



Innovative Air Quality Programs

Montgomery County
Department of Environmental
Protection



A few of Montgomery County's Innovative Programs

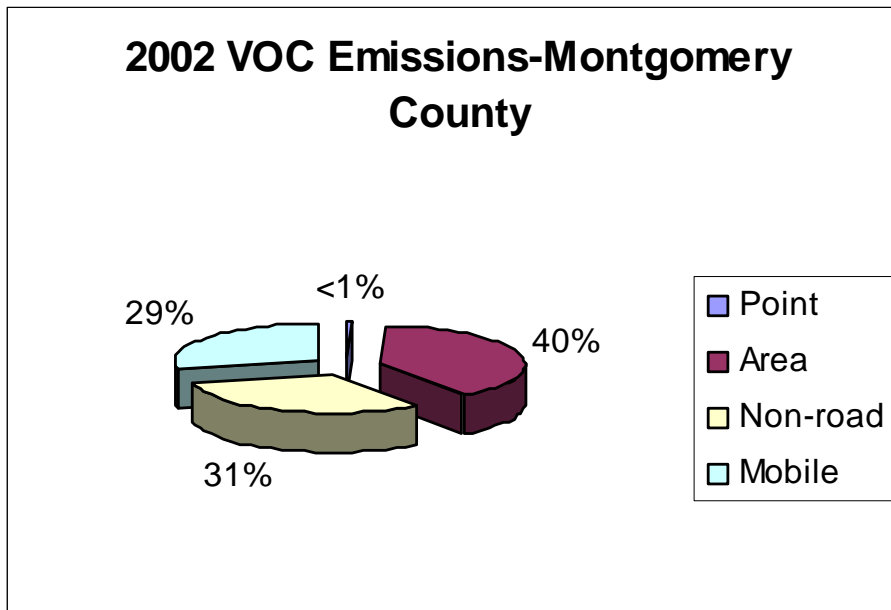
- Ozone Action Day Plan
- Air Quality Strategy
 - Wind Energy Purchase-Point Sources
 - Energy Efficiency Program
 - Environmental Partners-Area Sources
 - Hybrid Vehicle Purchase-Mobile
 - Gas Can Exchange-Community Outreach
 - Tree Canopy

A Closer Look at the Environmental Partners Program

- A dynamic new cooperative pollution prevention program between the Montgomery County Department of Environmental Protection and businesses.
- The Air Quality Protection Strategy identified the need to reduce emissions from area sources.
- It was felt that expanding the Environmental Partners program would achieve this goal.



Area Source Emissions in Montgomery County



- Area sources-40% of VOC emissions
- Area sources include small industries, such as bakeries, printers, and dry cleaners.

Current Program

- Began with the Vehicle Maintenance and Repair Industry-heavy solvent use-large number of complaints
- Extensive research
- One on one in house training
- Ready made package
 - Requirements
 - Permit applications
 - Vendor lists
 - Cost effective P2 solutions



Vehicle Maintenance and Repair



Just the Facts About ...

Parts Washing

Vehicle Maintenance and Repair Series

Eliminate Solvents

Waste wrong by cleaning solvent? Many cleaning solvents are flammable, produce oily hazardous waste, and are harmful to the health of workers and the environment. However, they are often the largest automotive fluid waste generated in repair shops.

Did you know?

- Cleaning solvents contain volatile organic compounds (VOC) that contribute to ozone (smog) formation.
- Exposure to solvents and their vapors can lead to cancer, nervous system damage, or brain disorders.
- Many of the solvent-bearing systems generate hazardous waste which place facilities into RCRA requirements. RCRA, the Resource Conservation and Recovery Act, addresses hazardous waste management activities. If your shop generates hazardous waste in a month, you are required to follow state hazardous waste requirements for large quantity generators.
- Your shop is responsible for the hazardous waste even after it leaves the shop, which means that you can be charged with penalties and clean-up expense even after the spent solvent has been removed by a licensed hauler.
- In Montgomery County, businesses are required to report quantities of hazardous substances stored at their site, and have a hazardous waste waste Codebook from Montgomery County Local Emergency Planning Council (LEPC).

In Maryland, you

- can choose a VOC degreasing material in which the vapor pressure exceeds 100% of 2000 (100)ppm, and you must also apply good cleaning practice, including covering materials to minimize evaporation losses. These practices must be clearly displayed just where the operator can see them.
- The 1990 Clean Air Act directed EPA to regulate emissions of hazardous pollutants. In response, EPA issued regulations controlling the use of the regulated solvents: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride and dioxane. Furthermore, the use of regulated solvents is completely prohibited in Maryland. Check your Motor Vehicle Code (over 400,000) to ensure that you are not using one of the regulated compounds, clean alone and that the vapor pressure meets Maryland requirements.

Effective Alternatives

Using some of the effective alternatives which are readily available, you can reduce the amount of other previously needed for parts washing, while also reducing the paperwork for material purchasing, and simplifying the reporting in response to regulatory requirements. For example,

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

Acqueous Cleaning Units

Selecting the appropriate cleaning equipment is critical to successful aqueous cleaning. Most repair shops can use either microbial strip-locks or applications. Microbial strip-locks: Microbial strip-locks are used for manual parts cleaning in the same way as conventional solvent strip-locks. Microbial plants in the aqueous solution degrease oils and organic contaminants, which significantly extends solution life. By extending the life of solution, you will save money by reducing your chemical purchase and waste disposal costs. Additionally, these microbes are safe and pose no risk to technicians. Microbial strip-locks will typically generate

A Sample of Some P2 Solutions

- Solvent Parts Washing-Go aqueous/microbial
- Aerosol cans-Go with refillable bottles
- Floor washing-Keep a dry shop
- Hazardous waste-Minimize
- Shop towels-laundry
- Used Oil-recycle



The Results

- DEP has enlisted 48 Partners
- Chain pledged to remove solvent machines in 110 stores throughout the mid-atlantic and switch to aqueous cleaners resulted in a reduction of over 36 tons per year of VOCs.
- Other frequently pledged P2 actions include: utilizing 4 step floor washing; training; switching from solvent to aqueous parts washers



Where We're Going...

- DEP plans on adding additional industries targeting those industries whose ozone precursor emissions are highest.
- Small geographic area/watershed
- Measuring the success

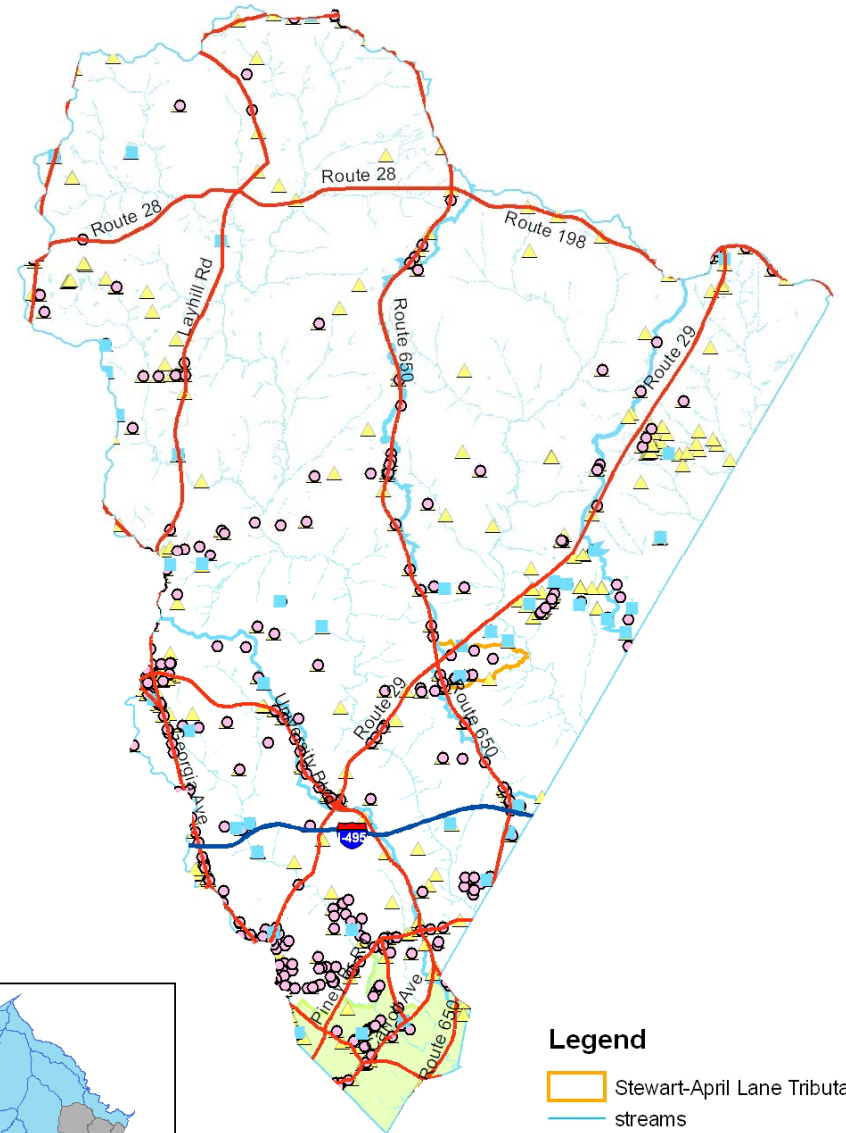


Vehicle Maintenance and Repair



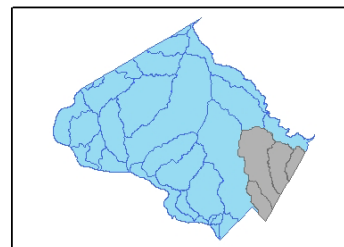
Anacostia Watershed, Montgomery County, Maryland

The Pilot Area...



Legend

- Stewart-April Lane Tributary
- streams
- Water Permits
- AirPermits
- Hazardous Materials



Goals

- Enhanced Enforcement
- Expand types of businesses
- Enhanced documentation and tracking
- Annual Awards Workshop





Costs

- Staff time-research/planning/site visits
- Printing the materials (approx. \$30/manual)
- Advertising
- Outreach

Measuring for the SIP-SIP inclusion

- Enhanced Compliance Program
- Engineering Calculations

Facility Number: Prenumb:

Facility Name:

Address:

Facility Number: Date Inspected:

Approved Refrigerant Equipment Used? <input type="checkbox"/>	Utilizing 4-Step Method Table? <input type="checkbox"/>
Approved Refrigerant Technician Certification? <input type="checkbox"/>	Outfall Monitoring Before? <input type="checkbox"/>
Storm Drain Identified? <input type="checkbox"/>	Outfall Monitoring After? <input type="checkbox"/>
Spill Kit on Site? <input type="checkbox"/>	Proper Oil Filter Drain Method Followed? <input type="checkbox"/>
Environmental Partners? <input type="checkbox"/>	Covered? <input type="checkbox"/>

IF ENVIRONMENTAL PARTNER:

Facility Now Utilizing 4-Step Method?:

Facility Eliminated use of Aerosol Cans?:

Facility Substituted CFC or HCFC Refrigerants for non-ozone Refrigerants?:

# of Tires Recycled Before: <input type="text"/>	Type of Brake Washing Before: <input type="text"/>
# of Tires Recycled After: <input type="text"/>	Type of Brake Washing After: <input type="text"/>
Amount of Hazardous Genmonth Before: <input type="text"/>	Type of Parts Washer Before: <input type="text"/>
Amount of Hazardous Genmonth After: <input type="text"/>	Type of Parts Washer After: <input type="text"/>
Gallon of Antifreeze Recycled Before: <input type="text"/>	Type of Refrigerant Before: <input type="text"/>
Gallon of Antifreeze Recycled After: <input type="text"/>	Type of Refrigerant After: <input type="text"/>
Gallon of Waste Oil Recycled Before: <input type="text"/>	Type of Spray Bottles Before: <input type="text"/>

Records: of 43



Questions??