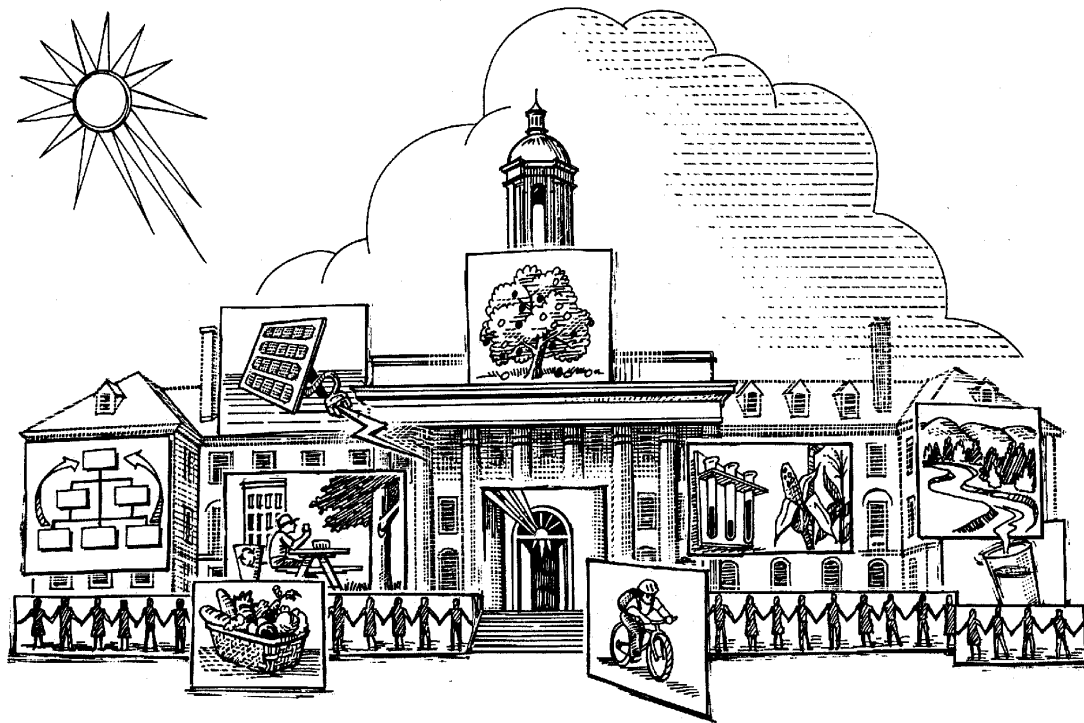


a PATH *less* TAKEN

PLANNING FOR SMART GROWTH AT THE UNIVERSITY OF VICTORIA



A Discussion Paper by
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**POLIS PROJECT ON ECOLOGICAL GOVERNANCE
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Foreword

In 1961, the University of Victoria's original Campus Plan was drafted. This plan has guided growth to the present day. The release 40 years later of *A Path Less Taken* should be another landmark in the evolution of the university. The report elucidates a new approach to planning, one that is critically needed right now. The significance of *A Path Less Taken* lies in its ability to inspire our community. Can we seize the opportunity for renewal and innovation that lies before us?

When one talks to students, faculty, staff, and citizens throughout the region, enthusiasm bubbles over for what UVic could become as a place, an institution, a community. Today, UVic is a suburban university, with a pleasant ambience, but without the vitality and diversity that is possible in the future. The challenge is to direct the inevitable pressures of growth away from the sprawl pattern that has long characterized urban development, toward a "smart growth" strategy that can transform the university into a more complete community.

To realize this potential requires little from the university. Paramount is the willingness to itself embrace those very planning processes that are taught in numerous of its own courses. Indeed, many of these are already utilized in other parts of Victoria. From these processes will come, inevitably, the vision that can make UVic a national, even world, leader.

A Path Less Taken is the creation of two committed researchers, Emily MacNair and Shannon McDonald, with the Eco-Research Chair's POLIS Project on Ecological Governance. And this is assuredly what is at stake—governing ourselves in a way that respects the place where we live, that provides a model and vision of sustainable practice for others, and that works with the citizenry who support us and who look to us for inspired leadership.

In the future history of the university, 2001 should stand as a pivotal year. The opportunity before us is a great one. It will not come again. Let us embrace it.

Michael M'Gonigle
Eco-Research Chair of Environmental Law and Policy

Executive Summary

A Twenty-First Century University – A Smart Growth Campus

Imagine a University designed with the most progressive and innovative approaches to growth and development. Such a campus would serve as a model, not only for campuses worldwide, but for all places facing the question of how to develop more sustainably.

The smart growth campus is home to experiments in green design and sustainability, placing priority on protecting and restoring local ecosystems. This campus incorporates innovative practices into all aspects of campus planning, development, operations, curriculum, teaching and research. By promoting compact growth and facilitating community participation in planning and development, the campus has become a place with a heart, a vibrant village for learning and living.

With imagination and initiative, the University of Victoria could become this campus.

Our Planning Future

Today the University of Victoria stands at a crossroads. If it wishes to lead with an eye to the future, the university must follow a path less taken. If sustainability and livability are to underpin the Campus Plan, two innovative approaches must be adopted: commitment to a transparent and comprehensive public process, and utilization of smart growth tools.

The primary question facing the University is how to go about accommodating increased student and faculty numbers while encouraging community and preserving and enhancing the environment. A smart growth approach to development at UVic does not oppose growth. Rather, given that growth will occur, it focuses on the question of *how best to grow*.

Smart growth has emerged as a response to the problems associated with urban/suburban sprawl. Regulations, public policy and dominant cultural values continue to encourage sprawling patterns of development that are destructive to the environment and the social fabric. Smart growth tackles the most challenging of our growth problems through a variety of land use and development practices that aim to maintain valuable green space, enhance the ecology of our cities and improve the quality of life in our communities.

For forty years, the University has relied primarily on the original version of the campus plan. At its conception, constraints on the ‘garden campus’ plan were minimal; land was abundant and the impacts of growth on the environment were not yet a concern. The character of the campus at present – with its low buildings and abundant space between them – is reflective of a time when land (regardless of its ecological or agricultural value) was expendable. Today the University buildings sprawl to the edges of the campus, with plans to acquire new property for further growth.

In 1998, the University recognized that the original plan was insufficient for a campus on the brink of the twenty-first century, particularly in light of projected future growth. A process was initiated to revitalize the campus plan, in part to make it more responsive to community

needs. However, the three part public process was truncated and has not generated sufficient dialogue about, or alternatives for, UVic's planning future.

Best Practices

Compact or “complete communities” is the smart growth alternative, encouraging increased density, mixed use neighbourhoods, conservation of open spaces and improved public transportation. A number of smart growth best practices for the University include the creation of a village core, ecosystem-based planning, and use of sustainable design and infrastructure. Best practices allow us to learn from successful policies and programs implemented elsewhere, and then to adapt these practices to suit the context.

Strategies for community participation are a vital smart growth best practice. When those who are most familiar with a place have the opportunity to become collaborators in planning, their involvement will lead to a future based on a shared vision of what is desirable, and what is possible.

Recommendations

There are three important steps the University of Victoria must take to become an innovator in smart growth campus planning:

- Create a temporary smart growth steering committee – a representative body to oversee a revitalized public process;
- Implement a three part public process including extensive open dialogue, community mapping and a design charrette;
- Develop a permanent, broadly representative policy body to continue the work of the steering committee and to guide the university's growth.

Introduction

In 1998, the University of Victoria embarked on a process to review and update its Campus Plan. This decision reflected the recognition that the original campus plan – created in 1961 – was no longer a sufficient guide for a growing university on the brink of the twenty-first century.¹ The update process continues, with a draft plan to be distributed for public scrutiny early in 2002.

In finding itself situated at this planning crossroads, the University of Victoria is not alone. Across the province, and indeed North America, institutions and communities are reevaluating their approaches to growth management. In British Columbia, the effort to create Regional Growth Strategies (RGS) indicates an inclination towards more complex and inclusive planning. Simultaneously, a number of municipalities and universities are integrating smart growth approaches into their planning processes.²

These efforts are motivated by the recognition that contemporary growth management practices have not addressed the necessity of sustainability. The RGS was initiated “to promote human settlement that is socially, economically, and environmentally healthy and that makes efficient use of public facilities and services, land and other resources.”³

Variations of this sentiment are echoed in local plans across Canada and the United States, including those of universities. Achieving sustainability and livability may seem like lofty goals for a community or a university campus, but they are also practical. In light of the growing costs of current land use and resource practices – growing smart is not merely an aspiration, it is a necessity.

If sustainability and livability are to underpin the University of Victoria’s new plan, two aspects of the changing landscape of planning must be adopted: commitment to a transparent and comprehensive public process, and utilization of smart growth tools. Smart growth is not only about changing rules and regulations for growth -- it also involves a fundamental shift in focus from making roads and buildings, to creating places that nurture environmental, community and individual health.

The first part of this paper provides general background information about smart growth, defining the term and contrasting it to the dominant paradigm in planning. Part II describes planning at UVic to date, both in terms of its underlying assumptions and what it has achieved. Part III outlines best practices for smart growth planning, and Part IV describes strategies for public processes in planning. Part V offers precise Recommendations for the University’s planning future.

Part 1: Understanding Smart Growth

Although universities are unique environments, they face many of the same growth management challenges as do cities and towns. Before discussing the specifics of university campuses, and the University of Victoria in particular, it is necessary to provide a definition of smart growth, and to compare and contrast smart growth practices with the dominant planning approach in Canada over the past sixty years. This background information will help to situate the University of Victoria and its planning history (and future) within a broader context.

1.1 What is Smart Growth?

Smart growth emerged as a response to the problems associated with urban/suburban sprawl. Sprawl is typically defined as low density, car-dependent development that spreads rapidly on the peripheries of existing communities.⁴ As sprawl expands outward it devours green spaces – forested and agricultural lands – that are vital to quality of life, food security and the maintenance of healthy ecosystems.

Smart growth tackles the most challenging of our growth problems through a variety of land use and development practices that aim to maintain valuable green space, enhance the ecology of our cities and improve the quality of life in our communities. Smart growth practices include: urban growth boundaries, demand management strategies for transportation, water and energy, and “development practices that minimize ecological damage and foster vibrant communities.”⁵

Within North America, accommodating growth through sprawl has resulted in metropolitan centres that struggle to stay afloat, and peripheries that are automobile dependent and that lack lively public spaces. Piecemeal, car-oriented suburban development often appears to be the most expedient and cost efficient. This misconception is attributable to the way in which current policies, planning tools and cultural attitudes encourage this brand of development.⁶ In fact, smart growth saves money over the long term, through more efficient land and resource management and lower infrastructure maintenance costs.

An alternative to sprawl is endeavouring to create “complete communities.” At the heart of this goal is the assumption that neighbourhoods are more than built forms; they are spaces for social interaction, public engagement, recreation, business and employment. Foremost in the effort to develop complete communities is the importance of changing the *processes* of planning and development.

Smart growth planning is not the exclusive realm of the expert; it is a collaborative process that brings citizens into partnership with experts. Maintaining and improving the ‘livability’ of communities requires the involvement of those who live in, and utilize, these places. As David Crombie, former mayor of Toronto, observes: “smart growth means getting everyone involved in city-building. In the United States, smart growth is made possible by coalitions that bring together all levels of government, the private sector, and non-profit groups to set goals.”⁷

For the University of Victoria, the challenges of how best to grow are similar to those facing many cities and towns. The central question is how to go about accommodating increased student and faculty numbers while encouraging community ties, and preserving and enhancing the environment. A smart growth approach to future development at UVic does not oppose growth. Rather, given that growth will occur, it focuses on the question of *how best to grow*.



Pathway near University Club, UVic

If we choose to follow a path less taken, we will reconsider many of the assumptions that underpin planning norms. In order to gain an understanding of where we need to go, it is important to know where we have been. The following discussion highlights some of the primary differences between smart growth planning, and the dominant planning paradigm.

1.2 Growth Management (Sprawl versus Compact Growth)

Throughout the majority of history, urban development has been dense and has revolved around a central business district. Business and commerce were necessarily integrated with housing for employees, making public transit and walking to most destinations feasible.⁸

Following World War II, a pattern of development emerged which facilitated the rapid spatial expansion of North American towns and cities. A shift from urban core to peripheral lands began to take place across both the United States and Canada. The reasons for this shift were multiple: housing costs in the suburbs were often lower, suburbs were perceived to be safer and less chaotic than cities, suburbs facilitated the culturally significant single family home with a large lawn, and affordable private automobiles allowed people to commute.⁹

The assumption that the growth of our cities and communities has been primarily shaped by the forces of the market (ie. inexpensive land on the periphery versus costly land in the core) is erroneous. While land prices do influence factors such as sprawl and gentrification, government policies have played a central role in determining development patterns. Government subsidized suburban sprawl during the postwar period through the construction of freeways, through the underwriting of mortgages on homes in the suburbs, and by not charging developers the full price of developing infrastructure for new subdivisions.¹⁰

Today, regulations, subsidies and public policy continue to encourage sprawling patterns of development. “The under-development of mass transit in many areas, the prevalence of single-use zoning, the policy of allowing vegetation to be stripped off in new developments,

and the culverting of streams are all manifestations of the dominant role played by public policy decisions.”¹¹ Ironically, the economic costs of financing sprawl are crippling to many local governments, as extending infrastructure such as roads, sewers and water lines increases municipal expenses and the costs to taxpayers.¹²

The results of the policies underwriting sprawl are visible in the places we live. Suburbs are primarily residential areas requiring people to commute to work or play. Generally these areas remain under-served by transit, in part because it is difficult to orchestrate effective



*Today: Sprawl streetscape,
Oakland, CA*
www.urban-advantage.com

transit for such dispersed communities. Infrastructure for cars must be increased as subdivisions expand, leading to a spiral of creating places which are less and less self-sufficient; more and more car dependent and destructive to the environment and the social fabric.

*Tomorrow: Smart growth
streetscape, Oakland, CA*
www.urban-advantage.com



This pattern explains why increasing numbers of communities are exploring smart growth practices to manage growth differently. Smart growth utilizes a variety of tools to prevent sprawl including: urban growth boundaries, development permit fees, nodal development, density bonusing, regulatory flexibility and mixed-use zoning. The primary goal is to create more compact living situations, where sprawl is limited and growth is concentrated – not at the expense of green spaces or public spaces but precisely to protect and nurture these aspects of communities.

Compact or “complete” communities offer an alternative to sprawl, encouraging increased density, mixed use neighbourhoods, conservation of open spaces, and improved public transportation.¹³ Complete communities need not be built from scratch – indeed one of the strongest arguments for the complete community ideal is that sprawling suburbs can become more “complete” by applying innovative planning approaches to development. An example of such efforts is emerging in the City of Burnaby, which is aiming to develop “urban villages” through policies that bring citizens, employment, housing, amenities and services into closer proximity.¹⁴

The rationale behind the urban village is to develop places of human scale – where cycling and walking between locations is viable and street life increases with the reduced reliance on cars.¹⁵ Improving the public life of cities and towns is an important aspect of smart growth. The term urban village is intentionally contradictory – it reflects the importance of the tension between the intimacy and familiarity of a neighbourhood, and the anonymity and diversity of the city.¹⁶ Some of the elements of urban villages are entirely attributable to planning and design, but “the future urban villages will emerge out of our existing neighbourhoods. So it’s of critical importance that we identify those things about our neighbourhoods which we value and want to preserve.”¹⁷

1.3 Making Places: The Tools of Smart Growth

Having elucidated the concept, the question remains: how to facilitate the evolution of compact or complete communities. A number of smart growth approaches are discussed in the “Best Practices” section (Part III) of this paper. However, the smart growth tools most relevant to university planning are fleshed out, and contrasted to dominant planning approaches, below.

Densification – Containment Boundaries and Infilling

“Evidence suggests...that most, if not all, of a region’s or community’s future population and housing growth can be accommodated through a combination of modest increases in density, renewal and reurbanization of abandoned or underused areas, and renovation and adaptive reuse of existing older structures.”
- from *The Ecology of Place*¹⁸

As this has already been discussed above, it is not necessary to contrast densification to the planning practices that have led to sprawl. However, one of the greatest hurdles to achieving more compact growth is public concern about the implications of density. There are many misconceptions about density, which is proving to be an increasingly vital approach to limiting the negative impacts of human settlements.



Communities may have understandable worries about the negative impacts of growth, such as the loss of open space.¹⁹ Yet it is the status quo which forces us to decide which open spaces to sacrifice for further development – which agricultural or forested areas will become the next subdivision. It is density that allows us to forego this choice and preserve green space. Density also facilitates the creation of public services and public life that are lacking in many suburban areas. As Dr. John Holtzclaw points out, there is a distinction between density and crowding.²⁰ Crowding suggests decreased

mobility and increased discomfort; one of its most common manifestations is grid-lock, a symptom of suburban car dependence. In reality, density results in the opposite scenario because it reduces the need to travel. Density increases the number of people on foot in the public space of the street, and reduces the number of people enclosed in the private space of the automobile.

The most beautiful and revered cities in the world are densely developed. By maintaining a commitment to a certain character of design, retaining functional internal green spaces and public gathering places (such as squares, benches and cafes), and reducing use of the automobile, many European towns and cities successfully transcend feeling overcrowded or overbuilt; instead they are lively, active and inviting.

Density need not mean skyscrapers packed in close proximity to one another. What it does mean is directing our attention towards more efficient use of lands already committed to development, reducing the need to build on open and natural lands on the periphery. Infilling requires thinking about how to make existing places more vibrant by placing new buildings in proximity to old ones, or reusing spaces more constructively.²¹ The ultimate goal of infill is to revitalize pieces of land that are underutilized. Public participation in identifying such sites is of paramount importance.

In some cases more effective use of land may mean building up – extra storeys added onto new or old buildings reduce sprawl and with the right architecture, need not be imposing or ugly. Design and architecture are a key element in creating buildings that are welcoming and facilitate public interaction.²²

Urban containment or growth boundaries facilitate infilling and encourage density. A handful of municipalities in British Columbia have utilized containment boundaries.²³ The state of Oregon provides evidence of the potential of containment boundaries. Prior to the establishment of its urban growth boundary (UGB), Oregon lost 30,000 acres of agricultural land per year to sprawl. As of 1996, the annual amount lost had dropped to 2,000 acres.²⁴ In addition, in cities such as Portland, mixed use communities are thriving in areas that were previously abandoned. Both of these transformations evidence the positive potential of progressive growth management.

Mixed Use Zones

Up until the early 20th century, most cities were fundamentally “mixed use” – meaning that businesses, shops and various types of housing were integrated. Zoning – a regulatory mechanism to separate land use – was initially introduced in New York City to prevent the locating of unhealthy industrial activities in close proximity to housing.²⁵ Since the 1920s, zoning has become one of the primary tools of North American planners.

In contemporary planning, zoning has been utilized to separate or “sort” land uses perceived to be incompatible.²⁶ Zoning is intended to provide a framework for where development will be sited, allocating specific land uses and densities to particular areas while often maintaining a separation between commercial and residential uses. In practice, this kind of zoning has isolated homes from commercial areas and the places we work, leading to a far greater dependence on cars than otherwise would occur.

Although zoning can be an important tool for protecting the integrity of certain classifications of land, the concurrent segregation of land uses has created a number of unanticipated problems. The wisdom of Jane Jacobs' argument for diversity in our neighbourhoods is increasingly being acknowledged.²⁷ Urban cores with mixed uses are livelier and safer than those that exclude housing. Similarly, suburbs without businesses and services lack community heart, while generating high costs in infrastructure, energy consumption and commuter time.



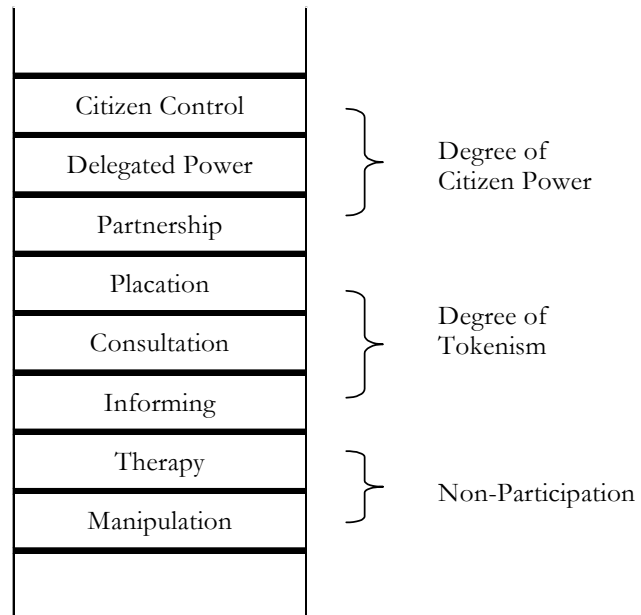
If typical single use zoning is transformed in creative ways, zoning can become an effective smart growth tool. Mixed use zones facilitate the creation of vibrant communities by bringing together commercial and residential uses which in turn enables people to get out of their cars and walk to local businesses and workplaces. Another significant aspect of mixed use zoning is the facilitation of diverse housing options – bringing together housing of various densities and costs prevents the emergence of stagnant monotonous neighbourhoods. It also enables cities like Victoria, with a serious shortage of affordable housing, to provide this housing in a cross-section of communities.²⁸

Zoning can also be used to create “spot zones,” in which the zoning is designed specifically for a particular property, thus “allow[ing] the zoning to be tailored to the ecological and community characteristics of the site.”²⁹ If zoning is utilized in this way, it takes into account the complexity of land management decisions, including such factors as ecological values.

Public Participation

For many years, a shaping force in urban development has been what planner Leonie Sandercock calls the modernist approach to city building.³⁰ While this school of thought includes a number of ideas about the form of the city, it also refers to a particular attitude towards the public. Modernist theory in planning and architecture emphasizes the knowledge of the expert. The assumption that planners were able to maintain critical distance and objectivity “enabled planners to claim that their knowledge transcended specific interests and gave them the privileged ability to determine what was, or was not, in the public interest.”³¹

Over the last several decades, public consultation has become a required element of many development processes. When physical changes are proposed in a community, there is an assortment of formal channels for citizens to comment on development plans. However, public participation often remains limited to providing input on specific projects when asked - typically during the consultation phase of development or when regulation changes (such as rezoning) are required.



Arnstein's Ladder of Citizen Participation

Providing the opportunity to respond to changes already underway, or to a previously conceptualized plan, severely constrains public participation. According to Sherry Arnstein's well-known "Ladder of Citizen Participation," this type of consultation is several rungs removed from a partnership between citizens and planning officials.³² The distinction between being involved in conceptualizing, visioning and determining the future of a community and being solicited for input is significant. The desire to limit citizen involvement often stems from a variety of concerns on the part of planners and local governments, not the least of which is that orchestrating citizen participation increases effort and time invested and risks a reduction in control of outcomes.

Nonetheless, public participation is a vital aspect of smart growth, in part because smart growth includes a paradigm shift that necessarily engages all of society. Although experts of various kinds are involved in smart growth planning, planning is conceived of as a shared responsibility. Community input is traded for the participation of communities as partners in planning, partners who are educated about and involved in shaping the places where they live. When actively engaged, citizens are able to contribute positively to planning by generating fresh ideas and perspectives.

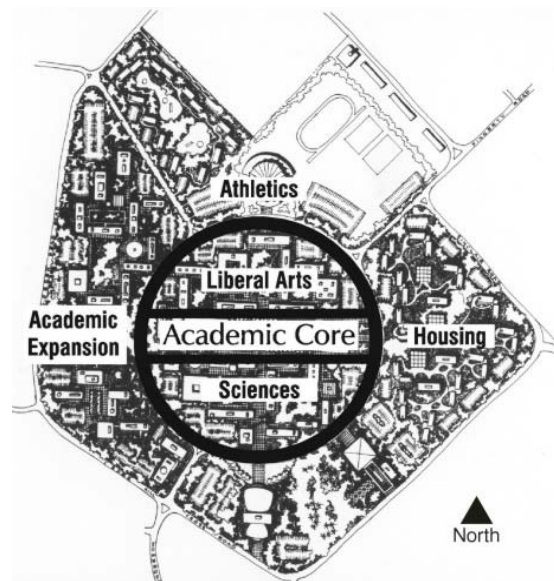
The extent to which citizens are central to smart growth planning processes becomes apparent when one surveys the organizations working in this field. Many are oriented to citizen empowerment and work to provide the tools for communities to understand and shape local planning processes. Smart Growth BC, a non-profit based in Vancouver is an example of such an organization – working to assist citizens throughout the province to lead their communities in changing development patterns.³³

Part II: Campus Planning at The University of Victoria: 1961-2001

Most of the smart growth approaches discussed in Part I are relevant to the University of Victoria. Before discussing how smart growth practices might be implemented at UVic, it is necessary to provide a history of planning at the University. This section describes how the University has addressed planning issues to date, and in doing so outlines the primary areas of interest in the University's planning future (to be discussed in more depth in Part III).

2.1 The First Plan

The original vision of the University of Victoria was developed by the San Francisco architecture firm, Wurster, Bernardi and Emmons (WBE) in 1961. This vision has been characterized as “a monument to modernism.”³⁴ The plan presents a circular central campus, circumscribed by a ring road. Academic buildings within the pedestrian-oriented ring would never be more than a ten minute walk apart, and would be grouped around the central “quadrangle” – an open meadow.



UVic in the Original Campus Plan, 1961

The plan includes rigid zoning, segregating arts from sciences. Housing, academics and student services all have discrete locations on the campus. The aesthetic underlying the plan is based on a ‘garden campus’ ideal, leading to the creation of a campus where the landscaped settings are pivotal – buildings and structures are to remain low and retiring, while courtyards, trees and walking paths set the tone.³⁵ Visual representations of the plan reveal a campus that extends to the edges of its lands with buildings spread over the entirety of the campus.

In the history of campus planning, there was but one brief departure from the manner of design proposed in 1961. Erickson Massey Architects replaced WBE as UVic's planning and design consultant in 1967. The creation of the concrete commons block and residences, and

Erickson’s suggestion to enclose the quadrangle with contiguous buildings went so much against the grain of the already established “spirit of place” that, in 1972, WBE was hired once again.

The extent to which the university has remained faithful to the original vision is self-evident. Buildings are low and most blend with the landscape – courtyards and pedestrian pathways are hallmarks of the campus, as is the central quadrangle with its open space, old oaks, fountain and benches. The original zones remain largely intact, with arts in the northern hemisphere of the campus, and sciences in the south. Residences and athletics facilities are concentrated outside the ring, close to the locations designated in the first plan. The result is a green, but now significantly sprawling, campus.

2.2 Contemporary Concerns

“Universities should play a leading role in instigating and facilitating societal change and in reducing human impacts on the environment. All aspects of universities should reflect environmental concerns, including their location, design, policies and practices, educational programs, research undertakings, and the built environment. It is important that the University of Victoria take specific steps which relate to environmental issues in their own right”
 -- from UVic’s 1996 *Strategic Plan* ³⁶

For almost forty years the Campus Plan at UVic has remained primarily conceptual, based on the aesthetic outlined in the original plan. No master plan has ever existed – meaning that aside from the general zoning, there has been no long-term designation of specific pieces of land for particular purposes. Thus planning decisions have been made on a building-by-building basis.

In recent years the implications of this incremental method of growth have become increasingly evident. When the 1961 plan was developed, the university was projected to have 10,000 full time students – today it has over 13,000 with over 3 million square feet of building space.³⁷ Over one million square feet of this growth has been added in the last decade – a tremendous growth spurt in a very short time.

Campus Facilities Growth Rates	
1962 - 1969	787, 130 Square feet
1970 - 1979	845, 202 Square feet
1980 - 1989	362, 037 Square feet
1990 - 1998	1,005, 909 Square feet

In light of projections for continued growth, the University has determined that it is time to review and update its Campus Plan. The 1998 *Plan Overview* notes that increasing growth pressures and contemporary concerns have dated the plan: “the University’s available land resources are finite and land allocation decisions increasingly affect future possibilities; the

campus community's awareness level on a variety of issues such as environmental sensitivity has increased."³⁸

A number of individual initiatives have taken place at UVic, which reflect a concern with the environment. In 1990, the University became a signatory of the *Talloires Declaration*, thus undertaking a commitment to a number of sustainability issues (See Appendix A). In 1996, the University's Strategic Plan (as distinct from the Campus Plan) included a section on "Environmental Responsibility", highlighting a commitment to review activities relating to environmental quality.³⁹ The University pledged to establish a set of environmental policies consistent with principles of environmental responsibility.

The environmental policies were never created, and the 2001 Strategic Plan currently being considered neglects to discuss the environment in its own right.⁴⁰ However, the 2001 draft does identify specific objectives related to concentrating growth at UVic, adopting sustainable planning and construction techniques and investing in a transportation demand management strategy (also discussed in the 2001 draft Campus Plan).

In November 2000, the University hired a Sustainability Coordinator, who is housed within Facilities Management. Excellent energy and water conservation initiatives have been implemented within some buildings and areas of the campus (see Appendix B). The University has also taken initial steps towards preserving several of its ecologically valuable sites through the commemorative Commonwealth endowment of Haro Grove and Mystic Vale, and the more recent recognition of other environmentally sensitive sites on campus. Overall, however, approaches to land use planning have changed little over the past forty years.

2.3 The Planning Process at UVic

The Campus Development Committee (CDC) is a twenty-five member advisory body to the President. The CDC consists of Deans of Faculties, faculty, students and selected Vice Presidents. The CDC is administered through the Office of the Vice President of Finance and Operations. The extent to which information flows out of the CDC is discretionary, and the majority of campus planning decisions have been made behind closed doors.

To date, the planning process at UVic has focused on accommodating academic needs for increased square-footage, as these needs arise. Proposals for new buildings have a long history of being considered on a case-by-case basis by the Campus Development Committee. Decisions about land use planning have been made primarily by a core group within the CDC -- the VP Finance and Operations, the head of Facilities Management and external advisors. In effect, this structure means that University planning *policy* is subsumed by campus *operations*. This inverted method of planning has continued up to the most recent building site decisions made this year.

Since the last wave of development in the early 1990s, the Campus Development Committee has initiated a process to revitalize the campus plan, in part to make it more responsive to community needs. This has included increasing the membership of the CDC to make it

more fully representative of the campus, and initiating a public consultation process in conjunction with the update of the campus plan.

The plan for public process involved three phases: issues identification, the formulation and evaluation of alternatives and campus plan preparation (during which time the public would be able to comment on draft plans).⁴¹ This first phase was completed, but was limited in its scope and efficacy. The second phase did not take place, and the public input on the draft plan, now approaching three years since the beginning of the process, is scheduled to begin early next year.

The Issues Identification phase took place between December 1998 and September 1999. Information gathered during this time was to be used “to aid the committee in refining and expanding the issues and assumptions to be used in developing and evaluating planning alternatives for further review.”⁴² As part of this first phase, a background information document was made available, and approximately 850 people received this document.

The initial plan called for questionnaires, focus groups and public forums. However, the focus groups were not held, and only one open public discussion occurred. A website was developed and feedback was collected through written submissions, phone calls and meetings. Out of nine meetings, seven were for specifically designated groups (for example mayors and councillors, environmental groups, the Deans Council), one was an open meeting for downtown businesses, and only one was an open public forum. In total, 42 written responses were received and 150 people attended nine meetings.⁴³

Information from these input sessions was gathered and summarized in an *Outreach Document*. Rather than utilizing this data for further public process, the document was kept within the CDC. Similarly, in May of 2000 a Growth Strategies document was produced but was not released for public discussion. In an effort to generate the dialogue absent from the formal process, the UVic Student Society (unilaterally) decided to make the Growth Strategies public in the fall of 2000.

A response document, including recommendations, was prepared by community members within and around UVic, and presented to the CDC for consideration.⁴⁴ The document expressed concern that the Growth Strategies had not adequately represented the feedback received during the Issues Identification phase. In addition, the response questioned the lack of contact with the broader Victoria community.

The second phase of the public process – the preparation and evaluation of alternative plans which were to go through a campus wide feedback process – never occurred. Instead, the CDC has moved ahead to phase three and produced a draft plan (prepared in February 2001) to be made available for public feedback early next year.

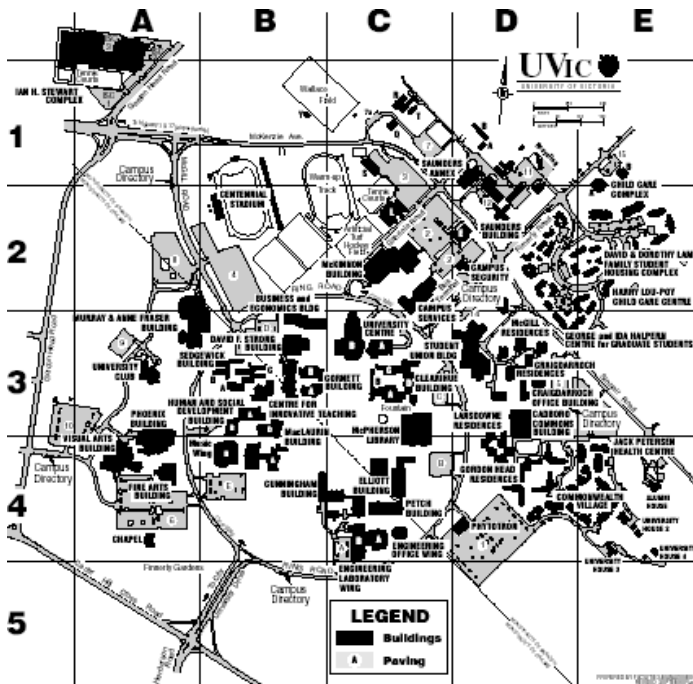
2.4 Land Use at UVic

The primary emphasis in land use decisions at UVic has historically been (and continues to be) providing the space for academic and research facilities. The first Planning Principle in the new draft plan reiterates this commitment. Maintaining a large degree of discretion for

university decision makers and operational flexibility in accommodating growth has remained a priority over time. The result of this planning process (and the implicit underlying vision) will inevitably be continuing sprawl.

This is reflected in the approach to the largest remaining undeveloped land the University owns, a 30.7 acre open space on Cedar Hill Cross Road, known as the CJVI lands. In the latest draft plan, it is stated that “CJVI will be considered for a variety of future uses including academic expansion, faculty and student housing, sports and recreational facilities, parking and special opportunity uses which may present themselves.”⁴⁵ This approach allows the University to view its land resources as open to any potential building use without constraints. No consideration is given to alternative values attached to the CJVI land, despite a previous proposal (see box on page 18) to utilize its agricultural and green space potential in a hands-on community-wide project that would have included community gardens.

Where constraints do exist, in zoning and building heights, they are intended to retain the aesthetic of the campus. Buildings at UVic remain under 4 storeys – many are one or two storeys above ground. The most recent buildings to be sited at UVic (yet to be built) are the Discovery Parks Inc. building and the Continuing Studies Building. The Discovery Parks building will be two storeys and 30,000 square feet.⁴⁶ The Continuing Studies Building will be three storeys.



UVic Campus Map, 2001

Of the new academic and housing sites that have been identified in the latest draft plan, none of the proposed buildings are projected to be over four storeys. The possibility of taller buildings is mentioned, but no integrated vision is established. Instead, continuing to accommodate growth in low sprawling buildings translates into the need for further land

acquisitions. A central Planning Principle in the draft plan states that outward expansion is a priority “in order to ensure that future growth is not limited.”⁴⁷

Zoning is the second constraint on land use decisions, and provides the only clue for how future building sites were selected in the draft plan. UVic's internal zoning - much like typical municipal zones - is use-based and geared toward the segregation of academic disciplines and ancillary services. Ring Road provides a central zoning instrument dating from the 1960s. The sanctity of these zones, including that of Ring Road, remains embedded in UVic's planning approach.

The new draft plan puts forward a designated area of the campus for future mixed use development. The mixed use area would be in the relatively less developed south west quarter of the campus and “special attention [would] be given to fostering a mix of uses within individual structures, integrating general purpose classrooms with other departmental functions and providing nodes of student activity to complement those in University Centre and nearby structures.”⁴⁸

2.5 Campus Green Spaces

Missed Opportunities in Greenspace Research

1994 – The Trillium Project

A one year, three-part proposal with the endorsement of five professors, the Trillium Project was intended to provide a comprehensive botanic inventory to be taken into account by the Campus Development Committee and incorporated into the campus plan. A number of reports were completed including studies of native vegetation at UVic, a Garry Oak meadow on campus and the restoration of Mystic Vale. The proposal did not receive funding or a response and the reports were never acknowledged.

1994 / 95 – Camassia

A student group proposed a Learning Centre for Sustainable Living on a portion of the CJVI (old orchard) land. The proposal included hands on learning and research opportunities and partnerships with Camosun and local elementary schools. The proposal was denied, the house on the property that was proposed as the project's Centre was knocked down, and this (previously) agricultural land is now slated for undetermined future development.

The University of Victoria is home to a number of valuable green spaces. The Capital Regional District's *Regional Blue/Green Spaces Strategy* calls upon the University to “incorporate green/blue space values into the assessment of development projects and land use decisions” and to inventory blue-green areas on campus.⁴⁹ Such an inventory has not been undertaken and research projects such as the Trillium Project (see box) have not been encouraged or utilized in planning.⁵⁰ There are, however, numerous resources (voluntarily compiled by professors, students and local organizations) to assist in understanding the ecology of areas on the campus.

A number of green spaces are mentioned in the latest draft plan. Mystic Vale and Haro Woods are both classified as Environmentally Protected Areas. Several other areas have been identified as Environmentally Sensitive: University Gardens, Garry Oak Meadow and Bowker Creek.

Although their ecological value has been officially recognized, Environmentally Sensitive areas lack special protection. The University has committed to conducting an environmental study to determine preservation boundaries around Bowker Creek, which is particularly significant as the University contains the creek headwaters. Although the restoration of this creek system is of broad concern to surrounding communities, future development is proposed to take place on either side of the creek.

Development is also proposed for the Cunningham Woods, an area that has been identified as environmentally significant for academic and community purposes. A map of academic use of environmentally sensitive areas was submitted to the CDC by Biology professor Patrick von Ardekas in February 2001. The map shows that Cunningham Woods (and five other areas) are used by a number of Biology and Environmental Studies classes, as well as by off-campus community groups. Mystic Vale, Haro Woods and the Garry Oak areas are all in need of ecological restoration. To date, the only action taken towards restoration has been the employment of a consulting firm to develop a five-year management plan for Mystic Vale.

2.6 Campus Housing

As a university with over 13,000 full time (FTE) students, the University of Victoria's current housing provision for 1,850 students or 13.5% of its FTE is unusually low. UVic provides no housing for faculty. In September 2001, the *Martlet* reported that approximately one thousand students are on a waitlist for campus residences.⁵¹ The seriousness of this situation is compounded by the current shortage of affordable housing in Victoria.⁵²

The University acknowledges this problem in the latest draft plan and intends to build more housing within the next several years to accommodate in-coming undergraduate students. The draft plan discusses a number of options with no clear commitments in terms of housing density. Housing at UVic has typically been low density, with three story residences or cluster housing as the norm. Outlined in the new plan is low-rise cluster housing which will accommodate a total of 720 students in 15 buildings. If the University continues to construct low density housing, it will eliminate an unnecessarily large portion of its limited land resources. A number of alternative smart growth options could be explored for future denser housing development.

2.7 Parking and Transportation

There are currently approximately 4,600 parking spaces at the University of Victoria. Parking consumes approximately 38 acres of University land. A total of 23 parking spots are devoted to carpooling. It is currently more expensive for drivers to access parking occasionally (\$5.00/day) than to purchase a monthly (\$25.00) or annual (\$129.00) parking pass.⁵³ By making it more expensive to drive less often, the University removes the incentive for drivers to keep their vehicular trips to the University to a minimum.

The new draft plan indicates that the University plans to eliminate parking lots from inside the ring road and seek new parking sites elsewhere. Currently parking is accommodated in the least expensive and most land intensive way, with surface parking lots. While parkades are considerably more expensive to build, current space limitations suggest that parking can no longer be land intensive. Higher parking fees would compensate for initial expenses. In light of projected growth for the University, additional space for parking will be an issue, unless the University is able to facilitate a considerable shift to other modes of transportation.

In 1999, at the initiative of a single student, the University introduced the U-pass, a mandatory transit pass for students (the cost is incorporated into student fees). The pass was a joint effort by administration, UVic Students' Society, and BC Transit and it has significantly increased ridership and reduced single occupancy vehicle trips. However, the pass does not currently include faculty and staff, and has not eliminated the need for further initiatives.

The latest draft of the Campus Plan puts forward a variety of options for dealing with parking and transportation in the future. The draft plan indicates that the University is committed to undertaking a Transportation Demand Management Plan. However, discussions of this Plan have stalled for almost two years. The plan is intended to consider a variety of strategies for reducing traffic and the land base required for parking.

Part III: Best Practices – Smart Growth Strategies and the Campus

“ We propose a vision of a growing, dynamic campus which steps lightly upon the earth and satisfies additional demands for energy, transportation, and resources through increased efficiency rather than increased consumption.”

- from *Blueprint for a Green Campus, University of Colorado, 2000*

www.colorado.edu/ecenter

Best practices allow us to learn from successful policies and programs implemented elsewhere; they serve to inspire and to provide examples of what is possible. In the context

of this discussion paper, best practices refers to smart growth approaches for campus planning and development which could be implemented at the University of Victoria.

Setting the Stage with Commitment:

Emory University, Atlanta, GA

In March of 2001 the Emory University Senate passed an Environmental Mission Statement and a motion to implement a Task Force on Environmental Policy.

“We, the Emory University community, affirm our commitment to protect and enhance the environment through our teaching, research, service, and administrative operations. We seek to foster a community that sustains ecological systems and educates for environmental awareness, local action, and global thinking. We seek to make environmentally sound practices a core value of the University. Our fundamental principles are to:

- Incorporate environmental concerns as a significant priority in university decision making.
- Seek alternative practices and procedures to minimize negative impacts on the environment.
- Conserve natural resources and restore environmental quality.
- Protect the biodiversity of our region and serve as a living library and habitat for local species.
- Consider the social and economic impacts of Emory’s environmental policies and foster participatory process in developing these policies.”

www.secondnature.org/programs/profiles.nsf

Utilizing best practices requires considering alternatives, selecting those that best suit the needs of the University and then adapting and shaping these practices to suit the context. Best practices comprise the heart of this paper because it is intended to stimulate dialogue and to encourage UVic to become a leader in smart growth.

Some of the best practices discussed below have been employed at UVic, but not consistently or to the fullest extent possible; others have been discussed but never implemented, and still others may fuel investigation into what is possible in the University’s development future. These best practices are not a complete survey of the available options, but they do provide a sense of how UVic planning could become smart growth planning.

3.1 Campus Smart Growth Best Practices

A) Comprehensive, transparent and inclusive public process

Smart growth planning is grounded in public processes that engage citizens from the beginning and over the long term. Citizens are an integral part of developing plans particularly in the early stages when a vision is being formed. Because citizen participation is so central to the objectives of smart growth planning, Part IV of this paper is devoted to describing best practices for participatory processes.

In 1998/99, the University of Calgary faced a planning situation remarkably similar to that of UVic. Although a long-range plan existed, it was dated (from 1967) and lacked conformance mechanisms. In addition, the university did not possess a coherent vision for its development future. In contrast, the new Campus Community Plan focuses on anticipating the future needs of the campus to avoid piecemeal development. It allows the University to project building needs with budgets and schedules and improves its credibility with lending institutions, donors and the external community.

The most remarkable aspect of the University of Calgary's new Campus Community Plan is the extensive citizen / community participation which underwrites it. The University has endeavoured to involve all interested parties through a variety of participation tools including:

- Public forums and information sessions;
- Interviews and regular meetings with deans, faculty members, staff, students, surrounding communities, municipal representatives and provincial representatives;
- Design charrette;
- Awareness campaigns on and off the campus through print and electronic communications and a media campaign;
- Partnerships with the City, the Province and local citizen groups on projects such as a wildlife study, and meeting traffic reduction goals.

The web-site for the Campus Community Plan is evidence of the University's commitment to creating a transparent process.⁵⁴ It includes a summary of the now completed plan (which took a year to develop), an explanation of the public process and responses to previously raised community issues and concerns. Although the campus community plan has now been completed, the web-site offers a feedback form for continuous involvement.

B) A Complete Community

Efforts to create a complete community at the University of Victoria would benefit students, University employees and the surrounding municipalities. The campus would provide more affordable housing for in-coming and visiting students and new faculty. This, in turn, would better enable the University to attract new students and faculty. Increased housing would support more small businesses and services and the development of a village core on the

campus. A village core, particularly one with a mixture of housing, amenities and academic buildings, would generate a livelier and more dynamic community.

Both the University of British Columbia and Simon Fraser University are endeavouring to make their campuses more compact and community-oriented. UBC currently provides housing for 7,300 students out of 32,000 (23%). The UBC official Community Plan aims to house 12,700 residents by 2006 and 18,000 residents by 2021.⁵⁵ In addition to increasing the available housing units, the University of British Columbia has committed five million dollars over the next five years to improve student facilities including social spaces. Both of these universities are working with local municipalities to further the goal of becoming a more complete community. Simon Fraser University has embarked on developing its New Community, with plans to house 10,000 people on Burnaby Mountain.

Burnaby Mountain Community Corporation states that one of the primary objectives in undertaking community development is to “change SFU from a ‘commuter campus’ to a more complete community with ‘around the clock’ activities.”⁵⁶ SFU is committed to creating diverse housing including townhouses, condos, rental apartments, cooperatives and live/work units. It is hoped that the result be a vibrant and attractive place to live.



Design for public space in the East Neighbourhood Plan (SFU)

C) Concentrated growth in areas already developed – A Village Core

Infill makes use of already existing infrastructure, promotes pedestrian traffic and allows for the preservation of valuable green spaces. Rather than creating an increasingly sprawling suburban university, infill would contribute to the evolution of a more intensive hub that would serve as a focus for the campus community. A village core would generate vitality and energy all hours of the day and all days of the week. Currently, the campus functions much like other suburban locales – it is difficult to accomplish simple errands within walking distance. A village core would decrease the resulting automobile traffic, significantly improve the appeal of the university, increase the opportunities for contact between members of the campus community, and increase the linkages between the University and the surrounding communities. It also has the potential to generate economic revenue for the University.

Infill encourages re-developing buildings that use space inefficiently. The University of Victoria has several buildings that were not intended to be permanent, providing an excellent opportunity to utilize space more effectively; parking lots offer similar opportunities.

An important aspect of infilling is ensuring that the campus and surrounding communities are included in land use decisions. Because infilling is intended to generate more community life and energy, it is important to maintain areas which are currently valued. Input from campus users also allows those spaces that are underutilized or poorly designed to be identified. In working to determine where infill might occur, planners and community members are able to develop specific visions of what a village core would look like, and how it might function.

D) Ecosystem-based / Nature-led development practices

Cleaning Up their own Backyard:

Tufts University, Boston, MA

Tufts University has made a commitment to clean up the Mystic River – a 76-mile river which runs through the campus – by the year 2010. Not only does this commitment regenerate local ecosystems, it also benefits the university in several ways:

- Generates strong partnerships with a variety of organizations including state agencies, the EPA and a local nonprofit, the Mystic River Watershed Association (MRWA);
- Provides experiences in environmental education and research to Tufts students;
- Allows the university to enrich ties with the local community by providing citizen training about watersheds;
- Involves faculty and students in solving a specific watershed management problem requiring professional expertise;
- Enables Tufts to be a “better institutional citizen” by improving its own environmental practices.

www.tufts.edu/communications

By situating planning and development within ecosystem functions, ecosystem-based planning ensures that development does not destroy valuable green spaces, respects natural boundaries and ecological functions, and enhances the integrity of ecosystems and communities.⁵⁷

Undeveloped areas such as forests, headwaters and lands with agricultural potential are assets which would be optimized through ecological restoration.

If a site is appropriate for development, the building and infrastructure must be designed to limit negative impacts and to take advantage of natural assets. Some key strategies include: retaining natural features, keeping impervious surfaces at a minimum (to increase water filtration), maintaining vegetation buffers between built areas and waterways, maintaining natural water corridors and utilizing solar and

climate based design.⁵⁸ By enhancing its green spaces and ‘green infrastructure,’ the University could decrease the need for sewers, reduce flooding, filter and clean storm water run off, and recharge ground and surface water.

The need to acquire information about the ecology of the campus provides an excellent opportunity to forge partnerships between interested campus departments and local citizen groups. A few of the groups who might be interested in this include: Friends of Bowker

Creek, Garry Oak Meadow Preservation Society, Mt. Tolmie Conservancy Association, Restoration of Natural Systems Program, Victoria Natural History Society and relevant University departments.

UVic has a golden opportunity to advance its commitment to sustainability by working with community groups to restore degraded ecosystems and to prevent the destruction of areas not currently protected. The University has hired a consultant to develop a five year management plan for Mystic Vale; a step in the right direction. Smart growth requires us to expand this initiative, and in doing so, to take advantage of the resources available in the expertise of professors and students.

E) Replacement of single use zones with mixed use and spot zoning

Smart growth uses zoning to promote innovative development. Rather than employing zones to separate land uses, zones can be used to protect green space, provide limits on

Creating Community through Mixed Land Use:
Simon Fraser University, Burnaby, BC

On November 16, 1995 the Provincial Government, the City of Burnaby, and Simon Fraser University (SFU) announced the pending transfer of 332 hectares of land outside the University's Ring Road to the City of Burnaby. This transfer resulted in the formation of the Burnaby Mountain Conservation Area – one of the most significant parkland reserves in the Lower Mainland Region.

In exchange for this transfer, the University received the right to develop property within the Ring Road for a mix of residential and commercial use, as well as for support services and facilities potentially suitable for both university and non-university needs. It also received approximately \$15 million for the land.

The 1995 Memorandum of Understanding, signed by the City of Burnaby and Simon Fraser University, is directed towards achieving the following:

- A dedicated park and conservation area for the City of Burnaby. This community resource is one of the largest urban parks in the Lower Mainland and is of significant environmental and recreational value.
- Increased opportunities for academic enhancement and campus development for Simon Fraser University.

www.sfu.ca/bmcp/memoofu.html

development and encourage mixed use. Negotiation with neighbouring municipalities can aim to restructure zoning regulations affecting campus decisions.

The proposed mixed use zone on campus is a good start. However, a community-wide discussion of where mixed use zoning would be most useful would ensure that zoning in other areas of campus does not preclude similar mixed use. For example, a mixed use development in proximity to the Student Union Building and bus loop with year round, evening and weekend social opportunities would increase the economic feasibility of longer hours and more frequent transit service to campus. In addition, a village core would draw

more visitors, increase contact with the broader community and make the campus more attractive to potential students and faculty.

F) Growth management through demand management

Demand management seeks to reduce the demand for a service or resource, rather than automatically increasing supply to meet rising demand.⁵⁹ Energy efficiency programs and improved transit alternatives are examples of demand management. This is an economically viable alternative to costly infrastructure expansion and upgrading. Ultimately, demand management means altering resource consumption patterns and increasing available alternatives.

The University of Victoria has had a longstanding commitment to create a Transportation Demand Management Plan, and this is a significant first step. However, it remains unclear when this Plan will be developed and implemented. Solid commitments through goals and targets would ensure changes take place. In its Official Community Plan, the University of British Columbia has stated targets for Transportation Demand Management, including matching the GVRD goals of reducing single occupancy vehicles by 20%.⁶⁰ The University has outlined in detail how it will reach this goal.

In response to its transit and parking concerns, UBC has created the TREK Program Centre. The TREK Program is working to develop a U-TREK card which would provide not only a transit pass, but also access to ride-matching, night-time on-campus shuttle service, subsidized vanpool fares, reduced car and vanpool parking prices, secure bicycle lock-up, reduced prices for occasional day parking and even discounts with local merchants.

G) Fostering green design & technologies

Ideally, every smart growth building should be a “green building.” This means looking beyond traditional approaches and embracing new cutting edge sustainable technologies (such as water reclamation systems), architectural design (i.e. solar design), and seeking innovative ways to retrofit and recycle. Green buildings are designed to fit their site and to foster community. In addition, green buildings use energy, water, land and materials efficiently, and are designed to endure.⁶¹

Green design is economically beneficial in the long run; some initial costs are lowered, and long-term expenses such as energy consumption can be reduced. Smart energy designs, reduction of impervious surfaces, use of native landscaping and reuse of building materials can all lead to savings. For example, the Engineering Laboratory Wing at the University of Victoria was able to cut capital costs through design of a high-performance building envelope that allowed the perimeter heating system to be eliminated.⁶²



CK Choi Building:

University of British Columbia, Vancouver, BC

- Completed in 1996, and has received multiple architectural and building awards for green design.
- Flushless composting toilets save 1,500 gallons of water per day. Compost is distributed over the building's gardens.
- Constructed using a large proportion of recycled materials.
- Cooling and air exchange through 100% natural ventilation.
- Energy-efficient design reduces UBC's electricity use by 192,000 kilowatt-hours per year, the equivalent of the amount of energy used annually by 19 single family homes. This provides a savings to the university of \$9,600 per year.

www.iar.ubc.ca/choibuilding/index.htm

Eco-Residences:

McGill University, Montréal, QC

- A student-initiated project that houses 90 students.
- Utilized a design charrette.
- Residences retrofitted to include solar energy, greenhouse air filtration, wastewater treatment, rainwater collection system and energy efficient lighting.
- Many of the original building materials were recycled (doors, windows, stairs, piping & concrete).
- Land surrounding the residences has been converted into communal and individual gardens.



Green design projects have the potential to bring considerable positive recognition from the media, the surrounding communities and even provide national or international exposure. In a campus setting, green buildings have immense potential as learning facilities and models for the wider community.

H) Adopting an interdisciplinary approach

Smart growth is not a single strategy towards planning and development. It requires taking into account the context of the site and the surrounding community in determining how best

to grow. While many educational facilities such as universities discuss the increasing importance of interdisciplinary education, smart growth demands an interdisciplinary approach at all levels of problem solving. No one person or group is an expert in smart growth.

An interdisciplinary approach requires “a greater scale of information gathering, more integration of information and greater cooperation among information providers, both amateur and expert.”⁶³ Integrating ecological, social and economic information into planning decisions means that planning will benefit the community in the long term. Adopting such an approach is part of committing to an open and comprehensive public process that views community members as partners and therefore as potential experts on a variety of subjects.

3.2 The Benefits of the Smart Growth University

“Universities are increasingly called upon to play a leading role in developing a multidisciplinary and ethically-oriented form of education in order to devise solutions for the problems linked to sustainable development. They must therefore commit themselves to an on-going process of informing educating and mobilizing all the relevant parts of society.”

- 1994 COPERNICUS University Charter for Sustainable Development ⁶⁴

Beyond the environmental implications of current planning practices, there are a number of other concerns that the University of Victoria must take into consideration when determining the future form of its campus. There are considerable practical advantages to utilizing the smart growth best practices that are described below.

The Role in the Community

As public institutions with large land bases and tremendous human assets, universities have a special responsibility to the wider community and, it could be argued, to society as a whole. For the University of Victoria, a primary consideration is the practical issue of how to strengthen and improve its connections with the surrounding neighbourhoods. External support for the University will vastly increase if it is viewed as a positive contributor to the fabric of the larger community. Offering a dynamic place that is appealing to visitors will improve UVic’s reputation and its relationship with the region.

The Comparative Advantage

In a world of increasing competition, both for students and for faculty, the University of Victoria has an excellent opportunity to become a campus with a reputation for smart growth and sustainability. To lose valuable green space with outdated planning not only destroys places of ecological value, but undermines the University’s true growth potential. Students and faculty will select a campus with a dynamic and exciting feel to it over a commuter campus. In addition, the University can increase its hands-on learning

experiences by offering a living lab, not only for ecosystem study and restoration, but for new community-oriented strategies for sustainability.

Financial Advantages

While there will be an initial investment of time and money in re-visioning the University campus, smart growth strategies have long and short term cost savings. In the areas of energy, water and infrastructure, UVic could reap financial rewards through reduced capital and operational costs.⁶⁵ There is also a high price to be paid in being behind the times. A University that is perceived to be cutting edge is more attractive to students and faculty, while increasing its potential for receiving foundation, government and private funds for innovative research and development.

Part IV: Best Practices – Strategies for Community Based Planning

“Creating sustainable places is very much a process of thinking about and visualizing the future. It is as much a process as an outcome. It is about soliciting the input and participation, ideally, of all individuals and groups in the community. It is about carrying on a sustained dialogue about how the community wants to grow and evolve.”

- from *The Ecology of Place* ⁶⁶

Bringing citizens into a participatory process as partners eliminates much of the potential conflict and dissatisfaction that emerges through a top-down consultation approach. When those who are most familiar with a place have the opportunity to become collaborators in planning, their involvement greatly enhances the end product.

Different participatory approaches have different strengths and weaknesses. The processes that allow for the most in-depth participation generally do not include large numbers of people. However, tools such as surveys, open houses and town meetings - those most often employed in contemporary planning - severely constrain the opportunities for dialogue and input. For citizen planning processes to be effective, it is helpful to utilize a variety of participatory tools at different stages.

Formulating vision statements, principles, goals and design plans is more effective and efficient with intensive participation from a limited group of representatives. However, for the process to be democratic, this group must necessarily take into consideration information and submissions gathered from a broader citizen base.

In the sample process described in this section, community mapping sessions and design charrettes would maximize the number of perspectives taken into account, as well as allowing for more in-depth collaboration. Keeping citizens involved in planning over the long term requires tools such as a citizen advisory committee or an indicator and monitoring project. All of these approaches are described as best practices below.

4.1 A New Policy Process

When creating community-based planning processes there is rarely, if ever, a single identifiable community. Instead there are a variety of communities, often with differing interests and objectives. Bringing these communities into dialogue is one of the challenges of effective public process. However, community-based planning processes have been successfully implemented in a variety of contexts, including universities. Models exist and practitioners are available to manage processes effectively and efficiently.

Before UVic can create an inclusive process, it is vital to have a representative body or committee to manage and, indeed, invigorate the process. With planning and policy

currently subsumed under Facilities Management (with its inherently operational orientation), developing such a committee (see page 30) is the first necessary step to remedy this situation.

Encouraging the participation of all communities will increase satisfaction with the process and produce a superior plan with greater endorsement. University communities have a particular advantage in that many of the “stakeholders” bring years of training and expertise to the planning process. Before discussing the best practices for community involvement in planning, it is useful to chart the various communities that would have an interest in the UVic planning process, and to identify some of the positive attributes each would bring to the process.

Internal Campus Community	
Board of Governors & Administration	Visible and meaningful commitment to a new paradigm via institutional design, policy creation and investment of resources
Staff	Expertise, pragmatism and long term investment
Faculty	Innovative and theoretical thinking/research and curriculum
Students	Energy, idealism and creativity
Beyond the Campus	
Neighbours	Knowledge of area, long term investment and understanding of context within which university exists
Alumni	Experience of place with perspective of change over time
Community Groups	Range of expertise, local knowledge and long term investment
Local Governments	Understanding of constituency surrounding university, knowledge of regulations and broader planning context
Provincial Government	Range of expertise, resources
Other Universities	Common context, potential to provide models and experience-based knowledge

4.2 Community-Based Planning Best Practices

“Wherever it is found, planning provides opportunities for people of different persuasions to assemble respectfully around shared concerns, organize, design their own formats, offer critique, identify the common good, and take responsible action together. Thus in every instance, planning is potentially a democratic practice.”

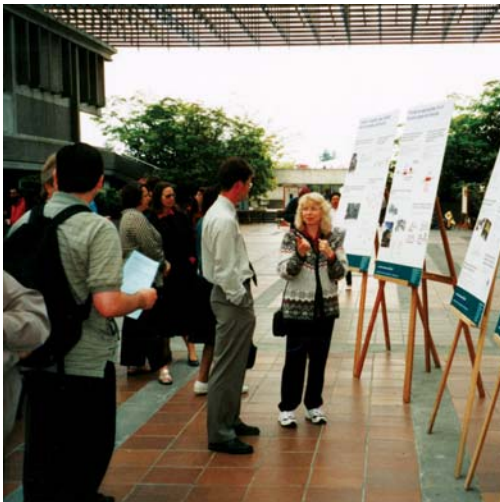
- from *The Postmodern Opportunity for Planning* ⁶⁷

Of the numerous possible community-based planning processes, a select few are profiled in detail below. The discussion of possible approaches to process are structured around the second Recommendation at the conclusion of this paper; thus they are discussed as phases within a single process.

Stage 1: Open & Maintain a Dialogue

“An informed public is essential to the organization of planning, as well as to the effectuation and activation of plans. Any type of planning activity attempted in a vacuum will in all probability fail.”

- *Citizen's Guide to Planning* ⁶⁸



A variety of methods can be used to facilitate dialogue: tours, workshops, interviews, indicator programs, and advisory committees. This is the key first stage to creating an open and democratic public process. Generating dialogue ensures that participants develop relationships, build a knowledge base, and trust the process. It also allows for an exchange of ideas that will vastly improve the final product.

Exchange Information: Workshops and Tours

During a public process, information should flow in multiple directions. If citizens are viewed as partners, it is necessary to provide them with all of the information planners and officials possess. In exchange, citizen groups will offer their knowledge and expertise to the process. Workshops, informational meetings, panel discussions and guided tours all provide an opportunity for dialogue. Guided tours are a particularly effective way to provide new insights into familiar places.⁶⁹ In the case of the University, information could be shared amongst staff, faculty, students and off-campus citizen groups.

Ensure that Dialogue Continues: Websites and Citizen Advisory Committees

In addition to ensuring that citizens are able to participate throughout the formal public process, when this process ends, there must be ongoing avenues for input. A permanent regularly updated website and newsletter (including feedback mechanisms) is one tool for keeping citizens informed throughout public processes.

An advisory committee with broad representation will allow citizens to remain involved over the long term. Such a committee should play an ongoing role in the planning process; it may serve a number of purposes from liaising between planners and the broader community, to undertaking specific research tasks, or advising and making recommendations. In order to be effective, the purposes, structure and functions of such a committee require careful consideration. An effective advisory committee can assist in ensuring that processes remain inclusive and on track

Stage 2: Initiate A Community Mapping Process

Community mapping is an information gathering and participative tool that facilitates planning decisions based on community concerns and interests. Map-making is increasingly being utilized by citizen groups to “reflect community values and support socially and ecologically sustainable planning.”⁷⁰

Community mapping brings a visual, hands-on element to discussions concerning community assets and liabilities. Mapping processes engage citizens in articulating and exchanging visions for the future of their community by eliciting information about individual and community land uses. Community mapping has the potential to reveal diverse perspectives about the same places. Dr. von Aderkas’ map, illustrating UVic Biology and Environmental Studies class use of campus green spaces, is a good example of the kind of information mapping reveals.⁷¹ The map renders visible uses of these spaces that might otherwise have not been evident to planners, administrators and the broader community.



Approaches to Community Mapping

The first decision to be made when undertaking community mapping is the kind of information that will be most useful. Mapping can incorporate a wide variety of data, both statistical and subjective. Community maps can capture information such as which places are poorly utilized, or which places provide important recreational or learning opportunities.

A range of mapping approaches can be employed to encourage participation from different groups. Accessible and affordable mapping techniques include hand drawn mapping and overlaying information onto base maps. A number of mapping projects, including “green” and bioregional maps, have incorporated new information onto base maps. GIS (Geographic Information Systems) mapping techniques can also be used where tools are available. GIS allows complex data to be entered into computer systems, but requires training volunteers to collaborate in using these tools.⁷²

Community mapping is frequently attached to events such as “mapping days,” which bring people together to discuss and generate maps. Mapping approaches can be tailored to suit particular groups and engage people who would otherwise be left out of planning processes.

Victoria is an ideal place to utilize community mapping processes because a number of communities have already participated in this approach. The non-profit organization Common Ground has initiated Community Mapping Days, and has been involved in successful mapping projects in a number of neighbourhoods including James Bay, Fairfield and Burnside Gorge.⁷³

Stage 3: Undertake a Design Charrette

“Charrettes kill many birds with one stone: they help the community solve problems and build consensus; they test new ideas and policies that are generated within the community, the design professions, or the university; they seize on forgotten places and nascent possibilities; they build according to how the community understands itself; they bring to town and campus leading designers that would otherwise be unaffordable; and they stimulate and bring together faculty and students while putting to good use university resources and expertise.”

- *Sustainable Urban Landscapes: The Surrey Design Charrette* ⁷⁴

A design charrette charges participants with the task of bringing a complicated design project to completion within a specified time frame.⁷⁵ Design charrettes involve a clearly defined design problem for a specific location and engage design “teams” – generally consisting of design professionals, experts, and citizens – in producing coherent designs that reflect the goals and objectives brought to the table in the design brief (defined below). Officials and citizens work together towards a specific goal - from developing a long term vision to site specific plans.

Design charrettes aim to solve design and planning problems within a strict time frame (usually four to eight days). Charrettes can include a number of participatory tools such as visioning sessions, focus groups and design sessions. The process encourages communication across boundaries as participants teach and learn from one another. A charrette is an interdisciplinary approach, seeking holistic solutions appropriate to specific locales and design parameters. The product of the charrette is a series of possibilities, a number of creative options for planning and design futures. These ideas can then be reviewed and discussed by the broader community, providing a solid basis for determining the elements of a final plan.

The Design Brief

A design brief contains the necessary background information for the design teams to make informed decisions. Design briefs include site descriptions and histories, legal and regulatory documents, policy objectives, principles and other relevant data.

Ideally a design brief brings together principles/goals/objectives gathered from all concerned parties - some of which may be contradictory. The compilation of the

Harris Green Charrette

Victoria, BC

The Harris Green Charrette took place over six months in 1997. The charrette was initiated after citizens expressed concern over new zoning proposed for the Harris Green area.

The City of Victoria Planning Department managed the charrette process. The charrette itself took place over two 3-day meetings, with a team of 12 including planners, architects, and neighbourhood association representatives. This team walked the neighbourhood, met with interested groups and solicited public opinion before submitting a report to Council in June of 1997.

www.landcentre.ca/harris/harris.html

brief is an important precursor to the charrette activities.

The Design Teams

Charettes bring together key stakeholders and central design problems (outlined in the design brief) which need to be addressed. It is the task of the teams – necessarily including designers, architects and planners – to utilize the design brief and to produce visual representations of an ideal design. A number of design teams participate in the process (often leading to friendly competition), ensuring multiple solutions and creative ideas.

Recent Design Charettes

- University of Calgary
- City of Surrey (South Newton District)
- City of Burnaby (Brentwood)
- Simon Fraser University
- Harris Green Community (Victoria)
- Royal Roads University

The charrette process uses constraints in the form of time limits, the design brief, and competition, to drive innovation. Charettes assist in developing alternatives from which – with further public input – a comprehensive plan will emerge.

Part V: Conclusions & Recommendations

5.1 Conclusions

The vision underpinning the original University of Victoria Campus Plan is primarily an aesthetic one. At the time of its conception, constraints on the ‘garden campus’ were minimal; land was abundant and the impact of growth on the environment was not yet a concern. The character of the campus at present – with its low buildings, courtyards and abundant spaces between buildings – is reflective of a time when land (regardless of its agricultural or ecological value) was expendable.

Today, the University is straining to expand beyond the edges of its campus. While the campus undoubtedly possesses positive attributes, it is necessary to open a dialogue about how the campus might be improved. Maintaining and restoring the green and blue spaces at UVic is imperative to ecosystem and community health. It is equally important to ensure that the campus does not devour more land with low-rise sprawl.

Underlying a shift towards smart growth is what Beatley and Manning call a new “ethic for sustainable places.”⁷⁶ Were this ethic to guide our planning process at UVic, it would place interdependence at the centre – interdependence between campus users and their environment and between the campus and the surrounding region. Placing interdependence at the heart of planning reflects respect for the earth that we grow upon and the needs of future generations.



While the character of UVic and its “spirit of place” are important, it is time to review our patterns of growth. Only through a comprehensive public process – including discussion of our underlying values and concerns – will it be possible to identify where growth can and should be focused. The resulting decisions may alter the architectural character of some parts of the campus, but change has the potential, through the development of a more vibrant village core, to create new benefits for a campus “complete community.”

If well managed, this transition will provide the University with an innovative 21st century mission that will set it apart from universities the world over. Striking a balance between growing responsibly and creating a more livable campus is within our reach, but it is up to all of us to ensure that the future growth of the University of Victoria is smart growth.

5.2 Recommendations

RECOMMENDATION # 1: CREATE A TEMPORARY SMART GROWTH STEERING COMMITTEE

- The Committee would be created to oversee the public process in Recommendation #2
- The Committee should be a high level planning body that addresses policy and process, and reports to the President. The Committee should be temporary, and its creation should not require extensive approvals.
- The Committee should have broad representation from within and beyond the campus, and should have staff support in achieving its objectives.
- After the public process is completed, the Committee would be disbanded and a new permanent policy body would be formed in its place.

RECOMMENDATION # 2: IMPLEMENT A THREE PART PUBLIC PROCESS TO DEVELOP A CAMPUS PLAN

1. **Open a Dialogue with the Community:**

A series of interactive educational events would facilitate information exchange, build trust in the process and increase awareness about planning issues.

2. **Undertake a Community Mapping Process:**

A community mapping process would actively engage citizens in visioning and provide information about UVic's assets and liabilities.

3. **Host a Design Charrette**

A design charrette would focus diverse stakeholder teams on developing guiding principles, a long-term vision and innovative design solutions for UVic. The design brief would include synthesized data gathered during community mapping. The designs that emerge from the charrette would be drafted into plan options, which would then be presented to the public for final review.

Upon completion of the process, University staff would, in collaboration with the Smart Growth Steering Committee, prepare a comprehensive proposal for review and approval by the University.

RECOMMENDATION # 3: CREATE A PERMANENT REPRESENTATIVE PLANNING POLICY BOARD

- The Board should continue with the work of the Steering Committee – it should ensure that the plan remains a living document and that citizens remain part of its implementation.
- The Board would provide a permanent policy and oversight body for the University's growth and evolution.

Website Resources

University Campus Resources - Best Practices

Second Nature

www.secondnature.org

Click on Resource Centre and ESF Profiles

National Wildlife Federation Campus Ecology Program

<http://www.nwf.org/campusecology/index.html>

National Wildlife Federation Campus Ecology Program Yearbooks

<http://www.nwf.org/campusecology/yearbooks/index.html>

University Leaders for a Sustainable Future

www.ulsf.org

Includes further information about the Talloires Declaration and signatories.

Ministry of Advanced Education – Public Post Secondary Institutions Environmental Report

www.aved.gov.bc.ca/environmental/data/environt/sec-one.htm

International Association of Universities (IAU)

http://www.unesco.org/iau/tfsd_first.html

IAU's position on sustainable development and universities; includes listing of sustainable development declarations, charters and action plans for universities

The International Journal of Sustainability in Higher Education

<http://www.emeraldinsight.com/ijshe.htm>

Center for Environmental Citizenship - Blueprint for Green campus

<http://www.envirocitizen.org/cgv/blueprint/index.html>

Community Mapping

Common Ground

<http://www3.bc.sympatico.ca/cground/index.html>

The Green Map System

<http://www.greenmap.org/>

Common Ground U.K.

<http://www.commonground.org.uk/>

Charrettes

James Taylor Chair in Landscape and Livable Communities - UBC
<http://www.sustainable-communities.agsci.ubc.ca/about.html#>

The Neighborhood Charrette Handbook
<http://www.louisville.edu/org/sun/planning/char.html>

The Harris Green Charrette - Victoria
<http://www.landcentre.ca/Harris/harris.html>

Smart Growth

SmartGrowthBC
<http://www.smartgrowth.bc.ca/>

The Smart Growth Network
<http://www.smartgrowth.org/>

The Planners Web
<http://www.plannersweb.com/>

Green Infrastructure.net website
<http://www.greeninfrastructure.net/>
An information resource on green infrastructure

Detour Publications
<http://www.detourpublications.com>

Appendix A

The Talloires Declaration

(Pronounced TAL-WHAR)

We, the presidents, rectors, and vice chancellors of universities from all regions of the world are deeply concerned about the unprecedented scale and speed of environmental pollution and degradation, and the depletion of natural resources.

Local, regional, and global air and water pollution; accumulation and distribution of toxic wastes; destruction and depletion of forests, soil, and water; depletion of the ozone layer and emission of "green house" gases threaten the survival of humans and thousands of other living species, the integrity of the earth and its biodiversity, the security of nations, and the heritage of future generations. These environmental changes are caused by inequitable and unsustainable production and consumption patterns that aggravate poverty in many regions of the world.

We believe that urgent actions are needed to address these fundamental problems and reverse the trends. Stabilization of human population, adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature.

Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible. Thus, university leaders must initiate and support mobilization of internal and external resources so that their institutions respond to this urgent challenge.

We, therefore, agree to take the following actions:

1. Use every opportunity to raise public, government, industry, foundation, and university awareness by openly addressing the urgent need to move toward an environmentally sustainable future.
2. Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward global sustainability.
3. Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate, and have the awareness and understanding to be ecologically responsible citizens.
4. Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students.

5. Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.
6. Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with community and nongovernmental organizations to assist in finding solutions to environmental problems.
7. Convene university faculty and administrators with environmental practitioners to develop curricula, research initiatives, operations systems, and outreach activities to support an environmentally sustainable future.
8. Establish partnerships with primary and secondary schools to help develop the capacity for interdisciplinary teaching about population, environment, and sustainable development.
9. Work with national and international organizations to promote a worldwide university effort toward a sustainable future.
10. Establish a Secretariat and a steering committee to continue this momentum, and to inform and support each other's efforts in carrying out this declaration.

Appendix B⁷⁷

Aspect	Past and Present Facilities Management Sustainability Initiatives
Energy	Implemented sun-shading devices to minimize summer building temperatures on the CIT Building, Engineering Lab Wing, Business and Economics Building & MacLaurin Building.
	Installed triple-glaze, R8-value windows and tilt-turn ventilation casements in the Engineering Lab and Office wings.
	In the process of converting all existing T12 lighting systems to T8 technology, so far 23/36 permanent buildings on campus have been converted. Three additional buildings will be completed in 2001/2002.
	Installed occupancy sensors in washrooms of the Saunders Complex & Clearihue Building.
	Installed the Campus Automation System and Pegasus monitoring system that monitors the electrical consumption of individually metered buildings.
	Replaced outdoor mercury vapour lighting fixtures with high pressure sodium fixtures in 1985.
	Converted from fuel oil to natural gas and halved its fuel oil consumption.
	Awarded the BC Hydro Power Smart Challenge for Outstanding Achievement in Energy Efficiency and Energy Conservation for activities involving general conservation in 1994.
	Member of Natural Resources Canada Energy Innovator Program since 1995.
	1995, won the BC Hydro Power Smart Excellence Award for the Engineering Lab Building.
	Installed a solar water heating system on the Mckinnon Gym to heat the pool.
	1999/2000, converted existing incandescent building exit lights to light emitting diode (LED) lights.
	Conduct a pre-feasibility energy retrofit audit in 2001/2002.
Water	End user accountability – installed individual water meters on the Cadboro Commons Building, resident dormitories, family and cluster housing and the Ian Stuart Ice Arena Complex.
	Installed the Rainbird Irrigation System in 1988 and drip irrigation in several locations on campus.
	Installed flow restrictors on most faucets to achieve flow rates of 8.3L/min.
	Installed low flush toilets in several buildings on campus. 63 additional toilets to be installed in 2001/2002.
	Installed motion sensitive flush valve urinal in all buildings on campus.
	Conducted a pilot project to determine the efficiency of water efficient shower heads.
	Used well water for irrigation in the summer 2001.
	Currently investigation the feasibility of reusing grey-water form the Outdoor Aquatic Facility for irrigation.
Solid Waste	Set up yard waste composting facility in 1960's.
	Assisted with the establishment of the paper-recycling program in 1988.
	Moved to purchasing only 100% recycled paper towels and PortionPac cleaning products in the early 1990's.

	Participated on the Vice Presidents Committee on Recycling in 1991.
	Currently responsible for administering and operating the UVic Waste Reduction and Recycling Program.
Transportation	Participated on the 1993 UVic Transportation Task Force.
	Participated on the Bicycle Users Group since 1993.
	Hired Bunt and Associates to conduct Campus Traffic Surveys in 1992, 1996 and 2000.
	Purchased fleet bicycles for Facilities Management Staff for use on campus.
	Purchased two electric vehicles for on campus use in 2000.
Ecosystem Management	Planted thousands of trees since the 1960's.
	Worked to improve trails and remove exotic species in Mystic Vale since 1993.
	Hired a consulting firm to help develop a 5-year management plan for Mystic Vale in 2001.
	Planted many native plant species throughout campus.
	Reduced pesticide use by 75% over the last 15 years.
	Followed planning principles that emphasize native plant materials on campus and social interaction.
	Sustainability workshops for new buildings will be started in 2001/2002.
	A Garry Oak Restoration Plan will also be developed in 2001/2002.

Endnotes

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