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# **Green Workplace Consulting**

## **Office Paper Assessment**

*SAMPLE REPORT*



**NOTE: This report has been designed to provide a general idea of the detailed information that our assessments provide. Some sections have been omitted.**

### 3. Paper Consumption & Environmental Impacts

#### 3.1 Paper Consumption and 100% Post-Consumer Waste (PCW) Upgrade Analysis

**SUMMARY:**

Annual Paper Consumption (all departments):

2,045,000

409 cartons (cases)

Table 3.1.1: 8.5”x11” Paper Consumption

ALL DEPARTMENTS: Plain & Coloured Office Paper (GRAND TOTAL)	PCW Content	Annual costs	Annual units	Trees	Solid waste	Energy	GHGs	Effluent	Cancer- Causing Chemicals
	%	\$	Sheets	40"x8"	kg	kWh	tonnes	liters	g
CURRENT PRODUCT Plain and Coloured Office Paper	30% & 100%	\$19,200	2,045,000	96	7,407	84,994	20.7	553,404	2,401
SUGGESTED SUBSTITUTE PRODUCT Use 100% PCW where possible	30% & 100%	\$20,330	2,045,000	48	6,378	74,967	18.6	475,699	1,195
<i>Annual Savings</i>		-\$1,129	-	<b>ENVIRONMENTAL SAVINGS</b>					
				48	1,030	10,027	2.0	77,705	1,206

**Potential Environmental Savings by upgrading PCW content of Office Paper**

- Trees: 48 trees
- Solid Waste: 1030 kg
- Energy: 10027 kWh
- Greenhouse Gases: 2.0 tonnes
- Effluent: 77705 litres
- Carcinogens: 1.2 kg



### 3.3 Paper Towel and Hand Dryer Upgrade Comparison

**Current products:**

BW-314 EcoSoft Roll Paper Towel, 100% recycled 40% minimum PCW up to 73% PCW  
8” roll x 800 feet, 6 rolls per case

Case 6 rolls \$48.13 CAD

BW-473 EcoSoft Single Fold Paper Towel, 100% recycled 40% minimum PCW up to 73% PCW. 9” x 10”, 268 towels per package,

15 packages per case \$32.46 CAD per case

The paper towels in use contain at least 40% PCW content - this is commendable and significantly decreases your businesses environmental impact. We suggest the use of high efficiency hand dryers in place of paper towels. For example, Frogfile Office Essentials sells brown single-fold towels with 100% PCW content ([www.frogfile.ca](http://www.frogfile.ca))

**Table 3.3.1: Environmental Impact of Paper Towel consumption**

						ENVIRONMENTAL IMPACT	
PAPER TOWEL Consumption at Head Office		Recycled Content (PCW)	Cost per Square Foot	Annual units	Annual costs	Trees	Greenhouse Gases
CURRENT PRODUCT	USE	%	¢ / ft <sup>2</sup>	units	\$	40'x8"	kg
EcoSoft Roll Paper Towel 314	Washroom	40%	¢ 1.5	480	\$3,850	11	927
EcoSoft Single Fold Towel 473	Varies	40%	¢ 1.3	450	\$974	3	273
<b>TOTALS</b>					<b>\$4,824</b>	<b>15</b>	<b>1,200</b>

**Summary of Environmental Impact**

- Trees: 15 trees
- Greenhouse Gases: 1.2 tonnes

**Summary:**

Green Workplace recommends that the client replace washroom paper towels with high efficiency hand dryers. This would save \$3816 per year in purchasing costs for paper towels and cost only \$34/year in electricity (not including installation costs), with a payback time of 1.7 years. The use of hand dryers could also significantly reduce the amount of garbage generated by the client.

We recommend installing Dyson’s Airblade hand dryers, which are the industry leader for environmentally friendly hand drying. The Airblade uses 80% less energy than conventional hand dryers. It is GreenSpec approved and helps qualify for LEED credits



## 4. Key Reduction Strategies

### 4.2 Successes and Areas for Improvement

Head Office

Paper products Successes:

- All office paper and bathroom tissue products contain at least some PCW content
- The Purchasing department is using exclusively 100% PCW office paper
- The PCW content of paper towel is above average
- The Printing Department has undertaken a review of all paper products and print materials contracted off-site.
- Mixed paper products constitute 10% or less of the waste (garbage)

Areas for improvement:

- Upgrade Production department regular office paper to 100% PCW
- Avoid the use of coloured paper where it could be substituted by white paper that contains 100% PCW
- Increase PCW content of bathroom paper products and/or change to high efficiency hand dryers
- Phase out or retire existing single-sided printers, and change policy to require the purchase of duplex-capable printers only.



## Appendix

Table A.1 Laser Printers

MODEL	PURPOSE	DUPLEX	E-STAR	POWER CONSUMPTION (W)				STATUS
				ON	STANDBY	SLEEP	OFF	
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
BIZHUB 7145	MULTI-FUNCTION	YES	YES	1800	n/a	n/a	n/a	
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
HP9040DN	PRINT	YES	NO	1120	305	59	1	
KONICA MINOLTA BIZHUB 600	MULTI-FUNCTION	YES	YES	1920	n/a	n/a	n/a	
XEROX PHASER 6360	PRINT	YES	YES	750	n/a	22	n/a	
LJ4050TN	PRINT	NO	NO	330	22	20	0	
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
XEROX PHASER 7750	PRINT	YES	YES	235	n/a	n/a	n/a	DISCONTINUED
HP9040DN	PRINT	YES	NO	1120	305	59	1	
KONICA MINOLTA BIZHUB 350	MULTI-FUNCTION	YES	YES	1380	n/a	n/a	n/a	DISCONTINUED
LJ4250DTN	PRINT	YES	YES	680	21	13	0	
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
LJ4050TN	PRINT	NO	NO	330	22	20	0	
LJ4050TN	PRINT	NO	NO	330	22	20	0	
KONICA 7045	PRINT	YES	YES	1300	n/a	n/a	n/a	
KONICA MINOLTA BIZHUB 600	MULTI-FUNCTION	YES	YES	1920	n/a	n/a	n/a	
HP8150DN	PRINT	YES	NO	645	145	35	0	DISCONTINUED
HP3210	PRINT	NO	NO	n/a	n/a	n/a	n/a	
HPDJ5150	PRINT	NO	NO	n/a	n/a	n/a	n/a	
KONICA MINOLTA BIZHUB PRO 105	PRODUCTION	YES	YES	3660	n/a	n/a	n/a	
KONICA MINOLTA BIZHUB PRO 105	PRODUCTION	YES	YES	3660	n/a	n/a	n/a	
HP8100DN	PRINT	YES	NO	700	145	30	20	
KONICA MINOLTA BIZHUB 600	MULTI-FUNCTION	YES	YES	1920	n/a	n/a	n/a	
MFC BROTHER 7820N	MULTI-FUNCTION	NO	YES	1032	75	10	0	
HP9040DN	PRINT	YES	NO	645	n/a	n/a	n/a	
HP 2300	PRINT	NO	YES	426	8	8	0	DISCONTINUED
HP4240N	PRINT	NO	YES	n/a	n/a	n/a	n/a	DISCONTINUED
HPLJP2015DN	PRINT	YES	YES	350	7	n/a	n/a	
		YES	22	15				
		NO	8	15				
		<b>TOTAL</b>	<b>30</b>	<b>30</b>				
		% YES	73%	50%				

Note: Power consumption data based on Internet research and was not readily available for all listed hardware.

73% of laser printers in Head Office are duplex capable. 50% of all laser printers are Energy Star certified.

According to the BC Hydro website:

*How much more efficient are ENERGY STAR-labelled machines?*

This depends on the type of equipment – computer, copier, fax, monitor. In general, ENERGY STAR office machines help save energy in two ways: they use less energy to perform regular tasks, and when not in use, they automatically enter a low-power mode. The savings can be significant – in the range of 40-65 % less energy used than conventional equivalents.