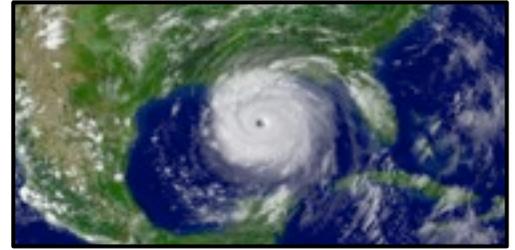


Living on a Floodplain – An Overview

Why Salmon Arm needs a flood hazard and risk assessment

Extreme Weather

“Predicted changes in extremes include more record high temperatures; fewer but stronger tropical cyclones; wider areas of drought and increases in precipitation; increased climate variability; Arctic warming and attendant impacts; and continued sea level rise as greenhouse warming continues and even accelerates. (Credit: NOAA)” <http://www.sciencedaily.com/releases/2013/02/130211135015.htm>



The 2013 Calgary flood was the result of heavy, sustained rain in the entire Bow River watershed west of Calgary: 226 mm of rain in 2.5 days, compared to the average June storm of 20 mm, accompanied by one meter of snowpack melt. John Pomeroy, Hydrologist, University of Saskatchewan, CBC, The National, 27Sept2013.)

“**Boulder County** (Colorado) was worst hit, with 9.08 inches (231 mm) recorded September 12 and up to 17 inches (430 mm) of rain recorded by September 15,^{[3][4][5]} which is comparable to Boulder County's average annual precipitation (20.7 inches, 525 mm).^[6]” https://en.wikipedia.org/wiki/Boulder,_Colorado_floods



Disastrous Consequences

Sicamous: Heavy rainfall. "It's washed out homes, it's taken homes off their foundations, it's washed out Waterways Houseboats' property — cars all over the place. It's just a mess." CBC News, 24Jun2012.



Toronto: “The storm and flash flooding that hit the GTA on July 8 has set a record for the Province’s most expensive natural disaster, according to the Insurance Bureau of Canada.” http://www.thestar.com/business/2013/08/14/july_flood_ontarios_most_costly_natural_disaster.html

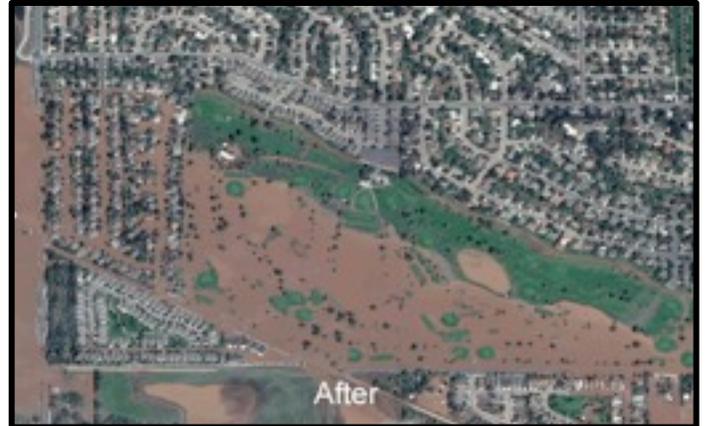
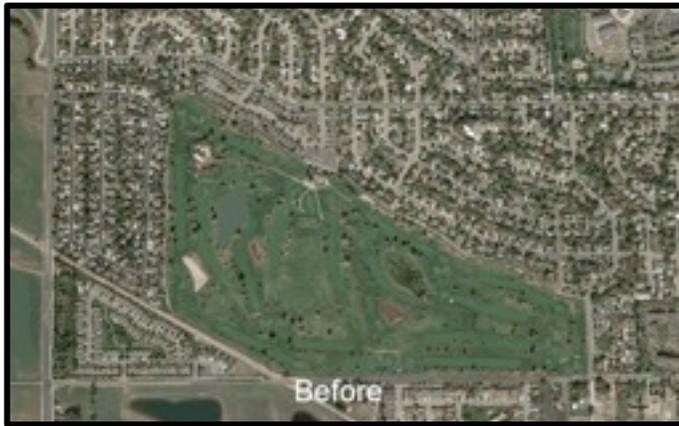
Calgary: “Alberta homeowners hoping to make claims for flood damage won't get help for water that poured through doors or basement windows, the Insurance Bureau of Canada said Friday. ‘You're not covered,’ spokesman Steve Kee said. **‘There's no overland flooding coverage in Canada.’**” <http://www.theglobeandmail.com/news/national/not-all-flooding-covered-by-insurance-policies-need-to-be-checked-experts/article12754762/>

“Worst natural disaster in Canada’s history according to Insurance Bureau of Canada.” Ian Hanomansing, CBC, The National, 27Sept2013.



Excerpts from The Great Alberta Flood: <http://www.wa-ter.ca/MacleansCalgaryFlood.pdf>

Colorado: “. . . affecting at least 1,918 square miles of the state and resulting in the likely deaths of 10 people and nearly \$2 billion in property damage, offer a glimpse into the scope of devastation that this 1000-year storm brought down some Colorado communities.” http://www.huffingtonpost.com/2013/09/23/colorado-flood-before-and_n_3975938.html



Significance for Salmon Arm

Salmon Arm is not Sicamous, Toronto, Calgary or Boulder, but shares characteristics with each.

- ✓ At the end of a long, narrow valley in mountains with high snow packs.
- ✓ High, spring rainfall with simultaneous snow pack melt is fairly common and may increase.
- ✓ Buildings, roads, bridges and the highway exist on the floodplain
- ✓ An extreme flood would back up south of the highway and spread into town.
- ✓ **To move from speculation to understanding can only occur with a flood hazard and risk study.**
- ✓ The study would be a powerful aid in convincing the Province to redesign the highway and bridge.

Timeline

- ✓ Once funded, a hazard and risk study will take a year or two to contract and complete.
- ✓ Several more years will be required to develop appropriate policies and infra-structure plans.
- ✓ Additional years will be needed to raise funds for city infrastructure construction.
- ✓ Convincing the Province to redesign the highway and bridge, even with the study in hand, could take many years.
- ✓ Therefore, funding a flood hazard and risk study, soon, seems highly desirable.



<http://www.albertawatersmart.com/alberta-flood-2013.html>

http://www.bcrea.bc.ca/docs/floodplainmaps_action_plan