

28 April 2025

Re: Road Closure and Land Use Amendment in Haskayne (Ward 1) at 9000-149 Street NW, LOC2025-0052

Members of Calgary City Council,

I am writing to you as the Canada Research Chair in Water Science, Technology & Policy. I have worked on water security, water treatment, public health risk, and emergency response issues in Alberta for over 20 years. My family and I also effectively live in Alberta part-time. A significant amount of that time, both professionally and personally, is spent in Calgary.

I am writing to you to urge your approval of the proposed road closure and land use amendment in Haskayne. While I recognize that discussion on this issue has largely focused on public safety, I would like to also draw your attention to the critical role of the Bearspaw Reservoir in ensuring water security—and associated public health, growth, and prosperity—in Calgary now and in the future.

As you well know, the Bow River provides Calgary with exceptionally high-quality water that is subsequently treated at the Bearspaw Water Treatment Plant (WTP) so that it is safe for consumption. The Bow River (and the regions in or near the reservoir) will also provide water to the new WTP that will be built to sustain Calgary's growth. Thus, as the Elbow River is limited in the amount of water it can provide to the City, the Bow River is increasingly critical for ensuring reliable access to adequate amounts of safe water for the protection of public health, growth, and prosperity in Calgary.

A recent study demonstrated that although Bow River water quality remains high, it is changing across the watershed. Even without human-caused disturbances, increases in weather extremes that lead to conditions such as heavy rains and associated erosion are key factors contributing to drinking water source quality changes that are undeniably being observed across North America and globally. Additional disturbances associated with all types of **unmanaged access can substantially deteriorate water quality and significantly increase the cost of required treatment**—this is also globally recognized. Scientific community consensus also overwhelmingly indicates that once water quality deteriorates in a watershed as a result of multiple land uses, this deterioration cannot be readily remediated at this scale.

As detailed in Calgary's Source Water Protection Plan (City of Calgary, 2018), maintaining high quality source water by limiting releases of contaminants like nutrients associated with soil erosion (that can promote harmful algal blooms), personal care products (e.g., pharmaceuticals, lotions containing microplastics and other contaminants, etc.), and other water quality contaminants like perfluorinated "forever chemicals" is critical because some of these compounds are not effectively removed by conventional drinking water treatment processes. I would like to underscore that potable standards for drinking water do *not* require it to be free from contaminants such as many of these known and suspected carcinogens. Fortunately, many of these compounds are not found in Calgary's water supply at present. **Unmanaged access and use of the Bearspaw Reservoir in the immediate or nearby vicinity of current and future intakes to the City's water supply will almost certainly lead to deteriorated drinking water source quality and associated increases in treatment costs—it's not a question of "if," but "when".**

While the technology to treat increasingly deteriorated source water quality to potable standards is available and would not preclude Calgary's ability to provide safe water, increased unmanaged access can and most likely would eventually eliminate Calgary's ability to describe Bow River water as a "high quality" source and significantly increase the cost of providing safe drinking water. I would like to underscore that potable standards for drinking water do not require it to be free from contaminants such as many of the known and suspected carcinogens that are not found in Calgary's source water at present. It is for these reasons that the proposed road closure and land use amendment in Haskayne represents a proactive protection of public health, growth, and prosperity in Calgary. This approach is not novel and directly aligns with globally recognized best practices in drinking water source protection (i.e., "source water protection"). It also directly reflects City of Calgary policy detailed in Calgary's Source Water Protection Plan (City of Calgary, 2018).

Given the issues raised above, I strongly recommend that City Administration approve the proposed road closure and land use amendment in Haskayne and in doing so, make a commitment to reducing the potential for unintentional—and likely costly or even irreversible—contamination of the City of Calgary's water supply.

Yours sincerely,



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Professor and Canada Research Chair in Water Science, Technology & Policy

