

**MEMORANDUM**  
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
West Central Regional Office

3019 Peters Creek Rd.

Roanoke, VA 24019

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SUBJECT: Meeting Minutes, New River PCB Source Search Citizens' Committee

TO: Committee Members

FROM: Jay Roberts, DEQ-WCRO

DATE: September 26, 2002

COPIES: John Copeland, DGIF; Jean Gregory, DEQ; Michael Scanlan, DEQ

The second meeting of the New River Polychlorinated Biphenyls (PCB) Source Search Citizens' Committee was held on Thursday, June 20, 2002, at the New River Valley Competitiveness Center. Sixteen people attended the meeting, including presenters, and six persons signed-in.

Dr. Rick Roth, Chair, started the meeting by asking that committee members and the public introduce themselves. Members in attendance were David Bernard, Darliet Colley, Phil Lockhard, Charles Maus, W. Tom Miller, Rick Roth, and Llyn Sharp. Sean Hash and Ron Powers were not present.

After introductions, Dr. Roth asked if committee members had any comments on the minutes from the April 25, 2002, meeting. Mr. Maus asked that "Ripplemead" be changed to "Pearisburg" on page 2 of the minutes. Committee members voted unanimously to approve the minutes subject to making the change requested by Mr. Maus.

Dr. Roth requested that Dr. Scanlan, DEQ, update members on the status of hiring a PCB Inspector. Dr. Scanlan indicated authorization to fill the position had been provided by Mr. Burnley, Executive Director, DEQ, and the Secretary of Natural Resources still was expected to authorize the position on Monday, July 24, 2002.

Dr. Roth requested that Jay Roberts, DEQ, proceed with the presentation entitled "New River Basin Sediments: Historical PCB Data Review." As a companion to the presentation, PCB data summaries were provided as a handout to members and the public. One handout was titled "PCBs, Total Sediment: New River Basin Below Claytor Lake Dam," and one was titled "PCBs, Total Sediment: New River Basin Above Claytor Lake Dam." Dr. Larry Willis, DEQ, pointed out that we have a very small data set to work with. While we have data indicating the presence of PCBs are in New River sediments, we do not have enough data to say where specific problem areas may be located or the sources of PCBs. Numerous questions were asked in the course of the presentations; questions and answers are summarized in Attachment A.

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At the conclusion of the historical overview, Dr. Roth requested that DEQ staff proceed with the presentation entitled "New River Basin Sediments: 2001 and 2002." Staff indicated 12 sediment samples had been collected in 2001, but one sample was lost due to container breakage. Larry Willis, DEQ, indicated that he had collected samples as evenly spaced on the New River as possible, but sample areas were biased towards areas where he knew organic matter was accumulating. These sample locations were selected to increase the potential for finding PCBs, because PCBs tend to be deposited with organic sediments. These samples will be used as a screening tool to identify areas where PCBs have been deposited in the River. Areas where PCBs are detected at higher levels could then be prioritized for the purpose of source assessment investigations. DEQ described the sample locations, and how the samples will help in locating potential PCB sources.

Dr. Roth requested the committee members to advise DEQ whether or not to proceed with analysis of the 2001 samples. There were extensive discussions about the sample points and numerous questions; questions and answers are summarized in Attachment A. **At the conclusion of the discussion, the committee members unanimously recommended that DEQ proceed with analysis of sediment samples collected in 2001 from the New River.**

DEQ requested the committee's direction for sampling PCB sediments in 2002. DEQ staff suggested that the 11 stations in New River sampled in 2001 should be re-sampled in 2002. Committee members agreed that the 11 New River stations should be re-sampled. DEQ recommended that an additional sample be collected in Glen Lyn near the AEP plant and committee member agreed the sample should be collected. Committee members requested that DEQ sample two locations on Walker Creek and one on Stony Creek based upon historical sediment data indicating elevated levels of PCBs in these streams. **In total, members identified 15 sampling locations for 2002: twelve on New River, two on Walker Creek, and one on Stony Creek.**

Dr. Roth advised members that a document titled "PCB Source Investigation Survey" was provided to members. DEQ is proposing to use the survey when it interviews facility managers about historical uses of PCBs. Members were asked to forward comments on the survey to DEQ staff.

Dr. Roth asked for an update on fish tissue analyses. DEQ reported forty fish tissue samples have been submitted to the Virginia Institute of Marine Sciences for analysis. These tissues are currently being analyzed and we expect to have results available in August.

At the conclusion of presentations, members discussed the next meeting. Potential meeting topics include a discussion of fish tissue and sediment results obtain from analysis of samples collected in 2001 and list of facilities located in the New River basin that might be a potential PCB source. A third meeting was tentatively scheduled for 6 p.m., September 26, 2002, at the New River Valley Competitiveness Center.

The meeting adjourned at this point.

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Attachment A -- Questions and Answers**

**Q1: Were the method detection levels used in sediment sampling the same for all analyses?**

A: No. Method detection levels varied based upon the analytical method used and the laboratory performing the analysis. Detection levels are recorded in the data summaries.

**Q2: Are results reported on a wet weight or dry weight basis?**

A: Dry weight.

**Q3: Have any samples been corrected for total organic content?**

A: No. Dr. Willis, DEQ, pointed out that by not correcting for organic content, the PCB concentrations may be biased low.

**Q4: Do the data indicate there are trends of decreasing PCBs in New River?**

A: No. The results are for samples taken at one place at one point in time. Many factors, including the sampling location, analytical methods, and seasonal events introduce variability into results. Recently, we have begun using detection levels of less than 20 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) for ambient monitoring sites, but detection levels of as low as 0.1  $\mu\text{g}/\text{kg}$  for other samples. When we report "20 U  $\mu\text{g}/\text{kg}$ " one year, and 2.96  $\mu\text{g}/\text{kg}$  in another year, such as at Stroubles Creek Station 9-STE002.41, it does not mean PCB levels are necessarily decreasing.

**Q5: What is the location relation between Peak Creek stations 9-PKC004.65, 9-PKC007.82, and the Allied site in Town of Pulaski?**

A: Both stations are downstream of the Allied plant. The Allied plant was tested for PCBs and has been found to be "clean" at a very low detection limit.

**Q6: Is there any correlation between PCB levels in sediment and fish?**

A: Such correlations are difficult to make.

**Q7: Do you analyze whole fish or fish fillets for the fish tissue analyses?**

A: Historically, we conducted analyses on homogenized whole fish samples. We are currently analyzing fillets because this is the portion of the fish people eat.

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**Q8: Will DEQ evaluate nonpoint sources?**

**A:** It is possible that PCBs are originating from nonpoint sources and we will investigate potential nonpoint source contributions of PCBs to New River. Current sources probably do not include point sources or effluent discharges, however, erosion of land areas where PCBs have historically collected due to leaks, spills, disposal, etc., may constitute a current nonpoint source contribution of PCBs to the New River. We propose evaluating such areas as part of the source investigation.

**Q9: How will we know when we have enough samples to define the extent of PCBs in New River?**

**A:** Where we detect PCBs in sediment more than once, we have evidence we need to look for sources upstream of the area. Where we have contradictory results, PCBs are present in one sample, but not present in other samples, then we may need look at the site again.

**Q10: How sure are we that PCBs are present in fish in New River?**

**A:** We have both fish and sediment sample results that corroborate the presence of PCBs in New River. When you look at the level of PCBs in New River above Claytor Lake Dam compared to below the dam, this also provides evidence that PCBs are present in the New River. The fact that there is evidence of PCBs in New River below dam at a higher rate than above the dam does not appear to be accounted by "analytical error."

**Q11: What do you make of the distribution of sediments containing PCBs in New River?**

**A:** Sediments are sorted by size within the river. PCBs are associated with certain sediment size classes. As sediments become sorted, PCBs adsorbed on organic and very fine sediments become concentrated in certain areas where these types of sediments are deposited. This helps account for why sediments may be higher in PCBs in one section of New River than another. As far of source identification, sediments and any associated PCBs should be deposited fairly near, within miles, of a source. The source must be upstream of the PCBs.

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**Q12: Do many people eat carp? Most people eat catfish, should we be more concerned about PCBs in the catfish?**

A: PCBs are reported in the carp, but also catfish and brown trout on Stony Creek. DEQ has collected individual catfish, and VIMS is currently analyzing the catfish so we can learn more about the presence of PCBs in catfish. Fish are collected by electroshocking, but catfish may be a little harder to sample because of their tendency hold in deep holes. PCBs also tend to accumulate in fish oils and fat, so fish that have higher body fat levels or contain more oil tend to show more evidence of PCB accumulation.

**Q13: What analytical method is being used?**

A: A copy of a paper that describes the analytical method used by VIMS is attached.

**Q14: Are chain of custody and holding times being maintained?**

A: For reconnaissance samples, such as collected from the river in 2001, chain of custody has not been maintained to date. Future analyses will be subject to DEQ's chain of custody policy. VIMS indicates holding times for frozen sediment samples is one year. We are freezing sediment samples until they are analyzed within the one year holding time.

**Q15: How much do the sample analyses cost?**

A: \$520 per sediment sample.

**Q16: Were all sediment samples collected in association with a fish tissue sample?**

A: No. Sediment samples have been collected for three basic purposes: ambient monitoring in which samples were collected on an annual basis for use in water quality assessments; fish tissue samples at which time a sediment sample is also collected; and a special study conducted in consultation with EPA in 1996 to 1998.