

**PCB CAP Advisory Committee Meeting Notes
January 14, 2014**

Attendance	
External Committee	
On phone	Pat Cirone, Doug Krapas, Sandy Phillips, Dirk Wassink
In room	Diane Barton, Jenee Colton, Nancy Johns, Ken Johnson, Michelle Mullin, Rosalind Schoof, Heather Trim, Jim West
Internal Committee	Holly Davies, Beth Gill, Joshua Grice, Carol Kraege, David McBride, Barbara Morrissey, Cheryl Niemi, Dale Norton, Gary Palcisko, Adrian Borgias (on phone)
Interested Parties	Pete Hildebrandt, Lincoln Loehr
Topic	Suggested Actions
<p>Presentation by Dale Norton on PCB Pathways in Washington State and the PCB loading to Puget Sound and discussion.</p> <ul style="list-style-type: none"> • Estimate releases: if PCBs are in caulk, there is off-gassing, runoff, etc. that doesn't necessarily mean all of it makes it to the sound (attenuation). Some is lost in atmosphere. Looking at Puget Sound Basin (releases in the area, not just the water body itself). • Examples of how release rates are estimated: Take info from literature on leaking transformers and the number of transformers in the Puget Sound to estimated mass released. For copper in brake pads, data is used from transportation records, vehicle miles traveled in basin and literature values for release rate. For roofing materials, release rate is determined by chemical releases on a per unit area combined with amount of roof type in the basin. • Release estimates versus loading estimates are uncertain due to variability/availability of good regional data. • Inventory of caulk in certain construction projects: the amount of PCBs varies widely depending on what the contractor did in the field. Release rates are improving, but there is still a myth that caulk has to physically break down to release PCBs. Studies indicate that it releases without breakdown. • Spokane River PCB Effluent Loading Data slide: 50% unknown sources indicate some may be unaccounted for. Detection limits weren't as good back then. This should be viewed as uncertainty. • EAP has an annual planning process for monitoring studies (project submission deadline is end of January). Dale is also involved with National Estuary Program (NEP). Is considering doing an assessment of pilot scale watershed to use info for PCBs, estimate how many are in the watershed and gather monitoring data to verify. This is done with other agencies/organizations. 	

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<p>PCB Pathways in Washington State and PCB loading to Puget Sound (continued)</p> <ul style="list-style-type: none"> • River inputs to Puget Sound: monitored 5 major rivers and tried to avoid a double counting problem. Concentration info and loading from treatment plants was used to determine an independent estimate. The mouth of large river monitoring was not directly used. Loading to did not break out contributions from individual sources Loadings were separated by land use (e.g. commercial/industribral, residential, agricultural, and forest). Releases info was more specific to product sources. Parking lots and buildings are not counted or separated in loading. • Sediment is a reservoir for PCBs with 97% of PCBs in sediment..Part of the Puget Sound Estuary Monitoring Program (PSEMP) compares different regions on a five year cycle. The trend is going down in some areas, but depends on the location. 	<p>Ideas from this group can be considered for EAP projects. Project ideas should be submitted in the next few weeks to be considered for the coming fiscal year.</p>
<p>Presentation by Jenee Colton on PCB Pathways and loadings in King Co. and discussion</p> <ul style="list-style-type: none"> • Total PCB Load: would have to go through a similar model as Lake WA to look at reductions in herring. Ecology did an initial model several years ago. The idea is to create a scenario similar to what Greg Pelletier is doing. • The numbers reflect fillet, except for herring which is whole body. This does not change the conclusions. • Sediment is part of the fate model which assumed an active layer would interact with water & biota. 98% of PCBs were stored in sediments. Lake WA is a shallow active zone. PCBs stored in biota are about 2-3%. The majority of change would be seen within the first 20 years (40 years to achieve steady state). • Defining a true background station is difficult for air deposition in an urban area. Puget Sound atmospheric stations are located on the shore. The Beacon Hill station is defined as an urban background. <ul style="list-style-type: none"> - Load reduction scenarios: rulemaking for lower standards translates to 0.2 ppb. - Mussel concentrations in Ship Canal is as high as any urban location. River inputs as a source are interesting. 	<p>Extend this scenario to the Puget sound and look at challenges that may arise.</p> <p>There is interest in having Greg Pelletier speak to this committee.</p>

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<p>Presentation by Doug Krapas on the work of the Spokane River Regional Toxics Task Force and discussion</p> <ul style="list-style-type: none"> • Task Force is preparing to implement a sampling & monitoring plan that will build on Ecology’s assessment to define where sources are coming from. The project is a large undertaking and is estimated at \$ 1-2M. Sources for additional funding are being pursued. Data will be collected for an entire year. • Point sources are less than 1% of overall contribution. The Task Force is going upstream to determine sources. Non-point sources are also a large contribution. Numerous site cleanups are being done. • Consumer products may be contributing as sources. • Best management practices are being developed. 	
<p>Comments on the first draft</p> <ul style="list-style-type: none"> • Inland Empire as a pathway should be clarified. • Background of PCBs is challenging since they are all man-made and there is no natural background. • A suggestion was made to label scaled-down national estimates into a table. Details will be in the narrative section, but will be clarified in the summary. • Congeners – looking at PCBs as mixtures. Some info on congeners is in the chemistry section. More data is coming out about PCB -11 (congener in yellow pigment) and will be included. • Transformers –This is a major source and the number will change as options are discussed. • DOH received comments about needing more clarity on the basis of regulatory standards. Stakeholders were also interested in more information about known toxicity of PCB mixtures in pigments and dyes. • DOH agrees that human incidents of acute poisoning in Japan and Taiwan are not directly relevant to environmental levels encountered in WA. They are part of the PCB story and illustrate the similarity between animal models and human exposures at high doses. This narrative will be clarified. • Tables with PCB testing data in fish and other foods will be revised to detail the detection limits and type of fish sample (fillets vs. whole).. • Ecology doesn’t allow permanent FTP sites. Sharepoint will be used instead. 	<p>More detail on standards will be added.</p> <p>Instructions for logging onto Sharepoint will be sent and references will be uploaded.</p>

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<p>Initial Discussion of Options (intended as a broad overview and have not been vetted within Ecology and DOH).</p> <p>Options not on handout (something about general or uncharacterized)</p> <ul style="list-style-type: none"> • Watershed scale TMDLs and learn from what has been done in other places like San Francisco Bay and the Delaware Basin • Prevent contamination of used oil collection sites • Atmosphere deposition studies • WA state ban on sale of any products that have PCBs over a certain threshold (lower than federal allowance). • How do PCBs get in used oil? Huge gap. • Vehicle exhaust & emissions – huge unknown gap. “Vehicles” includes street, maritime, and rail. • How do we measure, estimate & determine success? General PCB monitoring will take decades to see results in fish. Success could be measured if a law was passed. There will be milestones within Ecology & DOH. There could be a quick drop in short lived species. Life histories of species could be matched to pathways. Urban areas would take longer. There is no info for a cost estimate, but a timeframe of cost will be provided. The economist will look at the cost for several options such as decommissioning a transformer, getting rid of light ballasts, covering up or removing caulk, sediment, education/outreach, etc. This will be an order of magnitude and will be compared to what is happening now. Health data will be considered, if available. • Older legacy paints (not just under inadvertent generation). • Organize by product and identify each as inadvertent or not. Include more subheadings in TOC. • New technology in wastewater treatment plants for PCB removal. Possibly require some added technology to existing plants. • Table showing how many PCBs will be reduced, discussion of reduction & exposure (e.g. higher value on exposure to children). • PAH removal may also remove PCBs. • Monitoring of transformers <500 ppm • Investigate past disposal practices at dams. • Oakland, CA has source investigation with predictive ranking 	

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<p>Large transformers and capacitors</p> <ul style="list-style-type: none"> • More research/explanation on leakage and cleanup data, and assessment of leaks that actually get into the environment. • Rate or cost limiting step for incinerators: If existing infrastructure is too expensive, can it be made cheaper? Consider local incinerator or assistance/funding to transport to other states. • Testing/monitoring of large transformers: larger transformers are required to be inspected identified by the utility. The rule requires quarterly visual inspections. Many smaller transformers could contribute the same as larger ones. Monitoring should be changed to any level, and the level should be lowered and enforced everywhere. Requiring testing of every transformer was too much of a cost burden on the industry. • WA state regulation on top of EPA that applied to between 2-50 ppm for hazardous waste was just a waste disposal regulation. • Dump sites for dam operations and high levels of PCBs in fish: there is no required mechanism for reporting old disposals to EPA. Some bass at Bradford Island were reported as 185 ppm. Past practices should be considered. It would be cheaper to identify areas that are about to leak, instead of cleaning up leaks and having a much larger distribution of PCBs. • Railroad yards locations. • Look into source reduction studies in Oakland, CA where sources from different lots were traced. Sites were ranked using predictive questions and there were good linkages between what was found and what was predicted. • Insurance fire maps: useful to identify light vs. heavy industry areas and map out higher concentrations. • Map of different buildings such as concrete. • WA state patrol has a huge map of K-12 schools and may have maps of buildings for security response. 	<p>Diane will send a summary PowerPoint from the tribal consult with EPA .</p> <p>Send suggested railroad yard locations to Holly.</p>

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<p>Small capacitors</p> <ul style="list-style-type: none"> • Lamp ballasts shouldn't be limited to schools, but can be a priority. • Break out difference between small capacitors and light ballasts. • School buildings: EPA is creating inventory and looking at effective age of buildings. Green buildings are of note because sources may not have been removed properly. Applying for grants, but funding is extremely limited. There is no data at this time. Nancy Johns is working with Ecology to get inventory. A lot of money was appropriated for K-12 and colleges to remove small transformers and ballasts. Location of data is unknown, but OFM may have it. Schools that are older than 1980 could be surveyed. This information seems anecdotal without data. WSU is doing energy improvement and switching to more efficient lighting – they may have some info. Spokane schools have changed ballasts due to EPA directive and energy efficiency rebate program. This may be more of an issue with private schools in commercial buildings or in churches. It seems anecdotally that fixtures have been changed out. • Testing should be required when commercial buildings of a certain age are sold. There should be a trigger point for ballasts and caulk. • Recycling/salvaging: testing requirement when buildings are being salvaged. • Education for precautions of demolition and renovations: ensure best practices for handling. Mandatory testing on salvage side will greatly reduce PCBs. It could be made mandatory for building owners. • Auto shredders: 50ppm is considered 0 – there is a disconnect. Can required testing be considered? EPA said that if shredders follow a voluntary set of practices that they inform customers PCBs are not accepted, do inspections, limited testing, etc. it is basically excluded and is not regulated. Offering a bounty would incentivize (worked well for mercury switches in cars). <p>Inadvertent generation</p> <ul style="list-style-type: none"> • This is a TSCA term where PCBs are a byproduct of creating something else, such as pigment. • Inks used for newsprint: most come from outside the country. There are no state initiatives that Holly is aware of. Disclosure/testing of pigments and dyes. What about Prop 65 and labeling for PCBs? • Nationalize the issue 	<p>Nancy is looking into NW Public Power Association for a list of PUDs that the grant money was supplied to.</p> <p>Nancy can provide contacts for WSU and DES.</p> <p>Look into whether this will pre-empt state regulations.</p>

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<p>Other (clean up, disposal, etc.)</p> <ul style="list-style-type: none">• Air deposition: Is there any data on dust absorbing PCBs? List of key data gaps (indoor/outdoor exchange of dust). There is some evidence of absorption on dust.• Forest fires.• Regulatory aspects under Clean Water Act of PCB criteria, costs, possible improvements, ramifications of changing criteria, etc. CWA has rigid implementation. There is a connection between this effort and human health criteria. Approach watersheds from a narrative perspective. Devote resources (time, energy, \$) towards dioxin-like. Devote energy toward things we know have an adverse impact to health.• Pigments: push manufacturers toward alternatives.	<p>Lincoln will send forest fire presentation.</p>
<p>Next steps</p> <ul style="list-style-type: none">• Some options may need to be lumped and prioritized.• Revised CAP with options and possible recommendations will be sent out prior to next meeting in late March/early April. There may be a need for one or two additional meetings.• Summary of source contributions and congener toxicity will be included. By knowing the human health impact, mitigation efforts can be targeted.• The CAP will go through a state agency vetting process, followed by a 60 day public comment period and response to comments. The final document will possibly be ready by the end of the year.	