

**NH Library Trustees Association
Annual Conference**

Green Libraries

Presented by

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NH Department of Environmental Services**

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What do we mean by a “Green Library?”

- **Reduce Waste – “Reduce, Reuse, Recycle”**
- **Conserve Water, Energy & Resources**
- **Purchase Environmentally Friendly Products**
- **Improve Worker & Patron Environment**
- **Educate Staff and Public**



Why should you care about greening your library?

Global reasons:

- **Limited Natural Resources**
- **Environmental Threats to Human Health**
- **Climate Change**
- **Lead by Example**



Why should you care about greening your library?

Local Reasons - Benefits

- **Environmental Benefits – Reduce impacts on the environment**
- **Economic Benefits – Reduce operating costs**
- **Health & Safety – For staff and patrons**
- **Opportunity to be Community Leader**
- **Patrons appreciate it**



Steps to Becoming a Green Library

1. Develop a Green Team.

- Include staff from a variety of departments.
- Include Building Manager & Maintenance Staff.
- Meet regularly.
- Communicate activities & successes to everyone.

2. Develop a Mission Statement and Goals.

3. Do some research and find out:

- What supplies do you purchase and how much do they cost?
- What wastes do you generate (solid and hazardous)?
- What are your electric costs?
- How much water do you use and how much does it cost?

Steps to Becoming a Green Library

4. Look at your standard practices.

- Where is paper used? Where does waste paper end up?
- How are other wastes (cups to pallets) generated?
- How are maintenance tasks performed?
- How are the grounds maintained?
- Where is the most water and energy used?

5. Establish and prioritize waste-reducing strategies.

- Brainstorm possible strategies.
- Balance cost versus “doability” versus expected results.
- Go for the low hanging fruit first.

6. Implement strategies and measure results.

Greening Your Library

Reduce Waste – “Reduce, Reuse, Recycle”

Recycle:

- Paper
- Cans
- Bottles
- Cardboard



Greening Your Library

Reduce Waste – “Reduce, Reuse, Recycle”



Recycle:

- Batteries (RBRC)
- Toner Cartridges
- Tyvek Envelopes
- “Techno Trash”
- Fluorescent Lamps
- Books



Greening Your Library

Reduce Waste – “Reduce, Reuse, Recycle”

Reuse:

- Mugs, dinnerware
- Folders, envelopes
- Cloth towels
- File folders, office supplies
- Start a “Reuse Room”

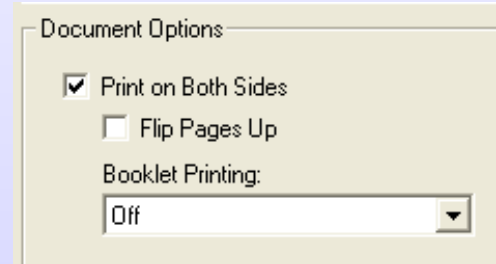


Greening Your Library

Reduce Waste – “Reduce, Reuse, Recycle”

Reduce:

- Double sided printing/copying
- E-mail; e-communications
- Non-hazardous cleaning supplies
- Minimal packaging for purchases



Greening Your Library

Conserve Water, Energy & Resources

Water:

- Low flow fixtures
- No flow fixtures
- Sensor and spring loaded fixtures
- Stop leaks
- Check your cooling tower (air conditioning)
- Rainwater reuse for landscaping



Greening Your Library

Conserve Water, Energy & Resources

Energy:

- **Energy Star appliances**
- **Window films – mylar**
- **Fans to even out temperatures**
- **Seal windows, doors, leaks**



Greening Your Library

Conserve Water, Energy & Resources

Energy:

- Incandescent to T-12's to T-8's to LEDs
- Task lighting
- Occupancy sensors
- Turn off and power down electronics
- Programmable thermostats
- Monitor electric + other energy usage



Greening Your Library

Purchase Environmentally Friendly Products

- Learn to read labels; know the warning signs
- Choose products with less harmful ingredients
- GreenSeal and Ecologo
- Look for recycled content
- Carpet and flooring – look for low VOC emissions from adhesives, carpet and cushion



Greening Your Library

Improve Worker & Patron Environment

Outdoors:

- **Anti-Idling Campaign**
- **Integrated Pest Management**
- **Encourage Public Transportation, carpooling, biking and walking.**
- **Xeriscaping to minimize irrigation, fertilizer and pesticide needs**



Indoors:

- **Integrated Pest Management (mold; insects; etc.)**
- **Safety Team/safety inspections**
- **Green cleaning practices**

Greening Your Library

Educate Staff and Public

Explain the benefits of your green strategies:

Not:

“We installed no-flush urinals.”

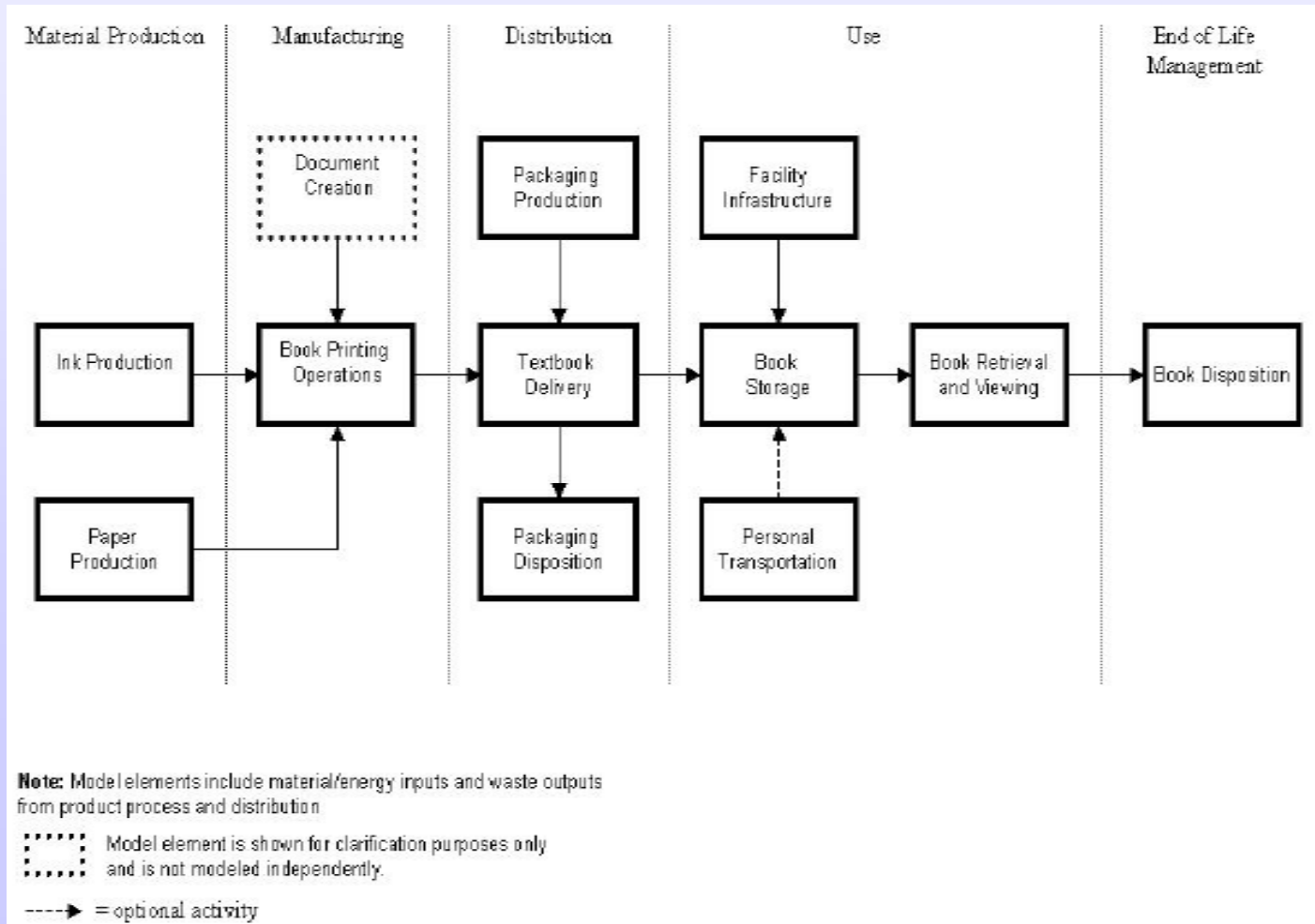
but rather:

“Standard urinals use 1.5 gallons of water per flush. By installing no flush urinals, we will save 40,000 gallons of water per year.”

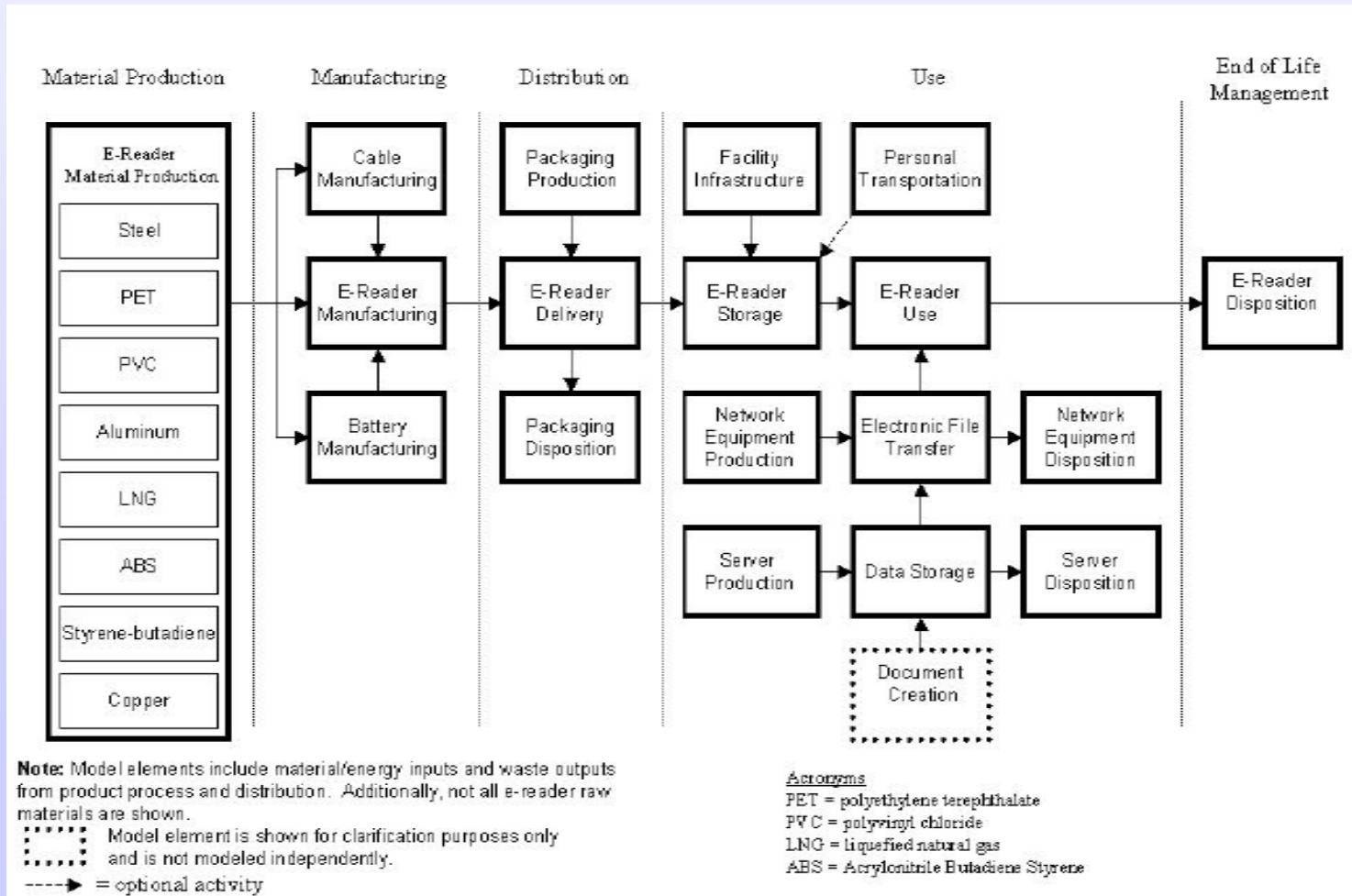
Final Thoughts:

Can Books be Green in a Digital World?

Lifecycle Analysis of a Printed Book

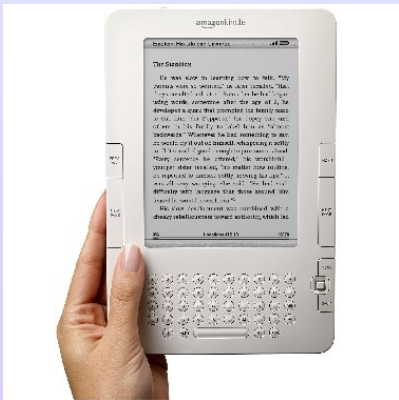


Lifecycle Analysis of an e-reader



Can Books be Green in a Digital World?

Resource extraction:



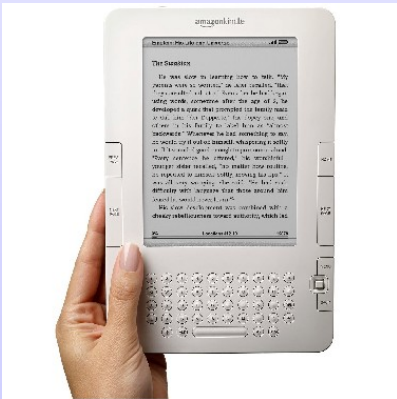
Requires 33.0 lbs. minerals; 79 gal. water



Requires 0.66 lb. minerals; 2 gal. water

Can Books be Green in a Digital World?

Manufacture:



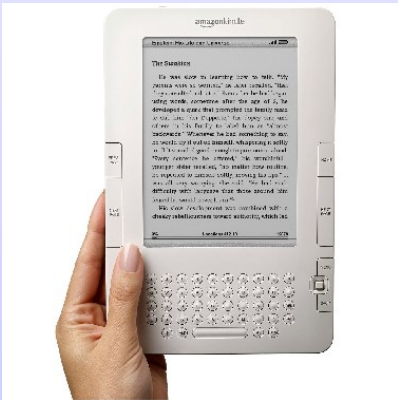
Requires 100 Kilowatt hours of fuel (and has 70 times the health impact of a book)



Requires 2 Kilowatt hours of fuel

Can Books be Green in a Digital World?

Transportation:



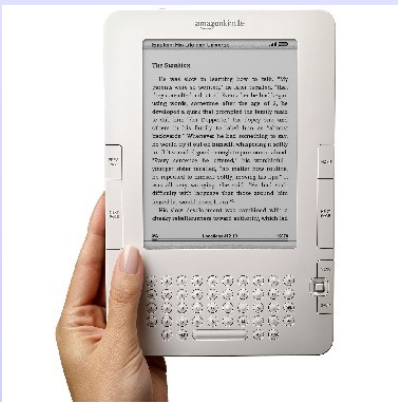
Requires nothing, if obtained by downloading.



Requires fuel and releases GHG emissions, when traveling to book store.

Can Books be Green in a Digital World?

Reading:



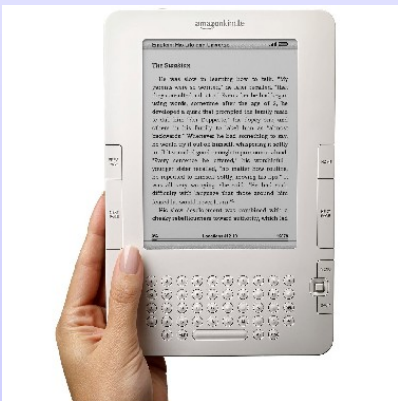
Rechargeable batteries require a few watts for recharging.



Requires 25 to 100 watts in lighting, unless read during the day.

Can Books be Green in a Digital World?

Disposal:



Potentially releases heavy metals, organics, toxins, if incinerated.



Potentially releases methane, if landfilled.

Can Books be Green in a Digital World?

Based on a lifecycle analysis, it takes 40 to 50 paper books to equal the overall impact of 1 e-reader.

But wait; that's for a new book purchased at a book store and read only once.

Every time a library lends a book, a new book didn't have to be manufactured, transported and disposed of.

Can Books be Green in a Digital World?

All in all, the most environmentally virtuous way to read a book...



...starts by walking to your local library.

For more information, contact the NH Pollution Prevention Program at:

- 1-800-271-9469
- www.des.nh.gov
- Email: nhppp@des.nh.gov