



South Irrigation System Update

penticton.ca

August 17, 2026

Dear South Irrigation System User,

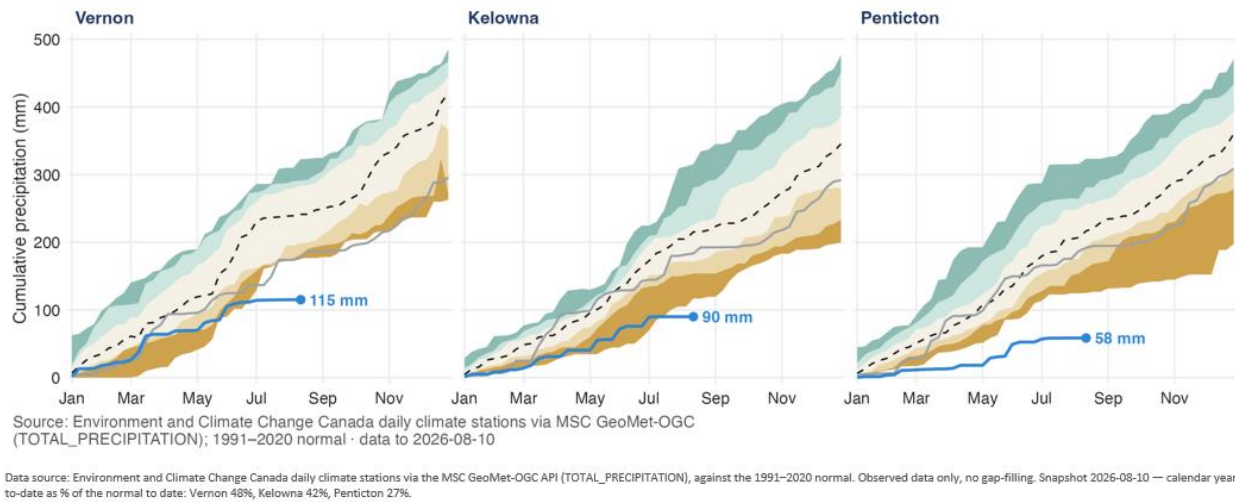
The City of Penticton would like to thank South Irrigation System users for their efforts since Stage 2 water restrictions came into effect on May 1, 2026. This update is being provided to share current drought conditions, irrigation demand trends, and the factors being considered as the City continues to manage available water supplies through an increasingly challenging irrigation season.

Drought Conditions and Precipitation

Drought conditions across the Okanagan continue to intensify, placing increasing pressure on available water supplies, irrigation infrastructure, and environmental flows.

Since May 1, 2026, the Penticton Airport climate station has recorded only 40.3 mm of total precipitation. This represents an increase of just 0.2 mm since the City's previous irrigation system update on July 20, with that small amount of rainfall occurring earlier in July. Meaningful precipitation has effectively been absent for several weeks, providing little benefit to soil moisture, stream flows, watershed recharge, or irrigation demand.

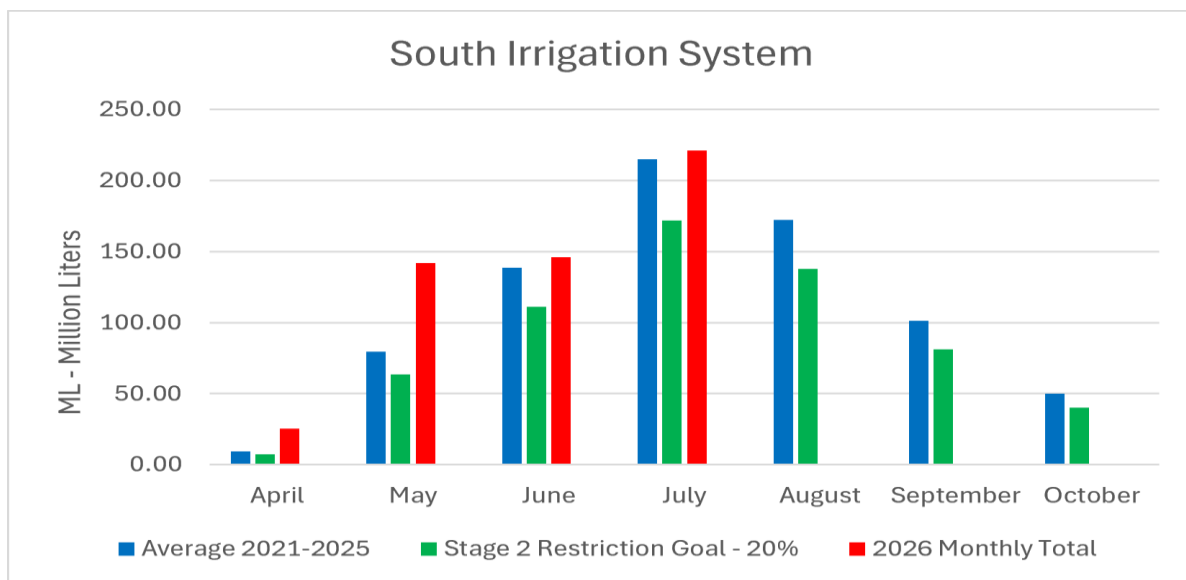
Looking at the broader year-to-date trend, Penticton has received only 58 mm of total precipitation in 2026. The graph below illustrates how current precipitation levels compare to historical conditions and highlights just how exceptionally dry the year has been. A significant portion of the annual precipitation typically received by this point in the year has simply not materialized. Penticton and area has received significantly less than our neighboring communities with Kelowna receiving 90mm and Vernon with 115mm year to date. As a percentage of normal precipitation, Penticton is at a staggering 27%.



Reflecting these worsening conditions, the Province increased the local drought classification from Level 4 to Level 5 on July 30, 2026. Level 5 is the highest drought rating under the provincial drought framework and indicates exceptionally dry conditions with significant impacts to water users and aquatic ecosystems. At this time, there are no indications of meaningful rainfall or watershed recovery that would substantially improve water supply conditions before the end of the irrigation season.

Current and Historical Irrigation Demand

The chart below compares 2026 South Irrigation System demand to the five-year average (2021-2025) and the Stage 2 conservation target, which represents a 20% reduction from historical average demand.



The five-year average includes 2021, the last irrigation season during which Penticton experienced significant drought conditions and Stage 2 water restrictions. As a result, the comparison reflects both average operating years and a previous drought year.

July 2026 irrigation demand reached approximately 220 million litres, compared to a five-year July average of approximately 214 million litres. This represents an increase of approximately 3% over the five-year average. At the same time, July demand exceeded the Stage 2 conservation target of approximately 171 million litres by nearly 29%. The chart also shows that consumption has exceeded the Stage 2 target in each month of the irrigation season to date.

These results indicate that overall system demand has not been reduced despite worsening drought conditions and ongoing Stage 2 restrictions. In fact, irrigation demand during July increased above historical averages during a period when significant conservation is needed to preserve available water supplies and reduce pressure on critical water infrastructure.

Current Conditions at a Glance

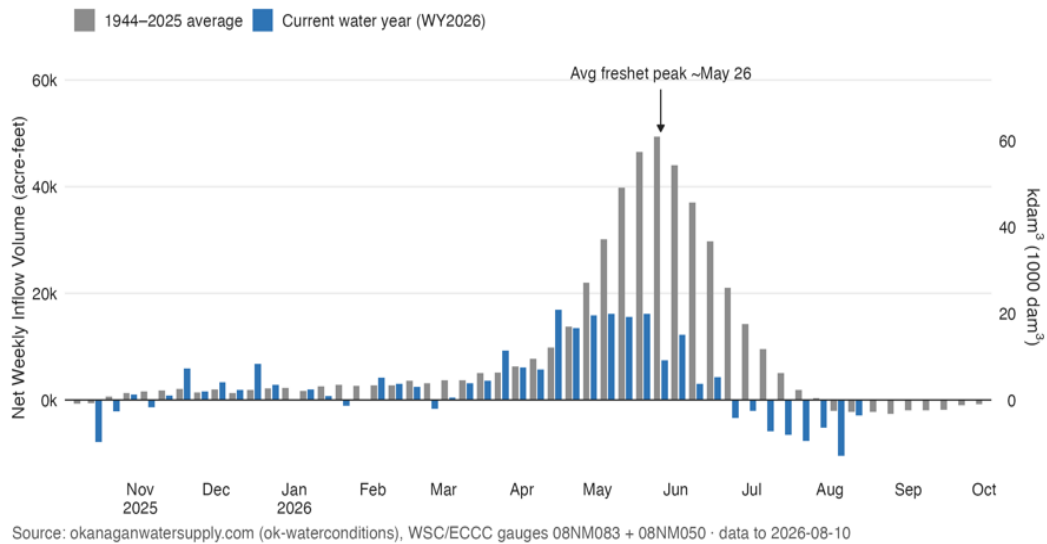
- Provincial Drought Rating: Level 5
- Total 2026 Precipitation: 58 mm
- Total Precipitation Since May 1: 40.3 mm
- Increase Since Previous July 20 Update: 0.2 mm
- July 2026 Irrigation Demand: 220 ML
- Five-Year July Average (2021-2025): 214 ML
- July Stage 2 Conservation Target: 171 ML
- Difference from Historical Average: +3%
- Difference from Stage 2 Target: +29%

Reservoir Storage and Water Supply Outlook

As a result of these conditions, and as previously communicated, the City has transitioned the South Irrigation System to treated water supply for the remainder of the season. While this allows irrigation service to continue, it places additional demand on the City's water treatment and distribution infrastructure, as well as the water sources supplying the domestic water system.

This transition also increases reliance on Okanagan Lake, which is currently supplying 95% of the City's domestic water needs. While Okanagan Lake is a large and resilient water source, the lake depends on annual spring freshet inflows from tributary watersheds to replenish the water withdrawn throughout the year. When these recharge flows are well below normal, as they have been in 2026, the importance of conservation becomes increasingly significant.

The graph below illustrates weekly net inflows to Okanagan Lake compared to the historical average. While the average freshet period typically produces substantial inflows through May and June, 2026 experienced significantly lower recharge volumes, resulting in less water being added to the lake during the period when annual replenishment normally occurs.



Data source: okanaganwatersupply.com (08WB ok-waterconditions), WSC/ECCC gauges 08NM083 + 08NM050. Weekly net inflow for the current water year against the 1944–2025 weekly average; evaporation excluded (operational convention). Snapshot 2026-08-10 — 44 observed weeks in WY2026.

As a result, Okanagan Lake levels are continuing the downward trend expected from a year with limited watershed runoff and reduced freshet contributions. Much of the annual recharge that would typically be received during spring runoff has already been utilized, and current conditions show little indication of a meaningful recovery before the end of the water year. Although the lake remains a reliable long-term water source, consecutive years of below-average recharge and increasing demands place greater importance on responsible water use and conservation efforts across all sectors.

The combination of reduced South Irrigation System storage, exceptionally dry watershed conditions, low freshet inflows, and below-average recharge to Okanagan Lake underscores the need to reduce demand wherever practical for the remainder of the irrigation season.

Overall Outlook

The combination of Level 5 drought conditions, extremely low precipitation, reduced reservoir storage capacity, and irrigation demand that continues to exceed conservation targets presents significant challenges for the remainder of the irrigation season.

The City is asking all South Irrigation System users to carefully review their irrigation practices and identify additional opportunities to reduce water use wherever practical. Reducing unnecessary irrigation and avoiding excessive water use during peak demand periods will help preserve available supplies, reduce pressure on infrastructure, and support reliable service for all users.

The South Irrigation System is intended to support agricultural operations and agricultural water requirements. Customers who utilize a portion of their agricultural connection for residential landscape irrigation are reminded that residential watering should be conducted in accordance with the City's current watering days and times applicable to all residential customers. Adhering to these

schedules helps reduce peak demand on the water system and supports community-wide conservation efforts during this period of extreme drought.

While many customers have taken meaningful steps to conserve water, overall system demand remains above both historical averages and Stage 2 conservation targets. Additional conservation efforts across the system are needed if we are to achieve the reductions required under current drought conditions and help avoid the need for further restrictions.

Stay Informed

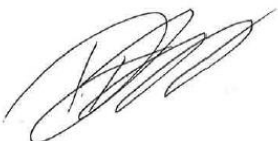
The City continues to provide irrigation system updates as conditions evolve throughout the season.

If you are not currently receiving emails through the South Irrigation System agricultural user distribution list, please send your name, service address, and preferred email address to publicworks@penticton.ca and request to be added.

Maintaining current contact information will help ensure you receive timely updates regarding drought conditions, irrigation operations, water supply status, and any future changes to water restrictions.

Thank you for your continued cooperation and commitment to responsible water use during these challenging conditions.

Sincerely,



Dave Best

Infrastructure - Manager of Utilities

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