

**DuPage River Salt Creek Workgroup**  
**Meeting Minutes**  
**Lombard Village Hall**  
**April 27, 2016**  
**9:00 – 11:00 AM**

**1. Approval of February 24, 2016 Meeting Minutes (Attachment 1)**

*Motion to approve the February 24, 2016 meeting minutes as presented made by Nick Menninga; seconded by Steve Zehner. Motion carried unanimously.*

**2. Reducing Urban Phosphorus Load: Identifying Sources and Controls Update** - Over the last 10 years, the USGS has evaluated several Best Management Practices that are commonly used by MS4s as a means to reduce pollutant load, including leaf litter collection programs. Recently, the USGS began a study to evaluate leaf collection programs as a means to reduce nutrients from urban basins. An early report to the DRSCW showed leaves to be a significant source of phosphorus to stormwater in the fall. As DRSCW's wastewater permits now require a study on non-point source nutrient loading, it is an excellent time to review what the USGS findings have been to date.

**Presenter:** Bill Selbig, Research Hydrologist, USGS - Wisconsin Water Science Center

*John Norton asked whether they are able to extrapolate the total load area for p – enhanced treatment costs and the estimated load from the canopy to the stream (lbs p) and whether they had enough data to evaluate the cost effectiveness of this versus POTW treatment.*

*Selbig responded that they had not produced a cost comparison but it would be something that the City of Madison may have done. As of October, they implemented 24-hour leaf collection through November; it seems that the costs for personnel and equipment pale in comparison to capital costs. The study shows the dissolved p blasts right through the storm drain system.*

*A primary objective for the proposal is to build the case/tools to allow other communities to use a survey to estimate how much p reduction they might expect from an enhanced leaf pick up program. For example, in a small basin or service area – bagging leaves on the street, use categories (low, medium, high) can be applied with the regression analysis USGS hopes to develop. Rather than monitoring stations, the idea is to use a windshield survey to estimate the end of pipe benefits. We hope regulators will adopt and allow cities to use bagging for some p credit.*

*Jim Knudsen inquired if there are other sources of p that may be removed that are not leaf litter generated.*

*Selbig said that are other sources of P in runoff besides organic detritus such as atmospheric deposition, soil erosion, pet waste, automotive detergents, etc. These sources would be considered relatively constant in spring, summer and fall. Since our study showed no reduction in P from street cleaning in spring or summer we can conclude street cleaning is not an effective way to reduce P from non-organic sources. In fall, the amount of organic*

*detritus increases significantly, as do concentrations of P. Removal of that detritus showed significant reductions of P in runoff.*

*Stephen McCracken asked about nitrogen. Selbig responded that we did see an increase in N during the spring, and to a lesser degree, fall. He attributed this to fertilizer application which generally occurs during this period of time. Fertilizer contains N but not P since Dane County has a ban on P for commercial fertilizers. If there wasn't a ban, he would have expected to see an increase in P as well as N. Others make the argument that fertilizer would not contribute to N and P in runoff since there's little runoff from lawns in the first place; this data suggests otherwise. Another argument is that microbial activity in street gutters consumes N in leaves and therefore decreases the overall N concentration in runoff. Selbig disagrees with this as the residency time of leaves in gutters seems too short to allow that to be a factor.*

*Robert Lewis asked whether the pH of rain fall had any contribution to p load. Selbig responded he would certainly expected pH to drop in runoff with contact with high acidity from leaf bud, but they didn't see that; it stayed relatively neutral. As water moves across a street surface, there are enough carbonites to neutralize water. They did not measure the pH of rainfall itself.*

*Larry Cox mentioned that in Madison, the runoff drains into lakes which are sinks for p. In Illinois streams, it wouldn't cause excess algae growth. P removal would address the Gulf of Mexico or in between. How would removing p in the fall eliminate excess summer algal growth?*

*Selbig replied that is a valid question. Madison Sanitary District is responsible for that. They are required to reduce effluent by X amount and could spend millions in capital improvement costs and distribute into the landscape (Chain of Lakes, Rock River, etc.); there are serious p concerns in the Great Lakes. P that enters a stream may not be so high, but it ends up going somewhere. A larger concern was to address TMDL requirements to minimize the impact to area lakes, which are a popular source of recreation. This was a concern for the sewage district. There was a small amount reduction, but the cost was high.*

*Tom Price asked about the method used to remove leaves. Selbig answered that leaf blowers were used, which are a little over the top for many municipalities. However they were trying to exaggerate the preparation work as a kind of sensitivity analysis. Timing is very important; they removed debris as close to start of storm event as possible.*

*Stephen McCracken noted that the study was not trying to create standard municipal operations. An objective was to verify how impactful the practice could be, could the loading be reduced? If practices were conducted at the overkill level and only removed 10%, then it would not be worth the effort. If the impact was substantial then the level of effort could be dialed back with the knowledge that a significant impact was possible.*

*Another question was how realistic the timing was before an event if the City was implementing leaf collection 7 days a week. Selbig replied that there were weekly collections*

*in the test basins to get just the leaf piles. They followed with HE street sweeper. Blowers are easier; they don't expect municipalities to incorporate this as it is costly and logistically impossible. The point is to determine the maximum potential for leaf collection on p removal. This year, they will go back to the normal frequency for cleaning streets and not use blowers and expect less than 80% removal. City entertained the idea of using a massive blower. They would have to buy a couple; \$100K is a small expense in the overall cost projections to meet TMDL requirements.*

*Rob Swanson inquired whether there have been any studies on streets without curb and gutter. Selbig responded negatively and added that is a really great point – all were similar, all curb and gutter and storm sewers. What does it mean if streets are not curbed? What are all the factors that contribute to reductions? What do most people do in terms of leaf collection, primary interests and hot spots? Residential area with tree canopy got the most attention – no tree canopy, not as much attention. City of Madison is working with them through 2017. This could be added on to the scope. Questions answered depends upon how much folks are willing to pay.*

- 3. Cold Weather Chloride Toxicity** - It is possible that chloride toxicity may vary with water temperature and the temperature associated life cycles of aquatic taxa. If this was the case, then it is possible that a seasonal chloride standard would make sense in Illinois waterways. Such a standard would both protect aquatic life (warm weather) and reduce legal exposure on winter storm releases of chlorides (cold weather). The presentation will outline how such a standard might be investigated, what the process includes and how it would be promulgated.

**Presenter:** Jim Huff, P.E., Huff & Huff, Inc.

*Stephen McCracken asked if US and Illinois EPAs are on board. Jim Huff replied that a detailed work plan for comments was sent to US and Illinois EPAs. A water effects ratio for US EPA is about \$10K per study. After comments, he got a 10 page response for a \$100K study. The fear is they will demand a huge scope expansion – so you'll need more money. In Illinois the Pollution Control Board makes rules and regulations, Illinois EPA takes enforcement. Illinois PCB has a different structure than other states. They are the ones that would need to be convinced.*

*Jim Knudsen asked whether there is anything that considers rainfall (drought higher concentration) and dilution. Does the study take this into account? Huff referenced winter. We probably didn't have a violation last winter. With high snow events, winter application rates increase. US EPA allows a violation every three years. We would need to discuss this. In a terrible storm event, public safety trumps environmental impacts.*

*Stephen McCracken added that the standard is concentration-based and is biologically driven. It is not based on feasibility rather the biological response. Huff stated that in Illinois anyone can propose a statewide standard. Hopefully with Illinois and US EPAs' approvals.*

*Jim Knudsen stated that municipalities shouldn't be paying for the study, it should be the state; however, there is little confidence the state would give EPA money to do a study. Huff replied affirmatively that the state has no money. They have talked to US EPA but they are happy with the toxicity database they already have. There may be others who are interested - Where's the Salt Institute? This would cover the entire US. Huff was working in the Chicago area on a Use Attainability Analysis (UAA) 8 years ago and it is still not there.*

*Antonio Quintanilla asked if the study considers seasonal effects. Huff replied that the primary focus is winter. Illinois and US EPAs will use whatever data is out there. Not toxicity testing, just how to structure.*

*Antonio Quintanilla asked for clarification that the summer is chronic not acute. Huff responded usually correct.*

*Stephen McCracken stated that if winter toxicity concentrations were higher it may well be that summer concentration were lower. Under this scenario, summer toxicity concentrations are important because they impact biodiversity at a critical time. Stephen said he was supportive of the analysis but everyone should be aware that summer limits may also fall and this could potentially impact plants. For example West Chicago effluent is over 200 mg/L. While expressing support it should be kept in mind that it's a two way street; you don't want to trade one set of problems for another. The advantage here is this would better fit reality.*

*On that vein Larry Cox asked why we couldn't look at only winter or only summer. We can't say we are science driven then ignore summer standards. If we use all the best winter BMPs, can we meet the number that comes from the study? Then what do we do, site specific?*

*Huff responded that if the study lent empirical data to the hypothesis the acute could be 1000 mg/L in colder temperatures. Can we get to 1000 mg/L with BMPs? If the chronic level is 600-700 mg/L, what about a third of the year with a terrible storm; it allows biology to come back.*

*Jim Knudsen asked what kind of commitment is being sought. Huff replied that he just needs an email to know if you're on board. Illinois Natural History Survey (INHS) rates vary; Huff & Huff rates versus rates for municipalities. Jim said Huff & Huff would be internalizing some of the costs. Jim Knudsen requested a synopsis with the scope and deliverables to take to his board. Huff replied the hand outs are available on the back table.*

*Stephen McCracken added that Region 5 noted other ions play a role such as sulfates and hardness that may need to be taken into account. .*

*Jennifer Hammer reminded attendees that moving forward doesn't change what we're doing; we still need less chloride in the stream whether we aim to meet one target or another.*

*Jim Knudsen mentioned EPA would drive or provide the best scientific information. Jim Huff added that Citgo objected to the new docket – we want a decision. They got 3 years to figure out what they want to do.*

*No matter how we run the calculations, we can't meet 500 mg/l with storms and we still need to decrease summer values.*

*Larry Cox asked if the estimated \$100K funds to administer all this is sufficient. Huff replied that he is confident \$100K will be sufficient and anything over that sum will be Jim Huff's responsibility. Huff added that the consortium is what would provide him clout for all that he is representing. Larry Cox noted the municipalities are targeted to provide funding but not the Salt Institute.*

*Steve Zehner asked whether municipalities outside the DRSCW's program area have been approached. Huff replied affirmatively: the Hickory Creek Watershed Planning Group, DuPage County Mayors and Managers and anyone he has entry with. He is expanding industrial contacts, making slow but steady progress.*

*Lake and McHenry Counties could also be approached. Larry Cox stated the municipal league should be interested.*

#### **4. NPDES Permit Special Conditions (Old Business)**

- The first report to the Illinois EPA on our special conditions ([http://drscw.org/wp/wp-content/uploads/2015/03/DRSCW-NPDES-SC-Report\\_1-March-31-2016.pdf](http://drscw.org/wp/wp-content/uploads/2015/03/DRSCW-NPDES-SC-Report_1-March-31-2016.pdf)) was made on the 30<sup>th</sup> of March.
- Elmhurst Special Conditions Permit Issuance Update
- MWRD-GC Permit Condition Update  
May be locked down by next meeting
- Lower DuPage River Watershed Coalition Permit Condition Update- Group met with Illinois EPA on the 14<sup>th</sup> of April. A follow-up document is being prepared.  
*LDRWC boundary begins at the confluence of the East and West Branch DuPage River. Most plants already have P removal. Expand DRSCW Special Conditions to get funding to remove downstream causes of impairment, notably the low head dam in Shorewood and the upstream channel form. Illinois EPA met with them and Sanjay Sofat seemed more optimistic than he was with DRSCW discussions. Illinois EPA asked for a letter providing arguments for why LDRWC should get the same special conditions. Arguments include: same watershed, same water quality standard, fish migration, downstream impacts; the same arguments the DRSCW made. Sanjay Sofat asked why there are two groups instead of one. If we have the same conditions and improvements are made, there may be some logic to combining the LDRWC and the DRSCW.*

#### **5. Funding update (SB2081) (Old Business)**

- IGIG grant program - *No news.*

#### **6. Projects Committee (New Business)**

- Oak Meadows Update (Special Conditions Project 1) – The MOU with the Forest Preserve District of DuPage County (FPDDC) was signed and the first installment paid.
- Fawell Dam Update (Special Conditions Project)

*The project is moving forward and addressing some modeling issues. FEQ modeling has been problematic. A move to the HEC RAS model may resolve the modeling conundrum.*

- Fullersburg Woods concept plan development – Projects Committee will develop and issue an RFP for this item. Contract not to exceed figure will be \$15K.

*This is in all POTW permit special conditions so we have to complete and we need to keep the project moving. An RFP will be announced to get concepts and what it entails. Stephen McCracken requested the release of up to \$15K for the projects committee to draw up a contract.*

*Steve Zehner made a motion to release up to \$15K to the projects committee; Shirley Burger seconded the motion; motion carried unanimously.*

- PAHs & Coal Tar Sealants (CTS) Update

*New publications are coming out from other groups (not USGS) that support the conclusions of the USGS study.*

- Ammonia – N Standards Development

- IPS Tool Update - A contract and scope of work were agreed on for this project.

*Contractor is Midwest Biodiversity Institute (MBI). The total project is \$110,436.85. DRSCW has \$55,000 budgeted and a signed agreement with the Lower DuPage River Watershed Coalition (LDRWC) to pay the remaining invoices up to a total of \$55,000. Stephen McCracken stated the IPS contract is a little over the budgeted amount. The Board will review the scope before we sign the contract. Requesting authorization for the Board to sign up to \$110,436.85. DRSCW holds the contract with MBI and has an executed MOU with LDRWC.*

*Larry Cox made a motion to authorize the Board to sign this contract with MBI; seconded by Jennifer Hammer. Motion carried unanimously.*

## **7. Monitoring Committee (Old Business)**

- Contract and scope for the 2016 biological and habitat assessment of Salt Creek has been drawn up with the contractor, Midwest Biodiversity Institute (MBI). The quote totals \$143,005.58 and includes three reference sites and an additional site at the Oak Meadows location that will score macroinvertebrates and QHEI. The 2016 budget allocates \$144,250 for this line item. Seeking permission to proceed.

*Nick Menninga made a motion to proceed with the MBI contract; seconded by Karen Daulton Lange. Motion carried unanimously.*

*Steve Zehner added that it would be good to open a day to observe MBI doing their assessments as we have in the past.*

- Contract and scope for the 2016 chemical assessment of Salt Creek has been drawn up with the contractor, Suburban Laboratories (SLI). The cost is \$ 78,902.60. The 2016 budget allocates \$78,020 for this line item. Seeking permission to proceed.

*Larry Cox made a motion to approve the contract with SLI; seconded by Jennifer Hammer; motion carried unanimously.*

- A contract and scope for 2016 chemical assessment of three reference sites. The 2016 budget allocates \$7,700 for this item. Seeking permission to proceed up to a total of \$7,700.

*There will be discussion about which streams will be used as reference reaches. Chemical testing outside our watersheds, in areas that meet CWA goals, is critical information for IPS tool. This is for chemistry data.*

*Steve Zehner made a motion to allow the Board to sign a contract up to the budgeted amount (may cost more); Shirley Burger seconded; motion carried unanimously.*

- Resource Managers Guide to Aquatic Bioassessment Update

*Nutrient roundtable: We need to answer questions about the NIP such as what we need to know about washoff P N; trading for plants; schedules and type of information necessary to move to scope and contract phase. In next 6-8 weeks we will send information out for a workshop.*

## **8. Chloride Reduction Committee (Old Business)**

- 2015-2016 Questionnaires have been sent out.
- Chloride Offset Program with the Illinois Tollway - Working on proposals from Bensenville, Wood Dale and Elmhurst.
- Chloride Trends Analysis Update  
*We will take a look at loadings over the last decade and try to answer whether our activities are having an impact in comparison to other waterways. Summer and winter data – draft plots will be presented to the chloride committee and the analysis will be finalized after QA/QC check.*
- Chloride Workshops (Parking Lots & Sidewalks, September 22, 2016; Public Roads, September 29, 2016)
- CAWS and Des Plaines River Chloride Variance Update  
*Antonio Quintanilla reported they are working on the variance and added that Jim Huff's study is interesting.*

*Tony is retiring at the end of May. Stephen McCracken thanked Tony for his service and expertise while serving on the DRSCW Board. We wish him the best and thanks.*

*Able Haile provided a TMDL update. Progress into Stage 3 TMDL. Requested DO data from Stephen McCracken and the Des Plaines office. They are asking workgroups for target load reduction strategies and had a conference call with some members. Discussion is focused on which data to use in the study.*

*Stephen McCracken added that north of WB north of MWRD Hanover Park, we need help with continuous DO and water quality grab data. We will provide the number of samples and a cost estimate. Two locations for DO and demand/nutrients. This is voluntary and not reimbursable. However the integrity of the model is dependent on having quality data.*

*Tom Minarik noted that MWRD has a site at Springinsguth Road for water chemistry on the first Monday of the month when there is enough flow. The DRSCW did not have a location in mind and will coordinate with MWRD.*

## **9. Watershed Permitting Update (Old Business)**

### **10. Update on TMDL Development for the DuPage River/Salt Creek (Old Business)**

- TMDL Division's Request for QUAL 2K data gathering on northern West Branch during July 2016.

### **11. Watershed Committee Updates – West Branch, East Branch and Salt Creek**

- Lower Salt Creek 319 Watershed Plan  
*Holly Hudson stated there is agreement on the watershed boundary. She plans to use DuPage County portions and obtain more from Cook County. Work will be on the resource inventory (soils, land use, natural resources, etc.) and regular stakeholder meetings, a steering committee and general public meetings will be held quarterly. This will all get moving along in near future.*

### **12. Business Items (New Business)**

- Membership Dues 2016-2017
- Accounts Update – (Attachment 2)
- Watershed Partnership MOU  
*Tuesday, May 3rd the Board approved the partnership MOU. There will be a ceremony on May 25<sup>th</sup> at 2:00 PM at the Maple Meadows Golf Course. The river restoration work is scheduled to be completed by Memorial Day and the golf course work is underway.*
- Comments on the draft 2016 Integrated Report were sent to Illinois EPA (<http://drscw.org/wp/wp-content/uploads/2015/03/DRSCW-2016-IR-Comments-Final-03.11.2016.pdf>)
- New FTE  
*New advertisement – looking for 3-5 years environmental engineering and GIS proficiency.*
- Other Business

### **13. DRSCW Calendar, Presentations and Press Coverage (Old Business)**

- A newsletter was released that features articles on permit special conditions, Oak Meadows, chloride reduction and the new MS4 permit. Thanks to Rob Swanson (DuPage County SWM), Scott Weber (Village of Hanover Park), Ed Stevenson (FPDDC) and Lindsay Birt (Huff & Huff) for contributing.
- March 8<sup>th</sup> – FPDDC Board of Commissioners and Staff: Introduction to the DRSCW, Stephen McCracken.
- April 7<sup>th</sup> – Northwest Indiana Urban Waters Partnership: How the DRSCW prioritized and funded its watershed priorities, Stephen McCracken.
- April 19<sup>th</sup> – Urban Stormwater Committee Meeting: at the invitation of Illinois EPA DRSCW and DuPage County Stormwater SWM both participated in this group.

- May – Possible event at Oak Meadows Golf Course to mark the signing of the Watershed Partnership MOU. Would include DuPage County SWM, the FPDDC, MWRD-GC and the DRSCW.
- May 18<sup>th</sup> and 19<sup>th</sup> – APWA Conference in Schaumburg: Chloride reduction efforts in Cook and DuPage County, Antonio Quintanilla, MWRD-GC and Stephen McCracken.
- June 7<sup>th</sup> – Chicago Wildernesses Confluence 2016: Toward a More Vibrant H2O Future: How the DRSCW prioritized and funded its watershed priorities, Stephen McCracken.

#### **14. Workgroup Meeting Schedule**

- June 29, 2016
- August 31, 2016
- October 26, 2016
- December 14, 2016
- February 22, 2017
- April 26, 2017

*Nick Menninga made a motion to close the meeting; seconded by Steve Zehner. Motion carried unanimously.*