



# WATERWISE @ YVR

A guide to buying water-efficient  
equipment at work

# About This Guide

This guide is a quick reference for businesses on Sea Island who are looking to reduce potable water consumption by replacing or retrofitting workplace equipment. YVR aims to increase water efficiency on Sea Island, as outlined in YVR's Environmental Management Plan. YVR is committed to supporting businesses in their water conservation efforts as achieving this goal requires everyone to do their part.

For common, water-consuming equipment in the workplace, this guide describes:

- 1) **What to look for** when buying new equipment. Water consumption specifications and preferred equipment types are outlined where possible.
- 2) Expected **water savings** from purchasing one new piece of equipment. Note that these are estimates; more information about the current water consumption of your equipment is required to understand potential water savings at your facility.
- 3) **Other options** to increase water-efficiency without purchasing new equipment. These include retrofit options and tips to optimize water use of current equipment. Note that proper maintenance and user operation tips are not included in this section, but require consideration to optimize equipment efficiency.

This guide is largely based on the information provided in the US Environmental Protection Agency (EPA) publication, *[WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities](#)*. Please consult this publication for more information.

## What is WaterSense?



For many pieces of equipment listed in this guide, YVR recommends purchasing equipment with the WaterSense label. These pieces of equipment have been verified by an independent third-party and meet EPA specifications for water-efficiency and performance. Similarly, EPA's ENERGY STAR label designates energy-efficient equipment, and in the case where the equipment uses water, ensures water-efficiency. This guide is intended for informational purposes only. If you have any questions, please contact YVR Environment at 604-276-6656 or at [environment@yvr.ca](mailto:environment@yvr.ca).

# Water-Efficient Equipment

Equipment type	What to look for	Water savings (m <sup>3</sup> /year)	Other options
<b>Sanitary fixtures and equipment</b>			
Faucets	<ul style="list-style-type: none"> <li>› WaterSense label</li> <li>› For private lavatory faucets: max. 1.5 GPM/5.7 LPM</li> <li>› For public lavatory faucets: max. 0.5 GPM/1.9 LPM</li> <li>› For kitchen faucets: max. 2.2 GPM/8.3 LPM</li> </ul>	167	<ul style="list-style-type: none"> <li>› Install faucet aerators or laminar flow devices</li> <li>› Install flow regulators</li> </ul>
Laundry machines	<ul style="list-style-type: none"> <li>› ENERGY STAR label</li> <li>› Max. 8 gallons per cycle per cubic foot capacity</li> <li>› Front-loading laundry machines</li> <li>› Programmable control settings</li> <li>› For large industrial laundry needs, use a tunnel washer</li> </ul>	46	<ul style="list-style-type: none"> <li>› Install a washer extractor</li> <li>› Install an ozone system</li> </ul>
Showerheads	<ul style="list-style-type: none"> <li>› WaterSense label</li> <li>› Max. 2 GPM/7.6 LPM</li> </ul>	57	
Toilets	<ul style="list-style-type: none"> <li>› WaterSense label</li> <li>› Max. 1.28 GPF/4.8 LPF</li> <li>› Flushometer-valve toilets over gravity tank toilets</li> </ul>	50	<ul style="list-style-type: none"> <li>› Ensure the flush volume is set to the manufacturer's recommendation</li> <li>› Install a dual-flush conversion device</li> </ul>
Urinals	<ul style="list-style-type: none"> <li>› WaterSense label</li> <li>› Max. 0.5 GPF/1.9 LPF</li> <li>› Flushometer-valve urinals</li> </ul>	38	<ul style="list-style-type: none"> <li>› Install a timer on a siphon jet urinal</li> </ul>
<b>Kitchen equipment</b>			
Dipper wells	<ul style="list-style-type: none"> <li>› 0.5 GPM/1.9LPM</li> </ul>		<ul style="list-style-type: none"> <li>› Consider using a dishwasher instead</li> <li>› Install an in-line flow restrictor</li> <li>› Keep flow rate at minimum level</li> </ul>
Dishwashers	<ul style="list-style-type: none"> <li>› ENERGY STAR label</li> <li>› For flight-type dishwashers, choose equipment that uses max. 0.01 gallons per dish</li> <li>› Models that reuse rinse water</li> </ul>		<ul style="list-style-type: none"> <li>› For conveyor-type dishwashers, install rack sensors</li> </ul>
Ice makers	<ul style="list-style-type: none"> <li>› ENERGY STAR label</li> <li>› Air-cooled ice makers over water-cooled ice makers</li> </ul>		<ul style="list-style-type: none"> <li>› For water-cooled ice makers, eliminate single-pass cooling</li> <li>› Utilize built-in timing and scheduling functions</li> </ul>
Ovens	<ul style="list-style-type: none"> <li>› ENERGY STAR label</li> <li>› Max. 15 GPH/56.7 LPH</li> <li>› Convection ovens over combination ovens</li> <li>› Connectionless combination ovens over boiler-based combination ovens</li> </ul>	249	<ul style="list-style-type: none"> <li>› Maximize use of the circulated hot air mode</li> </ul>

Equipment type	What to look for	Water savings (m <sup>3</sup> /year)	Other options
<b>Kitchen equipment</b>			
Pre-rinse spray valves	<ul style="list-style-type: none"> <li>› WaterSense label</li> <li>› Max 1.28 GPM/4.8 LPM</li> </ul>	28	
Steam cookers	<ul style="list-style-type: none"> <li>› ENERGY STAR label</li> <li>› Connectionless cooker over boiler-based cooker</li> </ul>	613	<ul style="list-style-type: none"> <li>› Utilize standby mode function</li> <li>› Reduce the compartment temperature in standby mode</li> <li>› Add insulation</li> </ul>
Steam kettles	<ul style="list-style-type: none"> <li>› Self-contained steam kettles over boiler-based steam kettles</li> </ul>		<ul style="list-style-type: none"> <li>› Install a condensate return system on boiler-based steam kettles</li> </ul>
Wash-down sprayers	<ul style="list-style-type: none"> <li>› 7 GPM/26.5LPM</li> </ul>		<ul style="list-style-type: none"> <li>› Install a self-closing nozzle</li> </ul>
Wok stoves	<ul style="list-style-type: none"> <li>› Waterless wok stoves</li> <li>› Models with recirculated chilled water systems</li> </ul>		<ul style="list-style-type: none"> <li>› Replace rinse spouts with ones that automatically shut off</li> </ul>
<b>Outdoor equipment</b>			
Irrigation	<ul style="list-style-type: none"> <li>› Drip irrigation system</li> </ul>		<ul style="list-style-type: none"> <li>› Install a weather-based irrigation controller</li> <li>› Install water-efficient sprinkler heads</li> <li>› Install a timer</li> <li>› Select native, drought tolerant plant species</li> </ul>
Vehicle washing	<ul style="list-style-type: none"> <li>› For conveyor and in-bay washes: friction wash cycles over frictionless wash cycles</li> <li>› For conveyor and in-bay washes: max. 40 gallons per vehicle/151 liters per vehicle</li> <li>› For self-service nozzles: max. 3 GPM/11.4 LPM</li> </ul>		<ul style="list-style-type: none"> <li>› Install reclamation systems for conveyor and in-bay washes</li> </ul>
<b>Cooling systems</b>			
Boiler and Steam Systems			<ul style="list-style-type: none"> <li>› For steam systems: install a condensate recovery system and/or employ an expansion tank</li> </ul>
Chilled water systems	<ul style="list-style-type: none"> <li>› For small systems, air-cooled equipment</li> </ul>		<ul style="list-style-type: none"> <li>› Insulate pipes on the chilled water loop</li> </ul>
Single-pass cooling	<ul style="list-style-type: none"> <li>› For small systems, air-cooled equipment</li> </ul>		<ul style="list-style-type: none"> <li>› Install a closed-loop recirculation system</li> <li>› Use minimum flow rate</li> <li>› Install solenoid valves that shut off water when equipment is turned off</li> </ul>

# Water Use Rate Units

Unit acronym	Unit
GPM	Gallons per minute
LPM	Liters per minute
GPF	Gallons per flush
LPF	Liters per flush
GPH	Gallons per hour
LPH	Liters per hour

## Additional Resources

- › [WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities](#)
- › [WaterSense products](#)
- › [ENERGY STAR products](#)
- › [YVR Permits](#)