

## WATER AVAILABILITY AND GROWTH IN THE CALGARY METROPOLITAN REGION

**Water is tightly controlled in southern Alberta. Access to it will dictate growth patterns in a rapidly growing Calgary and surrounding area.**

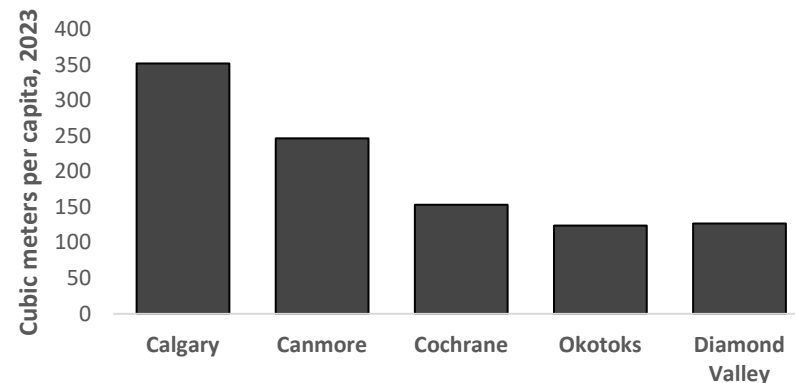
Access to water for drinking, industrial use, and agriculture is [tightly governed](#) in southern Alberta. Access to the Bow River watershed is capped and licensed with approximately 90% allocated for irrigation purposes. Of the remaining 10%, about half is held for municipalities. In the Calgary Metropolitan Region (CMR), the majority of licenses are held by the City of Calgary, with small volumes allocated to surrounding towns including Canmore, Cochrane, Diamond Valley, and Okotoks (which is located in another basin). Figure 1 shows the allocation of licensed water by volume per capita in 2023 for these municipalities. It reflects the maximum allowable water for each municipality, assuming there is sufficient availability in the river basin, and not the amount that is consumed.

In the CMR, access to water and the inability to easily transfer water between watersheds/basins has resulted in Okotoks restricting additional housing to align with water availability and capacity. Correspondingly, the town has seen [the lowest population growth rate](#) of all communities in the CMR, and some of the [highest housing prices](#). Cochrane has thus far evaded similar constraints in municipal housing policy though only by devoting considerable time and resources to transferring more licenses to the town. A substantial number of municipalities in the CMR, including Chestermere, Airdrie, and Strathmore, all source their treated water from the City of Calgary. It is possible that future regional growth will come with increased tensions between Calgary and its neighbours as geographic inequality in regional water access continues to drive development patterns.

**Given current water allocations, negotiations between Calgary and surrounding municipalities will determine population growth patterns in the Calgary Metropolitan Region.**

Further complicating the discussion is the state of infrastructure in place to transport treated water and wastewater across the urban environment. With estimated water losses

Annual per capita water license allocation in the Calgary Metropolitan Region, 2023



Source: [Alberta Ministry of Environment and Protected Areas 2024](#).

ranging from 10 – 52%, much of which is due to aging infrastructure, Calgary and its neighbours face a trade-off between further population growth and efficient water transport and use.

Solutions to the above issues are both regional and local. At the municipal level, Calgary and other communities may encourage [more efficient](#) multi-unit buildings, water smart appliances, and better distribution services.

At the regional level, the provincial government may dedicate subsidies or efficiency bonuses to municipalities for improving/remediating water-related infrastructure. It may also [lead to discussions](#) on improving regional water management, including water licensing and allocation, in order to reduce the transaction costs of transferring licenses to municipalities. The benefit of such efforts is that it would allow municipal governments to focus on community building and design priorities instead of competing for water licenses. It is critical to understand the interaction between water and urban policy. Only in doing so will we be able to meet the goal of sustainable, affordable growth.