

# DUTEAU CREEK TREATMENT PLANT

## A water treatment plant for Greater Vernon

- Sept. 2010** PLANT OPERATION BEGINS!
- 2017** MASTER WATER PLAN UPDATE
- 2018** DUTEAU CREEK WATER TREATMENT PLANT UV UPGRADE
- Feb. 2009** CONTRACT AWARDED, CONSTRUCTION COMMENCES
- \$14,000,000**
- 2008** Senior grants received for plant construction
- 2004** Revised plan APPROVED by referendum + RDNO
- 2002** Master water plan prepared
- 1988** OVERVIEW STUDY - Water supply + distribution report published
- 1974** Joint Water Committee formed + Vernon's Study Area report published
- 1970s** Vernon irrigation ditches converted to PIPELINES

Supply of 60% of TOTAL water needs for GREATER VERNON WATER UTILITY

GRIZZLY RESERVOIR  
HAPPO RESERVOIR  
ABERDEEN RESERVOIR  
DUTEAU CREEK  
HARVEY RESERVOIR

Enough water released to preserve FISH HABITAT

**AGRICULTURE WATER Separation in Progress**  
Currently send 1,977 Mega Litres of non-potable water to farms (35% of all water is sent to farms) \$16.5 million spent to date.

FEED ANIMALS    GROW CROPS



The Plant reduces water colour and turbidity, inactivates protozoa, and minimizes boil water notices to the public

RAW WATER QUALITY ANALYZED  
Water testing

Organic particles are FLOCCULATED (stuck together) with the introduction of polymers

Air bubbles introduced at bottom of chamber

### REGIONAL DISTRICT OF NORTH OKANAGAN

**DISSOLVED AIR FLOTATION (DAF)**  
ORGANICS RISE TO THE SURFACE, SKIMMED OFF & STORED FOR THE CENTRIFUGE



CENTRIFUGE



DESIGNED TO TREAT 160 MILLION LITRES PER DAY

Equivalent of 40 MILLION 4-litre milk jugs!

TOTAL TREATMENT PLANT COST: \$36,200,000

Dewatered sludge... reclaimed for COMPOST



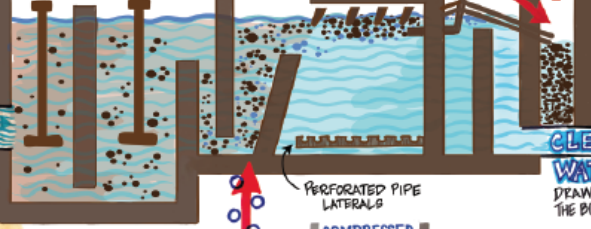
WELLS AND OTHER SOURCES

10% of total water needs



30% of total water needs

MECHANICAL SCREEN  
RAW WATER PIPELINE  
COAGULANT



CLEAR WATER DRAWN OFF THE BOTTOM

PERFORATED PIPE LATERAL

COMPRESSED AIR  
RECYCLE PUMP  
PACKED AIR SATURATOR

POSSIBLE FUTURE FILTER

Chlorine Added to disinfect water before reservoir & after UV

Reservoir  
10 MILLION LITRES OF STORAGE!

UV DISINFECTION

Water testing  
TREATED WATER QUALITY ANALYZED



To Customer!

PROVIDES 11 BILLION LITRES OF WATER TO CUSTOMERS EACH YEAR

Enough to fill BC Place about 4 TIMES a year!

Clean, safe water

GRAPHIC BY AVRIEL ORLOFF - OUTSIDETHELINES.CA

