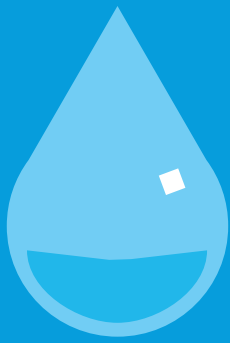


2010 WHITE ROCK ANNUAL PERFORMANCE REPORT



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INTRODUCTION

The 2010 Performance Report provides an overview of the achievements of EPCOR White Rock Water Inc. (EPCOR) and looks ahead at plans for 2011. Our key measures of success include a full range of activities, summarized under the headings of Quality Assurance; Operational Excellence; Water Quality Information; Customer Care and Community; Safety; Capital Program; and Environment.

EPCOR'S VISION

We are committed to protecting public health through the production and delivery of high quality drinking water and responsible management of wastewater.

To achieve our vision, we focus on:

- **People and safety:** Be a place where people choose to work, known for our zero-injury culture and focus on continuous improvement
- **Operational excellence:** Be recognized as an expert in our business by adopting best available technology and solutions that enhance water and power quality, system reliability, and our efficiency and cost-effectiveness
- **Environment:** Make the environment a priority in everything we do

BACKGROUND

White Rock Utilities Limited was incorporated on March 11, 1966 and had served the White Rock area since 1913. EPCOR White Rock Water Inc. (EPCOR) purchased the privately-owned and operated White Rock Utilities on May 1, 2005 and the amalgamation was completed in May 2006.

EPCOR owns the water assets and operates them on behalf of the residents of White Rock. EPCOR also supplies water to certain adjacent areas in the city of Surrey, and the Semiahmoo First Nation. The Utility serves a population of approximately 20,000 people with an average consumption of water of 6.9 million litres (ML) per day.

Every water service in the city is metered. Fire protection service is provided to the residents by means of 316 fire hydrants. The entire water supply comes from a groundwater source called the Sunnyside Uplands aquifer and is provided through six wells, which range in depth from about 60 to 150 meters (200 to 500 feet). The water is distributed directly to residents with limited treatment.

The distribution system also includes 76 km of watermain, of which approximately 180 meters (600 feet) is galvanized iron pipe. This is being replaced as part of an annual pipe replacement program. EPCOR White Rock is a regulated utility. The BC Comptroller of Water Rights (Comptroller) is the Utility's regulator. Water rates and terms of service are determined through a regulatory process, which takes place whenever approved rates expire. Rates are based on a fair rate of return to EPCOR for providing water service.

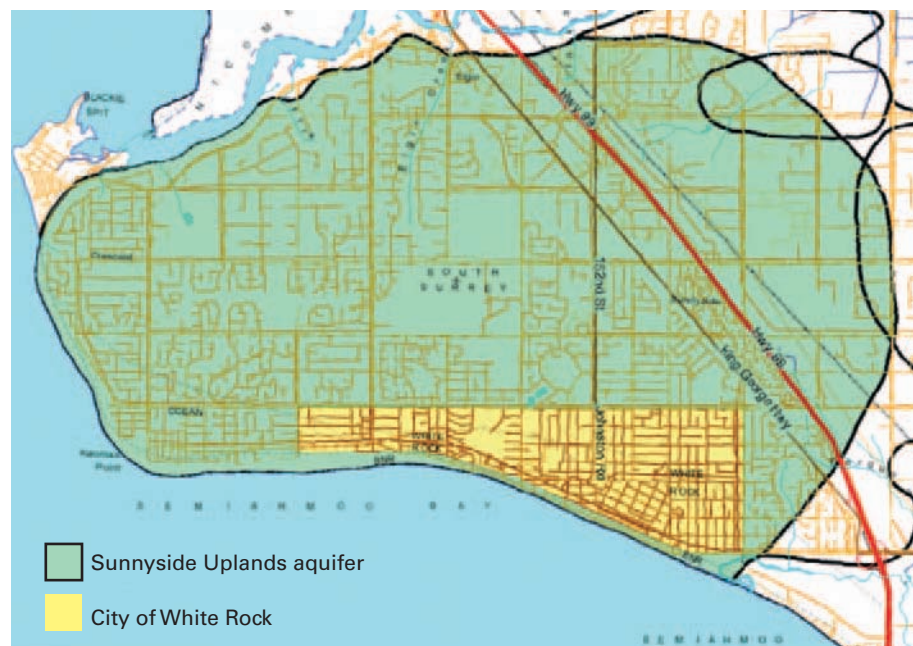
White Rock has uniform structure water rates and three customer groups - single family residential; multi residential; and commercial. 2010 rates expire on December 31, 2010 so an application for new water rates for 2011 - 2013 was submitted to the Comptroller on December 16, 2010.

EPCOR employs seven full time permanent employees in White Rock. Additional technical and operational support is available through EPCOR's 27 water professionals in British Columbia (BC) and 447 supporting water professionals in EPCOR Water Services.



DID YOU KNOW...

One penny will buy 44 cups (or ten litres) of White Rock tap water.



EPCOR'S distribution system is comprised of:

- Two pressure zones
- Three water storage reservoirs
- Three pressure reducing valve stations
- A booster station
- 75 km of mainly ductile and cast iron pipes ranging in size from 100 mm to 300 mm (about 4 inches to 12 inches) in diameter
- 316 hydrants
- 1154 valves



QUALITY ASSURANCE



Protecting public health is the priority for EPCOR, and water quality is monitored and continually enhanced through diligent operations and high quality standards.

EPCOR employees ensure that water provided to the community meets or exceeds standards and expectations for safety, reliability and quality. EPCOR White Rock Water is a Class III system. All operators are certified at the correct levels for the work they conduct. One operator is certified at Level III, two are certified at Level II and one is certified at Level I. The community benefits by receiving the technical expertise and knowledge required to deliver a safe and reliable drinking supply.

DID YOU KNOW...

In 2010, EPCOR White Rock conducted 3369 water quality tests.



HIGHLIGHTS

EPCOR reviews the existing water system regularly to assess its current condition and identify upgrades required to meet or exceed utility standards. EPCOR continues to implement or enhance its operating procedures and standards, including:

- Annual reporting of water quality information and system upgrades to Fraser Health consistent with provincial regulations
- A water quality monitoring program with monthly water quality testing for metals to supplement the routine sampling for bacteria. All testing is carried out by accredited BC laboratories (BCCDC and EXOVA)
- Supplementary lab training to allow additional parameters to be tested for in the water supply
- Monthly equipment testing and calibration by local operators, combined with annual testing of all water lab equipment by certified technicians

OPERATIONAL EXCELLENCE

EPCOR proactively manages all infrastructure through regular maintenance, evaluations and improvements. In 2010, these activities included:

- Annual maintenance of all pressure relief valve (PRV) stations
- Reservoir inspection and maintenance
- Hydrant inspection and maintenance
- Exercising and maintenance of distribution system valves
- Continued Uni-Directional Flushing (UDF) program. UDF uses a hydraulic modeling system to direct water through specific pipes at high velocity. It uses less water, is more effective than regular flushing, and maximizes pressure throughout the system

WATER QUALITY INFORMATION

EPCOR monitors the physical, chemical, and microbiological characteristics of your drinking water. Health Canada has established science-based guidelines for drinking water known as the Guidelines for Canadian Drinking Water Quality (GCDWQ). These guidelines set the maximum acceptable concentrations (MAC) of chemical, microbiological and radiological contaminants found in water based on potential health effects. They also address aesthetic water quality issues such as colour, taste and odour by setting aesthetic objectives (AO).

EPCOR does additional testing monitoring of the physical and chemical characteristics of your drinking water based on the GCDWQ. In 2009, the arsenic concentration in White Rock's water occasionally exceeded the MAC; and the manganese concentration exceeded the AO in some areas of the system.

Some customers continue to report sulphurous odours in parts of the distribution system. These unpleasant odours are an aesthetic water quality problem and are the result of low dissolved oxygen levels, which encourage the formation of sulphides by some bacteria present in untreated water. These odours can be reduced by increasing the amount of dissolved oxygen throughout the water system or by disinfecting the water in the system.

DID YOU KNOW...

For drinking water, "aesthetics" such as taste, odour and appearance are characteristics that impact a customer's willingness to drink or use the water. Aesthetics don't necessarily have health impacts.



AUGUST 2010 BOIL WATER NOTICE

Fraser Health requires EPCOR monitor regularly for the presence of bacteria in the drinking water. In 2010, White Rock's water met all the BC water quality regulatory requirements until August 19, 2010, when *E. coli* was detected in a water sample collected during routine monthly sampling. The *E. coli* was confirmed and a Boil Water Notice (BWN) was issued by Fraser Health to the residents of White Rock and customers in South Surrey served by EPCOR White Rock. Within a few days, the source of the *E. coli* was isolated to two reservoirs at the Merklin street site.

After flushing and cleaning of the reservoirs, as well as extensive flushing and sampling throughout the system, the BWN was lifted after 12 days. The water quality returned to normal, and met Fraser health requirements for the remainder of the year. A full report on the event was provided to Fraser Health and is available publicly at www.epcor.ca/white-rock (White Rock Boil Water Notice Report, March 4, 2011).

Following the BWN event, planned repairs on all three reservoirs in the system (Merklin High Tower, Merklin Low, Roper Road) were accelerated and completed. As a precautionary measure, EPCOR instituted chlorination at the Merklin Street reservoir station that primarily affects customers in the North-East part of the city. A few customers in this area have reported a slight chlorinous odour in the water.

Water produced from the White Rock system wells is considered high quality ground water. EPCOR takes measures to prevent microbial contamination, but there is always a small risk of microbial contamination in any type of water system.

Immuno-compromised persons may be more vulnerable to microbial contamination than the general population. This includes people with HIV/AIDS or other immune system disorders or people who have undergone chemotherapy, organ transplants or who have received other treatments that suppress the immune system. We advise that these individuals seek advice about drinking the White Rock water from their physician or other health care provider.



Physical and Chemical Water Quality Data for White Rock Source and Distribution System Water for 2010

HOWTO MEASURE:

- Most substances listed are reported in milligrams per litre (mg/L). One milligram per litre is commonly referred to as one part per million
- One part per million is equivalent to one drop in 1/2 bathtub full of water or one second in 12.5 days
- Some substances are measured in parts per billion. One part per billion is also referred to as one microgram per litre (µg/L)
- One part per billion is equivalent to one drop in 520 bathtubs full of water or one second in 32 years

ABBREVIATIONS	
<	Less Than Detection Limit
ACU	Apparent Colour Unit
AO	Aesthetic Objective
CFU	Colony Forming Unit
GM	Geometric Mean
MPN/mL	Most Probable Number Per mL
N	Nitrogen
NA	Not Applicable; No Limits Set
NTU	Nephelometric Turbidity Unit
µS/cm	Microsiemens/cm
TCU	True Colour Unit
MAC	Health-based Maximum Acceptable Concentration
AO	Aesthetic Objective

SUBSTANCE	UNIT OF MEASURE	MIN BACTERIA	MAX	2010 AVERAGE	GUIDELINE†
BACTERIA					
<i>E. Coli</i>	MPN/100ml	<1	2.0*	<1	0
Heterotrophic Plate Count	MPN/100ml	<2*	738*	3*	NA
Total Coliforms	MPN/100ml	<1	20	<1*	0, <10%>0
CHEMICALS					
Ammonia	mg/L	<0.01	0.13	0.04	NA
Fluoride	mg/L	0.1	0.2	0.1	1.5
Nitrate (as N)	mg/L	<0.01	1.20	0.34	10
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	NA
MINERALS					
Alkalinity (total, as CaCO ₃)	mg/L	88	148	108	NA
Calcium	mg/L	18	23	21	NA
Chloride	mg/L	13	142	42	250 (AO)
Hardness (total, as CaCO ₃)	mg/L	77	102	91	NA
Sodium	mg/L	11.8	68.9	26.0	200 (AO)
Sulphate	mg/L	10.2	23.8	15.5	500 (AO)
Total Dissolved Solids	mg/L	150	334	195	500 (AO)
OTHER					
Colour	ACU	<5	7	<5	15 TCU (AO)
Conductivity	µS/cm	241	747	387	NA
pH	mg/L	7.7	8.3	8.1	6.5-8.5 (AO)
Turbidity	NTU	<0.1	1.2	0.1	0.3/1.0/0.1
TRACE METALS					
Aluminum	mg/L	<0.005	<0.005	<0.005	0.1
Antimony	mg/L	<0.0002	<0.0002	<0.0002	0.006
Arsenic	mg/L	0.003	0.012	0.007	0.01
Barium	mg/L	0.013	0.022	0.015	1
Boron	mg/L	0.012	0.085	0.034	5
Cadmium	mg/L	<0.00007	<0.00007	<0.00007	0.005
Calcium	mg/L	18.0	22.8	21.0	NA
Chromium	mg/L	<0.0005	0.0011	0.0004	0.05
Copper	mg/L	<0.001	0.247	0.019	1 (AO)
Iron	mg/L	<0.005	0.223	0.010	0.3 (AO)
Lead	mg/L	<0.0001	0.0034	0.0003	0.01
Magnesium	mg/L	7.70	11.10	9.30	NA
Manganese	mg/L	<0.001	0.344	0.048	0.05 (AO)
Mercury	mg/L	<0.00001	<0.00001	<0.00001	0.00 1
Phosphorus	mg/L	0.10	0.22	0.15	NA
Potassium	mg/L	2.8	4.8	3.4	NA
Selenium	mg/L	<0.0006	0.0068	0.0021	0.01
Silicon	mg/L	8.2	9.8	9.5	NA
Uranium	mg/L	<0.0005	<0.0005	<0.0005	0.02
Vanadium	mg/L	0.002	0.005	0.003	NA
Zinc	mg/L	<0.001	0.208	0.010	5 (AO)

* Data obtained during Boil Water Notice Event

† GCDWQ (Health Canada Guidelines for Canadian Drinking Water Quality)

ARSENIC

In 2007, Health Canada reduced the MAC levels for arsenic from 0.025 mg/L to 0.010 mg/L. Although the MAC for arsenic is set at 0.010 mg/L, there may be health risks associated lower levels. Approximately 24% of the samples taken from White Rock's distribution system in 2007 showed arsenic concentrations that exceeded the MAC with the maximum concentration of 0.012 mg/L and an average of 0.008 mg/L. In 2010, (0.3%) of 311 samples taken from White Rock's water system showed arsenic concentrations that exceeded this new guideline limit, with the maximum concentration of 0.012 mg/L and an average of 0.007 mg/L.

MANGANESE

The GCDWQ aesthetic objective (AO) for manganese is 0.05 mg/L. At levels above 0.15 mg/L, it can cause staining of plumbing, laundry and objectionable taste. New studies, however, are suggesting some levels of manganese may also be associated with health effects. In 2010, the average concentration of manganese in White Rock's water was less than the AO at 0.048 mg/L. However, in some locations, the manganese concentrations reached up to 0.344 mg/L, which exceeds the AO.



TESTING FOR ORGANIC COMPOUNDS

EPCOR tests drinking water periodically for organic compounds indicated in the Guidelines for Canadian Drinking Water Quality (GCDWQ) and some not included in the guidelines. Organic compounds are a diverse group of compounds — many are naturally occurring but some originate from human sources. The presence of certain organic compounds in drinking water is an indication of contamination of the water from human activities. In 2008, EPCOR tested for 279 organic compounds and did not detect any in White Rock's drinking water.

Having established this baseline information in 2008, EPCOR will conduct another set of detailed organic compound tests in 2012.

TOTAL WATER QUALITY MANAGEMENT PLAN

EPCOR's formal report to Fraser Health on the BWN summarizes the circumstances surrounding the announcement and cancellation of the BWN, and measures taken to upgrade the water distribution and storage system. The report concludes with a series of recommendations to maintain and enhance public health for EPCOR White Rock's customers through the provision of safe tap water.

The report's most significant recommendations are:

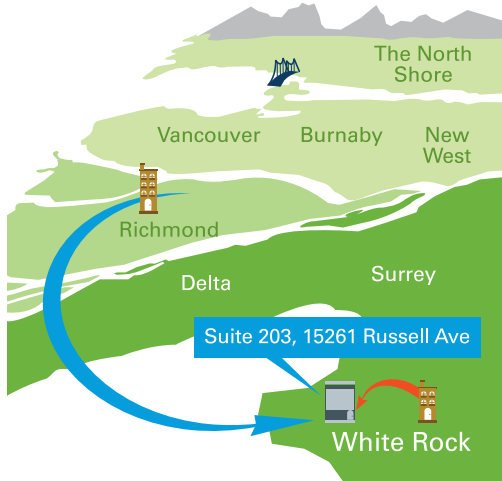
1. The expansion and roll out of a comprehensive cross connection control program; and
2. The disinfection of the water supply at source and maintenance of disinfectant residual throughout the reservoirs and distribution system.

Although the reservoir upgrades and the cross connection control program will provide a measure of assurance against future contamination, there is limited protection in the system if contamination were to occur. Although arsenic is at levels below current health-based guidelines, it is still at levels that are a potential health concern. Manganese causes ongoing aesthetic problems for customers and may also be a health concern at higher levels. EPCOR, therefore, has developed a comprehensive total water quality management plan to address all of these water quality issues. The plan involves treatment of the water at the source to reduce both arsenic and manganese, and disinfection with chlorine to provide protection against biological contamination throughout the system and up to the customer's tap.

EPCOR understands that disinfection with chlorine will disappoint some customers, and that some customers will be more sensitive to any chlorinous odour. We strongly believe, however, that treatment and chlorination is necessary to provide the right level of public health protection.



CUSTOMER CARE AND COMMUNITY



EPCOR White Rock staff provides 24 hour emergency services to our customers and are available to answer questions or concerns. We are committed to resolving or solving customer calls in a timely and professional manner.

A variety of information relating to water services, water efficiency, and watershed protection are found on the EPCOR website at www.epcor.ca/white_rock. EPCOR also hosts an interactive online school education program.

EPCOR's White Rock office moved to a new location at 15261 Russell Avenue at the end of 2010. In addition, office staff increased when our EPCOR Business Development Team from Richmond joined the White Rock staff at our new location.

HIGHLIGHTS

EPCOR is proud to actively support the community; our employees strive to build sustainable partnerships that enhance community life and promote wellness in the communities we serve. During 2010, EPCOR White Rock was proud to support:

- Quarterly meetings with the volunteer Community Advisory Panel (CAP), which includes representation from customers, community and stakeholder groups
- A bi-annual customer newsletter (mailed out with bills and posted on our website), providing updates on water efficiency, quality and water operations
- Regular communication with the City of White Rock to coordinate and align engineering/construction activities, maintenance and development services work
- Public Information Session to review the recommendations of the Boil Water Notice Report
- Community events such as:
 - Chamber of Commerce Business Excellence Awards
 - Peace Arch Hospital and Community Health Foundation's 'Partners in Caring' gala
 - Semiahmoo House Society's 'A Taste of BC's Finest' event
 - Birds on the Bay
 - Comedy Cares International Street Performers visits to local Seniors' Centres
 - The United Way, with employee donations directed to local organizations of their choice
 - The South Surrey/White Rock Food Bank with employee donations



Community Advisory Panel



BC Olympic Torch Relay event with EPCOR's President & CEO Don Lowry

CUSTOMER SERVICE INDEX						
ACTIVITY		2010	2009	2008	2007	2006
Customer calls received, responded to and resolved	Meter Issues	142	35	82	111	
	Aesthetic Issues: - Odour/manganese	45	100	33	56	
	Backflow tests	283	51	157	41	
	Operational:		68	26		244*
	- Water main break	10			11	
	- Line leaks/breaks	14			12	
	- Water Pressure	9			0	
	- Boil Water Notice calls	251				
	Total:	754	254	298	231	244
Customer satisfaction index	Water Service Supplier	95%**	N/A	N/A	N/A	94%†
	Quality of tap water	95%**				96%†
Community Events Supported		7	8	10	8	5

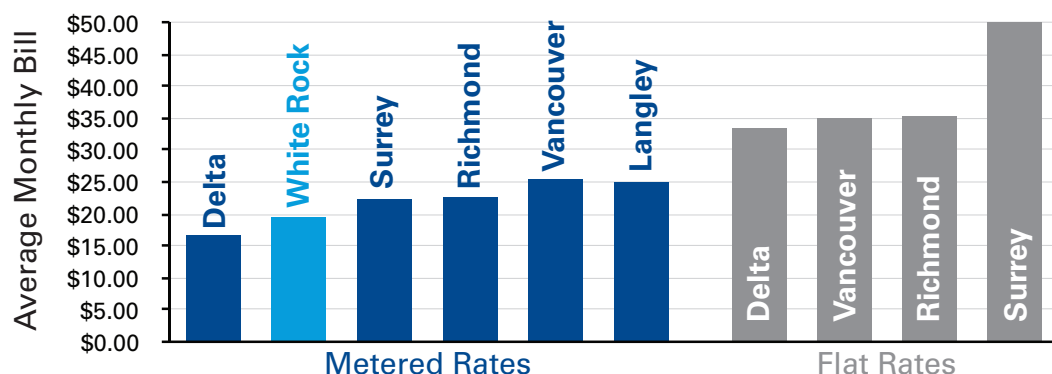
* Combined (In 2007 the customer calls database was expanded to track several categories; calls were not categorized prior to 2007)

† Benchmark Survey (Survey is conducted every 3 – 4 years)

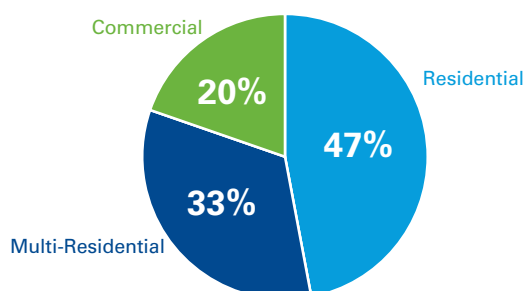
** 2010 customer survey conducted in spring 2010

Comparative 2010 Residential Monthly Water Rates for the BC Lower Mainland

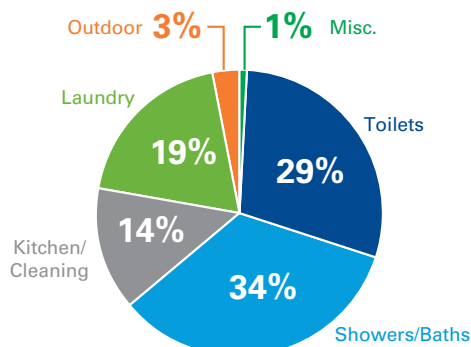
Based on average consumption of 825ft³ (or 23m³) per month



2010 EPCOR White Rock Water Consumption By Customer Group



Typical Canadian Household Water Consumption



DID YOU KNOW...

- A leaking toilet can double or triple your regular household consumption
- Be a leak seeker and regularly check toilets, pipes, faucets and other water fittings for leaks and repair them immediately
- Control the water flow by replacing toilets, faucets and showerheads with low use models
- Your local hardware store can assist you by recommending the best method of replacement or repair



DID YOU KNOW...

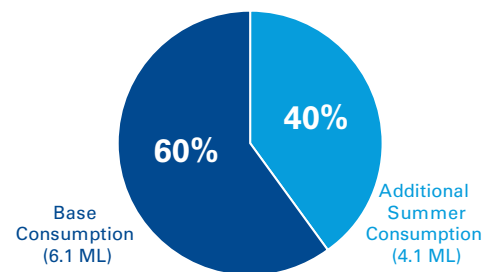
Maximum Day Demand (MDD) is composed of **base consumption** (typical daily consumption without irrigation) and **additional seasonal water consumption** (primarily summer irrigation).

MAXIMUM DAY DEMAND (MDD)

To provide sufficient water service to its White Rock customers, EPCOR tracks annual water consumption patterns. A 'Peak' (maximum) water consumption day occurs when the highest demand is recorded for the year. By knowing the 'Maximum Day Demand (MDD)', water system resources are designed accordingly for all customer needs, including fire-fighting and high-use periods.

On a peak day in July 2010, White Rock consumed 10 ML (million litres) of water. Demand on the Peak Day is separated into a base consumption of about 6.1 ML and additional summer consumption of about 4.1 ML. By comparison, the 2009 MDD total was 14 ML, due to higher seasonal irrigation demands.

2010 Peak Day Water Consumption



SEVERAL WAYS TO WATER WISELY OUTDOORS:

- Water your lawn only when it needs it, and use timers to avoid over-watering. A healthy lawn needs no more than one hour or watering each week; less, if it rains
- Don't water driveways or sidewalks. Position your sprinkler so that water lands on the lawn, not on paved areas
- Water in the early part of the morning and avoid watering on windy days



HOW YOU CAN USE LESS WATER AROUND THE HOME:

- Use your automatic dishwasher and washing machine only for full loads
- Give the dishes a quick rinse—don't leave the water running longer than necessary
- Check for leaks in household taps and toilets
- Keep a jug of drinking water in the refrigerator, rather than running the tap until the water cools off

SAFETY

EPCOR is committed to the ongoing safety of our employees, our contractors and the public with the promotion of safe work practices incorporated into day-to-day work activities. Our motto is “Safety First – No Excuses”. We practice this through regular inspections conducted in all work areas. Lost time incidents are reported monthly and a target of zero is set annually.

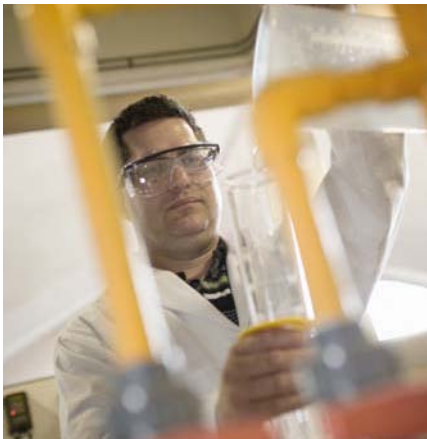
This year’s highlights include:

- Zero Lost Time incidents in 2010.
- Safety Performance Index (SPI) implemented to track safety and environmental activities at all facilities
- Preventive talks, site inspections and safe work plans incorporated into regular work activities
- Annual assessment by EPCOR Corporate Security and Safety to identify risks and recommend actions to encourage prevention of incidents
- Reviewed and updated EPCOR’s Emergency Response Plan (ERP)
- Continued work with City of White Rock to coordinate a local ERP



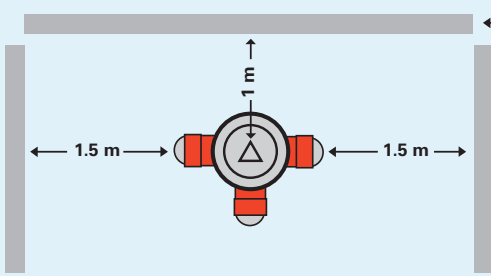
DID YOU KNOW...

EPCOR White Rock Water system operated with no lost time incidents in 2010.



KEEP FIRE HYDRANTS CLEAR

Please help us provide a clear path to fire hydrants. It is important that the White Rock Fire / Rescue Department can quickly see and access hydrants in case of an emergency. It makes your neighbourhood safer if hydrants are not blocked by grass, shrubs or other items.



OBSTRUCTIONS
WALLS
FENCES
SHRUBS OR
TREES

Required clearance to a fire hydrant

DID YOU KNOW...

EPCOR tests the operation of White Rock fire hydrants every year.



CAPITAL PROGRAM



Capital projects completed during 2010 included:

Water Main Upgrades

- Completed upgrade of the water main in Columbia Lane
- Installed one new hydrant

System Controls/SCADA Upgrades

- Enhanced warning levels in the event of incidents
- Completed Phase II for the installation of remote monitoring equipment to monitor the water supply

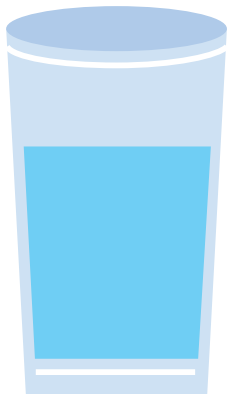
Security Upgrades

- Continued to develop and implement new security measures to protect White Rock's water supply



Ongoing Capital

- Continuation of meter replacement program; 100 meters were replaced in 2010
- 48 new water service connections installed
- Reservoir upgrades were completed for all three reservoirs: Merklin Low, Merklin High and Roper



ENVIRONMENT

EPCOR works closely with all regulatory and environmental agencies to provide safe water to the community and meet environmental compliance.

2010 Environmental highlights include:

- Environmental review of EPCOR White Rock system performed by internal and external auditors
- Implemented process changes at all facilities to reduce or prevent violations and environmental releases

WHAT'S AHEAD

QUALITY ASSURANCE

- Routine water quality monitoring of White Rock's water supply and regular system maintenance of laboratory equipment
- 24/7 remote system monitoring to ensure reliable water provision
- Implement process and program recommendations from Total Water Quality Management Plan

OPERATIONAL EXCELLENCE

- Encouragement of staff to attain highest levels of Environmental and Safety certification. This results in an increase of operational knowledge and, in turn, a safer and more productive work environment



CUSTOMER CARE AND COMMUNITY

- Monitoring, tracking and follow-up of all customer inquiries and concerns
- Customer communication to increase awareness of White Rock's water supply and the importance of using it wisely
- Continued community involvement and event sponsorship

SAFETY

- Commitment to EPCOR Safety Program, ensuring the safety of staff and the public at large. This includes further training in:
 - Workplace Hazardous Materials Information System
 - Transportation of Dangerous Goods
 - Construction Safety Training Software
 - Confined Space Rescue

CAPITAL PROGRAM

- Further security and SCADA/Controls updates
- Ongoing capital maintenance program for water infrastructure to ensure system reliability and efficiency
- Implement capital construction recommendations from the Total Water Quality Management Plan to meet current and future guidelines and regulations
- Construct a new ground water well to meet system reliability and water demand needs

ENVIRONMENT

- Support groundwater management program which focuses on public awareness and education
- Continue to work with our customers on water efficiency and awareness programs

PHOTO COURTESY OF PEACE ARCH NEWS ARCHIVES

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