

Suggested Content for www.spokaneriverpcbfree.org

HOME PAGE

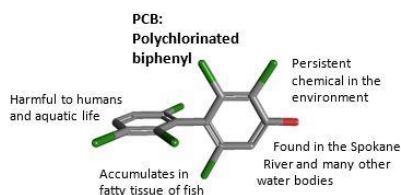
The goal of this website is to provide information about polychlorinated biphenyls (PCBs) and the challenge of removing them from our environment. Members of the Spokane River Regional Toxics Task Force (SRRRTF or Task Force) provide funding for this website to share accurate and useful public information.

The Task Force stresses that there is much more to learn about PCBs and how to find and reduce them within our environment. While the Task Force is focused on the impact of PCBs in the Spokane River in eastern Washington state, this information can apply to other communities with similar concerns related to PCBs.

ABOUT PCBs (drop down)

What are PCBs?

Polychlorinated biphenyls (PCBs) are a family of toxic human-made compounds that persist in the environment and accumulate in animal tissue. There are 209 different PCB molecules that range in degree of toxicity. PCB mixtures vary, from thin and light-colored liquids to yellow or even black waxy solids.



Background on PCBs

PCBs were first produced in 1927 and became commercially manufactured in 1935 for their insulating and fire-resistant properties. They were used in many products including: oil-based paints, hydraulic fluids, electrical equipment (transformers, capacitors, light ballasts, switches, and electromagnets) as well as adhesives and tapes, cable insulation, building caulking, and floor finish. When it was found that PCBs build up in the environment and result in serious health effects in animals and humans:

- Commercial production of PCBs was curtailed in 1977.
- EPA banned the uncontained use of PCBs in the United States in 1979 via the Toxics Substances Control Act (TSCA).
- There were no regulatory controls on PCB disposal before 1979, therefore legacy PCBs can still be found throughout the environment.
- In 1979, the estimated global inventory of PCBs was 1.5 million tons.

Commented [PC1]: Worldwide? Or just US??

Where are PCBs found?

Potential sources of PCBs in the Spokane River Watershed

Though PCBs are not manufactured in Spokane, there are many sources of PCBs to wastewater treatment plants and stormwater systems, which discharge to the River. These sources include human waste, industrial processes, consumer products, clothing dyes, inks in recycled newsprint, motor oil, and more. Wastewater treatment plants remove significant amounts PCBs from water but cannot eliminate enough to reach the low levels of the water quality standards (See "[Why are PCBs Harmful?](#)"). While work is underway to reduce PCBs in contaminated soils, from stormwater systems, and in waste treatment plants, there are still unknown sources that need to be identified and addressed. Once sources are more clearly understood, identification of the best way to reduce the sources of PCB to the river can begin.

Why are PCBs Harmful?

PCBs end up in our environment, including our lakes and rivers. They persist and travel up through the food chain, in some cases having ongoing impacts to humans and the environment. Low concentrations in the river build up (bioaccumulate) to higher concentrations in fish. This is a serious issue, particularly for people that consume fish from the Spokane River. Exposure to PCBs can result in skin ailments and liver damage, and they are a probable carcinogen. PCBs also have negative health effects on immune, reproductive, nervous, and endocrine systems. It is difficult to precisely calculate PCB source contributions due to low PCB concentrations and natural variability.

Bioaccumulation occurs when an organism is exposed to a toxin over time.

Biomagnification occurs as toxins build up in concentration up the food chain.

PCBs ([Dept. of Ecology, 2014](#)). Ecology tested 133 more products in 2015 and found that 72% of the samples contained PCBs above 1 part per billion ([Ecology, 2016](#)). Conflicting regulations pertaining to PCBs and inadvertent production of PCBs can make it very difficult to fully address the PCB problem.

What is being done?

PCB Cleanup and Source Reduction

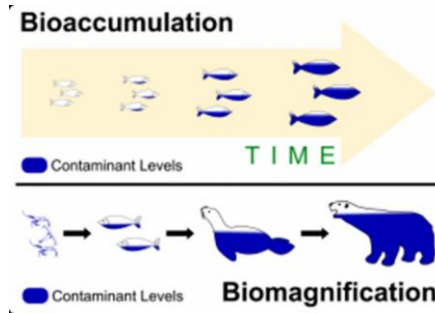
In the past 20 years, there has been a significant decrease of PCBs in the Spokane River because of cleanup and regulatory actions.

- Remediation has directly removed significant sources of PCBs.
- Natural reductions in PCBs have also occurred due to EPA bans on commercial production and restrictions on use.

More work is needed, however, if we are to have a clean river. To achieve the water quality goals for the river, we need to reduce levels of PCBs by orders of magnitude. This will take a coordinated approach with everyone working together – locally, across the state, and at the national level.

While wastewater treatment plants receive PCB-containing water from the communities they serve and effectively remove the majority of PCBs, current technology does not allow treatment plants to reach the low levels of the water quality standards. Once remaining sources are more clearly understood, more sensitive PCB testing is developed, and laws regarding PCBs in products are tightened, we should see improvements.

View the [SRRITF Comprehensive Plan](#) to see the individual control actions being implemented.



Bioaccumulation

Bioaccumulation occurs when an organism is exposed to a toxic over time. Biomagnification occurs as toxins build up in concentration up the food chain.

PCB Reduction Challenge

PCBs are not only a legacy pollutant. US EPA regulations, under the Toxics Substances Control Act (TSCA), still allow for the production of “inadvertent” PCBs. This Federal allowance of 50 parts per million (ppm) is much larger than the Washington water quality standard for PCBs at 0.000000007 ppm, and the Spokane Tribal water quality standard of 0.000000013 ppm. Recent testing by the Washington state Department of Ecology found that PCBs are present in commonly used consumer products. Forty-nine of 68 products tested contained

Commented [PC2]: Big issue for the Task Force, may be worth a pullout / box quote too

EDUCATION (drop down)

What Can I Do?

The advice we can give today, with the knowledge we have, is to follow standard environmental stewardship as you would for any toxic or poison. Instead of solely targeting PCBs in the environment, we recommend a comprehensive approach: reduce the purchase and use of all toxic chemicals, including PCBs.

Learn what, why, and where to dispose of hazardous waste at www.spokanewastedirectory.org.

Visit [Other Resources](#) for information to help each of us minimize our impact and reduce our personal toxic footprint.

Containing and Disposing of PCBs

Containing and disposing of PCBs is difficult because they are pervasive in our environment. It is also difficult to know which products contain higher levels of PCBs and which don't. Testing has been done on just a few products. PCBs can be found in everyday products like paint, printing inks, clothing pigments and dyes, pesticides, old fluorescent light ballasts, caulking, lubricants, and hydraulic fluids. Do not dispose of PCB-containing material in regular trash or down the drain or storm drain!

If you believe your household material contains PCBs (or you're just not sure), contact the Recycling Hotline at 509-477-6800, Monday - Friday 8:30 a.m. - 4 p.m. Your options for disposal will be different depending on the material. The Recycling Hotline will help you dispose of the material properly.

Specific Groups

Additionally, we will add tips and recommendations on these pages as we learn more information. The science community is still learning too, so stay tuned!

- [Information for Homeowners](#)
- [Information for Businesses](#)
- [Information for Building Contractors](#)

Lessons/Activities <<<< Hide this page for now. Will add to it later.

Printable Educational Materials

PCB poster

<< Please create a small graphic (approx. 2"x3"?) of the attached PCB poster for people to click on and open full sized version. >>

Fish Advisory for Spokane River

<< Please create a small graphic (approx. 2"x3"?) of the attached Fish Advisory for people to click on and open full sized version. >>

Wastewater <<<< Hide this page for now. Will add to it later.

Stormwater <<<< Hide this page for now. Will add to it later.

Other Resources

Safer Choice Program



www.epa.gov/saferchoice

Safer Choice is an Environmental Protection Agency program that helps consumers, businesses, and purchasers find products that perform and are safer for human health and the environment.

Sustainable Packaging Coalition



<https://sustainablepackaging.org>

The Sustainable Packaging Coalition is a membership-based collaborative that believes in the power of industry to make packaging more sustainable. They are a leading voice on sustainable packaging and passionate about creating packaging that is good for people + the environment.

Safer Chemicals, Healthy Families



<http://saferchemicals.org/>

This coalition represents organizations and businesses united by a common concern about toxic chemicals in homes, places of work, and products used every day. They advocate for reform of outdated toxic chemical laws, working with retailers to phase out hazardous chemicals from the marketplace and educating the public about ways to protect one's family from toxic chemicals.

Spokane Waste Directory



www.spokanewastedirectory.org

The Spokane-Kootenai Waste Directory helps you search for vendors near you that will manage specific waste types and is a guide to learning more about all types of waste.

Green Screen for Safer Chemicals



www.greenscreenchemicals.org

GreenScreen® for Safer Chemicals is a globally recognized tool that identifies hazardous chemicals and safer alternatives. Companies are using GreenScreen to innovate towards safer chemicals and create market efficiency in global supply chains.

CleanGredients



CLEANGREDIENTS™

<https://cleangredients.org>

CleanGredients is a database of chemical ingredients used primarily to formulate residential, institutional, industrial, and janitorial cleaning products that have been pre-approved to meet the U.S. EPA's Safer Choice Standard. CleanGredients is an indispensable purchasing resource for formulators who are seeking suppliers of chemical ingredients that will help them to obtain the Safer Choice label. Using CleanGredients helps formulators reduce risk to their business, save money, and get their products to market faster.

Toxic-Free Future (formerly Washington Toxics Coalition)



<https://toxicfreefuture.org/key-issues/clean-and-healthy-waters/>

Striving to make complicated issues easy to understand for everyone, Toxic-Free Future advocates for the use of safer products, chemicals, and practices through advanced research, advocacy, grassroots organizing, and consumer engagement to ensure a healthier tomorrow.

Environmental Protection Agency



<http://www.epa.org/pcbs>

The Environmental Protection Agency has many materials and information plus a link to PCB laws and regulations.

WHAT'S NEW?

Looking into embedding an RSS feed that looks for news that contains keywords? If so, we'd just like an embedded feed that displays articles that have any of these words:

- "PCB", "PCBs", "PCB's", "Polychlorinated biphenyls", "Poly chlorinated biphenyls"

Our goal is to have current news stories without having to go look for them.

ABOUT SRRTTF (drop down)

Background

Direct-to-Implementation Approach to Toxics Reductions

Formed in 2012, the Task Force's current mission is to tackle the most difficult problem in the Spokane River, PCBs. This toxic chemical exists in nearly every water body around the world.

Commented [PC3]: I thought the mission was to bring the River into compliance w/applicable water quality standards...maybe this is a goal?

To accelerate clean-up actions, interest groups and governments in the Spokane River basin are collaborating on a unique and innovative approach to reducing polychlorinated biphenyls (PCBs) and dioxins in the River: instead of taking years through a painstaking process to define the precise path to addressing this complex challenge, the Task Force has chosen a direct-to-implementation strategy that establishes a Spokane River Regional Toxics Task Force (SRRTTF or Task Force) to identify and reduce PCBs and dioxins at their source in the watershed.

The Washington Department of Ecology, The Idaho Department of Environmental Quality, and the U.S. Environmental Protection Agency serve in advisory roles for the SRRTTF and are very supportive of this innovative and cooperative approach as a direct means of improving the quality of our waters.

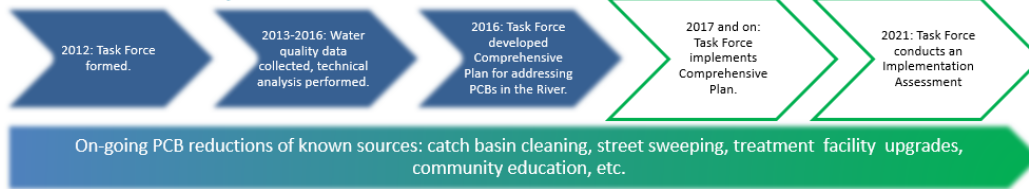
The SRRTTF has worked hard to identify sources of PCBs still entering the watershed and has developed a comprehensive plan [<link to Comprehensive Plan page>](#) to address these sources. To develop the plan, the Task Force collected water quality data to better understand sources and pathways of PCBs in the Spokane River system.

- We are working together on a new approach that identifies sources of PCBs and dioxins, directly applies a plan for reduction and elimination, and results in improvements to the River.
- The Task Force is the only regional group in Washington and Idaho working to make measurable progress towards reducing PCBs, dioxins, and their sources.
- We expect this innovative approach to be faster and less expensive than the traditional method for improving the River, which involves a lengthy process of studies and negotiations prior to any cleanup activity.

Commented [PC4]: Is the River Forum not regional?

Visit the Spokane River Regional Toxics Task Force [home page](#) to learn more.

Timeline of Work



Comprehensive Plan

The Task Force developed the Comprehensive Plan to guide projects in Idaho and Washington that will identify, reduce, and eliminate PCB sources to the River. It lays out findings from several years of studies that measured the extent of PCB pollution in various sections of the River and identified sources of PCBs and how they reach the river.

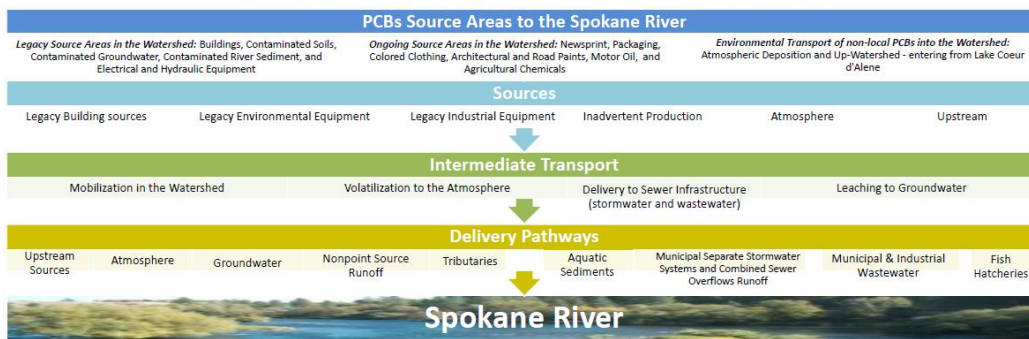
Commented [PC5]: Again, stronger & clearer to avoid the passive

The Plan also specifies projects and practices that, if applied, will reduce PCBs in the River. Examples include:

- Measures to capture polluted stormwater through green building design
- State-of-the-art treatment technology for industrial and municipal dischargers to filter PCBs out of wastewater before it enters the river

Read the [Comprehensive Plan](#) in its entirety.

PCB Sources and their transport and pathways to the Spokane River

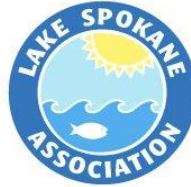


Task Force Member Roster

Commented [PC6]: Great graphic! To be consistent (assuming we can edit this), "Legacy Building sources" should have the "S" in "sources" capitalized

See the complete Task Force member roster [here](#).





Contact

Questions? Please email us at srrtfoutreach@gmail.com. Depending on your inquiry, we will either answer your question directly or refer you to the appropriate Task Force member.

RIGHT-SIDE LINKS

Info. for Homeowners

Waste Disposal

Learn what, why, and where to dispose of hazardous waste at www.spokanewastedirectory.org.

Be a consumer and water advocate!

A key strategy to eliminating PCBs is to STOP ALLOWING PRODUCTS TO CONTAIN THEM. Because products are still allowed to contain PCBs, **ask product suppliers if they know if their products contain PCBs!** If enough people bring attention to it, more corporations might evaluate their products by asking the same question of the manufacturers. Just like organic foods and cage-free eggs have reached market viability, perhaps PCB-free products could reach the same point if the consumer demands it. When asking the question, anticipate that the employee won't know the answer but the question simply raises awareness.

- ◆ Ask the oil change business you patronize if they would find out if their oil is PCB-free. If they say it is, ask if they have documentation to show that.
- ◆ When purchasing paints or dyes, check with the merchant to see if they ask product manufacturers about PCB content.
- ◆ Request plain packaging that uses less ink since a lot of common packaging contains PCBs due to inks and dyes.

Avoid the drains!

The more chemicals, solvents, oil, paints, fertilizers that go into our storm drains and home drains, the more we push out into the environment. Simply put, be thoughtful about your purchase and disposal of products. Look for green alternatives if possible.

"Only rain down the storm drain."

Be aware of fish consumption advisories.

Since PCBs can bio-accumulate in fatty fish tissue, it's important to allow fatty tissue to drip away when grilling/cooking. << Please create a small graphic (approx. 2"x3"?) of the attached Fish Advisory for people to click on and open full sized version. >>

Info. for Businesses

We are developing information more specific to businesses. Please visit again soon. In the meantime, review the information for homeowners because the same guidelines can be applied in the business setting.

Green Screen for Safer Chemicals



www.greenscreenchemicals.org

GreenScreen® for Safer Chemicals is a globally recognized tool that identifies hazardous chemicals and safer alternatives. Companies are using GreenScreen to innovate towards safer chemicals and create market efficiency in global supply chains.

Info. for Building Contractors

We are developing information more specific to building contractors. Please visit again soon. In the meantime, review the information for homeowners because the same guidelines can be applied during a construction or remodeling project.