

TO: CITY MANAGER April 12, 2000

FROM: DIRECTOR PLANNING AND BUILDING **OUR FILES:** REZ's 98-45,
99-28, 99-60
and 00-06.

**SUBJECT: STORM WATER MANAGEMENT PROVISIONS
IN GLENLYON BUSINESS PARK**

PURPOSE: To provide Council with information regarding the provision of storm water management measures in the Glenlyon Business Park relative to several rezoning applications for lands abutting Sussex Creek.

RECOMMENDATIONS:

1. **THAT** Council receive the *attached* April 10, 2000 letter from the Canada Lands Company CLC Ltd. regarding the storm water management strategy being employed in the Glenlyon Business Park.

2. **THAT** Council endorse this strategy with respect to the development of lands abutting Sussex Creek and that the rezoning applications for the subject lands outlined in this report be advanced accordingly.

3. **THAT** a copy of this report be forwarded to:
 - a) Mr. Elmer Rudolph,
1809 - 8th Avenue
New Westminster, B.C. V3M 2S9

 - b) Mr. Larry Morgan,
Senior Project Manager and
Director Environmental Management,
Canada Lands Company CLC Ltd.
Suite 2000, 666 Burrard Street
Vancouver, B.C. V6C 2X8.

REPORT

1.0 BACKGROUND

Council, on 1999 September 13, granted Second Reading to a Bylaw to rezone lands to permit the provision of additional surface parking spaces for Telus as a tenant of an existing office building located in the Glenlyon Business Park on the north side of Glenlyon Parkway, just east of Sussex Creek. Arising out of the discussion, Council adopted a motion "THAT staff prepare a report on the porous and alternative types of pavement discussed at the Public Hearing for Rezoning Reference No. 99-28".

At the Public Hearing, Mr. Elmer Rudolph expressed his concern with the proposed use of this site as a parking lot because there is no plan to use permeable pavement or any other alternative to re-charge groundwater, stating that, unless some action is taken to improve water drainage into the ground, there is a great risk to fish bearing streams in Burnaby. It was his view that this development presented an opportunity to get water back into the ground and suggested that alternatives be explored in this regard.

Council is also in receipt of three additional applications from the Canada Lands Company (CLC) to rezone lands which abut Sussex Creek (REZ 98-45, REZ 99-60 and REZ 00-06).

2.0 EXISTING SITUATION

As there are a number of rezoning applications involving Canada Lands' properties abutting Sussex Creek, staff requested CLC staff to provide a letter report detailing the storm water strategy it has employed in the Glenlyon Business Park. This 2000 April 10 letter is *attached* for Council's information. It is quite comprehensive and in staff's view, clearly outlines the measures being implemented. By way of additional information, staff would advise that the question of an appropriate treatment for the rehabilitation of Sussex Creek and the development parameters for the adjacent lands has been reviewed and approved by both the Fish and Wildlife Branch of B.C. Environment, Lower Mainland Region and the Land Use Section, Habitat Management Unit of the Department of Fisheries and Oceans.

In considering site specific measures to be employed for individual properties within the Glenlyon Business Park, it is important to note that the ground water and other environmental management measures for this project do extend well beyond individual properties and the business park as referenced in the *attached* letter, and should be recognized as accruing to the sustainable management practices being employed for individual properties as well. In addition to these measures, it should be recognized that the area given over to landscaped (all permeable) areas for the properties currently under rezoning is substantial and averages some 47.7% as shown below.

Site	Lot Area		Building Area		Parking Area		Landscape	
	<i>sq. ft.</i>	<i>sq. ft.</i>	<i>%</i>	<i>sq. ft.</i>	<i>%</i>	<i>sq. ft.</i>	<i>%</i>	
Telus REZ 99-28 9200 Glenlyon Parkway	247,305	31,682	12.8%	102,631	41.5%	112,712	45.6%	
REZ 98-45 4300 North Fraser Way	130,032	20,774	16.0%	39,277	30.2%	69,992	53.8%	
Glendale Site REZ 99-60 5005 North Fraser Way	172,978	29,111	16.8%	67,324	38.9%	76,543	44.3%	
REZ 00-06 5000 North Fraser Way	173,494	31,026	17.9%	56,716	32.7%	85,752	49.4%	
TOTALS	723,809	112,593	15.5%	269,948	36.7%	344,999	47.7%	

3.0 DISCUSSION

The development of the Glenlyon Business Park and in particular, the lands abutting the relocated Sussex Creek channel, has been undertaken according to the standards established by the City in the Glenlyon Concept Plan and incorporated into its CD Comprehensive Development District zoning regulations for the business park. The treatment of Sussex Creek, which was realigned and enhanced by Canada Lands, and the setback provisions for the development of the adjacent lands have been approved by B.C. Environment and the Department of Fisheries and Oceans. Each of the above sites incorporates portions of the creek within the properties themselves. Two of the sites also incorporate wetland ponds within the property boundaries.

While the use of permeable pavements may well be beneficial in certain areas, its use in the subject area with a relatively high water table would be ineffective. Staff are of the opinion that the use of other storm water management practices as outlined in this report would be more practical and effective than the permeable pavement alternative. The use of oil interceptors in concert with the conventional pavement design would have an additional benefit in intercepting oil and other runoff contaminants before the runoff is conveyed to the receiving environment.

The overall storm water management strategy and the environmental initiatives being brought to bear by Canada Lands should also be recognized when considering specific, individual sites. On balance, it is staff's conclusion that the measures being employed for properties abutting Sussex Creek are satisfactory in this particular development within the context of the adopted Glenlyon Business Park development guidelines and should be endorsed by Council; and that the respective rezoning applications should be advanced accordingly.



D.G. Stenson, Director
PLANNING AND BUILDING

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Attachment

cc: Director Engineering
Director Parks, Recreation and Cultural Services

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Canada Lands Company
Société immobilière du Canada

Larry Morgan
Senior Project Manager and
Director of Environmental Management

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April 10, 2000

Mr. D. G. Stenson
City of Burnaby
Planning and Building Department
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Dear Mr. Stenson:

Re: Storm Water Management Strategy, Glenlyon Business Park

As requested by Planning Department staff, I am writing to provide information on the Canada Lands Company's strategy for managing storm water in Glenlyon Business Park. This request arises out of Council's consideration of our application to rezone lands to provide for the Telus parking expansion at 9100 Glenlyon Parkway. This property is located on the east side of the relocated, enhanced Sussex Creek channel. Canada Lands also has additional applications to rezone lands around Sussex Creek which are under consideration by City Council as noted on the *attached* plan. The storm water management practices to be employed relative to the development of these sites will also be of interest to staff and City Council.

To put these matters into an overall perspective, I would like to start by pointing out that the year 2000 marks a decade of one of the more effective and collaborative planning and design undertakings of any business centre in the Lower Mainland. Canada Lands has brought together a design team which has worked with City staff consistently in a co-operative and innovative manner to produce a site development that integrates the needs of business with a design aesthetic that strongly embraces the principles of environmental responsibility. The planning document "Glenlyon" was adopted by the City of Burnaby in 1993 and continues to guide development today. In it, storm water management, as part of a more encompassing ecological approach to development, provides for significant and far reaching results. It is our firm belief that the environmental design initiatives throughout the Glenlyon development, as a whole, deal effectively with storm water management while also addressing other issues of aesthetics and ecology.

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There are a number of factors that contribute to the overall merits of this project. First and foremost was the forging of a strong and trusting relationship between the design team and the City of Burnaby. Many traditional development models were challenged and, as one of the results, there is significantly more landscaped area, and thus permeable surface, than other developments in the region. This expanded soft landscape was part of the comprehensive plan to address ground water recharge. It should be pointed out that in addition to providing this extra green space, the landscape areas have been heavily planted with mature plant stock.

There are a number of specific initiatives which address environmental and storm water management uses in Glenlyon which are summarized below:

Sussex Creek: This watercourse was previously contained in a narrow ditch within an undeveloped road allowance. It is now a relocated and enhanced drainage course, enlarged and replanted with riparian and indigenous species to effectively function as a large bio-swale, accepting storm water at specific locations. Sussex has been designed to accept surges without any detrimental effects or consequence to flood risks. The naturalization of the channel also augments its contribution to fish habitat. The landscape design incorporates publicly accessible trails, pedestrian bridges and points of prospect. This trail system is constructed entirely of permeable materials.

Pond Features: Canada Lands has constructed, at its cost, four ponds on City lands and two to date within the development itself. Of particular significance is the major fresh water pond and tidal march established as a central feature within the Fraser Foreshore Park. The largest fresh water pond is located at the entrance to Glenlyon Parkway at Marine Way. As well as accepting some surface water from Marine Way, this pond and a smaller pond on the eastside of Glenlyon Parkway further contribute to bird and wildlife values in this area of the City park. In addition to being aesthetically pleasing, many pond features also function as repositories for varying percentages of surface drainage from adjacent roads and parking. Together with a number of appropriate plant species, these features assist in the filtering out of potentially harmful contaminants. These ponds also function as primary siltation filters and to a lesser degree, as retention areas to mitigate storm water surges. The ponds accomplish all this in addition to their significant contribution to the local wildlife population.

Pedestrian Pathways: In addition to the Sussex Creek pathway, an exclusively pedestrian environment is being incrementally established along the railway corridor running the entire length of the development's northern edge. This publicly accessible path system is constructed entirely of permeable surfaces to contribute to ground water recharge and the reduction of store water runoff.

Nelson Creek: This drainage channel will be relocated in the future to an enlarged and enhanced channel to provide a naturalized zone in the northeast quadrant of the development. Once completed, this system will accept a certain percentage of storm water flow and provide an extension of the City of Burnaby's trail system.

Ground Water Irrigation: Canada Lands is establishing a water treatment facility which will draw water from a well and use the treated water to charge the ponds and to irrigate the landscape features in Glenlyon. This utilization of deep groundwater will greatly add to the recharge of surface groundwater throughout the park, particularly during the dry summer months when restrictions are placed on the use of City water.

Future Planning Initiatives: In the upcoming phases of development in the Glenlyon Business Park, there continues to be an incremental approach to storm water management, while ensuring that the overall quality and considerable sensitivity to environment issues is observed. These include: two significant ponds in the next phase of foreshore park development; opportunities afforded by the alignment of the GVS&DD right-of-way which bisects the site with the potential to create a bio-swale along its length; and the continuation of the provision of generous landscape areas within specific projects.

During the Public Hearing for the proposed rezoning for the Telus parking lot expansion, it was suggested by Mr. Rudolf that alternatives be explored to drain water from the parking lot directly into the ground. We have reconsidered this proposal and it is our opinion that permeable pavement is not feasible. The bog-like ground conditions which prevail in this area would create settling problems if porous asphalt or other permeable surfaces were utilized for this parking lot.

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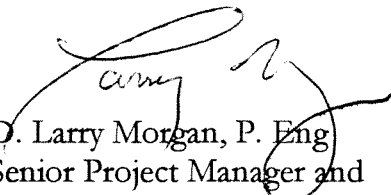
City of Burnaby

In pursuing the measures identified herein, Canada Lands has made significant efforts to develop Glenlyon in an environmentally sensitive manner. The Glenlyon project has been the recipient of two prestigious awards in recent years. These include a Regional Merit Award from the Canadian Society of Landscape Architects for the ecological sensibilities throughout the site planning and design, as well as a highly regarded Environmental Award from the City of Burnaby.

I would respectfully submit that the measures identified herein merit endorsement and should form the basis for pursuing the rezoning approvals for our projects abutting Sussex Creek.

Yours very truly,

CANADA LANDS COMPANY CLC LIMITED

A handwritten signature in black ink, appearing to read "Larry Morgan", is written over the typed name and title.

D. Larry Morgan, P. Eng
Senior Project Manager and
Director of Environmental Management

attachment

