



**DES PLAINES RIVER WATERSHED WORKGROUP  
MEMBERSHIP MEETING  
AUGUST 18, 2016 1:30-3:30 PM  
NORTH SHORE WATER RECLAMATION DISTRICT  
14770 William Koepsel Dr, Gurnee, IL 60031**

**MEETING MINUTES**

1. **Introductions and Announcements** – Peter Kolb, Director of Public Works for Lake County and DRWW President, called the meeting to order at 1:32 pm, conducted introductions, and provided an overview of the meeting.
2. **Approve 5/19/16 meeting minutes.** Michael Talbett motioned to approve the minutes, Brian Dorn seconded the motion. The motion passed unanimously.
3. **Public Comment.** None.
4. **Des Plaines River Watershed Planning Meeting** – Ashley Warren from Lake County Stormwater Management Commission (SMC) asked for approval of the Planning minutes by consensus and then introduced the “Tell it in Ten” series and Brian Dorn from North Shore Water Reclamation District.
  - a. **“Tell it in Ten” Series: North Shore Water Reclamation District Overview:** Brian Dorn provide background of the North Shore Water Reclamation District. At the turn of the century, there were problems with sewage being discharged into Lake Michigan. Public water supplies were polluted as a result. Bathing beaches were popular. Something needed to be done to improve Lake Michigan water quality. A number of studies were done and the result was enabling legislation in 1911. The vote did not pass. It was up again in 1914 and passed. The District originally served 25 square miles including six municipalities with several small treatment plants close to the lake. From 1920s-1950s many plants were converted to biological activated sludge systems. During the 1960s and 1970s, the District was growing and started looking ahead to expand their service area. Although the District met all regulations, they decided to increase level of treatment at these plants. The Waukegan Plant was rerouted to the Des Plaines at this time and small plants along Lake Michigan were converted to pumping stations. In 1972 the Clean Water Act provided for secondary treatment at wastewater treatment plants. The Gurnee plant was constructed in the 1970s with tertiary treatment. Excess flow basins were constructed at all three plants to handle wet weather flows. Have recently gone through a rebranding, where it is now in the resource recovery business, instead of just wastewater treatment.
  - b. **Wastewater Treatment Plant Panel Discussion, Identify Recommendations for Watershed Plan** Ashley gave an overview of wastewater treatment plants in the Des Plaines River basin. She gave an overview of Publically Owned Treatment Works (POTWs) National Pollutant Discharge Elimination System (NPDES) permits. There are 20 active POTWs within the planning area, including Wisconsin and

Cook County. There are four inactive plants. Representatives from each POTW gave a short presentation. Peter then facilitated the panel discussion.

Joe Robinson from NSWRD presented on their monitoring programs. NSWRD has three major monitoring programs: water quality sampling; continuous monitoring using sondes; and biological assessment looking at fish, macros, and habitat. Water quality started in 1986 and ended in 2015 because of the DRWW. NSWRD continues to sample in the Skokie River. NSWRD also conducts diurnal DO sondes collecting data on DO, temperature, and conductivity. This was in reaction to Illinois EPA's nuisance algae definition. Lastly, NSWRD completes biological field studies upstream and downstream of plants, looking for pool-riffle-run sequences to sample in, for consistency sake.

Paul Kendzior, Director of Public Works for the Village of Libertyville gave an overview of the Libertyville Sewage Treatment Plant (STP). The monthly DAF is 3.68 MGD, the daily maximum flow is 4 MGD, the design maximum flow is 8 MGD. Flows over 8 MGD and up to 12 MGD are diverting into a lagoon. Libertyville does not use UV yet. The effluent is discharged to the Des Plaines River. There are actually two separate plants – A and B, located next to each other.

Jason Pieper, Chief Operator from Lake County Public Works presented an overview of Lake County Public Works facilities. Diamond Sylvan Lake has been rerouted to Vernon Hills. The three active plants are Mill Creek Water Reclamation Facility (WRF), New Century Town WRF, and Des Plaines River WRF. All plants have enhanced Biological Nutrient Removal (eBNR) systems. 91-95% phosphorus reduction from BNR. Constructing a regional biosolids drying program.

Rafal Palra and Charles Hernandez from the Village of Lindenhurst gave an overview of the Lindenhurst STP. Upgrades were completed in 2012 and now they use UV, disc filters, centrifuge, and eBNR. The plant serves a population of 14,500. There is no industry. Daily influent is 1.1 MGD. There are three oxidation ditches, chemical phosphorus removal, final clarification, and filtration through disk filters.

Panel discussion: Mike Prusila asked about why there is a difference in BNR results between plants. The stronger the sewage, the more food there is, including volatile fatty acids, which activate the bugs. Lake County installed a septic receiving area to use that material to boost BNR removal. Mike Warner asked what chemicals are used for phosphorus removal. Austin answered that at Mill Creek the chemical system is used for back up and the plant uses alum for chemical removal. It is only used if biological removal fails. Patty Werner asked why wet weather flows are so high. Charles from Lindenhurst answered that they have infiltration and inflow issues. Peter asked about NPDES permits and what the panel sees in the future. NSWRD does not have permits currently. They have draft permits that require phosphorus reduction to 1 mg/L and study down to 0.1 mg/L. Brian said nitrogen is another issue he expects to be facing in the future, as well as pharmaceuticals. The challenge for everyone is the cost.

NSWRD has not raised their rates since the late 1980s. Brian thinks that the water reclamation industry is undervalued. How would you remove pharmaceuticals? Micro filtration? Camille Stobart asked whether heavy metals and pesticides are present in treatment plant influent. Austin answered that Lake County does Volatile Organic Compound (VOC) analysis on influent and that there is not a lot coming in. Metals are also low. Joe added that the industry is addressing this problem through source reduction. What are the take aways the operators are looking for from the watershed plan? Paul answered uniform goals in water quality, comprehensive modeling, not a duplication of efforts. Brian answered sources of impairments are properly identified. Peter said that Lake County Public Works has permits for all plants. Charles said Lindenhurst does not have a permit.

c. **Next DPR Watershed Planning Meeting:** September 14<sup>th</sup>

5. **DRWW Business** – Peter will lead the group DRWW business matters.

a. **Membership Update** Mike Warner gave the membership update. The DRWW was contacted by consulting firms. There are no new community members.

b. **Committee Updates**

i. **Monitoring Committee** – Joe Robinson, Monitoring Committee Chair, presented a summary. Suburban Labs will be out later this month. Macroinvertebrates were collected. Fish will be collected later this summer. Sediment will be collected in October. The DRSCW discussing nutrient implementation plan at August 31<sup>st</sup> meeting.

ii. **Lakes Committee** – Mike Adam, Lakes Committee Chair, presented an update of the lake data scheduled to be collected this season and mentioned the deicing workshops put on by the County.

iii. **Impairments Committee** – No report. Waiting for monitoring data to come in.

6. **Next meeting: Quarterly meeting: November 17<sup>th</sup> at Lake County Public Works new training facility. 648 Winchester Road, Libertyville.**

7. **Old business:** None

8. **New business:** None.

9. **Adjournment:** Michael Talbett made a motion to adjourn. Mike Adam seconded the motion. The motion passed unanimously.

**Members and Delegates Present:**

Mike Adam, Lake County Health Department  
Leslie Berns, Lake County Forest Preserve District  
Jim Bland, Sierra Club  
Brian Dorn, North Shore Water Reclamation District

Matt Formica, Village of Lindenhurst  
Betty Harrison, Village of Lake Zurich  
Brandon Janes, Village of Deerfield  
Paul Kendzior, Village of Libertyville  
Peter Kolb, Lake County Public Works  
Nick Leach, Village of Gurnee  
Austin McFarlane, Lake County Public Works  
Scott Pippen, Village of Lincolnshire  
Mike Reynolds, Village of Buffalo Grove  
Joe Robinson, North Shore Water Reclamation District  
Michael Talbett, Village of Kildeer  
Mike Warner, Lake County Stormwater Management Commission

**Additional Attendees:**

Adam Boeche, Village of Mundelein  
Dan Bounds, Baxter & Woodman  
Andrea Cline, Geosyntec Consultants  
K.C. Doyle, Lake County  
Rob Flood, North Shore Water Reclamation District  
Douglas Gerleman, Go Green Northbrook  
Jamie Godshalk, resident  
Charles Hernandez, Village of Lindenhurst  
Tom Morthorst, Village of Third Lake  
Darren Olson, Christopher B. Burke Engineering, Ltd.  
Rafal Palra, Village of Lindernhurst  
Gary Paradoski, Aqua Vitae  
Jason Pieper, Lake County Public Works  
Mike Prusila, Lake County Stormwater Management Commission  
Bud Reed, citizen  
Brian Smith, AECOM  
Camille Stauber, Sustainable Places  
Ross Sweeny, resident  
Ashley Warren, Lake County Stormwater Management Commission  
Patty Werner, Lake County Stormwater Management Commission  
Vern Witthuhn, Strand Associates  
Mike Zemaitis, Lake County Division of Transportation