



**the partnership
for water sustainability in bc**

Waterbucket eNews on March 4, 2025
<https://waterbucket.ca/wscblog/>



Living Water Smart in British Columbia:

Overcoming fear and doubt to build a community atop Burnaby Mountain

Note to Reader:

[Waterbucket eNews](#)¹ celebrates the leadership of individuals and organizations who are guided by the vision for [Living Water Smart in British Columbia](#)².

The edition published on March 4, 2025 featured Michael Geller. Through sheer force of personality, he took the vision for a sustainable community atop Burnaby Mountain and created *UniverCity*. Michael Geller is driven by a CAN DO ATTITUDE. "One of the real advantages we had at *UniverCity* is that I was able to try out new ideas," says Michael Geller.

The umbrella for Partnership initiatives and programs is the [Water Sustainability Action Plan for British Columbia](#)³. In turn, the Action Plan is nested within [Living Water Smart, British Columbia's Water Plan](#).



Cover Image Credit: photo provided by Michael Geller

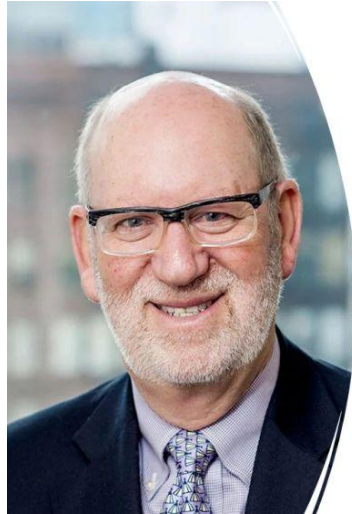
¹ <https://waterbucket.ca/wscblog/>

² https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2017/11/livingwatersmart_book.pdf

³ <https://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/81.pdf>

One-Minute Takeaway

"Dealing with drainage and stormwater management is more challenging when you put 6 homes on a single-family lot than anything we did at UniverCity."



"Not everyone gets to plan a brand-new community on top of a mountain as I did at Simon Fraser University."

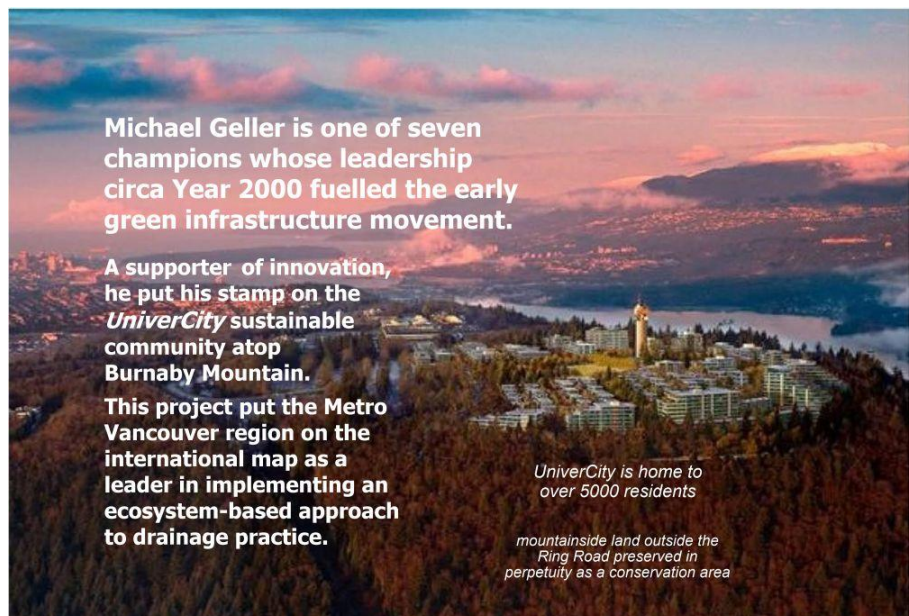
"To everybody embarking on these gentle densification projects to construct 4 or 6 homes on single-family lots, you must get the drainage right."

"Get it wrong and it can be expensive to fix the problem."

Michael Geller is a Vancouver-based retired architect, planner, real estate consultant and property developer, adjunct professor and media commentator.

As the hands-on founding president and CEO of the SFU Community Trust, his claim to fame is planning and developing the *UniverCity* sustainable community at SFU.

Many individuals have played important roles in the green infrastructure movement in British Columbia. But whose efforts have truly been make or break? Seven individuals stand out as first-order champions⁴. The seven rose to the moment in ways that were complementary. They changed the game in profound ways when British Columbia was at forks in the road.



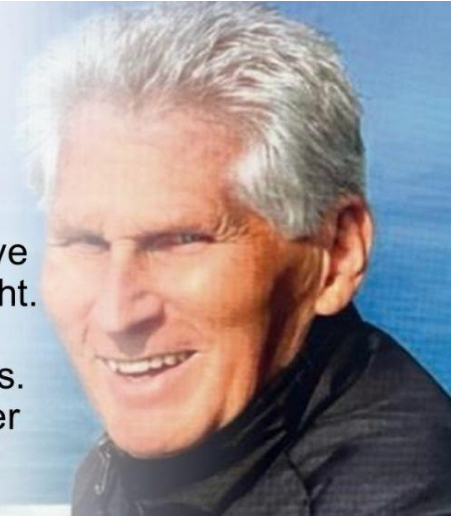
⁴ <https://waterbucket.ca/gi/wp-content/uploads/sites/4/2025/01/Tier-One-Champions-for-implementing-an-Ecosystem-Based-Approach.pdf>

Overcoming fear and doubt to build a community atop Burnaby Mountain

"In October 1999, I took on the job as President and CEO of the SFU Community Trust. Even before I started, I got a call from Don Stenson who was then Director of Planning at the City of Burnaby," recalls Michael Geller. "We had never met before. He asked me to come to his office. We were having a chat and he said to me something that I have never forgotten."

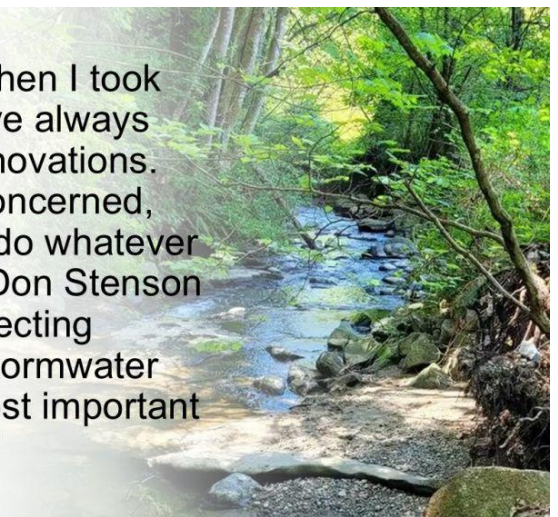
"Don Stenson said there is one thing that I want you to never forget...
STORMWATER."

"What does stormwater have to do with anything, I thought. I knew about contaminated soil and geotechnical issues. But stormwater? I had never encountered the word."



"But there is no doubt, he went on to say, that it is going to be very important that whatever you build on top of that mountain, the stormwater flows into Stoney Creek must be no worse than they are today. And I thought, I have absolutely no idea whether that is possible or no t."

"Part of the appeal when I took the job was that I have always been interested in innovations. So, as far as I was concerned, Kim Stephens could do whatever he wanted because Don Stenson had told me that protecting Stoney Creek from stormwater impacts was **THE** most important thing that I could do."

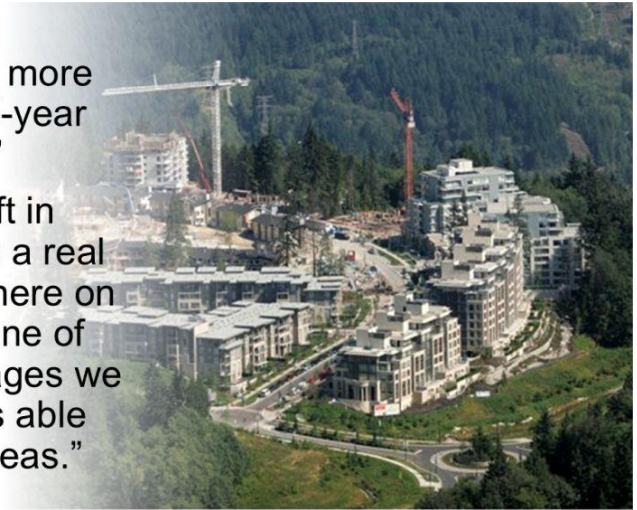


A complete community within 5 years

“It takes all kinds of people to make things happen. In a relatively short time we overcame fear and doubt and got UniverCity built. Today, it takes 5 years to get an approval to build a single apartment building in many municipalities. In 5 years, we managed to get approvals for a community of 4536 homes and complete the roads and first buildings.”

“I stayed on two more years after my 5-year contract ended.”

“By the time I left in 2006, there was a real community up there on the mountain. One of the real advantages we had is that I was able to try out new ideas.”

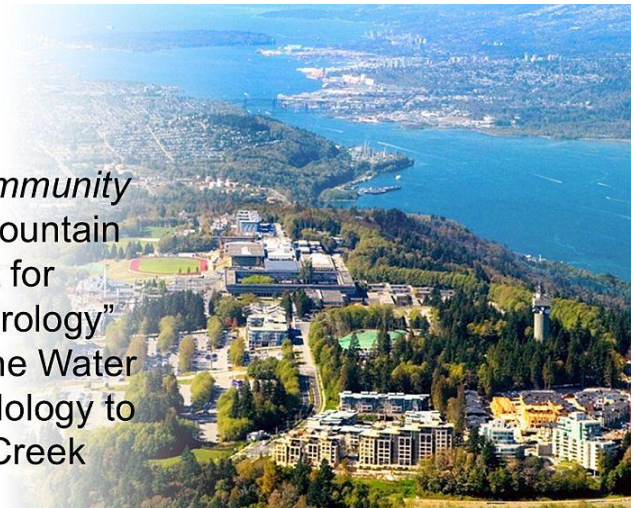


Editor's Perspective by Kim A Stephens

Overcoming Fear and Doubt

Michael Geller, through sheer force of personality, took the vision for a sustainable community atop Burnaby Mountain and created UniverCity. His world view was downtown Vancouver which is not greenfield. That resulted in tense moments with the environmental agencies about safeguarding the hydrologic integrity of Stoney Creek.

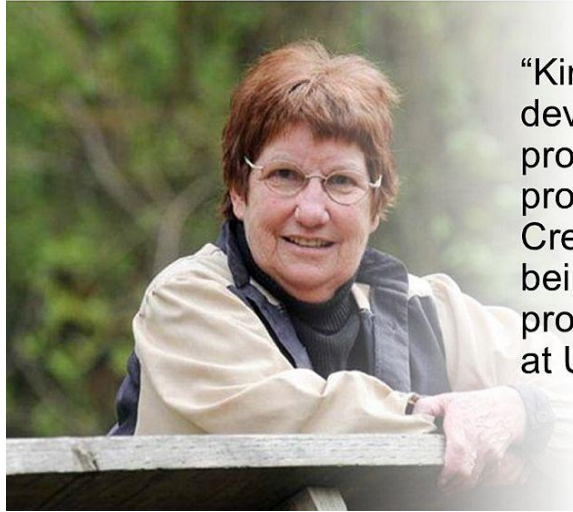
The *UniverCity Sustainable Community* atop Burnaby Mountain was the catalyst for “reinventing hydrology” by developing the Water Balance Methodology to protect Stoney Creek



When Michael Geller invited me to lead the "green team" for the UniverCity project, I stated that it was not possible to meet the intent of the Official Community Plan for Burnaby Mountain unless we reinvented urban hydrology. And that is exactly what we proceeded to do.

We overcame fear and doubt by applying science-based understanding to develop the Water Balance Methodology

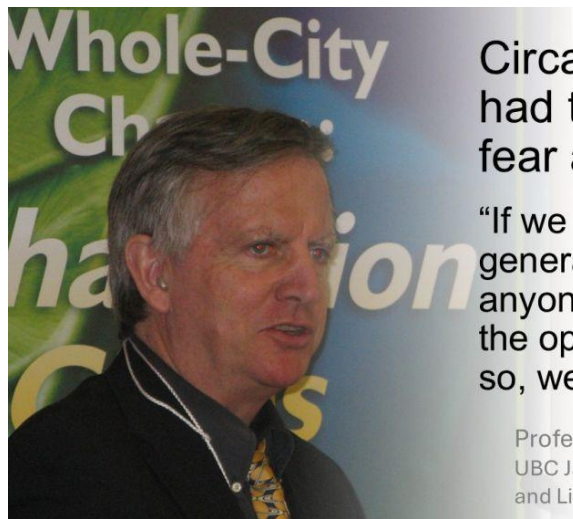
The late Jennifer Atchison, co-founder of the Stoney Creek Environment Committee, played a crucial role in holding the feet of Burnaby City Council and Michael Geller to the fire. Her passion and contributions set a high bar for UniverCity to meet in protecting Stoney Creek. One day, Jennifer said to me:



“Kim, I trust you to develop a strategy that protects...actually protects...Stoney Creek fish habitat from being impacted by the proposed community at UniverCity.”

Jennifer Atchison,
co-founder, Stoney Creek
Environment Committee

In the early stages of UniverCity, everything hinged on the drainage plan. Nothing could proceed until it was resolved. We had to overcome fear and doubt. It had to work. Failure was not an option. We had to build trust. He generated a defining quote that captured the moment, the mood, and the stakes.



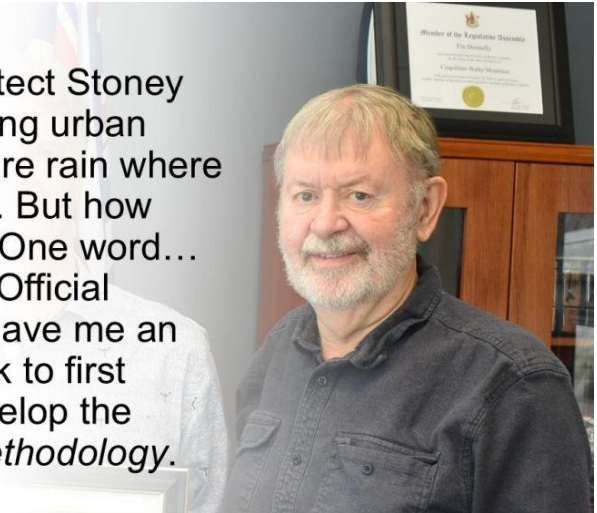
Circa 2000, we had to overcome fear and doubt!

“If we fail, it will be a generation before anyone will even have the opportunity to try again; so, we must not fail.”

Professor Patrick Condon,
UBC James Taylor Chair in Landscape
and Livable Environments

The weight of that responsibility was my motivation to re-invent urban hydrology and my source of inspiration to develop the Water Balance Methodology. Subsequently, it became the technical foundation for British Columbia’s Stormwater Guidebook.

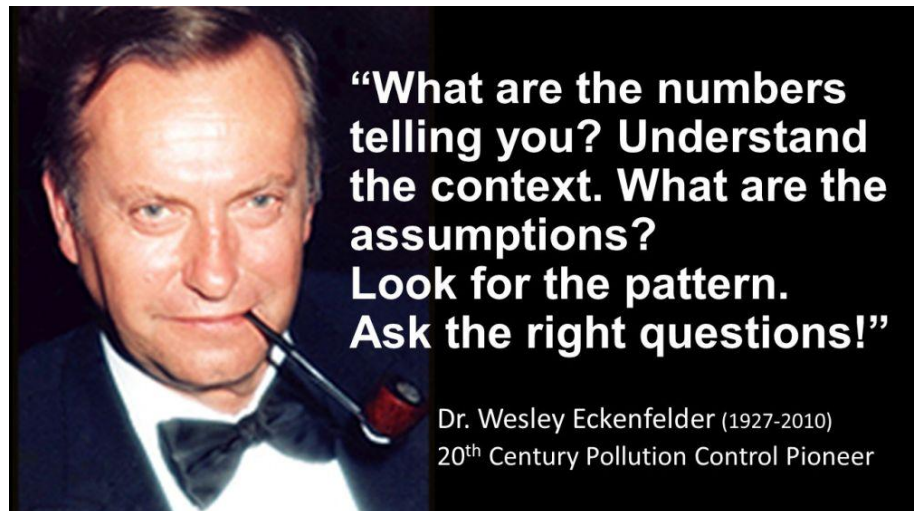
We could only protect Stoney Creek by reinventing urban hydrology to capture rain where it fell at UniverCity. But how was the question. One word... **VOLUME**...in the Official Community Plan gave me an opening to go back to first principles and develop the *Water Balance Methodology*.



Ask what the numbers are telling you

So often, serendipity plays a big role in what we do. When Michael Geller unveiled the visionary concept for UniverCity at an on-campus session in 2000, a graduating student in the School of Resource and Environmental Management asked me a series of incisive and perceptive questions.

Patrick Graham so impressed me that I offered him a job right then and there. I shared a story with him about what I had learned from Wesley Eckenfelder, a legendary professor at Vanderbilt University. When looking at data, Eckenfelder said, ask what are the numbers telling you.



You have 6 weeks, I said to Patrick Graham, to find the pattern in 25 years of Burnaby Mountain rainfall data. This will be the basis for a methodology.

The process was intense, but Patrick found the pattern. And then we spent the next two years successfully defending the Water Balance Methodology.



Because of my UniverCity experience, I was invited to speak at events in Canada, the USA, and Australia to tell my part of the UniverCity story.

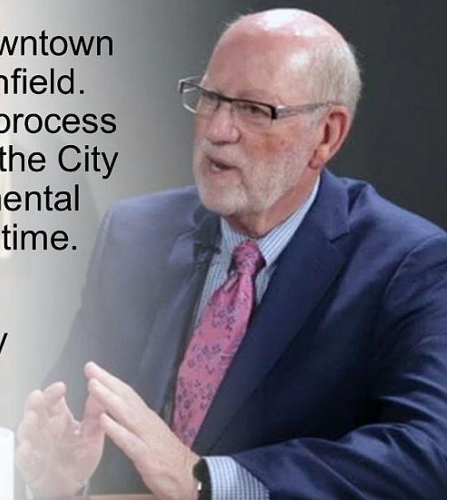
It took me about six weeks to figure out the methodology, I would tell audiences, and another two years to defend it. Through it all, Michael Geller did have my back. And that is what mattered most.

Keynote address at
Stormwater Australia Conference



Michael's world view was downtown Vancouver which is not greenfield. This helps explain why the process for reaching consensus with the City of Burnaby and the environmental agencies required additional time.

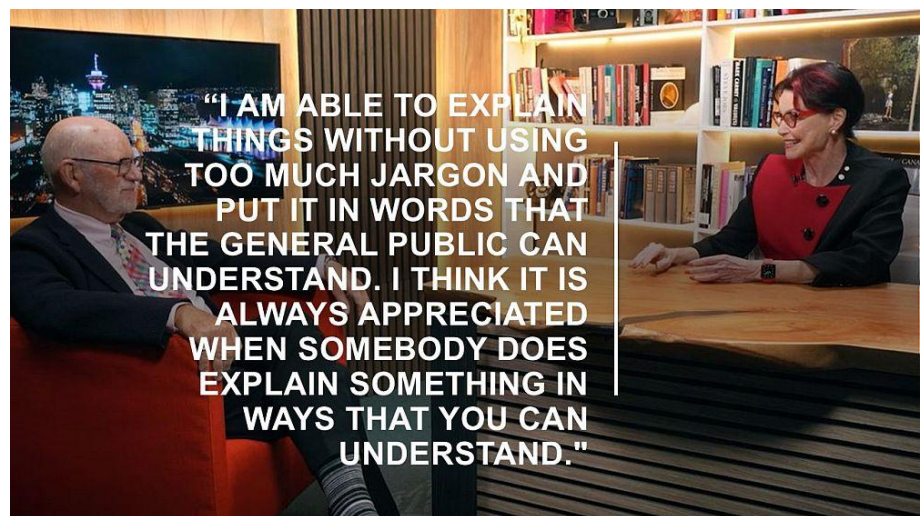
Without Michael Geller, on the other hand, UniverCity would not have happened as quickly as it did – the first construction within 3 years!



STORY BEHIND THE STORY:

Overcoming fear and doubt to build a community atop Burnaby Mountain - a conversation with Michael Geller

The story behind the story comprises four topics because my conversational interview with Michael Geller went in unexpected directions. He is an effective communicator and is frequently featured on TV and in the print media. When I asked Michael why he is a go-to-person on housing issues, he replied that:



In a nutshell, what the reader will learn...

Michael Geller is driven by a CAN DO ATTITUDE. His passion for innovation goes back to the early years in his career at Canada Mortgage and Housing Corporation when CMHC was a force for research and demonstration,

Couple that with what Michael reveals in Topic One about the influence the legendary Edward de Bono had on his thinking. It is no wonder he was the right person to get UniverCity built. And within a comparatively short period of time!

As Michael explains in Topic Two, it is the "living lab" idea that allowed him to take calculated risks at Simon Fraser University that propelled innovation. And that combination of a "can do attitude" and knowing how to take calculated risks to do "get it right" is something that we have lost in recent decades.

Also, a lack of understanding of the bigger picture and how everything is connected plays out in failure to anticipate unintended consequences. So, do not make them too overwhelming, says Michael Geller.

That lived experience is the springboard to Topic Three in which Michael Geller connects the dots between the current provincial housing strategy and drainage consequences. Topic Four is closing reflections on creating a legacy atop Burnaby Mountain.



"Dealing with drainage and stormwater management is more challenging when you put 6 homes on a single-family lot than anything we did at UniverCity," Michael Geller emphasizes.

TOPIC ONE: **Edward de Bono influenced Michael Geller to think differently than everybody else**

"People often say to me, you do things that most normal people would never even consider trying. Why is that? And I reply, it is all because of Edward de Bono, He was an English educator and doctor. He was the father of the concept of **Lateral Thinking**. Thinking outside the box," says Michael Geller.



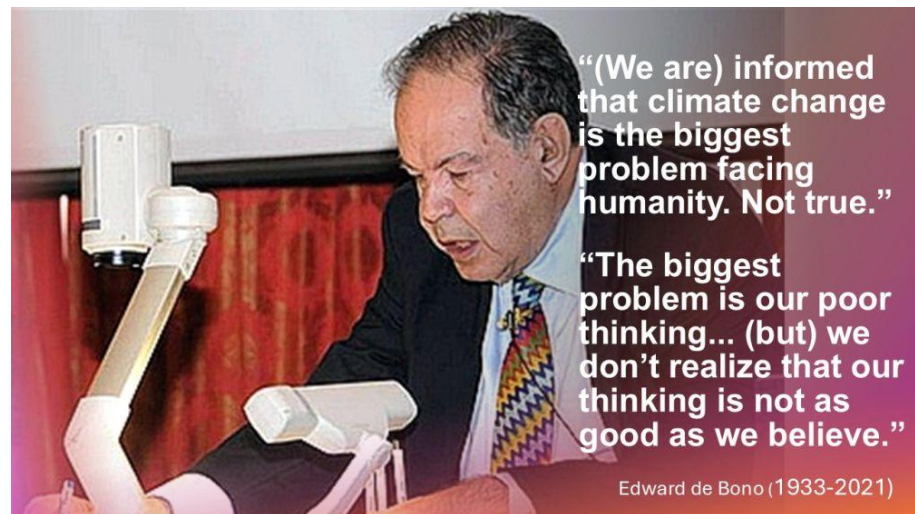
"Edward de Bono wrote 54 books, but most Canadians have never heard of him. He was brilliant."

Edward de Bono was the one who got me thinking about how to think differently than everybody else."

"In 1982, my boss said you are always going on about this Edward de Bono. I just read he is going to be in Seattle. Do you think we should bring him to Vancouver to give a talk? Of course, I said."

"So, we rented a room at the Four Seasons hotel. Edward de Bono insisted on a particular set-up complete with an overhead projector. When he came into the room, he did not say a word to anybody other than good morning. He just sat down and started talking."

"As he was talking, he was doodling on the overhead screen. And he told a story. His punchline is we often go down one track without thinking that there might be another completely different track."



To learn more, watch⁵ Edward de Bono build to his vision for a "Palace of Thinking"

"Edward de Bono wrote a book called [Six Thinking Hats](#)⁶ which is absolutely brilliant. A lot of corporations use it as a way to get people to think differently. Edward de Bono influenced my thinking greatly when I was a young professional. It was an amazing experience to be in the room with him in 1982."

"In the video of his presentation at the 2010 Creative Innovation Conference, de Bono concluded with a provocative statement which is universally applicable and leads me to think about the role the Partnership for Water Sustainability plays in British Columbia."

"His topic was [Re-thinking the future](#),"

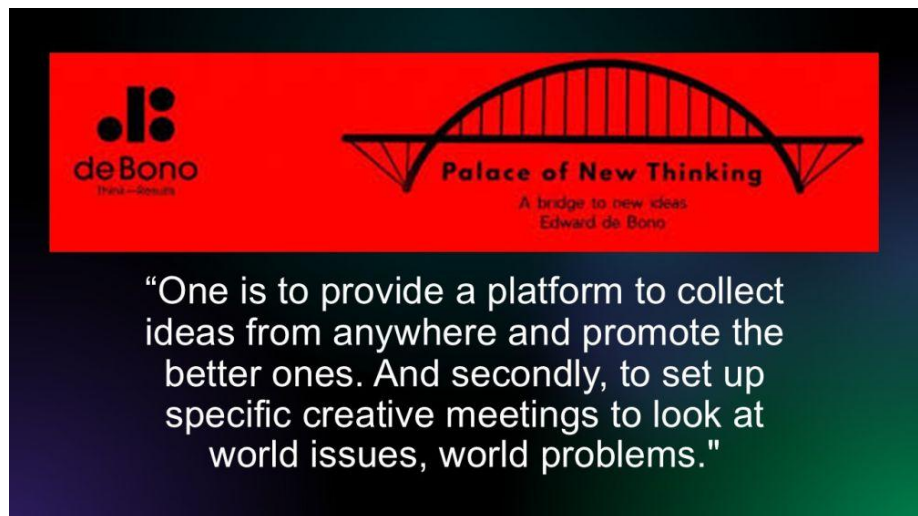
⁵ <https://www.youtube.com/watch?v=tjvsBW8MI6s>

⁶ https://en.wikipedia.org/wiki/Six_Thinking_Hats

Limits of our thinking is our biggest problem

"Many years ago at the United Nations, I tried to set up a group to provide some additional ideas. I had various meetings. Secretary General Kofi Annan proved absolutely impossible," Edward de Bono stated.

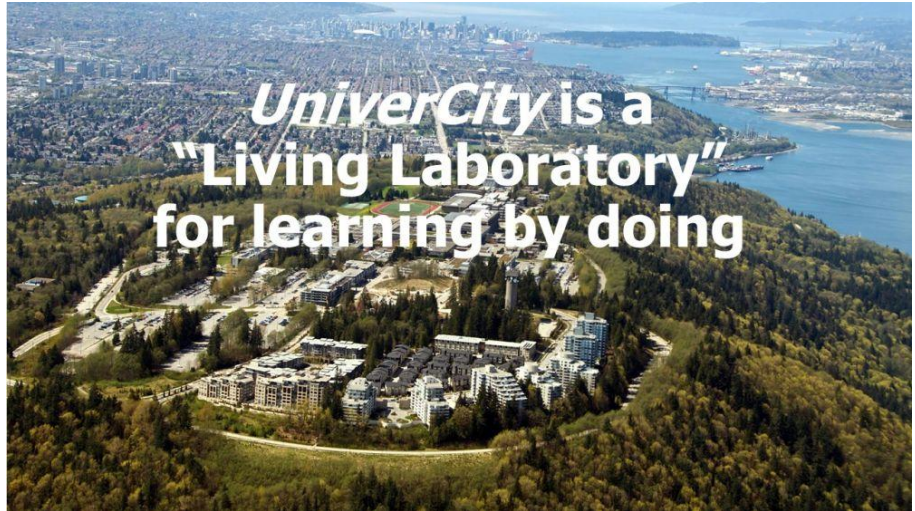
"They all said **we are not here to think, we are here to represent our countries, not to think**. Somewhere in the world there needs to be a source for new thinking, new ideas. So, my project is to set up a Palace of New Thinking which would have two functions."



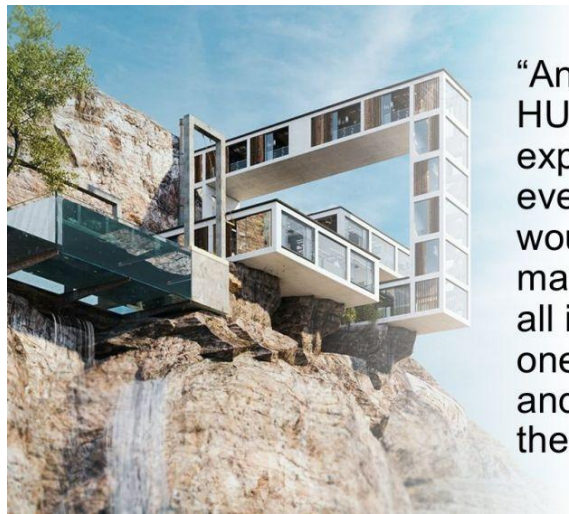
"In other words, our existent thinking is good for recognizing past and standard situations. Not good for designing new possibilities. That is why I say that the limits of our thinking are the biggest problem facing the world. And if we improve that, we might improve our way of dealing with climate change," concluded Edward de Bono.

TOPIC TWO: Michael Geller brought an interest in innovation to learning by doing

"One of the real advantages we had at UniverCity is that I was able to try out new ideas," continues Michael Geller. "Whenever people would say, we cannot do that, I could say: I will give you written assurance from the university that if this idea does not work, we will fix it."



"Part of the appeal when I took the job was that I have always been interested in innovations. At one time, I worked for CMHC in Ottawa and headed up the Research and Demonstration Group. The reason I loved that was because we got to try out new things. They did not always work. Invariably that was because people tried to do too much at one time."



"An organization called HUDAC used to do an experimental house every year. They would laden it with so many innovations that all it needed was for one or two not to work and it discredited all the other innovations."

"And that is why I must admit that at SFU...while I was willing to try out a lot of things and we were successful...there were things that I was not willing to do...for example, district energy. Sometimes you have to decide."

Learning by doing at UniverCity

"We could do a lot of these things because the university was willing to support me in providing an undertaking to fix things. And most private developers can never give that assurance to a municipality or provincial government because there is always the fear that they will go broke."

"But in terms of stormwater, Kim Stephens could do whatever he wanted because Don Stenson had told me that protecting Stoney Creek from drainage impacts was THE most important thing that I could do."



"I never did understand most of what Kim Stephens and Eric Emery...who I recruited from the City of Surrey...were talking about. But as long as they were doing something that the university would be proud of, I was happy. And that is basically what happened during the years we worked together."

Before joining the UniverCity team, Eric Emery was the manager of drainage planning at Surrey

Are we managing watercourses or the watershed?

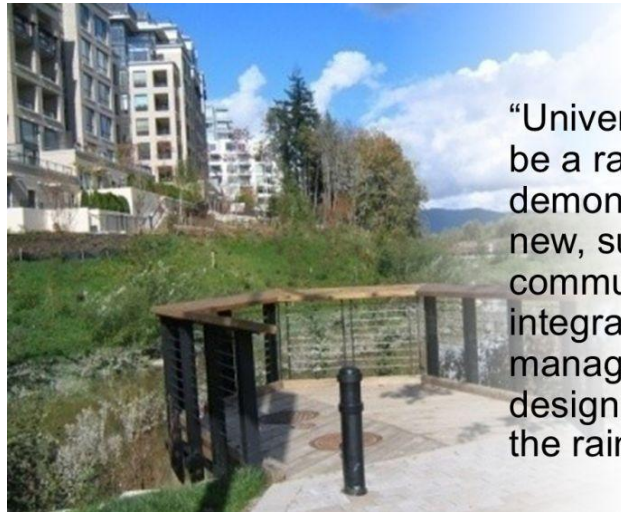
"Competing expectations created a number of barriers. The #1 barrier was the lack of trust that a sustainable, compact and complete community could be achieved while protecting the environment. Overcoming this barrier meant earning trust through a process"

"Bumps along the way included shortcuts that did not work, uncovering people's worst fears, imperfect personality matches that resulted in conflict, difficulty finding built precedents, and accepting some risk."

"The key to successful resolution of the watercourse management issues was a round-table atmosphere of respect and active listening, leading to understanding of objectives and concerns, and eventually building trust."



"Once trust was established, the interagency group was able to jointly find innovative solutions that created win-win results."



"UniverCity proved to be a rare opportunity to demonstrate how a new, sustainable community can truly integrate stormwater management into urban design, starting where the rainfall lands."

TOPIC THREE: **Michael Geller warns of the challenges in getting drainage design right when single family lots are densified**

"I came from an urban background. And I have returned to an urban background. Not everyone gets to plan a brand new community on top of a mountain. But a lot of people are now going to have to start dealing with drainage and stormwater management on a single family lot."

"This notion of putting 4 or 6 homes on a single family lot in conformance with the new provincial legislation does not anticipate what this means for drainage design."



"Get the drainage wrong and the consequences can be expensive to fix."

image credit: lanefab.com

"Dealing with drainage and stormwater management is more challenging when you put 6 homes on a single-family lot than anything we did at UniverCity."

"I mention my experience with gentle densification because in all instances drainage and stormwater management became a major consideration."



"I have been telling everybody that I know that when they want to start talking about multiplex development to keep in mind what I have discovered through lived experience."



"To everybody embarking on these gentle densification projects to construct 4 or 6 homes on single-family lots, I offer these words of warning: **be aware that drainage can be particularly challenging to get right.**"

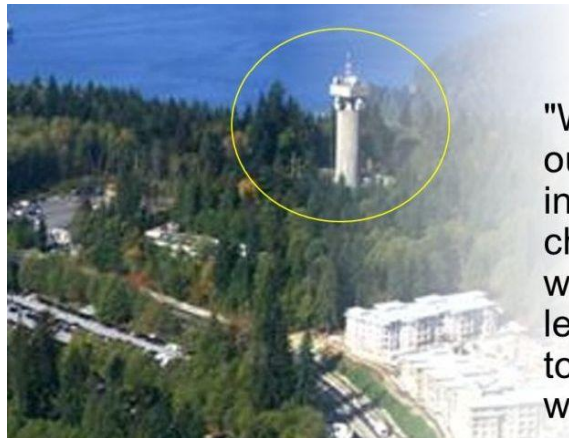
Reflections by Michael Geller on meeting the moment to get the drainage right

"Conceptually, developers and others should be aware that drainage and stormwater management may once again turn out to be a major challenge. And I say that because on my last project we were just about to invite the first residents to move in and I was walking the site with a wonderful contractor."

"I said, the ground seems awfully wet. And this was in summer. It was because our stormwater management system was not working. The contractor had to tear the entire thing out and rebuild the system. It was incredibly expensive and caused a great deal of strife."

Flashback to a teachable moment at UniverCity: "This experience immediately reminded me of the time I was walking the UniverCity site with Kim Stephens. It was August and It had not rained for quite a while. But there was water flowing out of the forest and into a tiny drainage channel."

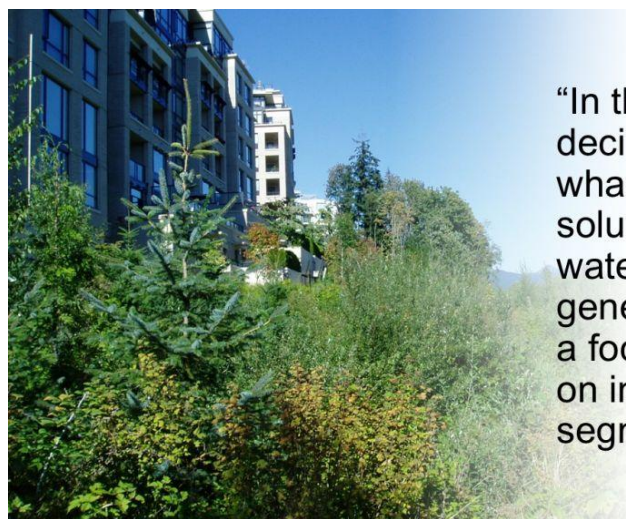
"Kim said, I am surprised how much water is flowing when we are at the top of the mountain. We should investigate. When it comes to drainage, I learned from that experience that observation and details matter."



"Water was flowing out of the forest and into a tiny drainage channel. The flow was due entirely to a leak in the connection to the university's water tower!"

"I immediately thought, this is terrific because we can get rid of this as a designated creek which means we will not have to provide the necessary setbacks for development of the site."

"And Kim said, no, I don't think you are going to be successful with that. I couldn't help but think, how stupid could it be that a creek that was the result of a leak in a water tower could be designated as and remain a Class C watercourse!"



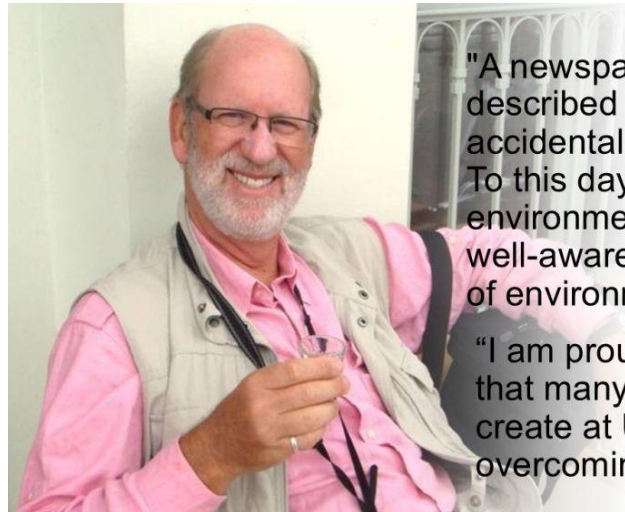
"In the end, the decisions considered what were the best solutions for the watershed in general, rather than a focus exclusively on individual stream segments."

TOPIC FOUR: **NY Times headline** (May 7-2006) -
“A Community Comes to a University

“One day I was interviewed by the NY Times on another matter. I said there is another story here about creating a community as part of a university on land owned by the university, partially to enhance the university and partially to generate revenue.”

“I said there are a few universities doing this in the USA but not very many. I think it is a story worth telling. A few months later the NY Times published a story titled [A Community Comes to a University](#).⁷

“Immediately after that story was published, there was new interest by various university faculties in learning a bit more about what we were doing. That was very gratifying and something that I had always anticipated would happen,” concludes Michael Geller.



“A newspaper article described me as an accidental environmentalist. To this day, I am not an environmentalist, but I am well-aware of the importance of environmental matters.”

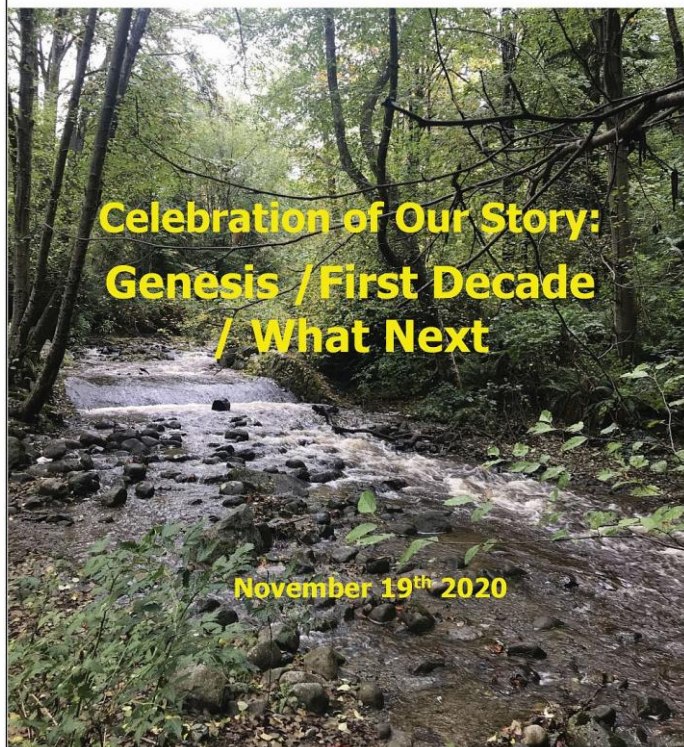
“I am proud of the legacy that many people helped to create at UniverCity by overcoming fear and doubt.”

⁷ <https://www.nytimes.com/2006/05/07/realestate/07canada.html>

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the partnership
for water sustainability in bc



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About the Partnership for Water Sustainability in British Columbia

Incorporation of the Partnership for Water Sustainability in British Columbia as a not-for-profit society on November 19, 2010 was a milestone moment. Incorporation signified a bold leap forward.

Over two decades, the Partnership had evolved from a technical committee in the 1990s, to a “water roundtable” in the first decade of the 2000s, and then to a legal entity. The Partnership has its roots in government – local, provincial, federal.

The Partnership has a primary goal, to **build bridges of understanding** and pass the baton from the past to the present and future. To achieve the goal, the Partnership is growing a network in the local government setting. This network embraces collaborative leadership and **inter-generational collaboration**.

The Partnership believes that when each generation is receptive to accepting the inter-generational baton and embracing the wisdom that goes with it, the decisions of successive generations will benefit from and build upon the experience of those who went before them.



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