



Des Plaines River Watershed Workgroup

Monitoring/Water Quality Improvements Committee

09/16/2021 11:00 am Virtual Meeting

Minutes

Discussion and Possible Approval of the Following:

1. Chair Steve Waters called the meeting to order at 11:00 AM.
2. Mike Prusila performed the Roll Call: MEMBERS PRESENT: Chair: Steve Waters, Mike Adam, Nick Huber, Rosemary Heilemann; MEMBERS ABSENT: Al Geirtych, Austin McFarlane, Brian Kuebker

Others present: Mike Prusila, Ashley Strelcheck, Jacob Jozefowski, Rob Flood, Andrew Fang, Rishab Mahajan, Mike Foster, Alana Bartolai, Leonard Dane, Tom Morthorst

3. Public Comment
Mike Prusila Commented on MS4 Draft Permit language and suggested that MS4 permit holders provide comments to IL EPA, if desired.
4. Approval of 07/15/21 Monitoring/Water Quality Improvements Committee Meeting Minutes
Motion by Adam; seconded by Huber to approve minutes as presented

AYES: Waters, Adam, Huber, Heilemann; NAYS: None. Motion passed 4-0

5. Old Business
 - a. Monitoring Updates
 - i. Flood updated the Committee that the North Shore Water Reclamation District sondes are functioning well and will be sending next quarter data soon.
 - ii. Bartolai noted that there are no updates but that Lake Co. Health Dept. will perform final sampling next week.

6. New Business
 - a. Geosyntec NARP Updates

Mike Foster from Kaiser Assoc. presented the SWAT model, a watershed scale hydrologic model being employed for the Nutrient Assessment and Reduction

Plan (NARP). SWAT uses mass balances and models precipitation, runoff, sediment, & nutrients. The model runs on daily time-steps, typically for years, lumps like areas into model parts rather than discrete spatial grids. SWAT has about 8500 sub units in the DPR model area (900 square km), and incorporates LiDAR, National Land Cover Database, Cropland Database, CMAP Land Use, and SSURGO (NRCS Soil Survey Data). Data from 15 NOAA and Lake County weather stations in and adjacent to the Des Plaines watershed are used, as are 8 point sources (wastewater treatment plants). Stream dimensions are auto-generated, supplemented with cross-sections. 89 subwatersheds are delineated. Kaiser will deliver a calibrated model to Geosyntec. Model runs from 2011-2018. Calibration is a 2-step process: Hydrologic calibration then Water Quality calibration. Hydro calibration period is 2013-2015, 2011 used to initialize, 2016-18 used as validation period. There are 3 calibration points – USGS stations at Russell, Gurnee, and near outlet at Des Plaines. They may also look at Mill Creek point near its mouth at the Des Plaines River. Accuracy of calibration is quantified by the NSE coefficient. NSE of 0.5 is minimum acceptable value, 1.0 means reality is being modeled. Initial calibration at Russell Monthly is OK, daily needs to be improved. Gurnee, Monthly and Daily OK, baseflow a little high and improve peak and trough correlation. Model outlet near Des Plaines similar to Gurnee. Next Steps are subwatershed calibration, hydrologic validation analysis, and WQ model calibration (Sediment & Phosphorus).

Question by Heilemann: Does the model account for predictions for much higher rainfall in the future? Answer by Mahajan: Goal of modeling is to use existing data to develop model and apply model to focus on historical periods that have water quality issues.

Question by Jozefowski: The scatter plot has similar pattern at high flows across models, what is the reason? Answer by Foster: probably a model behavior that hasn't been corrected yet.

b. MBI 2019 Monitoring Report Comments-

Huber commented on the MBI report regarding fish data: IBI is the important number and ranges from 12-60. The vast majority of stations in the DRWW study are at the low end (teens-20s). Only a few sites are in the 30s and higher. Handful of species that are of interest due to rarity. Station numbers would be helped by a map.

c. MBI 2022-2023 Draft Contract Review

Geosyntec (Mahajan) requested an opportunity to comment on the proposed scope. They will provide comments for discussion at the next meeting.

d. Annual Accomplishments for Newsletter

Heilemann requested that the graphics not include so much dark area

7. Member Comments

Bartolai asked if the Lake Co. Health Dept. should have a draft contract available for review for their monitoring scope at the next meeting? Waters replied yes, that would be fine.

8. Next Monitoring/Water Quality Improvements Committee Meeting 10/21/21 at 11:00 am

9. Adjournment

Adam motioned, seconded by Huber to adjourn. AYES: Waters, Adam, Huber, Heilemann; NAYS: None. Motion passed 4-0. Meeting Adjourned at 11:41 AM.