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SPPI POSITION STATEMENT
Climate Change and Community Resiliency

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The vast majority of the global scientific community, that is; 97 percent of actively publishing climate scientists, agree that climate change is real and that humans are causing global warming.[9] Planning has always relied on science before acting. The science of climate change is clear – climate change is real, it is man-made, and it is a threat to communities. As a profession and an Institute, Planners must acknowledge the overwhelming consensus of the science and accept that climate change is real and global warming is occurring. It is our professional and ethical duty as Planners to work in the public interest and recognize the effects of climate change. Once we do so, we will be rejuvenated, if not, redeemed. We are in the middle of a long conversation with nature at the moment, and it will be a lifelong journey for many generations by the time we are done.

SPPI is committed to keeping members informed on items of national, provincial and local significance potentially affecting the planning profession. This position statement is the fourth in a series of positions that SPPI will issue to members to state the Institute's official position. The focus of this position statement is climate change and community resiliency. It acknowledges the science of climate change and Planning's obligation to represent the public interest.

As communities and populations grow, developing resilient and sustainable communities has become increasingly important for municipalities. Community growth, combined with an increase in the frequency of severe weather events, means the cost of not building resilient communities has become too great. Whether you believe in climate change or not, the fact is that communities from coast to coast continue to experience a variety of costly weather related events that have increased in frequency and severity. The costs are widespread. There is financial cost (clean-up and recovery), social cost (physical injuries, displacement, and trauma), economic cost (loss of jobs, production, tourism) and there is a species cost. Species cost includes human and other species loss of life or extinction. From flooding to fires, hail to drought, ice storms and lost crops, communities are trying to face these environmental swings that occur from year to year. Governments, elected officials, professional engineers, and community planners can no longer stick their collective heads in the sand hoping disaster does not impact their community. This approach is more akin to a prayer than an answer. It's recognized that the cost of doing nothing is too great.

Evidence of a shift in how we plan our communities is already occurring at political and professional levels. Re-imagining how we manage water, reduce flooding, and improve community resilience to climate change is something that the Cities of Markham, Ontario and Vancouver, British Columbia are undertaking. These cities are identifying unique ways of improving water management using natural infrastructure (also known as "green infrastructure") solutions. For example, the City of Vancouver has recently developed its new *Rain City Strategy*[1]. This strategy is designed to be an initiative to reconsider how the municipality manages rainwater in the City through the use of nature-based solutions and an integrated approach to planning for land use, urban design, municipal infrastructure and water utilities. The City of Markham is using natural infrastructure as a flood control measure.[2]

So what can Planner's do?

Utilizing natural, or green, infrastructure is one method of enhancing a community's resilience to climate change. It's also one of the easiest and cheapest methods. Working alongside existing natural topographic features and incorporating the natural environment within developments takes advantage of thousands of years of natural engineering (eg. water drainage, natural swales, and wetlands). Doing so can have short-term cost savings for developers and even greater long-term cost savings to communities and taxpayers.

The Alberta flood of 2013 was a result of heavy rainfall that triggered catastrophic flooding described by the provincial government as the worst in Alberta's history. This flooding was widespread and affected many communities; however, the City of Calgary garnered the most attention when its downtown was covered in floodwaters for days after water topped the banks of the Elbow and Bow Rivers. It was determined to be the largest flood in Calgary since 1932 and resulted in community evacuations, 5 deaths, and $6 billion in financial losses and property damage across southern Alberta. The impact on citizens was enormous. Since 2013, Calgary has had to invest over $150 million in flood mitigation and resilience projects to address the risks of future flooding which include the *Flood Resilience Plan*, *The Expert Management Panel on River Flood Mitigation*, the *Flood Mitigation Measures Assessment*, and recommendations from *Calgary's Flood Resilience Plan*.[4]

Another method of developing community resilience to the impacts of climate change includes developing strategic plans, policy, and objective based outcomes at local, provincial, federal, and professional organization levels. The Canadian Institute of Planners (CIP) released its "*Policy for Climate Change Planning."* Saskatchewan's *Statements of Provincial Interest Regulations* and its companion document, *The Statements of Provincial Interest Regulations Handbook,* provide regulatory and best practice policy guidance in addressing hazard land planning and hazard mitigation. Saskatchewan also released its climate change strategy entitled *Prairie Resilience* in 2017, outlining commitments across five areas designed to make Saskatchewan more resilient to the climatic, economic and policy impacts of climate change. These five key areas include: Natural Systems, Economic Sustainability, Physical Infrastructure, Community Preparedness, and Human Well-Being. The federal government has identified Canada's Climate Plan to be a Pan-Canadian Framework on Clean Growth and Climate Change, carbon pollution, carbon pricing, climate change resilience, clean technology and jobs.[5]

Northern communities will be especially vulnerable to the impacts of climate change according to recent studies and will see the greatest environmental changes and impacts to traditional ways of life. Recent studies have concluded that northern regions of the world, including Canada's northern communities, are warming at twice the rate of the rest of the planet. Canada's original northern peoples, the Inuit, and their traditional way of life, have seen drastic changes in recent decades. Traditional ways of life, such as hunting, fishing, trapping, customs, and mobility have been affected by significant climate change in northern Canada. However, it's not just people that are being affected. Northern wildlife is also being impacted. From melting sea ice to glacial melt, and longer summers; polar bear, wolf, and caribou populations, to name just a few, have experienced the impacts of a warming north.[6]

> "*The newly launched Climate Change Policy defines the role that planning has in meeting the complex challenges of climate change, and calls planners to action to create communities that are resilient and contribute to climate stability. The policy was led by the CIP Climate Change Committee and developed through a thoughtful and extensive consultation with professional planners, climate change researchers, advocates, and other partner organizations using interviews, surveys, and focus groups."*

SPPI would like to acknowledge and support CIP's Call to Action:

> ***CIP's CALL TO ACTION***
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> ***"The global climate is changing, leading to increased hazards, extreme weather conditions, and changes to the physical environment in Canadian communities. CIP recognizes that all planners have an ethical obligation to consider climate change in their practices and strives to ensure that members have access to the resources, data, training, and other support they need to do so. CIP is also committed to collaborating with other professions, planning associations and governments, stakeholders, and the general public to help address the climate change that Canadians are facing".***[7]

In conclusion, the vast majority of the global scientific community, that is; 97 percent of actively publishing climate scientists, agree that climate change is real and that humans are causing global warming.[9] Planning has always relied on science before acting. The science of climate change is clear – climate change is real, it is man-made, and it is a threat to communities. As a profession and an Institute, Planners must acknowledge the overwhelming consensus of the science and accept that climate change is real and global warming is occurring. It is our professional and ethical duty as Planners to work in the public interest and recognize the effects of climate change. Once we do so, we will be rejuvenated, if not, redeemed. We are in the middle of a long conversation with nature at the moment, and it will be a lifelong journey for many generations by the time we are done.

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[1] City of Vancouver Website. https://vancouver.ca/home-property-development/green-infrastructure-documents-and-policies.aspx

[2] City of Markham Website. https://www.markham.ca/wps/portal/home
The flash and river flooding events of Hurricane Harvey in 2017 shed a spotlight on the impact of developing over, rather than with, natural infrastructure. The myriad of once natural infrastructure of meandering waterways and wetlands in and around the City of Houston Texas have been either paved or developed over the last 20 years.[3]

[3] Business Insider. https://www.businessinsider.com/hurricane-harvey-why-houston-flooded-2017-8

[4] City of Calgary Website. https://www.calgary.ca/UEP/Water/Pages/Flood-Info/Mitigation-and-Resilience/Flood-projects.aspx

[5] Government of Saskatchewan Website. https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/a-made-in-saskatchewan-climate-change-strategy/prairie-resilience

[6] Natural Resources Canada Website. https://www.nrcan.gc.ca/maps-tools-publications/publications/climate-change-publications/canada-changing-climate-reports/canadas-changing-climate-report/21177

[7] The Canadian Institute of Planners (CIP) released its "*Policy for Climate Change Planning."* CIP offered the following information on its website about this policy:
Canadian Institute of Planners Website. http://cip-icu.ca/Files/Policy-2018/policy-climate-eng-FINAL.aspx

[8] Federation of Canadian Municipalities Website: https://fcm.ca/en/news-media/news-release/gmf/fcm-statement-new-urban-climate-centre-announcement-in-calgary

[9] NASA Website. https://climate.nasa.gov/faq/17/do-scientists-agree-on-climate-change/