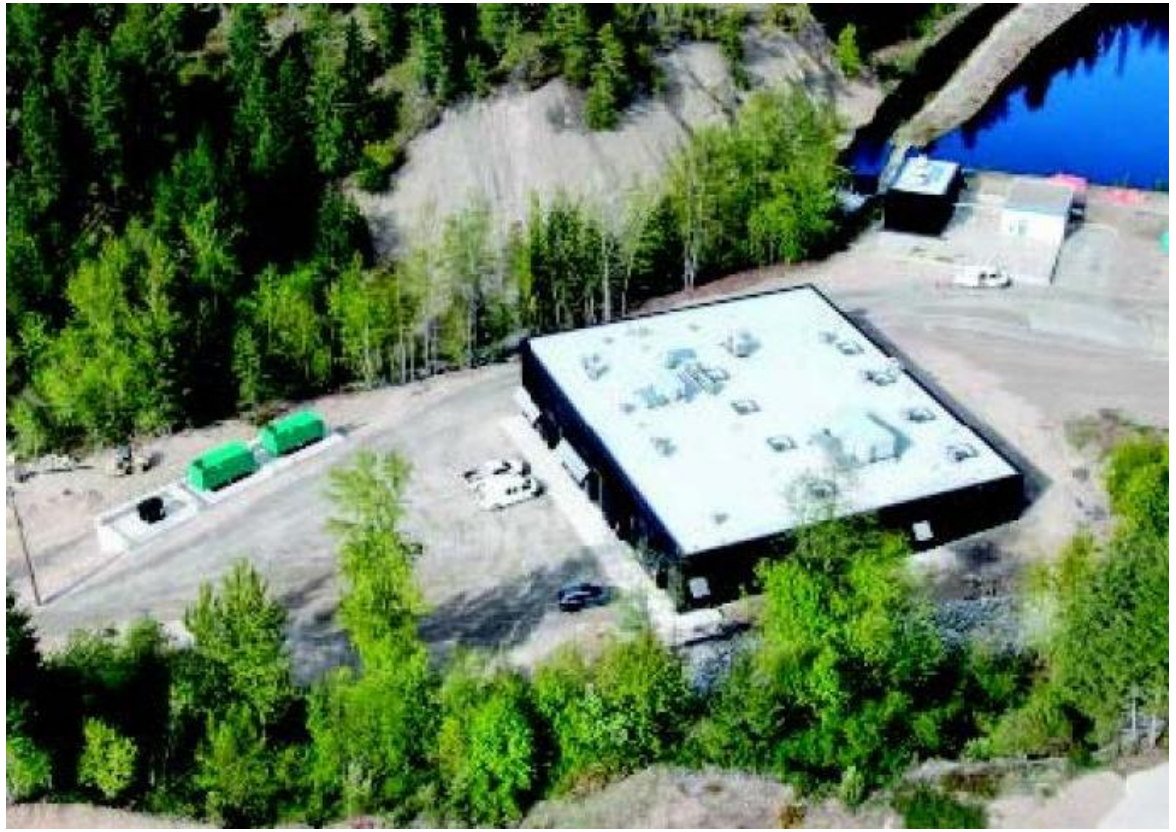


September 22nd, 2026

Peachland's Water Supply Update

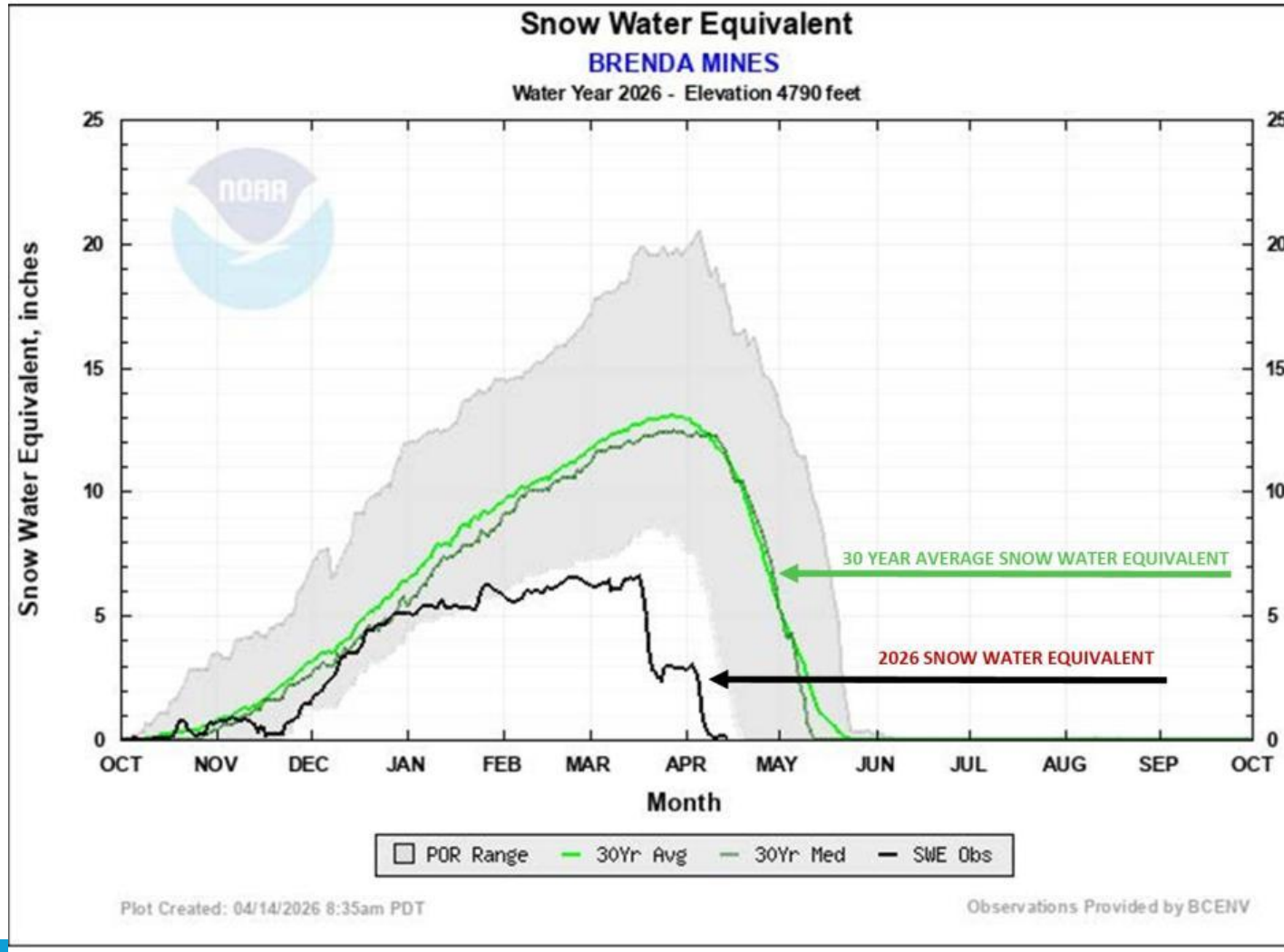
Meeting Purpose & Agenda

Provide an update on Peachland's potable water supply and potential options for improving supply resiliency

- Background
- Review Potential Options for Improving Resiliency
- Next Steps

Current State of Peachland Creek Water Supply

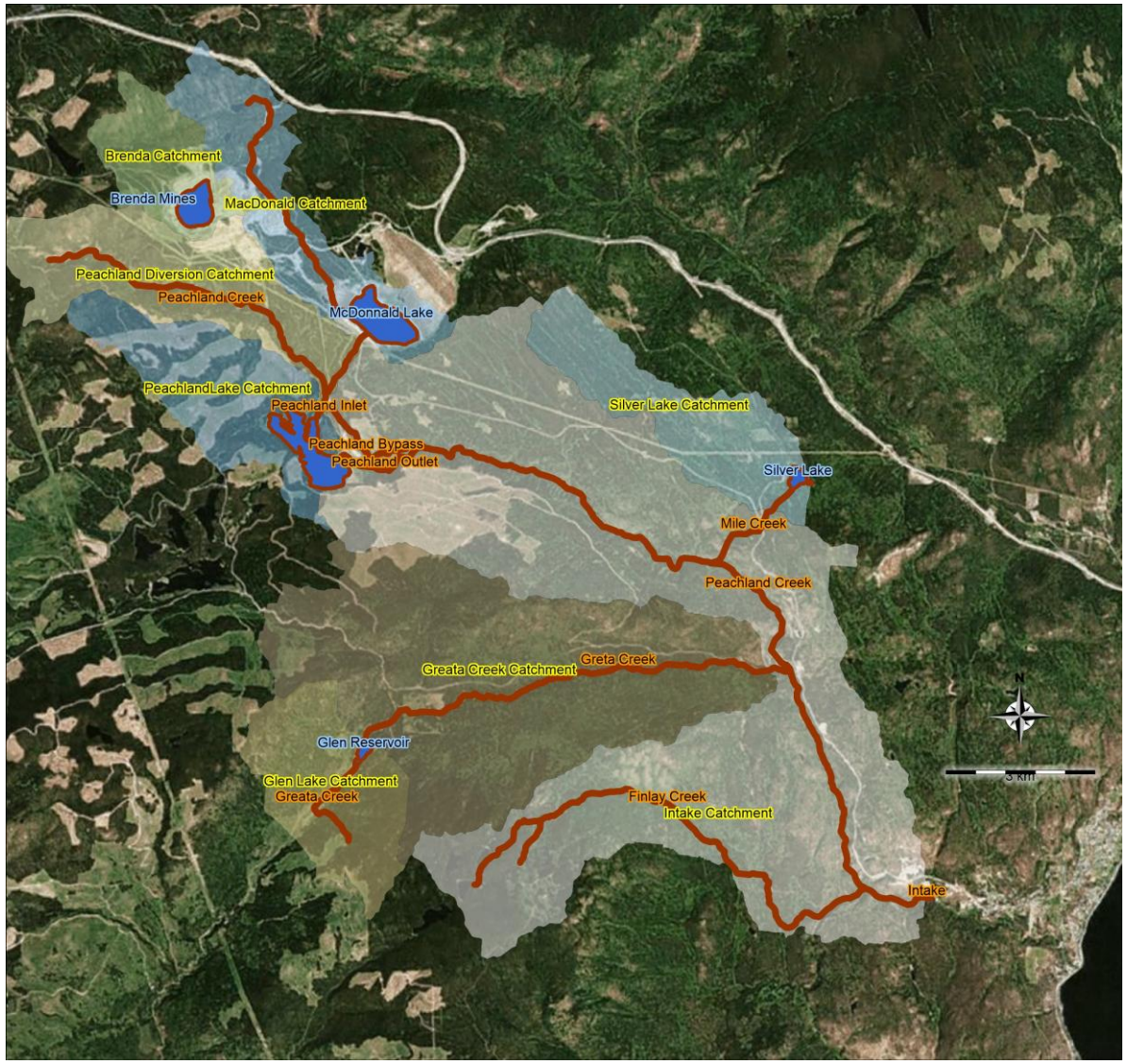
- 2024 and 2025 low snowpack levels resulted in reduced levels in Peachland Lake and outlet flows
- 2026 is in a 30+ year record low snowpack, currently 5m below normal
- Stage 3 Water restrictions to reduce demand
- Agriculture Canada noted >1:50 drought (>40% reduction in normal precipitation)
- Thompson-Okanagan Region Groundwater Level Conditions are well below normal (<10% of typical recorded levels)*



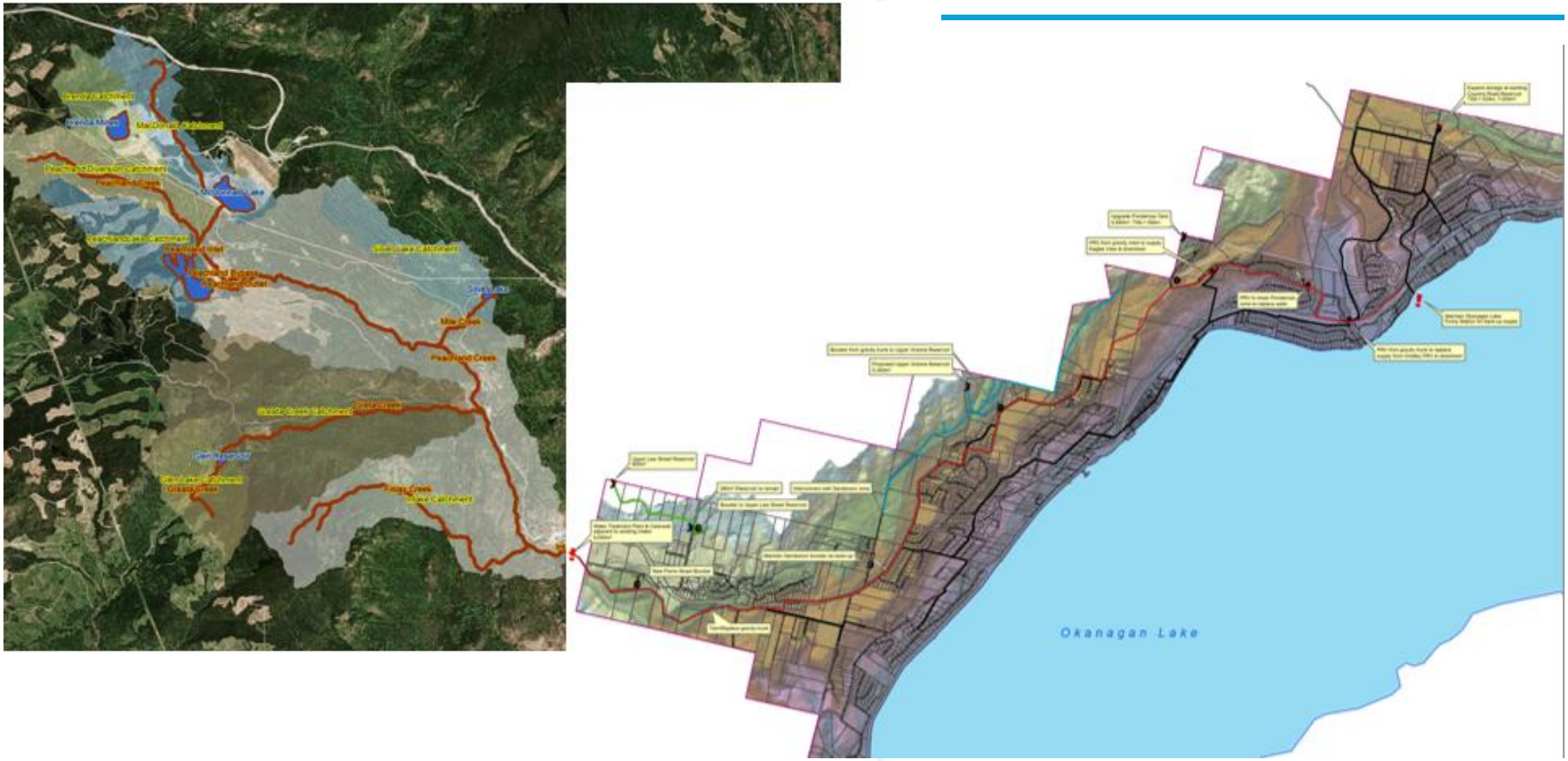
*Government of British Columbia

Background

- 2007 Water Master Plan review options (cost effectiveness, regulatory compliance, simplified delivery)
  - Single Source Supply (Peachland Creek)
  - Two Source Supply
  - Hybrid Supply (Groundwater Supplement)
- Potable water supply is currently drawn from the Peachland Creek Watershed (7,237 ML licensed for supply)
- Requires long term demand management



Background – Water Master Plan

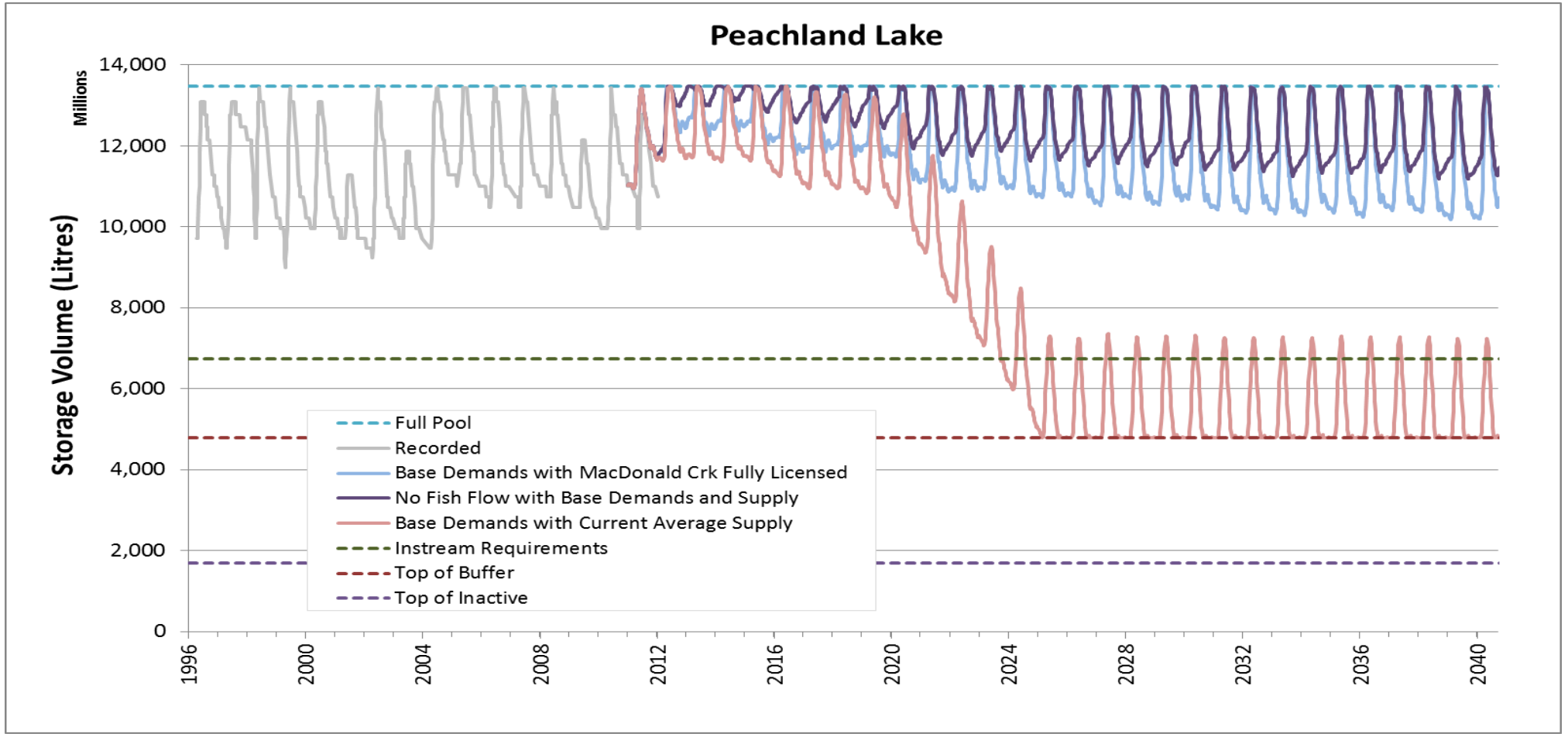


Peachland Lake

- Main storage reservoir for the Peachland Creek water supply (Glen, Brenda, Silver)
- ~30m deep, covers 1.09km^2, with a licensed volume of 11,776 ML
- Recharged by high elevation snowpack
- Full pool elevation is ~1,270m
- Discharge to Peachland Creek controlled by Peachland
- Available supply is highly sensitive to Instream (fish) Flow discharge requirements (3,075 ML)
- Additional reduced demands needed with average snowpack recharge to achieve full pool (2013 analysis)
- Licensed for potable water storage **4,070 ML** (4,631 ML Unallocated licensed volume)

Peachland Lake Licensing

- Licensing from Water Stewardship of unallocated water requires additional supply recharge*



*2025 analysis to reflect climate change and updated growth demands confirmed the Ministries requirement

Current Planning for Additional Flows into Peachland Lake

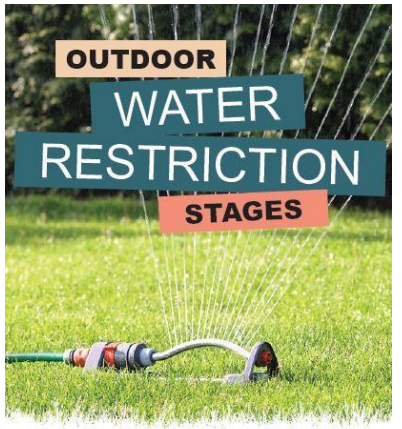
- WLRS license application submitted on unallocated storage Peachland Lake (4,613ML) requires supplementary flows into Peachland Lake and Indigenous consultation

Options for Supplementary Flows

- Upland Storage and/or Creek Diversion
- Existing MacDonald Creek pipeline (617ML) has been crushed by >30m of blast rock at Brenda Mines

Current Demand Management

- Usage down from 3500 ML/year to ~2500 ML/year since 2006
- Per Capita demands ~935L/c/d (Basin avg. 675L/c/d, Canadian Avg is 330L/c/d)
- Universal Water Metering Program
- On-going review and updates to water rates to promote additional conservation –tiered consumption pricing
- Water Restrictions
- Make Water Work Campaign including promoting xeriscaping



OUR WATER is
a precious resource.

When it comes to
WATER CONSERVATION
every little bit helps.

KEEP INFORMED and
DO YOUR PART
to protect Peachland's
water supply.

Resiliency Options

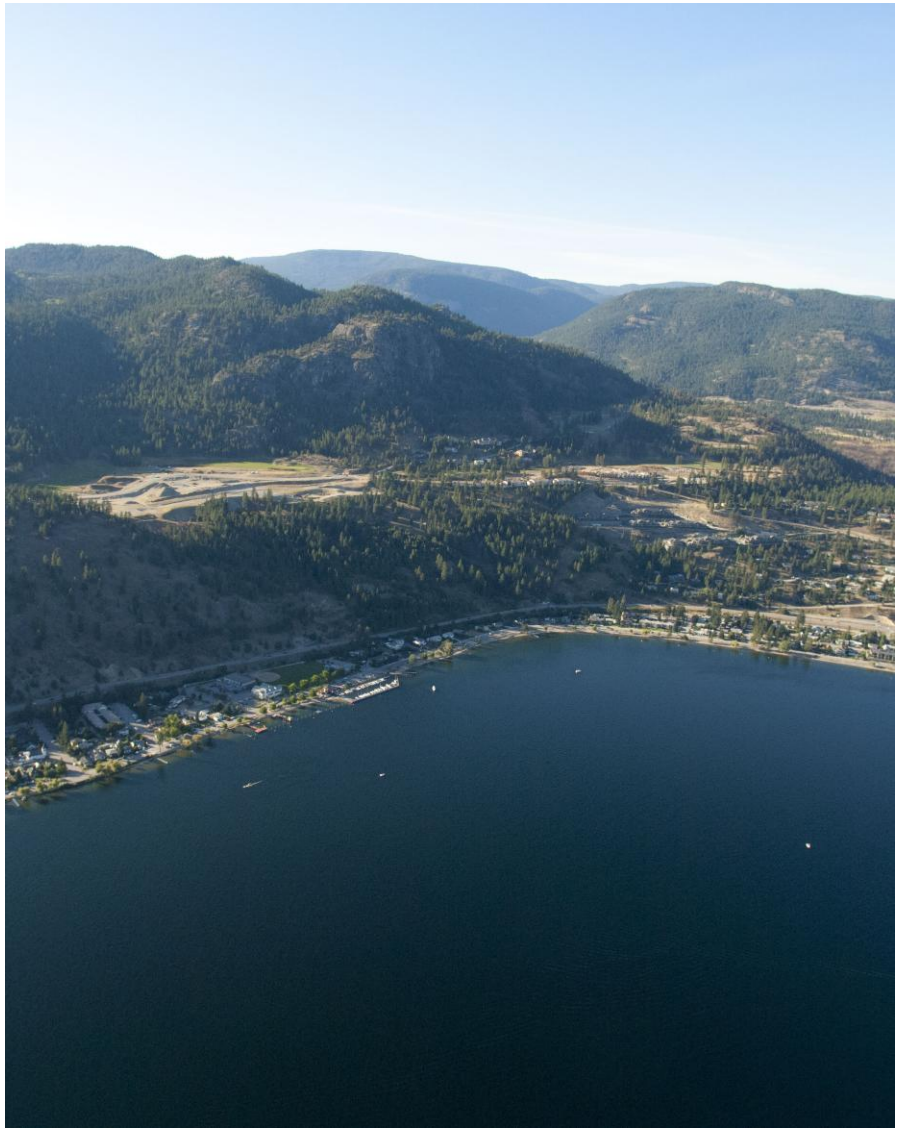
Category 1 – One System (Single Source Supply) Options

- Maintain one primary water supply by expanding reservoir storage licencing including recharging Peachland Lake from **existing** upland sources
- Investigate a **new** secondary upland storage
- Dredging Peachland Lake to increase storage capacity

Resiliency Options

Category 2 – Split System (Two Source) Supply Options

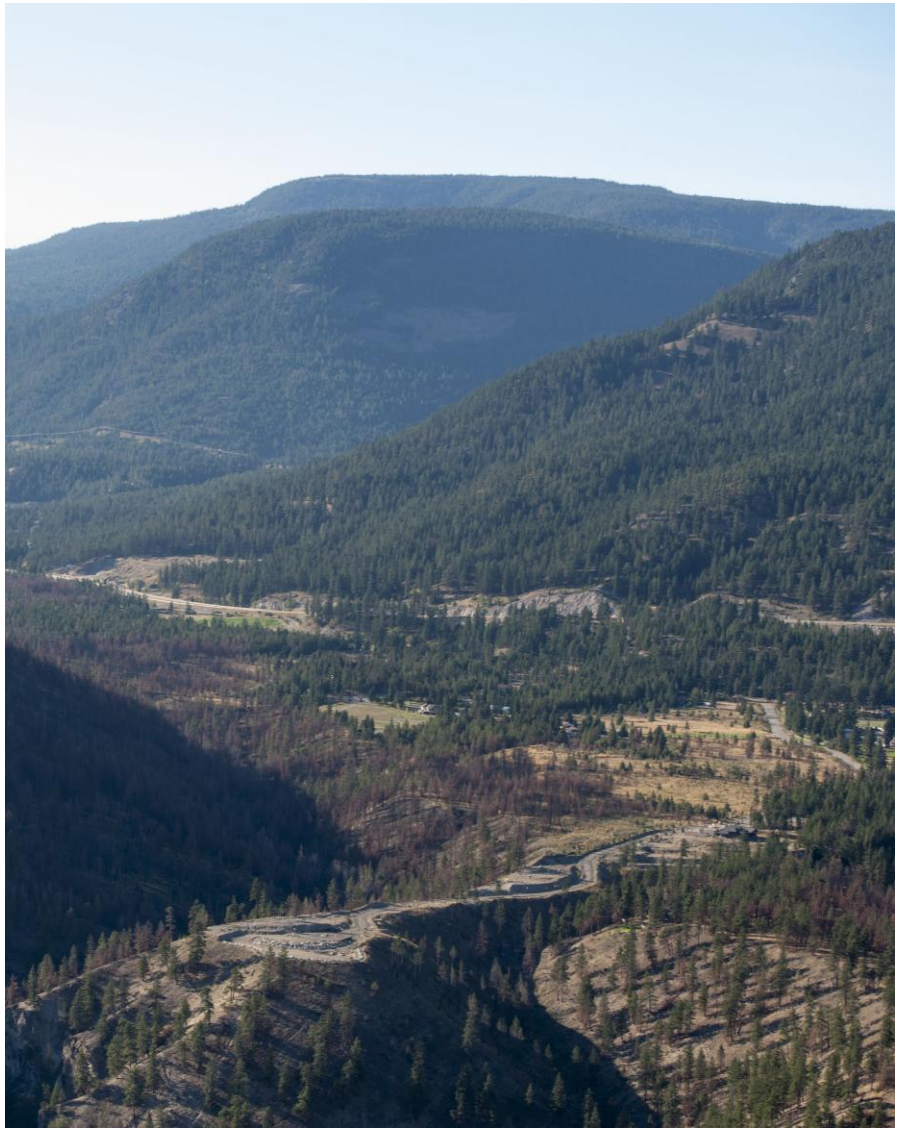
- Maintain Peachland Creek supply and supplement supply with a new Okanagan Lake intake (near Princeton Ave)
- Upgrade the Okanagan Lake intake, UV treatment system (filtration deferral), and pumps to service the Trepanier Bench area, with a potential emergency extension to the Peachland Creek WTP ponds
- Convert the Eagle View Pump Station into a lake intake with a dedicated raw water line from Eagle View Pump Station to Ponderosa Upper Reservoir, with potential extension to the Peachland Creek WTP ponds



Resiliency Options

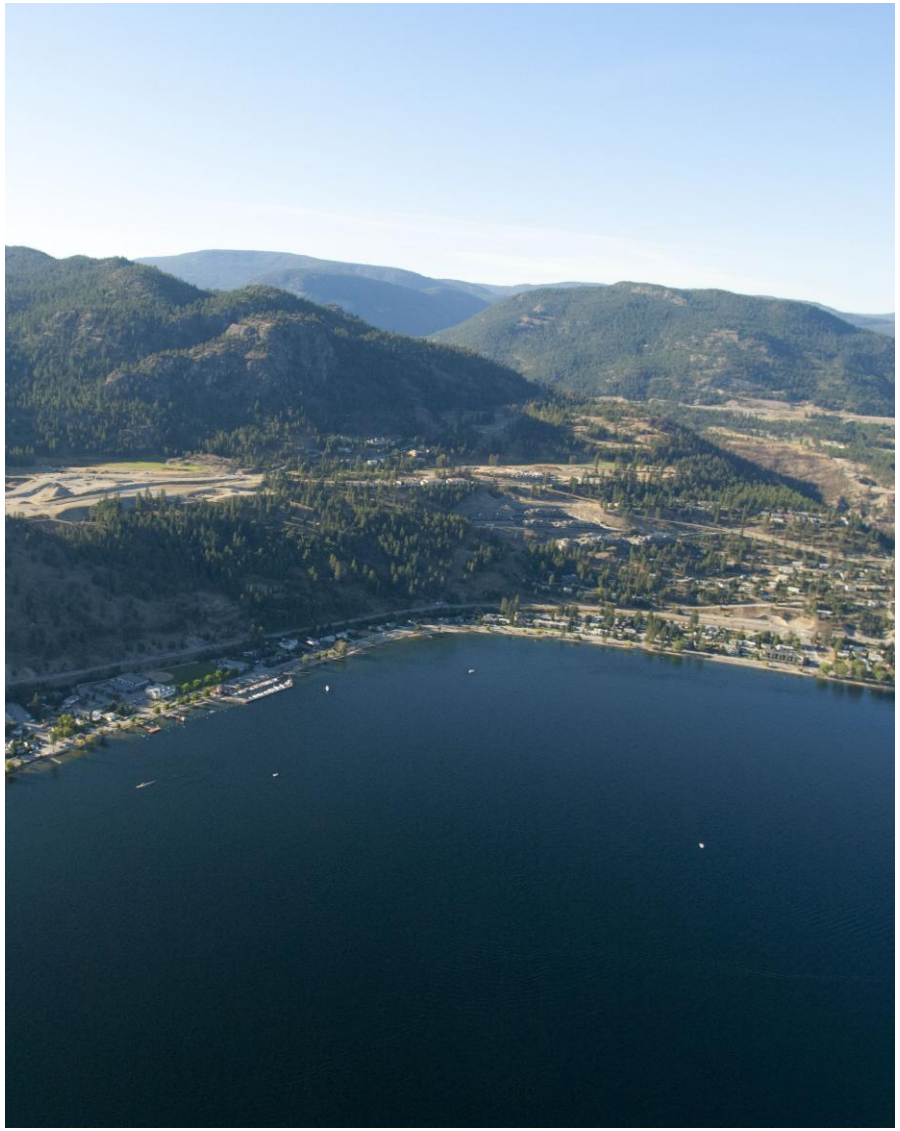
Category 3 – Hybrid (Modified Two Source) Supply System

- Evaluate the potential for groundwater as a separate irrigation supply for municipally owned properties, such as park irrigation, while Peachland Creek is retained as the single water supply for domestic use



Options with Significant Challenges

- **Dredging Peachland Lake-** is expected to only provide a limited term benefit (<10 years) and requires significant regulatory approvals
- **New upstream storage** – existing topography and geometry is challenging to construct a new dam/reservoir and also requires significant regulatory approvals
- **Supplement Peachland Creek with untreated Okanagan Lake Water** – conveying untreated flow from the Lake to WTP requires significant capital investment (conveyance and treatment)



Potential Supply Opportunities

- ✓ **One System** – Increase licensing and recharge supply for Peachland Lake *with option to keep OK Lake as a back-up supply*
- ✓ **Split System** – Advance the upgrading the Okanagan Lake intake, UV treatment system (filtration deferral), and pumps to service the Trepanier Bench area, *with a potential emergency extension to the Peachland Creek WTP ponds*
- ✓ **Hybrid System** – Investigate groundwater as a separate non-potable irrigation supply system for community parks only or as a supplement to Peachland Creek WTP ponds

Next Steps

Prepare a report with a recommendation for improving resiliency through an assessment of options against a weighted set of criteria, including:

- available water quantity and quality,
- long-term reliability and redundancy,
- hazards and vulnerabilities of the source,
- licensing and regulatory obligations,
- required infrastructure and its costs,
- value for investment, based on order-of-magnitude capital, operating costs and life cycle costing,
- phasing and implementation timing,
- potential to be combined with other options, and
- capacity to meet demand across the planning horizon to 2100.