Caring for something we don't own

Flood risk: Spring 2020

Recent news headline stated evacuation alerts in effect for 16 residences in Grand Forks. This brings back old memories from spring 2018 when the city experienced the worst flood in 70 years. It also brings back old memories here in the Salmo River watershed, as an evacuation alert was also in effect for the village of Salmo and surrounding areas during that year. Elevated seasonal flood risks can exist when the snowpack is high, but this alone does not predict flood risk. Spring weather and rainfall are both contributing factors to elevated flood risk. In the West Kootenays, the latest snow survey and water supply bulletin from the provincial Government's River Forecast Center shows a snowpack that was 117% of the normal in May 1st. Steady snowmelt since then has resulted in a snowpack that is still at 117% of the normal (May 15th). That is part of the reason why a High Stream Flow advisory is currently active in our area. In 2018, that number was at 180% in early May and 137% by mid-May. Unfortunately, we do not have any direct control on snowpack and spring weather. However, there are other factors which can contribute to flood risks that we do have some capacity to control.

Mom Nature is an incredible architect when it comes to create self-regulating systems that can, for instance, provide clean drinking water, clean air or mitigate flood risks. These are called ecological services and are being increasingly considered as important assets for communities. In fact, when we destroy or alter these Natural assets we do so at our peril. The extensive floodplains, wetlands and braided channels that used to exist in Village of Salmo provided important buffer zones when the water level rose high. Wetlands are also excellent water purification structures and are some of the most important ecosystem on earth. Just like a sponge, wetlands have the ability capture and slowly redistribute water. However, when wetlands are covered with hard non-permeable surfaces such as roads, they can no longer provide that ecological service. Intact mature forests are also important for flood mitigation. By intercepting snow, the tree canopy reduces snow accumulation on the ground. Additionally, trees drink a big portion of the melting snow and redistribute it in the atmosphere. Mature forests also provide shade which slows down the seasonal snow melt. That is very important as the combination of a deep snowpack and rapidly melting snow both exacerbate flood risk. Even though most clear cut are replanted, it takes a long time before a forest can provide those ecological services. Experts don't always agree on this, but it can take between 30 and 70 years before benefiting from a replanted forest. In fact, young trees can actually contribute to faster snow melt by absorbing and retaining heat. There are many reasons to conserve, restore and protect healthy ecosystems. For the simple beauty of it but also for the benefits that contribute to our health, sanity, economy and sustainability.