

Eco-friendly Maintenance Practices at Big Blue Bus

Presenter
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City of Santa Monica



City's Sustainability Program



- Established September 1994
- Conserve/enhance local resources
- Safeguard health of humans & environment
- Improve quality of life for all community members

Green Procurement Policy:

Only “green” supplies will be purchased whenever possible allowing for the rules, benefits and challenges faced by the Maintenance Department



Green questions for vendors:

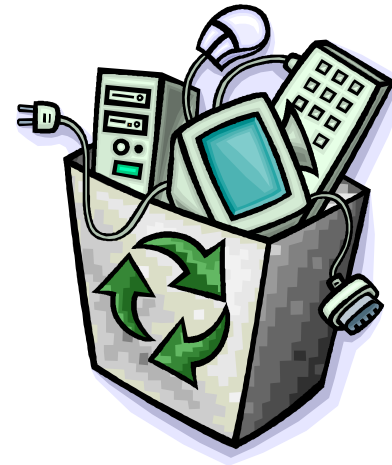


- Which product is least hazardous or toxic?
- Is it reusable or more durable?
- Is it made from recycled materials?
- Does it conserve energy or water?



Green questions for vendors:

- What happens to the product at the end of its “life”?
 - Can it be recycled?
 - Taken back?
 - Need special disposal?
- Does it perform well and is it cost effective?



Plastic Window Inserts

- Recyclable
- Protect the more expensive resource (glass)
- Cuts repair cost by 400%!



A Cleaner Bus Wash

- **Biodegradable Soap**

- 25% higher costs, but reusable



- **Reclaim your water:**

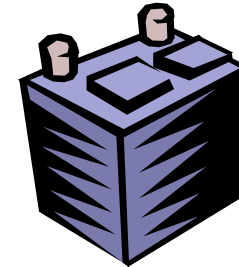
- BBB recycles 85% of wash water
- Directly impacts health of Santa Monica Bay

More Green Product Ideas:

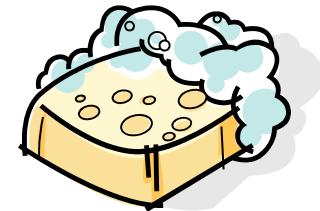
✓ Recycle aluminum wheels



✓ Recondition/recycle
bus batteries



✓ Replace solvent- with
aqueous-based part washers



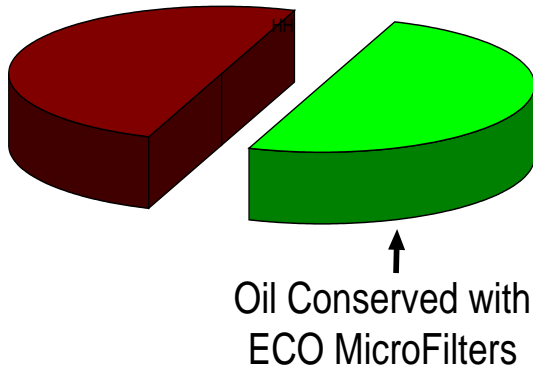
Even More Green Ideas:

- ✓ Recycle and reuse coolant
- ✓ Grind tires up for repaving streets
(modular; good for stops and tree sites)
- ✓ Choose non-aerosol products whenever possible



ECO MicroFilter Results – Sustainability Benefits

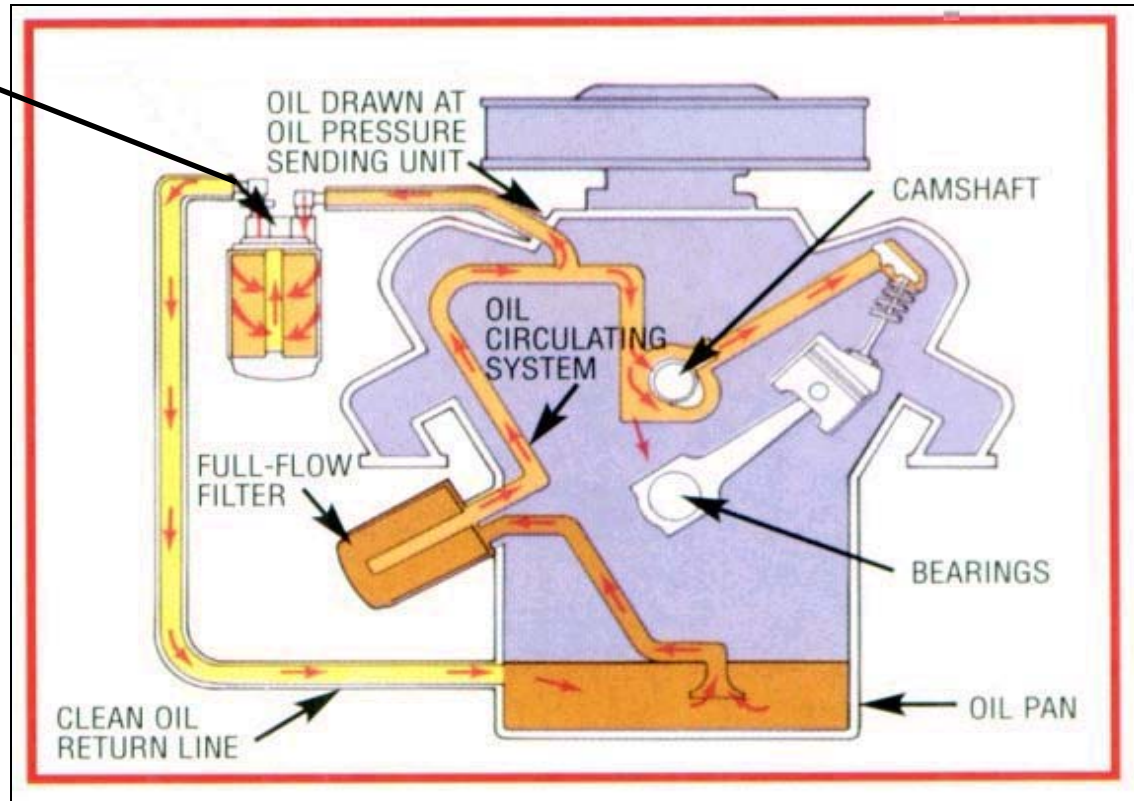
50% Oil Gallons Conserved Annually with Microfiltration



- Cut oil change intervals by 50%
- Reduce oil consumption and hazardous waste oil generated by 50%
- Reduce labor cost

ECO MicroFilter Operation

ECO
MicroFilter



BBB New Eco-Maintenance Facility



- State of the art facility with sustainable strategies and features
- 66,000 SF with 21 service bays
- Operates 24 hours a day, 365 days a year



- Energy efficiency measures include:
 - Energy management system
 - Minimum energy factor water heaters
 - Fluorescent and metal halide lighting

- 600 80-kilowatt photovoltaic panels on the roof to help reduce energy costs by up to 15% a year
- Maximize use of natural day lighting
- Light concrete floor provides reflected light underneath the buses
- Recycled building materials: concrete, structural steel, reinforcing steel, miscellaneous steel, steel studs, insulation, carpet, gypsum board, finishes, etc.
- Dual glazed, low e-glass



Rubber Sidewalks



- Saves money, saves trees, and keeps tires out of landfills
- Made of 60% plastic and 40% passenger tires

First Alternative Fuel



100% Alternatively Fueled Fleet



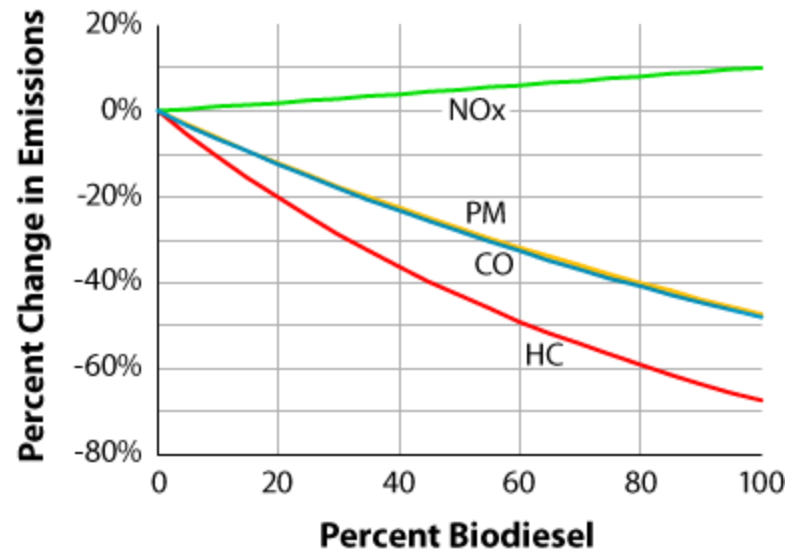
100 Liquefied Natural Gas Transit Coaches

100 Biodiesel Transit Coaches

Biodiesel



Average Emission Impacts of Biodiesel for Heavy-duty Highway Engines



http://www.afdc.energy.gov/afdc/fuels/biodiesel_benefits.html

Mini Blue Hybrid



15 Gasoline Hybrid Community Transit Coaches

21 CNG Articulated BRT



Green Procurement Resources:

- ❑ EPA's case study on City of Santa Monica's Procurement Policies:

www.epa.gov/epp/pubs/case/santa.pdf

- ❑ California Product Stewardship Council:

www.caproductstewardship.org



The End



Thank You!