



# CHESLATTA FIRE WATER CARRIER NATION SYSTEM

## OBJECTIVE SUMMARY

The Cheslatta Carrier Nation Community Centre required a reliable, modular fire protection system to safeguard its remote facility in Burns Lake, BC. BI Pure Water Canada Inc. (BIPW) was tasked with designing, fabricating, and commissioning a fire water storage and pumping system compliant with NFPA standards. The project aimed to deliver a resilient solution capable of withstanding harsh climatic conditions while ensuring long-term operational efficiency and minimal maintenance for the community.

"Empowering Communities, Protecting Futures:  
Resilient Fire Protection for Remote Realities."

## COMPANY OVERVIEW

**Bi Pure Water** specializes in providing advanced water treatment solutions tailored to the unique needs of Canadian communities and industrial sectors. With over 30 years of engineering expertise, we design, manufacture, and implement innovative, cost-effective, and resilient water treatment systems. Our team of Professional Engineers and Technicians ensures that every system meets the highest standards of quality, safety, and environmental responsibility.



## KEY FEATURES

### Fire Water System Components:

- **68,000-liter** epoxy-coated carbon steel welded storage tank.
- **Diesel** engine-driven fire pump (400 USGPM)
- **Plant Dimensions:** 39' x 14' x 11'
- **Peak Discharge Rate:** 400US GPM



## CORE INITIATIVES

**Pre-Commissioning:** Factory Acceptance testing in Surrey, BC minimized on-site risks.

**Integrated Project Management:** Daily client updates and a dedicated team (Project Manager, Site Superintendent,) ensured alignment.

### Risk Mitigation:

- Regular cross-functional team meetings were organized to review project progress at key milestones, ensuring alignment, addressing challenges, and maintaining seamless coordination across all disciplines for successful project delivery.
- 3D modeling and trades reviews to prevent design conflicts.

**Community Engagement:** Collaborated with local stakeholders to address labor, materials, and accommodation needs.

**Long-Term Support:** Commissioning technicians and remote troubleshooting services available.



info@bipurewater.com



(604) 882 6650



www.bipurewater.com



2-9790 190th Street  
Surrey, BC





30<sup>th</sup>  
ANNIVERSARY

## Innovating Safety, Delivering Trust:

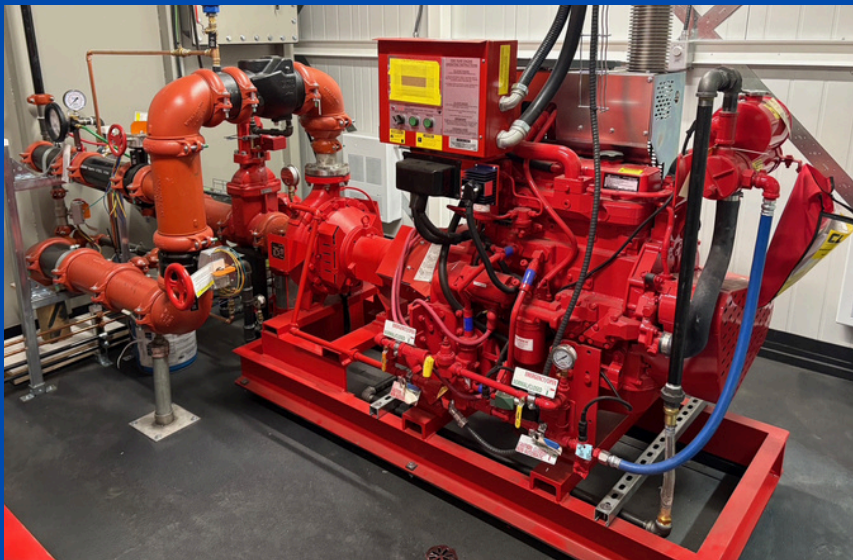
Fire Protection  
Built for Remote Realities.

## TECHNOLOGY

BI Pure Water leveraged cutting-edge technology and innovative practices to deliver a state-of-the-art fire protection system:

- **3D Design Software:** Inventor 3D was used to model the system, ensuring seamless integration of all components and minimizing design conflicts.
- **Modular Fabrication:** The system was pre-fabricated and pre-commissioned in BIPW's 40,000 sq.ft facility in Surrey, BC, ensuring quality control and reducing on-site risks.
- **Sustainability Practices:** The system incorporated energy-efficient LED lighting, recycled materials, and lifecycle costing to minimize environmental impact and long-term maintenance costs.

These technological advancements ensured the system was not only effective but also sustainable and easy to maintain in a remote setting.



## CONCLUSION

BI Pure Water's expertise in remote modular systems enabled the successful delivery of a resilient fire protection solution for the Cheslatta Carrier Nation. By combining rigorous pre-commissioning, advanced 3D design tools, and a focus on sustainability, BIPW ensured compliance, reliability, and cost-efficiency. The project underscores the importance of meticulous planning and community collaboration in overcoming the challenges of remote infrastructure development. This system not only meets immediate safety needs but also provides a scalable model for future Indigenous and remote community projects.



info@bipurewater.com  
(604) 882 6650  
www.bipurewater.com  
2-9790 190th Street  
Surrey, BC

