

# Office Paper Reduction at MN House of Representatives

Assessment Findings and Next Steps

February 22, 2008

MPCA

# Why Paper?

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- Large proportion of waste stream
- MPCA target for source reduction
- MCCAG target for GHG reduction
- Water and energy intensive, high toxicity
- Save money (estimated 1-3% of budget)
- Increase efficiency

# Proactive Steps

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- Reducing default margins.
- Reducing copies in Chief Clerk's Office.
- Reclaiming unused stationery for use.
- More electronic duplicating requests.
- Use of 30% recycled content paper.
- Good recycling capture (70% recycling rate).

# MPCA Site Visit Observations

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- Individual printers are 1:1 ratio per FTE.
- Individual printers do not duplex.
- About 700 of 3,000 jobs are duplexed at observed bizhubs.
- “Second chance” paper not reused.
- Some duplex reminders at printers.
- House Floor presents recycling challenges.

# Audit Findings

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- **61.14 tons** of letter and legal white paper purchased in 15-month session.
- Paper use varies with type of session (all papers):
  - = 1.4 million sheets/month (budget)
  - = 1.18 million sheets/month (non-budget)
  - = 296,285 sheets/month (interim)
- Totals:
  - =12.6 million sheets/15-month session  
almost 29,000 per person.
  - =10.1 million sheets/12 month year  
or 23,180 sheets per person.

# Paper use would stack from floor to ceiling of rotunda...

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29 times!



# Paper Purchase vs. Use Costs

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Cost of Purchasing Paper: \$95,607

Cost of Using Paper: \$470,208\*

**Using paper is at least 5x the cost of purchasing paper.**

\*Qualified, conservative estimate.

**Use Costs Include:** postage, letterhead printing, copying, storage, and Session Weekly printing.

**Does not include:** Printer costs (energy use, purchase, toner cartridges for printers), staff time, paper disposal.

# More Paper Use Costs

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Desktop printers are more expensive to operate:

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|--------------------|-------------------|
| ■ Desktop printers | \$0.02 per print  |
| ■ Bizhubs          | \$0.006 per click |
| ■ High speed       | \$0.004 per click |



# Sample BizHub 1 Month Use

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100 jobs

94 completed

92 were copy jobs.

2 were print jobs.

Very little printing is occurring at bizhubs.

Bizhubs can duplex print and cost 70% less.

# Duplexing Rate

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- 15 month duplexing rate of about 30%
- 30% of images are duplexed.

\*Using sample of bizhub copiers

\*Using overall paper purchase & copier data

# Duplexing Challenges

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- Desktop printers don't duplex.
- Not all old bizhub copier/printers are set to duplex (but are duplex capable).
- New bizhubs are not set to default to duplex.
- New bizhubs require use of preprogram to duplex legal paper when copying.

# Paper Task Force's Selected Goals & Actions

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- 1) Reduce paper use by 20%
- 2) Capture non-confidential half-used paper for reuse.
- 3) Increase duplex rate to 60%.
- 4) Continue research on legal vs. letter sized paper for bills.
- 5) Move toward use of 100% recycled content paper.

# 1) Reduce paper use by 20%

	Baseline Paper 61.14 tons virgin		Target Paper I 61.14 tons 30%	Difference  (Baseline - Target)			Target Paper II 48.86 tons 100%	Difference  (Baseline - Target)	
Wood Use	212		148	64	<b>440</b>		0	212	<b>1,467</b>
	tons		tons	tons	<b>trees</b>		tons	tons	<b>trees</b>
Total Energy	2,346		2,039	306	<b>3</b>		1,058	1,287	<b>14</b>
	million BTU's		million BTU's	million BTU's	<b>homes/year</b>		million BTU's	million BTU's	<b>homes/year</b>
Purchased Energy	1,113		1,176	-63	<b>&lt;1</b>		1,058	55	<b>&lt;1</b>
	million BTU's		million BTU's	million BTU's	<b>homes/year</b>		million BTU's	million BTU's	<b>homes/year</b>
Sulfur dioxide (SO <sub>2</sub> )	1,595		1,585	10	<b>2</b>		1,249	346	<b>63</b>
	pounds		pounds	pounds	<b>18- wheelers/year</b>		pounds	pounds	<b>18- wheelers/year</b>
Greenhouse Gases	347,899		309,232	38,666	<b>4</b>		175,022	172,877	<b>16</b>
	lbs CO <sub>2</sub> equiv.		lbs CO <sub>2</sub> equiv.	lbs CO <sub>2</sub> equiv.	<b>cars/year</b>		lbs CO <sub>2</sub> equiv.	lbs CO <sub>2</sub> equiv.	<b>cars/year</b>
Nitrogen oxides (NO <sub>x</sub> )	1,126		1,053	73	<b>&lt;1</b>		704	422	<b>2</b>
	pounds		pounds	pounds	<b>18- wheelers/year</b>		pounds	pounds	<b>18- wheelers/year</b>

Calculations from environmental defense [www.papercalculator.com](http://www.papercalculator.com)

## 2) Capture non-confidential "second chance" paper for reuse

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- Set up capture boxes at bizhubs.
- Talk with Reference Library to determine appropriateness of their use of House paper.
- Work with House duplicating services staff to make second-chance paper into note pads or forms.
- Possibly designate 1 drawer of bizhubs as "draft drawer" and stock it with "second chance" paper.

### 3) Double duplex rate to 60%

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- Set all bizhubs to default to duplex, and teach staff how to use the pre-programmed option for duplexing legal sized documents.
- Instruct all staff to send print jobs to bizhubs and print duplex or to send print jobs to Duplication Center.
  - Over 3 pages, send to larger printer
- Use second chance paper in 3<sup>rd</sup> trays.

# Effects of doubled duplex rate

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- Estimated 15% paper reduction
- 184 tons of wood use
- 192 tons of co2 equivalent
- 1.2 million gallons of wastewater
- 73 tons solid waste



## 4) Complete study of legal vs. letter sized paper for bills

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- According to research by the Chief Sergeant at Arms, Minnesota is one of only 6 states using legal paper in the House of Representatives.
- Consider potential impact on duplicating equipment needs and ability to run 100% recycled paper.

## 5) Move toward use of 100% recycled content paper

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- Test 100% recycled content legal-sized paper in Duplication Center high speed copier.
- Establish system for using 100% recycled content paper at bizhubs and in desktop printers.
- Print all letterhead on 100% recycled content paper.

# Additional Possible Actions

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- Test options for increasing recycling capture on House floor.
- Establish purchasing guidelines for new equipment.
- Add recycling of:
  - “Techno-trash” (CDs, disks, cords, video, etc.)
  - Cell phones & PDAs
  - Rechargeable batteries\*
  - Tyvek envelopes

# Next Steps

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1. Make goals as specific as possible.
2. Confirm adoption of goals.
3. Delegate authority to identified staff within organization in charge of follow-through for actions.  
(All staff needed to implement.)
4. Plan needed series of steps for each action.
5. Educate to change behavior and culture.
6. Determine measures and track results.

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