From: Murry, Fredrick J.
To: John Mousa

Subject: RE: ACEPD Response to Comments from Mr. Matt Cohen on proposed Springstead Creek restoration plan

**Date:** Thursday, August 26, 2010 9:35:08 AM

#### Thanks for the information!

From: John Mousa [mailto:jjm@alachuacounty.us]

Sent: Thursday, August 26, 2010 9:29 AM

**To:** Murry, Fredrick J.

Subject: FW: ACEPD Response to Comments from Mr. Matt Cohen on proposed Springstead Creek

restoration plan

FYI

From: John Mousa

Sent: Thursday, August 26, 2010 9:28 AM

To: mjc@ufl.edu

**Cc:** leahajcohen@gmail.com; Anthony\_Dennis@doh.state.fl.us; Miller.Scott@epamail.epa.gov; Kelsey.Helton@dep.state.fl.us; Susan\_Skye@doh.state.fl.us; Lu\_Grimm@doh.state.fl.us; David\_Krause@doh.state.fl.us; Randy\_Merchant@doh.state.fl.us; Robin Hallbourg; Jim Myles **Subject:** ACEPD Response to Comments from Mr. Matt Cohen on proposed Springstead Creek

restoration plan

### Mr. Cohen,

In response to your inquiry of Florida Department of Health and ACEPD of August 17, I will try to give you some additional information and answer your questions from ACEPD's perspective on the Creek contamination issue. Please see ACEPD's response to some of your issues below. If you would like to ask some more questions, you may contact Robin Hallbourg or myself and we would be glad to speak with you. You may contact Robin at 264-6825 and me at 264-6805. Robins e-mail address is robin@alachuacounty.us

Thanks John Mousa

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# Dear Randy,

My wife (Leah Cohen, cc'ed to this message) contacted you regarding the certified letter that we received on July 23rd from FDEP reporting that elevated levels of arsenic, benzo(a)pyrene and dioxin (all above the residential soil contamination testing level in at least some of the samples) were found in the creek sediments near our house at 512 NW 36th Ave, Gainesville FL 32609.

I have reviewed the documents that you sent her, including the proposed plan (Weston Solutions for Cabot Corporation) to remove tar deposits from the creek, mostly downstream of our house. I have several questions and comments.

1) While it's clear from the report on the creek sediment quality that all three compounds (arsenic, BaP and TADD dioxin) exist at levels above the residential clean up standards, it is not clear which of these DOH is prioritizing for clean-up, how that clean-up will be

done, when that clean-up will be done, and what mechanisms would exist following clean-up to ensure that the reservoirs of toxic sediments in the creek are indeed removed. In short, the report provides details on potential levels of risk, but no guidance on remediation. I would like to know when that remedial plan will be proposed (if it hasn't already), and when the clean-up is expected to occur.

ACEPD's comments: The ACEPD report confirmed that there are buried tarry residues in the Creek. These residues are very likely the result of a discharge over 40 years ago that occurred from the former Cabot Carbon site which is located at the corner of N Main and 23 rd Ave. The residues are mostly buried beneath about 1 to 2 feet of sediment and are not exposed to human contact, but there have been times when shifting creek sediments from storm events have exposed these buried deposits. The chemicals associated with these deposits are mainly PAH compounds like naphthalene, phenanthrene, etc that are usually associated with pine tar residues.

The Cabot Corporation who is the responsible party for the old Cabot site, when notified of ACEPD findings and in coordination with FDEP and USEPA has agreed to perform a preliminary tar removal of the primary areas identified by ACEPD as having the tar residues. They have submitted a work plan (develop by Weston) to FDEP and ACEPD and it is under review currently. The schedule is to implement the plan in the Fall of this year when the weather is cooler and the rainfall is less to make it easier to access the creek sediments. The FDEP and USEPA will be responsible to seeing if any additional remediation work needs to be done after this preliminary removal.

The low levels of dioxin contamination in the creek was not found associated with the tarry residues but showed up in the upper stretch of Springstead Creek in the deeper sediments and some shallow sediments. The issue of the dioxin contamination as well as any impacts to benthic organisms and human health from contamination in the creek is proposed to be addressed by USEPA in the Proposed Plan for the Koppers site.

2) The proposed tar removal proposed by Weston Solutions focuses on the removal of tar-like deposits from the creek bed. Since I am not aware of any findings of these deposits near our house, I presume this plan is NOT intended to achieve the required remediation of the contaminated sediments further upstream.

<u>ACEPD's comments</u>: The Weston Cabot plan is only to address the tarry residues in the main areas identified by ACEPD.

Moreover, I am unclear how the geographic scope of the remedial activity was selected. Was a comprehensive survey of creek sediments for tar deposits done, from which "hotspots" were identified? If not, how can we be sure that the proposed remedial action will be sufficient? While I have not personally seen tar deposits in the creek near our house (far upstream of the proposed remedial activities), I am not convinced that such deposits can be ruled out. I note that the ACEPD study contends that the area between 6th street and the Koppers ditch, which is the area where we live, showed no tarry deposits because of active incision/erosion. However, this is also where elevated levels of other contaminants were more recently found. This means either that there is active transport of contaminated sediment (suggesting, troublingly, a continuing source and potentially significant downstream sink) OR that there are stable contaminated deposits in the creek bed that warrant investigation for tar deposits as well.

<u>ACEPD's comments</u>: The Weston Cabot remediation activity is intended to address the tarry deposits in those locations as identified by ACEPD in our creek survey. ACEPD performed a fairly extensive qualitative survey of the creek bottoms using a four foot long probe that was used to probe the creek sediment focusing on depositional areas (e.g.

point bars, mid-channel bars, areas where eddies deposited materials in proximity to logs, etc.). In these depositional areas probing was conducted at intervals of 2 to 3 feet. Initially, the survey was conducted to NW 29<sup>th</sup> Road; additional work in 2009 and 2010 included assessment of depositional areas from NW 29<sup>th</sup> Road downstream to the weir upstream of NW 34<sup>th</sup> Street. The area from NW 6<sup>th</sup> Street to City of Public Works property was re-evaluated and additional sampling was conducted in that area, but no tarry materials were observed. One additional area of potential contamination from the tarry materials was located in the floodplain near NW 22<sup>nd</sup> Street.

As discussed above, the tarry contamination in the creek is likely the result of the discharge of pine tar residues from the former Cabot lagoons in 1967 when a developer breached these lagoons and allowed the materials to flow into ditches that drained into Springstead and Hogtown creeks. The tarry materials that were released over 40 years ago were mixed with the sediments and were deposited in areas where topographic relief decreased and water velocities dropped allowing the tarry materials mixed with sand and some natural organics to deposit. Based on our previous sampling of these materials it appears their locations remain relatively stable and since the hurricanes of 2004 most of these areas of contamination between NW 6<sup>th</sup> Street and NW 29<sup>th</sup> Road have remained covered with sandy materials from in-stream erosion. The box culverts under NW 6<sup>th</sup> Street, 13<sup>th</sup> Street and 29<sup>th</sup> Road act as grade control in these areas of the creek. Upstream of NW 6<sup>th</sup> Street there is more erosion and less deposition; most of the streambed has been eroded to the top of or into the Hawthorn Group deposits. There are sandy deposits in this area, but tarry materials were not found in depositional areas. The high flows under storm event conditions, typically an order of magnitude or more greater than baseflow, likely scoured this area over the past 40 years leaving it free of the tarry deposits.

The source or sources of dioxins present in these sediments may include the sediment laden stormwater leaving the Koppers site via the ditch that dissects the site and receives runoff from NW 23<sup>rd</sup> Avenue. Based on limited stormwater sampling data by ACEPD, there are dioxins present (adsorbed to particulates) in stormwater that continue to be released from the Koppers site. Beazer East, Inc. the current owner of the Koppers site has developed an interim stormwater management plan that includes temporary basins to retain the "first flush" of stormwater and keep the sediment laden stormwater on-site. Once their plan is approved by FDEP and the City of Gainesville, temporary stormwater ponds and sodding/seeding of berms (for the temporary stormwater ponds) and bare soils will be conducted to reduce off-site transport of sediments and contaminants. The USEPA Proposed Plan for Koppers site calls for removal of the contaminated sediments from the creek that are above state criteria for protection of aquatic organisms but the FDEP has indicated that there may also be a long term human health risk. Therefore ACEPD is requesting of USEPA that contaminated sediments be removed that exceed the most stringent of either the benthic or human health protection criteria.

- 3) My understanding is that the state residential contaminant levels for TCDD-TEQ are 7 ng/kg, but the threshold value used in the report is 50 ng/kg (more than 7 times higher). Why the difference?

  ACEPD's comments: ACEPD believes the ACHD and FDOH has addressed this issue.
- 4) Since dioxins are relatively water insoluble, it remains unclear to me the pathway for them to reach the creek sediments. Clearly one is adsorbed to particles, but it seems premature to rule out atmospheric deposition given the plume of dioxin observed nearby. Given the finding of high levels in the creek sediments, does DOH have plans to perform additional soil testing in the upland soils adjacent to elevated creek samples to ascertain if concentrations in those soils are also elevated? Are there plans to do any indoor

testing? My understanding from recent samples done in the area are the indoor dust samples from dioxin indicate exceedingly high levels (in excess of 1,100 ng/kg) in homes adjacent to the creek in locations where the creek sediments are elevated. In the interests of public safety in general, and my family in particular, I believe that DOH has an obligation to pursue this additional testing or compel the responsible parties to do so.

ACEPD's comments: ACEPD conducted limited stormwater sampling in December 2009 and March 2010 that indicates that low levels of dioxins are present in stormwater water exiting the Koppers sites. Based on the concentrations observed, it appears that stormwater from the site may potentially be a source of the dioxins in the creek sediments. However there could be other unknown sources. These limited sampling data need to be confirmed by USEPA. Implementation of the interim stormwater management plan discussed above should reduce the suspended particulate load in the stormwater and reduce or eliminate the release of contaminants including dioxins from the site. FDEP will be requiring (under consent order) Beazer East, Inc. to sample for dioxins in the stormwater.

As far as the issue of deposition of dioxin contamination from windblown dust from the Koppers site, USEPA and Beazer have been conducting soil sampling in the neighborhood to the west and slightly north of the site in the right of ways to determine the extent of contamination. Consultants for Beazer East, Inc. will be conducting additional soil sampling on residential properties in the neighborhood west of the site as well as on right of ways and City owned property to the north (on City Public Works property), east and south of the Koppers site to further evaluate aerial distribution of soil contamination. ACEPD in conjunction with the City of Gainesville will be asking USEPA to expand the area of offsite investigation to the north of the Koppers site in our comments to the Proposed Plan.

ACEPD is not familiar with the methodology used in the reported testing of indoor dust in houses in the Stephen Foster neighborhood. Based on a limited review of the technique used, the methodology used for the in-house dust testing appears to be a screening technique that quantifies dioxin-like compounds and may not be specific for the dioxin compounds of human health concern. ACEPD is not sure of the accuracy or reliability of the screening data. This issue needs to be addressed by the FDOH and USEPA. However, because of the presence of dioxins above state standards in the soils in the neighborhood, and these screening results and citizen concerns, ACEPD is recommending to USEPA in our comments on the USEPA Proposed Clean-up Plan that USEPA address this indoor contamination issue raised by the residents.

5) While the report makes clear that ingestion at the maximum observed concentrations are likely quite low risk, the fact is that elevated concentrations in the soils adjacent to the creek may pose a more significant risk because of, for example, the presence of home gardens and fruit trees that may concentrate the toxins. Are there plans to test the soils adjacent to the elevated creek samples to confirm that the contamination is ONLY in the creek (as appears to be assumed)? If not, why not? I am particularly concerned because we keep several chickens for eggs, and there is a possibility of biomagnification of these contaminants. In the interests of protecting my family's health, it seems reasonable to request follow-up investigations to better understand the actual scope of toxicity exposure given reasonable residential activities and the possibility of other routes of exposure than just ingestion of creek sediments.

ACEPD believes the ACHD and FDOH has addressed this issue.

I appreciate your time in addressing my questions. I have cc'ed Mr Mousa if any of the questions that I've raised are better handled by ACEPD. I am not clear who in USEPA to contact regarding questions about the scope of testing, but if there are personnel that I should contact, your help in identifying them would also be much appreciated.

## Sincerely, Matt Cohen

From: Randy\_Merchant@doh.state.fl.us [mailto:Randy\_Merchant@doh.state.fl.us]

**Sent:** Monday, August 23, 2010 1:51 PM

To: mjc@ufl.edu

**Cc:** leahajcohen@gmail.com; John Mousa; Anthony\_Dennis@doh.state.fl.us;

Miller.Scott@epamail.epa.gov; Kelsey.Helton@dep.state.fl.us; Susan\_Skye@doh.state.fl.us;

Lu\_Grimm@doh.state.fl.us; David\_Krause@doh.state.fl.us

Subject: RE: Comments on proposed Springstead Creek restoration plan

#### Mr. Cohen:

I apologize for the delay in responding.

- 1. The role of the Florida Department of Health (DOH), working with the Alachua County Health Department, is to assess the health risk from the Cabot Carbon/Koppers hazardous waste site and make recommendations to protect public health. Our role is advisory not regulatory. The US Environmental Protection Agency (EPA) is the lead regulatory agency. EPA is overseeing the testing and cleanup of this site. Scott Miller, the EPA remedial project manager (404 562-9120), can provide details of the planned Springstead/Hogtown Creek sediment cleanup: priority contaminants, clean up mechanism, schedule, confirmation testing, etc.
- 2. As above, EPA is overseeing the testing and cleanup of the creek sediments.
- 3. These two number have different purposes. 50 ng/kg is the US Agency for Toxic Substance and Disease Registry value FL DOH uses to screen soil or sediment dioxin (TCDD-TEQ) test results for further evaluation. Although the highest concentration of dioxins in creek sediments (41 ng/kg) was less than this screening guideline, FL DOH retained dioxins for further evaluation, because they are possible carcinogens.

On the other hand, 7 ng/kg is the state residential soil cleanup target level for dioxins, not a screening guideline for further evaluation.

- 4. Because they are relatively insoluble, dioxins in Springstead/Hogtown Creek sediments are associated with the tarry waste released from the Cabot Carbon site in 1967 and 1977. EPA is overseeing the on-going surface soil testing in the Stephen Foster neighborhood west of Koppers and would determine if soil testing is required in other areas. The issue of indoor dust is being discussed.
- 5. Homegrown fruits and vegetables don't concentrate appreciable amounts of arsenic, benzo(a)pyrene, or dioxins. EPA would determine if soil testing adjacent to Springstead/Hogtown Creeks is required. Susan Skye, FL DOH exposure investigation coordinator, is looking into the possibility of testing eggs from your chickens. She will follow up with you.

Please contact me if I can be of any other assistance.

Randy Merchant, Environmental Health Florida DOH (850) 245-4299

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<sup>&</sup>quot;Many attempts to communicate are nullified by saying too much." Robert K. Greenleaf (1904-1990)

From: Cohen, Matthew J [mailto:mjc@ufl.edu]
Sent: Tuesday, August 17, 2010 11:23 PM
To: Merchant, E Randy; Dennis, Anthony D

Cc: Leah Cohen; John Mousa

**Subject:** Comments on proposed Springstead Creek restoration plan

Dear Randy,

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Sincerely, Matt Cohen

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