1,000 ppb: EPA may add site to Superfund priority cleanup list if in neighborhood or park setting

10,000 ppb: EPA likely to add site to Superfund priority cleanup list if in neighborhood or park setting

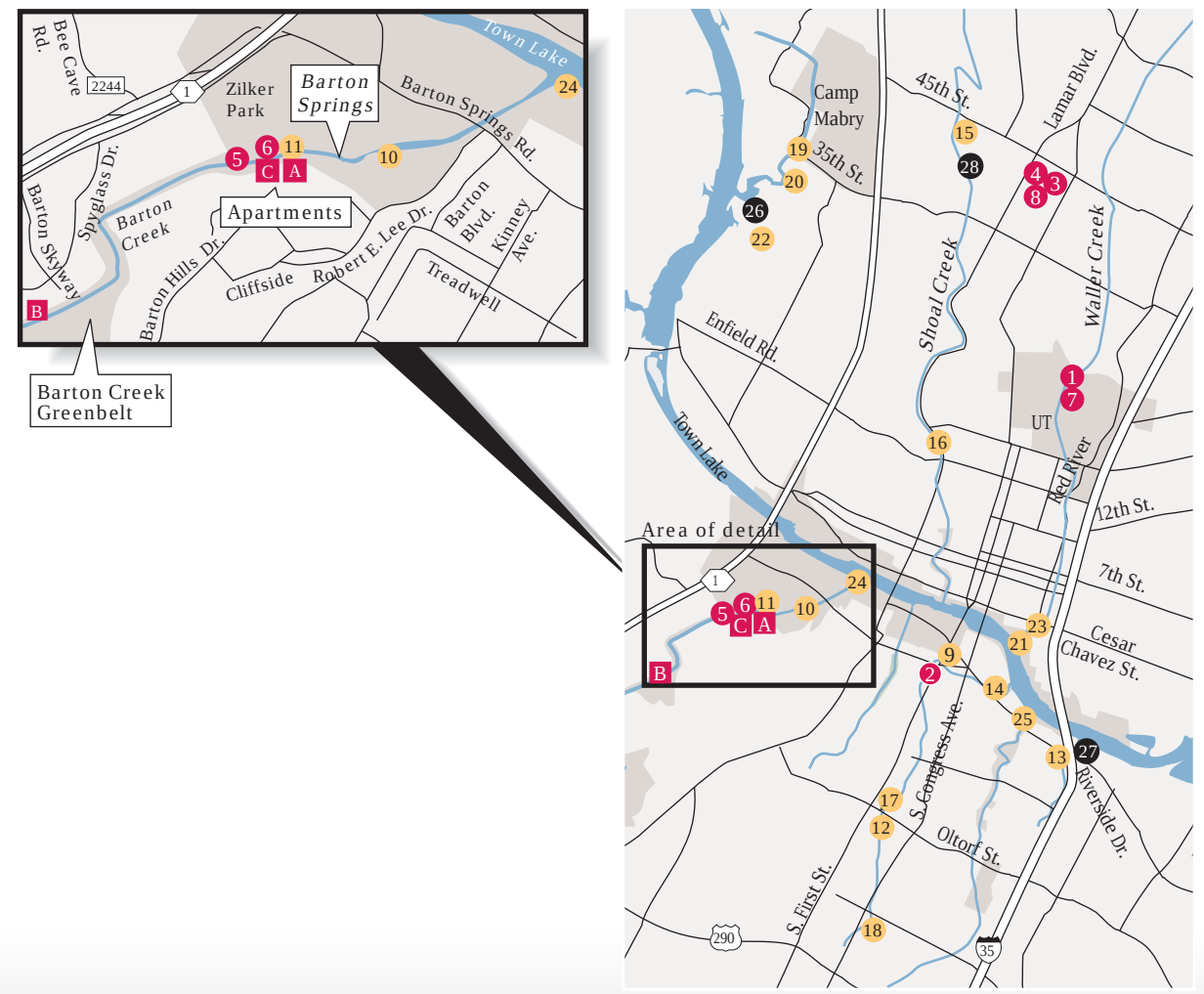
Stream sediment from toxic waste sites comparable to Austin test sites*

Messer Street Manufactured Gas Plant, Laconia, N.H.: 8,200 ppb (Superfund-level site)

Patrick Bayou, Deer Park, Texas: 2,360 (Superfund site)**

Results of Austin's stream sediment tests, 1991-2002*** (Areas near Barton Springs or Barton Creek are in bold type)

1. Waller Creek: 419,778 ppb
2. East Bouldin Creek: 65,586
3. Central Park Pond No. 1: 40,481
4. Central Park Pond No. 2 : 23,996
5. Barton Creek tributary at Waterfall Grotto: 18,232
6. Barton Creek, swimming hole above Barton Springs Pool: 16,665
7. Hemphill Tributary: 12,636
8. Central Park Pond No. 3: 10,295
9. East Bouldin Creek: 9,683
10. Barton Springs Pool, composite sample along lower dam: 8,882
11. Barton Creek between dams above pool : 7,799
12. East Bouldin Creek: 6,592
13. Harpers Branch Creek: 5,309
14. East Bouldin Creek: 5,201
15. Shoal Creek: 4,634
16. Shoal Creek: 4,019
17. East Bouldin Creek: 3,862
18. East Bouldin Creek: 3,565
19. Taylor Slough North: 3,454
20. Taylor Slough North: 2,372
21. Waller Creek: 1,655
22. Taylor Slough South: 1,561
23. Waller Creek: 1,485
24. Barton Creek, mouth of the creek at Town Lake: 1,464
25. Blunn Creek: 1,463
26. Taylor Slough South: 924
27. Harpers Branch: 490
28. Shoal Creek: 137



Shallow soil from Superfund toxic waste sites comparable to Austin test sites*

- Lincoln Creosote, Bossier City, La.; surface soil, drainage ditch: 102,130****
- United Creosote, Conroe, Texas; surface soil, residential area: 84,000
- Lincoln Creosote, Bossier City, La.; surface soil, residential area: 37,000
- Lincoln Creosote, Bossier City, La.; surface soil, apt. complex: 20,800
- United Creosote, Conroe, Texas; surface soil, industrial site: 2,180

Shallow soil from Austin test sites*** (Areas near Barton Springs or Barton Creek are in bold type)

- A. Hillside at Barton Hills Park Place apartments just above Barton Springs Pool: 355,576
- B. Drainage ditch near Spyglass Spring on Barton Creek: 132,674
- C. Dry creek bed below apartments at Barton Creek: 60,026

Comparing the sites

*Federal Superfund sites with a declaration of a public health hazard or cleanups driven by the detection of seven benzene-based compounds, or a combination of those chemicals and other contaminants. (Messer Street in Laconia, N.H., is a Superfund-level site. New Hampshire environmental officials persuaded the EPA not to add it to the Superfund list because two polluters volunteered to clean it up.) The results listed are the highest comparable levels of the seven benzene compounds reported in documents from the EPA or the Agency for Toxic Substances and Disease Registry.

**At Patrick Bayou in Deer Park, one location of 10 sampled had higher levels (23,764 ppb), but EPA officials did not use that result in their assessment because of suspicions about its validity.

****Does not include a 1985 test of surface areas because the testing process and results weren't comparable.

Testing for contaminants in Austin

***Results are listed if there has been more than one measurement of the seven benzene-based compounds above 90 ppb at a location or nearby in the same watershed. All results are from city tests between 1991 and 2002. High readings seen only once at a site, and not replicated by other tests at that location or nearby, are not listed because they may represent errors in laboratory or sampling procedures.

What are PAHs?

Polycyclic aromatic hydrocarbons are formed during the incomplete burning of coal, oil, gas, wood, garbage and other organic materials including tobacco and charbroiled meats. Seven benzene-based compounds in this family are probable or possible human carcinogens and are considered the most common of the PAHs that pose the most concern for human health.

PAHs commonly enter the environment through volcanoes, forest fires and the exhaust of cars and trucks. After falling to earth, the solid particles can enter streams and build up in sediments. The chemicals are commonly found in soil at old industrial sites that produced coal tar and aluminum and extracted natural gas from coal. Other sources of contamination include decomposing asphalt and used motor oil and grease that washes off streets and parking lots.

Levels of PAHs that accumulate in soil and sediment from auto exhaust and materials such as asphalt coatings are typically many times lower than levels seen at hazardous waste sites, based on nationwide studies of PAHs in streams and in urban and rural soils.

Source: Data from the City of Austin, the U.S. Environmental Protection Agency and the federal Agency for Toxic Substances and Disease Registry

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