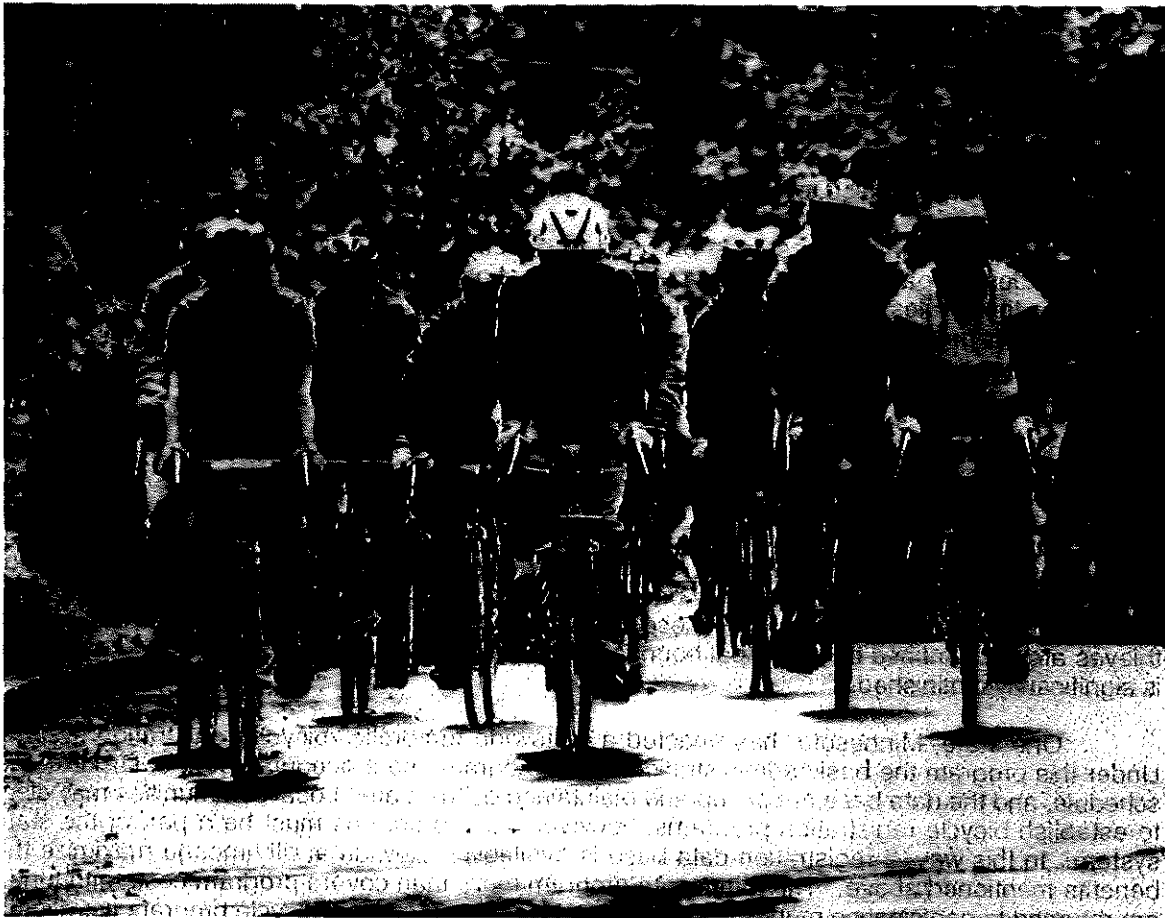
## **Bicycle Touring**

Nationally, bicycling is the second most popular form of outdoor recreation. In New Jersey it's the most popular outdoor recreational activity. Growth in the membership and extensiveness of the ride schedules of New Jersey's recreational touring clubs typify the increasing levels of bicycle touring.

Even though New Jersey is a highly developed and densely populated state, there are many rural or suburban areas that are attractive for bicycle touring. Our small state contains a wide variety of physiographic and ecological regions. There are the evergreen pine barrens as well as areas of mixed hardwoods which provide brilliant fall foliage; the hills and valleys of northern New Jersey and the flatlands of south Jersey.

New Jersey has a relatively dense network of paved roadways which provide a myriad of opportunities and options to the recreational bicyclist. While the average traffic volumes in New Jersey may be higher than the norm for the country, there are many rural secondary roads with low traffic volumes.

Furthermore, higher traffic volume roadways are not necessarily anathema to the bicycle tourist. These roads can easily serve as a linking element or provide continuity to a bicycle touring route especially if they incorporate bicycle compatible design features which enable the road to safely accommodate shared use by both motorized and bicycle traffic. Such sections can provide contrast to and heighten the aesthetic appeal of the less trafficked sections.



*Recreational touring clubs are growing in popularity in New Jersey.*

Also, the bicycle tourist in New Jersey is rarely too far away from facilities or services such as a telephone, water, food shelter, or repair services. Finally, there are numerous historical cultural and natural features which can serve as the focal point for a recreational tour.

A considerable amount of bicycle touring activity takes place in or has been attracted to New Jersey. Large multi-day bicycle touring rallies, such as Gear-Up Princeton 85 have attracted over a thousand participants, many from out of state, to take part in a week of bicycle touring. Every year most of the larger recreational touring clubs host one or more recreational or invitational rides each attracting as many as 1500 participants, many from out of state.

Charitable organizations host fund raising rides, attracting thousands of participants. Last year the organizer of a large multi-day family bicycle touring event in Michigan, the Pedal Across Lower Michigan (PALM), began laying the groundwork for a similar tour in New Jersey, CYCLE JERSEY, which he plans to develop into an annual event. There are currently four commercial bicycle touring businesses which include tours in New Jersey.

Given the current level of activity and the proximity of New York City and Philadelphia there is considerable potential to attract additional bicyclists to come to New Jersey for bicycle touring - especially day touring.

Bicyclists generally like to get off the beaten path and in a spirit of exploration like to take things as they find them. They tend to buy food and other necessities locally and of course will seek lodging at campgrounds, youth hostels, bed and breakfasts, and motels for multi-day tours and thus make a contribution to the economy of the localities through which they travel.

Along with attractive scenery and decent roads on which to ride, and necessary services and accommodations, bicycle tourists need information on where to bicycle. They like to have general maps of the area they are touring and specific bicycle touring maps or route descriptions. This is especially true of those coming from outside the area or those new to bicycle touring.

*New Jersey Bicycling Information* provided by NJDOT identifies a number of sources of maps and other touring information resources currently available. The New Jersey Department of Transportation produces and distributes a series of seven bicycle touring route descriptions of day tours, plus route directions for several longer tours.

There are several commercial publications and map sets which have been published and are currently available.

A number of public agencies have also published bicycle maps or touring route information. Hunterdon and Cape May Counties have produced descriptions of bicycle tours in those counties. The Wilmington Area Planning Coordinating Council (WILMAPCO) which includes Salem County has produced a Bicycle Users Map which identifies bicycle touring roads. Bergen, Union, and Monmouth Counties at one time produced county bicycle suitability maps though these are now out of print.

Most of the materials mentioned which are produced specifically for bicyclists have been produced in relatively small quantities and have not received mass distribution. There is almost no information available on desirable bicycle touring routes for relatively short distance "family cycling" and most state parks and recreation areas have not identified loops or routes within those parks as bicycle routes.

All counties produce county maps which are available at no or low cost, and the NJDOT has county maps available for sale. The State of New Jersey Official Transportation Map and Guide is generally useful to bicyclists, but does not contain enough detail or other specific information to be fully suitable for bicyclists' needs.

New Jersey has not produced, as have some states, a statewide bicycling map which provides detailed bicycling information including preferred touring routes through the major corridors of attraction in the state.

There are a couple areas in the state in which there are deficiencies in terms of accommodations for bicyclists. In many areas of the country, youth hostels are used as overnight accommodations for bicycle and other human-powered touring. Unfortunately there is not system of hostels in New Jersey which could be used for this purpose. In fact there is only one American Youth Hostel located in New Jersey.

While most areas of the state do have commercial accommodations such as motels, inns, and bed and breakfasts there are no such accommodations available in the central Pine Barrens, a prime bicycling area and possible stopover point on the Highpoint to Cape May corridor which is often used for long distance bicycle touring.

Liability is another area which has adversely affected club touring activities. As a result of possible exposure to civil liability, some club members are leery of becoming involved in the organization of events or other club activities. It was for this reason that the NJBAC passed Resolution 86-2 supporting legislation which would provide immunity from civil liability to volunteers involved in club cycling activities as has been provided to volunteers and officials involved in team sporting activities such as the Little League.

The burdensome costs of insurance means that some clubs must choose to go without coverage or not hold club events. Some clubs claim that it is becoming increasingly difficult to find locations (usually public facilities such as schools, parks, etc.) at which to host club touring events which do not require the purchasing of prohibitively expensive event insurance.

New Jersey's economy relies considerably on tourism. Vigorous tourist promotion campaigns have been established by the state and some counties. Tourists are overwhelmingly attracted to the Jersey shore resorts. Promotion of bicycling would draw tourists to other areas of the state. To date there has been essentially no promotion of bicycle touring in New Jersey and bicycle touring activity has been sustained and continues to grow under its own inertia.

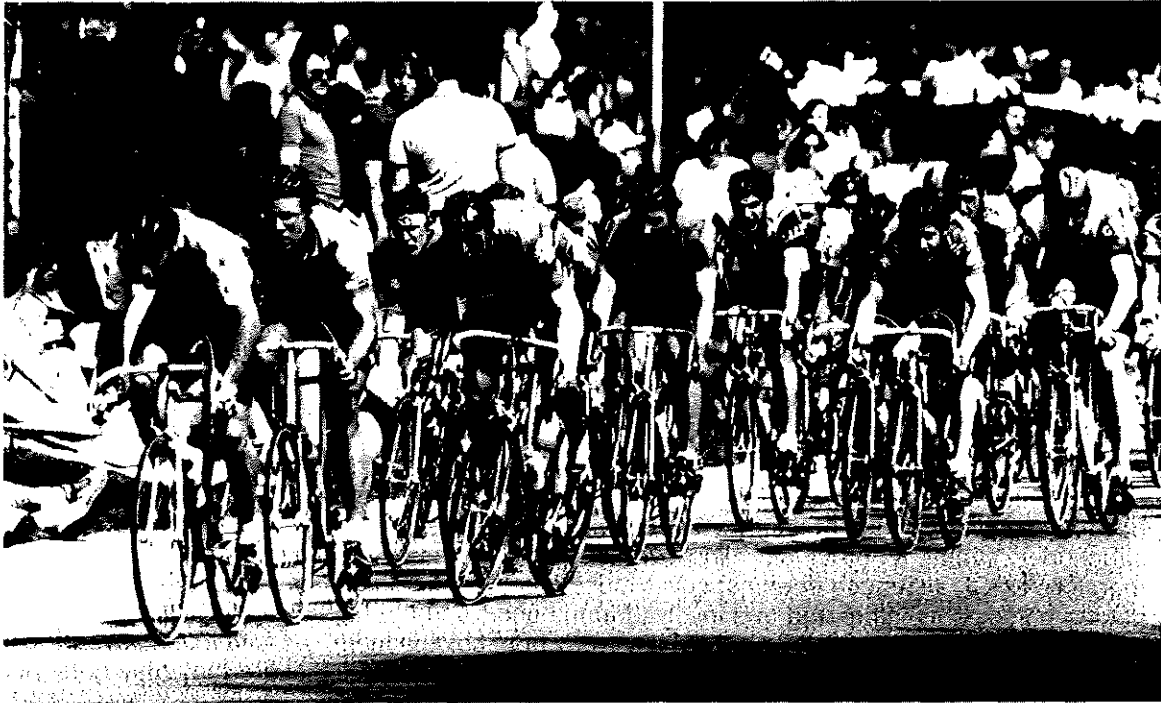
If the state is to begin to tap the large potential bicycle touring market at its doorstep, it will have to begin to make an effort to promote the activity and the desirability of New Jersey as a place to bicycle, particularly for day touring. Delivering the message "New Jersey and bicycling, perfect together" will help make this message a reality.

## **Bicycle Racing**

Bicycle racing has gradually increased in popularity in New Jersey. Recent interest was spurred by the success of the United States Cycling team at the 1984 Olympics and the success and recognition achieved by American professional cyclists, particularly Greg Lemond, in winning the Tour de France in 1986, as well as the holding of the World Cycling Championships in the United States in 1986. In addition, triathlon competitions which include a bicycle racing component are also increasing in popularity.

In 1987 over two dozen amateur bicycle races, or events sanctioned by the United States Cycling Federation (USCF), are currently planned to be held in New Jersey. These range from small local events to races of national significance such as the Tour of Somerville held annually on Memorial Day which attracts competitors from across the nation and as many as 50,000 spectators.

Most of the events are criterium races, races around a closed loop of roads which are ideal for spectators. Other events include road races, time trials, and hill climbs as well as stage races, multi-day events which are a combination of different events.



*The Tour of Somerville is an annual event which draws hundreds of cyclists and thousands of spectators.*

In addition to the actual races, two series of USCF sanctioned training races have been held each summer and will likely be held again this year.

These events serve as a forum for training and competition for amateur bicyclists. There are over 400 USCF licensed amateur bicycle racers in New Jersey. Some of the smaller events involve primarily licensed amateur riders from the state and region, but the other attract riders from all over the country.

Bicycle races also serve as an attraction and entertainment for New Jersey's citizens and an attraction for visitors to the state. As interest has increased, the number of spectators has grown and some of the more established races attract significant crowds which provide prestige and economic benefits to the communities in which they are held.

However, enthusiasm and interest in bicycle racing are not confined to New Jersey. There is competition for slots on the USCF calendar, and if the state is to continue to play host to bicycle races, a climate which is conducive to or supportive of bicycle racing activities needs to be cultivated. Communities need to realize that hosting a bicycle race can create a positive image and economic benefit to the community rather than creating a drain on public services.

The major problems confronting bicycle racing in New Jersey include costs associated with organizing an event and lack of sites for various types of racing and training activities. Larger events require sponsors to help underwrite the cost. The New Jersey Division of Travel and Tourism has awarded grants in support of two events, the Tour of Somerville and the Garden State Bike Race for Health.

Courses must be established for individual events by arrangement between the race organizers, law enforcement agencies, local communities and the agencies having jurisdiction over the roadways involved. The New Jersey Department of Transportation requires issuance of a

permit (issued by the regional maintenance office) for the use of state system roadways. A few communities have established by ordinance, formal permit processes for the scheduling of these events. No such event can be held without some measure of cooperation and support of the various communities or jurisdictions involved.

There are no track racing facilities (velodromes) available in New Jersey. The nearest such facility is the Lehigh County (Pennsylvania) Velodrome, operated by the county. Velodromes not only serve as a site for training and bicycle racing activity. They can also serve as part of a community based recreation program and as a location for bicycle safety and effective cycling instruction and skills testing. A velodrome in New Jersey would enable the state to host major sporting events which include bicycling such as the Garden State Games. No special criterium or road courses have been established or designated which would serve as a regular location for training or training races. Lack of such facilities is a hindrance to development of the sport in the state.

Liability concerns also affect bicycle racing in New Jersey. Fortunately USCF sanctioned events, those in which all participants must be USCF licensed riders, are covered by insurance carried by the Federation. However, as a result of liability concerns, efforts to hold "citizen races" have been severely hampered. These races have in the past been held in conjunction with USCF sanctioned events or other bicycling events. Participants are ordinarily non-licensed riders; therefore USCF insurance does not cover these races. These races have served as a means of getting participants interested and involved in the sport and the high cost of separate insurance coverage has caused race organizers to shy away from holding them. As with touring events, club volunteers and officials have expressed concern over the liability exposure they may personally face as a result of their involvement in bicycle racing activities.

## **Health and Fitness**

In a study of health risk factors completed several years ago, the Center for Health Promotion and Education determined that New Jersey's citizens were the most sedentary in the nation. This statistic is partly attributable to demographics, but it clearly pointed out the special need which New Jersey citizens have for increasing their activity levels (exercise) to improve fitness and reduce health risks.

To bring this message to New Jersey citizens, in 1983, the Office of Consumer Health Education at the (then) University of Medicine and Dentistry of New Jersey (UMDNJ) and the New Jersey Department of Health organized a series of "health expos" across the state to educate the public regarding the various health risk factors they face and promote life style changes which would lead to improved health and quality of life.

To tie these events together and to serve as a focal point, the UMDNJ organized a three day bicycle stage race, the Garden State Bike Race for Health. The various stages of the race passed through many communities. The race symbolized the effort to promote improved fitness and health by (among other things) increasing levels of physical activity. The event has continued to be held each year with Governor Thomas H. Kean serving as Honorary Chairman of the event.

Bicycling is well suited in a number of ways to serve as a means of increasing activity and improving fitness and health. Bicycling stimulates the body and refreshes the mind. Regular cycling can reduce stress, improve cardiovascular fitness and muscle tone and aid in weight control.

At a slower pace, bicycling can serve as relaxing recreation. At a faster pace, recreational touring and day rides can provide a training effect and lead to aerobic fitness. Bicycling can also be used directly in a vigorous training program which includes interval training for both anaerobic and aerobic fitness, and is among the top rated sports and exercise activities for this purpose.

Bicyclists derive fitness benefits to some degree including caloric expenditure, regardless of the specific purpose of their bicycling, whether it be commuting, century rides, or



race training. And, bicyclists derive these benefits without the toll on joints and feet which is sometimes taken with "impact" activities such as jogging. What's more, bicycling is fun. It promotes well being, having a tension releasing rather than a tension-producing effect. Increased bicycling can increase activity levels and lead to improved fitness and reduced health risk. It does so without adding to the pollution levels as do other modes of transportation.

## Funding

Currently, available funding sources for bicycling activities in New Jersey are limited.

There are no federal categorical grant programs to fund bicycle program activities. Although some states have elected to use available National Highway Traffic Safety Administration (NHTSA) Section 403 funds to fund bicycle and pedestrian safety program activities, no such funds are currently being used to fund bicycle safety programs in New Jersey.

Federal aid highway funds (100% federal funds - no state or local match required) may be used for the development of independent bicycle transportation projects, both construction and non-construction projects. Up to \$4.5 million in federal aid highway funds may be used by any given state in each year. Because funds are not drawn from a separate category, bicycle transportation projects compete with other federal aid highway projects for the funds available in several different funding categories.

NJDOT has not yet developed any specific independent bicycle transportation improvements, either roadway improvements, such as hazardous drainage grate retrofit, minor widenings, shoulder paving, etc., or special facilities such as bikeways (paths, lanes, signed routes). In the past FAUS funds were made available directly to the counties and large municipalities. Some counties and municipalities elected to use FAUS funds to construct bikeways.

Currently counties receive a grant of state-aid funds in lieu of FAUS funds (FAUS funds are retained and used by the NJDOT). Counties may elect to use these so-called FAUS substitution funds for bicycle transportation projects. However, few have done so.

Federal aid funds can be used on an unlimited basis to fund bicycle improvements which are incidental features of federal aid roadway projects. NJDOT has developed several bikeways and has incorporated bicycle compatible design features as incidental features of state highway projects. As such, the Federal Highway Administration has usually participated in the funding of these improvements. Unfortunately, the Federal Highway Administration (New Jersey Division) has sometimes refused to participate in the funding of certain aspects of roadway projects which NJDOT has included in order to comply with its Bicycle Transportation Design Guidelines. When this occurs, those aspects of the projects must be funded with 100% state funds or be deleted from the project.

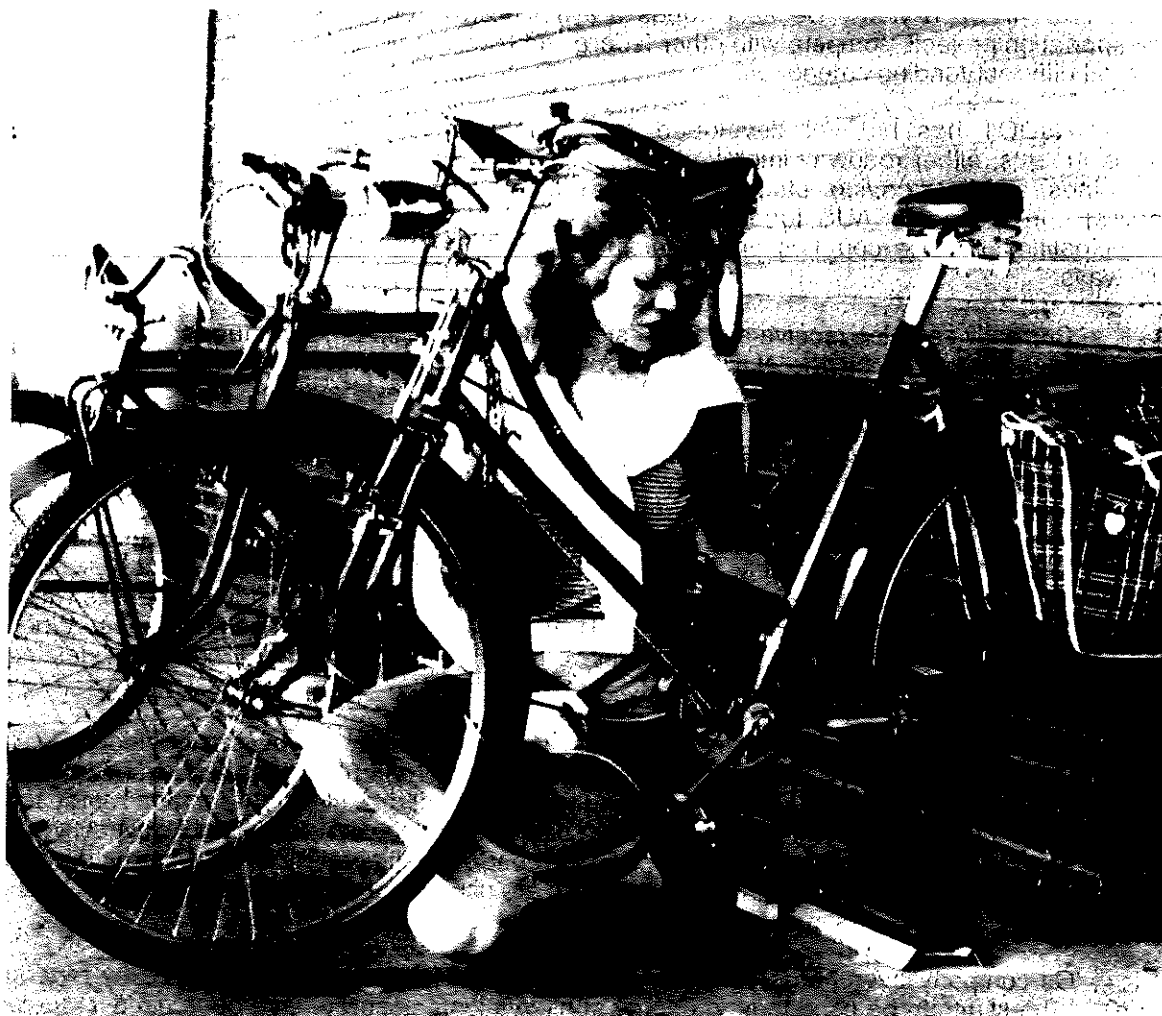
In New Jersey no specified level of state transportation funds are designated or "ear-marked" for bicycle transportation improvements. Washington and Michigan, for example have designated a portion of state transportation funds to be used exclusively for non-motorized transportation projects. Staff and administrative costs associated with NJDOT's bicycle activities comes from NJDOT's budget as administrative overhead. The limited bicycle program activities carried out by other state, county and local agencies are usually carried out in the context of other activities and the cost is ordinarily subsumed under these other program costs.

Oil company overcharge penalties and rebates which have been awarded by federal courts to the states to be used to fund energy conservation measures have been used in some states to fund bicycle program activities. None of the more than \$100 million awarded to New Jersey, to date has been utilized for this purpose.

No state aid is made available to counties or municipalities exclusively to fund bicycle transportation costs or program activities. As has been mentioned previously, the Division of Travel and Tourism has awarded grants to assist in the organization of bicycle racing events.

It should be pointed out that many of the actions and activities needed to improve the bicycling environment do not require any substantial new funding; rather, they require only an increased consciousness of the potential of the bicycle to meet a variety of needs of New Jersey citizens, an increased sensitivity to the needs and capabilities of bicyclists, and a willingness to shift the focus or substitute a way of doing things which addresses bicyclists' needs for existing ways which ignore those needs.

Implementation of other projects or program activities will require application of additional resources. The NJBAC has discussed a number of potential funding sources and has included specific recommendations in this report.



*Bicyclists need secure parking areas.*

# RECOMMENDATIONS

***1. It is recommended that a comprehensive coordinated state bicycle program be established.***

The NJBAC believes that New Jersey should encourage and support state, county and municipal efforts to develop bicycle program activities by creating a climate of acceptance and encouragement of bicycling and assistance or support wherever possible of the development of recreational bicycle touring, races, or other bicycling activities.

Resolving the problems affecting bicycling in New Jersey will require a broad approach involving the various state agencies whose activities affect bicycling. State agencies which should be involved in the program include the New Jersey Department of Commerce and Economic Development, Division of Energy, the New Jersey Department of Health and the Governor's Office of Policy and Planning in addition to the agencies currently represented on the council. These agencies should assign staff to develop specific programmatic objectives based on recommendations of the NJBAC.

The Department of Law and Public Safety should designate a staff person to work full time on the development of programs and activities dealing with bicycle safety education, registration, and enforcement. Staff assigned from other state agencies should specifically address bicycling issues as appropriate in the context of departmental responsibilities. A newsletter covering various activities and matters of interest to New Jersey's bicyclists should be prepared and distributed to the bicycling community.

It is recommended that the activities of the participating agencies be coordinated by the Pedestrian Bicycle Unit in the New Jersey Department of Transportation; however, that unit would have to be expanded to fully carry out these responsibilities.

***2. It is recommended that the New Jersey Bicycle Advisory Council be empowered to continue its research and advocacy role.***

Although Executive Order #101, which created the New Jersey Bicycle Advisory Council, makes no provision for the Council to continue beyond the presentation of its findings and recommendations to the Governor, implementation of the report's recommendations and the improvement of New Jersey's bicycling environment will require continuing guidance and advocacy.

The NJBAC would provide an appropriate mechanism to bring together those with interest and expertise on bicycling and those whose responsibility it would be to implement these or future recommendations. The NJBAC should continue to meet regularly to assess progress and provide advice on fulfilling the recommendations contained in this and future reports and to consider and recommend revisions, updates and additions thereto. Continuation of the NJBAC could be accomplished either through an Executive Order or through legislation.

Consideration should be given to periodically "rolling over" or expanding the number of citizen members in order to give other interested individuals the chance to participate. State agencies designated to be a part of a statewide bicycling program and the Governor's Office should also continue to participate in the Council with Chairmanship of the Council held by one of the citizen members. The NJBAC recommends that staff support be provided by the New Jersey Department of Transportation through expansion of the Bicycle/Pedestrian Unit.

**3. It is recommended that county and municipal involvement in bicycle program activities be increased.**

Counties and municipalities should play a greater role in meeting the needs of bicyclists. For example, all counties could identify a bicycle contact person or coordinator whose responsibility would include developing and coordinating bicycle program activities within the county.

*County activities might include, but not be limited to:*

- participation in development of a county or Metropolitan Planning Organization bicycle transportation plan;
- development of a county bicycle suitability map;
- adoption of policies, procedures, and guidelines, similar to those issued by the NJDOT, requiring that roadway projects be designed to accommodate safe shared use by bicycle and motor vehicle traffic;
- development of projects specifically designed to remove hazards and barriers to bicycle traffic on county roadways;
- participation in or encouragement of bicycle safety and enforcement activities;
- provision of secure bicycle parking at county facilities;
- encouragement of county and other employees to commute by bicycle;
- development of route descriptions or bicycle tours in the county;
- development of bicycle trails or designated bike routes within county parks to serve as locations for recreational bicycling;
- development or designation of a criterium or bicycle road racing training circuit within a county park;
- development of activities or events promoting or encouraging bicycle use both as a means of personal transportation and of recreation.

*Municipal activities could include:*

- adoption of bicycle compatible roadway design guidelines for municipal roadway projects;
- implementation of improvements designed to correct hazards and barriers to bicycle traffic;
- implementation of bicycle safety/effective cycling instruction in schools (see Recommendation 7);
- building community support and developing policies and programs to facilitate local police efforts to carry out bicycle enforcement activities (see Recommendation 8);
- development of a local bicycle registration program (see Recommendation 9);

- adoption of ordinances requiring new development to a) incorporate bicycle compatible roadway design and b) include secure bicycle parking as a percentage of total parking in the development;
- implementation of activities or events to promote or encourage bicycling for personal transportation and recreation.

In larger municipalities or where substantial levels of bicycling occur, a local bicycle coordinator could be appointed to take the lead in developing municipal bicycle program activities.

State agencies, particularly NJDOT, Law and Public Safety and Community Affairs, could assist in this effort by preparing and distributing to all communities a detailed handbook on the development of local bicycling programs, and providing other technical and funding assistance as appropriate.

**4. It is recommended that the status and operating requirements for bicycle traffic under the New Jersey Statutes be clarified.**

While New Jersey Statutes accord bicycle traffic essentially the same rights and responsibilities as motor vehicle traffic, the bicyclist's rights in certain situations are not clear. The Department of Law and Public Safety and the Department of Transportation should take the lead in developing legislation to revise and update the statutes as they pertain to bicycle traffic. This effort would include revisions which would confirm the status of bicycle traffic as a legitimate mode, clarify operating rules, and otherwise enhance the use of our roadways by bicycle traffic in addition to the following specific points:

- defining the bicycle as a non-motorized vehicle;
- explicitly allowing bicycle traffic to travel on the shoulder of a roadway (in the direction of traffic);
- obligating the motorist to determine that there is no traffic coming before opening a car door;
- specifically allowing a bicyclist to move left to make left hand turns onto intersecting streets or driveways;
- allowing the bicyclist to signal a right hand turn by extending the right arm;
- clarifying the status of adult tricycles and surry bicycles; also,
- considering elimination of the audible signal requirement.

**5. It is recommended that data collection for bicycling activities be improved.**

At the present time, data on non-motor vehicle-bicycle accidents in New Jersey is virtually non-existent and exposure data (number of trips made for various purposes, bicycle trip mileage, amount of time spent on bicycle trips) is very sketchy.

The New Jersey Department of Health the Office of Highway Safety or the New Jersey Department of Transportation should fund or carry out studies to determine the nature and extent of non-motor vehicle bicycle accidents in an effort to establish most frequent causes of accidents and develop appropriate countermeasures.

Current procedures and forms for recording motor vehicle accidents should be reviewed to determine if bicycle-motor vehicle accidents are adequately accounted for. Specific tabulation and analysis of bicycle-motor vehicle accidents should be carried out.

The New Jersey Department of Transportation should fund or carry out studies to determine in greater detail the amount and type of bicycle activity which occurs in the state and the potential of the bicycle to substitute for the motorized modes. This information could be used to target bicycling encouragement programs, particularly the use of the bicycle as an alternative to single occupancy automobiles for commuting or other utilitarian tripmaking.

***6. It is recommended that efforts to develop a bicycle compatible transportation infrastructure be expanded.***

The NJDOT should make a greater effort to fully comply with its Bicycle Policy, Procedures and Guidelines for all projects and should include specific mention of the non-motorized modes (bicycle and pedestrians) in its mission statement.

In addition, by making use of federal and state funds as they become available, the NJDOT could take the lead in developing capital projects to eliminate hazards or barriers to bicycle traffic, such as a drainage grate retrofit program, or to improve conditions for bicyclists by, for example, adding paved shoulders. NJDOT activities could also include development of appropriate "non-construction" projects eligible for Federal Aid Highway funds.

All state agencies should attempt to provide secure bike parking at state facilities, including major bus and rail terminals and "park and rides."

NJBAC also suggests that steps be taken to reduce the amount of broken glass litter along New Jersey's roadways. Litter control measures which do not provide sufficient incentive to prevent the discarding of beverage containers, or which do not involve the actual sweeping of glass debris from roadway margins, are of little or no help to bicyclists.



*Bicycles provide an alternate way to commute to work.*

Since continual sweeping of all streets and roadway margins is probably not practical, the NJBAC supports mandatory beverage container deposit legislation as perhaps the only realistic way to deal with the problem of broken glass litter along our roads since it would provide an incentive to refrain from discarding glass containers along the roadway. In addition, such legislation could also provide an incentive to pick up glass and other recyclable containers before they break and become a problem. The bicycling community has observed that such legislation has proven an effective solution to this problem where it has been enacted.

NJDOT and the Governor's Office should continue to work with bi-state agencies and authorities and others to provide adequate access for bicycle traffic on the transportation facilities they manage. This includes bridges and ferry services operated by NY-NJ Port Authority, Delaware River and Bay Authority, Delaware River Joint Toll Bridge Commission, Burlington County Bridge Commission, Palisades Interstate Park Commission and Cape May County Bridge Commission as well as private operators of bridges or ferry services operating in New Jersey.

The NJDOT should take the lead in seeing that counties and/or Metropolitan Planning Organizations prepare a bicycle transportation planning element which addresses all facets of bicycle transportation (roadway improvements, bikeways, bicycle parking, intermodal considerations) as is currently authorized on a permissive basis under proposed TRANSPLAN legislation, and seeing that subsequent transportation activities are carried out in accordance with these plans.

Opportunities to participate in the creation of greenways featuring bicycle and pedestrian trails in conjunction with the development of major highway development or redevelopment should be jointly explored by NJDOT, NJDEP or other sponsors of transportation and recreation projects.

The NJDOT should complete its study of bicycle access to freeways and replace the existing permit system.

It is recommended that NJ TRANSIT liberalize its bicycle carriage policies to:

- allow carriage of collapsible bicycles on rail and commuter bus service at all times;
- provide and market bicycle access to rail or bus for special events or for groups by charter or by advance arrangement;
- allow bicycle access to the undercarriage storage area on commuter buses or, where special circumstances or conditions warrant, such as infrastructure barriers to bicycle access, on transit buses equipped with bike racks;
- alter specifications of some, if not all, rail passenger cars to include provisions for accommodation of full-sized bicycles;
- develop a demonstration program for full sized bicycle carriage.

Long range inter-modal considerations should include development of high-level platforms at all rail stations and development of concessions for bicycle rental or overnight bicycle storage at selected rail terminals.

It is also suggested that shore municipalities re-examine access restrictions to boardwalks, particularly those that prohibit access during commuting hours, and revise or eliminate them to restore bicycle access wherever possible.

**7. It is recommended that comprehensive bicycle education activities be established in New Jersey.**

It is the feeling of the NJBAC that the current approach to bicycling education has been ineffective. It is recommended that bicycle safety and effective bicycling education be required in New Jersey schools and take place on a regular basis throughout the elementary through junior high grades, consisting of both classroom and "on-bike" instruction.

In addition, it is recommended that the drivers education curriculum specifically include instruction on the needs and capabilities of bicycle traffic. Bicycling education need not exclusively be carried out by school instructional staff, but schools should become more involved in providing this instruction.

The New Jersey Department of Education, in cooperation with the Department of Law and Public Safety, should spearhead the effort to provide bicycle education in the state through development of appropriate curricula and instructional materials. Of particular note in this regard are the materials developed by the National Bicycle Education Consortium, the Effective Cycling program of the League of American Wheelmen, and Bicycle Forum #12, (a manual for holding a bicycle rodeo or skills test developed in cooperation with the AAA Foundation for Traffic Safety). These agencies could also assist by identifying individuals or organizations in the community that can assist in this instructional effort, such as Effective Cycling Instructors or graduates, and by providing in-service instruction or training information for teachers.

The NJBAC encourages the expansion of the League of American Wheelmen's Effective Cycling (EC) Program so that the League can play a more active role in providing EC training to bicyclists in New Jersey and serve as a resource to assist in safety and effective cycling education in our schools.

The New Jersey Department of Transportation should insure that its professional staff, as well as other transportation professionals in the state, have a thorough understanding of state-of-the-art bicycling transportation planning and design.

New Jersey institutions offering degrees in engineering and transportation planning should be encouraged to address the needs and capabilities of bicycle traffic in their instructional programs.

The Department of Law and Public Safety should continue to produce and distribute the *New Jersey Bicyclist's Guide* and develop other bicycle safety and effective cycling material specially targeted for school aged children. The *New Jersey Bicyclist's Guide* should be provided to all retailers of bicycles in the state to be distributed to the purchaser of a new bicycle.

The Department of Law and Public Safety should provide training to local law enforcement personnel on workable approaches to bicycle enforcement .

Under the leadership of the Department of Law and Public Safety, a vigorous and expansive public education campaign should be undertaken to advise bicyclists of their rights and responsibilities under the law, to promote the use of hardshell bicycle helmets, to advise motorists of the right of bicyclists to use New Jersey's roadways and to encourage the safe sharing of the road by motorists and bicyclists. Such a campaign should include, for example, news releases and public service announcements on television, radio, and in the print media and informational handouts included in mailings as part of the motor vehicle licensing and registration process.

The NJBAC also proposes a cooperative effort with the Department of Law and Public Safety to revise the written driver's examination to include questions related to the rights and capabilities of bicycle traffic, and to consider further changes to the *Driver Manual*.

The NJBAC would support legislation requiring the use of helmets meeting appropriate standards by children riding on child carriers and bicycle trailers.



**8. It is recommended that local bicycle enforcement programs be developed throughout New Jersey.**

It is the consensus of the NJBAC that enforcement is a necessary compliment to bicycling education and that bicycling enforcement activities should be carried out by all law enforcement agencies in the state.

It is suggested that each community develop a policy, operating procedures, and a program of selective enforcement to deal with bicycling infractions. The Department of Law and Public Safety should take the lead in encouraging this activity and in providing information on bicycle enforcement (such as the Santa Barbara film, *Ride on By*) as well as examples of successful programs followed in New Jersey and elsewhere.

Law and Public Safety should also provide all law enforcement agencies with information clarifying bicyclists' rights, encourage enforcement of bicyclists' rights, and vigorously work to dispel the notion held by some motorists that bicyclists are fair targets for aggressive or assaultive behavior by developing and hosting training seminars for law enforcement personnel and distributing information bulletins to law enforcement agencies.

**9. It is recommended that a centralized system of bicycle registration be established.**

Implementation of a centralized system for coordinating municipal bicycle registration programs in New Jersey should be studied. All municipal bicycle registration programs should be coordinated and, if a statewide system is eventually adopted, should conform with any standards established for the recommended system.

The Department of Community Affairs and the Department of Law and Public Safety should promote the establishment of municipal bicycle registration programs. Municipal programs should, ideally, be mandatory for all bicycles owned by residents of that community.

The New Jersey Bicycle Council in cooperation with the New Jersey Department of Transportation and the New Jersey Division of Motor Vehicles should study the system currently employed by the state of Minnesota plus other options for establishing a coordinated statewide registry to determine the best method and the appropriate agency for implementing and operating such a program. To be included as part of the study will be an investigation and evaluation of registration fees, program costs, and the disposition of any surplus revenues.

**10. It is recommended that bicycle information resources be developed to promote bicycle touring and support bicycle sporting activities.**

The Division of Travel and Tourism should continue to include a separate listing of bicycling events or activities in the New Jersey Calendar of Events or, in cooperation with the Department of Community Affairs, develop and distribute a separate listing of bicycling events and activities in the state.

The Division should promote bicycle touring in New Jersey by, for example, showing bicyclists engaged in bicycle touring and/or bicycle racing in some of the television spots and other promotional material developed by the Division. The Division should reproduce and disseminate information on bicycle touring in New Jersey, including touring route descriptions, and provide grants in support of bicycling events (both touring and racing) which have the potential to attract visitors to the state.

The liability issue is a particularly nagging one which adversely affects the development of bicycle touring and bicycle racing events sponsored by clubs and other organizations and the development of commercial bicycle touring. The NJBAC supports legislation which would extend immunity from civil liability to officials of bicycle clubs and organizations and persons who provide volunteer services in support of non-team sport and recreation events, such as bicycle club touring events and bicycle races. The Council also supports general solutions to the liability problem which would have a salutary effect on the ability of clubs or organizations to host bicycling events.

State and local agencies are encouraged to be receptive to and cooperate with event organizers in the development and hosting of bicycle touring events and races. State agencies should assist by co-sponsoring events where appropriate.

The New Jersey Department of Environmental Protection (NJDEP) and its Division of Parks and Forestry should develop a cooperative relationship with American Youth Hostels in the development of hostels in state parks and recreation areas, particularly in the High Point to Cape May corridor.

NJDEP's Division of Parks and Forestry should designate recreational bike routes or develop bike trails or multi-use trails within their facilities. In particular, the NJDEP should attempt to acquire the abandoned New York, Susquehanna and Western rail right of way and develop it as a multi-use recreational trail.

NJDEP's Green Acres Office should be encouraged to give thorough consideration to applications received for the development of a velodrome facility. As an alternative, the New Jersey Sports and Exposition Authority or the Liberty State Park Commission should be encouraged to explore the possibility of providing or attracting the resources necessary to construct and operate a velodrome in Liberty State Park, the Meadowlands or other appropriate site.

The New Jersey Department of Transportation should complete its set of circuit/theme bicycle tours, develop a statewide bicycle map and take the steps necessary to have the High Point to Cape May Bicycle Route designated as a mixed use/shared right-of-way trail in the US Department of the Interior's National Recreational Trails System. The NJDOT should continue to update and distribute its *New Jersey Bicycling Information* booklet.

The state, along with counties in the central portion of the state should be encouraged to consider the development or designation of a criterium circuit or road course on roadways in county parks or recreation areas which can be used on a regular basis for training or a training race series. This should be done in cooperation with the New Jersey Bicycling Association, a coalition of USCF-affiliated bicycle racing clubs.

All counties should be encouraged to develop and disseminate County Bicycle Suitability Maps.

**11. It is recommended that utilitarian tripmaking by bicycle be actively promoted.**

The New Jersey Department of Transportation should take the lead in promoting the use of the bicycle for short-distance, utilitarian tripmaking, including bicycle use as an occasional or regular commuting alternative to the single occupancy motor vehicle. Such promotion could be done through direct contacts with employers and public information activities through the media.

Employers should be encouraged to provide secure bicycle parking and other incentives to support and accommodate those employees electing to commute by bicycle.

The NJBAC believes that all state, county and municipal agencies should similarly encourage and provide for occasional or regular short-distance bicycle commuting by their employees.

NJ TRANSIT should provide secure bicycle parking at transit stations and stops and should promote accessing transit by bicycle through promotional activities.

Future versions of Air Quality Plans should include bicycle projects and bicycle program activities as reasonable available control measures for the attainment of air quality standards.

**12. It is recommended that funding for bicycle program activities be provided.**

The preceding recommendations of the NJBAC call for the expansion of bicycle program activities into a number of state agencies and the coordination of this effort by the pedestrian/bicycle unit in NJDOT.

The NJBAC also recommends development of bicycle program activities at the county and municipal levels of government.

Since many of the activities recommended should be a normal part of state, county and local governmental activities, the NJBAC believes that basic administrative costs of bicycle program activities should be subsumed as part of the administrative overhead of each agency. However, fulfillment of many of the recommendations would require additional resources.

The NJBAC recommends that all available potential funding sources be considered when seeking funding needed to implement the various bicycle program activities recommended in this report, sources including but not limited to the following:

a) Legislated funds, i.e., money made available through legislation to create, define and provide funding for bicycle program activities in New Jersey. Such funding could be used for state level staff, administrative, and program costs rather than for the cost of capital projects which would best be funded described below.

b) Oil company overcharge penalties and rebates: proposals have been developed within NJDOT for the use of these funds for a variety of program activities recommended in this report, such as bicycle suitability mapping, development of county or Metropolitan Planning Organization bicycle plan elements, a drainage grate retrofit program, and others which would result in an improved bicycling environment and, hence, energy conservation. This may prove to be a source of funds for one or more of these proposals.

c) Designated set aside of a percentage of budgeted funds, capital funds, or other revenues for bicycle program activities. Such funds could be used for:

- the implementation of projects specifically designed to improve access and safety for bicycle and pedestrian traffic;
- construction of those aspects of roadway projects which are currently mandated by NJDOT bicycle guidelines but which are not now included because of cost; or where, in the case of federally funded projects, the Federal Highway Administration does not participate in funding those (bicycle improvement) aspects of the project;
- a grant program to counties/municipalities for development of bicycle transportation improvements;

- the increased program costs associated with the expanded activities of the NJDOT Pedestrian Bicycle Unit, e.g., coordinating the statewide program; providing staff support on a continuing basis to the New Jersey Bicycle Advisory Council; promoting development of county and local bicycle program activities and providing technical support as necessary; initial development of capital projects designed specifically to benefit bicyclists and pedestrians, etc.

d) Set-aside and use by NJDOT of a specific amount of available Federal Aid Highway Funds for the development of eligible Bicycle/Pedestrian Projects. (Federal guidelines permit each state to use up to \$4.5 million of Federal Aid Highway Funds for the development of independent bicycle and pedestrian transportation projects, both construction and non-construction.)

e) NHTSA (Section 403) funds: the Office of Highway Safety, Division of Motor Vehicles, could make use of Section 403 funds to fund bicycle program activities dealing with bicycle safety and enforcement;

f) Set-aside and use by the counties of a specific portion of their state aid funds for the development of bicycle/pedestrian projects.

g) Registration fees generated in excess of program costs should be returned to local communities to fund bicycle program activities.

Consideration should also be given to the imposition of an excise tax on bicycles and bicycle parts, with the receipts to be used exclusively to fund bicycle program activities at both the state and local levels in New Jersey.

# ISSUES FOR FUTURE INVESTIGATION

During the course of the discussions of the NJBAC and at the public meetings held in March 1987, several issues were raised regarding aspects of bicycling which the Council was not fully able to examine. These included:

- Off-road (all-terrain or "mountain") bicycling. This sport involves the use of multi-speed, fat tire bicycles on trails. It has increased dramatically in popularity in some areas of the country, and in some cases managers of recreational lands have closed some recreational trails to all-terrain bicycling due to reputed use conflicts with hikers and because of claims that this activity may degrade the trail surface and accelerate erosion. Mountain bike enthusiasts counter that these claims are unfounded.

The NJBAC has not determined the extent of all-terrain biking activity in New Jersey or whether use conflicts or other problems have arisen. Until the issue can be investigated further, the Council advises managers of park and recreational lands in New Jersey to be aware of these potential conflicts but to refrain from taking any precipitous action until claims involving use conflicts and environmental degradation can be fully investigated and solutions short of outright restriction can be attempted.

The NJDEP Division of Fish, Game, and Wildlife has gone on record stating that many miles of maintained unpaved roadways are available to off road bicyclists, that conflicts with wildlife uses are presently minimal and that problems can be addressed when and if they arise.

- BMX bicycling. This sport usually involves the use of 20" wheel diameter BMX bicycle around a short dirt track, primarily by age-grouped juveniles. It is a popular activity in some areas of the state where BMX tracks have been established. The Council has not determined the extent of this activity or any extant problems.
- Bicycle "freestyling." This sport involves acrobatic or trick bicycling often on specially constructed 20" wheel diameter bicycles. The council has not determined the extent of this activity or any extant problems.
- Consumer product issues. The statutes provide that the state may promulgate regulations on how a bicycle must be equipped for sale. No such regulations have been promulgated and the requirements of the federal Consumer Product Safety Commission currently prevail. Also, concern was expressed in the NJBAC public meetings over possible deficiencies and the resulting defects in the process of final assembly of the bicycle (prior to sale) by some retailers. The Council has not investigated this issue.

These aspects of bicycling should be examined further by the NJBAC with recommendations to be made if necessary.



EXECUTIVE ORDER NO. 101

WHEREAS, bicycling is a pollution-free, healthful, energy efficient means of transportation and recreation; and

WHEREAS, bicycling is recognized by both the State and federal law and the policies and programs of federal, state and local transportation agencies as a legitimate mode of personal transportation; and

WHEREAS, according to the State Outdoor Recreation Plan, bicycling currently is and is projected to continue to be the most popular form of outdoor recreation through the year 2000 when it is estimated that over 282 million recreation bicycle trips will be made annually; and

WHEREAS, New Jersey has a reputation nationwide as a prime area for bicycling touring, as exhibited by the thousands of people attracted to annual invitational rides; and

WHEREAS, there are over 20 bicycle clubs in the State which indicates the popularity of the sport; and

WHEREAS, it is in the public interest of the State of New Jersey to encourage residents to bicycle to save energy, improve the environment, improve public health and to establish facilities and regulations for the safety of participants therein; and

WHEREAS, it is in the economic interest of the State of New Jersey to encourage nonresidents to visit New Jersey for bicycling tours, races and other leisure activities;

NOW, THEREFORE, I, THOMAS H. KEAN, Governor of the State of New Jersey, by virtue of the authority invested in me by the Constitution and the Statutes of this State, do hereby ORDER and DIRECT:

1. There is hereby established a New Jersey Bicycle Advisory Council.
2. The Advisory Council shall be comprised of the Commissioner of Transportation, the Chairman of the Board of New Jersey Transit, the Commissioner of Environmental Protection, the Director of the Division of Motor Vehicles, the Director of the Division of Travel and Tourism, the Commissioner of Education, the Commissioner of Community Affairs, or their designees and a representative of the Governor's Office and eight (8) public members with a demonstrated

STATE OF NEW JERSEY  
EXECUTIVE DEPARTMENT

2

capacity. The chairperson shall be the Commissioner of Transportation, or his designee, and the Department of Transportation shall serve as the lead agency.

3. The Advisory Council shall have the following responsibilities:

a. Examine the status of bicycling in the State of New Jersey and make recommendations regarding the promotion of the use of the bicycle as a safe and viable mode of transportation and the development or expansion of programs leading to an improved bicycle environment.

b. Study and make recommendations regarding other potential uses and aspects of the bicycle, such as bicycle touring, recreation trails and maps, safety, education, health and fitness, law enforcement, competitive racing, potential funding sources and the promotion of tourism from outside the State.

4. In order to carry out its functions, the Council is authorized to call upon any department, office, division or agency of the State to supply such data, reports, or other information it deems necessary. Each department, office, division or agency of the State is authorized and directed, to the extent not inconsistent with law to cooperate with the Advisory Council and to furnish it with such information, personnel and assistance as necessary to accomplish the purpose of this Order.

5. The Advisory Council shall render its findings and recommendations to the Governor within one year after its first meeting.

6. The Advisory Council shall remain in existence until its final report has been issued.

7. This Order shall take effect immediately.

GIVEN, under my hand and seal,  
this 14th day of May  
in the Year of Our Lord, one  
thousand nine hundred and eighty-  
five, of the Independence of the  
United States, the two hundred  
and ninth.

  
GOVERNOR



Appendix 2

EXECUTIVE ORDER NO. 153

WHEREAS, on May 14, 1985, I created by Executive Order No. 101 a New Jersey Bicycle Advisory Council, a body composed of commissioners of various State departments and concerned citizens who have demonstrated an active interest in bicycling; and

WHEREAS, the responsibilities of the Advisory Council include examining the status of bicycling in New Jersey, making recommendations that promote bicycling and issuing a public report which shall contain the Bicycle Advisory Council's findings and recommendations; and

WHEREAS, the coming together of these talented people has presented an excellent opportunity for focusing attention on the status and potential uses of bicycling in New Jersey; and

WHEREAS, better communication and coordination of bicycling activities among public and private organizations serving the citizens of New Jersey will be established by this Council; and

WHEREAS, Executive Order No. 101 of 1985 provided that the Advisory Council shall render its findings and recommendations within one year of its first meeting; and

WHEREAS, the Bicycle Advisory Council requires additional time to complete its designated task;

NOW, THEREFORE, I, THOMAS H. KEAN, Governor of the State of New Jersey, by virtue of the authority vested in me by the Constitution and by the Statutes of this State, do hereby ORDER and DIRECT:

1. The New Jersey Bicycle Advisory Council shall continue in existence until June 1, 1987, or until submission of its findings, whichever shall come first.

2. The New Jersey Bicycle Advisory Council shall submit its final report to the Governor no later than May 30, 1987.

STATE OF NEW JERSEY  
EXECUTIVE DEPARTMENT

2

3. The current members of the New Jersey Bicycle Advisory Council shall continue to serve in their capacity until June 1, 1987.
4. This Order shall take effect immediately.

GIVEN, under my hand and seal this  
17th day of December  
in the year of our Lord, one  
thousand nine hundred and  
eighty six, and of the Independence  
of the United States, the two  
hundred and eleventh.

  
GOVERNOR

Attest:

  
Chief Counsel

FILED

DEC 17 1986

Jane Burgio  
Secretary of State

**APPENDIX 3  
LIST OF COUNCIL MEMBERS**

*State Agency Representatives*

William Feldman (Acting Chairman)  
New Jersey Department of Transportation

Al Olsen  
Department of Community Affairs

Steve Lovett  
Department of Education

Tony Patterson  
Division of Travel and Tourism

George Robinson  
Division of Motor Vehicles

Robert Stokes  
Department of Environmental Protection

Davis Dure  
NJ TRANSIT

Paula Dumas  
Office of the Governor

*Citizen Members*

Jack Staskewicz  
Wayne

Aladar Komjathy  
Trenton

Marshall Whitfield  
Holmdel

Mitchell Rovins  
Northfield

Frank J. Quinn  
Somerville

Fern Goodhart  
Princeton

Lieutenant Thomas E. Kane  
Cranford

Harold Leib  
Clifton

## APPENDIX 4

### MEETINGS OF THE NEW JERSEY BICYCLE ADVISORY COUNCIL

Meeting #1	January 23, 1986	NJDOT
#2	March 12, 1986	NJDOT
#3	April 9, 1986	NJDOT
#4	May 14, 1986	NJDOT
#5	June 11, 1986	Green Acres Office
#6	August 13, 1986	Green Acres Office
#7	September 10, 1986	Green Acres Office
#8	November 12, 1986	NJDOT
#9	December 10, 1986	NJDOT
#10	April 8, 1987	NJDOT

### PUBLIC MEETINGS

March 3, 1987	Vineland
March 5, 1987	Elizabeth
March 10, 1987	Princeton



ROGER A. BODMAN  
COMMISSIONER

STATE OF NEW JERSEY  
DEPARTMENT OF TRANSPORTATION  
1035 PARKWAY AVENUE  
CN 600  
TRENTON, N. J. 08625  
609-292-3535

NEW JERSEY BICYCLE ADVISORY COUNCIL

RESOLUTION #86-1

WHEREAS, the State of New Jersey, having created the New Jersey Bicycle Advisory Council, actively encourages bicycling and seeks to improve conditions for bicyclists in New Jersey; and

WHEREAS, based on the initial work of the Council, it has identified bicycle access to public transportation systems as a top priority in promoting and encouraging bicycling in New Jersey; and

WHEREAS, the new railroad line between Philadelphia and Atlantic City should be considered not only as a "gambler's express" but as a way of serving other recreational and tourist interests, including those of bicyclists;

THEREFORE, the New Jersey Bicycle Advisory Council endorses the principle that the Philadelphia-Atlantic City line's railroad cars, platforms and operating rules offer no barrier to the safe and convenient carriage of bicycles, and urges New Jersey Transit and Amtrak to take all actions needed to implement this principle.

(Adopted 9 April 1986)



HAZEL FRANK GLUCK  
COMMISSIONER

STATE OF NEW JERSEY  
DEPARTMENT OF TRANSPORTATION  
1035 PARKWAY AVENUE  
CN 800  
TRENTON, N.J. 08625  
609-530-3535

NEW JERSEY BICYCLE ADVISORY COUNCIL

RESOLUTION #86-2

WHEREAS, the New Jersey legislature has recently passed legislation, S-1678, which provides immunity from liability to volunteer athletics coaches and officials of sports teams organized pursuant to a non-profit or similar charter, and this legislation has been signed into law by the Governor; and

WHEREAS, exposure to civil liability is a potential threat to volunteers serving on behalf of other (non-team) sports or recreational programs in New Jersey including bicycle clubs, both racing and touring; and

WHEREAS, this exposure to civil liability inhibits potential volunteers from serving on behalf of their clubs, organizations, and thereby limits the ability of these clubs and organizations from carrying out their events and activities; and

WHEREAS, bicycle touring and racing clubs have available and can provide their volunteers with established safety orientation and training programs as is required under S-1678.

THEREFORE, the New Jersey Bicycle Advisory Council urges the legislature and the Governor to immediately draft, support passage of, and sign into law companion legislation to S-1678 which extends immunity from civil liability to persons who provide volunteer services to non-team sports and recreational activities including bicycle touring and racing clubs.

(Adopted June 11, 1985)



IN REPLY PLEASE REFER TO

State of New Jersey  
DEPARTMENT OF TRANSPORTATION

HAZEL FRANK GLUCK  
COMMISSIONER

1035 PARKWAY AVENUE  
CN 600  
TRENTON, NEW JERSEY 08625

NEW JERSEY BICYCLE ADVISORY COUNCIL

RESOLUTION #86-3

WHEREAS, Trans-Hudson access by bicycle is extremely limited and access between New Jersey and mid-town and downtown Manhattan during peak commuting hours is non-existent; and

WHEREAS, proposed Trans-Hudson ferry service would provide a significant opportunity to remedy these existing deficiencies in Trans-Hudson bicycle access; and

WHEREAS, there is a demand for this access by bicyclists who would use their bicycles for both access to and egress from Trans-Hudson ferry service for ecologically sound multi-modal commuting purposes which would not add to the congestion or parking burden at New Jersey side terminals; and

WHEREAS, virtually every ferry service in this country is accessible to bicycle traffic; and

WHEREAS, bicycle access (loading/unloading) would be essentially no more problematic or time consuming than pedestrian access.

THEREFORE, the New Jersey Bicycle Advisory Council fully endorses and urges implementation of full-sized bicycle access to any and all Trans-Hudson ferry service during both off-peak and peak commuting hours and would find it inconceivable that such service would not be so planned and operated. Furthermore, secure bicycle parking should be provided at terminal facilities for those who do not need to use their bicycles as an egress (distributor) mode.

(Adopted August 12, 1986)

issues; mentioned League of American Wheelmen's Effective Cycling Program and expressed hope that it would receive more publicity and broader use. State Driver Manual should emphasize the need for motorists to allow adequate room when passing and not to give a short "beep." Section on slow moving vehicles should specifically mention bicycles; mentioned lack of awareness of bicyclists' rights by some law enforcement personnel.

- Paul Wedeking - mentioned worsening behavior of motorists toward bicyclists and stated that he has been intentionally ridden off the road by motorists; noted poor quality of enforcement relative to this and also toward bicyclists who break the law; mentioned also the need for mandatory law to get rid of glass on our pavements.
- Sgt. Mario Musso, Princeton Township Police - stated that bicyclists who are victims of aggressive or assaultive behavior should sign a complaint and the police would pursue the matter; also that dropping glass containers on the roadway was punishable by a \$100 fine; stated that enforcement against bicyclists infractions was impeded because penalties were too high, especially for juveniles.
- Peter Dehaan, New Jersey Bicycling Association - need development of facilities in parks etc. for bicycle racing and training. The state is interested in professional sport but hasn't been supportive of amateur sports, especially bicycling; requests that the NJBAC support the use of Green Acres funds for the development of a Velodrome; suggests that the state encourage interest and involvement in sport beyond high school. Recommends that the state support the Garden State Games and should promote the involvement of private organizations in these games, including the funding of a Velodrome facility; favors a mandatory beverage container deposit legislation; hopes that the NJBAC will make specific recommendations not vague generalizations; suggests development of a state bicycle map.
- Mr. Dave Redman, Pedestrian and Bicycle Access Committee of West Windsor Township - mentioned need for bicycle safe drainage grates including those installed by private contractors; asks if there could be a state code for marking bike lanes especially along commuting routes. Mentioned the need to provide accommodations for bicyclists in the design of bridges - especially over the N.E. Corridor rail line. Finally mentioned that secure bicycle parking is essential if the bicycle is to be used for utilitarian trip making. These should be provided at office buildings, shopping centers, apartment complexes, state facilities, etc. Particularly interested in bike parking at the Princeton Junction train station.
- Carol Silvester - asks what type of secure bike parking is to be provided at the Princeton Junction Train station. A 4' wide asphalt strip is not adequate as a bike path. Asks if the Council is dealing with "off road" bicycling.
- Henry Arnold - stated that the bicycle is the optimal mode of urban transportation in dense areas. Could answer congestion or road capacity



problems in a place like Princeton e.g., 25,000 bikes can pass through a given location in the same time as 2,500 cars. It makes sense when we've run out of space to build more highways to convert lanes to bicycle use. Suggests removing parking on Nassau Street to increase capacity and provide safe space for bicycle traffic.

Mr. Frank Petrick - has noticed increasing number of barriers to bicycle use with the increasing growth and traffic in the state. Recommends a map identifying barriers to bicycle traffic and safe places to cross those barriers.

Mr. Joe Saling, New Jersey representative to USCF - mentioned that metal grate bridge decks are hazardous to bicycle traffic.

Mr. Paul Wedeking - mentioned that it is difficult for an individual bicyclist to get sufficient specific information to sign a complaint and prevail in court; that the law doesn't work in practice.

Mr. John Waltz - mentioned that developing effective bicycling skills will improve one's ability to deal with hazards and barriers they encounter as bicyclists.

2  
1  
1

1  
1  
1



NEW JERSEY BICYCLE ADVISORY COUNCIL

1035 Parkway Avenue  
CN 600  
Trenton, New Jersey 08625