

SPOKANE
RIVERKEEPER®

It's Your River. We Protect It.

Our Values:

- Healthy Fish
- Clean Water
- Strong communities



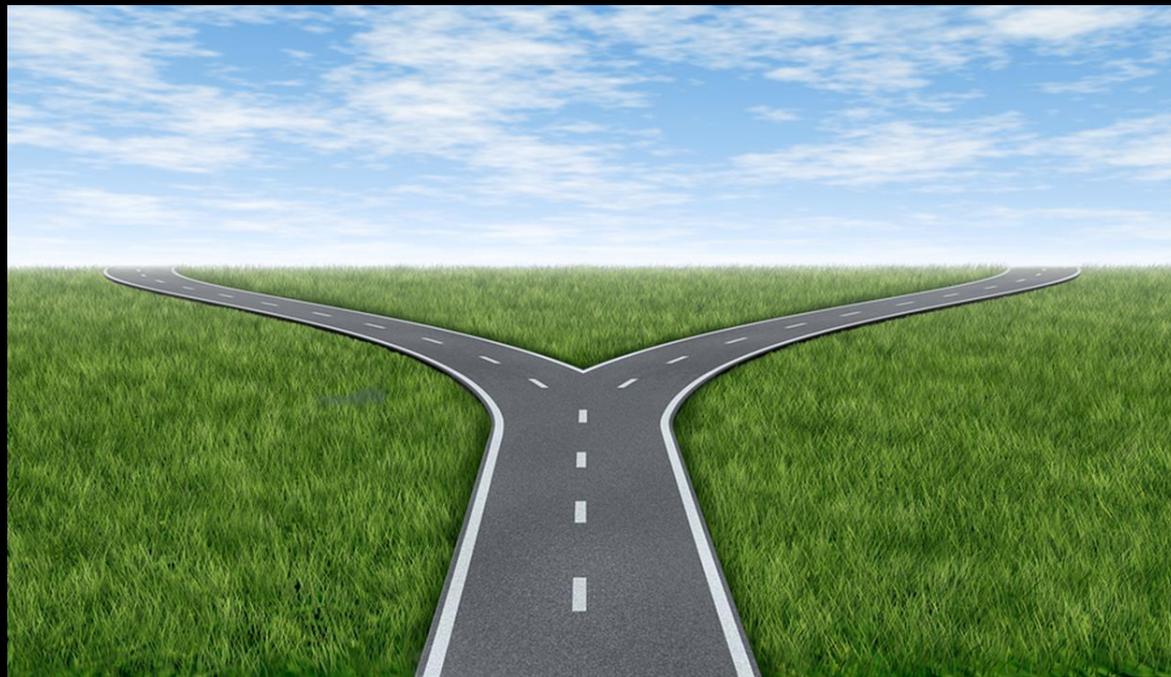
SPOKANE
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Presentation on Discharger Variances on the Spokane River

Background:

- The Clean Water Act
- Spokane River history
- The conventional road or the variance road?



Clean Water Act Background



Clean Water Act (1972)

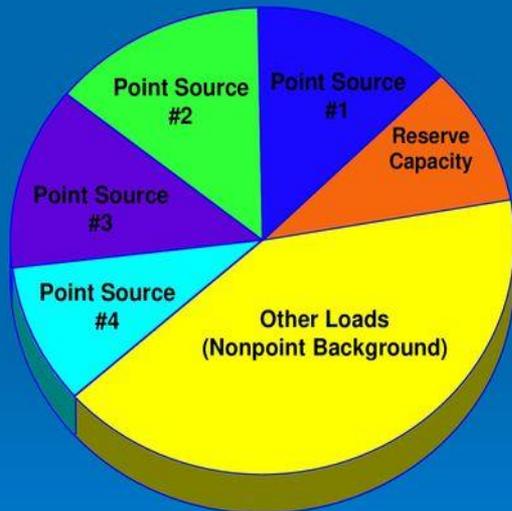
Surface water pollution control

Conventional Plan for addressing a polluted water body

- Establish that pollution **exceeds Water Quality Standards**
- Water body is listed on 303 d list of impaired waterways – list of polluted waterbodies
- Clean up Plan called a Total Maximum Daily Load (TMDL) is written
- Assign A total pollution load to the water body
- Develop and assign Waste Load Allocations to pollution dischargers
- Develop and assign Load Allocations for Non point sources
- Implement plan with schedules and benchmarks

Conventional Plan for addressing a polluted water body

Components of TMDL



- Wasteload allocations (WLAs) assigned to each point source
- Load allocations (LAs) assigned to nonpoint sources
- WLAs and LAs established so predicted receiving water concentrations do not exceed water quality criteria



Water Quality Standard to Protect fishing – “Designated Use

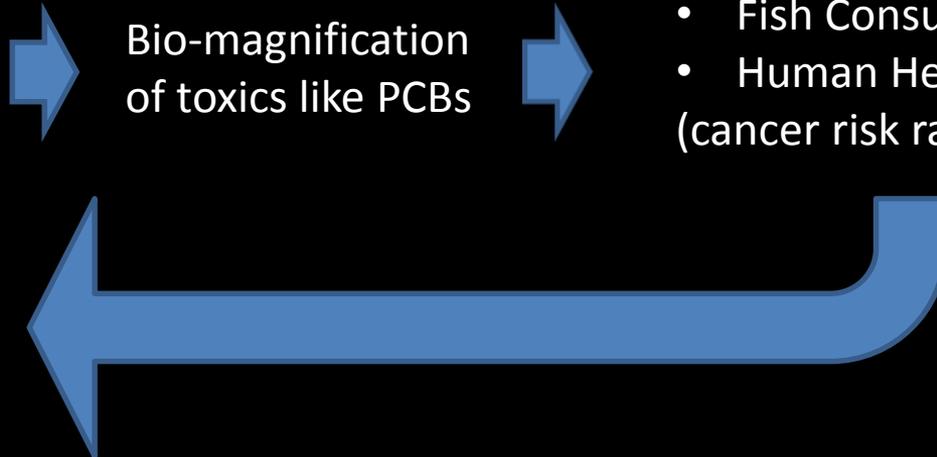


Water Quality Standard

- Provides a ceiling for pollution in water
- Regulates pollution permits for dischargers
- Pollution Permits are called “National Pollution Elimination Discharge System” permits

Control the Bio-magnification of toxics like PCBs

- Fish Consumption Rate
- Human Health Criteria (cancer risk rate)



Washington State Water Quality Standard (WQS) for Toxics: PCBs

- Fish Consumption Rates drive water quality standards
- WA State WQS is now 175 grams of fish per day accepted legal rate of consumption
 - Cancer Risk Rate 10^{-6} : 1:1,000,000 case of cancer
 - PCBs in water no more than 7 parts per quadrillion (ppq)
- Spokane Tribal Historic consumption rate of 865 grams/day (slightly lower than estimated historic rates)
 - Spokane Tribal WQS (on Spokane Reservation) for PCBs is 1.3 parts per quadrillion

Historic and Current Fish Consumption Rates

- Spokane River Indigenous fisheries – 150,000 salmon annually
- Close to 2 lbs. (865 grams) of salmon per day per individual
- 50- 60% of diet is salmon
- Spokane Tribal Historic consumption rate of 865 grams/day (slightly lower than estimated historic rates)
- WQS (on Spokane Reservation) for PCBs is 1.3 parts per quadrillion



Late 1990s

2004

2012

2015

2016

2017

2018

2019

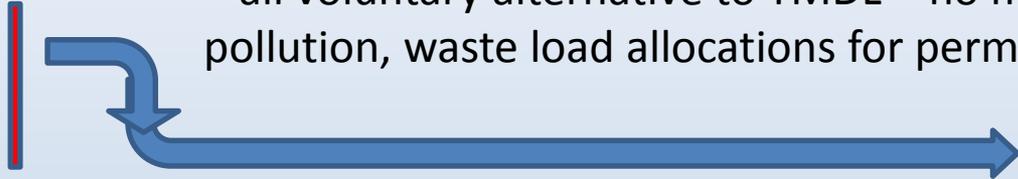
?

Spokane River:
303d list for PCB Pollution



PCB TMDL drafted, shelved
- never approved

Spokane River Regional Toxics Task Force: no WLAs
- all voluntary alternative to TMDL - no mandated
pollution, waste load allocations for permits



Outdated WA State
WQS at 170 ppq



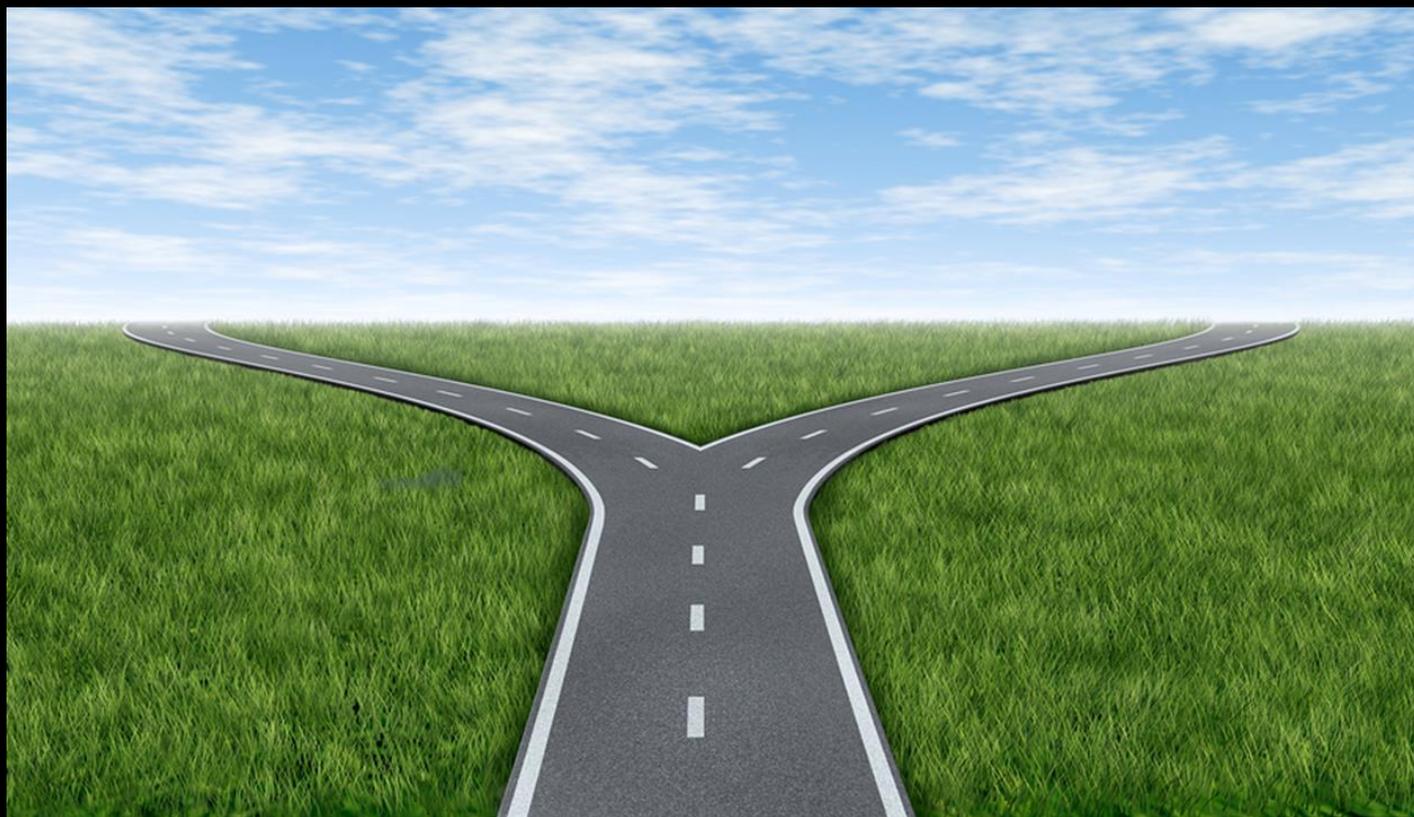
2016: EPA promulgates 7 ppq -
NPDES Permits stalled -
Industry petitions EPA for
rescind - gets it



2015 - Draft NPDES permits
shelved



Applications for 20 year PCB
variance - new NPDES permits



What is a “variance”?

A time limited exception to the legal Water Quality Standard

- *Variance: A time limited designated use (Fish) and criterion.*
 - *For a specific pollutant*
 - *From a specific source or a specific waterbody*
 - *That reflects the highest attainable condition for a specific time condition*
 - *“A regulatory mechanism that allows progress towards designated use and criterion that is not currently attainable.”*
- Source: EPA
file:///D:/Variance/variances_101_presentation_web_posting.pdf

Core elements of discharger variance:

Supporting Documentation: Discharger(s)-specific HAC and Pollutant Control Activities

1. Highest attainable interim criterion; or
2. Interim effluent condition reflecting greatest pollutant reduction achievable; or
3. *If no additional feasible pollutant controls*, the interim criterion or interim effluent condition reflecting greatest pollutant reduction with optimization of installed treatment **AND** adoption and implementation of a pollutant minimization program (PMP).

❖ *Pollutant Minimization Program (131.3(p))* – “in the context of 131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.”

Core elements of discharger variance:

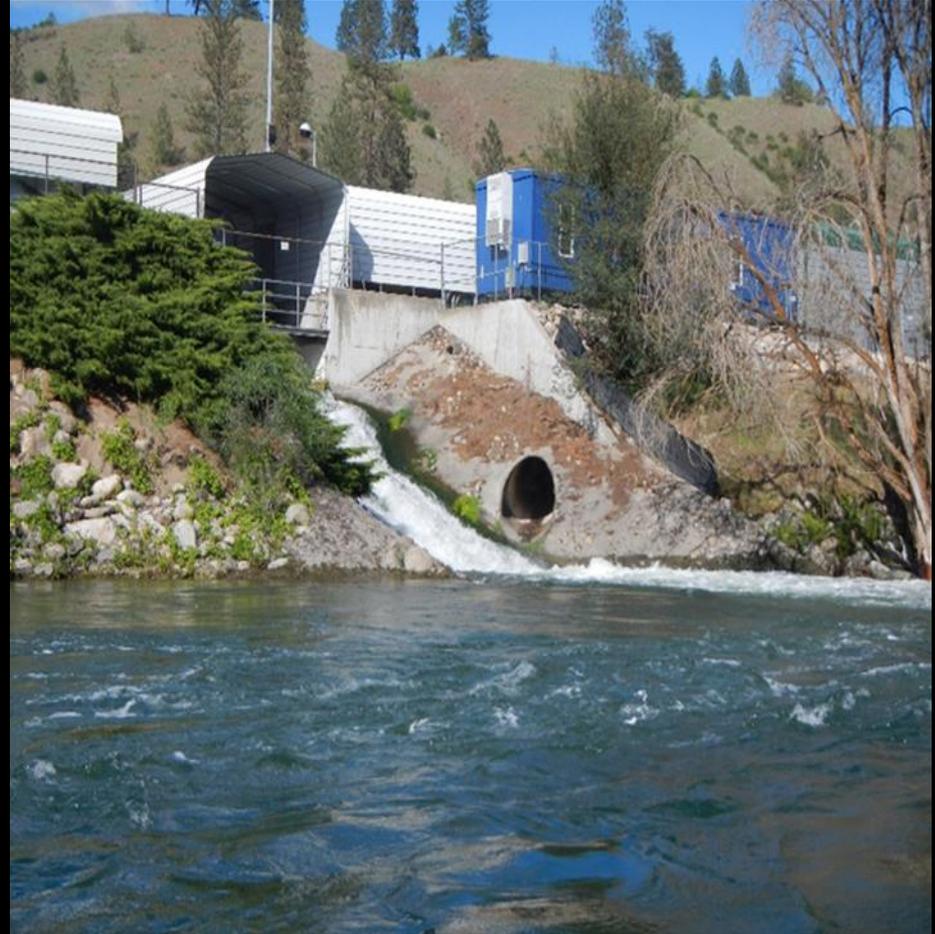
Justification of Variance Term and HAC

3. Can you identify the best condition achievable (i.e., Highest Attainable Condition) and how much time is needed to attain it?
4. Can you identify the pollutant control activities that will be implemented during this time to make incremental progress towards that highest attainable condition?

If you answered “yes” to these questions, then a WQS variance may be useful to address your situation.

Discharger Variances:

- **Liberty Lake WWTP:**
 - Discharge 216-1000 ppq
 - HAC 993 ppq
 - Length: 20 year variance
- **Kaiser Aluminum, LLC:**
 - Discharge: 1200-12,000 ppq
 - Length: 13 years
- **City of Spokane WWTP:**
 - Discharge: 771-23,404 ppq
 - HAC 792
 - Length: 20 years
- **Spokane County WWTP:**
 - Discharge: 19 – 464 ppq
 - HAC 556 ppq
 - Length 20 years
- **Inland Empire Paper, LLC**
 - 708 ppq – 15,083 ppq
 - No HAC
 - Length 20 years



Variations - Why this road now?

Why Spokane?

- Other types in the USA
- Temperature - Colorado
- Mercury – Great Lakes Region
- Nutrient - Montana

- WA: Never before in USA a variance for bio accumulative toxins (PCBs) – change the Human Health Criteria

Variations: the wrong road

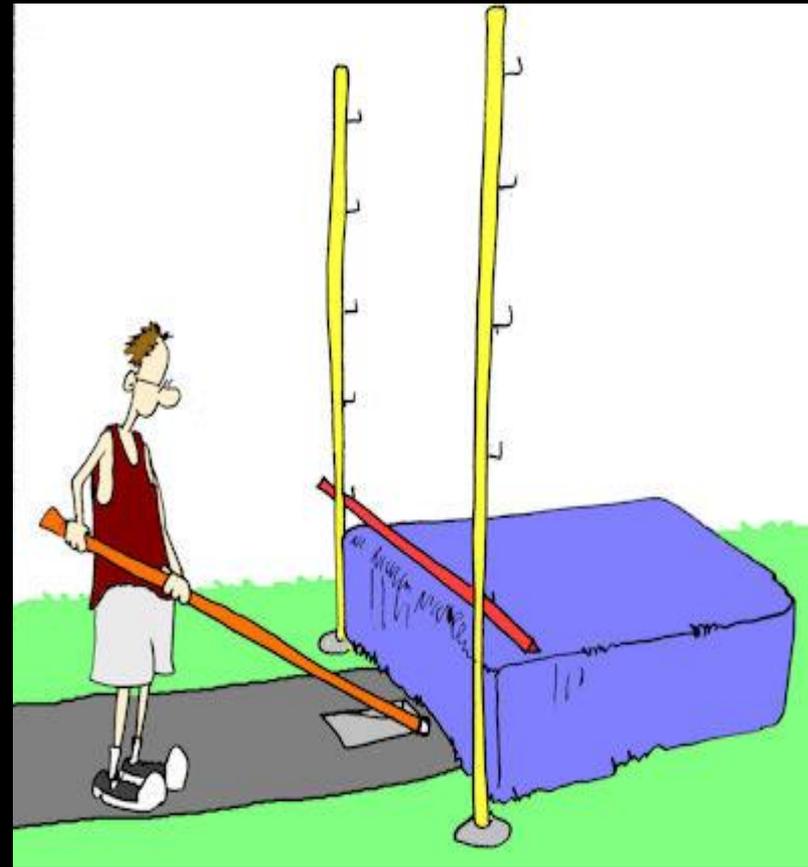


Issue 1: Variances for PCBs are contrary to the spirit of the Clean Water Act (CWA) and go the wrong way in eliminating pollution.

- The Federal Water Pollution Control Act of 1972: “**restore and maintain the chemical, physical, and biological integrity of the Nation’s waters**” 33 U.S.C. § 1251(a) and (a)(2).
- Congress further set the goal that all discharges of pollution to navigable waters would be **eliminated by 1985**. *Id.* § 1251(a)(1).
- Variances do not contribute to these goals nor respect the time lines – they represent profound delay

Issue 2: Variances “lower the bar” - frustrate attainment of clean water and pollution elimination – Lowering bar is not clean up.

- WQS/Numeric Effluent Limits inside permits: regulatory pressure = progress.
- Regulatory pressure is primary means of getting to clean water, designated uses.



Issue 3: Variances continue to stall attaining a clean river and clean clean fish (designated uses)

- 20 more years of polluted fish
- Congress states the Act “... that by July 1, 1983, water quality be sufficient **to provide for the protection and propagation of fish, shellfish, and wildlife, as well as recreation.** 33 U.S.C. § 1251 (2). ”
- Variances would raise the amount of toxins legally allowed in fish. Current WQS protects people who eat 175 grams/day



**Lake Spokane:
PCBs in Carp**



July 2015
Publication No. 15-03-022

Carp #642 had 1380 ug/Kg (part per billion) wet weight – 1.3 ppm PCBs

© OpenStreetMap contributors

Click on a waterbody to view the location on a map

<i>Waterbody</i>	<i>Location Descrip..</i>	<i>Fish Species</i>	<i>Advisory</i>	<i>Contaminant</i>	<i>Population of Concern</i>
Spokane River	Utah border to Upriver Dam	All Fish (Spokane River)	Do not eat	PCBs, PBDEs, Lead	Everyone
	Long Lake (Lake Spokane)	Brown Trout	Up to 1 meal per month	PCBs, PBDEs, Lead	Everyone
		Common Carp	Do not eat	PCBs	Everyone
		Largescale Sucker	Up to 1 meal per month	PCBs, PBDEs, Lead	Everyone
		Mountain Whitefish	Up to 1 meal per month	PCBs, PBDEs, Lead	Everyone
			Up to 4 meals per month	PCBs, PBDEs, Lead	Everyone
		Rainbow Trout	Up to 8 meals per month (healthy choice)	-	Everyone
		Yellow Perch	Up to 8 meals per month (healthy choice)	-	Everyone
	UpRiver Dam to Nine Mile Dam	All Fish (Spokane River)	Up to 1 meal per month	PCBs, PBDEs, Lead	Everyone
		Largescale Sucker	Do not eat	PCBs, PBDEs, Lead	Everyone

Issue 4: Variance for bioaccumulative toxins are uncertain: – Never been done in the USA

- Damage the ability of future states in other areas to use the CWA to protect their waterways
- Never been done nationally – A national “cookbook” for toxic pollution
- Spokane - infamous reputation in the national arena
- Their approval is uncertain



- **Issue 5: The Risk –**
Agencies and the dischargers build a case to give up on our pollution problems and declare the uses, finally, un-attainable



Issue 6: How will a variance meet downstream Water Quality Standards.

- Pursuant to sections 303 and 101(a) of the Clean Water Act (“CWA” or “the Act”), the federal regulation at 40 CFR 131.10(b) requires that:
“In designating uses of a water body and the appropriate criteria for those uses, **the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.**”

Final Issue:

Agency retreat from essential regulatory role of protecting public health

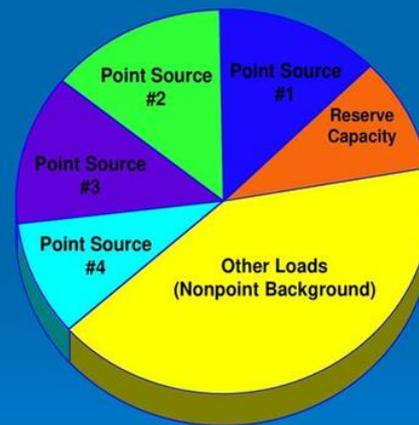
- Dischargers dictate to EPA/ Washington State Department of Ecology the terms of pollution to the Spokane River and its fish – HAC
- CWA designed to protect fish consumption, human recreation and aquatic life – not balance sheets

The Better Road: Protect Clean Water

Protect the Clean Water Act

- Deny Variances
- Draft a TMDL – Assign loading limits to discharger/non point sources
- Draft permits around loading limits
 - Include compliance schedules w/ 10 year plan

Components of TMDL



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Global connections



Orca Mother J35

