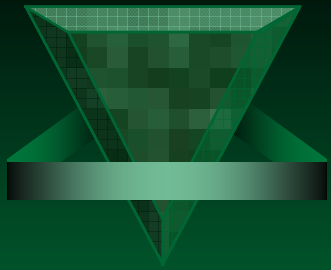


Waste Management for Hotels

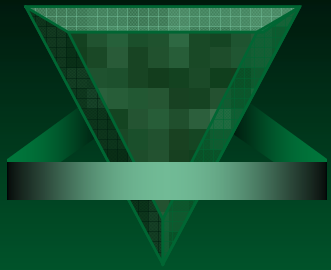
Dan Ruben
May 20, 2014





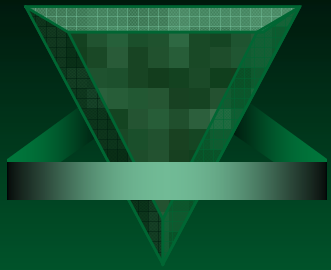
Presentation Outline

- I. Benefits of a Good Waste Management Program
- II. Organizing Your Waste Management Program
- III. Reduce
- IV. Reuse
- V. Recycle
- VI. Buy Recycled-Content Products
- VI. Resources



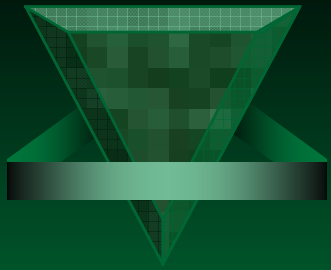
Benefits of a Good Waste Management Program

- ✔ Cost reduction: less purchasing, lower waste disposal bills
- ✔ Recycling is noticed by customers more than any other green initiative
- ✔ Score points on RFP's
- ✔ Score points on certifications such as TripAdvisor and Green Key
- ✔ Comply with state waste bans
- ✔ Help the environment
- ✔ Help the local economy



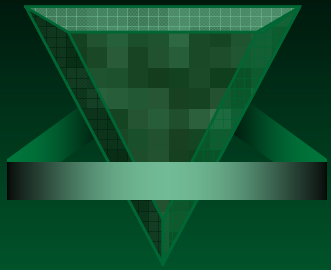
Organizing Your Waste Management Program, 1

- ✔ Follow the “3 R’s” in priority order: reduce, reuse, recycle. The biggest gains come from waste reduction.
- ✔ Audit waste stream: type and amount of waste/department and opportunities for improvement.



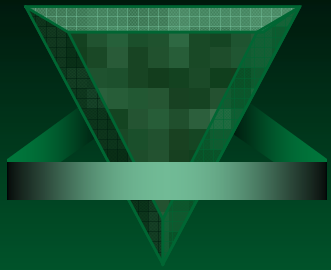
Organizing Your Waste Management Program, 2

- ✔ Ask managers and staff how to ↓ waste
- ✔ Set policies with goals, accountability and a training plan
- ✔ Keep monthly statistics on trash and recycling: bills, # of pickups, weight
- ✔ Identify the companies who will take your materials for reuse and recycling based on price, convenience, etc.



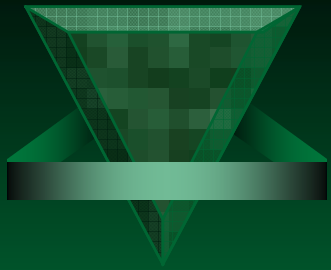
Organizing Your Waste Management Program, 3

- ✓ Gain staff cooperation (1)
 - Training
 - Hold staff accountable; put recycling in their job description, labor contract
 - Staff commitment letter
 - Staff field trips to recycling plants and the organizations that reuse the hotel's products



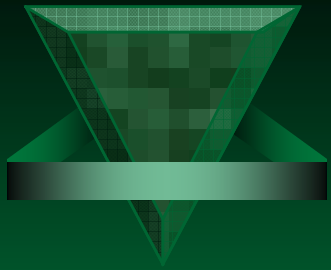
Organizing Your Waste Management Program, 4

- ✓ Gain staff cooperation (2)
 - Have reusable goods go to countries where staff lived—and tell them with pictures or reports
 - Communication plan for non-English speakers, including pictures on bins
 - Recognize and incent staff and departments that excel; make program fun and positive



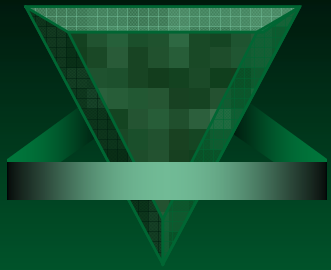
Reduce, 1

- ✔ Refillable amenity dispensers can replace soap, lotion, shampoo and conditioner bottles.
- ✔ Highly concentrated cleaning supplies.
- ✔ Replace incandescent and fluorescent lights with LED's—they last 5x longer than fluorescents and 25x longer than incandescent lights.
- ✔ Switch to low pressure drop high efficiency filters for air handling units and PTAC units--they last 5x as long.



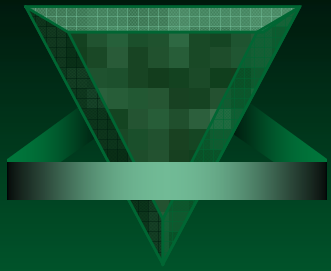
Reduce, 2

- ✓ ↓ food waste: use a system to track it—to identify wasteful purchases and raise staff awareness. Can ↓ pre-consumer food waste by 50%, ↓ annual food budget 2% - 6% and ↓ waste disposal costs. See: www.leanpath.com and www.epa.gov/epawaste/conserve/pubs/food-waste-log.pdf
- ✓ Reduce food waste volume with on-site dehydration machines, bio-digesters or pulpers
- ✓ Restaurants: washable table linens or no table linens, washable dinnerware, reusable coffee filters, condiments in bulk dispensers
- ✓ Bottled water: eliminate it by using filtered water instead; install bottle filling spout on water fountains and use the hotel's own bottles



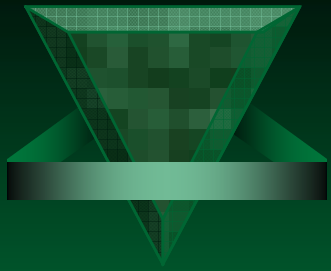
Reduce, 3

- ✔ Use carpet squares so you can replace just the stained or worn areas
- ✔ Modular mattresses allow hotels to replace just the mattress tops
- ✔ Eliminate unrequested newspapers
- ✔ Copy paper: double-sided; documents; smaller fonts and margins
- ✔ Paperless check-in and check-out
- ✔ Convert to paperless, mobile-based tracking systems in Maintenance and Housekeeping
- ✔ Ask your suppliers to reduce excess packaging
- ✔ Permanent mugs for staff



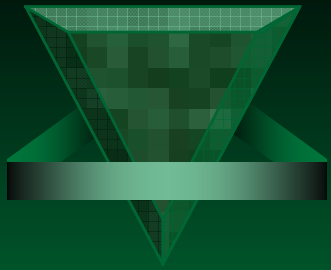
Reuse, 1

- Donate linens, blankets, towels, toiletries (soap, shampoo, conditioner, lotion), old uniforms to shelters and relief agencies
- Donate re-servable food to hunger relief agencies. Give pig farmers food that agencies won't take.



Reuse, 2

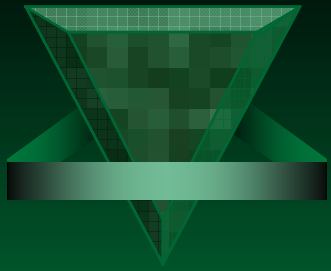
- Furniture
 - Refinish it: www.nationwide-ffe.com/index.html, www.therefinishingtouch.com/ or www.remanufacturinganddesigngroup.com/
 - Donate it to relief agencies
- Mattresses: renew them
- Pillows: restore them at a fraction of the price of new purchases. See Pillow-Vac at www.harrispillow.com/.



Reuse, 3

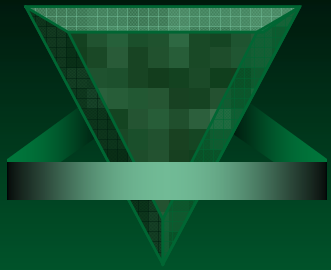
✓ Construction & Demolition Materials

- There are markets for ~20 commodities; >80% reuse/recycling rate possible; plan carefully and specify reuse / recycling in contract
- Before project begins: furniture, casework, carpeting, ceiling tiles, lighting (bulbs, ballasts, fixtures), wiring and cable, HVAC equipment, bathroom fixtures
- Before demolition: wood, windows, doors, porcelain fixtures, partitions
- After demolition: asphalt, brick, concrete, wood, metals, glass, roofing, mixed debris



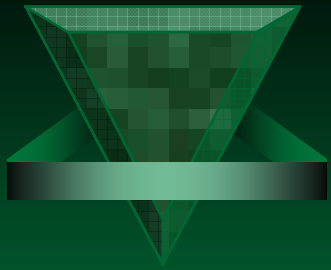
Reuse, 4

- ✔ Toner cartridges: ship to re-manufacturers. Close loop by buying remanufactured toner cartridges--at a fraction of original price.
- ✔ Cell phones: donate to armed forces
- ✔ Reuse clean garbage can liners



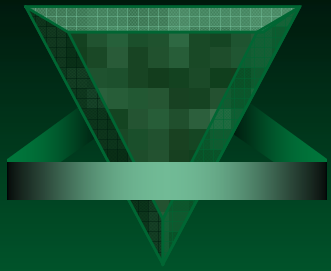
Reuse, 5

- ✓ Pallets: have vendors take them back
- ✓ Torn towels: use as cleaning rags
- ✓ Reusable canvas bags can replace plastic dry cleaning bags
- ✓ Use a material exchange to find home for unwanted items; material exchanges in the northeast: <http://nerc.org/nerc-resources/search-for-resources/materials-exchanges-in-the-northeast?src=1>



Recycle, 1

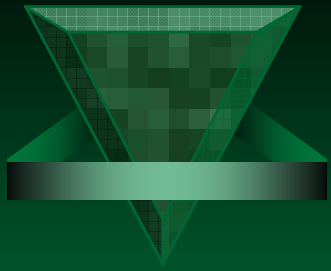
- ✓ Keys to a great recycling program:
 - Have a champion
 - Frequent audits; ask haulers if they would help
 - Monthly statistics
 - Champion or green team takes action when audits and reports fall below targets
 - Keep staff involved and accountable
 - Put recycling bins next to every trash container; they should look different than the trash containers and be clearly marked
 - Coordinate with hauler



Recycle, 2

✓ Working with haulers:

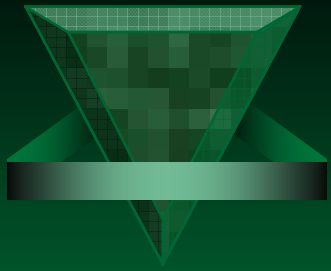
- Find a hauler for any commodity: <http://earth911.com/>.
- Haulers can identify best equipment, staff ed materials, collection schedules and whether balers make sense; and whether you should convert a trash compactor to recycling.
- Should hotel buy a baler? Ask hauler. Consider better prices for baled cardboard (for example) vs. capital expense, cost of electric line to baler, space available, labor, etc.
- Single stream is easier, saves space, less training. However, segregate easily separable materials like cardboard, if you get a better price for it.



Recycle, 3

✓ Hauling Contracts

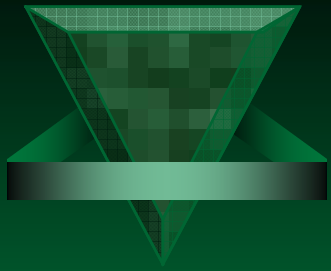
- review them to maximize savings.
- to cut bill, you might have to reduce size of trash containers or collection frequency.
- eliminate volume requirements that discourage recycling.
- consider bidding trash and recycling separately.
- More advice: www.p2pays.org/ref/03/02098.pdf.



Recycle, 4

✓ Periodic Audits

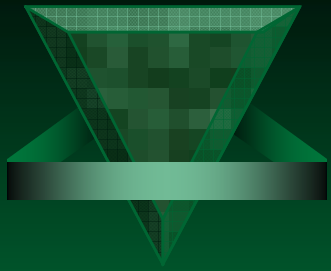
- Check departmental wastebaskets, recycling bins, dumpsters at end of each shift. Are daily items being recycled: cardboard, paper, plastic containers, metal, glass?
- Clear plastic trash bags make audits easier to do.
- Take pictures to communicate your findings to department heads and staff.



Recycle, 5

✓ Recycling bins

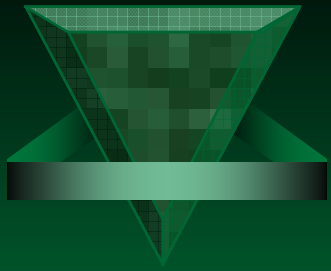
- Attractive bins available from T2 Site Amenities, JRS Amenities, Erwyn, Fibrex Group, etc.



Recycle, 6

▼ Everyday Items

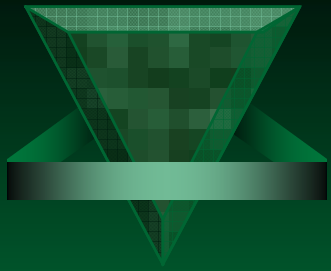
- Cardboard
- Bottles and cans
- Other recyclable plastic
- Other metal
- Other glass
- Paper



Recycle, 7

✓ Food waste

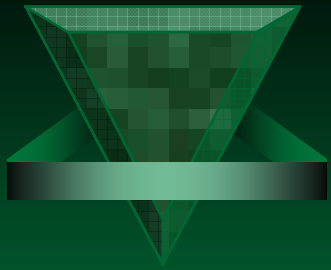
- Find haulers that take food waste, yard waste, waxed cardboard to compost facilities
- Used fryer oil can be recycled, made into bio-diesel or burned to make electricity; filter used fryer oil to use it longer



Recycle, 8

▼ Electronics

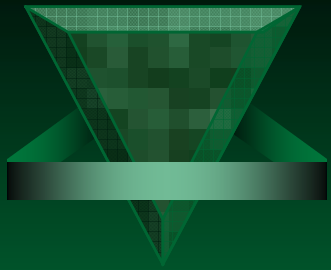
- Electronics recyclers take computers, televisions, cell phones, pagers, copiers, printers, faxes, stereos, etc.
- See <http://earth911.com/>, and www.epa.gov/osw/consERVE/materials/ecycling/faq.htm



Recycle, 9

✓ Other recyclable items:

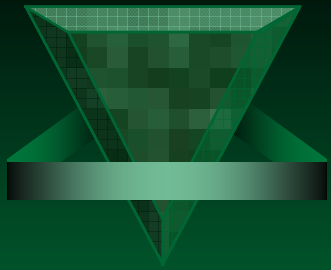
- Mattresses: www.greenlodgingnews.com/biggest-barrier-mattress-recycling--not-knowing-it
- Fluorescent bulbs: www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/faqs.htm
- Batteries: <http://www.earth911.com/tech/everything-there-is-to-know-about-batteries/>
- Soap and shampoo: www.globalsoap.org/ or www.cleantheworld.org
- Used soil, plants, landscaper products: compost, reuse or recycle



Buy Recycled-Content Products

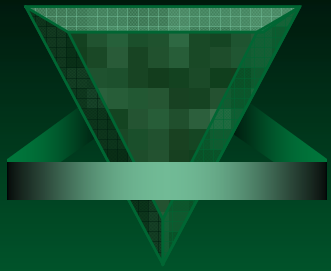
- ✓ Paper: office paper (30% recycled paper performs as well as virgin), toilet and facial tissue, napkins, menu paper, cardboard.
- ✓ Toner cartridges
- ✓ Glass: bottles, jars, floor tiles
- ✓ Carpet
- ✓ Trash can liners
- ✓ Trash cans
- ✓ Plastic lumber
- ✓ Computers with recycled material and other green attributes: www.epeat.net
- ✓ Recycled-content "to-go" containers in restaurants

EPP resource: www.epa.gov/epp



Resources

- ✓ Recycling Guidebook for the Hospitality and Restaurant Industry, Metropolitan Washington Council of Governments, Department of Environmental Programs, www.p2pays.org/ref/05/04032.pdf
- ✓ EPA WasteWise Program: www.epa.gov/epawaste/conserve/smm/wastewise/index.htm



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