

# Coal-Tar-Based Sealcoat

**Solebury Township Board of Supervisors**

**April 6, 2021**

*The Environmental Advisory Council (EAC) is  
recommending a coal-tar-based-sealcoat ban  
in Solebury Township*

# Background

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- Studies by the U.S. Geological Survey (USGS) have identified coal-tar-based sealcoat as a major source of polycyclic aromatic hydrocarbon (PAH) contamination.
- Coal tar is a byproduct of the coking of coal.
- PAHs form whenever anything with a carbon base is burned such as the heating of coal tar to make coal-tar-based sealcoat.
  - Several PAHs are toxic, carcinogenic, mutagenic, and/or teratogenic (cause birth defects).



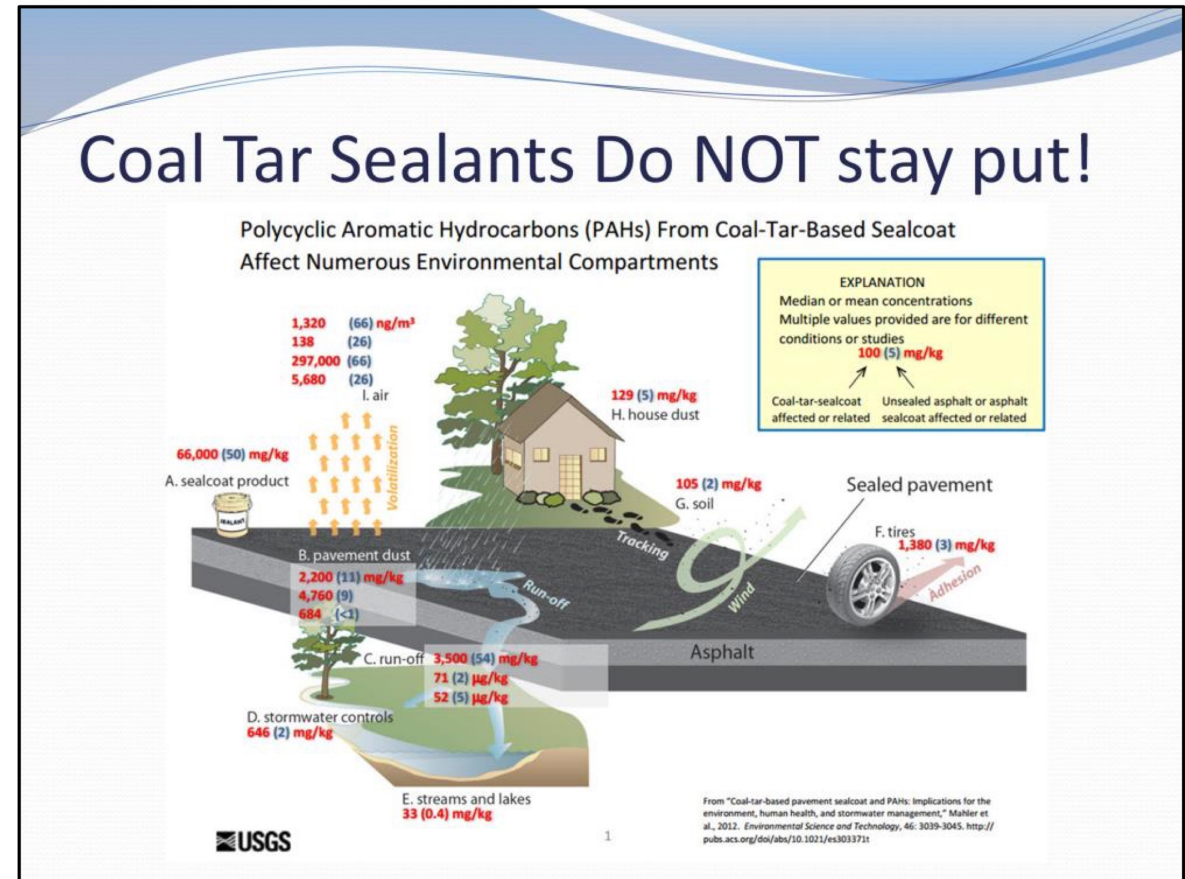
# Health and Environmental Impact

- PAHs cause cancer, affect human development, and are toxic to aquatic life:
  - Increase risk of skin, lung, bladder, kidney, and digestive track cancers in humans
  - Diminished ability to swim in salamanders
  - Impaired growth and development of frogs
  - Liver damage in fish
- Dust created from sealcoat is blown by the wind, tracked indoors on the soles of shoes, inhaled, absorbed by the skin, and washed away by rain to storm drains and streams



# Health and Environmental Impact

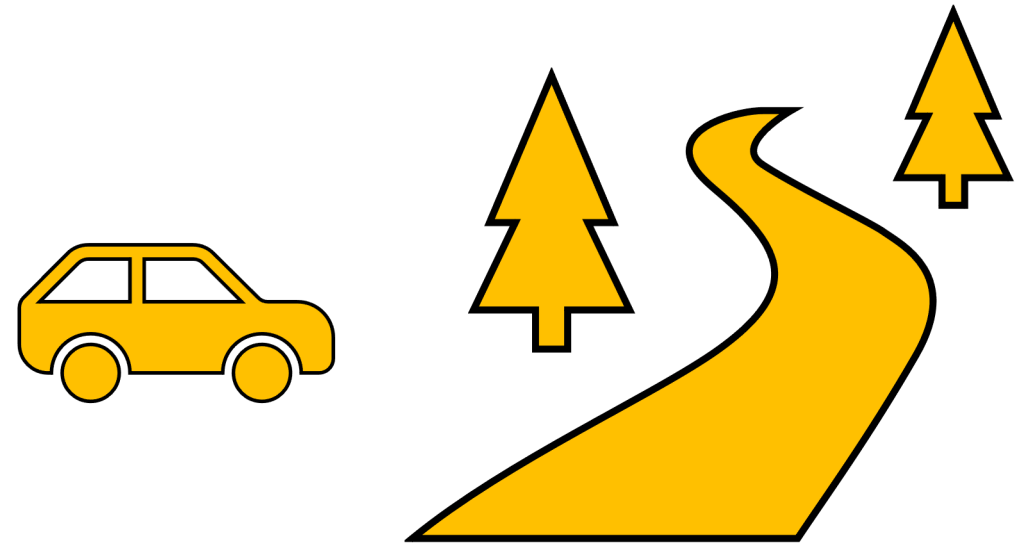
- The sealant degrades and enters the water supply through storm-water runoff
- The dust created from sealcoat is rich in PAHs and is blown by the wind, tracked indoors on the soles of shoes, inhaled, and absorbed by the skin



# Health and Environmental Impact

- PAHs in urban sources (concentrations of PAH milligrams per kilogram of source), low to high:

• Fresh asphalt	1.5
• Weathered asphalt	3
• Fresh motor oil	4
• Brake particles	16
• Road dust	24
• Tire particles	86
• Gasoline engine	370
• Used motor oil	440
• Sealcoat:asphalt based	50
• Sealcoat: coal-tar based	70,000



# Economic Impact

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- Cost of cleaning contaminated bodies of water is expensive
- Two-thirds of coal-tar-based sealcoat is imported and not supplied domestically
- Sealcoat applicators have alternative products for use: asphalt- and latex-based products



# Current Bans

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- Maine, Minnesota, and Washington
- New York: state-wide ban in legislative process, local ban in Suffolk County (Long Island)
- Wisconsin: state-wide ban in legislative process, twenty-three local bans in effect
- District of Columbia
- Austin Texas
- San Antonio Texas
- Local Bans: California, Connecticut, Illinois, Kansas, Massachusetts, Michigan, Missouri, North Carolina, and South Carolina
- Maryland: Montgomery County, Prince George's County, and Anne Arundel County
- Pennsylvania: Fox Chapel Borough passed first ban in the Commonwealth in April 2020

# Code Enforcement Survey

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- Seven government entities
  - Codes published online
  - Spoke directly with San Antonio Texas and Fox Chapel Pennsylvania
- Enforcement is not an important consideration in banning coal-tar-based sealcoat in most governing entities
- Most ordinances do not specify how violations are identified and mostly rely on complaints from residents



# Code Enforcement Solebury Township

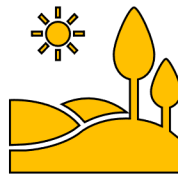


- Chain retailers, like Home Depot and Ace Hardware, have banned the sale of coal-tar-based sealants, so residents cannot buy that type of sealant at retail stores anymore
- Ann Arbor Michigan model
  - Requires applicators, like other service providers, to complete a registration process
  - Registration process includes a notification of the ban: enforcement is completed before an applicator starts sealcoat work
- Limited number of sealcoat operators in our region: around nineteen
- Courtesy letter to each business to inform them of the ban

# Fox Chapel Borough PA Ban Experience

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- Coal-tar ban was well received by borough residents
- Residents were not aware of coal-tar-sealcoat's health risk
- Borough Council did not worry about enforcement
- Borough notified local sealcoat applicators of coal-tar ban and identified allowable products: asphalt- and latex-based products only
- Surrounding governing entities are now interested in following Fox Chapel's lead upon hearing about ban



# Implementation Ideas



- Letter from Solebury Township to the following:
  - Township homeowner associations
  - Property managers doing business in township
  - Sealcoat applicators doing business in township
  - Owners of commercial properties located in township
- Permit/registration requirement for sealcoat applicators
- Postcard to township residents through U.S Postal Service Every Door Direct Mail services (mass mailing by carrier route)
- Prominence of ban information on township website

# Implementation Ideas

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- Information on Environmental Advisory Council Facebook page
- Bucks County Herald article
- Solebury Messenger article
- Shopping center information table (post pandemic)
- Incorporate into Earth Day celebration (post pandemic)



*Thank you!*

The information for this presentation is based on published findings by the U.S Geological Survey of the U.S Department of Interior as follows:

Mahler, B.J., Van Metre, P.C., 2011, Coal-Tar-Based Pavement Sealcoat, Polycyclic Aromatic Hydrocarbons (PAHs), and Environmental Health: U.S. Geological Survey Fact Sheet 2011–3010, 6 p., <https://pubs.er.usgs.gov/publication/fs20113010>.

Mahler, B.J., Woodside, M.D., and Van Metre, P.C., 2016, Coal-tar-based pavement sealcoat—Potential concerns for human health and aquatic life: U.S. Geological Survey Fact Sheet 2016–3017, 6 p., <http://dx.doi.org/10.3133/fs20163017>.

You're Standing On It! Coal-Tar-Based Sealcoat, PAHs, and Environmental Contamination: U.S. Geological Survey Fact Sheet 2005-3147, 26p., <https://www.epa.gov/sites/production/files/2015-12/documents/coal-tar-based-pavement-sealcoat-pahs-and-environmental-contamination.pdf>