

**BICYCLE POLICIES AND
PROGRAMMES IN VANCOUVER, B.C. AND SEATTLE,
WASHINGTON: A COMPARISON.**

By

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ABSTRACT

This thesis compares the evolution of the policies and programmes for bicycle planning which have developed in Vancouver, B.C., and Seattle, Washington since 1970. The bicycle policies of the two City governments are reviewed, as are the outcomes of these policies in terms of programme activities. The activities of other organisations, both voluntary and governmental, are also considered in the broad review of bicycle-related activities in the two cities. The bicycle policies and programmes of both are compared to models developed from the literature.

The reasons for the differing development of bicycle policies and programmes in the two cities are examined from an historical perspective. It is concluded that the development and implementation of a bicycle policy faces similar problems to that of any other policy that is at the margin of political acceptability. It is argued that bicycle policies will be implemented much more readily if there is an active well-organised cyclists' lobby; if there is a bicycle coordinator employed by the municipality; and if cyclists can link their cause to one with broader political support (in this case, open space).

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LIST OF ABBREVIATIONS

BABC	Bicycling Association of British Columbia
BAB	Bicycle Advisory Board (Seattle)
BAC	Bicycle Advisory Committee (Vancouver)
BATS	Bicycles as Transportation Systems subcommittee (of CBC).
BPC	Bicycle Programme Coordinator
CIP	Canadian Institute of Planners
CBC	Cascades Bicycle Club
GAC	Government Affairs Committee (of CBC)
SED	Seattle Engineering Department
VBC	Vancouver Bicycle Club
VCBP	Vancouver Comprehensive Bicycle Plan

CHAPTER ONE: INTRODUCTION.

1.1 Objectives.

This thesis is a comparison of the measures which have been adopted to improve conditions for bicycling and to make bicycling a more viable urban transportation option in Vancouver, British Columbia and in Seattle, Washington since 1970.

It is the objective of this thesis to demonstrate how political processes, programmes and physical facilities can be combined to make a North American city a significantly easier and safer place in which to bicycle; and to assess how far this combination of processes and programmes can be replicated with similar effects in other North American cities. This will involve an investigation of the degree of legitimacy the policies and programmes have gained in each city and the source of this legitimacy (politicians, public support and so on) (Leung, 1987).

This topic was chosen for a number of reasons. Firstly, because there is pressure from cyclists and local governments in the Vancouver area to improve conditions for cyclists (and thus to increase their numbers) as part of a change in transportation strategy for the region to reduce its dependency on the single occupant vehicle (SOV). (See for example *Creating Our Future* (GVRD 1991).) Secondly, because Seattle is seen as a leader in bicycle planning across North America. (See for example, Theisen 1976, *Bicycling Magazine*, Aug. 1990.) Thirdly, because, superficially at least, the two cities appear not dissimilar, and from the general feeling that what is done in one might be transferrable to the other, their different political systems notwithstanding.

1.2 Scope and Definitions.

The scope of this thesis is limited to the North American context, to Seattle and Vancouver in particular (although examples from other cities will be used), and to examining the role of municipal and regional, and not state/provincial and federal, governments in bicycle planning. The way in which cyclist interest groups interact with these governments and with each other is also considered a factor producing different outcomes in conditions for cyclists. Thus when reference is made to bicycle programs and activities in the two cities this means more than solely the activities of the municipal governments.

There are further limitations. For example, many of the individual projects which have been undertaken in the two cities would on their own make excellent case studies of public participation, inter-agency cooperation, or facilities design. But to study one project alone would lose the comparative element which is central to this thesis; and, in addition, it is a contention of this thesis that bicycle planning is more than an assemblage of projects.

A number of definitions would be useful at this point to help clarify further discussion.

Bikeway. Any road, path or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. (AASHTO, 1981.)

Integration. Bicycles and other vehicles sharing the same road space.

Segregation. Dedicating some road space solely for cycles or otherwise separating bikes and other vehicles.

Bicycle lane. A designated portion of the existing roadway for use by bicycles only. Defined by striping or other means. (CIP 1990.)

Bicycle path. The term implies a dedicated, off road single use pathway for bicycles. In practice, these have often become multi-use recreational pathways. (*Ibid.*)

Bicycle route. Any route signed as such. (*Ibid.*)

Bicycle network. Any system of routes for cyclists which provides safe, continuous and convenient travel. May form part of the existing road network or be a combination of specific pathways and parts of the existing roadways which meet the needs of cyclists. (*Ibid.*)

Bicycle policy. A policy adopted by a (local) government with the stated intent of encouraging bicycle use and/or making bicycle use safer within its territorial jurisdiction.

Bicycle programme. Any set of activities by municipalities and/or other organisations (which may be volunteer-based) whose intent is to encourage bicycle use and/or make bicycle use safer. A bicycle programme may be the result of implementing a bicycle policy.

Bicycle facility. Any physical facility built with the specific intent of making bicycle travel easier, safer and/or more convenient.

1.3 Structure of thesis.

After a brief description of the two case-study cities, the history of bicycle planning in North America will be discussed to provide a context for the evaluation of the bicycle policies and their implementation as programmes and facilities in Vancouver and Seattle. From this discussion, a generic city-scale bicycle programme will be developed to facilitate the comparison. The aim will be to assess what each of the two cities has done in comparison to this generic programme and in comparison to each other.

The most important part of the thesis is the analysis of how these actions or inactions have been achieved - the processes, actors and conditions which have made the programmes possible. In this sense, then, the thesis is not an evaluation of how far

the bicycle programmes in Vancouver and Seattle have achieved their goals, as this would have led to problems establishing just what these goals - explicit and implicit - were. The thesis aims instead to be a process evaluation, focusing on "an analysis of the processes whereby a program produces the results it does". (Patton, 1986:139.)

This type of evaluation requires a qualitative approach which attempts to get a feel of how those people involved in the programme perceive it to be progressing (or regressing). It involves asking people's subjective opinions or feelings about the programme, be they recipients of its services, or people involved in providing the services. Findings will therefore not state anything definitively but will rather indicate an impression of how the policies have produced particular outcomes. (Robson and Foster, 1989.)

Ways to measure process variables include interviews, records of requests for information and archival records to see whether a programme has complied with legislative requirements. (Blatt, 1982.) Thus much of the research for this thesis has been based on open-ended yet structured interviews with municipal officials, politicians, volunteers, and representatives of bicycling organisations in the two cities. Relevant municipal documents were also reviewed, as were the few published works about bicycling in the two cities.

With more time and resources it would have been possible to interview more people, particularly in Seattle, and to review a greater number of documents. It would also have been helpful to conduct a survey of non-activist cyclists to try to discover how they feel about the conditions for bicycling in the two cities. In a longer thesis, a case study comparing the process whereby two bike-related projects were undertaken by the two cities would also have been instructive.

1.4 Vancouver and Seattle: An introduction.

A brief introduction to these two case study cities is appropriate at this point. More detail will be added later in the text in order to make specific points. Vancouver and Seattle are on the northwest coast of North America, separated from each other by a distance of 150 miles and the Canada/US border. They have similar populations and are the centres of metropolitan regions of roughly the same size.¹ They are both port cities and were founded in the latter part of the last century, Seattle in 1864, Vancouver in 1886. (Nelson, 1977.) Both metropolitan regions are experiencing rapid population growth.

The physical setting of the two cities is somewhat different. Sprawl in Seattle is less constrained than in Vancouver. Physical constraints in the Vancouver area have been supplemented by Provincial government legislation which since 1973 has protected the agricultural land to the south of the urban area from development. Notably, from the cyclists' point of view, the climate is similar in both cities; both metropolises are built around several bodies of water which form barriers to easy bicycling; and the urban area of Seattle has somewhat more severe topography than in Vancouver.

The administrative organisation of the two metropolitan regions is different. The City of Vancouver is unique in British Columbia in having its own charter which gives it considerable extra powers in comparison to all other B.C. municipalities, which are governed by the Provincial Municipal Act. The mayor is a member of the council with the ten other councillors, presides over Council deliberations, and has no power to veto legislation other than his/her casting vote. Both mayor and councillors are elected on an at-large basis. Vancouver parks are built, maintained and administered by a

¹. Population of Vancouver in 1986: 431,147. Of the Vancouver Urban Area, 1,228,427. (StatsCan, 1987, 14-5.) In 1986 the population of Seattle was 486,200, and of King County, 1,362,000. Pierce, King and Snohomish Counties which include most of the cities in the Tacoma-Seattle-Everett region had a total population in 1986 of 2,283,600. (US Bureau of the Census, 1988, 562 and 722.)

separately-elected Parks Board. The two bodies are administratively separate, but the Parks Board Budget is derived from the City, and subject to approval by City Council.

The regional government in the Vancouver area is the Greater Vancouver Regional District (GVRD) which has little power to regulate except in the areas of water, sewerage and waste disposal. It also has responsibility for hospitals, public housing and some parks in the region. It is not an elected body but instead its Board consists of mayors and councillors from member municipalities in the GVRD area. Until 1982 it had zoning powers but these were removed by the provincial government.

Seattle is the largest municipality within King County. The County covers the area from Puget Sound east to the crest of the Cascade Mountains, and also includes Vashon Island in the sound. It is not a regional government *per se*; rather, it provides services to the unincorporated areas of the county (i.e. those that are not in one of the cities), and it is now attempting to take on a more regional transportation planning role (Miller, personal communication in interview (p.c.), 1991.) King County has a nine-member elected council and a County Executive who is the equivalent of a mayor. Other regional bodies in the area are Metro, which provides sewage disposal and transit service, and the Puget Sound Council of Governments, which is a consensus-led, voluntary association of municipalities whose acceptance by its members has varied over time, in common with similar bodies across the US. (Miller and Williams, 1990.)

The mayor and councillors in Seattle are elected at large. Prior to 1964, the system in Seattle was of the 'weak mayor, strong council' type, but reforms in the late 1960s considerably strengthened the office of mayor, giving it more executive powers over departmental budgets and programmes, and the power to veto legislation presented to the mayor by council. (The veto power is limited.) (Kaplan 1970.) Further, "a variety of special purpose agencies were also restructured and made responsible to [the Mayor]". (MacDonald 1987, 174.)

Seattle does not have a separately elected parks board, (Parks and Recreation is a City department) although the school board is a separate entity. The importance of the differences in municipal structure and history will be discussed in greater detail in chapter 4.

CHAPTER 2: LITERATURE REVIEW.

It is the aim of this section of the thesis to discuss the evolution of bicycle policies and programmes across North America in order to provide a context for the discussion of what has been achieved in Vancouver and Seattle.

Bicycle planning has a relatively lengthy history on this continent, but can be divided into two discrete periods separated by 50 to 60 years of inaction. Around the turn of the century, bicycle path systems existed in St. Paul (50 miles), the Bay Area (50 miles), Coney Island, NY, and Seattle. (Sommer and Lott, 1974.) Ironically, these bikepath systems paved the way for roads for cars and there followed a fifty year lull in bicycle planning activities.

Recent policies only started to be developed from the late 1960s when some cities and states began to reject the goal of universal mobility provided by the single occupant automobile (SOV). Before this time, the bicycle was not seen as a vehicle at all but merely as a toy. The new wave of bicycle planning began in Homestead, Florida (1961) and Davis, Ca. (1966). (*ibid*, 1974.) Bicycle use was growing due to increased environmental awareness and interest in physical fitness; as it grew, so did bicycle/car conflicts, accidents, and calls for 'something to be done'. (Hudson, 1982.)

In contrast, the European history of transportation planning for bicycling is a much longer one and there is much greater acceptance of the bicycle as a transportation mode in (northern) European countries. For example, some early regulations regarding the construction of facilities for bicycles were passed in Germany in 1928 (Bracher, 1988.)

This acceptance of bicycling is in part a product of and in part produces the much higher levels of utilitarian bicycle use in these countries, which reaches its peak in cities such as Groningen, Netherlands, where the bicycle share of non-education related utilitarian trips reaches 50%, and where bicycles outnumber cars on many suburban

collector roads (Huyink, 1987). (See Table 1.) The bicycle is given priority over the car at many intersections and on areas of traffic-calmed streets (Hass-Klau, 1988). Between 1975 and 1985 federal funding for the construction of new bicycle facilities in the Netherlands totalled 500 million guilders, in addition to which many millions were spent by municipalities. (One guilder = \$0.50.) Even in the U.K., which has one of the lowest overall rates of bicycle use in Europe (about 4% of all trips (Pucher, 1988:510)), cyclists are statutorily consulted about all new road projects built by the national Department of Transport.

Table 1: Modal split in urban passenger transport as % of all trips.

Country		Car	Transit	MODE	
				Bike	Other*
US	(1978)	82.3	3.4	0.7	13.6
Canada	(1980)	74.0	15.0		11.0
Germany	(1978)	47.6	11.4	9.6	32.3
Sweden	(1978)	36.0	11.0	10.0	43.0
N'lands	(1984)	45.2	4.8	29.4	20.7
Italy	(1981)	30.6	26.0		43.4
UK	(1978)	45.0	19.0	4.0	32.0
Denmark	(1981)	42.0	14.0	20.0	24.0

*Includes pedestrian trips

Source: Pucher, 1988

Many of the issues with which bicycle planners in Europe have to grapple are the same as in North America but, as noted above, the use of bicycles, the institutionalisation of bicycle planning within government agencies, and the funding it gets are all so much greater in Europe as to reduce the validity of any comparisons between Europe and North America. As Lemieux et al (1980, 26) argue:

These [European] experiences could not (it was later found) be transferred directly to urban America where bicycle transportation parameters were much different.

It is for these reasons that this study is limited in scope to North America.

To a large extent, North American cities were starting from nothing when they started up bicycle programmes around 1970. For a variety of reasons, it was assumed that the ideal solution was to keep bicycles and other vehicles apart by providing separate routes for the former and in some cases legislating that bicycles must use these facilities. As the Bicycle Federation of America (BFA) (1985, 23) points out:

Initially, bicycle programmes were simply facilities programmes, with separation, complete or partial, of bicycles from motor vehicle traffic accepted as the ideal pursued with vigour. Bikeways, in particular bike paths, were perceived as the way to do this.

Hence the plans which were produced at this time are frequently entitled "Bikeway Plans" - the primary focus of the policy was the provision of bikeways. (Sorton, 1983.) Examples include the Victoria B.C. *Bikeways for the Victoria Metropolitan Area* (1976), and the *Bicycle Path System for the City of Calgary* (1972).

The emphasis on trying to keep bicycles and cars apart came from a variety of sources: the transportation planners and engineers who produced the plans had not been educated about the needs of cyclists, and did not always make consultation of cyclists one of their priorities in the design process of the new facilities; hence there was no conception of which types of cyclists these routes were being designed for, or what cyclists actually wanted. (Shaw, 1976.) They had no national design standards to work with until 1974 when the Association of American State Highway and Transportation Officials (AASHTO) produced its *Guide for Bicycle Routes*.

Some provided separate facilities for cyclists because they believed it was what the public wanted. Certainly, many bicycling advocates now accept that this is what the non-bicycling public does want (Laidlaw, Pollard, p.c. 1991). However, the agenda of some traffic engineers and politicians was to be seen to be doing something for cyclists at minimal expense and/or getting the bikes out of the way of the cars.

The result of this was often grandiose bikeway plans which could not be fully implemented without huge amounts of cash and political will, both of which were lacking. The concrete changes to the road network and bikeway systems were not always positive. In Palo Alto, for example, 43 km of quieter residential streets were signed as bike routes in an attempt to induce cyclists to leave major arterials, but a survey showed that 65% of cyclists never used the signed routes because they offered no advantage over arterial streets. Sidewalk bikeways were also used but frequently proved dangerous because of the new intersections they effectively created (with driveways, for example), lack of width, poor visibility, and due to pedestrian/bicycle conflicts. (Williams, 1987.) As Smith (1976, 6) argues, such measures as bike routes, sidewalk bikeways, short stretches of on-street bicycle lane, and poorly-designed bikepaths which have no transportation function

have been used as a temporizing device that creates an illusion of positive action by public officials who are unconvinced of bicycle facility needs, uncertain how to implement more advanced treatments, or simply anti-bike.

Gradually the realisation dawned that planning for cyclists was more than just providing bike paths. The change came about because accident rates frequently increased after bike paths were put in (due largely to poor design); because it was recognised that cyclists wanted to travel everywhere that other travellers wanted to go and that consequently the majority of bicycle trips would continue to be made on normal roads; and a federally-funded national study of car-bike accidents showed that bicycle paths were not a solution to the majority of these accidents. (BFA, *op cit.*)

In addition, those cities which had continued with their bicycle programmes often set up Bicycle Advisory Committees to their councils to solicit community input, in particular from the bicycling community, and from this they learnt that their cyclists had other concerns besides the provision of bikeways.

For example, in 1978 the city of Portland, Oregon, appointed a Citizens Bicycle and Pedestrian Advisory Committee, whose mandate was to identify and prioritize improvements to the bicycle and pedestrian network. However, the bike programme over the next few years concentrated on producing a bike map of the city, getting bike lockers and racks installed, and having bike parking added to the city's zoning requirements. (City of Portland Office of Transportation 1989.) At that point in time these were seen to be more important and more politically feasible than expanding the city's network of separate bike paths and lanes. The City of Spokane went through a similar process, moving from a 1976 bikeway plan "which soon appeared to be inadequate" because it "was not based on user needs and desires" (Spokane City Planning Commission 1988, vi) to the 1988 update, whose major recommendations were concerned with education and encouragement, not facilities design.

Hence there was a move to more broadly-based bicycle programs. This was based on a recognition that if bicycling was to be treated as a viable mode of transportation then it was necessary to integrate planning for bicycling into the more general transportation planning and engineering process and to facilitate the safer co-existence of bikes and other vehicles on roadways. Engineering new facilities or re-engineering old ones was but one way to facilitate this co-existence. As McHenry (1980, 16) points out,

The problem, as it turns out, is more than just how to separate the bicycle from the motor vehicle. It is how to provide for each competing transportation mode, within its own range of needs and abilities in such a way as to minimize conflict while maximising convenience, directness of route and potential for usage in a definite space.

The Federal Highway Administration (FHWA) in the USA was an important actor in the change in attitudes to planning for bicycling. The energy crisis of the mid to late 1970s spurred research into alternative modes of transportation so that for once this field was well-funded. For example, the 1978 Surface Transportation Act required the

development of federal guidelines for bicycle facilities for use on federally-funded projects.

One result was a FHWA document on bicycle facilities which was taken over by the American Association of State Highway Officials (AASHTO) and published in 1981 as their *Guide for the Development of New Bicycle Facilities*. Another was a federally-funded education programme for bicycle planners which reached 1500 municipal and state personnel between 1975 and 1981. (Sorton, 1983.)

The federal government in Canada did not provide research funding and services on a similar scale: a search of the Transport Canada library revealed no works published by the Federal Government on bicycle planning. In 1983, however, the Roads and Transportation Association of Canada published its *Criteria for the Design of Bikeways*, which is the "Canadian version of the *Guide for the Development of New Bicycle Facilities*" (CIP, 1990, bibliography).

The move to a more integrated approach to bicycle planning has not been a smooth one and some cities have gone further than others. However, current 'state of the art' manuals for bicycle planning such as the *Community Cycling Manual* (CIP, 1990), are unanimous in their agreement that bicycle planning is much more than the provision of bikeways - although at the same time special facilities for bicycles are not ruled out. (*ibid* p 4.)

The purpose of this discussion of the history of bicycle planning is to provide a context for a 'generic bicycle programme' with which to compare what Seattle and Vancouver have done. This brief synopsis (see above) has hopefully shown how thinking has developed over the years and the way that bicycle planning is now conceptualized. The next section will attempt to produce this 'generic bicycle programme' with reference to

a number of recent publications which indicate what some of the most important parts of a bicycle programme should be.

Obviously bicycle policies and programmes do not exist in a political vacuum, but it is not the purpose of this section to discuss the political circumstances which have led to the particular bicycle programmes in the two cities (this will be dealt with in Chapter 4); rather, this section will compare the *outcomes* of the programmes in Vancouver and Seattle with a generic or model programme.

The first aspect of a model programme is that the municipality should have adopted some kind of a policy to promote bicycling within its jurisdiction. This is often but not always in the form of a bicycle plan. (See discussion on institutionalisation, below, p 17.)

A programme which has formed the basis of many subsequent 'second generation' bicycle programmes was set out by the Geelong (Australia) Bike Plan Steering Committee in the *Geelong Bike Plan*. This was the first bicycle plan to coin the term 'the 4 E's' to describe the interdependent parts of a bicycle policy: action is required in the fields of Education, Encouragement, Enforcement and Engineering. This recognises that more people are unlikely to use their bikes unless they are encouraged to do so by better engineering of facilities and better education of drivers and cyclists on how to share the road; and that all these are useless unless there is proper enforcement of traffic regulations to ensure that motorists and cyclists do comply with them. Thus there is a good case for making an emphasis on the 4 E's a part of the 'generic bicycle policy'.

A fifth 'E' is suggested here and can be considered as institutionalisation of planning for bicycling within the existing planning and engineering decision-making structure. (See for example Lagerwey, 1988, for a detailed discussion of this.) A bicycle

programme - even one which is fully staffed - will not get much further than the top of the 'dusty shelf' unless it is institutionalised to some extent. To measure this accurately to some extent is impossible but by using interview and other data a qualitative analogy can be made. For example, if the ideas in a separate bicycle plan are incorporated into other municipal documents and actions then it is reasonable to assume that the policy has been somewhat institutionalised.

CIP (1990, 4-5) lists a number of basic principles for effective bicycle planning. They are:

- Assume every street is a bicycling street.
- If there is a bike plan, ensure that the ideas in it are incorporated into every document.
- Existing barriers to continuous bicycle travel should be overcome (e.g. bridges, freeways).
- Ensure that the bicycling implications of up coming projects are considered as part of their planning and design.

An exhaustive list of the possible planks of a bicycle programme is provided by the BFA (1985), and by Pugh (1990). Koos (1987) also has useful ideas on this subject, stemming from her work as a bicycle coordinator. Combining their 'generic' bicycle programmes and presenting them in both written and matrix form (see Table 2) will permit a useful comparison of the programmes in Vancouver and Seattle. The matrix also suggests a small number of potential negative feedbacks between the elements of the 5 E's.

For engineering, the ideal bicycle programme would assume that all streets are bicycle streets and thus ensure that:

- the street system is inventoried to assess its suitability for bicycle travel;

- there is a programme to eliminate bottlenecks, 'squeeze points' and other hazards for cyclists (with a mechanism for cyclists to identify these);
- all new road construction plans are reviewed at an early stage for their impact on cyclists;
- there is proper maintenance of all on and off-street bikeways, possibly with a higher than usual standard of maintenance on highly-used bicycle corridors than on regular streets, and an ordinance to require pavement cuts (for utilities etc.) to be repaired to a high standard so as not to endanger cyclists;
- there is continuity of facilities for safe bicycle travel, which may include separate off-road bike paths where appropriate and feasible;
- there is a programme to install public bicycle parking and to encourage and/or require the installation of bike parking in private buildings and developments;
- and that existing bicycle facilities are upgraded to meet current minimum standards.

The education part of a programme will aim to increase knowledge of cyclists' needs and to improve bicycle riding skills by doing some of the following:

- teaching bicycling skills in schools, and educating school teachers about bicycling;
- providing information leaflets on bike handling, riding in traffic and helmet usage;
- getting editorials and articles in local papers;
- and producing advertising and public service announcements (PSAs) for local news media to encourage motorists and cyclists to share the road.

Enforcement will be facilitated by:

- local enforcement campaigns of motorist and cyclist infractions, preferably at the locations of highest car-bike conflicts and accident rates;

- some education for police officers so that they are aware of the rationale for enforcing traffic laws as they apply to cyclists;
- and information on how to register and how to lock bikes.

The encouragement aspects of a bicycle programme can be furthered in some of the following ways:

- public endorsements of bicycling by local civic dignitaries e.g. a proclamation by the mayor of a Bicycle Week, and his/her participation in a bicycle ride;
- special events such as Bicycle Sundays;
- bicycle guide maps of the area;
- and a Bike to Work day, preferably one in which local dignitaries and celebrities again take part.

The institutionalisation of planning for bicycling into general transportation planning and engineering is a huge task because it will only be fully accomplished when every procedure, regulation, manual and law which has implications for bicycle transportation explicitly recognises those implications and how to take account of them. However, institutionalisation may be speeded up by:

- training individuals in planning and engineering departments to review site plans and Capital Improvement Programmes (CIPs) for bicycle transportation impacts and implications - this training may require, for example, in-house seminars, or sending staff to conferences;
- having a citizen Bicycle Advisory Committee (BAC) to Council;
- having coordinating staff (bicycle coordinators);
- passing model laws and bylaws for bicycle parking and access;
- asking the BAC and local bicycle clubs for their input on selecting projects for the annual CIP.

- having a variety of different funding sources for bicycle facilities and related activities to reduce the programme's over-dependence on one source which might be cut off.

The model programme has been constructed in order to compare the policy outcomes. Questions concerning the design and engineering of safe facilities, or the logistics of an education programme, are not considered here.

The elements shown are possibilities; obviously not every city's bicycle programme will resemble this 'generic' one in every respect. This is particularly the case because the municipal department in which the programme is housed will not have the expertise or the mandate to attempt to perform all of the above activities. Hence, as the case studies will show, many parts of a bicycle programme are performed by non-municipal and sometimes volunteer-based organisations.

Table 2: Model Bicycle Programme

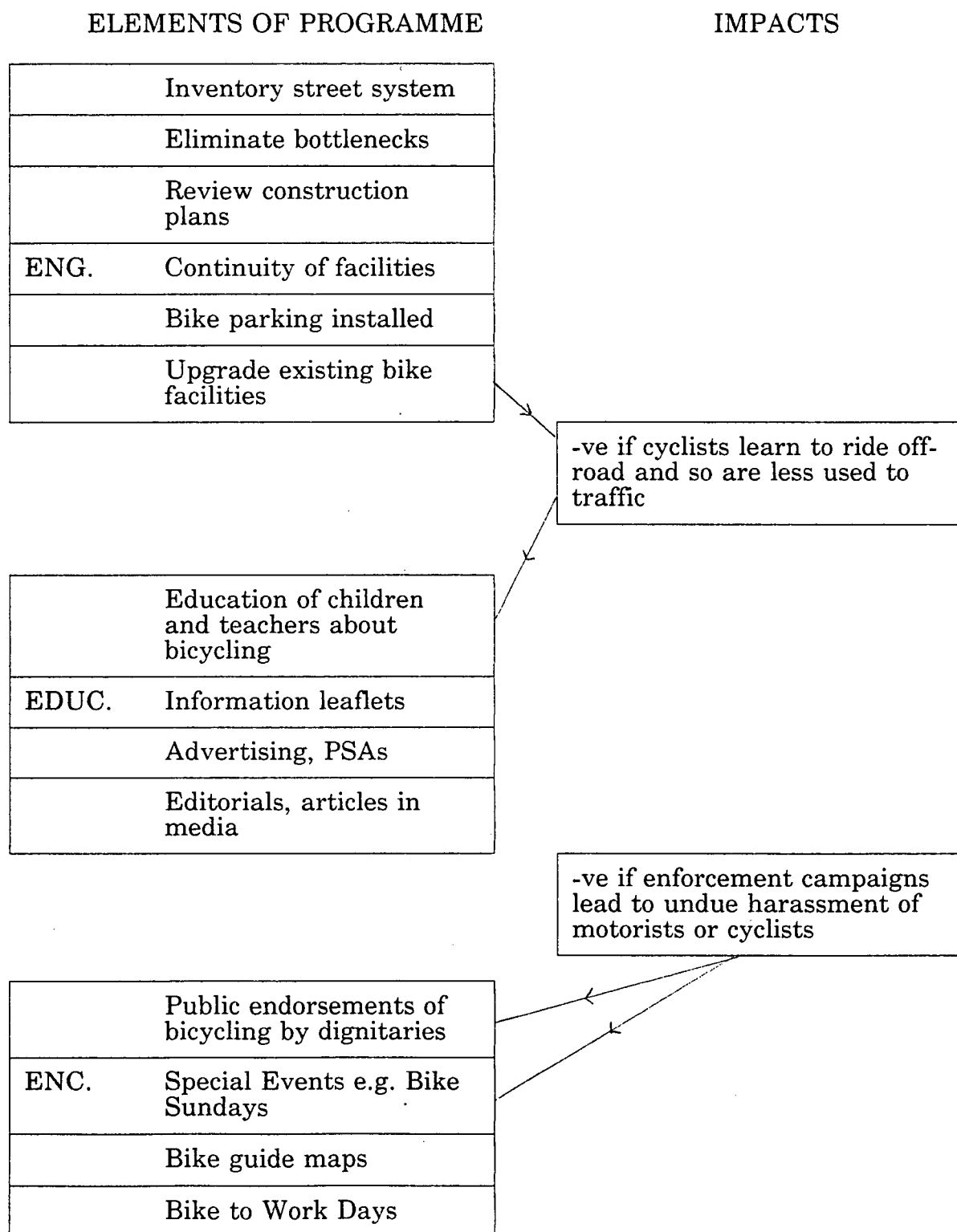


Table 2 cont'd.

ELEMENTS OF PROGRAMME

IMPACTS

	Local enforcement campaigns of bike-motorist infractions
ENF.	Education for police officers
	Information on how to register and lock bikes

	Training of staff about bicycle planning
	Bicycle Advisory Committee/Board

	Bicycle Coordinator
INST.	Model ordinances for bike parking and access
	Cyclist input on projects for CIP
	Variety of funding sources for programme

-ve if trained staff feel they have no need to consult BAC

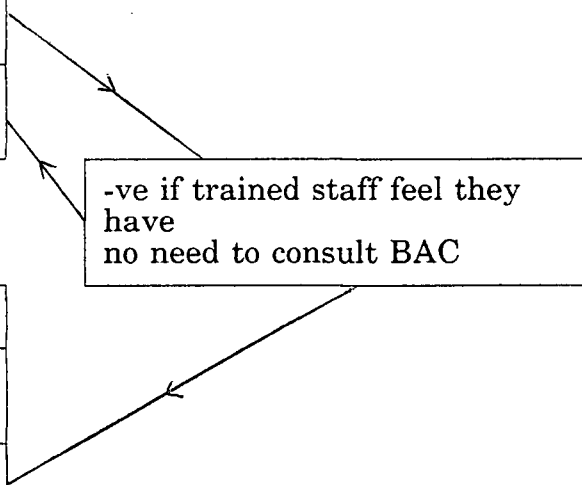
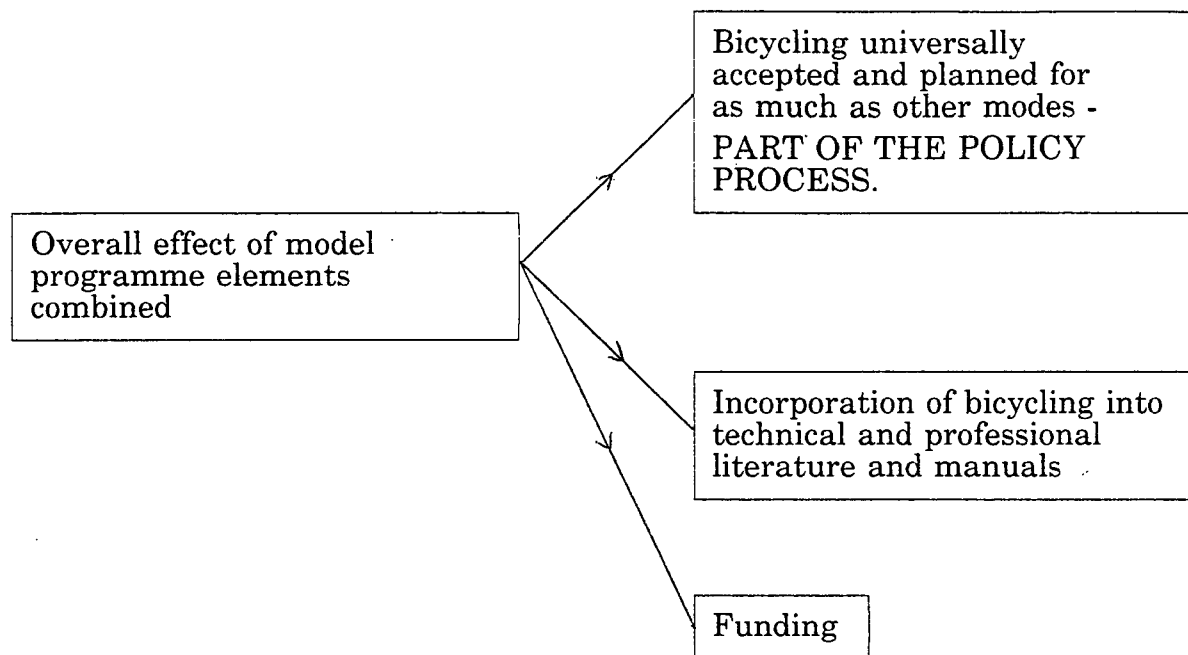


Table 2 cont'd.

ELEMENTS

IMPACTS



ENG. = engineering EDUC. = education ENC. = encouragement ENF. = enforcement INST. = institutionalisation.

—————> Impacting
—————< Impacted.

Sources: BFA (1985), Lagerwey (1988), Pugh (1988), Koos (1987).

CHAPTER 3: THE BICYCLE PROGRAMMES IN VANCOUVER AND SEATTLE.

3.1 Vancouver.

The bicycle programme in Vancouver is based on the policy enshrined in the Vancouver Comprehensive Bicycle Plan (VCBP) which was passed by Council in July 1988. The goals and objectives of the plan are summed up as:

The City of Vancouver wishes to encourage and promote the safe use of bicycles for utilitarian and recreational purposes. Integration of the bicycle into the existing transportation network and acceptance of the bicycle as a safe and convenient mode of transportation is a primary goal and is achieved through Engineering, Education, Enforcement and Encouragement goals. (p 15.)

Prior to the plan's adoption, the only bicycle-related policy which the City had was an incentive to developers by allowing a Floor to Site Ratio (FSR) bonus if they undertook to provide more bicycle parking in their projects. (This was introduced by the Development Permit Board in 1981.)

The VCBP was written by the Bicycle Programme Coordinator (BPC), Marty Pospischil, who was hired specifically to do this job. The motion to create the position of BPC was passed by Council on July 30th 1985 and the post came into being in November 1986. The funding for Pospischil's position as BPC was terminated in February 1987, although he stayed on as BPC in Transportation until there was a position open for him in Electrical Engineering.

The plan is based on the 4 E's, and has 45 recommendations, many of which are similar to some of the elements of the generic programme outlined in the previous chapter. However, for a variety of reasons which will be explained in chapter 4, not all the recommendations of the VCBP have been implemented. The purpose of this chapter is to outline what has been done so far.

A part of the VCBP deals with existing recreational routes in the City which were the Habitat bike route, the 7-11 trail and the Stanley Park Seawall. The first was established in 1976 at a cost to the City and Parks board of \$68,000. (City of Vancouver Engineering Department 1988, 72.) It linked up the University Endowment Lands with the south of Stanley Park via a mixture of on and off-road routing, and also via the Burrard St. bridge.

Similarly during 1989 and 1990 there was a project by the Engineering Department to upgrade and extend the Habitat bicycle route so that it now goes all the way around both shores of False Creek. It has been re-signed, more of it has been taken off-road, and bypass routes for faster cyclists have also been signed. The route includes the City's first push-button cyclist-actuated traffic signal. The project was an attempt to upgrade existing bicycle facilities but due to budget constraints (the Seaside Route cost \$250,000) it was impossible to reach even minimum standards for path width and sight lines (as laid down in the *Community Cycling Manual* (CIP 1990)) on much of the route. A similar situation prevails on the Stanley Park Seawall, where the recommendations of the bicycle plan are being implemented but to reach current minimum standards for shared-use trails would mean widening it along almost all its length which financially and environmentally is not possible at this time.

The 7-11 Bicycle Trail follows the Skytrain Rapid Transit route from Main St. station in Vancouver to downtown New Westminster. It was built in 1986 at the same time as the Skytrain, by a now-defunct Crown Corporation called B.C. Parkway. Control of much of it is now in the hands of a subsidiary of B.C. Transit.

Currently the 7-11 trail is in the same state that it was when the VCBP was adopted, that is, "a series of linear parks", rather than a bicycle facility. (Vancouver Bicycle Advisory Committee Minutes, 1985.) Vancouver Engineering Department has jurisdiction over the on-road sections of the route within the city, and will undertake a

review of these sections "during 1991" (Vancouver Engineering Department, 1991a.), but other than this there has been no attempt to upgrade this facility.

The VCBP uses origin and destination data (from a 1985 survey by the GVRD) and also a survey of 600 local cyclists to prioritize those streets which are most important for bicycling in Vancouver and on which resources could be concentrated. Recommendation 1 of the VCBP (p 40) states:

That the street priority system, detailed in this report, be recognised as a system to determine where bicycle requirements should be considered in road design and in future improvement projects.

Although this does not preclude engineering to improve bicycling conditions on other streets, it does imply that some streets are more bicycling streets than others.

Due to limited time and resources the BPC was not able to inventory every street for its suitability (or otherwise) for bicycling, and this has not been done since his position was terminated. There is no systematic programme in Vancouver to identify and eliminate hazards and bottlenecks for cyclists, with the exception of parallel drain grates and shallow angle railway crossings. In the latter case, the City wishes to install rubber flange fillers but cannot due to lack of cooperation from CP Rail.

According to the VCBP (p 67),

Vancouver presently has an extensive road maintenance program which has been expanded to include the unique road maintenance requirements of cyclists within the confines of approved budgeting.

There is however no money which is directed specifically to spot improvements for cyclists and there is no additional publicity (aside from the Engineering Department listing in the phone book) to make cyclists aware of the possibility of having spot improvements and maintenance dealt with in this way.

Engineering department plans for large scale roadway improvements are brought to the City's BAC on a regular basis to ask for committee input. Examples include plans for the widening of West 16th Ave; possible improvements to traffic flow at the Georgia St entrance/exit of Stanley Park; plans for on and off road bicycle facilities in new developments in Coal Harbour and in the Expolands; and the plans for the Cassiar Connector project at the southern end of the 2nd Narrows Bridge. (In the latter case pressure from the BAC led to City Council passing a motion calling on the Provincial Government to provide better bicycle access to the bridge. (The motion was ignored.))

However, neither the Engineering nor the Planning Department is bound to such consultation by any part of the VCBP; furthermore, consultation, if it takes place, sometimes does so at a fairly late stage in the planning process, when any input from the BAC has a reduced chance of becoming reality simply because it is harder to change plans that are already well-advanced.

The continuity of facilities for safe bicycle travel in Vancouver is accounted for by several recommendations in the VCBP but principally by the following:

(# 2) That the City of Vancouver Engineering Department road design standards incorporate recommended lane widths, where practical, as outlined in this report. (p 3.)

(# 10) That all future roadway projects be designed to include cyclists on the road. In situations where such on-road access is unsafe that an alternative safe, direct, and convenient bicycle facility be provided, if practical. (p 4.)

Thus whenever a road is widened or restriped, the curb lane is if possible (i.e. if there is room to stripe a wider curb lane without making the other lanes of substandard width and thus incurring liability) marked at the width recommended in the VCBP, which is 12 feet. This is narrower than in most North American municipalities which have a bicycle program where the average is closer to 14 feet (Williams 1990.)

At least two streets in Vancouver (NW and SW Marine Drive) have recently had shoulders added which has made them safer for bicycle travel without increasing the number of lanes available for motor vehicles. The original intention of the Engineering Department was to add curbs and, on SW Marine, two extra driving lanes but, due to pressure from the BAC and from local residents, the shoulder was added instead. (Arnaud, p.c. 1991.) This shows that recommendation 10 of the VCBP is interpreted differently by the Engineering Department and the BAC.

With the exception of short sections of the Seaside Bike Route such as the connector under the Burrard and Granville bridges, no new separated bicycle paths have been built in Vancouver since the 7-11 trail in 1986.

The VCBP recommends incorporation of bike parking requirements into the City's parking By-Law. The report on this has just been completed (City of Vancouver Engineering Department June 1991) and is due to go into the public hearing process in the fall of 1991. If the report's recommendations are adopted in full, it will be one of the most comprehensive bicycle parking by-laws in North America. (Pinsker at Vancouver BAC Meeting, July 11 1991.)

Currently the city is relatively well provided with short-term bicycle parking because many private businesses have installed racks for customers and visitors. The process of applying for permission to site a rack on a sidewalk outside a business has been speeded up by the City and now only takes about a week (McLachlan, p.c. 1990.) The City funded one small (\$2,000) bicycle rack programme in the West End in 1989 and in addition it and the Parks Board has bicycle racks at community centres and at other City-owned buildings.

The education recommendations of the VCBP have not been completed, with the exception of recommendation # 18 to restructure the committee to include

representatives from the School Board. This was approved by Council in April 1988. In September 1989 City Council also gave the BAC \$3000 for the production and distribution of a survey of Vancouver cyclists which was done in order to better target education efforts.

Vancouver City Police have put on a Bicycle Education Week every year since at least 1987, helped by volunteers. Adult bicycling education classes are offered by the Bicycling Association of British Columbia (BABC) to those members of the public who contact the Association about the courses.

Bicycle education in schools is performed by the Vancouver Safety Council (VSC) whose bicycle activities are funded by the Provincial Government. The Safety Council organises talks and off-road bicycle handling courses which reach about 12,000 school children (Grades 2 and 4) each year. (Crowe, p.c. 1991.) In addition the Police visit some schools to give talks on bicycle education. The School Board is unwilling to introduce compulsory bicycle education given the current trend towards a reduction in the time devoted to mandatory parts of the curriculum. (Pollard, p.c. 1991.)

The Vancouver Bicycle Helmet Campaign is composed of members from the BABC, ICBC, the VSC and the local hospitals. Funding and publicity material comes from ICBC and the BABC. In addition to promoting helmet use among school children, the Helmet Campaign also mounts periodic general awareness campaigns (e.g. in September 1988 (Vancouver BAC Minutes, June 1988)).

Thus it can be seen that the City Council's role in bicycle education is quite minimal, which is understandable given that its direct jurisdiction over education in the city is limited.

The Enforcement section of the VCBP has been a success in some respects. Recommendation 31 calls for the licensing of bicycle couriers in order to "control the

present downtown bicycle courier problem." (Around 1984-85 Council was receiving many complaints about errant downtown couriers (BAC Minutes, 1985).) A motion to this effect was passed by Council on April 12 1988.

Since May 1989 bicycle couriers have had to pay a licensing fee (which also covers third party insurance), display a licence number on their bikes, and take a written and on-road test which is administered by a member of staff at the BABC who is employed for this purpose. Her salary is paid for by the licensing fees and with a grant from Council. The programme was set up with help from volunteers, the Bicycle Coordinator, and staff at the BABC. It has been successful in that it has reduced the numbers of complaints about couriers, and because more errant ones can now more easily be identified.

Bicycle Enforcement Weeks have been run by the Vancouver Police Department since 1988. Officers are instructed to look out for motorist-cyclist conflicts and cyclist infractions of road regulations. During the 1991 week, officers were concentrated in the downtown core, on Stanley Park seawall, on major arteries on the east side (Knight, Hastings), and on the access roads to UBC. (Constable Terry Gilmore, at Vancouver BAC meeting, 12\06\91.) The number of cyclists ticketed rises during these weeks but

I'm not sure they are accomplishing the goals we envisaged for them. We don't address the no lights at night, wrong-way riding - all the things that cause the accidents. Instead, couriers get cited for not having a bell. Bicycling should be part of the preventive work that the police do. (Laidlaw, p.c. 1991.)

There has been consistent pressure from the Vancouver Bicycling Community on the police to introduce 'cops on bikes'. It is argued that the sight of police on bikes would lead to a greater acceptance by motorists of the cyclist's right to use the road, that it would be a role model for better bicycling, and that police on bikes are more effective

crime-fighters in congested downtown areas than police in patrol cars.

Recommendation # 36 of the VCBP states:

That the Vancouver Police Department consider the use of trained police officers on bicycles to enforce traffic laws and regulations governing cyclists on the Stanley Park Seawall and the English Bay area.

In general, Vancouver Police Department has not considered it feasible to put any of its uniformed officers on bikes, although plain clothes police have been riding around on bikes for some time doing surveillance work. In a letter to the BAC dated October 18th 1988, Acting Chief Constable E.W. Lister cited problems of weather, bike security, officer safety, slower response times, and general shortage of staff as reasons for not putting police on bikes. However, in a letter to the BABC dated July 15, 1991, new Chief Constable W. T. Marshall notes that a grant from the Vancouver Police Foundation to the Police Department will shortly be funding a pilot cops on bikes project in Vancouver. He says, "We have every reason to expect that this experiment will be a success and we will be examining the possibility of expanding it in the future."

Vancouver foot patrol officers are given training on identifying stolen bikes. There is also an ongoing bicycle marking programme - officers attend various public events where they offer this service. (City of Vancouver Engineering Department, February 1991.)

Public endorsements of bicycling by civic dignitaries in Vancouver have included proclamations by the mayor of May as Bicycle Month over the past several years (BAC Minutes), and the participation by the mayor in the bicycle ride which marked the opening of the Seaside Bike Route. Alderman Gordon Price regularly attends large bicycling events.

The City of Vancouver does not produce a bicycle map of the city nor any other literature giving information on how to negotiate routes in the city by bicycle. The only exception to this is a guide to the Seaside route which is available at points along its length.

Special bicycling events are limited to those which are put on by private or voluntary organisations (e.g. the Manulife Ride for Heart). Bicycle Sundays were put on in the early and mid 1980s by the Parks Board, when a section of Stanley Park was closed off to all traffic except bikes from 8 to 11 a.m. on a Sunday morning. In 1986, for example, there were 5 Bike Sundays in the park, and the one on August 31 attracted 685 cyclists. The practice was abandoned, however, because of low numbers of cyclists attending. Contracts with concessions in the park make it impossible to close the road for any longer or any later. (BAC Minutes, Dec 1986.)

Although Bike Sundays no longer occur, in June 1991 the City donated \$5,000 worth of policing and closing off of lanes to the Ride for the Environment, an encouragement event which was organised by a new volunteer-based group 'The Bicycle People'.

Bike to Work days are a way of encouraging people to give up their usual commute mode for a day and try bicycling to work instead. There have been events like this in Vancouver sporadically over the past 10 years. During the period in which the City had a Bicycle Coordinator, there was a 'Working Wheels' day (May 25 1987), when city staff were encouraged to try bicycling or walking to work. Since then there has been no Bike to Work Day, although every May since 1989, there has been a 'Commuter Challenge' when a cyclist, driver and bus passenger have raced each other from 41st and Oak to downtown (where they were met by the mayor) in the morning rush hour. (This also occurred in 1985.) In 1991 this was covered on CBC Radio. It was organised by staff and volunteers from the BABC (Delahanty, p.c. July 1991).

The City has gone some way to encouraging its own employees to cycle to work by supplying covered bicycle parking and showers for its employees. The Social Planning Department is currently considering how and where to expand provision of these facilities.

The institutionalisation of a bike policy into the normal activities of a bureaucracy is, as explained above (p 14), difficult to measure, but an estimate can be made. There has been no deliberate training (e.g. seminars by outside experts, sending staff to bicycle planning conferences) of City of Vancouver engineers or planners to raise their awareness of bicycle issues, except for the 1987 Institute of Traffic Engineers' conference in Vancouver, when the City Engineer invited the bicycle transportation engineer John Forester to give a presentation. Thus the reviewing of plans for their impact on bicycle issues depends very much on the awareness of individual members of staff. Gord Lovegrove, a traffic engineer who worked on the Seaside Route, believes that "almost weekly" certain engineers who do have an awareness of the needs of cyclists are reminding others not to forget those needs in their plans, and he comments, "with the bike plan in 1988, that went a lot of the way towards institutionalising it [the bike policy] but still, a lot of the engineers in the department would not even consider them [bicycles]". (p.c. 1991.)

There is no mechanism whereby the BAC or local bicycling organisations are systematically consulted for their comments on the bicycle implications of projects which are put forward for inclusion in the triennial Capital Expenditure Plan.

As explained on page 22, the City of Vancouver is in the process of adopting a parking by-law. The policies adopted in the VCBP are the nearest that the City has to a model by-law governing bicycle access.

There is a City of Vancouver Bicycle Advisory Committee. This was formed in May 1980 at which time it was an Advisory Committee to the Transportation Committee of the City Council. The BAC met every quarter and had no administrative support from the City Clerk's Department. (Arnaud, p.c. 1991.) After five years of lobbying, the BAC finally (on July 30th 1985) became an advisory committee to Council (which allows it to report and send motions directly to Council) with full administrative support, and monthly meetings. Initially, the members of the committee were mainly from the Vancouver bicycle community. However, in April 1988, the BAC was restructured to include a total of 9 members, 3 each appointed by the Parks Board, School Board and Council. Each of these bodies sends one of their elected members as a liaison to the Committee, and there are staff liaisons from the Engineering and Police Departments.

The official mandate of the Bicycle Advisory Committee is to

provide Council with advice and input on civic initiatives [related to bicycling] *and*

to review and advise on the implementation plan for the comprehensive bicycle plan.

(From Minutes, Vancouver City Council, 18th March 1991.)

It therefore has a fine line to tread between being a purely advisory committee and a lobby group to council. Ald. Gordon Price (liaison to the BAC) believes that the advisory role is the one the BAC should play if it is to retain its credibility with Council and that outside groups should be the lobbyists (p.c. 1991); but engineer Gord Lovegrove comments: "they [the BAC] are a lobby to Council and an Advisory Committee to staff".

In these respects, then, the BAC is a good deal more a part of the formal City bureaucracy than it was when it began. This does not necessarily mean that it is listened to. Gord Lovegrove believes that the BAC is respected and that its views are

taken seriously. However, Joe Arnaud (chair of the BAC from 1980 to 1988) believes that Council is only receptive to the ideas of the committee if cyclists who are *not* on the BAC support these ideas also. Alderman Gordon Price believes that the BAC has been effective up to now but only because there has been accompanying political commitment to "harass the politicians" so it is difficult for them to forget the existence of the BAC.

The ideal role of a citizens' advisory committee such as the BAC is to provide informed input to Council decisions and to keep Council and relevant departments aware of the issues which affect cyclists in the city. At times, the BAC has performed this role; at other times, it has absorbed much activist energy without much effect.

Vancouver no longer has a Bicycle Programme Coordinator. There seems to be a view which is widespread both within and without the bureaucracy that it should have one. Currently the Engineering Department liaison to the BAC, Doug Louie, has previously spent about 15% of his time as a traffic safety engineer on bicycle issues, but recently he has been spending more than this (p.c., 10\07\91, 12\03\91). Ex-BPC Marty Pospischil comments: "In terms of the need for a coordinator, yes, I think there is a need and I think the need is increasing. I can see one position coming back in the future". (p.c. 1991.)

Gord Lovegrove believes that "a bicycle coordinator would be very useful in this department." (p.c. 1991.) In the minutes of the BAC in May 1988, the Executive Director of the BABC, Danelle Laidlaw, who was also a member of the BAC, commented, "When we had a bicycle coordinator I think the BAC was a whole lot more effective because we had someone who could talk the engineers' language".

In Feb 1991 the City Engineer made a request to Council for the funds to hire a bicycle coordinator (Manager's Report to Standing Committee of Council on City Services and

Budgets, 28th February 1991). However, the response was that Engineering should find the money from within its existing budget and so the current situation is that the staff resources for each individual bicycle project are found from within the department, but there is no bicycle coordinator *per se*.

The funding sources for bicycle activities in the city are limited to City council, the Parks Board, the BABC, and, for safety-related projects, the Vancouver Safety Council and the Helmet Campaign. The latter three organisations receive much of their funding from the provincial government or its agencies.

It is extremely difficult to assess how much money has been spent by the City of Vancouver on bicycle-related activities and facilities. There has up to now been no record of, for example, the cost of additional lane widths for bicycles in new road construction, and in general monies for bicycle things come out of many different pots to spread the load, as it were (Ald. Price, p.c. 1991.) According to Nelson McLachlan, chair of the BAC from April 1988 to February 1991, some \$1,695,000 has been allotted to bicycle-related projects in the 1991-3 Capital Plan. In May 1991 Council directed the Engineering Department to create a separate account for bicycle-related expenditures, so from now on the amounts spent on these things will be easier to keep track of. Over the next 10 years an important source of funding will be from the developers of the land around B.C. Place stadium who only have to provide half the usual number of car parking spaces. They must give the money they save (\$8 million) for the provision of bicycle and pedestrian facilities in the south and east of the downtown.

It is important at this point to attempt to draw some conclusion as to how far bicycle policy in the City of Vancouver has been institutionalised into the bureaucracy. Shortly after the VCBP was adopted, Danelle Laidlaw of the BABC was quoted in *Alberta Report* (29 August 1988) as saying that the VCBP would "end up gathering dust on

some back shelf." She is now somewhat less cynical (p.c. June 1991). There is a consensus that acceptance and awareness in the City of the needs of cyclists have come a long way but still have a great deal further to go.

The risk of the VCBP being completely put on the shelf has been avoided, partly because it is a programme which was politically possible and which the engineering department could buy into at minimum cost (Price, p.c. 1991). As both Gord Lovegrove and Marty Pospischil argue, the awareness of cyclists' needs in the City now is far greater than it was before the adoption of the VCBP. The stage has now been reached, however, where decisions have to be made about switching resources (of money and roadspace) away from motor vehicles to bicycles, and so the next few years will be a greater test of the degree to which bicycling transportation planning really has been institutionalised in the City.

3.2 Seattle.

Seattle produced a Comprehensive Bikeway Plan in 1972, and a Bicycle Plan in 1983 and a Comprehensive Bicycle Policy in 1985. The goals of the 1985 policy are to increase and promote the safe use of bicycles for recreation and transportation, and to incorporate bicycle transportation and recreation into all appropriate City programs and activities. (pp 9 and 15.)

However, these do not form the back bone of the bicycle policy (Lagerwey, p.c. 1990, Finnie, p.c. 1991). More important, according to Angel Rodriguez (the chair of the City's Bicycle Advisory Board (BAB) from 1979 to 1985) was the BAB's successful attempt to have bicycling incorporated into the City's overall transportation plan in 1983. This reduces the risk of bicycling being marginalised and increases the chance of it being taken seriously within the Seattle Engineering Department (SED). The process is clearly set out in the 1983 Bicycle Plan (p 1):

The City has a process to identify and set priorities for physical bicycling improvements. The Seattle Comprehensive Transportation Program (STCP) will identify needed improvements which will be considered for inclusion in the TCIP (Transportation Capital Improvement Program) *bicycle element*. Comprehensive bicycle planning should be viewed as a two-phase effort, with the Comprehensive Bicycle Plan guiding selection of bicycling improvements included in the TCIP. [Italics added.]

The TCIP is a more influential document than any Bicycle Plan would ever be, simply because it is read by more people. Among the Goals and Objectives of the TCIP there are several statements which relate specifically to bicycling:

Goal 1: Increase transportation safety.

Goal 2: Provide access and mobility for all citizens.

Objective 1: Reduce the potential for ...bicycle accidents resulting from the deterioration or obsolescence of the physical plant.

Objective 5: Eliminate all barriers to bicycle travel.

(Quoted in Avery and Anderson 1985, 9.)

The City of Seattle has not spent much time or money upgrading its existing off-road bicycle facilities. Some sidewalk bikeways remain (e.g. on University Ave.) and the Edmonds bike trail remains a substandard facility. Despite heavier than anticipated use², the older parts of the Burke Gilman Trail remain at their original width. However, the University of Washington does have plans to widen the section of the trail which runs through its campus. Obviously, as new sections of trail are built, the standards used are the most current and therefore most generous in width, curvature and sight lines.

Coupled with the inclusion of bicycling into the STCP and TCIP (see above pp 30-31), SED has worked on the assumption that all streets (with a few exceptions) are bicycling streets. In 1983 the City inventoried all its streets and came up with a set of maps which classified them according to their suitability and importance for travel by a

². A June 1990 count by SED, the Cascades Bicycle Club and the International Bicycle Fund found up to 400 people per hour on the trail in some places. (CBC, July 1990.)

variety of modes, including walking and bicycling. They were adopted by City Council Resolution # 26904 in May 1983.

The street classifications are supposed to guide the types of improvements each street will receive. There are five classifications related to bicycles: Bike Path, Bike Lane, Bike Route, Shared Roadway, and Bicycles Prohibited. This typology was criticised by the Cascades Bicycle Club (CBC) for being over-simplistic, and for not considering traffic density or the importance of each street in the (bicycle) transportation network. (CBC, February 1984.) However, it is at least a formal recognition of cyclists' use of the street system.

Bottlenecks and hazards for cyclists are dealt with by the SED Spot Improvement Programme which has been in existence since 1978. Some funds are set aside specifically for improvements such as making drain grates and expansion joints on bridges safe, installing rubber flange fillers at shallow-angle railroad crossings (to stop bicycle wheels being trapped), and installing curb cuts and ramps to smooth the transition from off-road facilities to on-road bicycling. (Black, 1988.)

Larger projects undertaken by the Spot Improvement Programme include striping of bike lanes, adding route and informational signage (for example, on the approach to the Ballard bridge which is hazardous for cyclists), and installing a contraflow bike lane and additional 'green time' in a signalised intersection at the north end of the Fremont bridge. (Dornfeld at ProBike NW 91.) The current budget of the Spot Improvement Programme is \$110,000 a year, funded from City's share of the Washington State gas tax revenues. There is a limit of \$10,000 per individual project - larger projects must be submitted for inclusion in the annual TCIP. An example of such a project is the improved bicycle path on the University Bridge, which was done in the summer of 1974. (CBC, March 1974.)

There is no statutory requirement in the City of Seattle for new construction projects to be reviewed by the BAB or by the Bicycle Program Coordinators, Peter Lagerwey and Mike Dornfeld. However, these two people are employed full-time by the city and so have the time and resources to look out for new projects which have implications for cyclists. ("This is part of my job". (Lagerwey at ProBike NW 91.)) They can then keep an eye on projects themselves, or (more often) pass the responsibility on to individual members of the BAB. As Dornfeld says (at ProBike NW 91), "We let the Board [BAB] know what's in the pipeline".

Some maintenance requests are funded by the Spot Improvement programme, but the majority are funded from SED's regular maintenance budget. There is however a means for the public to make requests to the Spot Improvement Programme: a phone line on which requests can be made, and SED also distributes request cards at bike shops, community centres and libraries which can be posted back to the department. The Cascades Bicycle Club started the fore-runner of this scheme by collecting spot-improvement requests from its membership and forwarding them to SED in August 1973. Without this mechanism, it is likely that fewer requests for bicycle improvements would reach the department.

The City of Seattle is famous for, amongst other things, the Burke-Gilman trail, an off-road bicycle and pedestrian path which runs along a disused railway from the north east corner of the City through the University of Washington campus to the north shore of Lake Union and which is gradually being extended westwards from there. Other off-road bicycle trails in the City include the Duwamish Trail, part of the Interurban Trail, and the Alki trail. These trails do not however form a connected system but rather have been put in place where the opportunity (available land) and political will have coincided.

The majority of bicycle travel in Seattle as in all North American cities still takes place on the street system. The bicycle programme in SED attempts to take every opportunity that presents itself to improve the continuity of safe facilities by, for example, striping wider curb lanes, adding shoulders when roads are resurface or restriped, and adding on street bike lanes.³ The latest bike lanes in Seattle are on Gilman and Dexter Avenues. (Lagerwey at CBC Govt. Affairs Committee meeting, 28th May 1991.)

In addition to lane widening, the continuity of routes across certain bridges which have been barriers to cyclists has been maintained by the provision of a 'bikes on bus' service. Since May 1989, during the reconstruction of the West Seattle low-level bridge, SED has provided a van and trailer shuttle service for cyclists which crossed the high level bridge (from which cyclists are barred) every 20 minutes from 6 a.m. to 10 p.m. (NorthWest Cyclist Aug 1989, 25.)

The State Route 520 floating bridge across the northern portion of Lake Washington is also closed to cyclists, but, since 1979, the transit agency Metro has provided bike racks on its service across the bridge from Edmonds to the University of Washington. The service (which reportedly is not frequent (CBC BATS Meeting 22nd May 1991)) was provided after lengthy lobbying of Metro by the Cascades Bicycle Club.

The City of Seattle has had a bicycle parking by-law since 1983. This stipulates that the number of bicycle parking spaces in a new development must be equal to 10% of the number of car parking spaces in downtown developments, and 5% elsewhere.

3. There is a great controversy in the North American bicycling community regarding the safety of bike lanes. This has been raging since the early 1970s. See for example Lott and Lott (1976) and Forester's reply to them (1976); CIP (1990); Lowe (1990). There is no doubt however that the majority of cyclists want bike lanes (see for example Toronto Cycling Committee July 1990) and that bike lanes are a visible action by municipalities for cyclists.

According to local bicycle advocates Durlyn Finnie and Mike Hooning, however, there is still insufficient bike parking in the downtown core.

In addition to the parking supplied by by-law, the Spot Improvement Programme installs about 100 bike racks per year in local business districts. Racks can be requested by the public on widely-distributed rack-request cards. SED will install racks on private property as long as a number of conditions regarding accessibility, visibility, liability and maintenance are met. (Dornfeld at ProBike NW 91.)

The City of Seattle has not been responsible for the education campaigns which have been conducted in the city. Instead the prime mover has been the Cascades Bicycle Club (CBC). In 1973, the club started its safety committee whose role was to

write safety procedures for Cascades tours, [and] coordinate and work on the various safety programmes going on in government and school areas. (CBC Nov 1973.)

At that time, the club had already been asked for its input into these programmes and that was one reason for its setting up this committee. In early 1979 the club started its education committee, initially to advise the City of Bellevue Parks department on the content of a proposed bicycle handling skills course. (CBC, March 1979.)

In 1987, using funds from the annual Seattle to Portland (STP) ride, the education committee hired a consultant, Jane Abraham, to put together a number of educational programmes. The most well-known of these is the 'Sprocketperson' programme in which trained volunteers from the CBC go out to talk to large groups of elementary school children about bicycle safety. In 1988 more than 18,000 children were exposed to Sprocketpeople across King Co. (Abraham, p.c. 1991.)

Cascades Club volunteers also conducted bicycle roadeos which give children about 20 minutes of on road training. Although publicity for these programmes was purely by word of mouth, demand grew so much that Abraham and the CBC volunteers were

forced to move from conducting roadeos themselves to training teachers and parents how to do them. To this end the CBC produces and distributes educational material. The club also lends helmets for children to use during the roadeos.

Seattle Public schools has a bicycle education option in its Physical Education curriculum which was developed with the help of the CBC but is now run independently from the club (although it supplies resources such as brochures, helmets and even bikes). The City Police department is now also involved in bicycle education, visiting schools and putting on roadeos.

The Club is also involved in providing expertise as a member of the Washington State Children's Helmet Coalition. The organisation has amongst other things facilitated a helmet bulk-buying programme for the State. The money for this coalition comes from Harborview Hospital in Seattle and the local TV station KOMO-TV. Bicycle coordinators from King County and SED sit on the coalition but aside from staff time and undertaking small related projects the two municipalities do not put in any other resources (Abraham, p.c. 1991.)

In adult education, the CBC was also busy staging an annual 'Share the Trail' event at which volunteers set up booths on the Burke Gilman Trail and talked to users about responsible trail use. This was initially a completely volunteer-based event, as Abraham explains:

All we received [from the City in the first year] was not having to pay the permit fees to do an event. After the first year, both King County Parks and Seattle Parks, after they saw how successful and well-received the programme was, then they said they would co-sponsor it in the following two years that we did it, and actually their help was minimal (e.g. they made sure I had some garbage cans out there). They never provided personnel. We did all the work; they just tried to smooth the way, but they considered themselves co-sponsors.

The club has also paid for the production and mounting costs of a number of advertising boards on buses urging motorists to share the road with cyclists. (Bicycle Forum, Summer/ Fall 1989, 13.) This was the latest of a number of Share the Road publicity efforts by the club - for example in 1977 the club began distributing "I share the road with bicycles" bumper stickers.

According to Peter Lagerwey (p.c. 1990), encouragement is not a part of the SED bicycle programme (in spite of its inclusion in the 1985 Bicycle Policy (p 7).) However, several departments of the city have in the past and continued to offer encouragement to cyclists.

In the early 1970s Mayor Wes Uhlman made frequent public endorsements of bicycling, such as taking part in a ride organised by the Cascades from the University District to downtown to highlight the problems faced by cyclists; endorsing and publicising 'Bike to Work Weeks' at yearly and half-yearly intervals during his term of office; and closing off roads (such as Lake Washington Blvd through the Arboretum) at weekends to all vehicles except bicycles.

Bicycle Sundays have been occurring in Seattle for the past 24 years. Initially staged by the City Parks' Department, these day-long closures of a part of Lake Washington Blvd in the southeast of the city have, since 1971, been co-sponsored by the CBC. The road is closed to motor vehicles all day and the programme is so popular that in the last two years it has been extended to summer Saturdays also. (*Bicycle Paper* June 1990.) A similar event, though annual rather than monthly, is the closure by Washington State Department of Transport (WSDoT) of the Interstate 5 freeway express lanes to motor vehicles for a day so that non-motorized modes can use the lanes.

There has been a bike to work day or week in some form in Seattle since at least 1973. (CBC June 1973.) During the late 1970s these events attracted major sponsorship from

local TV stations and bicycle shops, but the involvement of the City has always been limited. Today the annual Bike to Work day is organised almost entirely by the CBC (*Bicycle Paper* March 1991), although this year King Co. Department of Public Works made a contribution by supplying a shuttle bus for cyclists across the Evergreen Point Floating Bridge (SR 520) (Miller, p.c. May 1991).

In the 1985 *Comprehensive Bicycle Policy* (p 11) the City called on itself to provide more end-of-trip facilities for its own employees as a means of encouraging more of them to bicycle to work:

Secure and convenient bicycle parking, and facilities for storing clothes and equipment, should also be provided at all municipally owned and leased buildings.

However, it has not pursued this as religiously as it could have (Hooning, p.c. 1991).

The City has produced a bicycle map of Seattle since the late 1970s. It is free to cyclists thanks to the advertisements which it carries, and it is updated on a regular basis. King County has produced a similar map with help from the bicycle industry and the CBC.

The most well-known encouragement events in the Seattle area which reach perhaps the greatest number of cyclists and which raise non-cyclists' awareness of bicycling are two annual rides organised by the Cascades Bicycling Club: the Chilly Hilly and the Seattle to Portland (STP). The latter attracts some 10,000 people who ride the 185 mile course in either 1 or 2 days. As Abraham (p.c. 1991) comments about the club, "our rides are getting bigger and better, we've gotten more and more involved in safety, we're getting more and more known throughout the city, and so you can't beat it, I think, for bicycling".

The local bicycle industry is heavily involved in sponsoring these events, and with this source of income plus the rider entrance fees the CBC nets at least \$65,000 each year

from the two rides. These two events both began in 1979 (CBC, 1979.) The CBC also organises an annual Bike Expo - a trade fair - which heightens awareness of bicycling and which, again, builds links between the bicycle industry and the club.

The institutionalization of bicycling into the transportation planning and engineering process is a key aim for Seattle bike coordinator Peter Lagerwey (p.c. Sept 1990). As yet in Seattle, this institutionalisation is not so far advanced that his job is superfluous. Other SED staff are trained by the bicycle coordinators in the niceties of bicycle planning (Lagerwey at ProBike NW 1991) and, according to Mike Hooning (p.c. January 1991), "We are seeing significant changes in attitude [amongst SED staff]". Nonetheless, whether or not the bicycle is considered in the planning of a new project is still largely dependent on the vigilance of the two bicycle coordinators and the volunteers on the Bicycle Advisory Board, although as Durlyn Finnie (past chair of the BAB) comments,

The policy is fairly institutionalised in that they (SED) will usually consult Peter on projects which cross the Burke Gilman or other big trails. But with smaller projects - they forget. (p.c. 1991.)

Also, current chair of the BAB Mike Hooning was recently jubilant because the Seattle Port Commission had "been instructed" (by someone outside the SED bicycle programme) to come and give a presentation to the BAB on a new development which affected trails in the area. (p.c. 1991.)

Seattle has had a citizens bicycling advisory board since 1977. The BAB was formed to:

advise the City Council, the Mayor, and all departments and offices of the City on matters relating to bicycling, and the impact which actions by the City may have upon bicycling; and shall have the opportunity to contribute to all aspects of the City's planning processes as far as they relate to bicycling.

(Council Resolution # 25534, May 16th 1977.)

It is made up of 10 members selected from the community plus a non-voting member from the Cascades Bicycle Club, and two staff members from Engineering and one from the Parks Department. The BAB membership is selected to give as wide a cross-section of the community as possible (i.e. the voting members of the BAB are not all CBC members also). Potential members submit their resumes and are then interviewed by the bicycle coordinator, the Mayor and the current chair of the BAB.

Since 1987 there has been a requirement on the SED to consult the BAB about projects which affect cyclists, by the following mechanism:

The Board [BAB] is charged to review and make recommendations on capital improvement projects and other programs insofar as they relate to bicycling;

and

At the beginning of each year's budget cycle, the bicycle coordinator shall provide the Board with a list of all capital improvements that are being proposed for the following year's budget. The department will then, upon being contacted by the Board, work with the Board to identify those project and program elements that are appropriate for Board review;

and

Appropriate City officials shall be prepared to provide the Board with information/ plans/ maps/drawings etc.' as appropriate to the project's and/or program's given phase, as are necessary to review.

(Seattle BAB, 1987, 3 and 4.)

This is a significant way for cyclists to ensure that their needs are met in new city projects.

Each month the BAB hears a presentation by the manager of a planned or current project in the City. In addition, each member of the Board has the responsibility for tracking the progress of a few projects or programs and being the liaison between the Board and the managers of those projects. (Lagerwey at ProBike NW 91.) In the words of bicycle coordinator Mike Dornfeld (at ProBike NW 91),

I've worked with bicycle advisory boards in Minnesota, Washington D.C. and Seattle, and the one in Seattle is by far the most effective one I've worked with.

The City of Seattle has had a bicycle programme coordinator (BPC) on staff in the engineering department since 1977. (CBC Newsletter 1977.) Prior to this date an engineer called Bob Theisen spent much time on bicycle issues, although in 1975 he was laid off.

The first BPC, Josh Lehman, was hired after a lobbying campaign organised by local cyclists. (Rodriguez, p.c. July 1991.) The funding for his position came from the Federal monies disbursed under the Comprehensive Education and Training Act (CETA), and this lasted for a year. (Lehman, p.c. May 1991.) He was not laid off at the end of this time, however, thanks, again, to lobbying by local cyclists such as Amy Carlson (p.c. January 1991) and political support from then Seattle Councilman Tim Hill.

Although based in the engineering department, Lehman was a geographer/planner rather than an engineer. (Initially he was to have taken an exam in traffic engineering as a condition of his being hired, but this stipulation was dropped at the last minute. (Lehman, p.c. May 1991.)) Subsequent BPCs in the department have also not been engineers. This is in contrast to the situation in Vancouver where, when the BPC was hired, the City Engineer was insistent that the chosen candidate should have an engineering background. (Memo from Vancouver Deputy City Engineer to Director of Personnel re Bicycle Coordinator, July 18th 1986.)

The City of Seattle had one and a half BPC positions by 1980, two by 1985 and it has just (July 1991) taken on three additional bicycle and pedestrian coordinators. These positions are funded from the regular City budget. The importance of these staff to the success of the bicycle programme will be discussed in the next chapter.

The Seattle bicycle programme has been notable in its pursuit of many novel funding sources. According to Lagerwey (p.c. Sept 1990), the direct funding by the City for the bicycle programme is about \$150,000 per year, but approximately \$4 million is spent from various sources on facilities. At ProBike NW 91 Lagerwey gave a number of examples including:

- Federal monies for bicycle facilities - up to \$4.5 million per state per year (although it is up to the state to find opportunities for spending the money);
- Federal money for building bike trails as part of new freeways. The prime example of this in the Seattle area is the I 90 project from Bellevue to Seattle which features a bike bridge, tunnel and trail which cost \$22 million.
- Seattle's share of the half of one percent of the Washington state gas tax which has been earmarked for bicycle and pedestrian facilities since 1972. The Spot Improvement Programme is the prime beneficiary of this source of funds (Black 1988).
- Open Space bond issues. These are voted on by city-wide referendum. Examples in Seattle include Forward thrust (1968) and Open Space (1989). The latter raised \$117 million in King Co. (Seattle's share is \$41 million, of which \$5.8 million goes to trails development). (Seattle Department of Parks and Recreation 1990.)
- Private-public partnerships. In Seattle US Sprint were allowed to run a fibre-optic line along a 7 mile stretch of the Burke-Gilman trail in return for \$900,000 which is being used to fund extension of the trail. It is also possible to piggy-back bike trails onto new hydro and pipeline rights of way.
- Environmental Impact Statements. All new projects in the US must by law have an EIS which includes ways of mitigating the environmental impact of the project. Bike facilities are considered one way of doing this. (Jordan 1988.) Once incorporated into the EIS, the bicycle facility must be provided by law.

Similar to this is the \$25 million over the next 5 years which the City of Seattle will receive from Metro for shoreline mitigation after Metro built a new sewage treatment plant at Westpoint.

- Old franchise agreements between railways and the City have been used to obtain lengths of abandoned railway right-of-way at no cost to the municipality.

The City of Seattle has been putting considerable sums into bicycle facilities over the past two decades. In December 1972 it allocated \$100,000 of gas tax money to the construction of the Ravenna Blvd/ 17th Ave. N. demonstration bikeway project. (Theisen, 1976.) The 1974 CIP budget included \$175,000 for bikeways. (CBC March 1974.) Funding for the Burke Gilman Trail included Federal Community Development Block Grant and Gas Tax cash, and money from the 1968 Seattle Forward Thrust bond issue. (Seattle/King County 1979, quoted in City of Vancouver Engineering Department 1988, Appendix E.)

However, it has taken a long time for the bicycle programme to obtain a substantial and legitimate foothold in the bureaucracy. Bob Theisen worked on bicycle project planning in SED from mid 1972 to 1976, when he was laid off. Up to this time, most of the funding for the bicycle projects had come from non-City sources; these funds dried up in 1976, and so the bicycle programme was put on ice for 2 years. (Theisen, p.c. 1991.)

Having compared the Seattle bicycle programme to the generic programme, it is clear that the City's direct involvement with bicycling issues is largely limited to engineering which is, as Lagerwey says, "what we do best". (p.c. Sept 1991.) However, the bicycle programme in Seattle is clearly more than what is done by SED. As Finnie (p.c. 1991) comments, "it's a combination of the BAB, SED, Cascades and King County".

The reasons the bicycle programmes in Vancouver and Seattle have developed in the way they have, and the interaction between the various actors on the bicycling stage, will be explored in the next chapter.

3.2 More bikes on streets?

Although there has been a bicycle programme in Seattle for the past 21 years, it may be that there are more cyclists in Vancouver, due to its more compact urban form and large population in the West End, close to downtown. A CBD cordon count conducted as part of the *Bicycle Parking Standards Study* (City of Vancouver Engineering Department 1991b, 28) recorded the proportion of all morning trips into the downtown as 1.3% (873 bicycle trips). A mail-in survey of 588 Vancouver office workers in the same report concluded that about 12% of these respondents bicycled to work in reasonable weather. The 1985 Origin and Destination Survey (quoted in City of Vancouver Engineering Department 1988, 17) conducted by the GVRD concluded that 2.3% of all vehicle trips in the Vancouver Central Metropolitan Area were made by bicycle, although Jim Chin of the GVRD regards this figure - which was based on a 5% telephone sample of households - as an underestimate. (Chin, p.c. 1991.)

There are no definitive figures for the number of cyclists in Seattle (Lagerwey, p.c. Sept 1990); however, he has said to another Vancouver cyclist that he believes there may be more cyclists in Vancouver than Seattle. (Arnaud, p.c. 1991.) In Seattle's bike to work day in May 1991, cyclists who stopped for free coffee and muffins at the 'ride stations' set up by Cascades Club volunteers filled out surveys, of which some 800 were received. However, the people who stopped were greatly outnumbered by the people who rode on by, and BTWD organiser Stu Hennessey believes that there are "thousands of [commuting] cyclists out there." (CBC BATS meeting 23rd May 1991.) Since there are no definitive figures for numbers of cyclists in either city, it is not possible to evaluate the success of the respective policies according to this criterion.

CHAPTER 4: REASONS FOR THE DEVELOPMENT OF THE POLICIES AND PROGRAMMES IN VANCOUVER AND SEATTLE.

The purpose of this chapter is to discuss some of the factors which may have contributed to the differences in the development and the implementation of bicycle policies and programmes in the case study cities.

4.1 Sources of Political Impetus for Vancouver's bicycle policy.

In Vancouver, the Bicycle Advisory Committee was set up after pressure on Council from a number of activists from the Vancouver Bicycle Club (VBC) which began in 1978. (Pollard, p.c. 1991.) However, Council began to take serious notice of the bicycle issue after the 1984 transit strike, which brought great numbers of cyclists onto the streets, and raised awareness of bicycling - albeit, often, negatively defined as a 'problem'. (City of Vancouver BAC Minutes, 1984 and 1985.) Danelle Laidlaw of the BABC, who sat on the Bicycle Advisory Committee at the time, noted that some of the people who began to bicycle because of the transit strike also voiced their dissatisfaction with the lack of facilities for cyclists in the city.

Specifically, there was perceived to be a difficulty with the great number of cyclists crossing the Burrard Bridge, and the Engineering Department was charged with coming up with a solution (which is now in place - one way sidewalks shared by cyclists and pedestrians). Several aldermen also expressed concern about bicycle-pedestrian and bicycle-motor-vehicle conflicts, and at its meeting on 24th July 1984 Council commented that

A more long range concern is the need for cyclist education ... and a program to effect this.
(Minutes, 24/07/84.)

Thus it was a combination of lobbying by cyclists, two years of petitioning by the B.C. Green Party, and council concerns generated by the transit strike, that launched the process for the hiring of a BPC and the preparation of the VCBP.

4.2 Sources of political impetus for implementation of the policy in Vancouver.

Although the VCBP is City policy, this does not assure its implementation. The fact that it is slowly being implemented is because the awareness of bicycling on Council and in the Engineering Department has been kept high by pressure from cyclists, from the BAC, (especially by the previous chair, Nelson McLachlan (see below, p 62)), because Alderman Gordon Price is a 'pro-bicycling' voice on Council, and because Council last year adopted a pollution control policy, *Clouds of Change*, (City of Vancouver 1990) which has given added impetus to the bicycle programme. Policy # 11(a) of *Clouds of Change* states that the City should:

make bicycling a better transportation alternative by providing parking and related facilities in new developments, proceeding rapidly with implementation of the bicycle plan, and developing measures beyond the Comprehensive Bicycle Plan, in cooperation with the Bicycle Advisory Committee.

Laidlaw (p.c. 1991) comments about the City's progress in implementing the VCBP:

If I were cynical I might say that we dragged City Hall kicking and screaming into the Bicycle Age but, in fact, with the Mayor and a few councillors on side, it hasn't been that difficult. What I still don't see, though, is departments taking the initiative - they have to be prodded.

4.3 Sources of Political Impetus for Seattle's bicycle policy.

In Seattle, the 1969 City elections brought 'new blood' into both the council and the Mayor's office. Mayor Wes Uhlman was elected at this time and, as explained above (p 6) was able to take advantage of new powers granted to the Mayor's office in the late 1960s.

Initiative for bicycling activities at this time came both from the community and from the Mayor's Office. However, it is the view of Bob Theisen, who worked for SED at the time on bicycle-related projects, that the major impetus for these projects was the availability of Federal and state funds. To obtain the latter, Seattle had to produce and approve a bikeway plan. Hence the direction for the preparation of the 1972 *Comprehensive Bikeway Plan* was partly external. This document was the successor of an earlier report on commuter bikeways, and it was put together by a joint committee made up of bicycling employees of the Mayor's Office, Department of Community Development, SED, Parks and Recreation and the community. (Theisen, 1976; Office of the Mayor, 1972.) The entire process took less than 9 months.

The newly-founded Cascades Bicycle Club (CBC) played a role and was very energetic but, in its early years, gave the impression to Theisen and ex-councilman Tim Hill of being an organisation uncertain of what it wanted. (p.c. 1991.)

4.4 Bicycling as a politically popular issue.

Trails are an important part of both the King County and Seattle bike programmes and bicycling in general has benefitted from this association: as Lagerwey (p.c. Sept 1990) says, "trails win votes." Bicycling in Seattle has been identified with trail construction since the early seventies, when some members of the CBC were also active in the Committee for a Cross-town Trail, which was instrumental in getting funds to buy and build the Burke Gilman Trail.

Furthermore, several of the bicycling advocates (Finnie, Hooning) contacted for this research believe that trails are valuable because they get people who would otherwise not ride their bikes (because of fear of traffic) to do so. These people may or may not use their bicycles on the street system as well, but the fact that they bicycle at all may build their awareness of and sympathy for bicycle advocacy. This opinion is shared by Danelle Laidlaw of the BABC who, referring to Montreal's bike path network, says,

If you undertake a project like that then you get the public support and then you can go on and do the things you really want to do with that support... You get the support, not just of the organised bicycling community, but of politicians, of people like my mum, of community activists... (p.c. 1991.)

In contrast, bicycling in Vancouver has not enjoyed this link to a politically popular local issue. Ald. Gordon Price (p.c. 1991) believes that bicycling is an issue which at most has a marginal impact on a few people's voting pattern. (Civic politics in Vancouver are in any case fought as much on partisan lines as on issues. (Tennant, 1980.)) A mail-in survey of 800 Vancouver cyclists in 1990 revealed a very low awareness of the City's bicycle policy and programmes: over 70% had not heard of the VCBP, and only 28% knew that the City did not have a bicycle coordinator. (Vancouver BAC 1990.) This may be because most of the recommendations of the plan result in relatively invisible improvements.⁴ If bicycling is not a politically popular issue then there is much less reason for politicians to pay attention to a relatively small group of bicycle advocates.

4.5 Bicycling organisations in Seattle and Vancouver.

4.5.1 The Cascades Bicycle Club.

In 1970, the Cascades Bicycle Club (CBC) was founded. Its goals included (CBC August 1970)

- #4: to appreciate and improve our environment;
- #5: to encourage bicycling for recreation and transportation [it was never a racing bicycling club];
- #6: to protect bicycling interests.

⁴. Vancouver's bicycle policy as stated in the VCBP is to facilitate the safe integration of bicycles with other vehicles on the street system. The striping of bicycle lanes is considered unsafe; and building bike paths for utilitarian cyclists is not a priority. Thus there is little visible evidence aside from wider curb lanes and additional signage on bridges that the street system is being adapted to accommodate cyclists.

The Cascades Bicycle Club now has over 4,000 members, mostly in King County. They can pack hearings on large new road projects with up to 300 cyclists (Finnie, p.c. 1991). In comparison, Vancouver Bike Club has about 200 members and the Bicycling Association of BC about 2400, province-wide.

As well as being large, the CBC activists appear to the author to be exceptionally well-organised and aware of how they can affect policy formulation and programme outcomes. Almost since the club's inception, members have been contacting politicians and bureaucrats to keep them aware of the views of cyclists in the Seattle area. An example of this was a P.R. ride from Green Lake to Pioneer Square which the club organised in 1971 and in which local politicians took part. At every election also, the club contacted candidates to ask for their views on bicycling. With constant pressure of this nature, bicycling became recognised as a potential vote winner. (Lehman, p.c. 1991.) Ex-Seattle city councilman Tim Hill agrees with this assessment (p.c. 1991). As Lehman comments: "By the early 70s there was a well-defined, visible commitment to bicycling from the business and political community". (*Ibid.*)

Bureaucrats in the area now know that if they do not consult local cyclists about new projects or programmes then the local cyclists will make their views known quickly and vociferously (Miller p.c. 1991.) Also, the CBC's Government Affairs Committee is not afraid of threatening to sue local government departments when they fail to honour their stated responsibilities to cyclists. (Finnie, p.c. 1991.)

The political respect which the bicycling community commands in Seattle grew from the following roots, in the opinion of Angel Rodriguez, ex-chair of the BAB and owner of a local bike shop for many years:

It had a good club, a good set of bike shop owners who cared and who got involved, and ride organisers with guts. If those three legs hadn't been there, then the politicians just would not have listened. We showed ourselves to be a well-organised and well-motivated group (p.c. 1991)

who approached politics and politicians in a totally adult manner - we didn't come across as raving lunatics, as table-pounders (Black, p.c. 1991.)

Thus there is a positive feedback loop: Cascades knows that it has a fair chance of being listened to, this knowledge motivates its activists, so they are more effective and thus are listened to still more. This is not to say that the CBC has won all its battles - the most 'celebrated' being the failure to win cyclist access to the new West Seattle bridge in 1984. (Although the way in which the club fought and recovered from this battle won it political respect (Black p.c. 1991).) But in general, "Cascades [is] becoming more and more effective and listened to." (Lehman, p.c. May 1991.)

Many of the activists interviewed for this research cited the CBC as instrumental in the successful advocacy of bicycling in Seattle. (e.g. Rodriguez, Pollard, Arnaud, Miller, Laidlaw.) Lagerwey (p.c. 1990) believes that as a bicycle coordinator, "a good citizen's group, properly managed, will be your lifeblood" - in his case the BAB and the GAC of the CBC. Skonecki (1980, 218) agrees that a bicycle coordinator "needs a constituency of local people who know, like and will support the coordinator to assure the program's continuity". Rodriguez puts it a little more bluntly:

If the CBC wasn't there, if it disappeared tomorrow, then Peter Lagerwey would lose his job the day after tomorrow. (p.c. 1991.)

4.5.2 Organisations in Vancouver.

Vancouver has never had a bicycling organisation which has brought together recreational and commuter cyclists, bicycling advocates and the bicycling industry. There has never been a group which has promoted bicycling through large events in the same way that the Cascades has.

The Vancouver Bicycle Club originated in 1978 and was, according to one of its founder members Marilyn Pollard, a politically active organisation from the beginning. "One of the first things I remember doing [with the Club] was protesting at the opening

of the Seabus [because it didn't carry bikes]" (p.c. 1991). However, over the past 5 years the club has been less active in advocacy - although this may change in the near future as different people become active.

The Bicycling Association of British Columbia is active at the Provincial level as well as in Vancouver. It is a sporting body, not a club, and is heavily dominated by racing cyclists who traditionally have been less interested in advocacy issues than more recreation and transportation oriented clubs such as the Cascades. It has an important role to play as the Provincial organiser and licensee of races, which absorbs much staff time. Its main funding sources are membership and grants from the Provincial Government. Executive Director of the BABC, Danelle Laidlaw, believes that the advocacy role of the organisation is "as a resource for our members who want to do something themselves" (p.c. 1991). She believes that the strength of the CBC comes in part from their very large membership which results from the rides which they organise. But, she says,

I'm a little reluctant for a provincial organisation [such as the BABC] to get into organising a ride. I'd like to see our clubs do that. I don't see it as the function of the Association to be what clubs should be. (*Ibid.*)

The Advocacy Committee of the BABC had a budget of \$2,300 in 1990, compared to the approximately \$85,000 of membership and grant income which was spent by the racing committee. (*Ibid.*) The BABC does provide Can-Bike bicycling skills courses for those adult cyclists who are interested, but they are not offered on a year-round basis.

The growth of the CBC compared to its counterparts in Vancouver may in part be explained by the personal politics of the organisations. The fact that CBC volunteers have the chance to be responsible for some large and logistically challenging events (e.g the treasurer of the STP ride handles about \$500,000 in a year) may absorb

volunteer energy more constructively than in an organisation where such opportunities are fewer.

4.6 The importance of municipal staff in a bicycle programme.

The CBC and the BAC in Seattle have been immeasurably helped by the presence on City and (since 1987) County staff of the bicycle coordinators. Vancouver has not had this same combination of highly active bicycling community, and bicycle coordinators.

A coordinator is virtually an essential to a bicycle programme because:

While much can be done by citizens 'outside' the system, it is also very important to have a qualified person 'inside' the bureaucracy to be an advocate for biking and to **provide citizens with timely information.** (Lagerwey 1988, 98, emphasis added.)

Phil Miller, the King County non-motorized transportation coordinator, also sees communication as a very important part of his job - he is a "conduit" between pressure groups and his department, which hired him to be "a pain in the ass" and pre-empt pressure from outside. (p.c. 1991.) As Abraham (p.c. 1991) says of her three local coordinators,

They can't get up and say something because they're city workers but they can tell us and so we can get up and say it. *and*
Peter and Mike (and Carla before him) did a lot for cycling in getting people organised **behind** the scenes. I mean, a lot of stuff, they can't do up front because they're city employees, but we've always known whenever there's anything happening with the City Council ... they're real involved with the GAC and they let us know. So we've been sort of the volunteer arm.

The coordinators in Seattle are limited in what they can do because they are in one department, (Engineering in the City, Transportation Planning (a part of public works) in the County). As Wilkinson (1980, 218) explains, a coordinator's function varies according to the department s/he is in and whether the job is to be a coordinator for the whole department or for the whole municipality.

Arnaud (who is familiar with Seattle as well as Vancouver) is convinced of the benefits of having full-time coordinating staff, and he comments,

Council members tend to accept what staff tell them. When you have a coordinator who can go to Council and say, look, cyclists could use this and this is **why**, then Council take notice. But if the BAC goes to Council, they'll say, "You're just the Committee, what do you know about it?"

[In Seattle] they have the two people on staff that keep an eye on everything that engineering planning does. So whenever anything comes up that affects bicycling, they're there. **And that's what the Committee can't do on its own.**

(p.c. April 1991, emphasis added.)

The only person interviewed for this research who did not believe that a bicycle coordinator would be of use in Vancouver was Alderman Gordon Price, largely because he perceives there to be a danger of the position being tokenistic. Price is more in favour of different members of staff being assigned to each bicycle-related project. However, this view does not recognise that a large proportion of a coordinator's time is spent ensuring that all projects take account of bicycles, and that there are **any** bicycle related projects to work on. A bicycle programme is not just a series of projects.

Arnaud is strongly of the opinion that the BAC in Vancouver was much more effective when it had a coordinator to work with. After the position was terminated, according to Arnaud, "things stagnated". The author notes from reading the minutes of the BAC that, during the period when there was a coordinator, things the BAC requested were generally done by the date of the next meeting whereas, before and after, requests for action or information often dragged on for several months. This was confirmed in interviews with Arnaud and Laidlaw.⁵

⁵. Ald. Price believes that the stagnation in 1987 was because "[the BAC] looked as though there were too many long time people on it and it had gotten into a rut" (p.c. 1991); and also because the BAC was perceived as a COPE

Although there was no bicycle coordinator on staff from 1987 onwards, the new chair person of the BAC, Nelson McLachlan, worked almost full-time on bicycling issues during his tenure and in so doing raised awareness of bicycling both within and without City Hall. As Engineer Gord Lovegrove comments,

Yes, I think that Nelson was a major mover. We owe a lot to Nelson for where things are going. So, maybe he did a few things wrong and politically he erred here and there. But by and large he held the reins together and led the chariot race in the right direction.

Alderman Gordon Price says that McLachlan's role was as a "provocateur" not as a bicycle coordinator. He worked very closely with Gord Lovegrove on the planning of the Seaside Bike Route; he also spent much time organising volunteers, persuading traffic engineers to go out bicycling, and raising awareness of bicycling in Vancouver by letter-writing and 'networking'. Many of these activities are precisely what a paid bicycle coordinator would spend his/her time doing. Laidlaw agrees that "what we had [with Nelson] was a volunteer bicycle coordinator - and the City should recognise that". (p.c. 1991.)

4.7 Municipal history and its effect on bicycle advocacy.

All bureaucracies are in part a product of their past and the different histories of the Seattle and Vancouver Councils can go some way towards explaining their different response to lobbying from cyclists. According to MacDonald (1987, 168),

When one compares the political evolution of the two cities, one can see that their postwar politics grew out of similar political situations, ... and [had] similar longevity.

Municipal elections in Vancouver and Seattle were not fought along party lines in the first 20 years following WW2: local politics was nominally non-partisan and the parties were much more loosely-based than at the Federal or Provincial/State level. Both were

committee which had little credibility with the incoming NPA administration. (Arnaud is a member of COPE (Committee of Progressive Electors) whilst Price is an NPA (Non-Partisan Association) alderman.)

embarked upon a programme of reconstruction and development during this time. However, there were important differences in the way the two Cities operated.

The origins of the two city councils were different. The Vancouver Council was always dominated by real-estate and business interests from its inception in 1886 up until the early 1970s. (Magnusson, 1983.) In this situation,

Most interest groups were suspect, but business groups ... were not.

(*Ibid* p 197.) and

"Citizen participation" is not a phrase which was used frequently, if at all, in Vancouver before 1968. (Tennant 1980, 8.)

In Seattle, however, for the first twenty years of the century at least, City Council was not dominated entirely by conservatives: organised labor always had two or three representatives. Later in the century, according to Miller (1970, 41), the Council in Seattle was not seen as "a strong centre of community power." It only made its decisions after the topic had been debated for some time by the other community groups. This contributed to what MacDonald (*op cit* p 169) calls, "Seattle's do-it-by citizen committee style of government". This emphasis on citizen participation increased after the election of Mayor Uhlman in 1969 (*Ibid* 1987), and may help to account for the relatively warm welcome which the bicycling community received from the City.

In contrast, the postwar period in Vancouver saw a greater centralisation of power at City Hall and in particular, strengthening of the civic bureaucracy. (Tennant, 1980.) This reached its hiatus in 1956 in the formation of a city manager system where a board made up of the Mayor and two appointed commissioners virtually ran the City. In the later years of this system (the mid to late 1960s), one of the commissioners, Gerald Sutton Brown, became dominant and "his power verged on the absolute" (Magnusson, *op cit* p 204). In particular, Sutton Brown was able to route certain council decisions to be implemented by the departments he favoured - especially the Engineering

Department (thus increasing its power). Hence, for example, the 1959 freeway plan which was a major plank of the city's transportation plan was not officially presented to Council (and therefore to the public) for eight years.

Since 1972, when a more progressive Council was elected and the commissioner system was abandoned, Vancouver City has been much more open and

functional interest groups of all varieties ... would appear to be listened to more seriously than was previously the case. (Tennant, *op cit* p 26.)

Among them, of course, were the bicyclists.

4.8 Bureaucratic structure.

The implementation of the bicycle policy in Seattle may have been made easier in comparison to Vancouver because the former City controls more municipal functions more directly. Firstly, planning in Seattle is part of the Engineering Department (except for long range planning which is an Office attached to the Mayor's Office). (Lagerwey, p.c. Sept 1990.)

None of the Vancouver City employees interviewed for this thesis felt that the bicycle programme had suffered in Vancouver because Planning, Social Planning and Engineering are all separate departments; however, there is no doubt that the VCBP is an Engineering report, and ex-BAC chair Nelson McLachlan comments that, if Planning and Engineering in Vancouver were one department, "we would be light years ahead [in the bicycle programme]".

In Seattle one might expect that having Parks and Recreation under the jurisdiction of the City would have facilitated the implementation of the bicycle programme. However, in fact both Hooning and Finnie (p.c. Jan 1991) say that the Parks Department has been an unwilling partner of the Engineering Department: the park

planners have not always passed on ideas from the BAB and SED to the parks staff responsible for implementation. In Vancouver this has been less of a problem.

4.9 Differences in Engineering Departments.

The Seattle Engineering Department appears to have been much more receptive to bicycling than its counterpart in Vancouver, and in particular to the imposition on the department of a bicycle coordinator. Josh Lehman comments about his arrival in SED, "I worked with a fabulous group who went out of their way to give me a good welcome, even though I was a complete outsider". (p.c. 1991.) Whereas, Gordon Price comments about the bicycle coordinator position in Vancouver: "My reading of it was that he didn't have the support of the City Engineer which is why the position was recommended to be eliminated". (p.c. 1991.) Certainly, when Council directed the Engineering Department to begin the hiring process for the coordinator, the Department was anticipating that the coordinator would work on non-bicycle matters after his/her first year. (Vancouver BAC Minutes, 1986.)

The Seattle Engineering Department in 1970 "was totally oriented towards motor vehicles". (Theisen, p.c. 1991.) Obviously this is now less the case. Theisen believes that this is because certain key traffic engineers, especially Bill van Gelder (the City Traffic Engineer) began to follow an example set by Theisen himself and ride bikes to work in the early 1970s. Thus they saw that the bicycle was a viable mode for short trips. The SED was also able to obtain and spend Federal and State monies for bikeways, which gave the Department itself some stake in bicycle programme activities. This may in part explain why the bicycle programme was revived in 1978 rather than just dying when the Federal and State monies ran out in 1976; and it may help to explain the department's relative receptiveness to bicycle transportation today.

4.10 US and Canadian political culture.

There are great differences in the Canadian and US political systems which go some way to explaining the different experiences of bicycle advocates in Vancouver and Seattle. The citizens/subjects of the two countries also tend to respond differently to their respective political systems, resulting in two obviously different political cultures North and South of the border.

Volunteer activity is more common in the US than in Canada according to Lipset (1985, 141), who says:

Americans are more likely to take part in voluntary efforts to achieve particular goals, while Canadians are more disposed to rely on the state.

Authors who have compared the two countries' political traditions note the stronger elitist tendencies in Canadian society which make government policies both less likely to be questioned, and more difficult to influence except at election time. (Morton, 1972.) According to Presthus (1977, 8), Canada has "a quasi-participative condition as far as the citizen's role in politics is concerned", whereas, in the USA, "perhaps in no other national political system in the world is bargaining so basic a component of the political process". (R.A. Dahl, quoted in Stedman, 1975, 121.)

This would go some way towards explaining the difference in magnitude of the activities of the bicycling interest groups in Seattle and Vancouver, although it must be stressed that within the USA the Cascades Club is exceptional: it is the country's second or third largest bicycling club, and the only one that has its own education consultant.

4.11 Different political histories of the two cities.

Finally, Seattle may be receptive to bicycle advocacy issues because it is somehow a 'progressive' or 'radical' city. It certainly has a radical political heritage which Vancouver (unlike other cities in B.C.) does not share (Schwantes 1970, Nelson 1977.)

Friedheim and Friedheim (1968, 147) assert that "the Seattle [labor] movement was more radical than most other American city-wide movements". However, this was a long time ago and it is impossible to prove any link between it and today's favourable political environment for bicycling in Seattle.

The political popularity of the various Open Space Bond issues over the years does however lend support to Abraham's assertion that Seattle is a "progressive" city, especially environmentally. British travel writer Jonathan Raban, who has been living in Seattle for the past eighteen months, recently said that it was more like Sweden under Olav Palme than a US city. (*Guardian* (Manchester) 22/05/91.) However, even if Seattle is a 'progressive' city, this can only be considered a minor contributory factor to the effectiveness of local bicycle advocates.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS.

The purpose of this final chapter is to discuss the findings of the research as they relate to, firstly, the 5 E's; secondly, policy studies in general; thirdly, the role of the planner; and lastly, what parts of the bicycle programme in Seattle might be transferrable to Vancouver and other cities.

5.1 The 5 E's.

The 5 E's are a very useful guide to anyone concerned with making a city more bicycle-friendly. They represent a progression from early bicycle programmes which were concerned almost entirely with facilities. However, the 5 E's together make up an ideal bicycle programme and it is unlikely that any one organisation or municipality would be able to implement all aspects of them, for the following reasons:

- Bicycle programmes are usually housed in one municipal department and so are seen by other municipal departments as being of less concern to them. (For example, in Seattle, the Parks Department is not always a fully willing partner with the Engineering Department in the bicycle programme.)
- Municipal jurisdiction may not extend or may be weaker where other bodies have responsibility for parks, education, driver education, or enforcement, for example.

Thus municipal departments with responsibility for a bicycle programme must, whilst recognising the interdependence of the 5 E's, also realise their own limits and use their resources to carry out aspects of the programme in which they have expertise. For this reason, also, there is always a role for non-municipal, volunteer-based organisations to carry out tasks which the municipality cannot at that time undertake. Volunteer based organisations can demonstrate that an activity is worth doing; the municipality may then take it up.

Institutionalisation is perhaps the 'E' which is most essential to the success of a bicycle programme, but also the most difficult to achieve. Ultimately, it would render a bicycle programme unnecessary since everything which that programme is attempting to achieve would be carried out as part of the normal procedure and written into the normal regulations of all organisations involved in road transportation planning, engineering and safety. However, this is again an ideal, since it requires many different organisations to change both their regulations and their procedure for applying them. The process of institutionalising bicycle transportation must therefore begin at the level of the office or department and work out from there.

This research has demonstrated that the changes required for the institutionalisation of a bicycle programme have begun to occur within the Seattle and Vancouver Engineering Departments. Examples include Bob Theisen bicycling to work at SED thereby showing other engineers that the bicycle is a viable mode for short trips; and Gord Lovegrove in Vancouver reminding other engineers to take account of the needs of bicyclists. These organizational changes can be seen as a process of social learning which is

Any lasting change in process and structure [which] come[s] from within the organisation and involve[s] far-reaching changes in awareness, attitudes, behavior, and values on the part of its constituents. (Leung, 1987, 15.)

This research has shown that the process of social learning will occur faster if there is a member of staff within the department or organisation who is able to educate other staff about the needs of, in this case, cyclists. This is one way in which a bicycle coordinator can be extremely useful.

Bicycle plans which use the 4 E's of engineering, encouragement, education and enforcement as their basis may be useful because they will clearly demonstrate that a bicycle programme is more than just a facilities building or safety programme.

However, separate bicycle plans do little for the fifth 'E' of institutionalisation, since they are easy to leave on the shelf gathering dust. Ampt (1984) showed this to be the case in Victoria, Australia, where some 11 out of 21 local bike plans have been written, adopted and then ignored. As this research has stressed, if the needs of bicycle transportation are really to be addressed then they must be written into the transportation plans, capital improvement plans, and zoning and traffic bylaws of a municipality.

5.2 Policy.

This study has shown that the impetus for bicycle policy-formulation in Seattle and Vancouver does not stem solely from a desire on the part of political and bureaucratic decision-makers to solve some perceived problem. While this has played a role, the existence of interest groups and the availability of funds have also been important. Obviously, policies on many things, not just bicycle transportation, are formulated for a similar variety of reasons.

One objective of this thesis was to explain why the bicycle policies and programmes in Seattle and Vancouver have evolved differently. In part, this has been shown to be due to different political situations and a history of greater citizen involvement in municipal politics in Seattle than in Vancouver. Policy-making, in this instance, has taken place in two definite "sociohistorical and behavioural contexts" (Leung *op cit*, 6). This, too, is typical of policy-making in general - it does not take place in a vacuum.

The different reactions of the two Engineering Departments studied in this work to the bicycle programme demonstrate the difficulty of imposing a policy on a department which does not have a stake in it. Because impetus for the policy in Seattle has come from within as well as without SED, the department has had an ongoing stake in it. This may have made the department more willing to implement the policy rather than to stand in its way. All policies which are imposed upon an implementing agency by

another organisation may suffer this difficulty. For this reason, it is essential for there to be ongoing liaison between the policy-makers and those responsible for implementing it.

5.3 The role of the planner.

In studying the way in which Seattle bicycle coordinators Mike Dornfeld and Peter Lagerwey operate, this research has highlighted one very important role of the planner: that of communicator. This role is advocated for planners by planning theorist John Forester (1989, 155) who writes suggests that planners can:

Educate citizens and community organisations about the planning process and both formal and informal "rules of the game";
Supply technical and political information to citizens to enable informed, effective political participation and negotiation;
Work to see that community ... nonprofessional organisations have ready access to public planning information, local codes, plans, notices of relevant meetings, and consultations with agency contacts, "specialists" supplementing their own "in-house" expertise.

The case study of Seattle has shown that planners can in fact operate in this manner but that in this case their doing so is conditional upon the existence of a motivated and reasonably well-organised "community nonprofessional organisation".

5.4 Vancouver and Seattle.

For a bicycle programme to be effective, the experience from Seattle indicates that it is necessary to have three (groups of) actors working together so that the voice of cyclists is heard. This research has shown that Vancouver at the present time lacks this trio of actors. They are:

- a bicycle coordinator on the municipal staff;
- a well organised and unified lobby group outside the municipal structure; and
- a group of volunteers on an Advisory Committee which is associated with the municipality.

The volunteers should deal with large scale, long term matters rather than with the minutiae of, say, facilities design which can absorb volunteer energy without much long term effect on policy. (Rodriguez, p.c. 1991.) The long term aim of all these actors should be to raise awareness of bicycle transportation to a level at which it is automatically recognised in all planning and regulation of transportation planning, enforcement and education; that is, to a point where it is institutionalised within the bureaucratic and political structure.

It was an objective of this thesis to assess the transferability of the bicycle programme in Seattle to Vancouver. Much of what has been done in terms of lobbying and municipal activities would seem to be transferable to Vancouver and to other cities in both the US and Canada. However, one important factor which is not transferable is the availability of a wider range of funding sources in the US, from state, federal as well as local governments, and also from the private sector.

If time and resources had permitted, then, it may have been more fruitful to have compared Vancouver with another Canadian city, (perhaps Montreal with its very different bicycle policy), instead of with a US city. This would be a useful avenue for further research, as it would help to reduce Canadian bicycle advocates' current reliance on records of American experience.

As discussed above, Seattle is no mecca for bicycling. However, there is a recognition by its governments and cyclists alike that the bicycle, properly integrated into the transportation planning process, can be a part of the solution to current urban transportation problems. As a case study, it provides a useful example for other city governments and groups of bicycle advocates across North America.

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INTERVIEWS.

	Date
Jane Abraham (Cascades Club Educator, Seattle)	22 May 1991
Joe Arnaud (Vancouver)	10 May 1991
Carla Black and Angel Rodriguez (Seattle)	5 July 1991
Amy Carlson (Seattle)	27 Jan 1991
Betty Crowe (Vancouver Safety Council)	27 May 1991
Durlyn Finnie (Seattle)	26 Jan 1991
Tin Hill (King County Executive)	27 July 1991
Mike Hooning (Seattle)	27 Jan 1991
Peter Lagerwey (Seattle Engineering Department)	Sept 1991
Danelle Laidlaw (BABC Executive Director)	7 June 1991
Josh Lehman (Seattle Bike Coordinator 1977-84)	27 May 1991
Doug Louie (Vancouver Engineering Dept.)	22 March 1991
Gord Lovegrove (Vancouver Engineering Dept.)	12 April 1991
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