Workshop Evaluation Summary

(A total of 22 evaluation forms were submitted)

Based on the presentations and discussions at the workshop, do you have a better understanding of toxics related issues associated with the Spokane River?

Yes – 20 of 22 (91%)

No – 0 of 22 (0%)

Unsure – 2 of 22 (9%)

Comments

Source assessments, aerial deposition, and experience of others was very informative.

Stormwater!

Good group of experts with relevant experience.

Excellent presentations of different viewpoints which provided context on various issues.

Very good overview of a very complicated issue.

Better knowledge of other area PCB issues. I have more knowledge PCB, but not necessarily specifically of the Spokane River PCB issue.

Better knowledge of sources – air deposition: better knowledge of monitoring – sampling.

Good to hear perspectives from other areas of the country.

The problem was well explained, but I would say speakers should define acronyms better – CSO vs. MS4. Not all are familiar to some.

Very interesting and helpful.

Having experts discuss mature PCB mitigation projects in other parts of the country was very informative.

Issue seems very complex, one "size" doesn't fit all. Eastern US aspects may or may not apply to Spokane.

Providing a printout of each presentation or an executive summary would be useful.

Do you have additional perspectives or suggestions regarding development of the Task Force work plan to bring the Spokane River into compliance with applicable water quality standards for PCBs?

Yes – 16 of 22 (73%)

No – 4 of 22 (17%)

Unsure – 1 of 22 (5%)

No Response – 1 of 22 (5%)

Comments

I think we need to develop a water quality model since we currently only guess at half of the sources. We need to agree on a set of testing and monitoring protocols ASAP. To avoid a TMDL we quickly need to set interim goals for PCB reduction and get moving on the biggest sources.

Establish the water quality target – update current and future water quality criteria. Identify and calibrate a water quality model for the Spokane River. Develop and standardize data quality objectives for all types of studies (wastewater, stormwater, ambient, sediment). Conduct air modeling studies.

Expert committee (analytical chemistry, modeler). I think at least two experts will be better.

I think the Task Force is on the right track. Making progress is important. Achieving some low, unachievable numerical limit will stall the process. Work Plan needs to be funded to be implemented. This will require both public and private funds.

Working on a "model" to establish a "common format" for the many contributors to work against seems like a good idea plus the use of comparable lab protocols which can be compared.

Sediment is a big factor with the Spokane River PCB issue. The people who own dams that make the sediment in the Spokane River need to be part of the solution.

Once the decision is made to collect new data, standardize sampling, testing, and data management protocols for ambient monitoring. NPDES monitoring and MS4 monitoring. QAPP.

Need full spectrum of monitoring. Need public information campaign.

From recommendations at the workshop: shared data base; standard methods for sampling and data analysis; focus on fish PCB congeners, reductions, and associated sources; congener analyses for all media.

Develop objectives for work plan: model; data needs to support model; protocols for monitoring; data sharing.

Having clear objectives will greatly help in guiding monitoring activities. For example, if a model is decided to be created for the fate and transport of PCBs and other toxics in the Spokane River, that will help guide monitoring so that limited resources are used wisely.

Based on the information presented, a background study sounds like it will be key for the Task Force's work. This study needs to evaluate several parameters, not the least of all would be air samples and samples from rural regions of the watershed.

Continue to explore what has been done in other watersheds so that you don't re-invent the wheel.

Applicable water quality standards need to be validated and understood. Will need to decide whether or not a model is used.

It may be useful to model where we are at and where we hope to get to, just so everyone is clear what is expected/attainable. Level of cleanup and how long it will take.

Need to think and sort the vast amounts of information presented. Awesome workshop.

Overall, how would you rate the workshop format, presentations, and opportunities to ask questions and provide comments?

Excellent – 14 of 22 (64%)

Good – 7 of 22 (32%)

Fair – 1 of 22 (4%)

Poor – 0 of 22 (0%)

Comments

Some speakers spoke too fast and presented information that was too detailed, but overall very good job and incredibly interesting. Drs. Fikslin and Rodenberg were excellent.

Good mix of presentations and topics. Good examples of source identification and minimization studies.

Very good group and excellent organization. Hope the group can continue to work together to improve PCB conditions in the river.

Moderators were first rate. Kept the discussion moving.

Seats were too hard.

Very good technical dialogue.

Good presentations; adequate time for discussion.

Very interactive with speakers; excellent facility.

Awesome! Thanks you.

Could have had two microphone runners.

Additional time for questions after each presentation would be useful.

Should have the basic PCB 101 first and then into the more complex items.

Great synergy and presenters. Love that they were all approachable, pragmatic, and open.

What elements of the workshop were most effective?

Comments

The aerial deposition portion was most interesting. Locally, Arianne and Bud did a good job describing our local situation. It was great having so many experts in the room at one time.

Local source identification and stormwater runoff segments. Also alternating super technical with less technical or pragmatic topics was excellent.

I loved the two source control/tracking segments in particular. In general, the exposure to the science, analytical methods, and technical aspects are very important for carrying forward a complete picture to high level decision and policy makers.

Sampling, monitoring, and analytical considerations.

I was interested in the "air' portion but missed most of it. It was good to hear more about treatment technologies and what is being done in other areas.

Presentations by Dale Norton and Dr. Bruce Hope.

Good array of topics: great location.

Aerial deposition dynamics; fingerprinting of congeners for PCB source identification; conceptual models of PCB and flux between media.

Discussion was very helpful.

The Speakers and Q and A sessions.

Having plenty of time for questions and answers was very helpful.

Ability to interact and ask questions of speakers.

Presentations on source control and aerial deposition. Examples of types of sources. Lessons learned – what works/what doesn't.

Fate and transport and sources of PCBs.

The site work in Delaware, Portland, and Seattle. Seeing what other areas are doing is important.

Facilities were great.

End of day brainstorming.

Virtually all. Presentations effectively conveyed important information and discussions allowed for good exchanges of ideas.

Drs. Fikslin and Rodenberg were excellent speakers. They are way ahead of us an I would hope we pay attention to them and learn from their experience.

Presentations and discussions.

Comparisons to other regional and national PCB reduction efforts including TMDLs and CERCLA sites.

Do you have suggestions for improving the next workshop?

Comments

More focus on developing a strategy.

Here is a nitpick: the law school was a wonderful place for the workshop, but the internet service was spotty and therefore inconvenient.

Start with "general overviews" and stress definitions of jargon terms and abbreviations, then work towards details.

Softer chairs.

Film the presentations.

Perhaps three days instead of two so that the days are not so crammed full of information.

You might consider adding breakout sessions to address specific topics in greater detail and to gather a wider perspective from the workshop participants.

Better food.

Do it again next year.

Audio/video improvements if at the same location: raise the bottom of the screen a foot or two; fix the next slide button so it works; some speakers need to talk slower. Start workshop with PCB 101 to help understanding of acronyms – congeners, etc.

Bring in a toxicologist, risk assessor, and a cost/benefit analyst.

Well done.

Shorter segments and a little more breaking (on the other hand you would give up presentation time). Definitely do lunches again. Great networking time during "order in" lunch time.

Shorter blocks for presentations – perhaps 1 ¼ to 1 ½ hour segments with 10 minute breaks. Catering lunch was a good idea.

Some of the presentations were overly long and had slides that were unreadable. Maybe a panel of the presenters instead of the brainstorming session – too much moving of the microphone around.

Do you have additional perspectives or suggestions you would like to share with the Task Force?

Yes – 10 of 22 (45%)

No – 12 of 22 (55%)

Unsure – 0 of 22 (0%)

Comments

The Task Force should make a joint effort to stop new sources of PCBs, such as caulking and paints from entering the region. Source identification and control is critical – how can the Task Force help enhance this effort – get more feet on the ground to investigate potential hot spots? Enlist eh libraries, historical society and non-traditional sources (Chamber of Commerce) to assist in investigations. Test the aquifer over hot spots.

I see a lot of opportunity to make this an annual event and a great opportunity to keep and expand conversations across many disciplines within and outside the Spokane Area as well as higher level policy and decision makers.

Thanks to everyone who put this together – awesome experience.

We need to identify the 57% of unidentified or non-allocated PCBs in the Spokane River. The stakeholders also must realize that 6.4 picograms per liter could be unachievable in reality.

Good luck.

Would be good to summarize comments from the workshop on the website.

It would be great to condense the information from these presentations and to attempt to simplify a conclusion(s). Room acoustics made it difficult to hear presentations.

Work from the fish backwards. What congeners are in the fish, especially fish used by the most sensitive population?

It is clear that we are all going to need to have patience and work together to improve river conditions. I am encouraged by the expertise and energy exhibited by the Task Force. Good job.