

US EPA ARCHIVE DOCUMENT



Vegetation and Improved Habitat Proposed for Cleanup

Bridgestone Americas Tire Operations
Noblesville, Indiana

July 2010

Share your opinions

EPA invites you to participate in the cleanup process at the Firestone site in Noblesville. Your input helps EPA determine the best course of action. A public meeting with EPA representatives will be held:

Wednesday, July 14, 2010

5pm – 7pm

City Hall Room A-214

16 S. 10th Street

Noblesville, IN

A public comment period provides you an opportunity to share your opinions about the cleanup of Stony Creek's undeveloped floodplain. Comments can be submitted until July 30, 2010 in these ways:

- In writing at the public meeting or mail the comment sheet provided on P. 6.
- Via the Internet at:

http://www.epa.gov/reg5rcra/wptdiv/sites/firestone/pdfs/ind006418263_fs030910.pdf

- Fax to Rafael P. Gonzalez at 312-582-5864.
- E-mail Rafael at gonzalez.rafaelp@epa.gov

Project documents can be found at the Noblesville Public Library, 1 Library Plaza, Noblesville, IN.

Contact information

To learn more about the Firestone site contact one of these team members:

Rafael P. Gonzalez

EPA Public Affairs Specialist
Land and Chemicals Division
312-886-0269
gonzalez.rafaelp@epa.gov

Michelle Kaysen

EPA Project Manager
312-886-4253
kaysen.michelle@epa.gov

Region 5 toll-free: 800-621-8431,
9:30 a.m. to 5:30 p.m., weekdays

U.S. Environmental Protection Agency is recommending habitat enhancement along with additional vegetated cover be used to address the undeveloped floodplain along Stony Creek contaminated by pollution from the former Bridgestone Americas (Firestone) facility. Firestone contaminated Wilson Ditch and Stony Creek with an industrial chemical compound called polychlorinated biphenyls, better known as PCBs. Residential areas in the Stony Creek floodplain were cleaned up as an interim measure in 2008-2009 while additional, area-wide investigations proceeded. This latest cleanup proposal tackles remaining environmental issues in the undeveloped floodplain section of the Stony Creek study area (see attached statement of basis Figure 2).

EPA has been conducting cleanup activities at the Firestone site under the authority of the federal Resource Conservation and Recovery Act (RCRA). This plain language fact sheet summarizes technical information that can be found in a document called the "statement of basis." The statement of basis proposes the habitat stabilization work on Stony Creek's undeveloped floodplain area. It also proposes the 2008-2009 interim cleanup on residential areas as EPA's official, permanent cleanup plan.

Even more detail can be found in several other reports dealing with the Firestone site called the "construction completion reports" and "corrective measures proposal." All reports and documents are contained in the administrative record for this facility. EPA encourages the public to review these documents in order to gain a better understanding of the facility and cleanup activities that have been done there. The administrative record can be found at the document repository located within the Noblesville Library.¹

EPA may modify the proposed cleanup plan for the undeveloped floodplains or select another cleanup alternative based on new information or public comments so your opinion is important. See the left-hand box for ways you can participate in the decision-making process.

Site background

From 1936 to 2009 Firestone operated a rubber products manufacturing facility at 1700 Firestone Blvd. in Noblesville. The facility used heat-transfer fluid containing PCBs in the late 1960s and early 1970s. It is believed floor and roof drains at the facility released PCBs to Wilson Ditch, a man-made drainage channel. It flows south from the facility for a mile before emptying into Stony Creek. PCBs were first identified in Wilson Ditch sediment (mud) in 1984. That discovery prompted legal orders called "administrative orders on consent" or AOCs between EPA and Firestone in 1990 and 2001 describing the company's cleanup obligations.

The first AOC required on- and off-site field investigations and sampling efforts and some corrective actions within one-quarter mile of Firestone's property. Firestone was also required to implement temporary corrective action

1) Noblesville Public Library, 1 Library Plaza, Noblesville, IN 46060

measures for ground water near Firestone's property. Ground water is the environmental term for underground supplies of fresh water. Firestone sampled wells near its facility and found elevated pollution levels in some of them. The company supplied affected residents with bottled water until municipal water lines could be extended.

The second AOC included sediment cleanup activities in Wilson Ditch, monitoring requirements for sediment and fish tissue in Stony Creek, and several other corrective actions related to ground water under or near the facility (which remains on-going). The PCB-contaminated sediment in Wilson Ditch and at the mouth of Stony Creek was cleaned up in 2005 at a cost of \$1 million, eliminating the pollution source to Stony Creek and its floodplains.

Risks to people and the environment

Soil and wildlife samples were collected from the undeveloped and developed floodplains of Stony Creek in order to do a human health and ecological (wildlife) risk assessment. Risk assessments determine the chances of humans and wildlife getting cancer or a noncancer illness due to long-term exposure to pollution.

Unfortunately, zero risk is impossible to achieve in the highly industrialized United States where all air, water and soil contain at least some pollutants. Instead of aiming for zero contamination, regulators set limits on pollutant concentrations where most people will not suffer ill health effects. At cleanup sites, EPA's established acceptable risk range is one-in-a-million chance of getting cancer from pollution to one-in-10,000. The health risk assessment concluded:

- A 1996 study evaluated potential risks to human health from direct contact with Stony Creek sediment and found very low cancer and noncancer risks. Exposure to PCBs through fish consumption was not evaluated because fish advisories are in effect for Stony Creek.
- A 2009 study evaluated health risks to the undeveloped floodplain specifically looking at children playing in the mud along the creek. Predicted cancer and noncancer risks were well within health standards.
- After 45 properties were sampled and evaluated, investigators did find elevated health risks in parts of the residential floodplain. Following the cleanup, cancer and noncancer risks easily met health standards at all properties. Residences were also checked along Wilson Ditch, but PCB levels posed little health threat there.

- Several studies looked at fish and wildlife such

as blue herons, fox, mink, robins and bats and found Stony Creek remains a safe habitat.

Residential floodplain cleanup

As mentioned above, EPA oversaw Firestone's cleanup of residential properties in the developed floodplain of Stony Creek during 2008-2009. The current statement of basis summarized by this fact sheet proposes the 2008-2009 interim cleanup be considered the permanent cleanup action for the developed floodplain areas.

The Agency conducted extensive public outreach during the 2008-09 period by distributing documents, holding availability sessions with residents, receiving public comments and revising work plans based on those comments. Two cleanup options were presented to homeowners. One option excavated all soil with contamination levels exceeding one part PCB per million parts soil (part per million abbreviated ppm). The other option, which was generally selected by most homeowners, was not based on an absolute measurement such as 1 ppm but on risk-based contamination levels with homeowner input. Most residents wanted the risk-based standard applied so their entire yards would not be torn up during excavation.

Only four yards required excavation under the risk-based option. However, most other homeowners chose to have "hot spots" of PCB contamination removed from their yards and backfilled. Areas of soil and vegetation will be monitored. That will ensure this cleanup procedure was successful and continues to protect human health and the environment.

Alternatives for undeveloped floodplain

EPA considered five alternatives to address the undeveloped floodplain of Stony Creek. Each option was evaluated against nine criteria (*see box on Page 7 for an explanation of the criteria*).

EPA recommends Alternative 3 as its preferred cleanup option because it provides the best balance of the nine criteria and meets the requirements of federal law. It protects public health and the environment over the long term, complies with state and local regulations, and is cost-effective. Here is a summary of the cleanup options developed for the site:

Undeveloped Floodplain (UF) Alternative 1 – No

Action: EPA always includes a no action alternative as a comparison point for other options. **Cost - \$0.**

valued species expected to forage within the undeveloped floodplain such as bats, including the federally protected Indiana bat. The wildlife health risk assessment demonstrated the Indiana bat is not currently at risk from small amounts of PCBs that could be consumed in Stony Creek's undeveloped floodplain.

Although no Indiana bats have been spotted around the undeveloped floodplain, this area lies within the bat's range and provides suitable foraging and roosting habitat. In any event, this option will also benefit other bat and bird species as well as plant life. This alternative calls for erecting around 50 artificial roosting houses for bats and the planting of 100 tree seedlings favored by the flying mammal. This option also includes planting native groundcover in the two locations where elevated levels of PCBs were found. Firestone will develop a detailed habitat enhancement plan in collaboration with the city of Noblesville, the Central Indiana Land Trust and landowners in the area. **Cost - \$50,000 - \$100,000.**

UF Alternative 4 – Capping: This corrective measure involves placement of a physical barrier such as soil or a man-made cap over the two most highly contaminated PCB areas to reduce the potential for human or wildlife exposure to that soil. Specific design details of this alternative would be dictated by site conditions that could greatly affect cost and recovery potential. For example, cap thickness and density influence drainage within the floodplain forest and affect how water moves. Significant tree removal could also take place. Final details and costs would not be determined until the cleanup design is completed. **Cost - \$500,000 - \$1 million**

UF Alternative 5 – Focused Excavation: This option would involve removal of the upper 12" of soil from the two areas with elevated PCB concentrations, filling the excavated areas with clean soil and planting a vegetation cover. Focused excavation is typically conducted in areas with high exposure potential or spots that are at risk from erosion or human activities. Soil excavation would be conducted mechanically and would require designation of staging areas, construction of access roads or paths for equipment and cutting down mature trees and many smaller ones. **Cost – \$1 million-plus**

Evaluation of alternatives

Each alternative was evaluated against the nine criteria listed on P. 7 and the results are presented in chart form on P. 3. EPA recommends Undeveloped Floodplain Alternative 3 because it protects human health and the environment, offers short- and long-term protections, is easy to implement and is cost-effective.

EPA concluded all the proposed cleanup alternatives would protect human health and the environment and attain cleanup standards since the concentrations of PCBs on the undeveloped floodplains are at safe levels to begin with. But options UF-3, -4 and -5 would further reduce PCB exposure at the two locations with elevated concentrations. EPA's recommended UF-3 option would address the two spots without the habitat disruption and destruction of UF-4 (capping) and UF-5 (focused excavation). UF-3 also appears to be the most cost-effective in relation to other alternatives.

Next steps

Before it makes a final decision, EPA will review comments received during the comment period and at the public meeting. Based on new information presented in the comments, EPA may modify its preferred plan or select another option.

EPA encourages you to review and comment on the proposed cleanup plan. Much more detail on the cleanup options is available in the official documents on file at the information repository or EPA's Website: http://www.epa.gov/reg5rcra/wptdiv/sites/firestone/pdfs/ind006418263_fs030910.pdf

After the public comment period ends, comments will be summarized and responses published in an EPA document called "response to comments." This document will be available for review in the administrative record on file in the Noblesville Library or at the EPA Records Center at the Region 5 offices in Chicago.

Evaluation criteria chart on P. 7...

BRIDGESTONE AMERICAS TIRE OPERATIONS COMMENT SHEET

US EPA ARCHIVE DOCUMENT

Detach this page, fold on dashed lines, staple, stamp, and mail

Name _____
Address _____
City _____
State _____ Zip _____

FIRST CLASS

Rafael P. Gonzalez
Public Affairs Specialist
EPA Region 5
Land and Chemicals Division (L-8J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Evaluation criteria

EPA used nine criteria to compare the five cleanup options for undeveloped floodplain soil on the Bridgestone site:

1. **Overall protection of human health and the environment** addresses whether an alternative adequately protects the health of living things. The cleanup plan can meet this criterion by reducing or eliminating contaminants or by reducing exposures to them.
2. **Attainment of media cleanup standards** checks whether the remaining pollutant concentrations after cleanup meet EPA health standards.
3. **Controlling the source of releases** evaluates how well an option stops the original source of contamination.
4. **Compliance with waste management standards** determines whether each cleanup option follows federal, state and local waste disposal regulations. At this site, regulations from the federal Toxic Substances Control Act (TSCA) control the safe disposal of PCBs.
5. **Long-term reliability and effectiveness** addresses how well the option continues to do its job of protecting human health and the environment over a long number of years.
6. **Reduction of toxicity, mobility or volume of waste** determines how well the option reduces the hazard from the main pollutant, its movement and amount of pollution.
7. **Short-term effectiveness** compares how quickly an option can help the situation and how much risk exists while the option is under construction.
8. **Implementability** evaluates how feasible the option is and whether materials and services are available in the area.
9. **Cost** includes estimated capital or startup expenses such as the cost of buildings, treatment systems and monitoring wells. The criterion also considers costs to implement the plan, and operate and maintain it over time. Examples include laboratory analysis, sampling and personnel to operate equipment.

Habitat Restoration Part of Floodplain Cleanup Plan

Bridgestone Americas Tire Operations

Noblesville, Indiana

(details inside)

BRIDGESTONE TIRE OPERATIONS: EPA Proposes Floodplain Cleanup

Region 5
Superfund Division (SI-7J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

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