



Corporate Report

NO: R047

COUNCIL DATE: MARCH 12, 2007

REGULAR COUNCIL

TO: Mayor & Council DATE: March 8, 2007
FROM: Acting General Manager, Planning and Development FILE: 0480-20 (Delta)
SUBJECT: Development Permits for Steep Slope Areas

RECOMMENDATION

It is recommended that Council receive this report as information.

INTENT

The purpose of this report is to:

- Provide an overview of a proposed amendment to Delta's Official Community Plan to incorporate Sloped Lands Development Permit Area Guidelines;
- Review the current regulations and requirements for development in sloped areas of Surrey; and
- Advise Council of the pros and cons of requiring Development Permits in these areas and to provide advice on whether the Surrey Official Community Plan should be amended to require Development Permits for developments in sloped areas.

BACKGROUND

At the Regular Council Public Hearing meeting of January 22, 2007, Council considered a letter dated December 13, 2006 (Appendix I), from Susan Elbe, Community Planner, Corporation of Delta, regarding Delta Council's introduction of a by-law to incorporate Sloped Lands Development Permit Area Guidelines into Delta's Official Community Plan (OCP). Council referred this letter to staff for a report.

DISCUSSION

Delta's Sloped Lands Development Permit Guidelines

- Delta's review of municipal policies, related to development on sloped areas, began after several events of slope instability along Tsawassen Bluff and erosion and slope movements in some ravine areas. In 1999, Delta Council adopted a policy on standards for geotechnical studies and assurances of safety. Delta's OCP Development Permit Guidelines were reviewed to integrate the policy. A consultant was retained to prepare three studies of Delta's sloped areas in order to define the extent of the sloped land that would be covered by the Development Permit Guidelines. After public consultation in 2002 and 2003, a by-law to incorporate Development Permit Guidelines for the sloped areas was brought forward in early 2003. Council, however, tabled this by-law and asked staff to consider revisions to respond to the concerns raised by property owners. After further significant review, the amended by-law was introduced and given two readings in December 2006.
- Under the slope hazard criteria established by the geotechnical studies, a slope of 2.5:1 or 22 degrees (40%) was used as one of the criteria for determining the possible hazard areas for Development Permit purposes. However, a 2005 geotechnical study cautioned that: "The behaviour of natural slopes is very complex, critical layers are often buried, and the engineering properties are highly variable. Therefore, the assessment of slope stability and hazard requires considerable judgement and experience. The scope of work for the study did not allow detailed investigation of every slope in Delta and, therefore, there will be some slopes within the selected hazard areas which upon detailed inspection and analysis may be deemed not to be hazards and there are possibly some slopes outside the area that may represent a hazard".
- The objectives of Delta's proposed Sloped Lands Development Permit Guidelines are to protect the integrity of the natural environment and to protect persons and property from potentially unsafe conditions that may result from development. In addition to the construction of buildings or structures, the term "development" is broadly defined to mean any activity that might alter the land, including, but not limited to, removal, alteration, disruption or destruction of vegetation, alteration or disturbance of soils, creation of impervious or semi-pervious surfaces, etc.
- The Development Permit Guidelines require the property owners to provide security for the completion of all on-site and off-site works, incorporate erosion and sedimentation controls, minimize alteration of and impact on the natural site drainage, and preserve the vegetation and tree cover. On sites susceptible to flooding, owners are required to set back buildings and structures from water bodies to minimize damage and, where applicable, register a save harmless covenant in favour of Delta.

- The Development Permit Procedures By-law requires the Development Permit applicants to retain qualified professionals to conduct geotechnical assessments of the lands and proposed developments and to make recommendations on any mitigation work that may be necessary to maintain slope stability. The qualified professionals must have General and Professional Liability insurance and maintain the insurance for a minimum of two years after the work is completed.
- Exemptions from the Development Permit requirements are proposed for certain circumstances, essentially where no soil alterations are required, such as non-structural renovations, strata subdivisions of previously occupied buildings, small uninhabited accessory buildings and developments within specified distances or heights of the slope. Also, public works and services undertaken by Delta are exempt, provided they have been reviewed by Delta's Environmental Review Committee (where a slope is near a watercourse) and approved by the Director of the appropriate department.

Current Regulations & Requirements in Surrey

Surrey's OCP designates the following areas of the City as Development Permit areas:

- All commercial developments;
- All multiple residential developments;
- Industrial development within 100 metres of provincial highways and arterial roads, in business/industrial parks, and adjacent to residential land uses, the City Centre, Town Centres, agricultural areas, etc.; and
- All land abutting Agricultural designated land.

Where any portion of a site is within or adjoining an Environmentally Sensitive Area (ESA) with a high or medium environmental rating, the applicant must conduct an environmental impact study for approval by the City. Such a study, in addition to addressing mitigation of impacts of the development on the vegetation, tree cover, drainage, etc., may also be required to address the potential hazards due to the slope.

At the time of an application to rezone and to subdivide land, Planning and Development Department staff assess the site conditions. In instances of steep slope or other situations that flag the need for geotechnical assessment, staff will require the applicant to provide a geotechnical report by a qualified professional engineer as part of the planning approval process. Staff will not recommend rezoning and the Approving Officer will not approve a subdivision unless the geotechnical reports advise that the site is buildable or, alternatively, final approval will be conditional upon satisfactorily addressing issues identified in the geotechnical reports.

In the case of rezoning on steep sites, the use of Cluster Residential Zone is routinely encouraged and in some cases, such as on the North Slope, it is City policy to require the Cluster Residential Zone. This zone is crafted to require the subdivision to be set substantially back from the steeper vegetated slopes leaving 50% to 70% of the sloped area as open space.

In the new urban areas, the preparation of the Neighbourhood Concept Plans (NCP) involves environmental studies and in steep sloped areas, clustering of the developments with substantial green buffers is required through specific land use designations and NCP policies.

Single family residential developments are not covered by the Development Permit Guidelines, but the safety and integrity of house construction on steep sloped sites is addressed by Surrey's planning approval process and by building permit requirements.

At the building permit stage, the Building Inspector (General Manager, Planning and Development or his designate) has the authority to require a geotechnical assessment if, in the opinion of the Building Inspector, the slope or soil conditions on the site raise concerns about soil stability and building safety. The Building Inspector will then require that the resulting geotechnical report, with its recommendations, be registered in the form of a restrictive covenant on the title of the lot as a condition for issuance of a building permit. The authority to require a report from a professional engineer and registration of a restrictive covenant falls within Section 56 of the *Community Charter* and has been carried through into Surrey's Building By-law.

A building permit application for construction on any site with a possibility of such concerns would generate a pre-permit field inspection of the site. The initial concern generally arises from the gradient of the site, however, basis for the concern could also arise from a number of other factors including experience with construction projects on adjacent properties, or the Building Inspector's knowledge of the soil conditions in the area.

If the findings of the Building Inspector's field review substantiate the initial concerns, the Building Inspector requires that the building permit applicant submit a report from a professional engineer analyzing the site conditions and confirming that the proposed building can be safely constructed for the intended uses. Staff in the Building Division review the geotechnical report and sometimes, where further assessment is considered prudent, will require submission of report from an independent professional engineer for a second opinion. In any case, the building permit is issued only when the Building Inspector is satisfied that the proposed construction can be used safely for the intended use and the aforementioned geotechnical report has been registered in the form of a restrictive covenant on the title of the lot. Surrey also strictly enforces Riparian Area Regulations and takes all matters involving watercourse to the Environmental Review Committee for review. Tree removal in all areas, including in steep sloped areas and Environmentally Significant Areas, is regulated by the Surrey Tree Protection By-law.

As to the insurance coverage for developments on sloped sites, it is an issue for all construction, not only on sloped lands. There may be some difficulty with enforcement of the requirement to maintain the coverage for at least two years after the completion of the work. In Surrey, insurance coverage is currently not required, but it is being considered for inclusion in the pending Building By-law No. 15244, effective from May 1, 2007. If it is incorporated into the By-law and approved by Council, the insurance coverage requirement will apply to all registered professionals on all building permit applications whether or not the site is sloped.

Pros and Cons of requiring Development Permits on Sloped Lands

As all commercial, industrial and multiple family residential uses in Surrey are already subject to the requirements for Development Permits, the following comments apply primarily to the issue of requiring development permits for single family residential development in areas of slopes that, in the opinion of the Building Inspector, might be susceptible to hazard regardless of the slope gradient.

Pros

1. The Development Permit process would provide an opportunity for the applicant and staff to address technical issues earlier in the process and before detailed building permit plans are prepared, which could result in more efficient use of the City's staff and time resources in processing of building permit applications on sloped sites.
2. The Development Permit process would allow the City to regulate all "alterations of land" on sloped sites and ensure the impacts would be minimized and mitigated as opposed to regulating building permit matters only, as is the case now.

Cons

1. The Development Permit requirements for sites on sloped lands would not alter or add to the current ability of the Building Inspector to ensure that the geotechnical issues are addressed before a building permit is issued. However, it would add one more step in the development process that would consume Council's time and existing staff resources, or require additional resources and staff expertise (e.g., staff with geotechnical expertise for the Development Permit review). Delta's report suggests that if Council wishes to streamline the Development Permit approval process, it could delegate its authority with an appropriate by-law to issue Development Permits to Delta's General Manager of Planning and Development. However, in Surrey's case, this would not change the "status-quo" to the extent that Surrey's General Manager, Planning and Development, by virtue of being the Building Inspector, pursuant to the Building By-law, already has the same authority.
2. The cost of obtaining a building permit for an owner of a sloped site would increase by at least \$2,000 plus \$70 per dwelling unit, to process the Development Permit application, if the same fee that is currently being charged for the Cluster Residential (RC) Zone applications is also required for the sloped lands Development Permit applications. Additionally, there will be the costs and time to the applicants associated with the Development Permit preparation, including consultant fees.
3. Surrey has extensive areas of sloped lands because of its large size and many ravines and waterways. Determining the extent and boundaries of the sloped lands for Development Permit purposes would be difficult and expensive and it could be time consuming. In Delta's case, the process took seven years to introduce the Sloped Lands Development Permit By-law.

Based on the above evaluation, it is recommended that Council not proceed with requiring a Development Permit for sloped sites.

Staff will continue to apply geotechnical assessment requirement under the authority given to the Building Inspector, monitor and address the building construction and slope stability issues as they arise and, when deemed necessary, will advise Council if any additional requirements should be considered. The current process appears to provide adequate safeguards in regulating development on sloped lands. Of the few difficulties experienced with slope related failures, most have resulted from unauthorized construction activities or unauthorized placement of soil on or near slopes. The incorporation of Development Permit requirements into the Surrey process would not have eliminated these difficulties. There is no indication that the current procedures warrant the imposition of additional requirements.

CONCLUSION

A letter dated December 13, 2006, from Delta, regarding their staff report on the Sloped Lands Development Permit Guidelines was referred to staff by Council. Upon review of Delta's report and consideration of the pros and cons of requiring Development Permits for sloped sites in Surrey, Surrey's building permit process and the authority given to the Building Inspector, it is recommended that Council not consider amending the OCP to require Development Permits for development in steep slope areas.

How Yin Leung
Acting General Manager
Planning and Development

BP/JM/kms/saw

Attachments:

Appendix I - Letter dated December 13, 2006 regarding Delta's proposed Sloped Lands Development Permit Area By-law (without attachments)

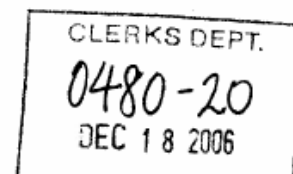


THE CORPORATION OF DELTA
COMMUNITY PLANNING & DEVELOPMENT DEPARTMENT

File: P95-27

December 13, 2006

Ms. Daria Hasselman
Fraser River Estuary Management Program
5945 Kathleen Avenue, Suite 501
Metrotown Place III
Burnaby, BC V5H 4J7



Dear Ms. Hasselman:

Re: Development Permit Requirements for Development in Delta's Steep Slope Areas

On Monday, December 11, 2006, The Corporation of Delta Municipal Council gave first and second readings to Bylaw No. 6447 and Bylaw No. 6448. The first bylaw amends the Official Community Plan to incorporate Development Permit (DP) Guidelines for steep slope areas. The second bylaw amends the Development Application Procedures Bylaw to specify exact study requirements. Council also adopted a recommendation to circulate the report and bylaw to agencies with a possible interest in the bylaw for their comment.

The bylaws and guidelines attached are quite similar to those circulated in April, 2003 but the major differences are:

1. Proposed DP areas have been confirmed through more detailed geotechnical study.
2. The former checklist used to determine exemptions has been deleted in favour of a simpler listing of circumstances where exemptions may be permitted. These include exemptions for very small accessory buildings; e.g., buildings that would not otherwise require a building permit, internal repairs further than 5 m (16.4 ft) or 2/3 the height of the slope, whichever is greater, from the crest or toe of the slope, or any other development which is 10 m (32.8 ft) or 1.5 X the height of the slope, whichever is greater, from the crest or toe of the slope.
3. The application fee for a DP in Sloped Lands DP area is proposed to increase from \$650 to \$1,000.

Any comments provided will be accepted until noon of January 30, 2007 although it would be helpful to submit them earlier.

Development Permit Requirements for Development in Delta's Steep Slope Areas
File #: P95-27

December 13, 2006

If you have any questions or need further background, please contact me at (604)946-3389.

Yours truly,



Susan Elbe
Community Planner
SE/cp

cc: Marcy Sangret, Environmental and Agriculture Planning Manager

Attachments

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THE CORPORATION OF DELTA
COUNCIL REPORT
REGULAR MEETING

To: Mayor & Council **File:** P95-27
From: Community Planning & Development Department **Bylaws:** 6447 & 6448
Date: December 4, 2006

Sloped Lands Development Permit Guidelines

The following report has been reviewed and endorsed by the Chief Administrative Officer.

■ **RECOMMENDATIONS:**

- A. That first and second readings be given to Bylaw No. 6447, 2006. (This bylaw amends The Corporation of Delta Official Community Plan Bylaw No. 3950, 1985, by replacing existing Development Permit Guidelines with new Sloped Lands Development Permit Area Guidelines and by establishing new boundaries for areas where the guidelines would apply.)
- B. That the Official Community Plan, as amended, be confirmed as being consistent with the current Financial Plan, the Liquid and Solid Waste Management Plans, and the Economic Development Strategy, as required by the *Local Government Act*.
- C. That, in accordance with Section 879 of the *Local Government Act*, the draft bylaw be circulated to the following agencies for comment:
 1. The Ministry of Environment;
 2. The Ministry of Transportation;
 3. The Tsawwassen First Nations;
 4. The City of Surrey;
 5. The Fraser River Estuary Management Program; and
 6. The Association of Professional Engineers and Geoscientists of BC.
- D. That, in addition to the regular public notification, affected property owners be notified of this report and the bylaws by mail, local newspaper advertising and posting on Delta's website.
- E. That Bylaw No. 6447, 2006 be referred to a Public Hearing.

- F. That first, second and third readings be given to Bylaw No. 6448, 2006. (This bylaw amends the Development Application Procedures Bylaw No. 4918, 1992, to define procedures for issuance of a Sloped Lands Development Permit and revise application fees for Development Permits of this type.

■ **PURPOSE:**

The purpose of this report is to:

- 1) Provide Council with a review of previous efforts to regulate development on sloped lands in Delta;
- 2) Request first and second readings of Bylaw No. 6447 regarding the Sloped Lands Development Permit (DP) Area; as included in Attachment A;
- 3) Request first, second and third readings of a bylaw to amend the Development Application Procedures bylaw as included in Attachment B; and
- 4) Provide recommendations regarding the public consultation process for Bylaw No. 6447.

The purpose of the proposed bylaws is to:

- 1) Include the existing standards for geotechnical studies and assurances of safety in Delta's Official Community Plan (OCP);
- 2) Revise DP area boundaries to more closely reflect recent geotechnical research on areas of potential slope instability;
- 3) Specify submission requirements for Sloped Lands DP applications in Delta's Development Application Procedures Bylaw; and
- 4) Require an increased application fee for processing DPs in Sloped Areas to more closely reflect the costs of review and processing these DPs.

■ **BACKGROUND:**

Delta's review of municipal policies related to development in steep slope areas began after several events of slope instability along the Tsawwassen Bluff (particularly 207 Graham Drive), the erosion and slope movements in Cougar Creek Ravine, Kendale Ravine, McAdam Ravine, Eden Crescent and others. Questions about the adequacy of existing geotechnical investigations led to Council adopting a new policy defining the standard for geotechnical studies and assurances of safety on November 2, 1999. This was not adopted by bylaw, however, and is presently only considered Council policy.

Staff were directed to integrate this policy into the Delta OCP DP guidelines. As part of this work, DP area boundaries of the areas to which the guidelines would apply were reviewed. This review revealed that many sloped properties are not included within existing DP areas. In order to define Sloped Lands DP areas more accurately, Delta engaged Trow Consulting Engineers Ltd. (Trow) to review aerial maps, topographical maps and conduct site visits to properties. They completed three studies reviewing sloped areas in increasing levels of

detail in response to public and Council concerns. The third study is included here as Attachment C and the other two studies, which were previously presented to Council, are available for review in the Community Planning & Development Department.

In 2002-2003, prior to bringing a bylaw forward to Council, staff undertook a public consultation process which included two information meetings. Both meetings were well-attended and the discussion was extensive. The major points raised by the public during the discussion included:

- a) Certain properties do not warrant inclusion in the Development Permit area;
- b) More types of development should be exempt from DP requirements;
- c) Properties should not be labeled "natural hazard" areas as it raises a red flag and may decrease property values; and
- d) A DP process involves extra time and cost for the applicant.

Further questions were raised about existing slope instabilities, enforcement of covenants, protection of trees on slopes, and the costs of geotechnical studies. Given the complexity of the information and homeowners' concerns, staff met individually with several homeowners. Where questions were of a more technical nature, meetings between the geotechnical engineers and citizens were arranged.

Revised DP areas and DP guidelines which incorporated the previously adopted policy were brought forward in a bylaw in early 2003. On March 31, 2003, Council gave first and second readings to Bylaw No. 6106 to amend the OCP and include these new DP maps and policies. Following the Public Hearing on April 29 and May 1, 2003, Council did not proceed to give the bylaw third reading. They directed staff to consider excluding properties from the DP area where owners have provided a "save harmless" covenant and to consider exemptions from DP requirements where a proposed development seems unlikely to affect slope stability.

■ COUNCIL POLICY:

Official Community Plan

"North Delta: Policy H.5: Require Soil Studies on Steep Slopes

Require soil stability studies before development on steeply-sloping areas, areas immediately nearby and those areas shown on the Possible Hazardous Areas Map."

"Tsawwassen: Policy F.7: Retain Bluff Stability

Any new construction above, below, or on the bluffs on the north, northwest and west sides of Tsawwassen are to be safe both for the new structure and its inhabitants, as well as for existing structures and residents."

"Fraser River Escarpment Development Permit Guidelines

A development affected by hazardous conditions shall be subject to the conditions established by a suitably qualified Professional Engineer. (This Guideline is based on a standard established by the Ministry of Environment and Parks, Province of British Columbia)."

Other Guidelines

Council adopted "Guidelines for Geotechnical Requirements in Steep Slope Areas" on November 2, 1999. This policy outlines geotechnical information and assurances of safety that are required for development on properties on or near steep slopes.

■ DISCUSSION:

The concerns raised by the public and Council were carefully considered in preparing the current draft bylaw and DP guidelines. The guidelines were also reviewed in light of the recent approval and release of the Association of Professional Engineers and Geoscientists "Guidelines for Legislated Landslide Assessments for Proposed Residential Development in B.C.". Brief outlines of the two bylaws being presented follow here. Additional detail on certain aspects of the proposed bylaws can be found in the pages which follow.

Amendments to two Delta bylaws are proposed:

1. Official Community Plan Bylaw (Bylaw No. 6447)
2. Development Application Procedures Bylaw (Bylaw No. 6448)

Proposed Amendments to Official Community Plan Area Plans and DP Guidelines (Bylaw No. 6447)		
1.	Schedule A, Natural Environment:	Adds a description of Delta's sloped lands in the context of the natural environment.
2.	Schedule C North Delta Area Plan: The Natural Environment:	Amends wording to point out that there are special requirements in DP areas where slope stability may be a concern. Map on this page is deleted as more up-to-date mapping is included in Schedule E, DP Guidelines.
3.	Schedule D, Tsawwassen, The Natural Environment:	Adds wording which states the importance of maintaining vegetation in areas of potential concern for slope stability. Also refers to the broader category of "alteration of land" rather than simply "new construction" as requiring geotechnical study and appropriate levels of safety.

4.	Schedule E, DP Area Guidelines and Requirements:	
	a)	"SD2 English Bluff", "ND1 Fraser River Escarpment" and "ND10 Cougar Creek Headwaters" replaced with "SL Sloped Lands".
	b)	Adds a clause at beginning of all DP guidelines to reinforce the concept that nothing should be altered before a DP is received for any DP area. -
	c)	Exemptions that do not apply in the case of Sloped Lands: <ol style="list-style-type: none">1. accessory buildings and garages;2. small structural alterations to Single Family Dwellings (SFD's);3. where a DP was issued with the original SFD subdivision;4. for alteration of or around heritage buildings; and5. where a DP was issued as a condition of subdivision for any type of development.
	d)	Adds an exemption for public works and services (but Environmental Review Committee [ERC] to review where work takes place near a watercourse.)
	e)	Adds an exemption for very small accessory buildings; e.g., buildings that would not otherwise require a building permit.
	f)	Adds an exemption for internal repairs further than 5 m (16.4 ft.) or 2/3 the height of the slope, whichever is greater, from the crest or toe of the slope.
	g)	Adds an exemption for any other development which is 10 m (32.8 ft.) or 1.5 X the height of the slope, whichever is greater, from the crest or toe of the slope.
	h)	Adds a section outlining how emergency situations in steep slope areas are to be addressed where the safety of residents or property is in imminent danger. Delta is to be notified within 48 hours and DP, along with all information and safety assurances will still be required.

5.	Sloped Lands Development Permit Guidelines	Adds DP guidelines for Sloped Lands which make it clear that "alteration of land" will trigger the requirement for a DP and not simply construction of new buildings. The guidelines also specify how slope stability, human safety and property is to be protected.
6.	Maps IIB and IIC	Amends map of DP areas to reflect changes based on geotechnical research of sloped lands.

Proposed Changes to Development Application Procedures Bylaw (Bylaw No. 6448)		
1.	Section 2.1, Definitions	Adds a definition for a "qualified professional", a term defined and used specifically in the Association of Professional Engineers and Geoscientists of BC's "Guidelines for Legislated Landslide Assessments for Proposed Residential Development in BC".
2.	Section 13 (new)	New section with application requirements for DP applications in Sloped Lands areas.
	13.1	Includes specific application requirements. Technical requirements and assurances of safety incorporate current Council policy on "Guidelines for Geotechnical Requirements in Steep Slope Areas".
		Specifies assurances that are required before Delta considers any proposed alteration of land to be safe.
		Specifies required contents of a geotechnical study.
		Requires plans for mitigation of any on or off-site slope instability, construction management and monitoring.
		Requires final report and confirmation that "qualified professional" has reviewed other geotechnical reports on file with Delta.
		Details insurance requirements as recommended by Delta's Risk Management Officer.

	13.2	States option to require a Public Meeting where Council considers it necessary.
	Schedule F., 4.1	Increases fee for Sloped Lands DPs to \$1000

Exemptions from DP Requirements

It is proposed that some exemptions be allowed for the Sloped Lands DP area but that these be limited, given the potential risks for damage to property and risks to life and safety. As Trow described in a background study, the major slope failure sources that affect properties in Delta can make it difficult to predict slope instability:

"The behaviour of natural slopes is very complex, critical layers are often buried, and the engineering properties are highly variable. Therefore, the assessment of slope stability and hazard requires considerable judgment and experience."

Broad exemptions to any type or size of development are not recommended except under certain circumstances, which include:

- (i) interior renovations to existing buildings;
- (ii) exterior renovations to existing buildings, which do not include structural alterations to the buildings;
- (iii) subdivision of a previously occupied building in accordance with the Strata Titles Act, provided that no Building Permit is required;
- (iv) the "development" takes place within the existing building footprint and the "development" is located at a distance greater than 5 m (16 ft) or 2/3 the height of the slope, whichever is greater, from the crest or toe of a slope;
- (v) the "development" is at a distance greater than 10 m (32 ft) or 1.5 times the height of the slope, whichever is greater, from the crest or toe of the slope; and
- (vi) uninhabited accessory buildings of 10 m² (107 ft²) or less in size, where no excavation, filling, foundation or footings are required.

These exemptions have been incorporated into the bylaw. Where an exemption is sought because development is at a certain distance from a slope, a geotechnical engineer will still have to be retained by a property owner to accurately identify the crest or toe of a slope on a survey.

Public works and services undertaken by The Corporation of Delta will not require a DP. They will, however, have to be reviewed by Delta's Environmental Review Committee (where a slope is near a watercourse) and approved by the Director of the appropriate department.

Time and Cost of the DP Application Process

For properties on or near sloped areas that were not previously within DP areas, a DP application would add another step to the development process. There would be some time involved to make the application, have the file reviewed, and make a recommendation for Council's consideration of the DP. While there is a cost to make a DP application, the more significant cost is to hire a geotechnical engineer's services.

It should be noted that a geotechnical study is required for any new building on or near a steep slope whether it is in a DP area or not. The Chief Building Official is empowered to require a geotechnical study if a building is on or near a sloped area. The study requirements and review would be essentially the same as for a DP although it would not need to be presented to Council or the Director of CP&D for approval. The Chief Building Official could not, however, address situations where there may be some other alteration to land other than a new building which could affect slope stability.

The advantage to requiring a DP prior to a Building Permit application is that technical issues can be addressed before detailed building plans are prepared. The level of building detail required for a DP is much less than for a building permit and, if changes are required to a building to respond to geotechnical findings, these can be incorporated into the more detailed plans before a building permit application is made.

Should Council wish to streamline the DP process even further, the *Local Government Act* permits Council delegate authority to issue DPs to the Director of Community Planning & Development. Given the geotechnical information and specific assurances to be provided in support of a Sloped Lands DP, there is limited scope for non-technical evaluation of a DP submission. By delegating this authority, at least three to four weeks processing time could be saved. The delegation of authority to issue these DPs is not included in the bylaws presented here today but an alternative bylaw could be brought forward if Council feels this is appropriate.

DP Application Fees

In addition to specifying DP application requirements, Bylaw No. 6448 proposes a higher fee to process applications in Sloped Lands areas. A fee of \$1000 is proposed to more closely reflect the cost of reviewing and processing these DPs. The increased fees are also required to offset the cost of the peer review of geotechnical studies submitted to Delta. As there is no geotechnical engineer on Delta's staff, a peer review is felt to be essential given the highly technical nature of these studies. The higher fee would help offset some of the cost of the peer review.

Insurance Requirements

Based on discussions with Delta's municipal solicitor and risk management officer, the following insurance coverage is recommended:

- (a) The Applicant or their Agent purchase and provide proof of Comprehensive General Liability insurance naming The Corporation of Delta as an Additional Insured, covering losses to a third party for bodily injury or death, property damage and unlicensed vehicle and attached equipment operations. This insurance is to be an all risk, occurrence-based policy with a \$5 million (\$5,000,000) minimum limit.
- (b) The applicant's geotechnical engineer of record must provide proof of professional liability insurance on a claims made basis to a limit of \$2,000,000 per claim and in the aggregate, with a maximum \$50,000 deductible. The policy is to remain in effect for a minimum of two years after completion of the work.

These insurance requirements should be available to the majority of reputable professionals. General liability provisions are quite stringent but Delta's former risk management officer advised that the exposure to Delta from developers' or contractors' negligence is as great, or greater than that of a geotechnical engineer. These insurance requirements are incorporated into the DP guidelines. The DP guidelines will also advise property owners that they should seek their own insurance coverage to ensure they are adequately protected in some unforeseen event.

Recommended Consultation Process – Local Government Act Section 879

When considering the previous Sloped Lands DP bylaw in 2003, Council adopted a program for consultation with persons or outside agencies who may be affected by proposed OCP amendments. Council previously directed staff to hold public information meetings to introduce the proposed DP Guidelines and to consult with the City of Surrey, the Tsawwassen First Nations, the (then) Ministry of Water, Land and Air Protection, and the Fraser River Estuary Management Program.

As noted earlier, a public consultation process with public information meetings was undertaken. Additional public information meetings would be of limited value as there have been few changes to the outlines of the DP areas, information and assurance requirements are the same and exemptions are still limited. The changes proposed in the new bylaws are more administrative in nature and do not alter the direction or intent of this initiative.

In addition to the agencies approved for consultation in January, 2002, it is recommended that the attached guidelines be circulated to the Association of Professional Engineers and Geoscientists of BC. These professionals will be working with the guidelines once adopted so having their comments at this stage would be helpful.

It is therefore recommended that a public hearing be scheduled after Council considers the bylaws presented here. All owners who will either be a part of the DP area or exempted from it will be notified by letters and through ads in local newspapers. All of the information will also be posted on Delta's website. Owners could write to Council, contact staff to ask questions or to set up meetings with staff to discuss the bylaws.

■ INTERDEPARTMENTAL IMPLICATIONS

Engineering Department

Engineering has reviewed the draft report, bylaws and guidelines and has no further comment.

■ FINANCIAL IMPLICATIONS:

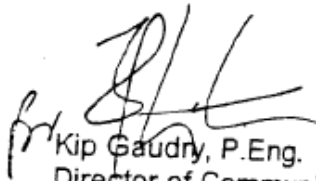
Adopting the proposed Official Community Plan amendments for DP areas is in keeping with current budgetary guidelines. Clear guidelines to address potential slope instability in all areas of concern can reduce Delta's future liability in these areas.

■ LEGAL IMPLICATIONS:

Delta's Municipal Solicitor has reviewed previous versions of the proposed bylaws and Bill Buholzer of Lidstone, Young and Anderson provided the most recent comments on this bylaw. These latest comments have been incorporated as recommended.

■ **CONCLUSION**

The proposed DP guidelines in Bylaw No. 6447 respond to comments and concerns raised at public information meetings, public hearings, and by Council. With the specialized geotechnical knowledge of a qualified professional engineer, specific properties were reviewed in greater detail and further exemptions developed. Submission requirements and a revised fee structure are presented in Bylaw No. 6448, which would amend the Development Application Procedures bylaw. It is now proposed that the bylaws presented here be given readings and that they be referred to the appropriate agencies prior to a public hearing. In the event other new significant issues are raised, staff will report back to Council with recommendations.



Kip Gaudry, P.Eng.
Director of Community Planning & Development
Department submission prepared by: Susan Elbe

SE:sdr

■ **ATTACHMENTS:**

- A. Bylaw No. 6447, 2006
- B. Bylaw No. 6448, 2006
- C. Study by Trow Consulting Engineers Ltd., dated December 31, 2005

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