



Bridgestone Americas Tire Operations (Firestone)

U.S. EPA

Statement of Basis

Public Meeting

July 14, 2010

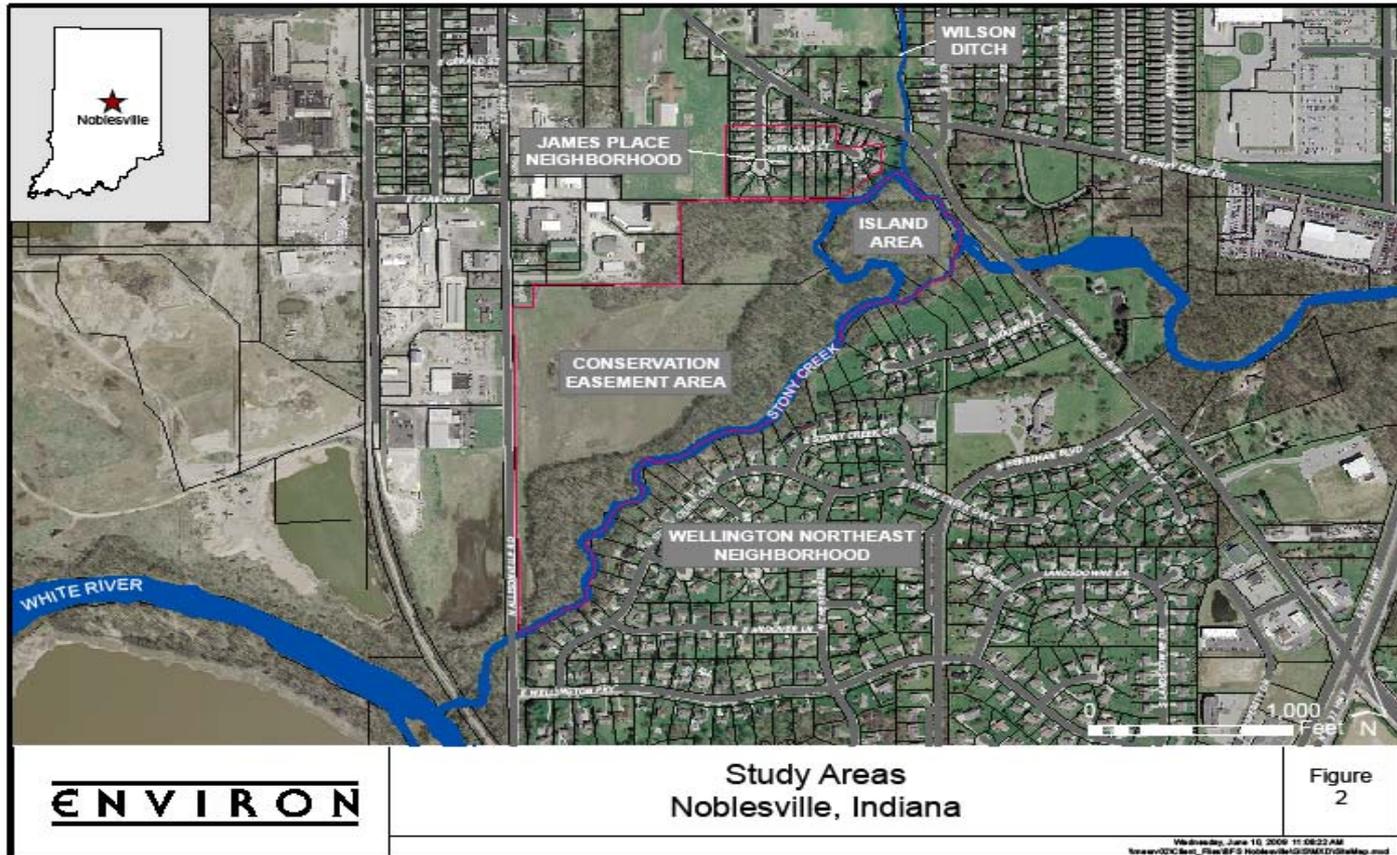
What is a Statement of Basis?

- A document in which EPA ***proposes*** a remedy to address contamination at a particular site.
- The Statement of Basis is available for public comment so EPA may better serve the community by selecting the best ***final*** remedy.

Background

- Wilson Ditch remediated
- Residential properties sampled
- Residential contamination cleaned up
- Stony Creek and undeveloped floodplain sampled
- EPA issued this Statement of Basis to ***recommend*** remedies and solicit your comments

Study Area

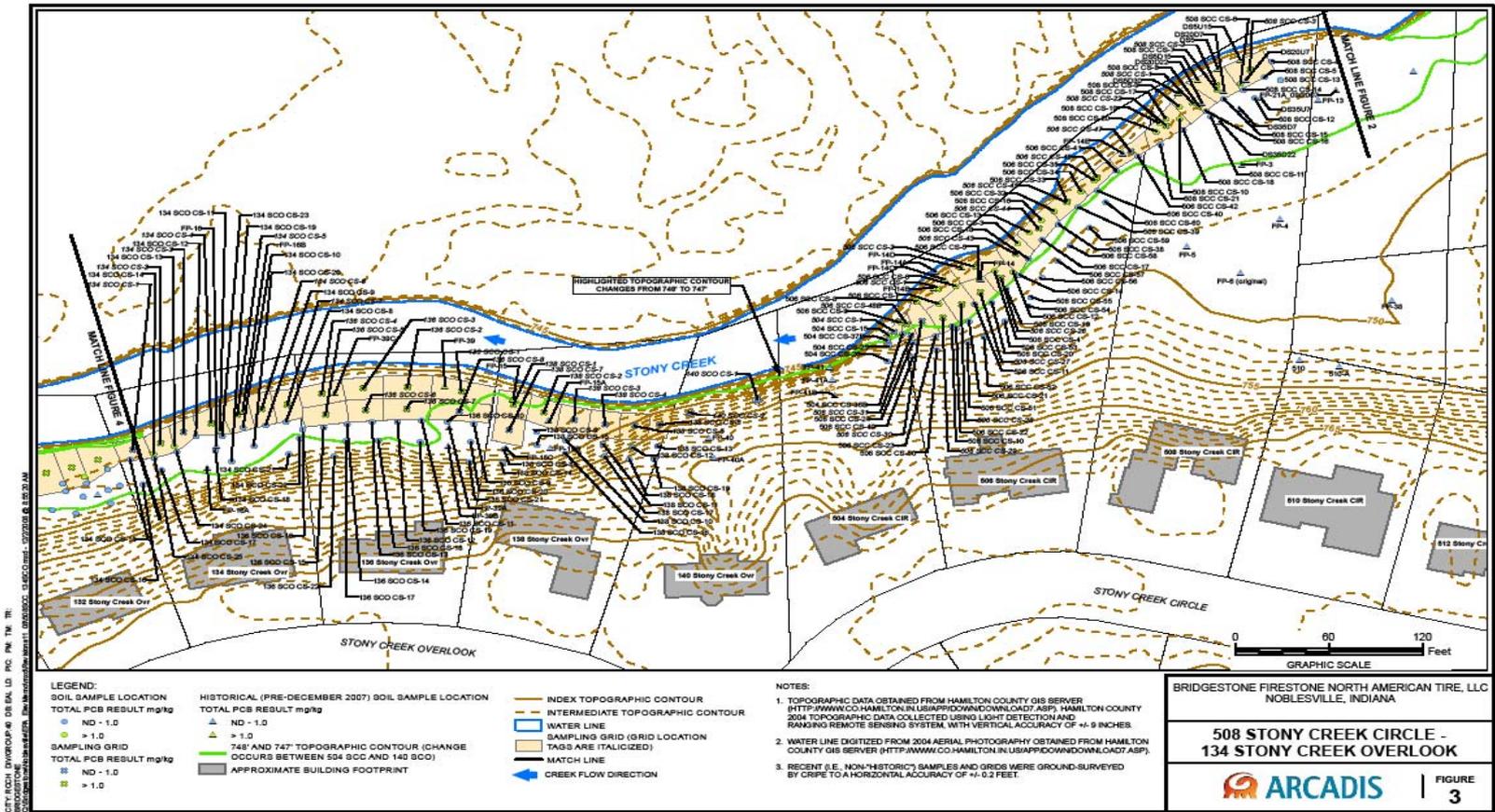


Residential Area

James Place and
Wellington Northeast
Neighborhoods



Extensive sampling characterized contamination and guided excavation: Approximately 8,000+ samples



What does this Statement of Basis mean for the Residential Area?

- Residential area cleaned up, with public participation; this Statement of Basis proposes the work conducted in '08 & '09 be the permanent cleanup.
- The community may still provide comments regarding the residential cleanup through this public participation period.

Undeveloped Floodplain

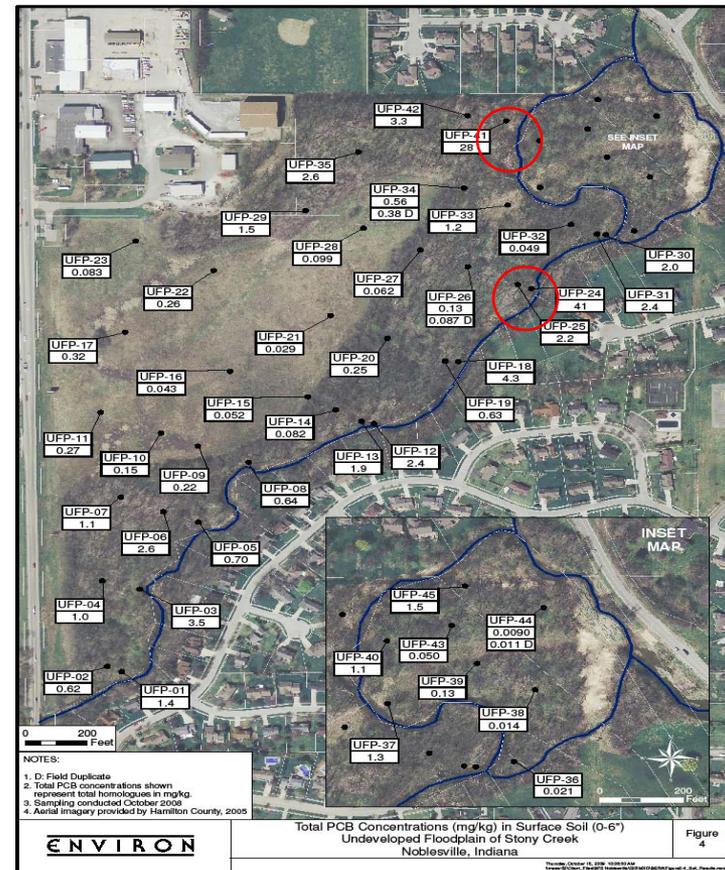
The area between the
James Place
neighborhood and
Allisonville Road

Undeveloped Floodplain

- EPA's *recommended* remedy for the undeveloped floodplain between the James Place neighborhood and Allisonville Road:
 - **Area-wide habitat enhancement with focused vegetative barriers**

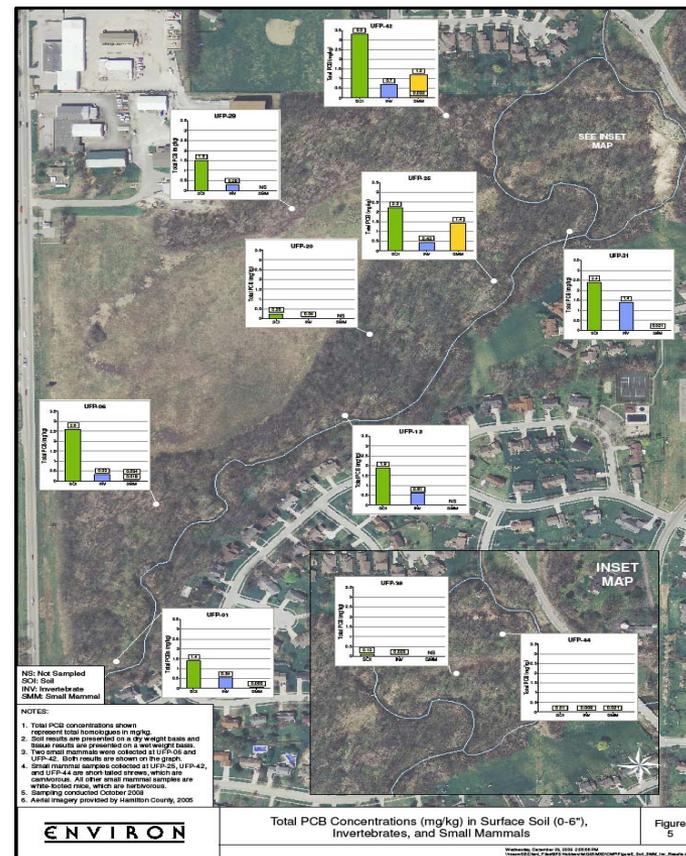
Soil Samples Collected in the Undeveloped Floodplain

- ~140 individual soil samples, composited at 45 locations
- Based upon exposure, samples 0-6"
- PCBs at all but 2 locations were below 5ppm; two locations, circled in red to the right, had 28ppm and 41ppm



Ecological Samples in the Undeveloped Floodplain

- Potential ecological risk evaluated by also collecting “biota” samples (invertebrates and small mammals)
- Ten invertebrate samples, earthworms, were collected
- 8 small mammals were collected



What did the Samples tell us?

- The soil in the undeveloped floodplain has an average PCB concentration of 2.5ppm
- The earthworms have an average PCB concentration of 0.44ppm
- The small mammals have an average PCB concentration of 0.35ppm

What does all that mean?

- Exposure pathways evaluated = humans and wildlife
- As with the residential properties, a risk based level was developed to compare to the actual soil levels
- The soils in the undeveloped floodplain are well below the risk based level of **34ppm***; there's **not** an unacceptable risk to humans
- Ecological risk assessment found there is **not** an unacceptable risk to wildlife

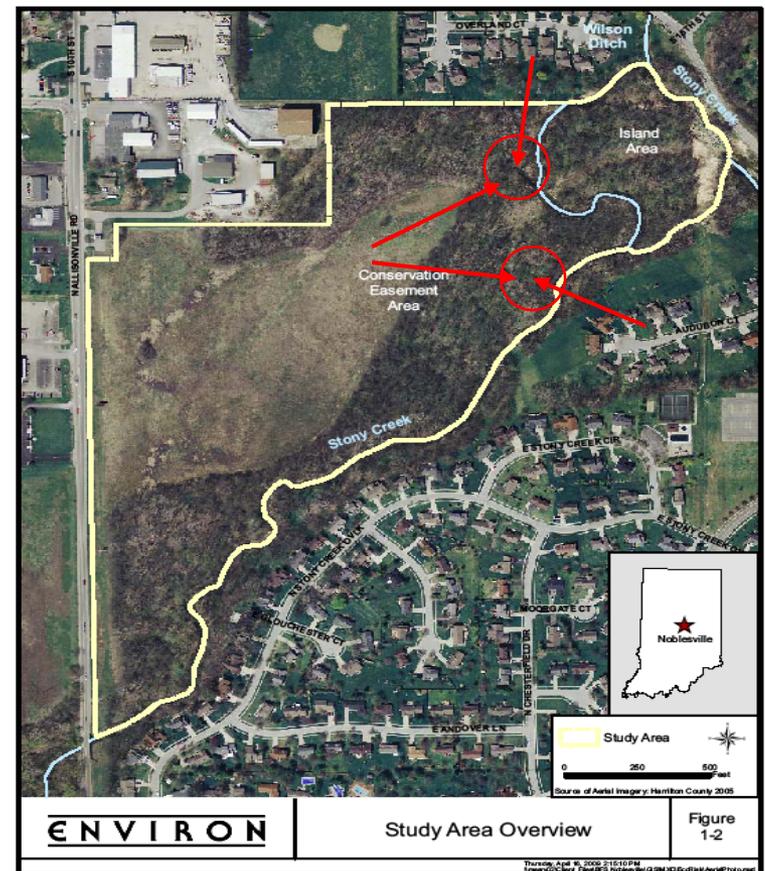
*34ppm is the risk based value calculated for the floodplain using PCB toxicity and conservative exposure assumptions for land use; child recreator ages 2-16, 37 days per year, for 5-9 years. Please also reference the human health risk assessment slides on the website.

EPA's Recommended Remedy

- The remedy we are *proposing*, and opening for public comment:
 - Area-wide habitat enhancement with focused vegetated barriers
 - The two locations where PCB concentrations are elevated would receive a **vegetated barrier**, native groundcover, in order to reduce potential exposure to soil
 - To generally improve the quality of the habitat, 100 tree seedlings would be planted and 50 bat houses erected

Why has EPA proposed this remedy?

- Floodplain does not present risk; however, 2 locations have higher PCB levels
- Proposed remedy doesn't include focused excavation because EPA is concerned with tree loss, soil erosion and habitat loss
- This remedy is consistent with homeowners' expressed desire to preserve trees



More about the Proposed Remedy: Undeveloped Floodplain

- Compare to residential: if floodplain was a backyard, the whole yard has a safe level but two grids elevated levels, one could leave those grids in place or excavate
- Why not excavate here?
 - Designated a “critical” watershed habitat; tree removal
 - Current land use prohibits public access-which limits exposure-and is intended to preserve the habitat for at least 50 years
- Why bother with the barrier?
 - It further reduces potential exposure and is of minimal impact to the habitat

Stony Creek

Between Wilson Ditch
and Allisonville Road



Stony Creek

- 2001 creek remedy: monitoring of sediment and fish
- 2005 ditch cleanup found Stony Creek mouth PCBs, EPA requested *full* creek delineation
- 2006 ~150 samples from 0-6" with average PCB of 1.1ppm (max of 7.8ppm)
- 2009 ~70 sediment samples collected from 0-12" with average PCB concentration 0.40ppm

What's Next for Stony Creek?

- EPA is not recommending a new remedy for Stony Creek
 - The concentration of PCBs in Stony Creek sediment is 0.69ppm for surface and 0.74ppm for subsurface
- The sediment in Stony Creek has been fully delineated with robust sampling events and demonstrate that the concentration of PCBs is below 1ppm
 - This Statement of Basis presents Stony Creek data but does not propose any additional remedy

Stony Creek Fish

- 2001 remedy selected for creek included fish monitoring; every 2yrs until PCB are less than 2ppm in three sampling events consecutively
- 2009 decision criteria amended to get better samples
 - Sample fish until the 95% UCL in three feeding guilds are less than 2ppm
 - More robust sampling and statistical analysis allows EPA to reach remedy goal more efficiently and with more confidence

Stony Creek Fish Data

- 3 different kinds of fish were sampled; green sunfish, northern hog sucker and rock bass
- 2 different kinds of samples were taken; whole body and fillets
 - Whole body samples are more representative of ecological receptors
 - Fillets are more representative of human receptors

Fish	Sample	PCBs
Green Sunfish	Whole Body	9.4 ppm
N. Hog Sucker	Whole Body	3.8 ppm
Rock Bass	Whole Body	4.4 ppm
Green Sunfish	<i>Fillets</i>	1.1 ppm
Rock Bass	<i>Fillets</i>	0.47 ppm

Fish Data Conclusion

- Whole body fish tissue data remains above 2ppm; therefore, fish must continue to be monitored and sampled via *whole body* method every other year
- Fillet samples are now below the 2ppm decision criteria and therefore do not require additional monitoring

Summary

- Residential Areas: EPA is proposing the interim measure cleanup as the final remedy
- Undeveloped Floodplain: EPA is proposing “area-wide habitat enhancement with focused vegetative barriers”
- Stony Creek: EPA is not recommended a new remedy for the creek as the sediment is below 1ppm; however, fish will continue to be sampled

Questions or Comments?

