# **UNDERSTANDING OUR**



The Comox Valley Water System (CVWS) draws its supply from the Comox Lake reservoir and provides drinking water to approximately 45,000 residents in Courtenay and Comox. Over the next few years, there will be major changes to the drinking water system with the addition of major new infrastructure. This is to ensure compliance with drinking water regulations that will ensure provision of reliable, high quality supply of drinking water for decades to come.

# **» ABOUT THE SYSTEM**

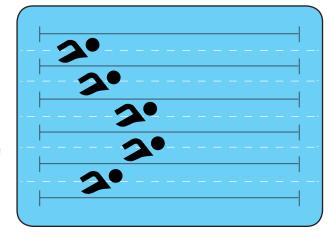
Water from Comox Lake flows to the lower Puntledge River through BC Hydro's reservoir impoundment dam. Water is then re-routed at the diversion dam to BC Hydro's penstock where it travels over five kilometres in an above ground pipeline to the hydro-generating station. The CVRD diverts water from the pipeline into its chlorination station before being sent to storage reservoirs located around the Comox Valley. During an emergency, or when BC Hydro is undertaking maintenance on the generating station penstock, water is pumped directly from the lower Puntledge River to the chlorination station.

### **» EXISTING INFRASTRUCTURE**

Bulk water is provided to the distribution systems in the City of Courtenay, Town of Comox, CFB Comox, K'ómoks First Nation and the five water local service areas, Water mains carry the treated water from the CVRD's chlorination station to one of the six reservoirs in Courtenay or Comox. These reservoirs are required for fire storage, emergency storage, water pressure and to balance flow throughout the day, including meeting peak hourly demand.

Did you know the total storage capacity of our six reservoirs is 31.3 million litres? That is the size of 12 Olympic swimming pools!

31.3 **MILLION** LITRES = **12 POOLS!** 



Pump stations also play an important role in transporting water to your tap. The Ryan and Dingwall pump stations force water through pipelines that must travel uphill.



There are 423 km of watermains in the Comox Valley Water System and the length of the Comox Lake shoreline is 41 km; the watermains could go around the lake about 10 times!

## » WANT TO KNOW WHAT IS HAPPENING?

If you would like to be kept up-to-date, please check our website on a regular basis. comoxvalleyrd.ca/watertreatment

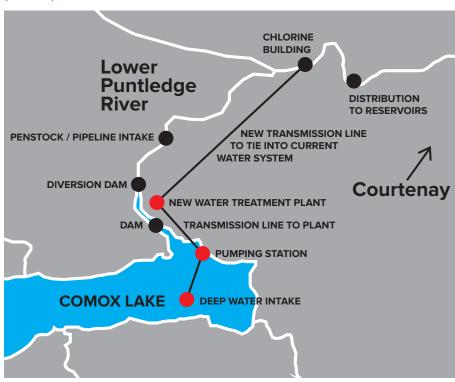
Please contact: engineeringservices@comoxvalleyrd.ca or 250-334-6000 if you have any questions or comments about the current system and future upgrades.

# » IMPROVING THE SYSTEM

The new water treatment facility will use direct filtration, ultraviolet light treatment and chlorination to provide high quality drinking water for generations to come. The new treatment plant will remove bacteria and viruses from the water and eliminate the need for turbidity related boil water notices.

A deep water intake will be built to withdraw water directly from Comox Lake. It will provide access to the colder water found deeper in the lake, which is more favourable

The map below highlights the current system (black dots) and the planned upgrades (red dots).



PLANNED IMPROVEMENTS	COST
DEEP WATER INTAKE	\$11.0 m
RAW WATER PUMPING STATION	\$10.7 m
TRANSMISSION LINE TO PLANT	\$11.8 m
DIRECT FILTRATION AND UV DISINFECTION PLANT WITH CLEARWELL	\$47.1 m
NEW TRANSMISSION LINE	\$25.5 m
TOTAL	\$106 m

### » TIMELINE OF THE SYSTEM UPGRADES

