

INPUT

LAND AND REAL ESTATE
ISSUES IN BRITISH COLUMBIA



Hazard Management
Earthquake, Tsunami,
Landslide, Flood

INPUT

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PRESIDENT'S MESSAGE



GREG STEVES, RI
 REIBC PRESIDENT

Welcome to the Fall 2016 edition of *Input*, my first opportunity to reach out to you since taking over the reins as president of the Board of Governors in July. I'd like to thank Past President Andrea Fletcher for her hard work and dedication and extend warm wishes to Past President Jason Grant and Governor Raj Sandhu as they retire from the board.

The impact of rapidly escalating home prices in Metro Vancouver and the challenges around housing affordability have driven government toward some significant interventions. A tax on foreign ownership, changes to the Real Estate Council, a Housing Initiatives special account, and funding for affordable housing all top the list. With an election looming next May, something tells me we have yet to see the end of it all.

Add to that a renewed interest on the part of the federal government in developing a National Housing Strategy and it could be an interesting next year or two. Brenda Southam and I recently had an opportunity to attend the BC consultation on the National Housing Strategy, and local experts were united in their call for changes to the tax treatment of rental housing. It will be interesting to see if these measures gain traction federally.

So what do we know for sure during a time of such change? What I know is that REIBC is going as strong as ever. This is a great time for REIBC to stand out, to stand proud, and to establish itself as the designated professional choice.

Now is the time for us to reach out to members: What can we do to provide the support that you need to continue to demonstrate the high professional values and standards that are demanded? How can we evolve to ensure that we all continue to meet and exceed client and employer expectations? I look forward to working with the Board of Governors over the coming year to explore these issues in greater detail and to better understand how they impact us. I hope you are looking forward to the year ahead. I know I am.



COVER: Exercise Coastal Response in Ucluelet. Photo by Douglas Ludwig.

Read the article on page 30.

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FROM THE EO'S DESK



BRENDA SOUTHAM
EXECUTIVE OFFICER
AND EDITOR-IN-CHIEF

As we put this magazine together we were continually reminded about the natural disasters that happen throughout the world, and the recent earthquake in Italy that happened while this edition was in production really brought the idea home that we must be prepared. In BC there are a number of hazards that we deal with, some more often than others, and all require risk management.

Province-led Emergency Management BC works to improve emergency preparedness across British Columbia. EMBC conducts response exercises, partnering with communities such as Ucluelet, to test preparedness and response to a large earthquake and tsunami. The District of Ucluelet's recent experience in Exercise Coastal Response provides a window into what coastal communities are doing to prepare for "the big one." Annual community tsunami evacuation drills and designated community safe zones are just a few of the actions taken.

The BC Real Estate Association is working collaboratively to ensure that floodplain maps are updated and stay current in order to minimize damage. Real estate industry professionals need such information to help their clients make good and safe decisions. Landslides are a hazard that the District of North Vancouver has unfortunate experience with. Within its Natural Hazards Management Program, DNV works to minimize risk, investing in programs, policies, and infrastructure related to landslides and other hazards. Natural hazards, such as flooding and landslides, can be affected by weather. Meteorologist Mark Madryga discusses the weather of recent years, putting into context his predictions for this winter.

We trust you will find this edition interesting and useful to your profession and we look forward to your feedback. As you receive this edition we are just a few weeks away from a new year. I would like to take this opportunity to thank everyone who contributes to REIBC throughout the year and wish you a very merry Christmas and a happy New Year. See you in 2017!

CONTRIBUTORS



1



4



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5



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6



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WE WANT TO HEAR FROM YOU.

Please let us know your ideas for upcoming issues and how you like the magazine—and check out our Facebook and Twitter pages for up-to-the-minute information on REIBC activities.

reibc.org info@reibc.org

GUEST AUTHORS

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2 Fiona Dercole, MA (Public Safety Leadership), is the section manager for public safety at the District of North Vancouver where she leads the District's Natural Hazards Management Program, building community resiliency by increasing knowledge of hazards and risks, coordinating mitigation programs, and developing policies to address future risks.

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3 Dorit Mason, MSc, CEM, ABCP, is the director of North Shore Emergency Management, a tri-municipal department for the districts of West and North Vancouver and the City of North Vancouver. She has 24 years of experience in the emergency management field in the postsecondary, provincial, and local government sectors.

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COLUMNISTS

7 John McLachlan, RI, BA, LLB, is a lawyer at Lex Pacifica Law Corporation in Vancouver, British Columbia. His practice is focused on civil litigation with an emphasis on real property matters. John has appeared as counsel before the British Columbia Court of Appeal, the Supreme Court of British Columbia, the Provincial Court of British Columbia, the Federal Court, and various Administrative Tribunals.

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4 Naomi Yamamoto is the MLA for North Vancouver-Lonsdale and is British Columbia's first minister of state for emergency preparedness. She previously served as minister of advanced education and as minister of state for intergovernmental relations, tourism, small business, and building code renewal. Yamamoto was the president and owner of Tora Design Group in North Vancouver for 21 years. She also served as chair for a number of business and community groups around the Lower Mainland.

www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/preparedbc

5 Karla Robison, BNRSc, is the District of Ucluelet's manager of environmental and emergency services. The Emergency Service Department supports emergency management and community organizations with the Volunteer Fire Brigade, an Emergency Network, and Emergency Social Services. Robison has a broad background in project management, emergency response, environmental protection, and cooperative ventures. She believes in the collective responsibility to be prepared for emergencies and in the critical importance of the interface between disasters, human life and health, and the environment.

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6 Mark Madryga is the chief meteorologist at Global BC. He was born and raised in Kamloops and then moved to Vancouver to attend UBC, where he studied meteorology and geography, earning a bachelor of science. Madryga spent 21 years as an operational meteorologist at Environment Canada's Pacific Weather Centre in Vancouver and overlapped his work there with Global and CKNW weather broadcasts since the mid 1990s. He can currently be seen and heard presenting his forecasts on weekday mornings and at noon hours.

globalnews.ca

WANT TO WRITE FOR AN
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Contact Brenda Southam at
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UPCOMING ISSUES:

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DATA AND THE CITY



"These are people's homes and tenant comfort is a top priority for our company."

Bill Henderson, partner, Carlisle Management Inc.

Small changes can add up to big savings

Rental property manager Bill Henderson knows the importance of maintaining his buildings, while still keeping costs in check. That's why he signed up for the FortisBC Rental Apartment Efficiency Program.

As Henderson says, "Why wouldn't a landlord want to participate? You get an energy evaluation from a professional engineer and water-efficient fixtures installed, all for free. Plus you reduce energy costs, improve tenant comfort and increase the value of your investment."

That's energy at work.

Sign your building up today. Visit fortisbc.com/rentalsavings or call **1-877-327-6137**.

START WITH FLOODPLAIN MAPS

Norma Miller

British Columbians are regularly confronted with the effects of extreme weather, including flooding. Flooding poses catastrophic risks to BC's economic vitality, infrastructure, environment, safety, property owners, and communities. This problem is expected to be made worse by climate change, and flooding definitely doesn't respect jurisdictional boundaries.

This is a complex issue with many components, and the British Columbia Real Estate Association (BCREA) and many other stakeholders are concerned that existing floodplain maps are outdated and may be unreliable. If the basis for decision making is unreliable, then the ability of decision makers to effectively manage flood risks is limited.

BC has the opportunity to take steps now to minimize damage from floods—before a major catastrophe occurs. This is the purpose of BCREA's initiative to ensure existing floodplain maps are updated and remain current.

ABOUT FLOODPLAIN MAPS

Floodplain maps can be used for a range of different purposes, from outlining the extent of floodplains to applied tools that can consider risk (such as threats to life, health, property, or the environment) and projected changes. Floodplain maps may also be used for public education, emergency planning, and response.

Floodplain maps created during the former BC Floodplain Mapping Program primarily depict areas located outside of the Lower Mainland, reaching north to Taylor and Stewart, east to Sparwood, west to Port Hardy, and south to Sooke. Unfortunately, these floodplain maps, which are

by far the largest store of maps available in the province, are a median age of 27 years.

Why does age matter? Changes in both the natural and built environments, including changes in climate, hydrology, and land use, have impacts. And technological advances mean that better mapping techniques and tools are available now.

Provincial legislative amendments in 2003–2004 are a big reason why floodplain maps in BC are in such a poor state. The changes shifted more responsibilities for flood management from the provincial government to local governments. The Ministry of Environment, for example, used to approve subdivisions or floodplain bylaws, but local government approving officers now do this. With wide variation in the expertise and resources available to local governments to manage flood risks, the result is that most existing floodplain maps are out of date.

Planning in advance to avoid or minimize flood damage is far less traumatic and expensive than responding to an emergency. Although the development of floodplain maps requires considerable money and expertise, the return can be significant. Analysis by the United States Federal Emergency Management Agency has shown that every dollar spent on floodplain maps results in two dollars of benefits for taxpayers.¹ As another example, the \$63.2 million invested in the Manitoba Red River Floodway in 1960 is estimated to have saved \$8 billion in potential damage and recovery costs over 45 years.² And in 2012, Public Safety Canada recommended developing "a mitigation program that would apply to all provinces/territories to enhance infrastructure to better withstand future floods."³

1 Association of State Floodplain Managers, *Flood Mapping for the Nation: A Cost Analysis for the Nation's Flood Map Inventory*, 2003.

2 Public Safety Canada, *Canada's National Disaster Mitigation Strategy*, 2008.

3 Public Safety Canada, *2011-2012 Evaluation of the Disaster Financial Assistance Arrangements Program*, 2012.



Floodplain maps workshop, 2013.

WHY THIS MATTERS TO THE REAL ESTATE COMMUNITY

Over the years, BCREA has been asked many times about its involvement in this issue. The connection is direct: every day, REALTORS® around the province help British Columbians choose where to live, work, and build their lives. REALTORS® believe that the people who invest in real estate, and who help drive the BC economy, need reliable information so they can make the best—and safest—decisions possible.

BCREA has been concerned about issues related to flooding since 2006. In 2011, the Association adopted the position that existing floodplain maps in BC needed to be updated to provide communities with accurate information on which to base decisions about growth and safety.

While neither BCREA staff nor REALTORS® are subject-matter experts on this issue, the Association's involvement has helped energize the discussion. BCREA also plays ongoing roles in communicating progress by and to a variety of stakeholders and in advocating for action by all levels of government.

FLOODPLAIN MAPS ACTION PLAN

In 2013, BCREA organized a workshop with nearly 70 stakeholders and practitioners involved with flood management, land use, and emergency management to learn

more about floodplain maps. The workshop resulted in the Floodplain Maps Action Plan, which focuses on ways to overcome political, technical, and financial challenges to updating floodplain maps and recognizes the need for cooperation and collaboration among all levels of government and the private sector.

The Floodplain Maps Action Plan itself is truly a collaborative initiative. A working group meets regularly to provide expert insights and guidance on implementation, and it includes representatives from the Adaptation to Climate Change Team at Simon Fraser University, Fraser Basin Council, Ebbwater Consulting, Northwest Hydraulic Consultants, Insurance Bureau of Canada, Urban Development Institute, and Okanagan Basin Water Board.

The Action Plan guides much of BCREA's work in this area and has provided the framework for specific projects and ongoing outreach, described below.

FUNDING GUIDEBOOK

BCREA's Floodplain Mapping Funding Guidebook for BC Local Governments was first published in May 2014 and has been updated twice since then. After examining the available funding sources, the primary conclusion was that local governments need innovation and creativity to fund projects to update or create floodplain maps. The guidebook describes major funding sources,

Over the years, BCREA has been asked many times about its involvement in this issue. The connection is direct: every day, REALTORS® around the province help British Columbians choose where to live, work, and build their lives. REALTORS® believe the people who invest in real estate, and who help drive the BC economy, need reliable information so they can make the best—and safest—decisions possible.

offers examples of how some communities have funded floodplain mapping projects, and can serve as a starting point for those who are considering similar studies. The guidebook even contemplates future policy directions that might expand the funding options available to local governments.

The project, completed by BCREA, Ebbwater Consulting, and Sustainability Solutions Group, also yielded a Floodplain Mapping Backgrounder, which serves as a good primer on the technical aspects of floodplain maps and offers some context within in BC and Canada.

These materials are intended to help enhance the capacity of local governments to tackle floodplain mapping projects, by pulling together basic information. The guidebook is updated at least once a year, to ensure its relevance and value.

FLOODPLAIN MAP INVENTORY

Commissioned by BCREA and published in October 2015, the BC Floodplain Map Inventory Report helps identify gaps in floodplain mapping and highlights the need for up-to-date floodplain information in BC. The report presents an inventory of floodplain maps in the province created or updated since the end of the BC Floodplain Mapping Program. It also describes how floodplain maps are used, the public availability of maps, availability of supporting data, and challenges and opportunities that

communities have experienced in attempting to prepare or update floodplain maps.

Seventy-two local governments and First Nations responded to a survey, and 25 of those respondents participated in telephone interviews. While the small sample makes it difficult to generalize, the following findings are still worth noting:

- Only 21% of the 72 communities have access to floodplain maps updated within the past 10 years and nearly 31% reported they have no access to floodplain maps at all.
- More than 50% of respondents indicated floodplain maps are a low priority for their organizations; those that rank it high have probably experienced a recent flood event.
- Communities and First Nations report a variety of barriers to updating floodplain maps, which can generally be categorized into technical, financial, and political obstacles.
- While many respondents have access to data that can be used for flood management and/or risk assessment, data formats and resolutions vary widely and responses may indicate a lack of awareness of publicly available resources.
- Some respondents believe that proactively designating floodplains increases a community's liability; others believe it reduces liability.

**Act Now—Save Later:
Updated Floodplain Maps are Critical**
April 2014

Southern Alberta, June 20, 2013. Heavy rainfall triggered the most expensive natural disaster in Canadian history.

Source: Government of Alberta. Photo courtesy of Calgary Real Estate Board.

THE ISSUE

The 2013 flood in southern Alberta was a stark reminder of the devastating impacts and catastrophic risks posed by flood waters. The economy, infrastructure, health, physical safety and emotional well-being are all at stake.

BC has a choice.

Planning ahead to minimize the impact of a flood is far more cost-effective and responsible than responding to an emergency. Unfortunately, many communities in British Columbia lack reliable information about the risks they face, which leaves them unable to make solid decisions about how to avoid flood damage.

The British Columbia Real Estate Association (BCREA), its member real estate boards and 18,500 REALTORS® urge the provincial government to:

1. Take the lead, working with local and federal governments, to ensure floodplain maps are updated and remain current.
2. Develop guidelines and specifications for the development of floodplain maps.
3. Ensure senior government funding programs for flood mitigation cover technical studies, such as floodplain maps.

BCREA submission to BC members of the legislative assembly in 2014.

FIND OUT MORE

The Floodplain Maps Action Plan, quarterly progress reports, funding guidebook, floodplain maps back-grounder, and inventory are available at bcrea.bc.ca/government-relations (look under “flood protection”).

BCREA distributes the quarterly progress reports by email to about 300 interested individuals. To receive this report, contact Norma Miller: nmiller@bcrea.bc.ca.

Even though the number of respondents was small, the BC Floodplain Map Inventory Report may still be the most comprehensive available list of floodplain maps in BC. The project helped raise awareness about the importance of floodplain maps.

ADVOCACY AND RESULTS

BCREA’s research activities are complemented by ongoing advocacy efforts.

Meetings and conversations with elected officials and government staff occur regularly, but BCREA’s most concerted advocacy effort occurred in April 2014, when REALTORS® from around the province met with 57 of their members of the legislative assembly to discuss the need to update floodplain maps. At that time, BCREA urged the provincial government to:

1. Take the lead, working with local and federal governments, to ensure floodplain maps are updated and remain current.
2. Develop guidelines and specifications for the development of floodplain maps.
3. Ensure provincial and federal funding programs for flood mitigation cover technical studies, such as floodplain maps.

BCREA’s first two recommendations have not yet been implemented, but the third has. Making good on a promise in the 2014 federal budget, the Government of Canada implemented the National Disaster Mitigation Program (NDMP) on April 1, 2015. The NDMP is intended to reduce flood-related costs for all levels of government and contribute to establishing conditions for the introduction of a residential flood insurance market in Canada.

The program will see \$200 million distributed over five years, to cost-share projects focused primarily on flood mitigation. Only provincial governments are eligible to apply, but the Province has reached out to municipalities asking for partnership projects. Recognizing that this is not a significant amount of money for such a large and important issue, BCREA is still pleased to see federal action and resources devoted to it.

Through Natural Resources Canada and Public Safety Canada, a technical working group has been formed to create national floodplain mapping guidelines. Originally expected to complete in 2016, the project will likely be delayed to 2017.

In May 2016, the Province announced that it had awarded funding to the Association of Professional Engineers and Geoscientists of BC (APEGBC) to aid the development of floodplain hazard mapping and modernize professional practice guidelines relating to flood assessments. Those guidelines should be final in the spring of 2017. This project was born as a direct result of a meeting BCREA arranged with Emergency Management BC and APEGBC, and BCREA is pleased to participate on the review task force.

In recent months, the Province has also made several funding announcements for specific flood-related projects around British Columbia, ranging from technical studies to infrastructure.

OUTREACH

Underlining all of BCREA's work is a consistent and systematic approach to communications.

Through newsletter articles, presentations, tradeshow, and an online video, and by attending many meetings, BCREA takes every opportunity to raise awareness about the importance of floodplain mapping and to communicate the progress made by others directly on floodplain mapping and on related projects.

The generosity of experts concerned about this issue has been essential to building BCREA's knowledge base and the sustainability of the Association's efforts. BCREA also thanks the Real Estate Foundation of British Columbia for its support of many of the projects associated with the Floodplain Maps Action Plan.

Progress made since the spring of 2013, as demonstrated by the allocation of government resources, has been remarkable, though actual mapping projects are still few and far between. Updating floodplain maps in BC will take a great deal of difficult, expensive work—but waiting will not make that work easier or less expensive. BCREA is encouraged by the positive responses it receives on this issue and looks forward to continuing to work alongside the many other advocates and governments at all levels to increase awareness and carry out actions to update floodplain maps.

Photos and graphics provided by BCREA.



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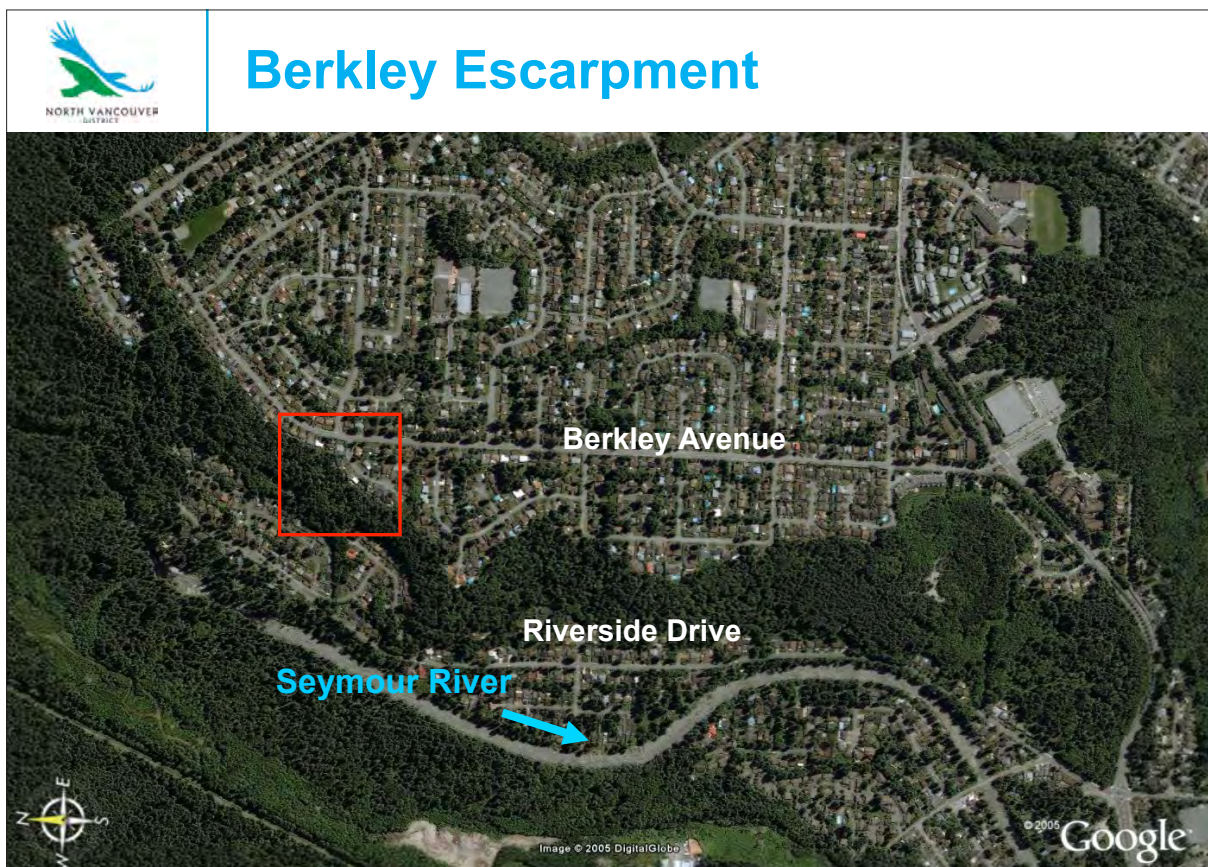
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DISTRICT OF NORTH VANCOUVER: LANDSLIDE RISK MANAGEMENT IN NORTH VANCOUVER

Fiona Dercole and Dorit Mason



Site of the 2005 Berkley landslide in the District of North Vancouver.

The District of North Vancouver (DNV) is located between the Pacific Ocean and the Coast Mountains and is home to about 85,000 residents. DNV covers an area of approximately 17,000 ha, roughly 20% of which is developed. Topography generally slopes from north to south with elevations ranging from sea level up to 1,450 m. Mountain streams have incised through glacial and interglacial fluvial, marine, and till deposits, forming a series of steep escarpments.

DNV receives, on average, approximately 2,400 mm of rainfall annually at lower elevations, with most of this falling between November and February. During this period the region is subject to “pineapple express” storms of tropical or subtropical origin that can produce more than 100 mm of rainfall in 24 hours with intensities exceeding 15 mm per hour. They are also associated with very high freezing levels (often above 2,500 m) and snowmelt. These types of storms can trigger landslides throughout southwest British Columbia.

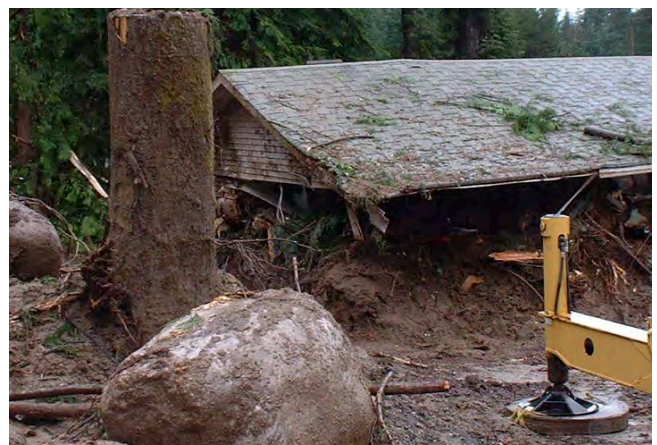
Much of DNV’s residential development occurred from the 1950s to 1970s. Residential lots on escarpment crests were often levelled by pushing or end dumping local and imported materials over the edge. Consequently, several of the escarpment slopes are over-steep and can be prone to landslides.

BERKLEY LANDSLIDE AND HAZARD MITIGATION

On January 19, 2005, heavy rainfall triggered a landslide on the Berkley Escarpment, destroying two homes at the base of the slope, seriously injuring one person, and killing another. In response to the slide, DNV’s municipal council commissioned a landslide risk assessment and mitigation program.

Investigations using air photos, field reconnaissance, and shallow subsurface investigations revealed common factors contributing to landslides—over-steep slopes, loose fill at the crest, retaining walls decaying or in disrepair, and poor drainage conditions where roof or perimeter drainage is directed over slopes instead of into the municipal storm sewer system.

A public task force was established to research and develop risk tolerance criteria, which were formally adopted by DNV’s council in 2009. Landslide screening studies and



A public task force was established to research and develop risk tolerance criteria ... Landslide screening studies and detailed risk assessments were completed throughout the municipality and the risk tolerance criteria were applied to these studies where appropriate.



detailed risk assessments were completed throughout the municipality and the risk tolerance criteria were applied to these studies where appropriate. Forty-three properties were identified where the estimated risk of fatality for home occupants most at risk exceeded 1 in 10,000, the recommended maximum tolerable risk for existing development in the District.

A mitigation strategy was developed to reduce these risks to tolerable levels; the Berkley escarpment crest was reshaped and DNV implemented capital projects to connect the storm sewer system to the homes. Additional remedial work included fill removal and bio-engineering measures to control surface erosion. DNV now has an ongoing program to monitor precipitation and groundwater conditions and visually inspect the slope during extreme rainfall.

A BC coroner's 2008 report on the Berkley landslide fatality made recommendations to the Province, Union of BC Municipalities, and the Association of Professional Engineers and Geoscientists of BC (APEGBC) that included establishing provincial standards for landslide assessments and safety levels and creating a database of landslide hazards.

NATURAL HAZARDS MANAGEMENT PROGRAM

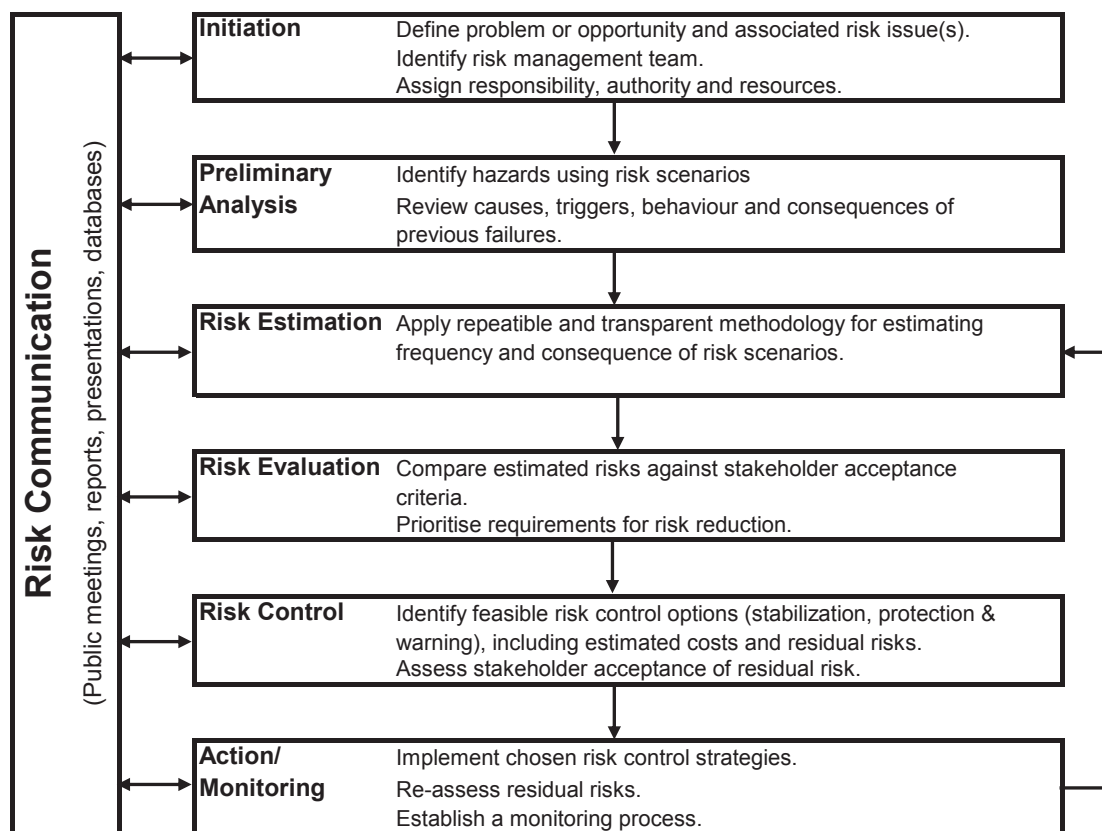
DNV's Natural Hazards Management Program was initiated in 2007 to assess natural hazards and

develop long-term management strategies. Part of the Engineering division, the program has a dedicated staff member who works closely with other departments and whenever possible uses external government grants to support capital projects. Program objectives are to:

- proactively understand hazards and risks
- establish mitigation priorities and policies based on risk
- educate stakeholders through communication tools
- maintain a publicly accessible hazard database
- create and follow best practices in natural hazard management

Risk Management Framework

Potential landslide hazards are first identified by studying historical air photos, LiDAR, and previous geotechnical reports. Field assessments are then carried out along escarpments more than 10 m high with slopes greater than 20 degrees to estimate the likelihood of landslide occurrence (contributing factors are pistol-butt trees, excessive seepage, deteriorating retaining walls, etc.). The proximity of homes to the crest and base of these slopes determines the potential consequences if a landslide were to occur. Landslide risk is then estimated



Risk Management Framework used by the District of North Vancouver.

by combining the likelihood and the consequence. The result is a qualitative risk ranking ranging between “very low” and “very high.” The “high” and “very high” ranked properties are candidates for a more detailed, quantitative risk assessment.

Risk estimations are compared with risk tolerance criteria to determine whether risks are broadly acceptable, tolerable, or unacceptable. Risk reduction strategies are developed for unacceptable risk locations and implemented through a shared responsibility model. Risk is then re-evaluated post-mitigation, and ongoing monitoring ensures that the risk reduction measures are functioning as intended. Communication with property owners, both upslope and downslope, is important at each phase of the program. The framework is tailored from Canadian Standard Association guidelines CAN/CSA Q850-97.

Risk Tolerance Criteria and Risk Assessments

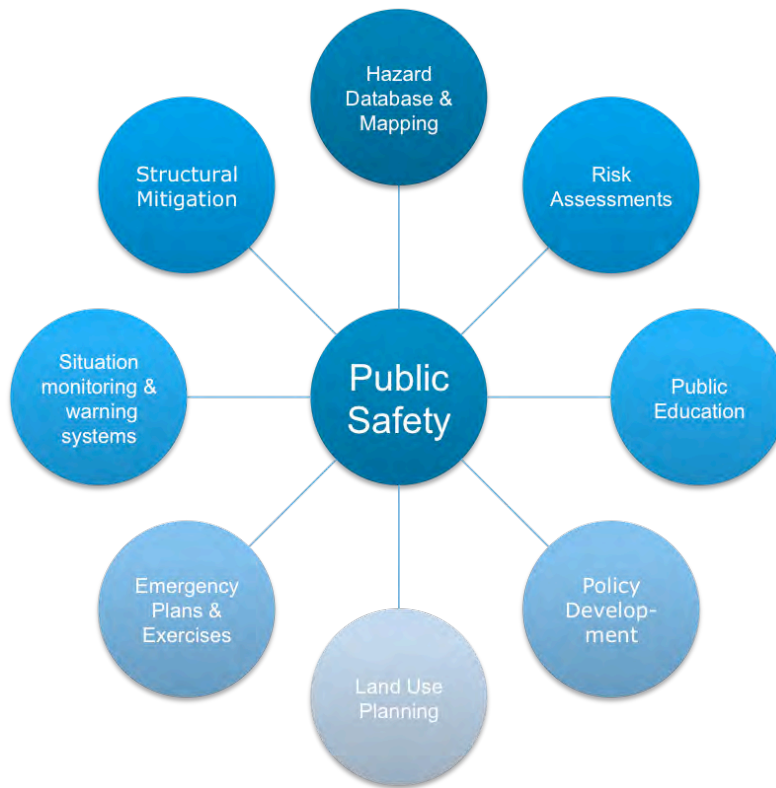
Risk is defined as the annual probability of fatality for individuals most at risk. Reducing risks to “as low as

reasonably practicable” (ALARP) means that the cost of further risk reduction would be grossly disproportionate to any risk reduction benefits gained.

DNV initiated a Natural Hazards Task Force, made up of eight volunteers from the community, with the mandate to:

- review risk tolerance criteria in other jurisdictions
- understand the daily risks faced by Canadians
- host community consultations
- present recommendations to council

Subject matter experts provided information to the task force. A public meeting and online survey obtained further citizen input and resulted in the recommendation that the tolerable risk to life for individuals exposed to natural hazards should be between 1 in 10,000 and 1 in 100,000 per year. The criteria were formally adopted by council in 2009 and align with APEGBC’s recommended approaches.



District of North Vancouver's approach to public safety.

DNV has commissioned screening and detailed assessments for landslide and debris flow risk that include historical record searches, air photo interpretation, field reconnaissance, subsurface investigations, slope stability analyses, quantitative risk assessments, and other components to evaluate whether risks are a) broadly acceptable and no further action is required, b) tolerable and should be kept under review to reduce risks to as low as reasonably practicable, or c) not acceptable and require risk control through mitigation or redevelopment.

Public Awareness and Services

As each hazard or risk assessment study is completed, property owners are notified of the findings and invited to attend a public meeting to discuss the results and recommendations. These meetings provide opportunities for dialogue between property owners, DNV staff, and geotechnical professionals. Reports are posted on the DNV website and distributed to public libraries. The DNV GIS department provides direct access to hazard reports that can be searched by property address.

DNV staff have presented to local real estate businesses, and real estate agents often contact DNV offices before buying or selling properties near slopes and creeks, which provides another opportunity for education and

helps to ensure that knowledge of hazards and risks is passed on to new owners.

DNV provides property owners with the opportunity to access qualified geotechnical professionals who can provide basic information about potential geological hazards at the property. This service builds relationships between property owners, geotechnical professionals, and DNV, opens lines of communication, and educates property owners about the hazards and risks in their area.

Community Planning Procedures

DNV's Official Community Plan (2011) includes development permit areas for slope, creek, and wildfire hazards. Development permit areas outline municipal requirements beyond the building code that must be met during development. They include a statement of assurance from a qualified professional engineer or geoscientist that APEGBC professional practice guidelines have been followed and that the proposed development is safe for the use intended in accordance with DNV's risk tolerance criteria.

The risk tolerance criteria are applied at the planning and building permit phases of development. Small renovations are required to limit risk to 1 in 10,000; 1 in 100,000

is an acceptable risk for projects that repair, replace, or retain a structure and for new development. A cross-departmental team reviews all development applications to ensure that a variety of community needs are met—including public safety and environmental protection.

Stormwater Infrastructure

The majority of stormwater infrastructure was installed at the time of original development in the 1950s and 1960s and was designed primarily to handle water free of debris. Our climate is changing and the region is anticipating an increase in the duration and frequency of extreme rainfall during the winter season. DNV recently commissioned a detailed analysis of all stormwater infrastructure located along the urban-wildland interface of the municipality that could be subject to debris torrents, under both current and future projected climate conditions. The assessment made recommendations for upgrades that are incorporated into DNV's asset management program, prioritized based on risk.

Connection to the municipal storm system is required during redevelopment; existing developments are encouraged to connect through an incentive program.

Emergency Response

When a landslide occurs, the municipality acts immediately to save lives and protect property. Emergency responders arrive at the site to rescue and evacuate people. An Emergency Operations Centre is activated to support the activities at the emergency site, provide services to evacuees, and communicate out to the community. Staff and volunteers are provided with regular training and exercises to enable them to be prepared to respond during these events. Once the initial response activities are completed, recovery activities occur. These systems were in place during the Berkley landslide.

DNV'S COMMITMENTS

The District of North Vancouver has invested in programs, policies, and infrastructure to:

- Understand the range of hazards that are present, their spatial distribution, and the risks that they pose to existing and future infrastructure and residential development.
- Prioritize risk mitigation and risk communication efforts through public consultation and the development and application of risk tolerance criteria.

Risk is defined as the annual probability of fatality for individuals most at risk. Reducing risks to “as low as reasonably practicable” ... means that the cost of further risk reduction would be grossly disproportionate to any risk reduction benefits gained.

- Reduce risk through the establishment of a formal Natural Hazards Management Program, under which:
 - » hazard considerations are included in development planning and permitting procedures and in infrastructure upgrades and maintenance
 - » geotechnical inspection and monitoring programs are developed
 - » the public is provided with education
 - » stabilization or protection measures are constructed at select locations where unacceptable risks have been identified

These efforts to understand, communicate, and reduce risk were recognized in 2011 by the United Nation's Sasakawa Award for Disaster Risk Reduction. As one of the United Nation's Role Model Cities, DNV is committed to sharing lessons learned and participating in local, regional, and national efforts to build resilience to natural hazards.

All community members have a personal responsibility to be prepared for emergencies. Free training sessions on how to become personally prepared are available at North Shore Emergency Management (NSEM). NSEM is the tri-municipal emergency management department for the City of North Vancouver, District of North Vancouver, and District of West Vancouver. Find out more at www.nsem.info.

Photos and graphics provided by District of North Vancouver.



PREPARING BC FOR A SAFER TOMORROW

Naomi Yamamoto, MLA



In July 2015, I was appointed by Premier Christy Clark to a new role in British Columbia's ministerial cabinet, and I take this tremendous responsibility very seriously. As the first provincial minister of state for emergency preparedness in our country, I am extremely proud of the work and the accomplishments we achieved over the past year with the support of the staff at Emergency Management BC (EMBC) and the dedicated emergency management representatives across our government.

I feel that as British Columbians we all count ourselves lucky to call this place home. This province is filled with vibrant communities and natural beauty, which make it such an incredible place to live and work. There is nothing I enjoy more than exploring the trails around my home base on the North Shore, and considering the number of people I meet on those trails, I am far from alone. But there is a reason I have been given this unique responsibility in our government—as the rugged beauty of our location and landscape creates inherent challenges in our management of emergencies.

Every year, we are facing greater threats. In a time of rapid population growth and urban planning, floods and avalanches are becoming more frequent and more severe. Wildfire seasons are starting earlier and extending later into the fall, while the geographic regions we need to protect are constantly expanding due to industry and infrastructure growth. All the while, firefighters are grappling with the growing threats of climate change, the mountain pine beetle, and an unprecedented buildup of forest fuels.

While we face the reality in British Columbia that these events may be increasingly common in the future, we are also continually learning more about that which threatens our families and communities. We know much more about the natural disasters in this region than we did 50 years ago. We know more than we did even 10 years ago. We now know that the greatest threat to our livelihoods and safety in this province is the potential of a catastrophic seismic event.

Studies suggest that BC has a one-in-three chance of a strong, damaging earthquake in the next 50 years. In fact, the geological record reveals that earthquakes at magnitude 8 or higher occur in the Cascadia subduction zone (stretching from northern Vancouver Island to northern California) about every 500 years on average. These earthquakes are often accompanied by tsunamis large enough to devastate coastal communities.



If a shallow earthquake were to strike directly beneath the city of Vancouver, roughly 10,000 people in the Lower Mainland could die. The science is in, and it would be irresponsible to simply hope that an earthquake will not happen in our or our children's lifetimes.

So we've been faced with a choice: to continue down the path we've become accustomed to, or to lead our province in a new direction—a direction that addresses current challenges and prepares us for the future.

Our provincial government is leading this charge. We've stepped up to improve emergency preparedness across British Columbia, and it is safe to say we now lead the country in earthquake preparedness.

We're supporting the development of early warning systems, which could provide valuable seconds of warning at the detection of an earthquake event. This could allow bay doors to open at fire and ambulance halls, trains to slow down and stop, bridge and tunnel traffic to be halted, surgeries to be suspended, and may even give school children prior warning to "Drop, Cover, and Hold On." EMBC is working closely and collaboratively with partners in BC and the United States on earthquake early warning systems, including Natural Resources Canada, Ocean Networks Canada, the University of British Columbia, the University of Washington, and private industry partners.

One of the greatest tools we have at our disposal in the response to a catastrophic earthquake is the BC

Earthquake Immediate Response Plan (IRP). The IRP lays out the roles of the Province, cabinet ministers, local authorities and First Nations, the federal government, intergovernmental and non-governmental organizations, utility companies, and the private sector. It helps EMBC hone its plans with partners like Vancouver's Heavy Urban Search and Rescue task force, multiple levels of government, international jurisdictions, and first responders. And we've been able to test, in real time, key elements of the IRP through Exercise Coastal Response, held in June 2016, helping to discover how well prepared we really are for "the big one."

Our government's \$1.2-million full-scale earthquake and tsunami response exercise—Exercise Coastal Response—tested emergency response coordination across all levels of government and provided an initial opportunity to test elements of the IRP. The exercise evaluated the actions of public safety agencies and coordination among responders and health and medical agencies, and it promoted interagency cooperation of both internal and external agencies that support emergency response. The exercise met the overarching goal of enhancing our provincial emergency response capabilities and pointed us to areas of opportunity and development with our partners as we move forward with catastrophic response and recovery plans.

In total, the exercise involved more than 800 participants across 65 organizations including First Nations, Crown corporations, the private sector, and agencies and ministries from all levels of government. Activities took place



in 20 unique locations in six communities (Port Alberni, Bamfield, Ucluelet, Tofino, Victoria, and Surrey), and six functional areas were exercised: strategic communications and public information, operations, mass care, medical, telecommunications, and logistics.

Many successes were noted in the exercise, such as the effective collaboration among the various agencies and the interoperability between emergency response partners.

Exercise evaluators also noted areas that need refinement, such as a need for more robust operational communications and increased interagency coordination and integrated partnerships in all phases of emergency management. I look forward to reporting to the citizens of BC on the results of the exercise and helping to create the After Action Report, which will identify and summarize lessons and drive the development of new objectives as EMBC commences building equally comprehensive earthquake plans involving sustained response and recovery. Over time, new scenarios or elements may be included, but the IRP, the provincial plan aimed at coordinating our efforts, is the initial foundation for us to build on.

The Province invested in the development of an IRP strategy as recent years have shown the devastation earthquakes can cause in places like Italy, Haiti, Nepal, Japan, and New Zealand, and we know we must continue to do more to help prepare British Columbia. We know we must improve our plans, processes, and response,

increase our capacity and coordination with partners, and invest in our emergency notification systems and the production of more public education materials such as our community and household preparedness guides. We will continue to learn from the experiences and best practices of countries around the world that experience catastrophic seismic events.

We are now moving into the early days of the development of the BC Earthquake Sustained Response Plan. While the IRP will cover the first few days or week after a large earthquake, the Sustained Response Plan will provide a detailed plan to cover the period from first weeks into the first month after the initial seismic event.

Our methods are evolving, and our disaster response guidelines have evolved into a four-phase emergency management system—mitigation, preparedness, response, and recovery—rather than focusing exclusively on emergency response. We recognize that the success of any provincial response and recovery will rely on mitigation and the preparedness and familiarity that all our partners all provincial ministries have in their roles. And that is why the cross-ministry coordination our government has established in seismic investments is so essential.

Since 2001, our government has invested \$19 billion in capital funding for seismic upgrading of schools, health facilities, roads, and bridges in British Columbia to protect what we all have worked so hard to build. We do this



Exercise Coastal Response ... evaluated the actions of public safety agencies and coordination among responders and health and medical agencies, and it promoted interagency cooperation of both internal and external agencies that support emergency response. The exercise met the overarching goal of enhancing our provincial emergency response capabilities and pointed us to areas of opportunity and development with our partners as we move forward with catastrophic response and recovery plans.

because there is so much to lose, and we will continue to do more.

Seismic safety upgrades are being completed on a priority basis as routine capital upgrading or as major renewal or replacement projects. School boards, transportation agencies, health authorities, and utilities face the same challenges, but we are accomplishing so much.

As the challenges are numerous, the Province is renewing partnerships with local governments and the federal government to better care for the people of BC in an emergency. In the wake of recent floods and wildfires, the federal government pledged to support better preparedness for natural disasters. That is an important step. And regardless of location, a serious earthquake will have widespread consequences across Canada. We look forward to working with the Government of Canada to help mitigate our province's risk and, in turn, better protect the overall safety of British Columbians.

British Columbia is one of the most beautiful places in the world. We have world-class cities, an incredible multicultural society of inclusive communities, and the strongest economy in Canada. There is a lot on the line and we are all in this together.

It's up to all of us—government employees and representatives, businesses, and private citizens—to make earthquake preparedness a priority.

Our government can only do so much. The foundation of emergency preparedness begins in every home with the preparation of an emergency kit and a family evacuation and reunification plan.

I am so proud to work alongside the dedicated staff at Emergency Management BC, and as a public representative tasked in the emergency management of the people of British Columbia. As an organization, we will continue to keep ourselves informed, persistently advance our methods of operation, and improve our ability to deliver on our emergency preparedness mandates. I encourage everyone reading this to visit our PreparedBC website and to do everything in your power to help keep us one step ahead of this ever evolving threat.

Please visit www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/preparedbc.

Photos provided by Province of British Columbia.

RI



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ASK A LAWYER

John McLachlan, LLB, with Raj Mittal, LLB

Q: *In the aftermath of a natural disaster, can someone be held responsible for loss? Whose responsibility was it to disclose or decrease the risk?*

A:

Earthquakes, tsunamis, floods, landslides, wildfires, and other natural disasters are happening with increasing regularity such that the government has a national Emergency Preparedness Week that takes place every year during the first full week of May to educate Canadians on how to protect themselves and their families during emergencies.

It is expected that in the coming years, climate change will cause more frequent and severe weather-related events such that we can expect to see an increase in sudden and large precipitation events and greater exposure to flooding throughout much of British Columbia. Further, sea levels are forecast to rise by almost a metre by the year 2100, primarily through glacial melting and thermal expansion. This exposes many coastal communities to impending threats. Even now, government is beginning to take steps to address the impacts of climate change. Just recently, the City of Vancouver began exploring options for flood protection such as dykes and sea gates, and changes to the building code to minimize damage from flooding when it happens.

Against this backdrop, the population of British Columbia is growing and there is a push for increased density and development of lands that may be more vulnerable to natural disasters. Development is taking place on less than optimal lands such as floodplains and steep hillsides to meet the needs of the growing population. This, in turn, exposes more people and property to damage from a natural disaster.

In the aftermath of a natural disaster or natural hazard that has materialized, property owners are often left looking for answers about who, if anybody, is to blame for their loss. In many cases, owners may be able to point the finger toward three distinct groups: other property owners; professionals, such as real estate agents, appraisers, or engineers; and the provincial and/or local government. These three groups have particularly distinct responsibilities when it comes to warning of, protecting from, and safeguarding against natural disasters or hazards. Whether liability will actually be attributed to any of these three groups varies considerably.

Property owners may be held liable if they fail to take reasonable steps to eliminate or decrease the risk of known natural hazards on their property, such as an unstable slope or the potential for (or history of) flooding. The same applies to a failure to disclose a natural hazard to a purchaser of the property. In these instances, the duty extends primarily to those hazards that are known to the property owner.

Liability may also be imposed on property owners without knowledge of the hazard. Owners may be found liable in nuisance to other property owners despite the fact that they had no knowledge that their actions, or inaction, would cause the loss.

Professionals have a duty to disclose to their clients relevant information about the risks of a natural disaster or natural hazard with respect to a property. This is not

In the aftermath of a natural disaster or natural hazard that has materialized, property owners are often left looking for answers about who, if anybody, is to blame for their loss. In many cases, owners may be able to point the finger toward three distinct groups: other property owners; professionals, such as real estate agents, appraisers, or engineers; and the provincial and/or local government. ... Whether liability will actually be attributed to any of these three groups varies considerably.

an absolute duty; it is limited to information that could be obtained by taking steps that a reasonably prudent professional would take in the circumstances. For example, in the case of architects or engineers, this requires knowledge and consideration of requisite building codes and bylaws. In the case of appraisers, this requires considering whether a property is in a floodplain. For real estate agents, this may mean imputed knowledge of publicly available information affecting property value, such as landslide hazards. In determining whether the professional breached the standard of care, the question will be whether the professional should have had knowledge of the risks, or made reasonable inquiries to obtain that knowledge.

Liability may also be extended to provincial and/or local governments for losses arising from natural disasters or hazards, although they have less exposure to liability than individuals. It is a long-standing principle that governments are liable for operational negligence but not for policy decisions. In other words, liability may be imposed for negligence in implementing and carrying out policy, but is not imposed for the policy decisions themselves. This special treatment in law is justified by the fact that governments must make decisions for the greater good of society, as opposed to the individual. They operate within a realm of limited resources, basing decisions on myriad economic, social, and political factors.

This is not to say that governments have no exposure to liability for losses resulting from a natural disaster or natural hazards. Rather, their liability is simply more limited than that of an individual or private entity.

An owner turning to the court for a remedy faces the difficult task of proving that the loss was caused by the

government's operational negligence, as opposed to a policy decision. Examples of where liability may be imposed on the government include improper design of a road that is prone to flooding, failure to reasonably maintain highways, or permitting construction on unstable land. In each case, it will be a fact-driven determination.

All three groups—property owners, professionals, and government—share responsibility for eliminating or reducing the risk of, or harm caused by, a natural disaster or hazard. However, the steps each party must take in discharging this responsibility varies between them. Property owners may be most at risk as they can be found liable without knowledge that a hazard exists, and professionals can be found liable if they do not take all steps a reasonable, competent professional in the situation would have taken. Governments, on the other hand, are most shielded from liability, as they may only be held liable for operational decisions taken in implementing policy. In any case, members of all three groups should be cognizant of their duties and obligations with respect to natural disasters or hazards.

One avenue that professionals and property owners should canvass is with regard to insurance coverage. They should carefully review their insurance policies to determine if they have adequate insurance coverage to protect them from liability should a natural disaster occur. Whether there is insurance coverage available will depend on the type of coverage offered and the specific wording of the policy. Professionals and property owners should be aware of the coverage offered before a disaster occurs.

ON THE JOB

>> SUSAN M. ANTONIALI, RI, CPM

WHAT DO YOU DO IN YOUR PROFESSIONAL POSITION?

My position manages real estate, property management, and cemetery business. I also oversee security and facilities services, which include the project management of renovations and the deconstruction of buildings for the City of North Vancouver. My days involve a variety of operational and human resource relations, research, investigations, inspections, report writing, and strategic meetings with both internal and external partners.

WHAT PREPARED YOU FOR THIS ROLE?

I was employed for over 38 years by the City of Vancouver. During that time, I worked in 19 different positions within the Real Estate and Facilities Department. Midway through my career, while I was on maternity leave, my mentor, John Furey, called me in for some coaching. He told me that since I had extra time to read, it was time to get my Urban Land Economics diploma. He pointed out that with my experience, professional drive, and proactive nature I was suitable for advancement, but it could only be achieved with further education and professional designations. On his advice, for the next few years, my two young boys were read the Little Golden Books and a few chapters of real estate law and analysis.

WHAT DO YOU WISH PEOPLE KNEW ABOUT THE WORK YOU DO?

I would like people to know that as bureaucrats we all have the same goals—delivering the best service and highest value to our clients, the taxpayers. Our division is not simply delivering real estate services but rather we are members of a larger team of professionals delivering public service.

Public service is something that I am extremely passionate about. Our work requires a great deal of attention to detail as well as a lot of high-level strategic planning.

WHAT TYPES OF ORGANIZATIONS EMPLOY YOUR POSITION?

There are many organizations that could employ this type of position, within public and private corporations in BC



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REAL ESTATE,
FACILITIES AND REAL
ESTATE DIVISION
OFFICE OF THE CAO,
CITY OF NORTH
VANCOUVER**

and across the world. Most typically this type of position would be found within a mid-size municipality or a larger university.

WHAT OTHER OPPORTUNITIES MIGHT YOU HAVE SOUGHT WITH YOUR TRAINING?

I would still love to continue to venture with property consulting, with further options in either property auditor customer service or professional conduct investigations. I love investigative work and being part of a team that improves processes.

WHAT GOALS ARE YOU WORKING TOWARD?

The City's Facilities and Real Estate team has been recently formed, bringing lands, real estate, facilities, security, and cemetery services into the same business section. This change was made to address the City's existing operating needs and to provide for the emerging needs, mitigate risk, and move forward with strategic planning with the goal of striving for team excellence.

WHAT CHARACTERISTIC OR PERSONALITY TRAIT WOULD BE BEST FOR THIS TYPE OF CAREER?

There are endless characteristics and personality traits that are suitable for this type of career. That is what I love about this industry: it collects individuals of great diversity and in the end our complementary traits build diverse and dynamic teams.

The personality traits that have helped me succeed are that I'm collaborative, demonstrative, practical, and reliable.



ANNUAL GENERAL MEETING AND RECOGNITION DINNER



AGM SUMMARY

On June 16, 2016, the Real Estate Institute of BC held its Annual General Meeting at the Sutton Place Hotel. On the agenda were the President's Report, financial statements, appointing an auditor for the 2016-2017 year, and bylaw changes. President Andrea Fletcher spoke to the upward trajectory that the Institute is moving in—as our members stabilized this year. She noted that we continue to move forward with our public awareness campaign and the new Strata Governance Certificate program that was launched this year. Auditor Rolfe, Benson LLP was appointed by the membership to do the 2017 audit.

The bylaw changes prompted discussion and in the end they were passed unanimously. The bylaws were updated to remove policy regarding the complaint process that the office will need to follow. It was understood that this information did not need to be in bylaws; it could instead be described in policy and updated as necessary to ensure the process works properly. The bylaws were also updated to broaden the education criteria. Since two new schools, Guelph and Ryerson, were added to the education criteria this year, the mention of any one specific school was removed from the bylaws. The updated bylaws have now been filed and you can see them on our website under About Us.



RECOGNITION DINNER

Following the Annual General Meeting, our annual Recognition Dinner was held and attended by over 125 people. We recognized our long-standing members and made special acknowledgement to Past President Ian Macnaughton, who has been a member for 53 years! That is truly an accomplishment.

We also heard from BCIT Real Estate Association President Gage Marchand—who introduced Judi Whyte, the recipient in 2014 (as last year's Award of Excellence recipient, Robert Laing, was unable to join us)—and Judi then presented Scott Ullrich with the 2016 Award of Excellence. You can read about Scott in the Member Profile in this issue.

We were entertained by Roman Danylo, who had us laughing and enjoying the evening. Thanks to everyone who attended and we look forward to seeing you in 2017 on June 8th.



MEMBERS RECOGNIZED

25 YEARS

Brad Currie
 Ian Dewar
 Rod Fram
 Markus Franiek
 Philip Gertsman
 Julia Hallett
 Chris Kyle
 Margot MacFadyen
 Graham McIntosh
 Jean R. Nicol
 Lita Powell
 Larry M. Serko
 Jan-Paul (J. P.) Shason
 Randy Wenger
 David Wong
 Edwin Kwok Yu Yan

30 YEARS

Michael Bancroft
 Don Ellis
 Robert Fawcett
 Bradley Fenton
 David Hilts
 Barry Holmes
 David Jurome
 Judith Kehler
 Norman Laube
 Marlyne Mandziak
 Colleen McCombe
 Mona Murray
 Lonnie H. Neufeld
 Lana P. Quinn
 John Vaccaro

35 YEARS

John Adank
 Shahid Ahmed
 Richard Bentley
 John Eastwood
 Bruce Gardner
 Susan Graham
 Ronald Hansen
 Yin Ping Lee
 Roy Leung
 Robert Love
 David Marshall
 Sandra Munro
 Dougal Shewan
 Richard M. Sirola
 Gordon Walker

40 YEARS

Anne Clayton
 Damian Dunne
 Allan Forbes
 Kenneth Hick
 Azim Jamal
 Monte Thompson
 Stanley Wong

45 YEARS

John W. E. Hayes
 David Lane
 Ronald P. Reynolds
 John W. Toljanich

50 YEARS

Vaughan Bruneau

HONORABLE MENTIONS

46 years:
 Kenneth A. Johnson
 Lloyd Gary Kenwood

47 years:
 Michael Naish
 Andrew Pearson

48 years:
 Ronald H. Pope
 James Tutton
 Harold L. Waddell

53 years:
 Ian Macnaughton

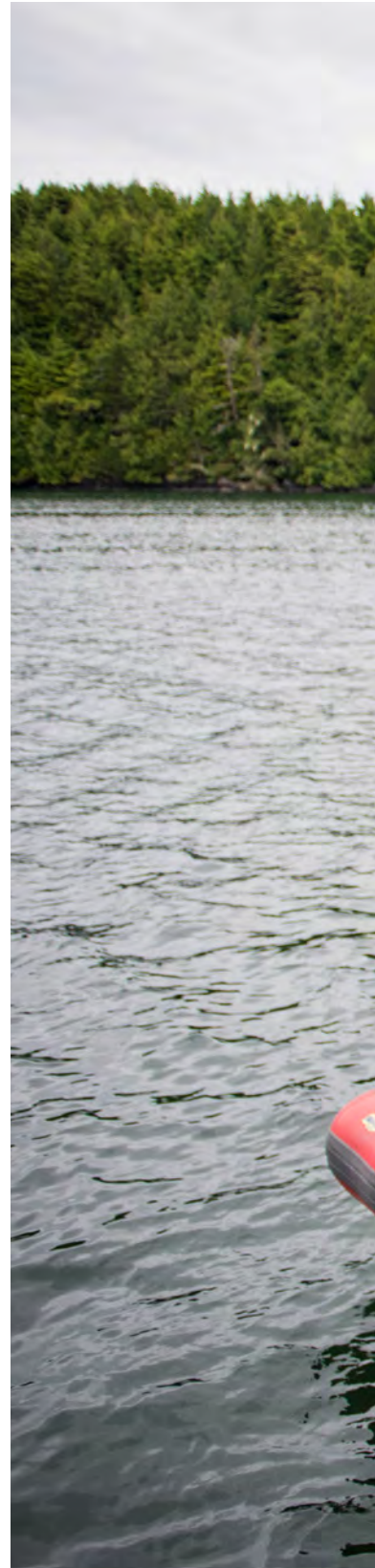
55 years:
 Philip H. White



DISTRICT OF UCLUELET: PEOPLE OF THE SAFE HARBOUR

Karla Robison

Ucluelet is situated on the edge of the wild Pacific Ocean on Vancouver Island, approximately 288 kilometres northwest of Victoria, BC. The community is located at the southern tip of the Ucluth Peninsula and is surrounded by spectacular natural beauty. Ucluelet offers visitors and residents the opportunity to live in and explore one of the world's most pristine coastlines as the region is isolated from the rest of Vancouver Island by the long spine of the Vancouver Island Range. These mountains provide a visual backdrop to the entire region and, along with the Pacific Ocean, orchestrate the dynamic environment of the outer Pacific coastline.





The District of Ucluelet encompasses 670 hectares of land and 478 hectares of water. Situated on the west side of Barkley Sound, it lies protected from the ferocious Pacific Ocean in the safety of its natural harbour; however, this rugged seaside is becoming well known to both geoscientists and the public for its potential to unleash a devastating megathrust earthquake and tsunami.

Ucluelet means “people of the safe harbour” in the indigenous Nuu-chah-nulth language. The District of Ucluelet has supported this meaning through the Emergency Service Department’s vision to showcase the municipality as a leader with innovative emergency management initiatives. This vision is shared by our council in its leadership, by dedicated emergency volunteer services, and in Ucluelet’s unique community spirit.

As a remote island community, Ucluelet and neighbouring communities located within BC’s southwest seismic activity zone will have specific emergency management needs in the event of a Cascadia Subduction Zone (CSZ) event—an earthquake of magnitude 8 or greater followed by a tsunami. Lessons learned from the Tohoku, Christchurch, Sumatra, and other relatively recent quakes have heightened awareness and provided insight to both geoscientists and the public of the imminent threat of a devastating megathrust earthquake and tsunami off the coast of BC. Kathryn Schulz outlined in her article “The Really Big One” in the *New Yorker* in 2015 that the Pacific Northwest region, an area of some 360,000 square kilometres, will suffer the worst natural disaster in the history of North America when the next full-margin rupture of the offshore fault stretching from California to BC occurs.¹ Impacts to Ucluelet will be informed by the fact that approximately 58% of the community’s buildings and key elements of critical infrastructure are in a tsunami hazard zone. Depending upon the time of day and year, between one half and two-thirds of the resident and visitor population are at risk, and depending on the evacuation strategy, between one fifth and one third of the population-at-risk could be lost.²

UCLUELET EMERGENCY NETWORK / 20 METRES IN 20 MINUTES

Ucluelet’s Emergency Network is a multi-jurisdictional committee that consists of representatives from BC

Ambulance Service, Canadian Coast Guard, Canadian Rangers, District of Ucluelet, Emergency Social Services, Herald Engineering, Pacific Rim National Park Reserve, Royal Canadian Mounted Police, Royal Canadian Marine Search and Rescue, School District No. 70, Softwaves Consulting, Toquaht Nation, Ucluelet Volunteer Fire Brigade, West Coast Inland Search and Rescue, and Yuułu?it̓?ath̓ (Ucluelet First Nation). The committee commenced in 2009 with the original purpose to develop and maintain an emergency plan with an effective strategy to address many possible types of emergencies and disasters for the community of Ucluelet. With a “living draft” emergency plan in place, the group is now exercising and improving the plan. The next goal for the committee is to develop a recovery plan.

The District of Ucluelet’s Emergency Service Department, with the support of Ucluelet’s Emergency Network, established the motto “20 Metres in 20 Minutes” in 2013 to represent the dynamic risk and sheer reality for West Coast communities located within BC’s seismic activity zone if confronted with a catastrophic quake. The purpose of the slogan is to stress the importance to residents and visitors that after the shaking stops from a CSZ event, there will be approximately 20 minutes to evacuate to high ground prior to the arrival of the first tsunami waves.

EXERCISE COASTAL RESPONSE AND STAUNCH MAPLE IN UCLUELET

This past spring, Ucluelet had the opportunity to participate in Emergency Management BC’s first full-scale functional earthquake and tsunami response exercise, called Exercise Coastal Response (June 7-10), as well as the Canadian Armed Forces’ exercise, called Staunch Maple (June 9). The purpose of these exercises was for key stakeholder groups to come together and test the BC Earthquake Immediate Response Plan. The four-day exercise took place in Port Alberni, Bamfield, and Ucluelet.

This full-scale exercise validated and evaluated multiple functions at multiple sites and involved the actual movement of messages, personnel, and equipment. During the four days, Ucluelet’s Emergency Operation Centre (EOC) communicated situation reports and planned injects from Emergency Management BC’s Master Scenario Events List, including real-time activities and

1 K. Schulz, “The Really Big One,” *The New Yorker*, July 2015.

2 W. Johnstone and B. Lence, “Use of Flood, Loss, and Evacuation Models to Assess Exposure and Improve a Community Tsunami Response Plan: Vancouver Island,” *Natural Hazards Review*, 2012, 10.1061/(ASCE)NH.1527-6996.0000056, 162-171.



simulated situations from the Staunch Maple activities to the Provincial Regional Emergency Operation Centre (PREOC) in Victoria. Various emergency communication systems were tested, including Ucluelet's new M-satellite phone and high frequency (HF) digital radio equipment. Ucluelet's EOC was excited to establish communications via very high frequency (VHF) radio with the Canadian Armed Forces CP-140 Aurora aerial reconnaissance survey of the "impacted area" on the first day of the exercise.

The highly realistic scenarios of Staunch Maple in Ucluelet consisted of emergency preparedness and

response drills with 30 members from Canadian Forces Base (CFB) Esquimalt Urban Search and Rescue Team, the Royal Canadian Navy Esquimalt Dive Team, and approximately 80 first responders and emergency personnel from Ucluelet and surrounding communities and jurisdictions.

During the morning of the exercise, participants took a Rapid Damage Assessment course certified through BC Housing. The afternoon activities included rapid damage assessment scenarios, earthquake evacuation drills at Ucluelet's elementary school and secondary school, urban search and rescue exercises at the schools to



locate 22 missing students who were in moulage (mock disaster makeup), scuba diving pier and dock inspections at Main Street Dock, a heavy lift and rubble rescue exercise at the Public Works Yard, 25 mock medical patients at a medical triage, and the landing/pickup of four mock priority medical patients by the Search and Rescue military helicopter (442 Transport and Rescue Squadron Comox Team) at the Ucluelet Secondary School. The simulated situations involved functions pertaining to emergency operations, operational communications, logistics, medical and mass care, and dissemination of public information.

This unprecedented exercise in Ucluelet provided first responders and emergency personnel from the region an opportunity to come together to learn from the experts and each other about the systems in place to help save lives in the event of a catastrophic earthquake. The effort would never have been possible without the leadership of Emergency Management BC, support from the Canadian Armed Forces, and the collaborative efforts of various government agencies, non-profit organizations, emergency personnel, and volunteers. The relationships and cooperation at all levels—local to federal—established in this exercise have provided support to coastal communities to better prepare for and respond to a disaster event.



ANNUAL COMMUNITY TSUNAMI EVACUATION DRILL AND EMERGENCY PLAN

Annually, during Emergency Preparedness Week, Ucluelet’s Emergency Service Department and Emergency Network practice their tsunami evacuation plan through a community drill. The tsunami evacuation plan is a component of Ucluelet’s Emergency Plan—an all-hazards document that outlines the community’s vulnerabilities and risks through a hazard risk and vulnerability analysis (HRVA), which is the foundation of emergency preparedness. Local authority emergency plans are required through the Emergency Program Act and an HRVA is a requirement mandated by BC’s Local Authority Emergency Management Regulation.



The community drill is an opportunity for residents and visitors to practice the steps required to evacuate from a teletsunami (a tsunami that takes three hours to travel to the area of interest) to the main Community Safe Zone. Even those residents and visitors who do not find themselves in low-lying areas or the tsunami inundation zone (lands at less than 20 metres of elevation) at the time of the drill are asked to participate in the mock emergency



evacuation since an emergency event can happen anywhere and at any time of the day.

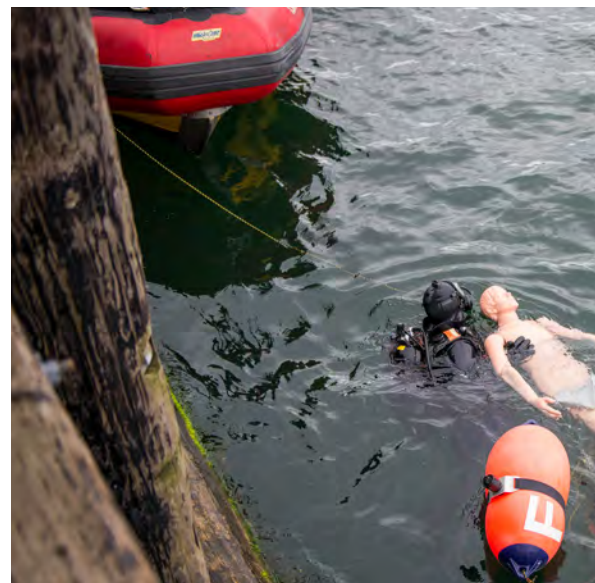
The annual mock scenario is based on a magnitude 8.5 earthquake generated from Alaska at 6:45 p.m., with anticipated 4 m tsunami waves and 8 m run-up waves. The mock waves are predicted to reach the shores of Ucluelet at approximately 11 p.m. Ucluelet's internal and external emergency alerting system is tested prior to the beginning of the exercise to notify emergency teams to meet at the fire hall and EOC, and for residents and visitors to know that the drill is starting. First responders and emergency personnel conduct door-to-door and harbour evacuation procedures from 7 p.m. to 8 p.m. Residents and visitors are asked to grab their emergency kits, and, if they have time, to shut off any utilities—such as natural gas, propane, water, and electricity—and evacuate to Ucluelet's main Community Safe Zone. Ucluelet's Emergency Social Services (ESS) team opens a Reception Centre for residents and visitors from 7 p.m. to 8 p.m. in the secondary school's band room. Ucluelet's Emergency Network activates an EOC at the fire hall.

For residents that choose to practice evacuating to high ground near their homes, emergency personnel are located at each of the Community Safe Zones to greet

participants and provide emergency preparedness information. This is an important evacuation exercise to practice in preparation for a magnitude 8.0 or greater CSZ event. In this situation, the ground will shake for approximately two to five minutes. Once the shaking stops, anyone in a low-lying area will have approximately 20 minutes to evacuate to high ground, hence the "20 Metres in 20 Minutes" motto.

The 2016 community drill resulted in over 40 first responders and emergency personnel assisting with mock evacuations of over 200 homes located below 20 metres of elevation and over 150 citizens practicing their family evacuation plan by grabbing their grab-and-go bags and heading to Ucluelet's main Community Safe Zone.

The District of Ucluelet believes that "it takes a community" to be prepared for a disaster. The annual drill not only acts as an opportunity for first responders and emergency teams to test their skills, but provides an opportunity for citizens to come together to practice their family and neighbourhood emergency plans and to learn how to support each other during and after an emergency event.





MASS EMERGENCY NOTIFICATION

The District of Ucluelet has an Emergency Notification Service to rapidly convey critical information to residents and visitors about emergency events. The purpose of the program is to notify citizens via text message and/or text-to-voice message of emergency situations as well as to provide safety instructions and where to obtain additional information about an emergency event. Residents and visitors can get notified about emergency events by signing up to the District of Ucluelet's Emergency Notification Service at ucluelet.ca. Visitors can text 1-844-360-JOIN (5646) to register.

COMMUNITY SAFE ZONES AND KIOSKS

Over this past summer, the Emergency Service Department designed and initiated the build of the first of six Community Safe Zone kiosks and associated signage at an official high zone. The purpose of the kiosks is to provide a central gathering point within the Community Safe Zone. The pilot kiosk is currently being built at the start of the Wild Pacific Trail parking lot adjacent to Coast Guard Road, incorporating marine debris timbers from the 2011 Tohoku earthquake and tsunami. The innovative shelters have solar-powered features for charging cell phones, educational material about the CSZ, and the four levels of alert messaging for a tsunami. The structure will also have a tsunami notification signal light to exhibit to residents and visitors the level of alert issued from the National Tsunami Warning Centre: Info statement, Watch, Advisory, and Warning.

VIEPC CONFERENCE

In April 2017, the District of Ucluelet will host a 350-person emergency conference with the theme "20 Metres in 20 Minutes." The purpose of the 2017 Vancouver Island Emergency Preparedness Conference is to bring together scientists, governments, first responders, emergency management organizations and businesses, and emergency personnel and volunteers to discuss the goal of how to work together to save lives in remote communities on Vancouver Island should a CSZ quake occur. The system of mass casualty medical emergency preparedness is ineffective during a CSZ event for high-risk remote communities in BC that do not have Vancouver Island Health Authority hospitals and clinics. Wave modelling research conducted in Ucluelet alone estimates that approximately 123 structures and between 412 and 1,149 people could be lost during a CSZ event.³ The probability of occurrence of the next CSZ earthquake is greater than a 1-in-10 chance over the next 50 years and has an estimated magnitude of 9.⁴

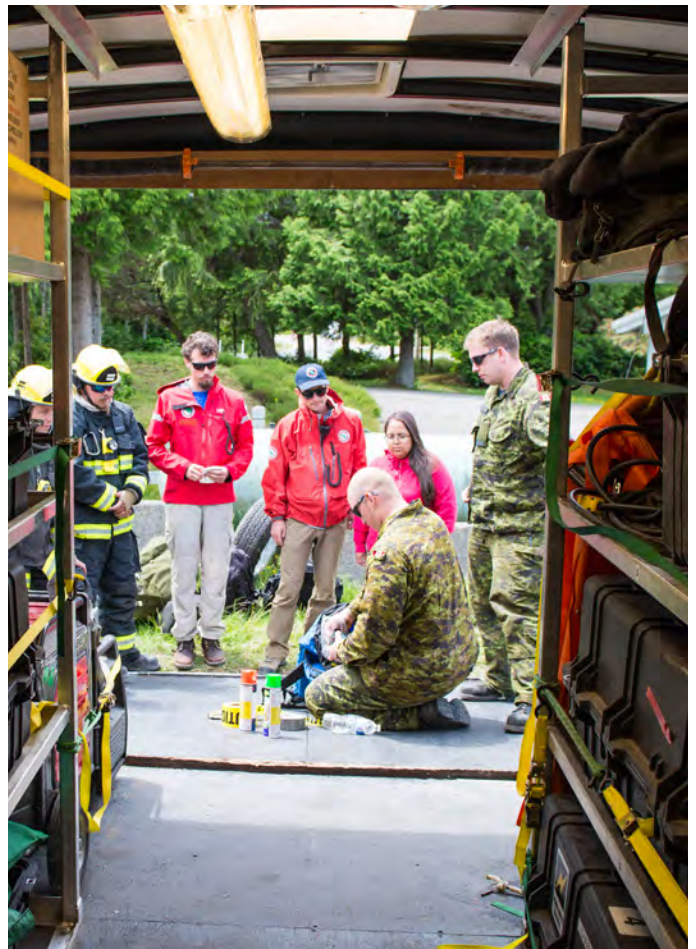
The conference will focus on highlighting projects, practices, and research that are occurring on Vancouver Island related to preparing for the next CSZ event. The conference will share best management practices, present new and innovative emergency preparedness initiatives, and gather leaders of emergency management to help support each other and learn methods to mitigate, prepare, respond, and recover from a CSZ event.

MASS CASUALTY MEDICAL EMERGENCY PREPAREDNESS—UBCM RESOLUTION

In preparation for the 2014 Union of BC Municipalities meeting, the District of Ucluelet submitted a resolution on mass casualty medical emergency preparedness.

³ Ibid.

⁴ T. Onur and M. Seemann, "Probabilities of Significant Earthquake Shaking in Communities Across British Columbia: Implications for Emergency Management." Proceedings of the 13th World Conference in Earthquake Engineering, Vancouver, Canada, Paper No. 1065, 2004.



The resolution noted that in the event of a major disaster, in particular a CSZ event within BC's southwest seismic activity zone, the system of mass casualty medical emergency preparedness is ineffective for high-risk remote communities that do not have health authority hospitals and clinics. It was further noted that fast and wide-reaching mass casualty medical strategies are necessary to save lives in communities that will potentially have no access to medical centres or hospitals due to catastrophic damage. With this contextual information, the resolution was endorsed with amendment as proposed: that the Union of British Columbia Municipalities and Federation of Canadian Municipalities "urge the provincial and federal governments to establish a world-class Mass Casualty Medical Emergency Preparedness Plan for high risk communities in BC's seismic activity zone that do not have hospitals or clinics."


E-CAN

The District of Ucluelet is currently ordering disaster and shelter supplies, such as incident command post

resources, triage medical equipment, a community emergency water filter system, temporary shelters, and other items that are necessary during emergency events and life saving operations. These will be stored in the District's new twenty-foot emergency container, which will be located adjacent to Ucluelet's fire hall and EOC. The Emergency Network will have access to the supplies, which are meant to provide immediate resources to first responders to support life-saving operations, sustain search and rescue efforts, commence damage assessments, and provide food and water to sustain efforts for the first 24 hours after an event. Citizens are expected to have their own personal emergency supplies for up to 72 hours, which is the Public Safety Canada recommendation. The District recommends that citizens have enough personal emergency supplies for at least one week, due to the community's remoteness.

EARTHQUAKE AND EVACUATION GUIDE

Ucluelet's new pocket-size earthquake and evacuation guide is intended to emphasize to citizens the three basic



DROP! COVER! HOLD ON!

Protect yourself during earthquakes


Drop to the floor and take cover under sturdy furniture. Hold on to a table or desk and be prepared to move with it. Cover your head with your other arm.

- Do not stand in a doorway, it will not protect you.
- Do not run outside, falling debris may be a risk.
- If you are in bed, cover your head with your pillow and your body with the covers.
- If you are on the beach move immediately to high ground, even in a small quake. Stay on high ground until advise otherwise.
- **Be prepared for aftershocks.**

↑20 metres in 20 minutes

If the ground shakes for 3-5 minutes, then you have about 20 minutes to reach high ground before the FIRST wave arrives.

Stay above 20 metres until an all-clear is given. *




GO TO HIGH GROUND! Shake Out

The shaking is your tsunami warning

After the shaking stops, leave immediately if you are in a tsunami hazard zone. Do not waste time!

- Bring only essential items. Have a grab bag ready.
- Walk; it is likely roads will be blocked.
- Avoid downed power lines, unsafe buildings, and falling objects during aftershocks.
- If you are already in a safe zone stay there. Keep phone lines and roads clear for emergency use.

Tsunami Alert Levels



Info statement: Minor waves at best; no action suggested

Watch: Danger level not yet known; stay alert for more information *


Advisory: Strong currents likely; stay away from the shore

Warning: Inundating waves possible; full evacuation suggested

* Register at ucluelet.ca to receive emergency notifications via cell or landline. Visitors can also text: 1-844-360-JOIN (5646) Keyword to register is emergency.

One hour ———— | 10 minutes ————

Expect multiple waves

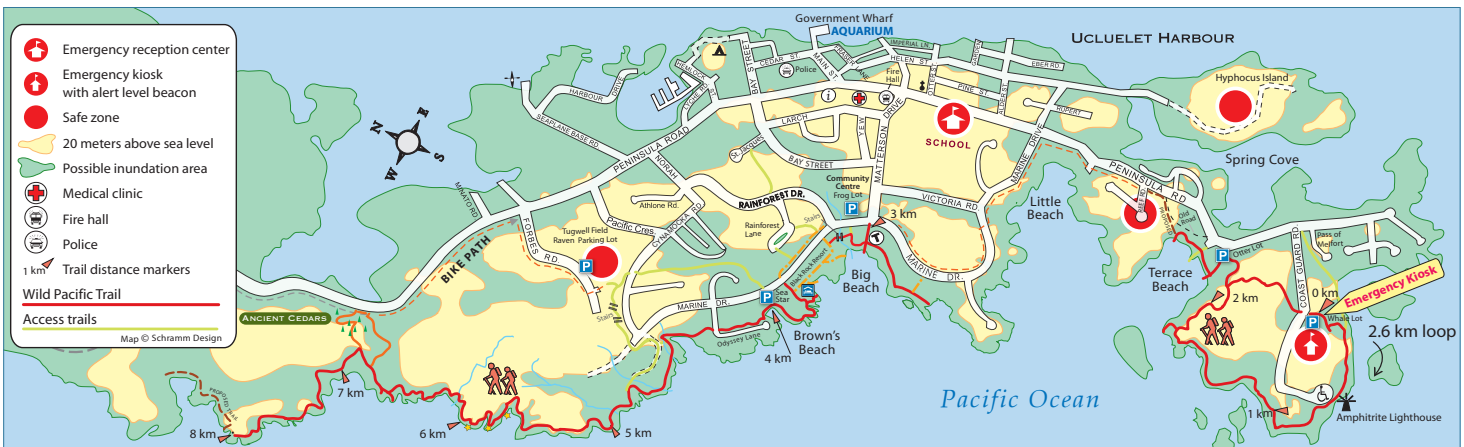


Ucluelet.ca
EMERGENCY NETWORK
Working Together to Promote Emergency Preparedness

↑ 20 metres in 20 minutes

Earthquake & Tsunami EVACUATION GUIDE

DISTRICT OF UCLUELET © Ucluelet.ca Emergency Network



steps to take during and after an earthquake: 1) drop, cover and hold on, 2) go to high ground, and 3) stay there. The guide illustrates the 20 m inundation zone and the five Community Safe Zones in Ucluelet and provides a quick reference for the tsunami alert levels. It is critical that the public understands these alert levels as they communicate whether a response is required in the event of a tsunami.

CLOSING

The District of Ucluelet and Ucluelet’s emergency personnel and volunteers are dedicated to being prepared, well trained, fully equipped, and skilled to react quickly and appropriately to handle various emergency scenarios and situations. The Emergency Service Department is very grateful for the ongoing support and volunteer efforts received from partner agencies, organizations, and first responders, and for the leadership provided by Emergency Management BC. The District looks forward to working with neighbouring communities and

jurisdictions, industry, and partner agencies to support emergency management initiatives for the West Coast.

There is strong support for emergency services in the community of Ucluelet. The Emergency Service Department has showcased Ucluelet as a leader in emergency management thanks to the dedicated volunteer services of emergency personnel and first responders and the community’s continual engagement.

To learn more about Ucluelet’s Emergency Program, please contact me, environmental and emergency service manager Karla Robison, at the District Office at 200 Main Street, Ucluelet. I can also be reached via email at emergency@ucluelet.ca, or by telephone at 1-250-726-7744.

Photos and graphics provided by District of Ucluelet. Photographer: Douglas Ludwig.



GOVERNMENTS VALUE SIMON'S OPINION

Simon is an AIC-designated appraiser, a Canadian real estate valuation expert. Municipal, provincial and federal governments rely on AIC appraisers for trusted, knowledgeable and unbiased opinions about public property, including: expropriation, right-of-way, easements, market rent analysis, acquisitions, disposals, income tax and property tax valuation, highest and best use and more. If it involves real estate, involve an AIC-designated appraiser.



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REAL ESTATE
DIVISION

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The Real Estate Division at UBC's Sauder School of Business offers a series of short online continuing professional development (CPD) courses aimed at real estate practitioners' continuing education needs. The course topics range from property valuation and financial analysis to sustainability and business development. Completion of a CPD course earns you a UBC award of completion and may also earn you continuing professional development credits for the Appraisal Institute of Canada's Continuing Professional Development Program.

Reserve Fund Planning Program (RFPP)

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The RFPP program comprises two courses:

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A comprehensive overview of the underlying theory, principles, and techniques required for preparing reserve fund studies and depreciation reports.

CPD 899: Reserve Fund Planning Guided Case Study

Guides the student through the process of completing a comprehensive reserve fund study report.

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A LOOK BACK AND A PEEK INTO THE FUTURE

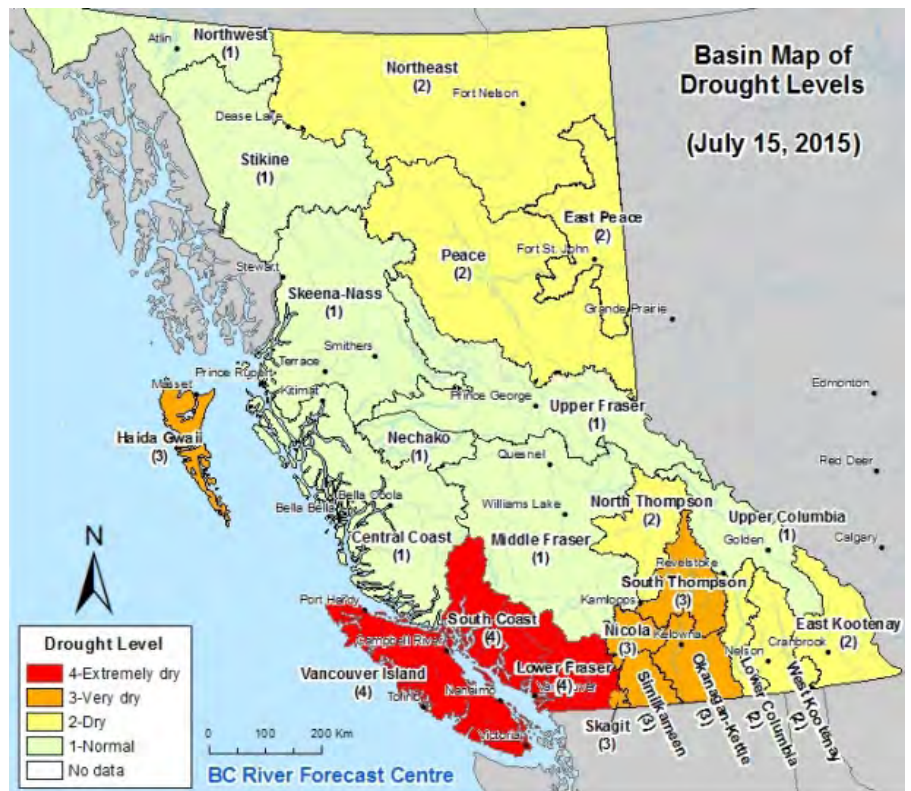
Mark Madryga

As a meteorologist with Global Television and CKNW Radio, I connect with my viewers and listeners either by email, phone, Twitter, or in person on a regular basis. Without provocation, in recent weeks I have been bombarded with such comments as “How disappointing,” “What happened?” or “That was it?”

Thankfully, these are not directed at my on-air weather reports (at least I am hoping not), but are actual outbursts of frustration linked to our weather this past summer.

Flashback: the past two summers of 2014 and 2015 were predominantly, yet abnormally, hot, dry, and sunny across the majority of British Columbia. During 2015, the period of May through mid-August was statistically, by far, the driest on record of all similar periods in the Lower Mainland, with a mere 45 mm of rain recorded at the Vancouver Airport—compared with a long-term average of 155 mm! This led to Level 4 drought conditions on the South Coast and Vancouver Island.

It became a critical forest fire season, with nearly three times as many hectares burned compared to the 10-year average, and almost \$300 million was spent on fighting fires. Severe water restrictions and campfire bans were established early in the season and were maintained through the summer. Many recall the many severely drought-stricken trees that were uprooted during a South Coast





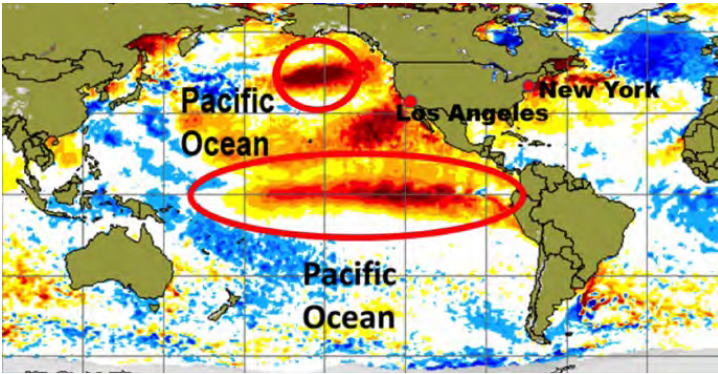
windstorm in late August last year, which caused nearly 500,000 BC Hydro customers to be without power. But this inclement weather came after well over a dozen weeks of stable weather that pleased most residents and helped generate a boom in tourism.

Of course, British Columbians were generally able to discount the more negative issues of the summer heat and drought and instead basked in the abundant warmth and sunshine. However, in generations past, British Columbians have only intermittently experienced these types of long, hot, dry summers. More typically, after a “tease” of summerlike weather during the month of May, the stretch of June through early July often slips into episodes of cooler, cloudier, and more showery weather patterns, due to the arrival of a large upper trough of low pressure emanating from the Gulf of Alaska. It is usually not until about the third week of July before a Central Pacific upper-level high-pressure ridge typically bumps that pesky trough away, and we in BC settle into a prolonged hotter and drier pattern through late August.

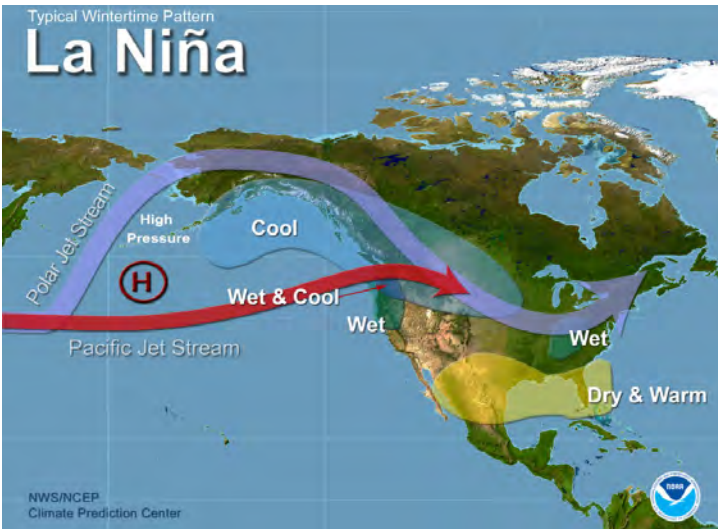
This past summer of 2016 was almost a rude shock to many residents of BC, as the weather not only reverted back to this more “normal” regime, but was also compounded by the “unsettled” June weather that persisted well into late July. In contrast to the paltry 45 mm of rain in Vancouver over a nearly four-month period in 2015, roughly triple that amount—155 mm—fell in 2016. And while the temperature soared to 30 degrees or higher in the Fraser Valley at Abbotsford on 10 afternoons in July 2016, there were zero similar hot days of 30+ readings in July 2015. But while the majority of residents were disappointed with our meteorological summer, others admit it was a blessing. A dramatic decline in forest fire activity resulted along with reduced water consumption, and most definitely fewer sunburns!

So, looking back at this summer as being more “typical” of past decades, the common question posed to me of late is: “Does this mean a colder, snowier winter ahead, especially compared with recent years?”

The past two winters across the Lower Mainland have been essentially snow-free and very mild, with no, or at



Above-average water temperatures in late 2015.



very least minor, arctic air intrusions nearest sea level. The record-strong El Niño of late 2015–early 2016 and the consistently warmer-than-average water off the BC Coast are the main theories behind why.

As forecast by sophisticated computer models, the record El Niño episode diminished quickly in early 2016, transitioning to what is now a very weak La Niña. A well-defined La Niña pattern typically alters the jet stream and leads to a cooler than average winter in BC, and often wetter conditions than normal on the South Coast.

While the correlation between La Niña and BC’s fall and winter weather is weaker than is the connection with El Niño, there is typically an overall meteorological theme. Infrequently are our winters warmer than average, and predominantly there are episodes of arctic air invading the BC South Coast, with deeper, colder arctic cold-air intrusions on a more regular basis in the BC Interior.

However, as of this writing, the waters have begun warming slightly over the Equatorial Pacific, which has basically “neutralized” further development of La Niña. In other

words, there is no El Niño this year, but little or no La Niña either, which is essentially what is categorized as a “neutral” condition.

Unfortunately, with the idea of La Niña making its way into many weather conversations held by the general public, I have already heard the usual bold and sensationalistic predictions for the upcoming winter, such as “a brutally cold winter lies ahead,” or “frigid and snowy weather is coming to the South Coast.”

Ski resorts and tire retailers are two examples where such predictions are obviously beneficial to their bottom line. Yet, a more realistic prediction for our late autumn and winter is a forecast leaning toward a long-term climatological average. This traditionally includes several potent coastal autumn wind- and rainstorms, a number of longer-lasting Interior cold snaps, and likely a few episodes of impacting snowfall reaching down to sea level on the South Coast; all elements that depart from the past two winters. That may not be good news to some, as periods of inclement weather unquestionably disrupt most of us and our schedules.

On a personal note, in my profession as a presenter of weather, I am especially energized during episodes of significant, high-impact weather. Consequently, a more typical autumn and winter season, especially if snowfall descends to the lower elevations, will be favourable to at least this meteorologist!

Photos and graphics (except p. 42) provided by Mark Madryga. Photo p. 41 by CBC; photo p. 42 by Shana Johnstone; graphics p. 43 by Weather Network and Environment Canada (top) and NWS/NCEP (bottom).



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Congratulations to the 2016 Land Award Winners

At the 2016 Land Awards Gala on Oct. 21, the Real Estate Foundation of BC presented Land Awards to:

Private sector:	The Beer Farm - Persephone Brewing Company
Public sector:	Squamish-Lillooet Regional District Electoral Area B, District of Lillooet and St'at'imc Agricultural Plan
Non-profit sector:	Moving Towards Reconciliation - The Fair Mining Collaborative
Land Champion:	Deborah Curran



MEMBER PROFILE

SCOTT ULLRICH, RI

CHIEF EXECUTIVE OFFICER
GATEWAY PROPERTY
MANAGEMENT



Scott was born in Saskatoon, Saskatchewan, and except for a short stint in Yakama, Washington, has lived his life in BC—in Vernon, Kamloops, and Vancouver. He now calls South Surrey home.

How does Scott get to work every day? He rides his motorcycle, rain or shine. With an upcoming trip riding Route 66 from Chicago to LA, and three bikes in his garage, it's clear Scott has a major love of motorcycles. Perhaps the only thing he loves more is his family. Married for 15 years to Sheryl, who he calls "the love of his life," he also has three daughters, Victoria, Sabrina, and Samantha. His extended family includes the more than 100 people who make up Gateway Property Management.

Currently the CEO, Scott has worked for Gateway Property Management for 33 years. Prior to joining Gateway as controller, he was a chartered accountant with Deloitte & Touche, where he specialized in auditing and consulting for a variety of real estate companies. Scott holds a BA (Business) from Simon Fraser University and a Diploma in Urban Land Economics from the University of British Columbia. He is also a Certified Property Manager (IREM) and a Fellow of the Real Estate Institute of Canada.

Scott's contributions to the industry are extensive. He is a past president of the BC Chapter of the Institute of Real Estate Management, the Real Estate Foundation of BC, BC Apartment Owners and Managers Association, and REIBC, and he is a former director with the Real Estate Board of Greater Vancouver and the Real Estate Institute of Canada. Scott has also been a treasurer for Strata Property Agents of BC and a governor with REIBC, and has taught at UBC in the Urban Land Economics program.

This year's winner of REIBC's Award of Excellence, Scott has been recognized by other industry organizations over the years. He was awarded IREM Chapter 50's Property Manager of the Year in 1989, REIC's Corporate Citizen of the Year in 2004 and again in 2010, and REIC's J. A. Weber Award in 2009.

RI

REIBC'S 23RD ANNUAL CHARITY GOLF TOURNAMENT



The 23rd Annual Charity Golf Tournament, Dinner, and Auction was held on June 22, 2016, at Richmond Country Club in Richmond. The event supports the Make-A-Wish Foundation of BC and Yukon, raising funds to help the foundation grant wishes to children with life-threatening medical conditions. Since 1983, the Make-A-Wish Foundation has granted more than 1,700 wishes throughout BC and Yukon. As a result of the generous support of the participants and sponsors of the tournament, REIBC was able to donate \$36,555 (a record!) to the foundation this year. Since the tournament's inception it has raised over \$486,000 in charitable donations.

After a long stint at Northview Golf and Country Club, the Golf Committee made a difficult but calculated decision to "freshen up" the event by moving it to Richmond Country Club. We received a lot of positive feedback from participants and sponsors, although the golf course proved a little more difficult than Northview as the winning team scores were much higher.

Registration for the event fell just short of a sell-out with 135 golfers registered and another 25 guests for dinner. Sponsorship for the tournament was strong again, with 18 Platinum and nine Gold sponsors.

All available par threes were covered with Hole-in-One sponsors: REIBC, Dueck Auto Group, and Freeway Mazda offered cash, holidays, golf equipment, and vehicle prizes. Unfortunately, no one managed that miracle shot for the elusive ace. A multitude of prize donors ensured each participant took away a prize and generated an auction table consisting of four live and 18 silent auction prizes—which raised \$11,715. An additional \$3,165 was raised via raffle draw, 50/50, and Hit the Green tickets, sold throughout the day.

The weather turned out to be very good and allowed most people to enjoy the barbeque lunch on the beautiful new patio overlooking the golf course. A big advantage to having the tournament at Richmond Country Club was the ability to start at 1 p.m.; everyone was finished by 5:45 p.m., allowing for plenty of networking time before the evening festivities.

The formal evening agenda began with a welcome greeting from our outgoing president, Andrea Fletcher. Perry



Solkowski was back to perform emcee duties and engage the crowd for the evening, proving once again to be instrumental in generating significant donations for all of the live and silent auction packages.

Judi Whyte presented the 2016 George Whyte award to Wayne Braid for his active involvement and ardent support of REIBC functions over the years. Wayne had a big night since he also participated on one of the winning tournament teams.

A cheque presentation was made to the Make-A-Wish Foundation, represented by volunteer Heather Pedersen, for last year's then-record donation of \$33,000. Heather gave a greeting from the foundation and introduced the Wish Family—18-year-old Natasha, her mother, Tessa, and father, Danny. Natasha suffers from a heart condition known as truncus arteriosus type 2. She gave a very informative speech about her ailment and then recounted her Wish trip to New York City to appear in



the Broadway show *Wicked*. Both topics were brought to life with excellent slide presentations. As in her Wish experience, Natasha truly gave the best performance of the night!

The tournament continued with its tradition of capping off the evening with a reverse draw for the grand raffle prize—a full set of custom Callaway clubs and bag. The winner this year was Christopher Jones from Canada Scaffolding Supply Co.

Moving the event to Richmond Country Club offered a number of positive benefits, which the committee believes improved the experience for the participants, sponsors, and volunteers, and elevated the profile of the event. The committee also took note of a few shortcomings with the first run at the new location and will review these at our year-end meeting. With a few tweaks the quality of the tournament should be enhanced even further next year.

The Golf Committee would like to extend its thanks to the corporate and individual sponsors for their support and prize donations, the volunteers for their assistance in the organization of the 2016 tournament, the participants, and REIBC staff—all of whom have been instrumental in assisting the Golf Committee through the process. We are looking forward to another successful tournament in 2017, scheduled for Wednesday, June 21, 2017, at Richmond Country Club.

TEAM PRIZE WINNERS

First Place: Team 3B – Masters Building Services: Todd Mikl, Colin Murray, Chris Kyle, Colbg Johannson

Second Place: Team 1B – The Society of Notaries Public of BC: Daniel Boisvert, Ken Sher, Wayne Braid

Third Place: 18a – Smart Investments: John Smart, Andrew Strong, Jon Alpen, Rudi Herzog

Most Honest Team: 17A – Impark: Dave Lebas, Mikky Pearson, Michael LaPorte

GRAND PRIZE RAFFLE WINNER

Set of Calloway Golf Clubs: Christopher Jones, Canada Scaffold Supply Co.

SKILL PRIZE WINNERS

Ladies’ Longest Drive: Mandy Hansen
 Ladies’ Closest to the Pin: Mandy Hansen
 Men’s Longest Drive: Blake Ponuick
 Men’s Closest to the Pin: Randy Brown
 Longest Putt: Blake Ponuick

MARK YOUR CALENDARS!

REIBC’s 24th Annual Charity Golf Tournament is on June 21, 2017.

2016 TOURNAMENT SPONSORS

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Siemens Canada
Somatic HVAC Solutions
The Keg
ThyssenKrupp Elevator Canada
Total Plan Inc.
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Westpac Paper



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PROFESSIONAL MEMBERS



Leon
Chan

BC Assessment



Barbara
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Instructor



Pam
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