

Coal Tar Sealant, the Ban and the Science in Austin TX

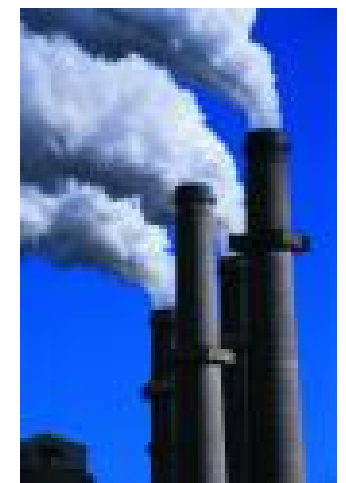
Mateo Scoggins, City of Austin TX



What Are PAHs?

(polycyclic aromatic hydrocarbons)

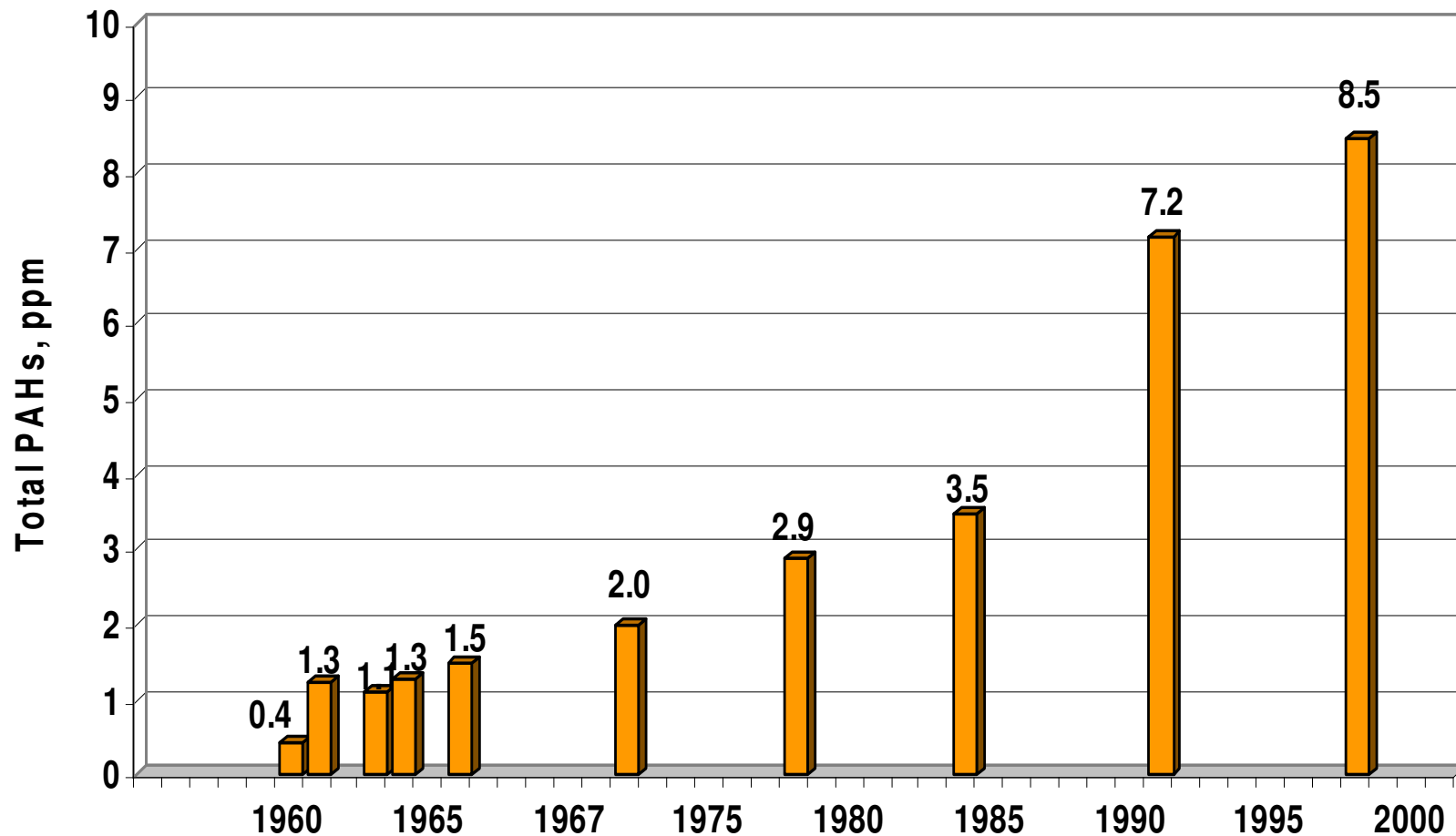
- ❑ Produced by combustion of fossil fuels
- ❑ Many are carcinogenic, toxic, and mutagenic
- ❑ Urban sources:
 - ❑ Used motor oil
 - ❑ Exhaust
 - ❑ Industrial emissions
 - ❑ Asphalt
 - ❑ Coal tar
 - ❑ Tires



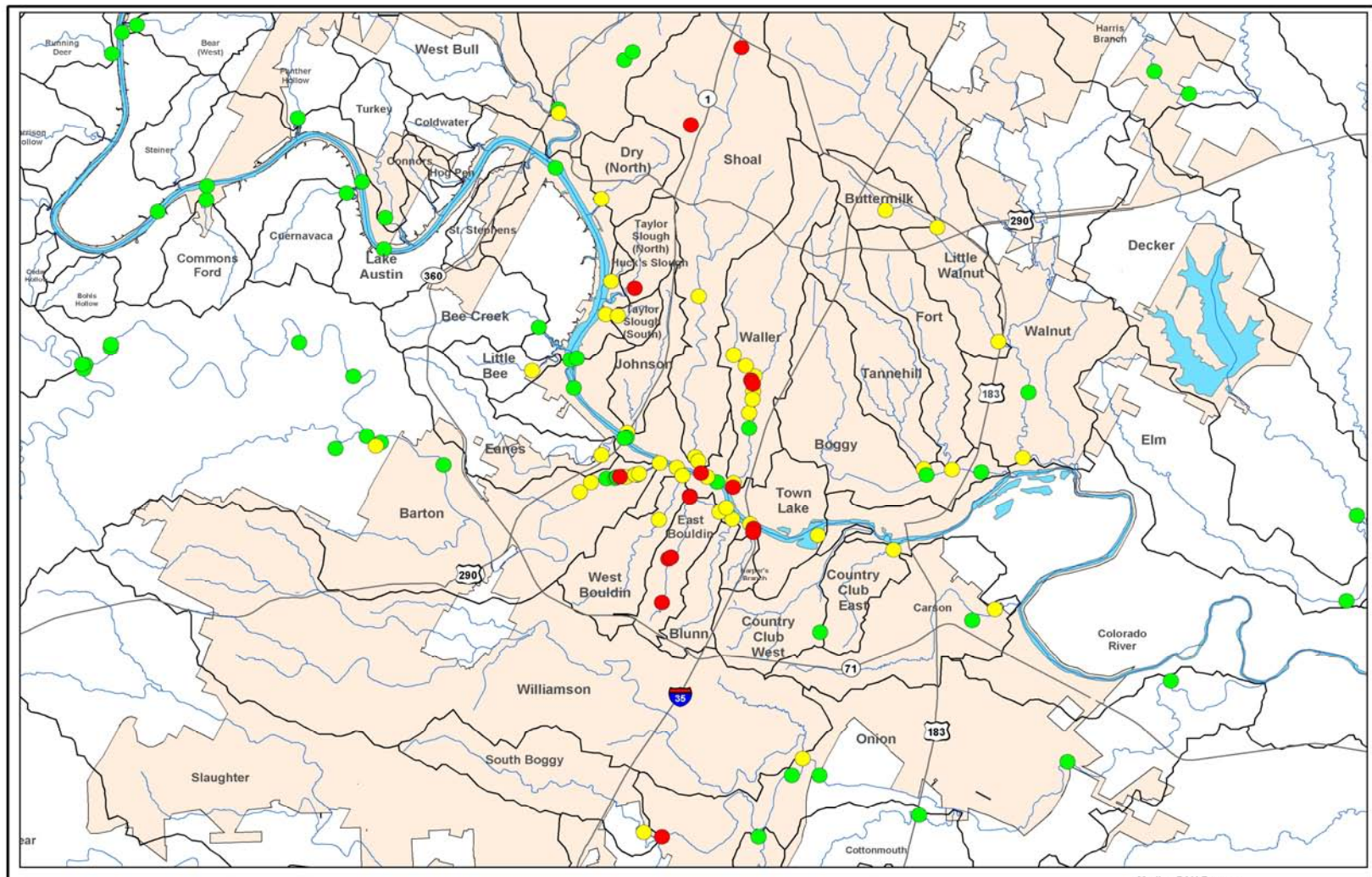
What is sealcoat?



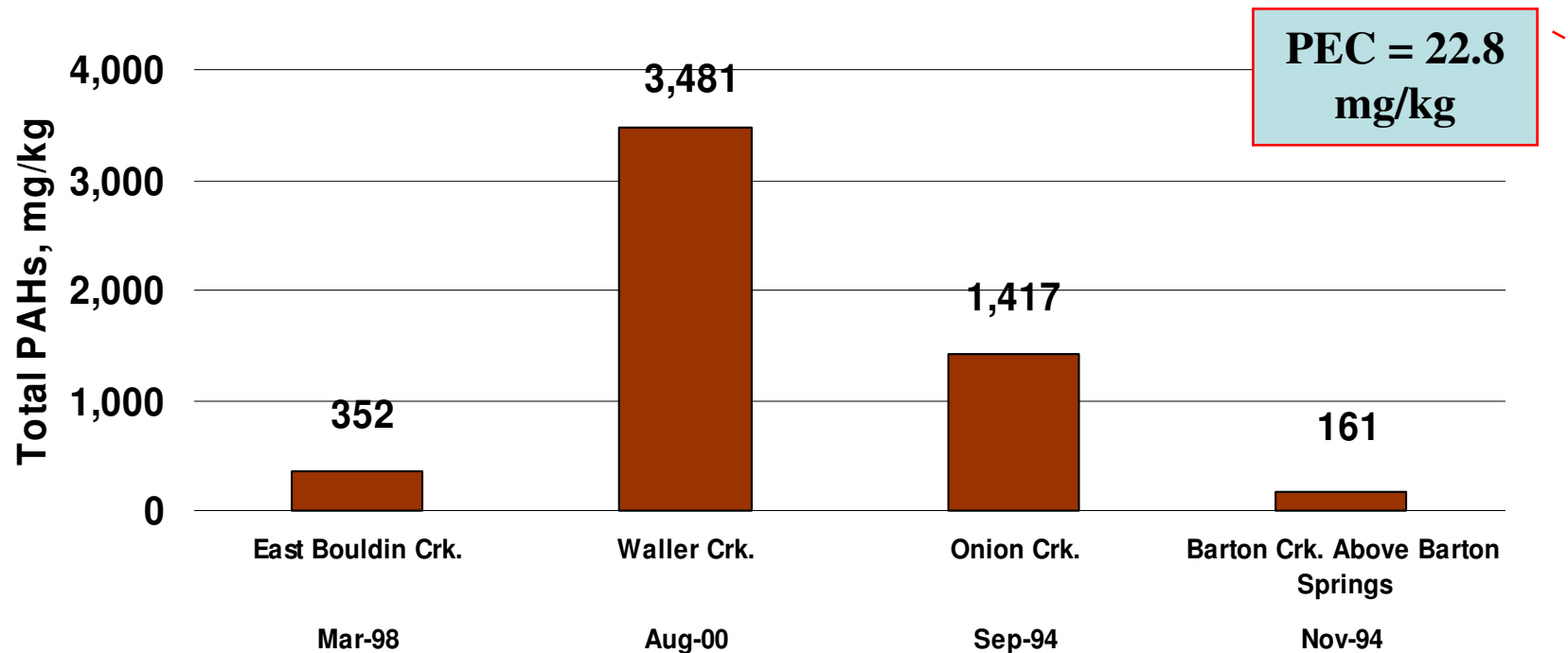
USGS looks at PAH cores in local reservoir...



City of Austin monitors stream bed sediment ...

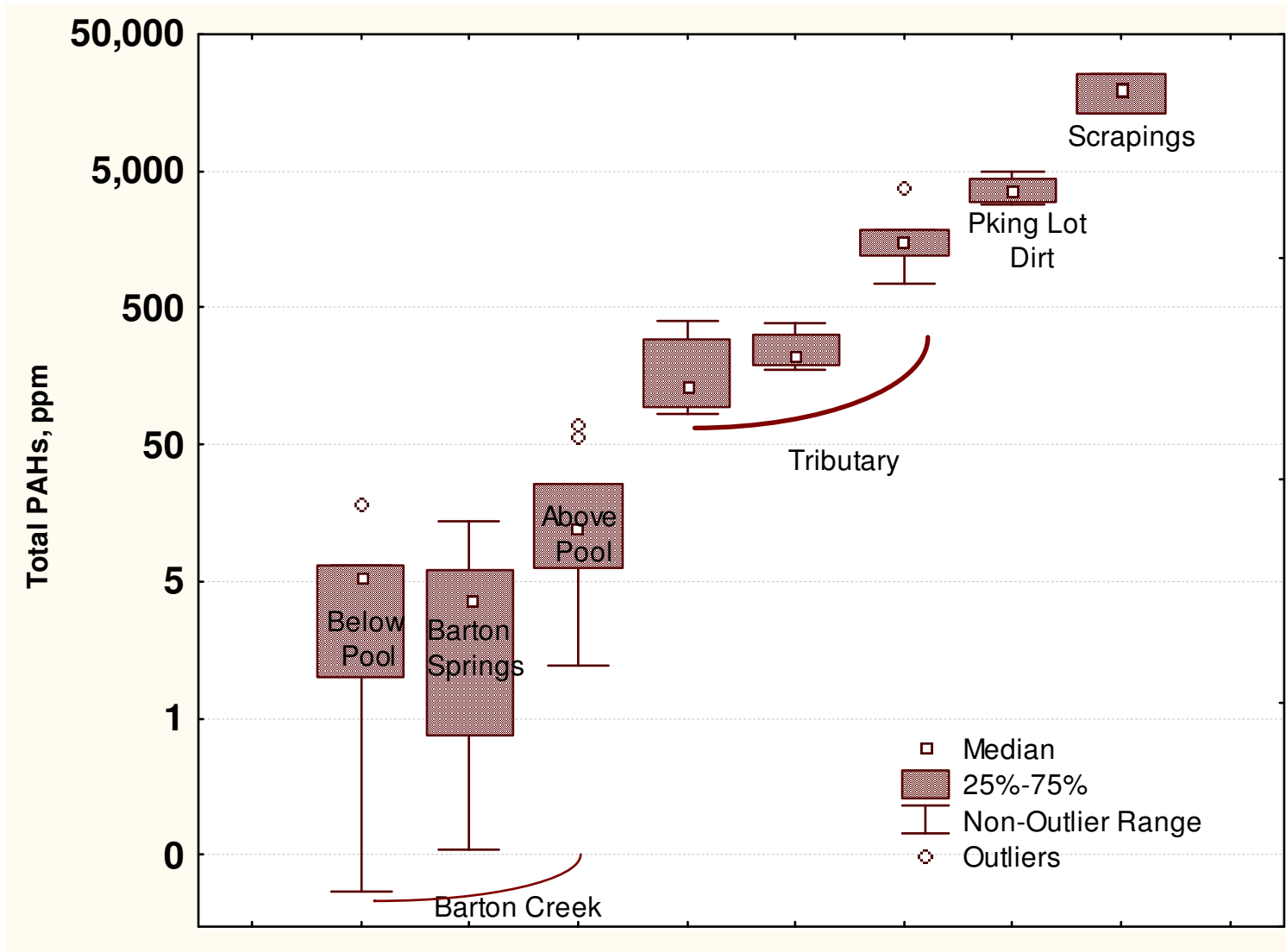


City of Austin monitors stream bed sediment ...





Tracing the source

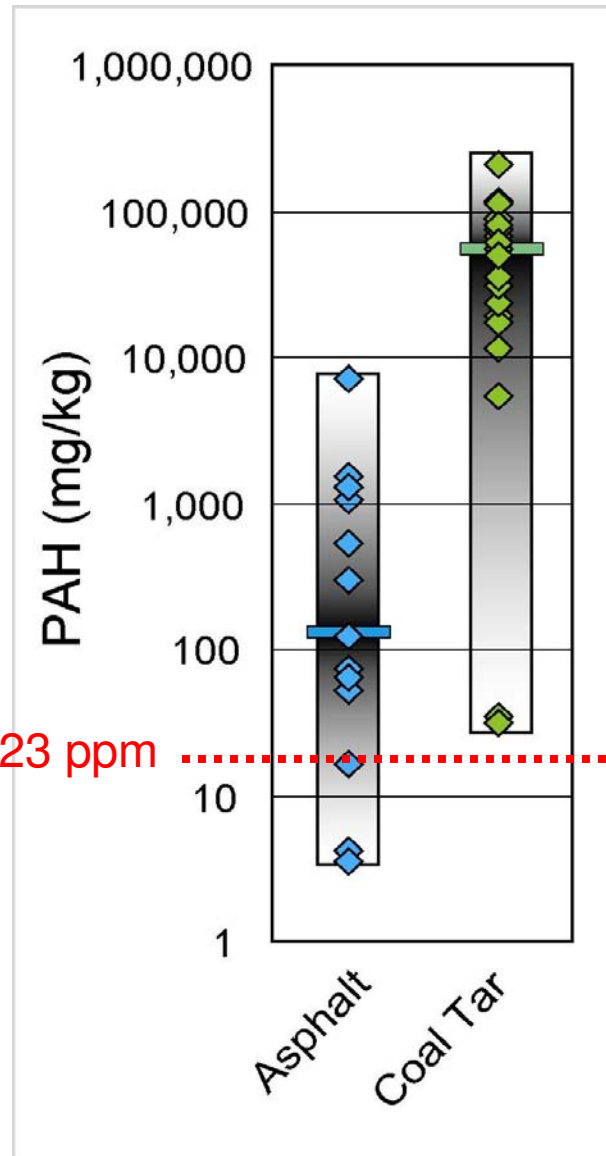


Sealcoat products

Asphalt

- ☐ Oil based
- ☐ Lower in PAH
- ☐ Used mainly in western U.S.

PEC of 23 ppm



100%

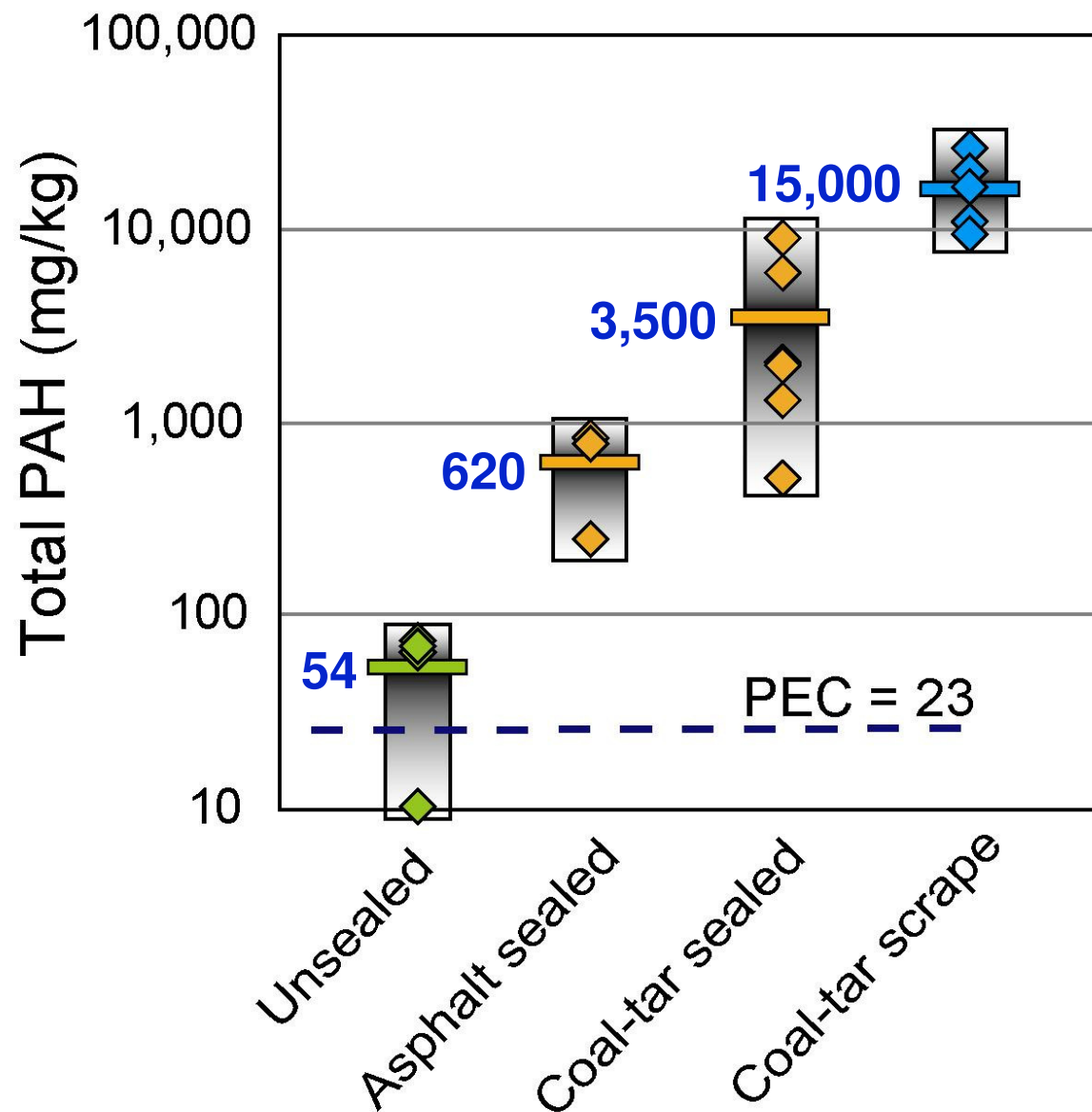
Coal tar

10%

1%

- ☐ From coking of coal
- ☐ 50% or more PAH by weight
- ☐ Resists oil/gas

PAHs in Parking Lot Sediments



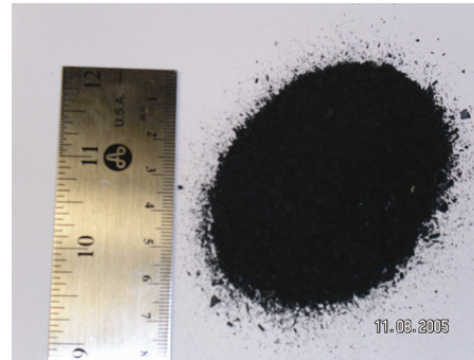
← **Used Oil**
730 mg/kg

← **Tires**
80-200 mg/kg

← **Asphalt**
2-10 mg/kg

Ecological Effects

- ☐ Ecological Effects
 - ☐ Lab Toxicity
 - ☐ Mesocosm
 - ☐ Field study
 - ☐ Amphibian study



Ban Coal Tar Sealants?

- ❑ > 600,000 gallons of coal tar sealant applied annually in Austin area (4 million pounds of PAHs)
- ❑ Wash-off study indicates sealants may represent majority of PAH load in streams studied
- ❑ Concentrations of PAH's are increasing in receiving water and over 13% of Austin streams have PAH hot spots
- ❑ CTS tied to water quality degradation locally

Ban Outreach

- ☐ Stakeholders meetings (Jan 04, July 05)
- ☐ Presentations at state and national professional meetings
- ☐ Published research
- ☐ Technical briefings to EPA, USGS and US Department of Interior
- ☐ Congressional briefing
- ☐ Local public process

The Ban

- ☐ Use prohibited in the City jurisdiction
- ☐ Sale prohibited unless intended application outside jurisdiction
- ☐ Enforcement is complaint and staff driven
- ☐ Fines up to \$2,000/day

ATTENTION!
COAL TAR SEALANT
USE IS BANNED IN AUSTIN
AND ITS PLANNING
JURISDICTION (ETJ). FINES
UP TO \$2,000 PER DAY
WILL BE ENFORCED.
FOR MORE INFORMATION
CALL 512-974-2550

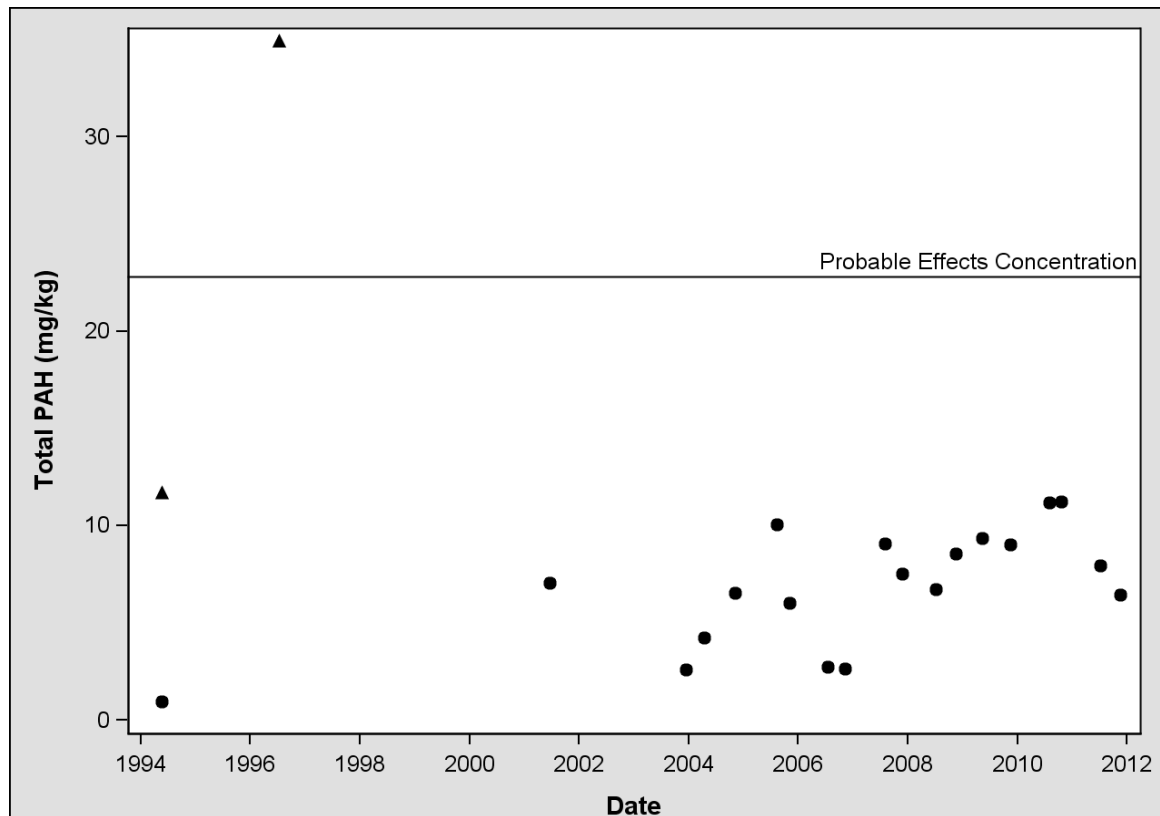
Ban Status

- ❑ 7 violations to date.
- ❑ One state legal challenge
- ❑ Initial industry efforts
- ❑ Nat'l building suppliers pull CST
- ❑ Variety of “Post-Ban” research and media attention



Ban Monitoring

- ❑ Still early to make any conclusions
- ❑ Legacy sources, PAH character is older
- ❑ Some watersheds showing decreases
- ❑ Many are variable with no trends



A photograph of a residential driveway and yard. On the left, a silver minivan is parked on a dark asphalt driveway. To its right, a black basketball hoop stands on the grass. In the foreground, a black ramp is placed on the grass. The background shows a green lawn, a soccer goal, and several houses under a cloudy sky.

Questions?