

Be an
H₂O
HERO

2025 Water Smart Ambassador Report

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For the City of
Cranbrook

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I. EXECUTIVE SUMMARY

A. OVERVIEW

The **Columbia Basin Trust Water Program** has been running for 10 years in Cranbrook, BC. More now than ever, it plays a vital role in **city water usage**. Population growth, **rising temperatures**, water beliefs, and behavior are key influences on the City's water usage.

Fortunately, the City was able to begin its warmer temperature season at **Stage 1** of the water restrictions, allowing residents an additional watering day compared to last year's **Stage 2** season.

The **Water Smart Program** continues to prosper in 2025, enhancing its core initiatives such as **irrigation monitoring** and **assessments**, elementary school **education** through Wildsight, and **community event appearances**. In support of the program, an additional highlight this year was the rebranding of the Water Conservation Program and the introduction of the City's new water conservation mascot, **H2O Hero**, who brought a positive perspective on being proud to conserve water. Additionally, the rebate program remained active, offering up to **\$50 rebates** with the purchase of Water Barrels and Sprinkler Timers, further encouraging water saving in the City.

Several **elementary schools** were involved in the programming this year, with some schools, such as Highlands school, engaging in more classes, while others had little to no **participation**. The water education programs with schools are a key initiative to reach Cranbrook residents and establish new **water-use behaviors** now and in the future.

Monitoring of outdoor water use this season began May 15 and revealed new opportunities to support residents in adhering to water restrictions. The Water Smart Ambassador engaged with more than 196 residents through door-to-door outreach to provide additional education on water conservation. A significant portion of business and resident non-compliant watering was linked to **automatic sprinkler systems**, which often operated outside permitted hours. Additionally, many residents either **hired irrigation companies** to set their systems or **watered early morning before monitoring began**, leading to increased water consumption. An additional detriment to water waste among residents and businesses was the practice of irrigation during rainfall. These practices, often unintentional, contributed to **excessive water use** that poses challenges for the City's water sustainability goals.

II. INTRODUCTION

A. HISTORY

Within the Kootenay Region, Cranbrook is the largest urban center, with approximately 20,868 residents within its City limits (World Population Review, 2025; Cranbrook Tourism, n.d.).

The City is located at the western edge of the ‘Rocky Mountain Trench’ and was first established in 1898, when Colonel Baker successfully arranged for the Canadian Pacific Railway to run its line through Cranbrook. The City was incorporated in 1905 (Encyclopaedia Britannica, 2025; Cranbrook Tourism, n.d.). Cranbrook is supported by coal mining, forestry, trades, and healthcare as its main economic industries, with tourism also growing in the area (Sloan, 2015).

Phillips Reservoir is the principal water source for the City of Cranbrook, sourced by Joseph Creek and Gold Creek. The city also maintains three groundwater production wells, which are deployed in times of peak demand (City of Cranbrook, 2025a). The reservoir can supply up to 2270 megaliters (ML-1,000,000) of water storage, and it is the only reservoir used to date. A study published in 2024 states that the City of Cranbrook uses around 600 liters per day, 135 liters above the provincial average. Several sources demonstrate that outdoor water use by residents in the summer season is the chief reason for its peak consumption (City of Cranbrook, 2025a).

Although Cranbrook is not yet prepared for universal water metering. Currently, water meters are installed on new buildings and existing businesses only and will be implemented citywide in the near future, with expectations of producing substantial water savings (City of Cranbrook, 2024).

1. WHAT DID WE HOPE TO ACCOMPLISH THIS SEASON

In 2025, the Water Smart Ambassador planned to expand Water Smart classes across Cranbrook’s 10 elementary schools. This year, the program successfully delivered an equivalent number of classes throughout various schools. Different schools became involved in the program, such as Highlands and Kootenay Orchards, where others decreased participation. The more children that receive water-use education, the more sustainable H2O habits are developed and shared with family members and micro-communities--ultimately reducing water-usage yearly.

Another goal of the Water Smart activities was to reduce overall city water use from 2024 to 2025. Some differences between the 2024 seasons included the Stage of restrictions, which ranged from one and two, as well as the fire hydrant flushing, which consumed a significant amount of water that would affect water levels in May and June of 2025.

2. WHAT WAS DIFFERENT IN ENGAGEMENT THIS YEAR

Ultimately, increased time was spent on monitoring, giving the ability to reach out to residents on their outdoor water usage and education on the restrictions. During monitoring periods, I noticed several more residents with automatic sprinklers and the incorporation of xeriscaping in exchange for front yard lawns. Additionally, the continuation of the Water Smart Ambassador role into September allowed for stronger engagement with Cranbrook residents, supporting ongoing adherence to water-use restrictions.

3. WATER SYSTEM TOUR

On May 8, 2025, the Water Smart Ambassador received a thorough water tour with Kyle Videto, the Senior Utility Operator for the City, who has been with the city for 32 years. He was able to inform the ambassador of essential information about the city's water system from its origins at the Gold Creek watershed. The ambassador received useful background information on Phillips reservoir and the treatment station, the diversion center, and the 6 pressure reducing stations.

Here are some of the concerns and beliefs that the residents of the City of Cranbrook held about our water system, along with the facts revealed during a water system tour.

Resident Beliefs and Facts

1. Belief: There is an unlimited supply of water.
Videto: Cranbrook uses around 2 million gallons of water per day, but during warmer months, usage can double and has even been known to triple, reaching 6 million gallons and beyond. The graphs at Phillips Reservoir indicate that water levels significantly increased at 5:00 a.m. Water restrictions allow outdoor watering to begin at 5:00 a.m. on residents designated watering days, thereby demonstrating the severe increase in water usage.
2. Belief: Water leakage is the primary cause of the City's water loss.
Videto: The City's water technology, equipped with water sensors throughout the City, can detect differences in water pressure and potential leaks. Water leakage typically will rise to the surface, also indicating damage to systems. These leakages tend to be dealt with immediately.
3. Belief: Shadow Mountain Golf course disturbs Cranbrook's available water and water pressure.
Videto: The golf course itself extracts water from a well, while only a few houses receive city water (approximately 100).
4. Belief: Water is limited due to surrounding agricultural areas with water rights.
Videto: There was disclosure that only one acreage has a water permit, and it only increases water usage in the warmer months. In 2024, this permit holder received a grant from Columbia Basin Trust to perform an irrigation infrastructure upgrade, improving their water use (Rogers, 2024).
5. Belief: Rain and snowfall determine the water levels of Phillips Reservoir.
Videto: The water levels at the reservoir are dependent on several factors, but the most important governor of water levels is steady and slow snowmelt. When spring is warmer than commonly seen, there is a fast snowmelt, and a large majority of the water is diverted instead of the continual replenishment of Phillips.

III. SEASONAL WATER-USAGE

Based on research and data showing water use throughout British Columbia, per capita, the City of Cranbrook uses more water on average than other cities. The city's population is increasing, and more water will be needed to supply residents.

At the beginning of the 2025 season, many residents began to water outside of the restrictions as temperatures climbed. Soon after water monitoring started, the majority of residents began to adhere to the outdoor water-use guidelines, demonstrating the positive impact of community engagement and awareness efforts.

A. OUTDOOR WATER USAGE

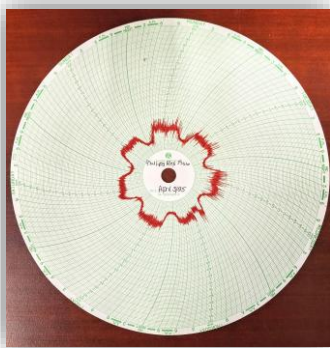


Figure 1: April 3, 2025,
Graphic Controls UC from
Phillips Reservoir

Outdoor water usage, primarily from irrigation and pools, was clearly reflected in the City Graphic Controls UC (Figure 1 & 2). These figures show comparisons in water usage in the week of April 3rd, 2025, and in the week of July 3rd, 2025. The April graph depicts greater water-use from 8:00 a.m. to 8:00 p.m., which, through logical reasoning, suggests mainly indoor water usage. In contrast, the July graph reveals a considerable difference in patterns, with noticeable spikes in water usage between 4:00 a.m. and 6:00 a.m. The greatest peak occurs between 5:00 a.m. and 6:00 a.m., likely due to rising temperatures and outdoor water use.

Currently, residential outdoor water-use is based on the City's 5,725 single-detached houses recorded in 2021, along with additional residential homes built between 2021 and 2025. There are also approximately 530 row houses, 510 semi-detached houses, and 455 moveable dwellings (e.g., mobile homes). Additionally, 1,295 apartment units with surrounding green space contribute to overall water consumption (Cranbrook Economic Development, 2025). This water use does not include commercial properties in Cranbrook, many of which have large, landscaped grounds. Between 2021 to 2024, the City's population increased by 6%. Since 2023, there have been 21 new single-family housing starts and 8 mobile home placements (BC Housing, 2025; New Homes Data, 2025). These totals are expected to rise as new developments are completed and occupied in the area.



Figure 2: July 3, 2025,
Graphic Controls UC from
Phillips Reservoir

Hydrant flushing in 2025 is another factor contributing to the increased water levels in Cranbrook. 2025 also experienced a significant amount of rainfall compared to the previous year, which maintained the Phillips water levels in the range of 77-78% capacity with occasional periods of overflow from May to the end of July.

Top Three Resident Responses for Incorrect Watering Days or Times

- 1. “Oh, my wife must have turned it on.”
- 2. “Oh, my husband must have turned it on.”
- 3. “I did not water on my actual watering day.”

1. OVERVIEW OF WATER USAGE IN CRANBROOK

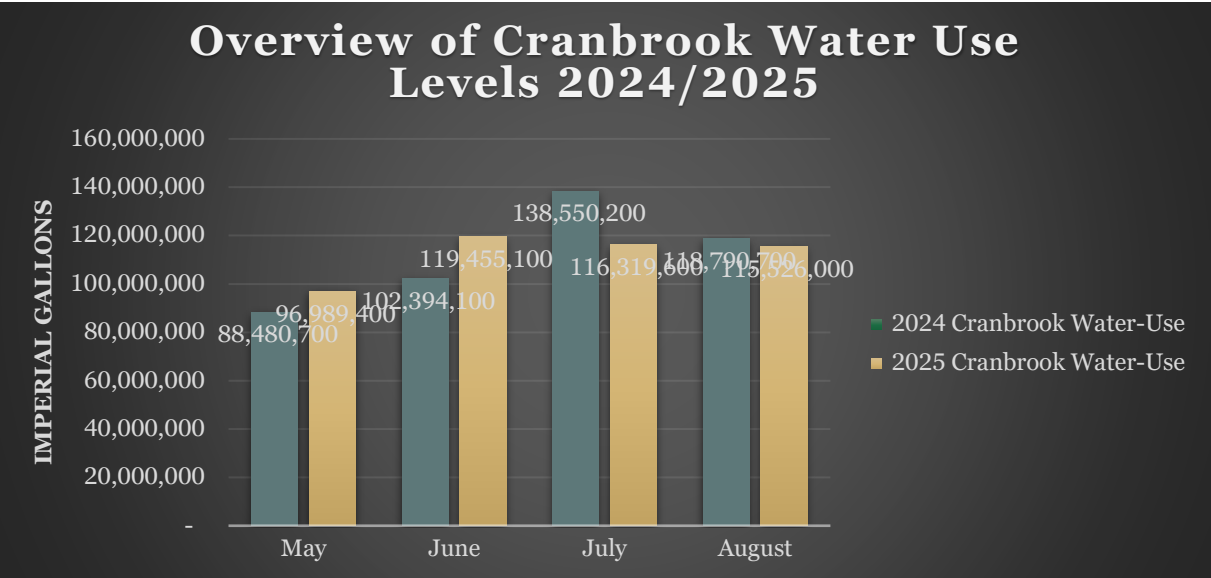


Figure 3: Overview of City of Cranbrook water usage in 2024 and 2025 for months May to September

Table 1: Water Use Figures for Cranbrook BC, 2024/2025

Months	2024 Cranbrook Water-Use	2025 Cranbrook Water-Use	Percentage Δ
May	88,480,700	96,989,400	9.62%
June	102,394,100	119,455,100	16.66%
July	138,550,200	116,319,600	-16.05%
August	118,790,700	115,526,000	-7.06%
Grand Total	448,215,700	448,290,100	-0.79%

The above data accessed from the City’s water-use SCADA system indicates a water-savings of 74,400 from 2024 to 2025. Although this figure is not substantial, it demonstrates that water use did not increase despite a rise in the number of

residents. The implementation of Stage 1 restrictions instead of Stage 2 in 2024, along with fire hydrant flushing, are indicators of changings water levels.

On the hottest day of **2024, August 11th**, temperatures reached **35.2 °C**, and total water used was **5,535,700** imperial gallons. In comparison, the hottest day in **2025, August 12th**, reached **33.4 °C**, with **4,311,400** imperial gallons used (The Weather Network, 2025 & Gov. of BC, 2022). The data show that for every **1%** drop in temperature, the water level dropped by **4.32%**. If water savings were solely due to temperature, only **283,076** gallons of water would have been saved; yet, actual savings resulted in **1,224,300** gallons, suggesting that the water smart program, policy changes, and behavioral shifts have played a significant role in water usage.

In summary, the 2025 Water Smart program demonstrated a reduction in water use compared to the 2024 figures. When residents’ properties indicated outdoor watering outside of restrictions--without irrigation systems running--through signs of wet sidewalks and streets, water-use restriction magnets were still distributed. Only 14 residents continued to irrigate during water-use restrictions after the ambassador educated them or received bylaw information.

IV. CHILDREN’S EDUCATION

The Water Smart Program was officially launched on May 1, 2025, with a goal to maximize participation throughout the season. At the outset, Kootenay Orchard took the lead in booking classes with full-day sessions in mid-June. However, overall engagement was low for the end of the school year. As a result, the Water Smart Ambassador took the initiative to personally visit all local elementary and middle schools to introduce our new H2O Hero and to actively promote the program.

Table 2:Cranbrook School Engagement

<u>Schools Participation</u> <u>2025</u>	<u>No.</u> <u>Classes</u>
TM Roberts	7
Kootenay Orchards	10
Highlands	5
Steeples	1
Kootenay Christian Academy	1
St. Mary’s School	1

Pinewood	0
Gordon Terrace	0

A. TM ROBERTS

TM Roberts started the season with the Water Smart Program at their elementary school. The children showed great enthusiasm for learning more about water through **games and education** materials created by **Wildsight** (*Figure 5*). In total, TM Roberts participated in 7 classes (*Figure 2*).

B. KOOTENAY ORCHARDS

Kootenay Orchards participated in **10 Water Smart classes**, with the highest participation rate among all the elementary schools (*Table 2*). Grades from kindergarten to 6 all equally participated in water education.

C. HIGHLANDS

In 2025, Highlands engaged in the Water Smart Program with five bookings primarily in the lower grades from kindergarten to 3 (*table 2; table 4*).

D. REMAINING SCHOOLS



Figure 4: Highlands, Drop in the Bucket

The administration at Steeples Elementary explained that teachers were very booked with other events this year in May and June; consequently, there was only one Water Smart class booked at Steeples, Kootenay Christian Academy, and St. Mary's School. There were no classes booked at Pinewood or Gordon Terrace in 2025, although the Water Smart Classes at Gordon Terrace were directly promoted.

1. EFFECTS OF PROGRAM

Jesse Walters, the Lead Hand at Public Works Department for the City of Cranbrook, has a daughter attending Kootenay Orchards Elementary. He stated that when she returned home after a Water Smart class, she informed him of when and what he can water outdoors, and how to save water with attention to not watering the driveway. This occurrence serves as a clear example of the positive impact the Water Smart Program has on the community.



Figure 5: TM Roberts, Carry Water Bucket Relay

V. WATER SMART COLOUR CONTEST

With two new pictures for the colouring contest, the water smart pages were passed out at the first event attended with the Kootenay Children's Festival (*Figures 6 and 7*).

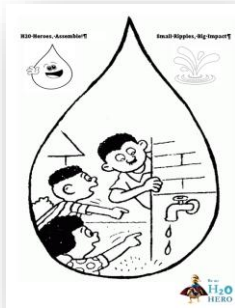


Figure 6: 6 years and under picture content.

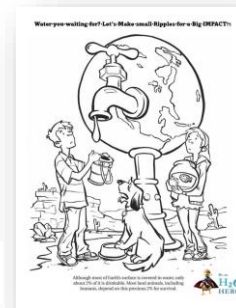


Figure 7: 7 to 12 years picture content.



Figure 8: Aria Rodriguez, the winner of 6 and under 2025 Water Smart colouring contest.

As in previous years, the contest winner received \$25 at Twisted Peaks and a Family Swim Pass (*Figures 8 and 9*). This year, Aria Rodriguez won in the six- and-under age category (*Figure 8*). She coloured her picture, with a delicate and creative water drop of blue, inspired to remind us of collaboration in water savings. Adria put significant effort into using rich colours and highlighting diversity in her work for the 7-12 age category.



Figure 9: Adria, the winner of 7 to 12 2025 Water Smart colouring contest

VI. CITY EVENTS

A. KOOTENAY CHILDREN'S FESTIVAL

The children's festival was the first event for the city's Water Smart program to ignite the summer season. Graham, the organizer from Key City Theatre, who arranged the event, stated that it was the busiest turnout in 10 years since the event began. There was ample interest in the City of Cranbrook's tent, and several stickers were given to children, colouring contest sheets, and cards given to book irrigation assessments.

B. CRANBROOK PUBLIC GARDEN

In 2024, the Cranbrook Public Garden asked the Water Smart Ambassador to give a Water Smart Class. The event was held twice due to weather conditions, and at both

times there were no participants. This year, in 2025, again, there were no participants. Earlier advertisements, at another venue, or in partnerships with other organizations may help encourage more people to be involved in the program.

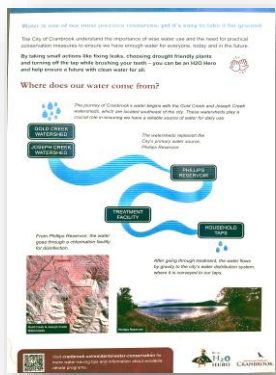


Figure 10: Community Group Presentation Posters

C. CANADA DAY

July 1st was a successful event to attend in 2024 and 2025. The new information boards were displayed, and plenty of people were curious to learn about the water in Cranbrook. Many did not realize that the water comes from a reservoir. Irrigation assessments were signed up for, many water-use restriction schedules were taken, and numerous children were excited to enter the colouring contest and learn more about saving water.

D. CRANBROOK FARMER'S MARKET

The Water Ambassador typically engages in two markets, and my first one was on July 12, 2025. It was almost 32 degrees, but many residents stopped by my tent to ask questions, give ideas, and sign up for irrigation assessments. The second market attended was on August 9, 2025, and coincided with the City's Rock the Kootenays event. Many people passing by the tent were from another city, although several had plans to relocate to Cranbrook.

E. OPEN GARDEN DAY

This annual event receives a lot of traffic and generates significant interest in city water education. Many people stopping by the tent signed up for irrigation assessments and took a water-use restriction magnet or stickers with the H2O Water Hero—both free materials contain a QR code to bring individuals to the City of Cranbrook, *Water Conservation* page.

VII. ADVERTISEMENT

To open the 2025 season, Chris Zettel created a social media post for both Facebook and Instagram on May 1st. The post introduced the role of the Water Ambassador, emphasizing the importance of water responsibility, and announced the new H2O Hero (see post in Appendix b). Throughout the season, Chris continued to engage in the community with several posts focused on water conservation and promoting the H2O Hero initiative.

On May 2, 2025, Ryley McCormack, a reporter and anchor for Vista Radio, conducted an interview that provided valuable information on water education, water-use restrictions, and the City of Cranbrook rebate program (digital water timer). This interview helped raise awareness about responsible water use and

available resources for residents. There was no coverage from Summit 107 FM this season, even though they advertised the program in the previous year.

Additionally, James Farnan, producer of Rogers TV in Cranbrook, created a televised story on the role of the Water Smart Ambassador and addressed Water-Use practices within the City of Cranbrook (see link in Appendix c). The media coverage contributed to a broader understanding of the program's goals and encouraged community participation in water conservation efforts.

VIII. MONITORING

A. IRRIGATION EDUCATION

Wayne from Kootenay Landscaping, a local Cranbrook business, shared helpful information about irrigation systems and lawn health. He explained the importance of having healthy grass, plants, and trees in your yard, not only for aesthetic purposes, but as a mental health enhancer, and environmental advantages by

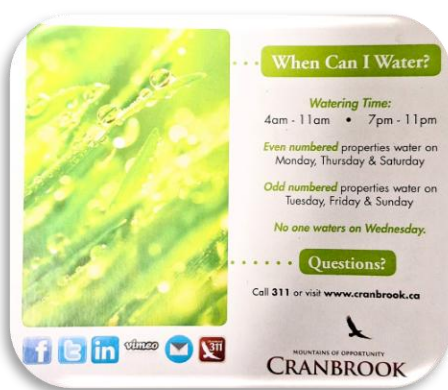


Figure 11: Restriction Magnet around eight years old, from local resident.

absorbing carbon and reducing heat radiating from non-plant surfaces. Additionally, he informed me that automatic sprinklers, on average, put out less water than manual sprinklers.

Broken and misaligned sprinkler heads were common in areas that utilized automatic sprinklers, therefore causing a significant amount of water to be deposited on the streets.

Several residents were observed by the ambassador to be watering after 10:00 a.m., and when consulted, they stated they believed

watering was permitted until 11:00 a.m. on their designated watering day. One resident provided his water restriction magnet, which he believed to be about eight years old and stated that he still follows it (Figure 9).

Many more residents are installing automatic sprinklers, which is excellent for having the ability to use a timer and to water when not at their residence. The issue that is becoming apparent with automatic sprinklers is that many residents have a company that comes and sets their scheduling, and residents are not educated on how to make necessary adjustments with respect to days with precipitation or power outages.

B. MONITORING STRATA BUILDINGS AND BARE LAND STRATA

Table 3: City of Cranbrook two types of strata properties.

<u>Building Strata</u>	<u>Bare Land Strata</u>
Fisher Peak Townhomes	Willowbrook Estates
Orchard Park Estates	Terra Lee Terrace
Victoria Apartments	Fairway Park Estates
Kokanee Drive Condos	Fountain Estates
Brookside Manor	Northwood Estates
Mountain View	Baker Gardens
Woodlands at Wildstone	Legacy Summit
Boulder Creek	

Below is a list of strata properties, including condominiums, townhouses, apartment-style complexes, and gated communities. These properties are either categorized as a **Building Strata** or a **Bare Land Strata**. These sites are important to monitor due to their outdoor water usage, which is typically regulated by the strata and organized by zones rather than individual unit numbers. During compliance checks, it was challenging to determine which areas followed zone-based watering schedules (as seen in some gated communities)

versus those using odd or even building numbers.

Tony Hetu, Director of Public Works, suggested providing residents with an application to explain their reasons for being unable to irrigate within the water-use restrictions. The City can later review the document to determine whether the reasons provided are valid.

C. WATER-USE RESTRICTIONS AND BYLAW

Residents of Cranbrook were fortunate to begin the irrigation season in Stage 1 of Water-Use Restrictions, allowing an extra day previous to last year, in Stage 2. The Phillips Reservoir had optimal water levels due to the gradual warming and snow melting, which later increased due to rising summer temperatures. The monitoring started on May 15 for outdoor water-usage and many residents who were out of the restrictions for irrigation started to follow them after door-to-door education was implemented.

Table 4: Water-use monitoring totals

<u>Bylaw Outdoor Watering Service Requests</u>	<u>Second Service Request</u>	<u>Ticket Violation Issued</u>	<u>No. of Automatic Sprinklers</u>	<u>No. of Manual Sprinklers</u>
196	14	14	85	86

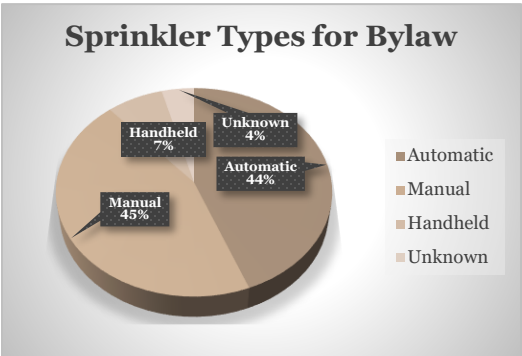


Figure 12: Service requests by sprinkler type.

Some concerns with outdoor watering involved businesses and some residents with larger lots stating that they are unable to efficiently water their green spaces a minimum of one inch of water weekly on the present restrictions. .

IX. IRRIGATION ASSESSMENTS

In total, the ambassador performed nine irrigation assessments. Residents received a precipitation test with their irrigation system to determine the necessary amount of time to irrigate their lawn within one week (equivalent to one inch of water). A probe test was conducted to determine the length of the lawn roots (4-6 inches is ideal), along with recommendations for improvement. A soil test (using the HoldAll kit) was also included to assess pH levels, as well as phosphorus, potassium, and nitrogen and nitrogen content. Lastly, a soil composition test, which measures clay, sand, and loam, was available, accompanied by information on various methods and materials to create a balanced soil for optimal lawn growth.

The soil in the Cranbrook region is composed of finer-grained particles, an accumulation of clay and silt resulting from the presence of alluvial fans and sediment deposits from flowing water (City of Cranbrook, 2025a). Soil with a significant amount of clay retains positively charged magnesium and calcium ions and tends to be more alkaline (USDA, 2014). The ideal pH level for Kentucky Bluegrass—the dominant type in British Columbia--is from 6.5-7.0.

Table 5: Predominant pH level in Cranbrook

<u>Amount of Irrigation Assessments</u>	<u>Main Nutrient Missing in Soil</u>	<u>pH-Level</u>
9	Nitrogen	7.0-7.5

X. WATER CONSERVATION REBATE PROGRAM

The Water Conservation Rebate Program was in full effect for the 1st of January 2025, offering up to a 40% rebate (maximum \$50) for installing a ‘Rain Barrel’ or ‘Programmable Above-Ground Sprinkler Timer’. Eligibility, outlined on the city’s Water Conservation webpage, requires residents to have a valid occupancy permit, property taxes in good standing, and reside within municipal boundaries (City of Cranbrook, 2025c, Water Conservation Rebate Program).

Most residents receive around \$30 for their rebate, and the process can take longer than residents expect due to a high volume and verification process. As of July 16, the city issued 67 rebates.

XI. FEEDBACK AND RECOMMENDATIONS

A. FEEDBACK

Businesses and residents with larger properties requesting the ability to water for longer periods of time (restrictions, max. 2 hours) to water several zones. This includes locations such as Home Depot and those with double lots. Several businesses are already watering longer than their two-hour allotment.

Xeriscaping on newer houses is becoming a theme, one resident stated that Xeriscaping is the best thing she has done because it has allowed her more time to do other things. She stated mowing and fertilizing a lawn is an activity of the past, plus she used lighter rock, which absorbs less infrared and emits less heat.

Residents complained that the City continues to water its public areas even during periods of rainfall, including after heavy rain. Kirby Koven, Public Works Parks Manager, explained that the large public spaces take significant water to maintain their health and appearance. It is not sufficient to rely solely on weather forecasts, and shut off sprinklers during rainfall, given the large number of public spaces.

The process to verify the applications for the rebate program (rain barrels and water timers) is quite time-consuming and must be approved by different departments. Some residents were concerned about whether their application had been received by the City. Perhaps an automatic response can be set up to acknowledge submissions, confirmation receipt and clarified payment methods.

B. RECOMMENDATIONS

- ❖ Businesses and residents could complete an application detailing the size of the property to be irrigated and the number of watering zones. The form could also include information about the time required for adequate

irrigation, taking into consideration the recommended standard of one inch of water per week.

- ❖ The Public Works Department could consider offering incentives to frontline employees—such as waste collectors—to report irrigation systems operating outside of permitted water-use restrictions. These reports could then be followed up with educational outreach or bylaw enforcement.
- ❖ The city to consider offering a rebate program for Xeriscaping, similar to its rain barrel initiative. Even if a rebate is not feasible at this time, increased campaigning may raise awareness and encourage adoption. By showcasing successful examples and their long-term water savings, it may make the program more appealing to residents.
- ❖ Reminding residents that watering outside of restrictions with automatic sprinklers, especially early morning, can lead to excessive water consumption. This practice has contributed to a significant increase in outdoor water use during the summer months, at times tripling the City's overall daily usage.
- ❖ Potentially, the City's water smart program could add a course on how to program residents' irrigation systems. Many residents rely on landscaping and irrigation companies to program their systems. For example, when there are power outages, they need to be reset, and several residents said they did not know how to operate their system.
- ❖ Several residents with automatic irrigation systems had broken or misaligned sprinkler heads. The Water Smart Program could have the ambassador visit residents and realign the sprinkler heads or a reminder to have them realigned.
- ❖ Another way that the City could reduce water usage is to employ a campaign on rain and moisture sensors, as well as utilizing a 'Smart' irrigation system or 'weather-based' irrigation controller. A multitude of businesses and residences continue to irrigate after significant precipitation, even some during rainfall

XII. REFERENCE

- Cifelli, S. (2025). *Alberta Utility Bills: How Much Does It Cost for Electricity, Water, Gas, Internet, Cable & Home Phones in 2025?* [Alberta Utility Bills: How Much Does It Cost for Electricity, Water, Gas, Internet, Cable & Home Phones in 2025?](#)
- City of Calgary. (2025). *Water Rates: Residential Metered and Flat Rate*. [Water Rates: Residential Metered and Flat Rate](#)
- City of Cranbrook. (2024). *City Progressing in Water Meter Implementation Plan*. [City of Cranbrook - City Progressing In Water Meter Implementation Plan](#)
- City of Cranbrook. (2025a). *Location and Geology*. [City of Cranbrook - Location and Geology](#)
- City of Cranbrook. (2025b). *Utilities & Tax Rates*. [City of Cranbrook - Utilities & Tax Rates](#)
- City of Cranbrook. (2025c). *Rain Barrel & Sprinkler Timer Rebate Program*. [City of Cranbrook - Water Conservation Rebate Program](#)
- Cranbrook Economic Development. (2025). *City of Cranbrook*. [Housing Profile - Economic Development Data Platform](#)
- Encyclopaedia Britannica. (2025). *Cranbrook, British Columbia*. [Cranbrook | Historic Town, Rocky Mountains, Ski Resort | Britannica](#)
- Government of British Columbia. (2022). *BC Housing*. [BC Housing - Province of British Columbia](#)
- New Homes Data. (2025). *British Columbia's Monthly New Homes Registry Report*. [New Homes Data | BC Housing](#)
- Cranbrook Economic Development. (2025). *City of Cranbrook*. [Housing Profile - Economic Development Data Platform](#)
- Rodgers, P. (2024). Columbia Basin Trust provides \$1 million to 26 farms around the region. *Cranbrook Daily Townsman*. [Columbia Basin Trust provides \\$1 million to 26 farms around region - Cranbrook Daily Townsman](#)
- Sloan, W. A. (2015). *Cranbrook*. The Canadian Encyclopedia. [Cranbrook | The Canadian Encyclopedia](#)
- The Weather Network. (2025). *Historical Averages*. [Historical - The Weather Network](#)
- USDA. (2024). *Soil pH, Soil Health-Guides for Educators*. [Soil PH.pdf](#)

XIII. APPENDIX

A. FIGURES AND TABLES

Figure 1: April 3, 2025, Graphic Controls UC from Phillips Reservoir provided by Water Works.

Figure 2: July 3, 2025, Graphic Controls UC from Phillips Reservoir provided by Water Works.

Figure 3: City of Cranbrook Water-Usage comparison for months May, June, July, and August for 2024 and 2025.

Figure 4: At Highlands Elementary School, Water Smart Education with drop in the bucket activity.

Figure 5: A photo of a student at TM Roberts Elementary in Wildsight's program, carry water bucket relay.

Figure 6: Picture chosen for the six-and-under Water Smart Colouring contest.

Figure 7: Picture chosen for the 7 to 12 years Water Smart Colouring contest.

Figure 8: Photo of the six-and-under colouring contest winner.

Figure 9: Photo of the 7 to 12 years colouring contest winner.

Figure 10: First poster of the community group presentation posters primarily used at events.

Figure 11: Photo of the previous water-use restriction magnets with evening watering ending at 11:00 p.m.

Figure 12: Pie chart of all the service requests and their qualitative statistics.

Table 1: Water-use in Cranbrook B.C. in 2024 and 2025 among months June to September.

Table 2: Elementary Schools' participation in the Water Smart Program.

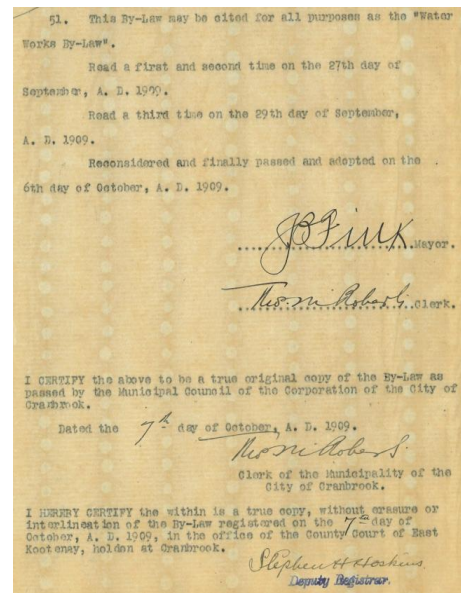
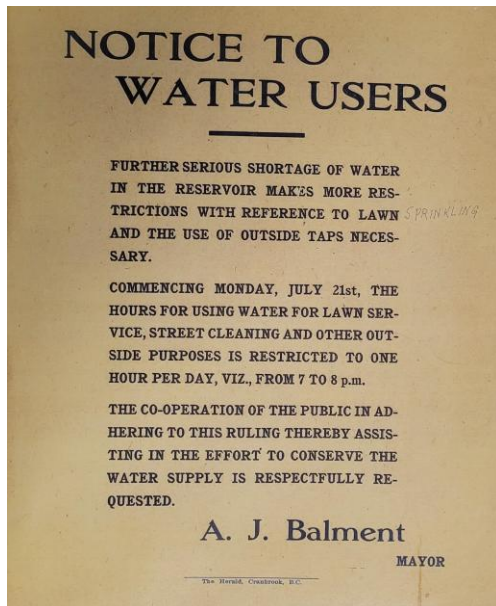
Table 3: A list of Cranbrook's strata properties containing building strata and bare land strata.

Table 4: Bylaw service requests for outdoor water-use, tickets issued, and type of irrigation system.

Table 5: Irrigation assessments including nutrient and pH levels for lawn health.

B. CRANBROOK'S WATERING RESTRICTIONS

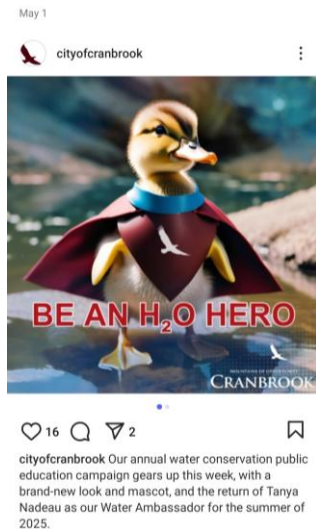
Watering Restrictions have been in Cranbrook near its incorporation in 1928.



Residents of Cranbrook as of January 1, 2025, pay a monthly rate of \$26.50 for water (City of Cranbrook, 2025b). When comparing this rate to the City of Calgary, a minimum monthly charge is \$46.17 (charges based on lot size and building area), with an average metered monthly bill range from \$75 to \$125 per month (City of Calgary, 2025 & Moving Waldo, 2025).

B. CHRIS ZETTEL COMMUNICATIONS

Another method to reduce city water usage is to induce a mandatory requirement on rain or moisture detectors or rain weather app for businesses watering with automatic systems. These irrigation features can save thousands of gallons of water yearly.

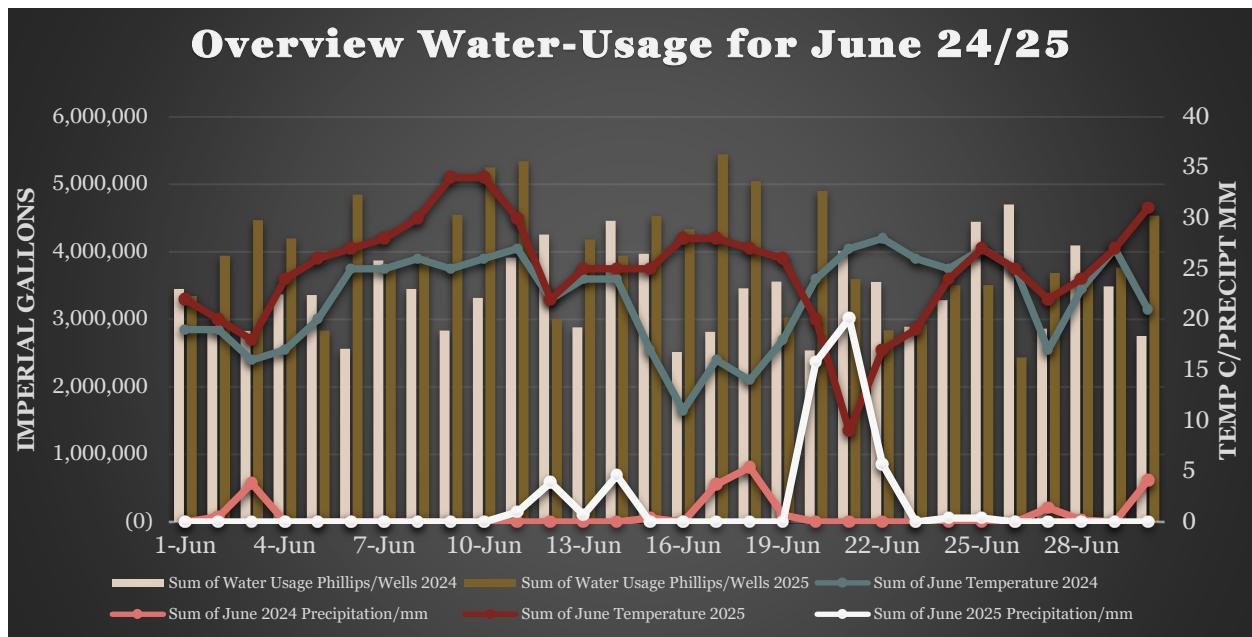
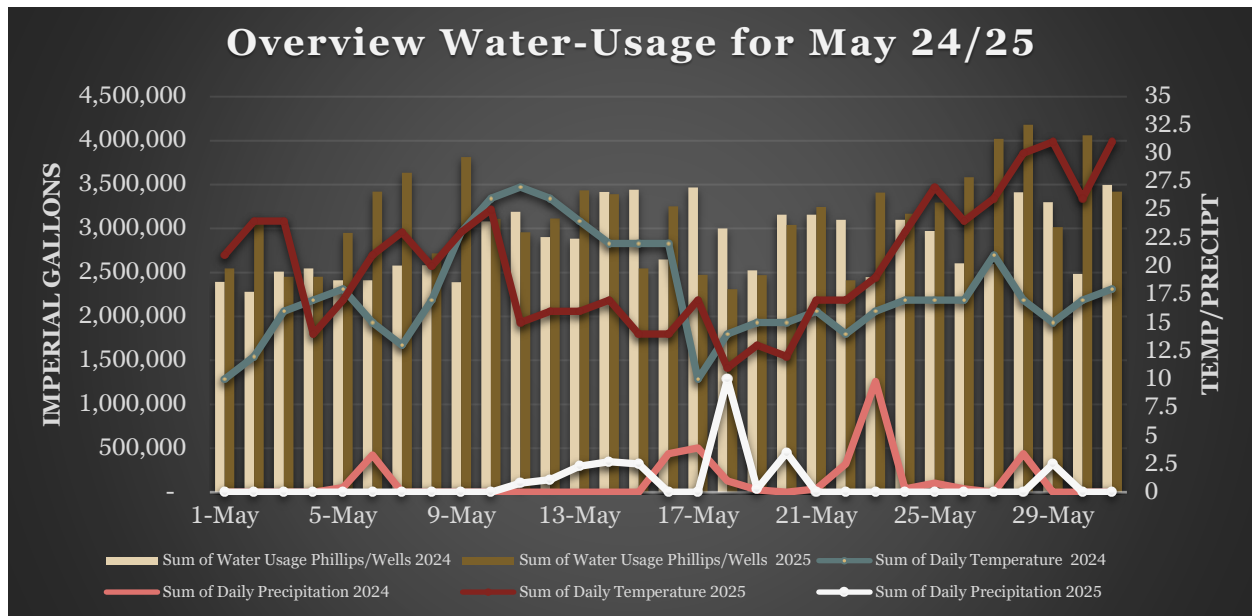


C. ADVERTISEMENT RODGERS TV

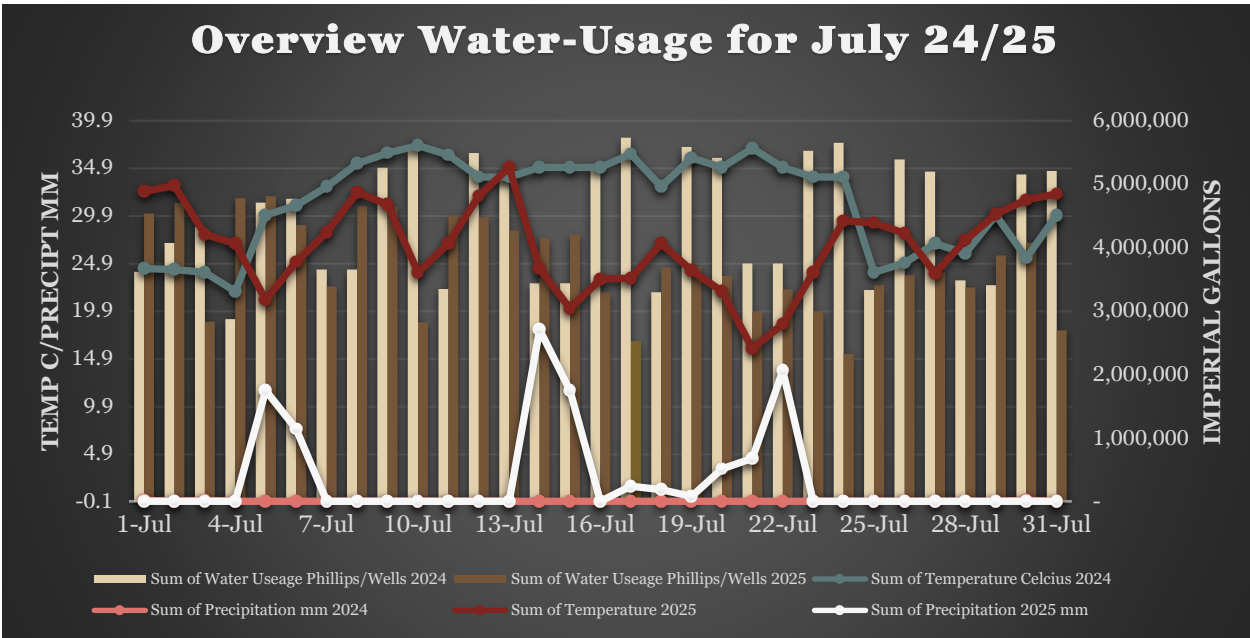
Download link

https://steepfishmedia.wetransfer.com/downloads/604811dafac1e76c29ac61d4ce28cc1420250616225612/74c0ee67f4891c9100202331a5de7fcb20250616225612/7992d8?t_exp=1750373772&t_lsid=66bc1df6-a9ff-4a84-bc85-1ae28c460732&t_network=email&t_rid=YXV0aDB8NjQ2MWI2OWMyZDJIMjVjZjAyNTVmNjYx&t_s=download_link&t_ts=1750114572&subdomain=steepfishmedia

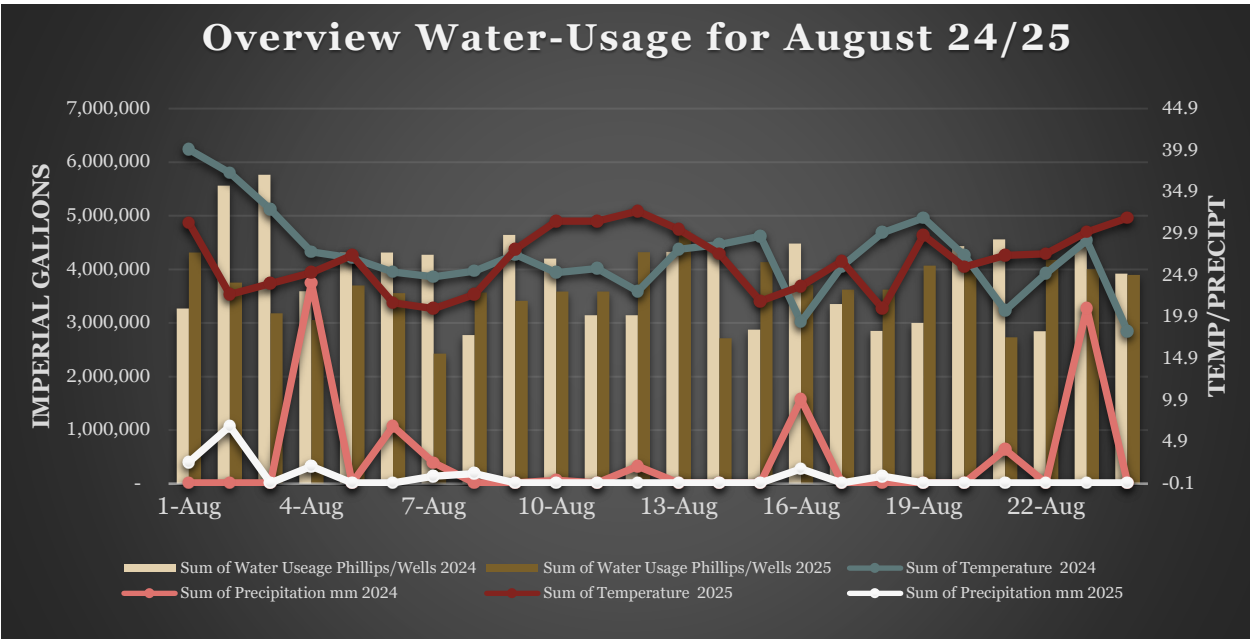
D. MONTHLY COMPARISON WATER GRAPHS



Overview Water-Usage for July 24/25



Overview Water-Usage for August 24/25



E. XERISCAPING LOCAL IDEAS

