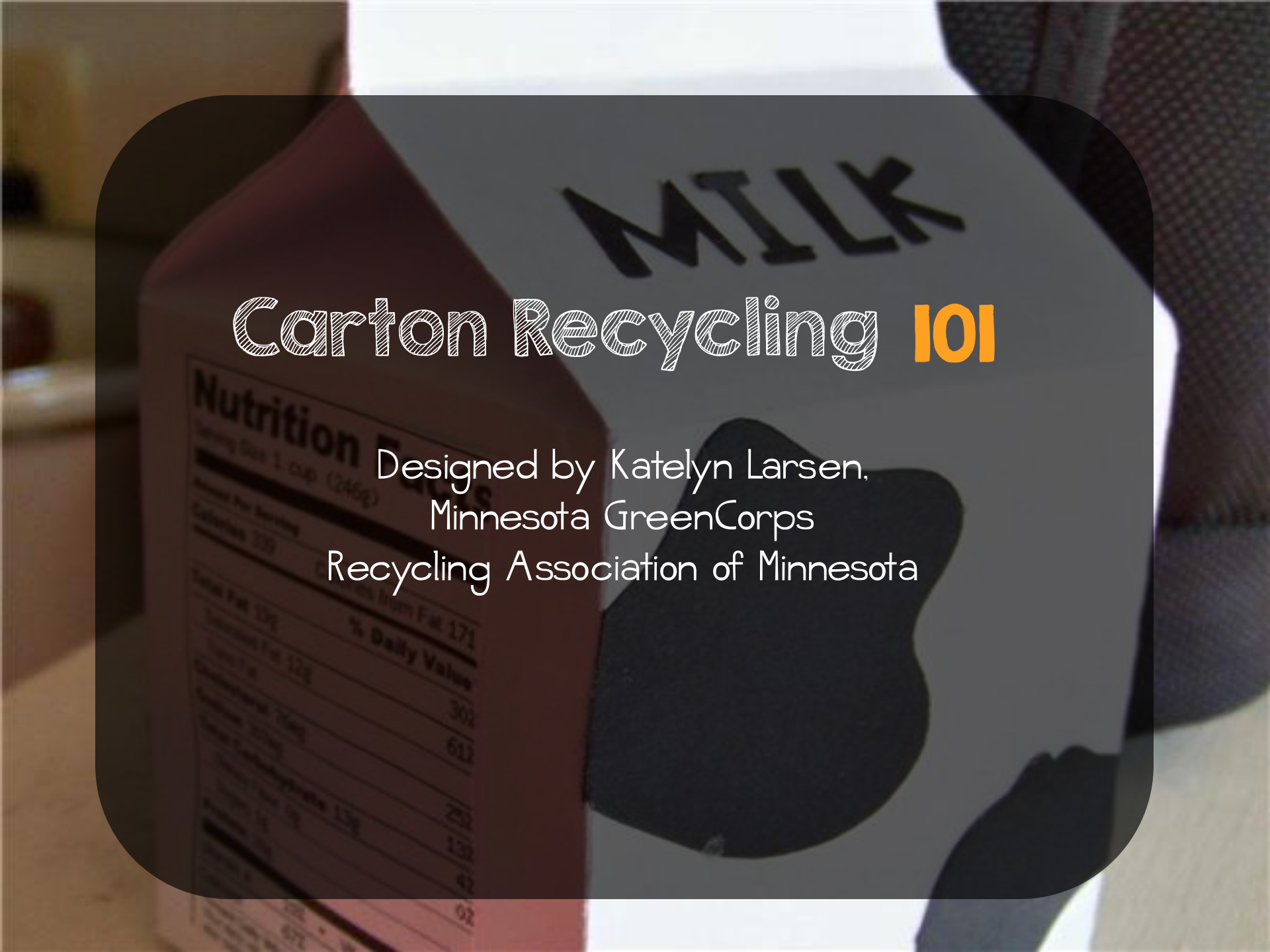


Carton Recycling 101

Designed by Katelyn Larsen,
Minnesota GreenCorps
Recycling Association of Minnesota

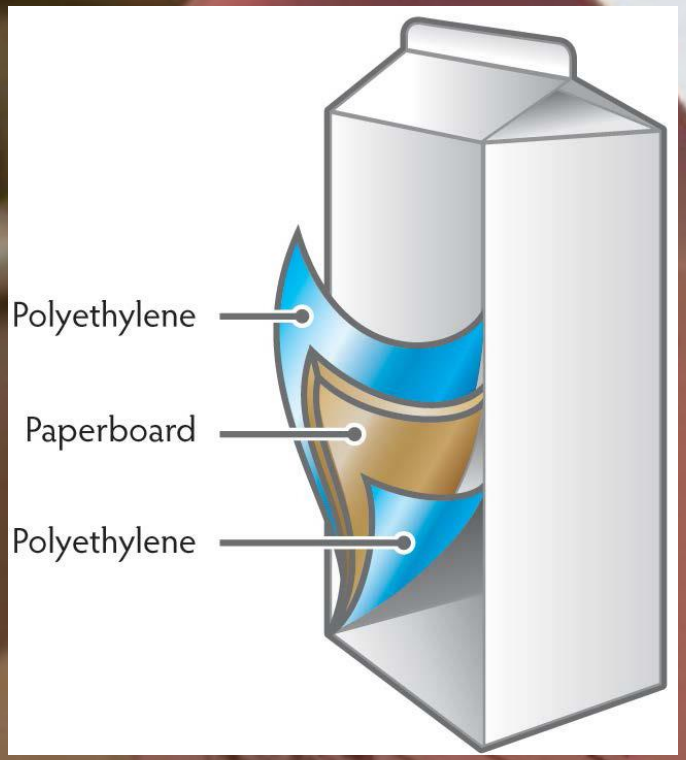
Overview

- Why recycle cartons?
- Material in cartons
- Benefits to schools
- Working out the logistics
- Best practices
- Success!

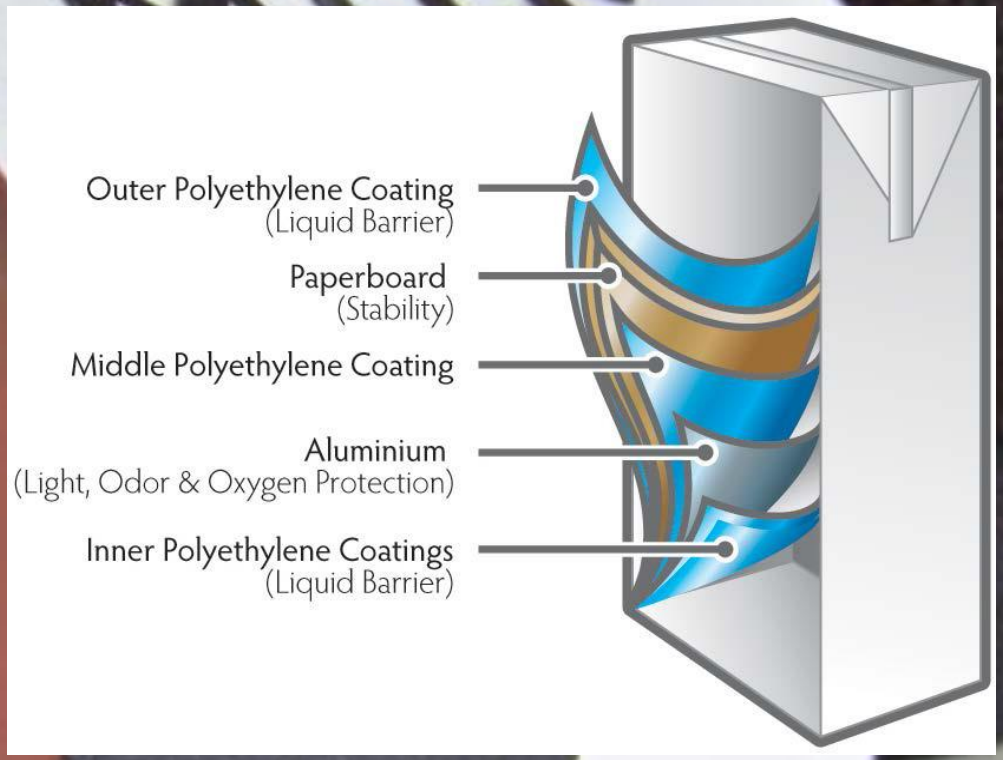
Why Recycle Cartons?

- Better for the environment compared to landfilling or incinerating
  - New London-Spicer middle/high school generates ~109,820 cartons per year → equivalent to 520 cartons per student over the course of high school
- Primarily made from paper
- Provides valuable fiber to end markets
  - Cartons are made from 100% virgin materials
  - Turn into: tissue, paper towels, wallboard, sheathing, ceiling tiles, and backerboard

Materials in cartons



Gable-top (refrigerated): 80% paper and 20% polyethylene



Aseptic (shelf-stable): 74% paper, 22% polyethylene, 4% aluminum

Benefits to Schools

- Typically saves money
  - Trash hauling in MN priced by volume or weight
  - Recycling services typically lower than trash
    - No solid waste tax
    - No environmental tax
  - Can right size your trash and recycling when contract is over
- Reduces greenhouse gases, carbon footprint
- Helps students become environmental stewards

WORKING OUT THE LOGISTICS

Initial Steps

1. Find out who the school's waste/recycling hauler is
2. Determine where the hauler is taking the recyclable material
   - This will require contacting the hauler; indicate that you are interested in adding carton recycling
3. Verify whether the Material Recovery Facility (MRF) accepts cartons for recycling
   - Most facilities will let you know if you call them. There are some exceptions (Waste Management)

MRF Accepts Cartons

4. Gain approval from key administrators at school to set up carton recycling
   - Talk to custodial staff, food service staff, and administrators. Everyone needs to be on board for a successful program!
5. Set up collection service for cartons with hauler
   - Find out costs of adding carton recycling service
6. Implement program

MRF does not accept cartons

4. Contact Recycling Association of Minnesota
   - Provide background information
   - We will work with Carton Council to determine if MRF is interested in carton recycling
5. Research other haulers in the area; find out if any recycle cartons
   - Can switch to new hauler once contract is up if MRF does not have capability of recycling cartons
6. Other options:
   - Bulk milk dispensers: pilot project being conducted at New London-Spicer; report will be published Summer 2014

Setting up the program

- Make sure key people are involved: custodians, food service, administrators
- Get additional bins from hauler if necessary (outdoor)
- Purchase additional indoor bins if necessary
  - Apply for bin grants
- Consult *Carton Recycling in Schools* guide from the Carton Council

BEST PRACTICES

Empty Station at Prairie Woods Elementary

Empty cartons of milk waste

- Remember to set up a liquid station!

Drying Rack station at New London-Spicer High school

Concerned about odor? Try setting up a drying rack station and drying the cartons overnight to ensure fully dried cartons

Carton recycling at New London-Spicer

If not using a drying station, make sure cartons are loose. Do not tie up in plastic bags!

SUCCESS STORIES

New London-Spicer

- Experienced strong odor issues from wet cartons
  - MRF stopped accepting cartons from school
- Met with MRF, superintendent, custodial staff, YES, other members in December
- Made plans to dry cartons using drying racks
- MRF has not experienced any issues since implementation
- Able to divert 646 cartons per day from landfill

New London-Spicer

- According to Carton Council recycling impact calculator:
  - 241,604 sheets of paper saved/year
  - 21 trees saved/year
  - 8,456 gallons of water saved/year
  - 578 55-gallon trash bags diverted from landfill/year
  - 22,074 lbs of waste diverted from landfill/year
  - 4,832 kWh of energy saved/year
  - 3.02 metric tons of CO_2 avoided/year

Outdoor carton receptacles at New London-Spicer

Hopkins School District

- Received grant money to hire environmental coaches to assist with dumping stations
- Custodian monitors elementary students to ensure materials end in proper bins
- More liquid waste seen in elementary school than middle/high schools

Dumping station at Hopkins Elementary

Liquid bin at Hopkins Elementary

Mobile dumping station at Hopkins High School

Designed by shop department at high school. Needed mobility due to use of space by community.

Cherry School

- In St. Louis County
- Implemented carton recycling after launch of new recycling program
- Reduced waste by two large garbage bags/day→360 bags/year
- First school in St. Louis County to implement carton recycling

Dumping station at Cherry School

Contact information

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