

DuPage River Salt Creek Workgroup

October 26th, 2011 Meeting Minutes

10:00 AM - Noon

Venue – Lombard Village Hall, 255 E. Wilson Ave., Lombard, IL 60148
Equivalent of 1 PDH Recognized for Attendance

1. Minutes for August, 31, 2011 Meeting (Attachment 1)

Motion to approve the minutes made by Nick Menninga, seconded by Larry Cox; unanimously approved.

2. Presentation: Contribution of PAHs from coal-tar pavement sealcoat and other sources to 40 U.S. lakes.

Contamination of urban lakes and streams by polycyclic aromatic hydrocarbons (PAHs) has increased in the United States during the past 40 years. The USGS evaluated sources of PAHs in post-1990 sediments in cores from 40 lakes in urban areas across the United States using a contaminant mass-balance receptor model and including as a potential source coal-tar-based (CT) sealcoat, a recently recognized source of urban PAH. Other PAH sources considered included several coal- and vehicle-related sources, wood combustion, and fuel-oil combustion. The four best modeling scenarios all indicate CT sealcoat is the largest PAH source when averaged across all 40 lakes (including one in North Eastern Illinois), contributing about one-half of PAH in sediment, followed by vehicle-related sources and coal combustion. PAH concentrations in the lakes were highly correlated with PAH loading from CT sealcoat (Spearman's $\rho=0.98$), and the mean proportional PAH profile for the 40 lakes was highly correlated with the PAH profile for dust from CT-sealed pavement ($r=0.95$). PAH concentrations and mass and fractional loading from CT sealcoat were significantly greater in the central and eastern United States than in the Western United States.

Presenter: Peter Van Metre, Research Hydrologist, USGS, Austin Texas

Peter presented information from the USGS 40 lakes study and from two further CT sealcoat studies that should complete the peer-review process and be published later this year. The two upcoming studies were related to air quality and human exposure to PAHs in indoor house dust. View Peter's presentation on the DRSCW website:

<http://www.drscw.org/nonpoint.html>.

Jennifer Boyer asked if sealing over a parking lot sealed with CT would reduce PAH loadings. Peter said temporarily; sealcoat probably reduces the wear-off of CT particles. Lindsay Birt asked if the Texas Commission on Environmental Quality (TCEQ) has taken action on sealants and secondly how did they simulate rainfall in the parking lot studies. Peter replied that TCEQ has not taken action, the CT industry had challenged their jurisdiction. At this time, cities in Texas can regulate independently. For the study, USGS received water they use to culture aquatic life, and used a light spray, not a rain simulator, for first flush simulation.

Dennis Streicher asked about the response from the asphalt sealant industry to the studies. Peter said that he was not aware of any response from the asphalt or petroleum sectors of the industry.

Rob Covey asked about alternative products and their associated loadings. Peter replied that clearly loadings from coal tar sealcoats were several magnitudes higher than those associated with asphalt sealcoats, but he had not done research on alternatives. Peter added that he was not aware of any studies showing that seal coating protects or extends the life of pavement or has any benefits beyond aesthetics.

Stephen asked about the coal tar industry funded study in Austin (Polycyclic Aromatic Hydrocarbons (PAHs) in Austin Sediments; After a Ban on Pavement Sealers DeMott et al) following the ban on the sale and use of coal tar sealants. Peter responded with the following points:

- 1. How fast should we expect to see response? With DDT, we saw about 50% decrease in concentrations every 10 years.*
- 2. Streambed sediment is a difficult material to work due to the irregular movement of materials – lake cores are better, the lake environment allows trends to be seen as it sorts sediment for you. Sediment results from the same stream on the same day can be very different.*
- 3. They did not consistently sample the same sites as the pre ban study year. Approximately 1/2 of the DeMotts papers sites we sampled in both studies.*
- 4. Laboratory duplicates samples relative percent difference was 40 and 80 percent. That raises the question, how would you be able to tell the difference in end results? (That is: you would be unable to detect a trend that is a smaller change than the precision of your laboratory, and if that precision is in the range of 40-80% difference, then you would need a very large change to detect it).*
- 5. In the 2005 sampling (page 376) they sampled 5 sites, then a rain storm hit. They came back to resample and do the rest of the sites (difference is that it rained). The variability just after a week after it rained was very large, with three sites more than double pre-rain concentrations and one site about 1/2 pre-rain concentration, again pointing to the large variability in streambed sediment contaminant levels which complicates using them to monitor for trends.*

Larry Cox asked about the difference seen in the East and the West of the United States. Peter answered that the difference seems to be a reflection of CT sealcoat use, itself a function of where the coking industry versus oil and refineries are located. A relatively small percentage of the product goes to sealant; the largest percentage is used for the manufacture of aluminum.

Tom Richardson asked about the DRSCW's monitoring for PAH in streams and how it compares to samples from lakes. DRSCW sampled sediment at 27 sites. What does a watershed loading model for PAH look like? Peter suggested using a watershed (i.e. Lake in the Hills) to model sediment transport and water quality to see how well it all holds together. Glen Sullivan stated that his new NPDES permit encouraged permit-holders to discourage the use of CT sealcoat in their communities.

McHenry County and DuPage County have discussed a statewide approach to banning CT sealcoat. Stephen McCracken spoke to Marcia Willhite, IEPA, and noted that she is

interested, but has no staff to enforce a ban on CT sealcoat. The DRSCW will send a summary of data to IEPA. Stephen requested authorization for \$1500 to work with Giri Prabhukumar, IIT, to produce this summary. Nick Menninga made a motion to approve this expenditure, Sue Baert seconded, unanimously approved. The Projects Committee will determine the DRSCW's role in continued efforts on the subject.

- 3. Presentation: MWRDGC - Stormwater Management Projects.** The presentation will provide an overview of the MWRDGC's projects being undertaken in the Salt Creek watershed as a result of recently completed planning studies. Projects include floodwater detention basins, channel conveyance improvements, and streambank stabilization to address regional flooding and erosion problems.

Presenters: John Murray P.E., CFM Supervising Civil Engineer and Joe Kratzer, P.E., CFM Senior Civil Engineer MWRDGC

Larry Cox asked if new funding had accompanied MWRDGC's new responsibilities for stormwater. John Murray answered that there was a tax levy (0.05 per can levy up to 85M per year). The funding program budgeted 30M next year and is also looking at bonds. Larry Cox asked if there were any provisions for buy out for some of the structures in the flooding area? The answer was no, that was not in the plan.

David Gorman asked if the agency had developed a technical guidance manual or standards for first flush. John answered yes and that a draft was available on-line describing volume control standard. The MWRD is looking at development and redevelopment levels to capture the first flush.

Dennis Streicher brought up a project called the Lower Des Plaines Flood Control Project which was completed in the 1970s, asking if it had been integrated into the current study and did it need to be changed/modified. John answered that it was functioning as advertised and had been included in the study. The current study was looking at flooding in other areas.

Regarding the large floodwater storage reservoir proposed for construction in Northlake, Ross Hill asked if the discharge water would be aerated before being pumped back into Addison Creek? MWRD responded that they just awarded a contract for preliminary engineering and watershed study at the conceptual level, but will certainly look at WQ issues and artificial aeration to mitigate low DO levels in the creek. They will take samples upstream and downstream of the reservoir. It's not certain if WQ can be improved, but they certainly don't want to make things worse.

There was discussion on the factors explaining aquatic life. Stephen asked about what improved conveyance meant. He added that to improve aquatic communities, the emphasis needed to be on improving in-stream habitat or at least keeping what's already there in place. How would the stressors identified in the IPs tool be placed into plans like this? John answered that plans were at an early stage and the District was looking at ways to improve where they could. The DRSCW has data for a number of these areas including Addison Creek. Stephen will supply the relevant data to John. In terms of a timeline John suggested talking again in 6 months; most projects were 2 years away from final design.

Larry Cox thanked the MWRDGC staff for coming and said he was happy that they were in charge of this work as it would improve the chances of getting stream quality components integrated into the program. He was very encouraged that they came to the meeting and

commented that MWRD was an excellent partner and the DRSCW would help in any way it could. Stephen thanked Tom Minarik for spotting this opportunity.

Jim Knudsen asked about MWRDGC's response to the new stormwater rule, which he understood meant mandated retrofits of existing detention basins. MWRDGC's representatives replied that EPA told them this was not going to be a requirement and therefore MWRDGC did not design any of their basins to any EPA specific criteria. Rather, they understood the approach to be one of encouraging stormwater authorities to look for opportunities on public properties for green infrastructure.

4. Project Implementation Finance Update (old business)

Larry Cox stated the lobbyist DRSCW hired, Charles Vaughn, is monitoring legislative actions for possible funding from a capital appropriation bill (SB2478) to fund the 3-year pilot program outlined in DRSCW's proposed legislation. The General Assembly started the fall veto session this week.

5. Monitoring Committee (new business)

- The draft report for the 2010 Salt Creek Bioassessment has been sent to staff for review. After this initial review, the draft report will be available for review by all DRSCW members. If you wish to participate in the initial review contact Stephen.
- East Branch 2011 Survey - water column chemistry monitoring is complete. Sediment collection is nearly finished.
- Several ponds on the East Branch were sampled under the IPS "calibration". Thanks to Bloomingdale, Lombard, Lisle and Woodridge for facilitating entrance to private property. Private property owners/managers have expressed great interest in the results of the survey. A way to share the results with them will be organized.
- Database RFQ- Geosyntec was selected from the three submittals received in response to the DRSCW's RFQ for the design and development of a relational database. A meeting was held between the DRSCW and Geosyntec on 9.20.2011 to look at example data sets and discuss various items in the RFQ. Geosyntec is in the process of submitting a scope and fee for consideration by the monitoring committee and the Executive Board.

Jennifer Hammer and Stephen McCracken met with Geosyntec. The proposed fee for the scope of work outlined was \$10,800 – which is over the approved amount of \$10,000.

Larry Cox made a motion to approve the \$800 increase and sign the Geosyntec contract for the design and development of a relational database, seconded by Mary Lou Kalsted, unanimously approved.

6. Projects Committee (old business)

- The projects committee issued the RFQ for the topographical screening (as authorized at the 8.31.2011 meeting). The projects committee asked the preferred consultant to prepare a scope and fee for consideration by the committee and the Executive Board. Data necessary for the screening is currently being compiled.

Interfluve is developing their scope of work and fees, which should be received in the next 4-5 business days.

- The RFQ for the ammonia –nitrogen balance on the lower East Branch DuPage River was issued. Submittals are being received by the projects committee.
DRSCW received responses from two firms, and the qualifications have not yet been reviewed by the Projects Committee.
- Churchill Woods Update – an article on the project was published in the September/October issue of Land and Water (attachment 2, thanks to Derrick Martin of V₃ for submitting).
This project is entering the Operations and Maintenance phase. An outing to the site for next spring was suggested.

7. Chloride Reduction Report (new business)

The annual Chloride Reduction workshops were held on the Wednesday October 12 (public roadways, 92 participants including speakers and staff) and Thursday, October 13 (parking lots and sidewalks, 34 participants). Both ran between 7:30AM-12:30PM. Based on feedback from the parking lots and sidewalks workshop an equipment calibration workshop is being planned for November.

Dan Bounds made a report on the workshops. He also stated that the Deicing Questionnaire is being revamped to improve the comparison of practice through time.

8. Fecal Coliform TMDL (old business)

Jennifer Clarke, IEPA, reported that they are working on stage 3 of the septic project. They sent 1000 voluntary surveys and have had >200 returned thus far. Jennifer plans to give an update on the project and the education component at the next meeting.

- 9. Watershed Permitting (new business)** Attachment 3 gives an overview of subject Robert Swanson discussed the USEPA brochure on Watershed-based NPDES permits and will provide more information on a feasibility study for watershed-based permitting (benefits/complications) for this long-term project at the next bimonthly meeting. This concept ties to the IPS tool and the next step is discussing with group permit holders what can be done without incurring additional burdens.

10. Watershed Committee Updates –West Branch, East Branch and Salt Creek

West Branch: Ross Hill stated that the Warrenville Dam is out and the area looks good. Upstream of Butterfield Road is a 2' drop, which is not a natural riffle, and cannot be navigated by canoe. They are in contact with IDOT to discuss shifting some of the boulders to manage the drop.

East Branch: no update

Salt Creek: no update

11. Business Items

- **Membership 2011 -2012** Dues letters were mailed to Agency Members on September 20th (attachment 4). Dues letters for associate members and non-member agency invitations were mailed out last week.
- **Secretary of State Annual Registration Completed**
- **Accounts Update** (Attachment 5 old business)
- **Other Business** (new business)

- **Grant Management Update** – The quarterly report for grant FAA3191008 has been submitted.

12. DRSCW Calendar and Press Coverage (new business)

- IPS Tool presentation made at the “Beyond the Basics Workshop” 9.29.2011
- A presentation of the DRSCW’s work and the Salt Creek basin assessment was made at the request of the Village of Villa Park’s Environmental Concerns Committee on 10.19.2011.
- The DRSCW has been invited to speak on the subject of chlorides at the Suburban and Fox Valley Branches of American Public Works Association’s one-day workshop on snow and ice control on 11.25.2011.

13. Workgroup meeting schedule

- December 7, 2011
- February 29, 2012 Annual Meeting
- April 25, 2012
- June 27, 2012
- August 29, 2012
- October 31, 2012