Meeting Notes
City-Wide Ravine Study
Open House
June 24, 2009

Attendees:

Steve Ono         CNV
Tony Barber        CNV
Dorit Mason        NSEOC
Michael Porter     BCG

Introduction by Tony Barber
- Michael Porter presented ravine study PowerPoint (link to the presentation)
- Purpose of Study – Public Safety
- Consultant explained methodology

Next Steps were explained by Tony Barber
- CNV to do detailed assessment starting this Fall for high risk properties
- Will require permission from the property owners
- Study will be at the City’s expense
- Any mitigation measures on private property will be at the owner’s expense
- CNV may contribute to provide storm sewer or construction access

Question
Please explain the difference between assessment versus inspection for property at “moderate” and “high” risk?

Answer
Inspection is visual. Assessment is drilling holes, digging test pits, reviewing drawings, engineers analysis, etc.

Question
If a home is classified “Moderate” are these okay as is or is more work required?

Answer
- Just inspect and monitor
- CNV would monitor in future and update inspection in 5 years

continued .../
Comment
Congratulations to CNV for being proactive.

Question
• Any further assistance to Mosquito Creek residents for more assessment?

Answer
• Detailed assessment now done
• Remedial action orders issued
• Detailed design to be done at owner’s expense
• CNV helping to coordinate between owners and providing contact with engineers, plus building public access route for remedial work.

Question
What was the cost of remediation for the 6 “high” risk owners in Mosquito Creek?

Answer
The cost varies greatly depending upon the details of each property.

Question
Any storm drain plans on MacKay Avenue?

Answer
CNV will look at it.

Question
Owner on MacKay did new drain in 2002 and was told to drain to back of property.

Answer
Would need to look at specifics of site. See Tony Barber.

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**Question**
Vancouver resident owns a unit in Cypress Gardens. How were these properties allowed to be built by the City on unstable slopes?

**Answer**
Standards and knowledge has changed since the properties were built. Many were built decades ago to the standards of the day.

**Question**
If an occupant is in one of the “high” risk structures, should they be evacuating?

**Answer**
No, not for “high” risk. There is no dire consequence. The recommendation is for a detailed assessment within 3 years. A risk of loss of life is low for these high risk properties.

**Question**
For fall assessment – how much advance notification will the City provide?

**Answer**
A lot more interaction. The City will be requesting owner consent to do detailed investigation for high risk properties. The City will probably give property specific information as soon as possible and even preliminary number information upon request.

**Question**
Risk. What is the difference between “low” and “very low” in the factor of safety?

**Answer**
Very low, probably > 2 factor of safety.

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**Question**
Owner is in the “high” category. How should I deal with bank financiers who react differently to high risk?

**Answer**
For your own property on Westview Drive, moving towards moderate or better engineer certification following geotechnical mitigation measures which should improve the bank’s perception.

**Question**
Suggest we go over and above the Canadian requirements.

**Answer**
Currently, there are no hard standards but CNV is following very good guidelines.

**Question**
I own an apartment in Cypress Gardens. Is it on Mosquito Creek?

**Answer**
It is on Thain Creek which is a branch of Mosquito Creek.

**Question**
Cypress Gardens. Maybe I didn’t get the notice because the property manager didn’t distribute them. Will the owners get notice direct in the future?

**Answer**
Yes, if that is preferred by you.

**Question**
With a “moderate” risk property, what can I do to improve it to “low” risk?

**Answer**
Maybe to improve the drainage and remove fill. Must look at site specifics.

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**Question**
DNV Berkley Slide. How strong was the recommendation for the storm drain there?

**Answer**
This was a different situation due to the homes at the base of the slope. Therefore, DNV required properties at the top of the slope to connect to the storm sewer.

**Question**
The provincial emergency program was activated in Berkley Slide, will it be activated in this case?

**Answer**
Only if a landslide occurs and causes a state of local emergency situation.

**Question**
Are there storm sewer drains in Cypress Gardens now?

**Answer**
Yes, even though the complex was built in 1966.

**Question**
Compare the water table factor to the earthquake factor for risk.

**Answer**
Rainfall and high water table occur annually. Major earthquakes only once every 400-500 years.

Saturated soils cause flow of soil. Earthquakes in dry condition cause less severe slides than in wet conditions.

**Question**
How much is adjacent property risk level a factor on own risk?

**Answer**
Drainage is important for all, fill removal less so.
Question
How do we reconcile remediation action orders with riparian protection regulations?

Answer
Within setbacks, need Department of Fisheries and Oceans application. DFO is reasonable but some mitigation will be needed on a case by case basis.

Question
Neighbour says at Westview there is illegal dumping of invasives which kills trees. Is this true?

Answer
Yes, invasive plants like ivy can kill trees.

Question
Was DNV / CNV Parks involved in the tree removal at Cypress Gardens? Who pays on the City land? 

Answer
The City pays if there is an issue on City land. Local Area Service implemented if the benefit is only for the private owner and not the City. There is some City land next to Cypress Gardens so parks would be involved if public trees were removed.

Question
Will Cypress Gardens work qualify for Local Area Service?

Answer
It will depend on the detail of the work needed, the location, and for whose benefit.

Question
Ivy attaches to trees and leaches out nutrients killing the trees.

Answer
Thank you for the information.

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**Question**
Do large fir trees etc. help stabilize slopes?

**Answer**
Yes. They absorb moisture and put down deep roots.

**Question**
Is the City looking at creeks full of tree debris that shifts the flow patterns and can cause the slopes to erode?

**Answer**
If you provide a specific location we will look at it.

**Question**
How can “high” risk be shifted to “moderate” risk?

**Answer**
- Options will arise from a detailed assessment
- May even be lower based on new information resultant from a detailed assessment
- Drainage, fill removal and retaining walls are common solutions

**Question**
A neighbour built an illegal retaining wall. What can I do?

**Answer**
Notify CNV of the location.

**Question**
Is it possible to contact the arborist to identify what plants to keep?

**Answer**
Yes, through the remediation plan which is the next step after a detailed assessment.