

The Coal Tar Sealant Ban and the Science in Austin TX

Mateo Scoggins, City of Austin TX



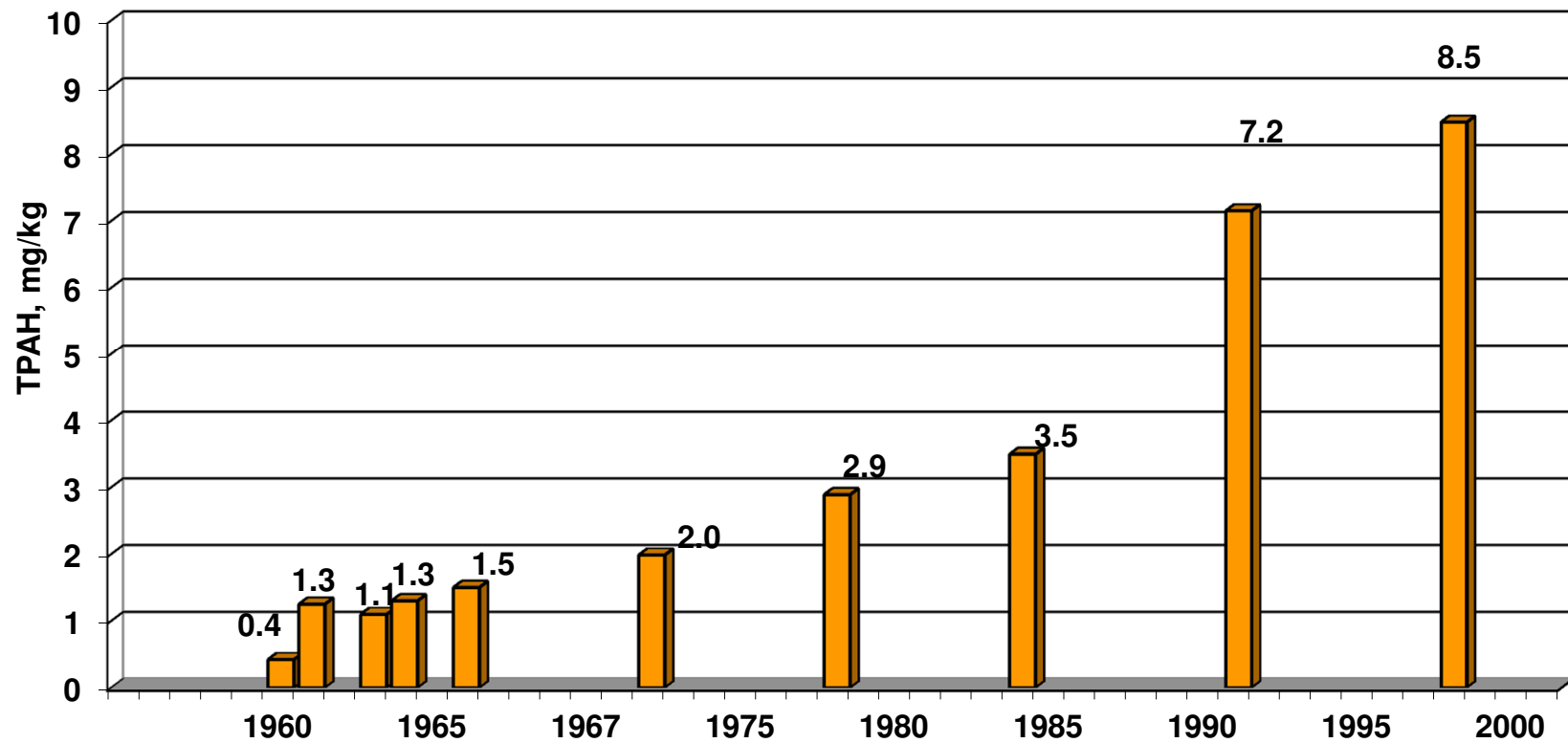
Deep in the heart...



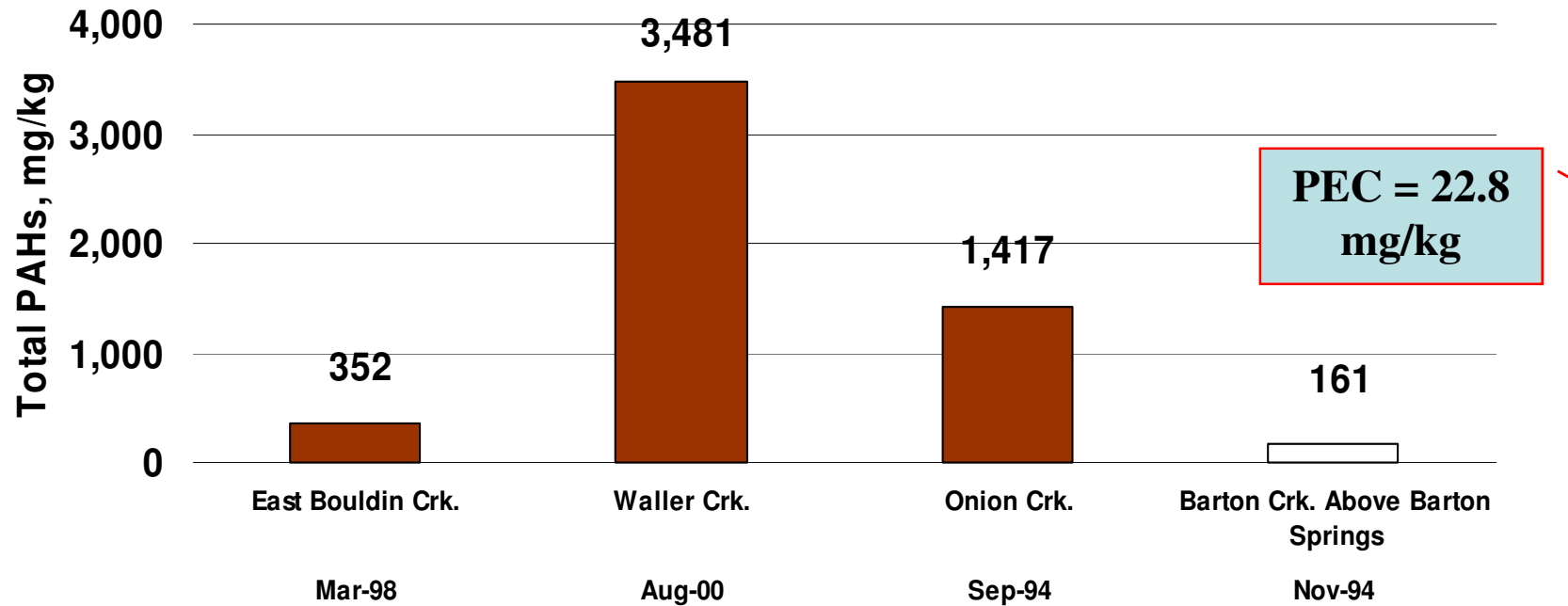
The City of Austin, TX

- ❑ 1 million+ in metro area
- ❑ MS4, Phase 1 permittee
- ❑ 60+ in Water Quality division
- ❑ Monitor 45 creeks, 3 reservoirs
- ❑ 25 years of water quality data

USGS looks at PAHs in sediment cores in local reservoir...



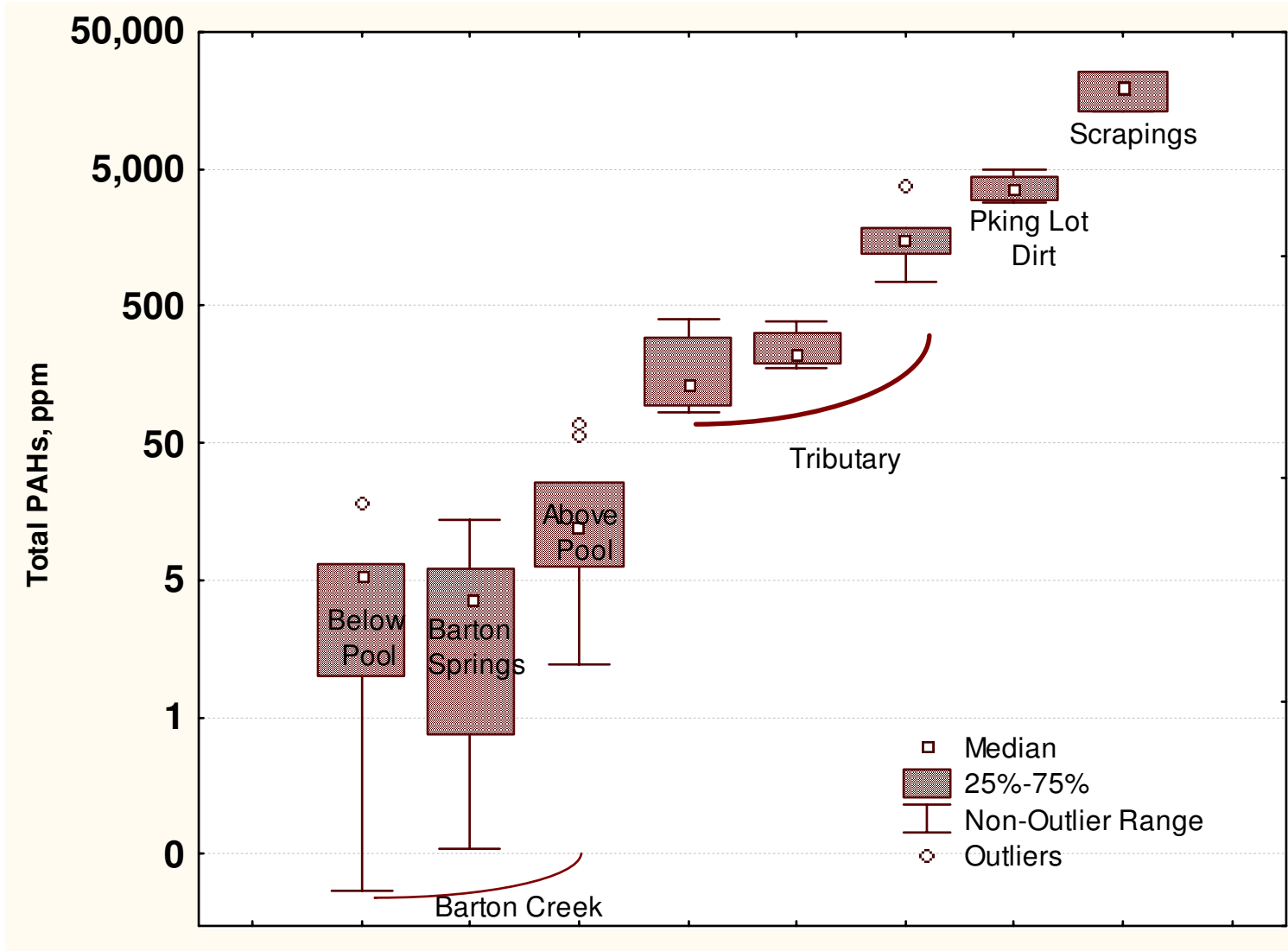
City of Austin monitors stream bed sediment ...



Barton Springs Pool



Tracing the source



Are PAHs from coal tar-based sealants (CTS) degrading Austin's streams?

Laboratory toxicity study

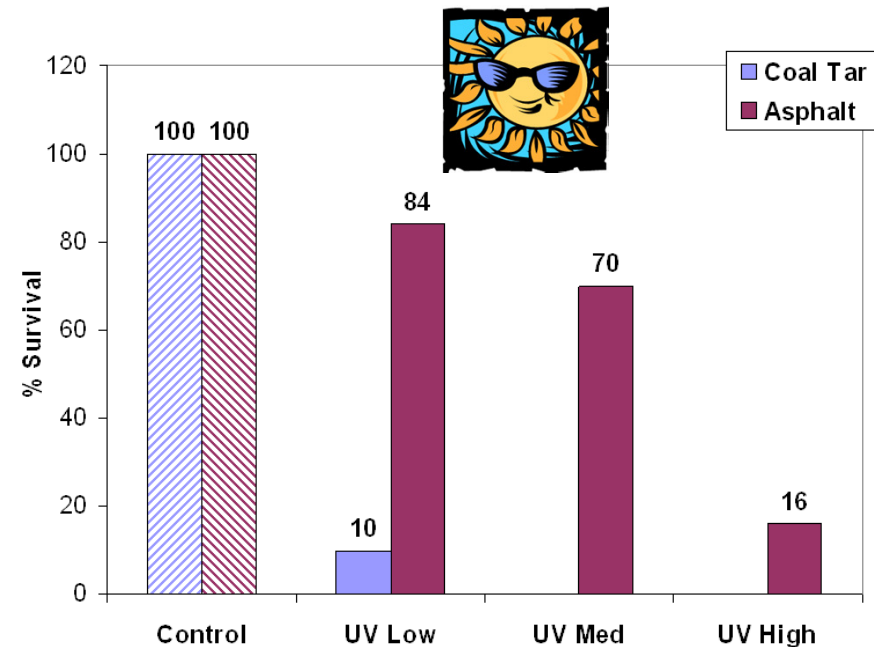
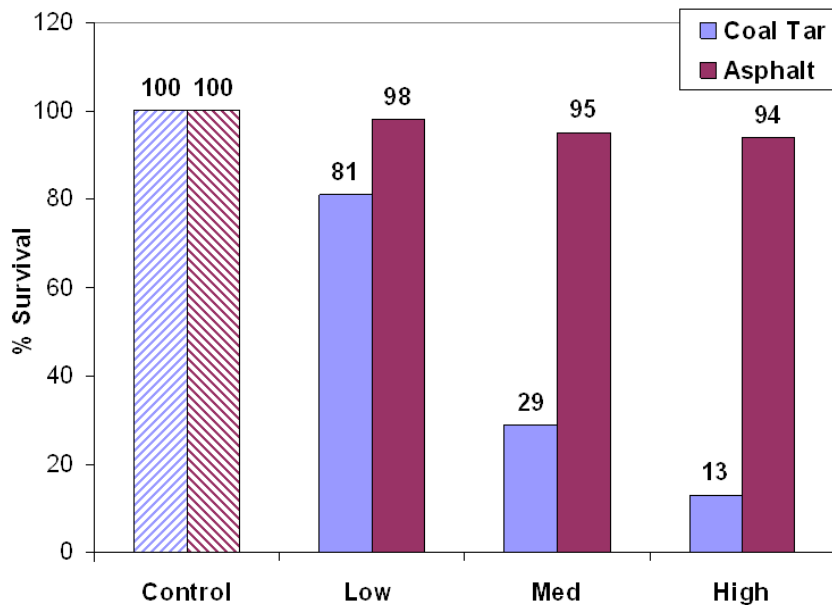
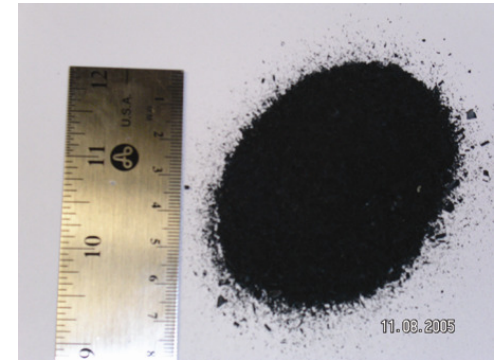
Microcosm community study

Field community study



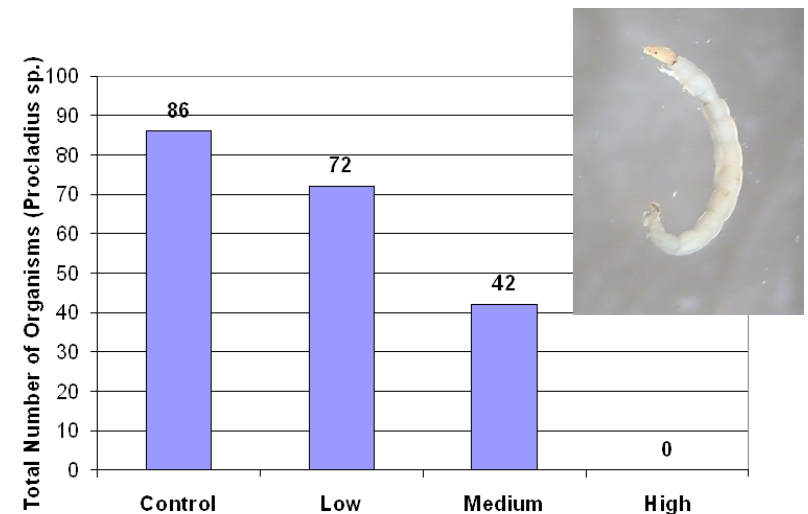
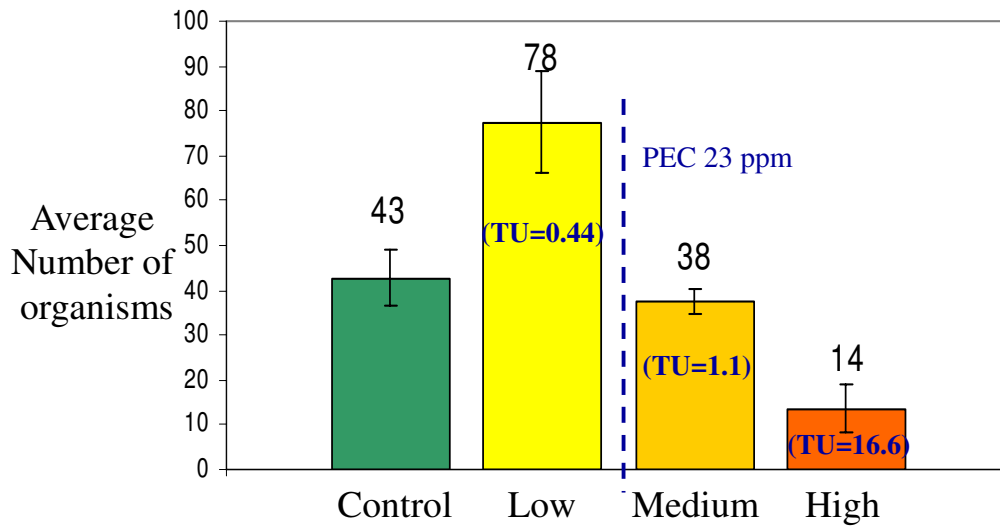
Ecological Effects: Are CTS sealants toxic to aquatic organisms?

Sediment spiked with dried sealant at 3 levels
28 day exposure, followed by ultra-violet light (UV)



Ecological Effects: Are CTS sealants toxic to aquatic communities?

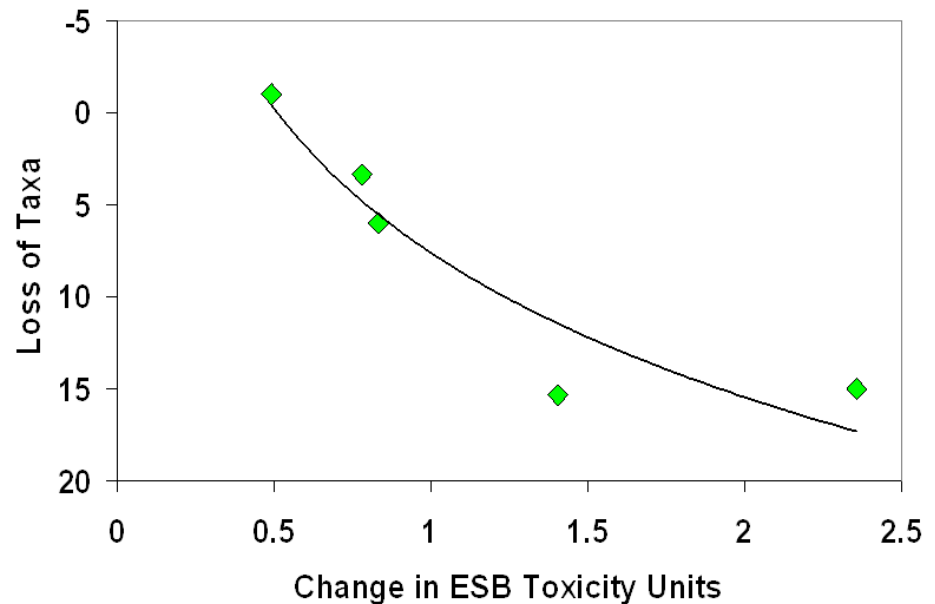
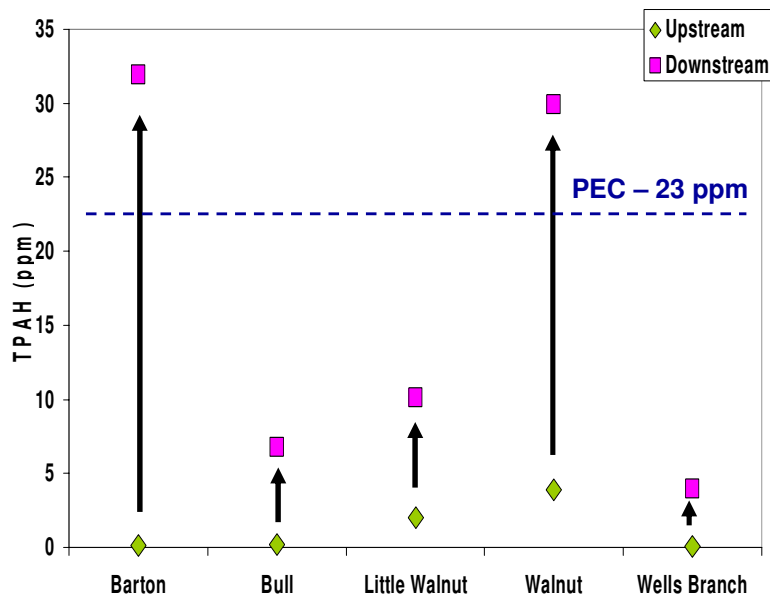
Spiked at 3 treatment levels
Inoculated with stream orgs
24-day exposure period



Ecological Effects: Are PAHs degrading Austin streams?

Sampling conducted upstream and downstream of 5 CTS lots

Sediment chemistry and biological communities and assessed



Ban Coal Tar Sealants?

> 600,000 gallons of CTS applied annually in Austin area in 2004

Wash-off study indicates sealants may represent majority of PAH load in streams studied

Concentrations of PAH's increasing in receiving water and over 13% of Austin streams have PAH hot spots (c. 2005)

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
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



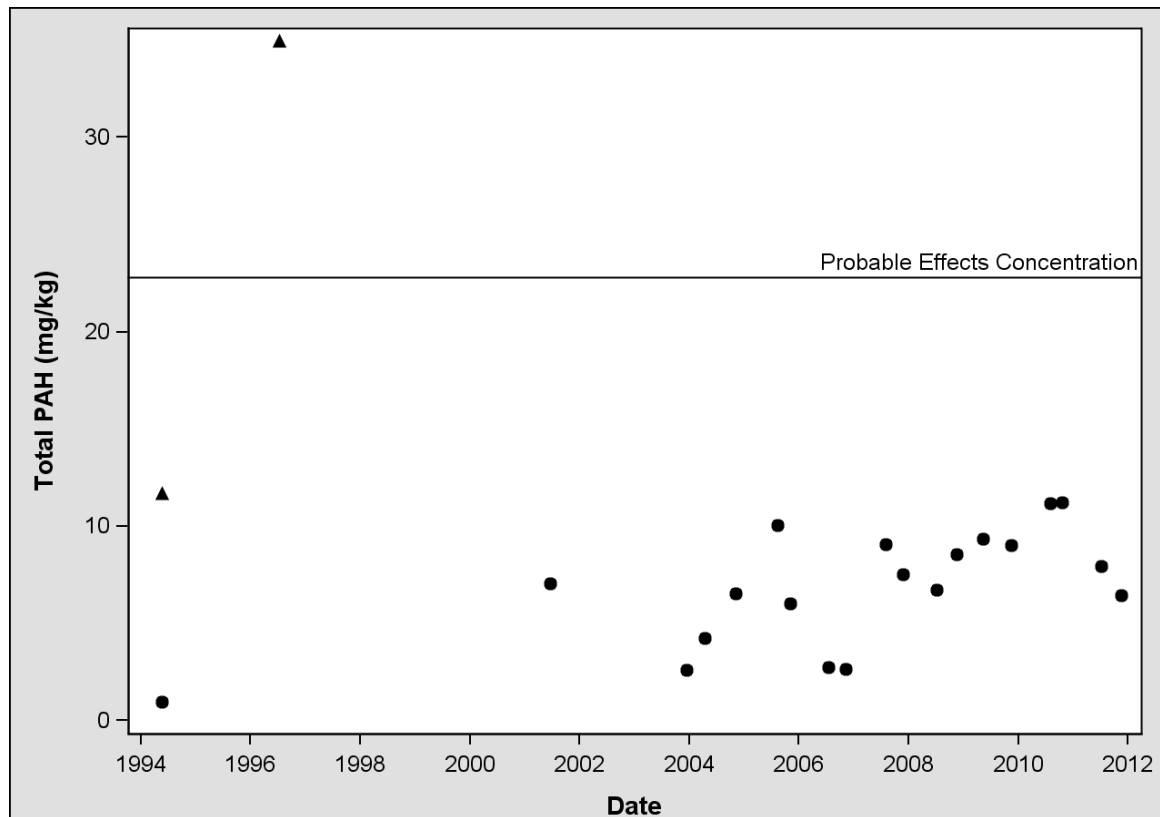
Ban Monitoring

Still early to make any conclusions

Legacy sources, PAH character is older

Some watersheds showing decreases

Many are variable with no trends



A silver van is parked on a paved driveway. To the right of the van is a tall black basketball hoop. 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 blue sky with light clouds.

Questions?