

Attachment : Stage One Responsiveness Summary

This responsiveness summary responds to substantive questions and comments on the August 2, 2010 Illinois River Watershed Characterization & Source Assessment Report received during the public comment period from August 9 through October 2, 2010 (determined by postmark). The summary includes questions and comments from the September 2, 2010 public meeting as discussed below.

What is a TMDL and LRS?

A Total Maximum Daily Load (TMDL) is the sum of the allowable amount of a pollutant that a water body can receive from all contributing sources and still meet water quality standards or designated uses. Each contributing source of the pollutant will be assigned an amount of pollutant which it cannot exceed if the TMDL is to be met. This amount is called an “allocation.” A TMDL is developed for each water that is impaired by pollutants that have numeric water quality standards. Some pollutants do not have numeric standards. Target criteria will be used to develop Load Reduction Strategies (LRSs) for these pollutants to address the impacts of nonpoint source loads.

This TMDL/ LRS is for the Illinois River (Peoria Area) Watershed. The report details the watershed characteristics, impairments, sources, load and wasteload allocations, and reductions for each impaired segment in the watershed. The Illinois EPA implements the TMDL program in accordance with Section 303(d) of the Federal Clean Water Act and regulations there under.

Background

The project area begins on the Illinois River near Hennepin, where the river makes its “Big Bend” towards the south and continues past Peoria, ending in Pekin. The watershed covers nearly 2,100 square miles and includes land within the Bureau, Putnam, LaSalle, Marshall, Woodford, Peoria and Tazewell Counties. Major tributaries along this stretch of the Illinois River include Big Bureau Creek, Senachwine Creek, Crow Creek East, Sandy Creek, Farm Creek and Kickapoo Creek. The mainstem segments of the Illinois River that are impaired for primary contact designated use due to fecal coliform bacteria are D-05, D-09, D-16, D-30. Kickapoo Creek (DL-01) and Big Bureau Creek (DQ-01 and DQD-01) are also impaired due to fecal coliform. There are two backwater lakes that are impaired for aquatic life use and aesthetic quality use due to phosphorus, siltation/sedimentation and total suspended solids.

The Clean Water Act and USEPA regulations require that states develop TMDLs for waters that do not meet water quality standards and have been placed on the Section 303(d) List. TMDL allocations will be provided for parameters with numeric water quality standards such as fecal coliform in streams and phosphorus in lakes. Other parameter such as total suspended solids that do not have a numeric standard will have Load Reduction Strategies (LRSs) developed.

Public Meetings

Public meetings were held at the Peoria Public Library at 2 p.m. and Princeton City Hall at 6 p.m. on September 2, 2010. The purpose of the meetings was to provide the public with an opportunity to comment on the **August 2, 2010 Illinois River Watershed Characterization & Source Assessment Report**, or to provide additional data to further inform the TMDL process. The Illinois EPA provided public notices for all meetings by placing a display ad in the local newspaper in the watershed; The Journal Star. The public notice gave the date, time, location, and purpose of the meetings. It also provided references to obtain additional information about this specific site, the TMDL Program, and other related issues. Individuals and organizations were also sent the public notice by first class mail. Tri-County Regional Planning Committee sent out notices and information to everyone on their mailing list. The draft TMDL

Report was available for review on the Agency's web page at <http://www.epa.state.il.us/water/tmdl>.
Approximately 25 people attended the first meeting and 15 attended the second meeting.

Questions and Comments

1. An ethanol plant in Hennepin discharges directly into the Illinois River. How can we trust the data they provide the Agency?

Response

Marquis Energy has obtained a NPDES permit (ILIL0078450) to discharge 0.36 MGD (million gallons per day) of non-process wastewater to the Illinois River. As part of their permit, they are required to sample and submit monthly discharge monitoring reports (DMRs) that contain data for the following parameters; flow, pH, temperature, total suspended solids, total residual chlorine, total dissolved solids, chlorines, and iron. They have permit limits for the pH, temperature, total suspended solids and total residual chlorine. The facility is also required to annually monitor their discharge for arsenic, barium, cadmium, chromium (total and hexavalent), copper, cyanide, fluoride, iron (total and dissolved), lead, manganese, mercury, nickel, oil, phenols, selenium, silver and zinc. As facilities such as ethanol plants operate continuously, the effluent quality at these facilities that conduct the same process 24 hours per day, day in and day out, are generally very consistent. There have been no violations of limits to date at this facility. IEPA Compliance Assurance Section field staff takes effluent samples on a routine basis that are compared to reported DMR data. There are civil and criminal penalties for falsifying DMRs.

2. Two impaired streams enter the Illinois River near Starved Rock Dam; assessing the impact of these streams on Illinois River water quality will be important. Upstream pollutants will affect the Illinois River segment being studied, so the impact of upstream pollutants on the water quality of this segment needs to be addressed. Will this study lead to regulations upstream in the Chicago area to limit pollutants that flow downstream and affect this Illinois River segment?

Response

Upstream impaired segments will be addressed in future TMDLs or LRSs. This study will not result in additional regulations, as this is a separate process. However, sources contributing the specific TMDL pollutants upstream will be included in the TMDL analysis and if any reductions need to be made, they will be represented as allocations in the final TMDL report.

3. The IEPA should have information about failing septic systems and the impact of these systems on Illinois River water quality. Will you target specific systems?

Response

The County Health Departments regulate septic systems and has any information on failing ones. There are systems that are not reported as failing or are discharging illegally to waters, so it is very difficult to account for these. In fecal coliform TMDLs, we include an estimate of the failing septic systems in the watershed based on US statistics and census information. If the TMDL deems this a considerable source, there will be implementation actions in the final report. These actions will include educating the public on how they can maintain properly working systems.

4. Will the TMDL take into account the Combined Sewer Overflows (CSOs) that discharge into the impaired waters?

Response

Yes, the TMDL accounts for all point sources in the watershed. Any reductions will be identified in the final report. CSOs have NPDES permits and are required to develop and implement a Long-Term Control Plan (LTCP) that includes attainment of water quality standards. The TMDL will not alter the National Primary Discharge Elimination System requirement, and that process will continue. The TMDL will include information on these LTCPs for cities in this watershed, and there will be an exchange of information to ensure consistency and synergy between NPDES and TMDL actions and recommendations.

5. What are you doing about impairments on the Vermilion River and Little Vermilion River? They are major Illinois River tributaries that enter near the Starved Rock Dam.

Response

Both of these tributaries are upstream of the TMDL watershed. We are currently developing a separate TMDL for Vermilion Watershed for fecal coliform and nitrate. Little Vermilion will have a TMDL developed in the future.

6. An industrial facility in LaSalle discharges manganese into water bodies.

Response

IEPA has a field operations program of the Division of Water Pollution Control that is designed to prevent, detect, and respond to violations of state and federal clean water laws and regulations. Field staff is located in regional offices around the state. Two of their activities are inspections and investigations of NPDES facilities. Please see more information on the following website- <http://www.epa.state.il.us/water/field-ops/waste-water/water-pollution-field-operations.html> I have also attached a citizen complaint form which can be filled out anonymously.

7. How does the IEPA set up sampling to avoid inadvertently blaming the wrong sources for a water pollution problem?

Response

IEPA routinely collects samples at our Ambient Water Quality Monitoring Network stations (AWQMN). There are around 200 sites throughout the state of Illinois. These are for in-stream water quality analysis. Our Facility-Related Stream Survey (FRSS) program collects data upstream, downstream and at facility discharge points for source analysis. Data are used to evaluate the water impacts and the need for additional wastewater treatment controls. For more information on the FRSS program, please contact the Surface Water Section at 217-782-3362.

8. One person stated that citizens should not give IEPA information because it will just get used against them. This person very adamantly disapproved of IEPA's previous actions in the watershed.

Response

IEPA TMDL personnel became aware of an illegal dumping issue regarding IDNR and IEPA Bureau of Land. IDNR was working on a watershed inventory project and came across large illegal dumps. IEPA Bureau of Land was contacted and there have been cleanups at least two sites.

Open dumps are piles of household garbage, bags of yard waste, appliances, old barrels, used tires or demolition debris such as lumber, shingles, pipes or asbestos. Open dumping can threaten the health of humans, wildlife, and the environment. An open dump is an illegal waste disposal site and should not be confused with a permitted municipal solid waste landfill or a recycling facility. If allowed to remain, open dumps often grow larger and may attract dumping of both solid and hazardous waste. Local law enforcement and public health officials have the Authority to enforce open dumping laws. For more information on illegal dumps, please refer to the IEPA website- <http://www.epa.state.il.us/land/open-dumps/irid.html>.

9. Sedimentation is a critical issue in the in the Peoria area. IEPA gave a presentation on the watershed characterization and source assessment report, which briefly mentions the issue. . In the discussion that followed, it was mentioned that the report would benefit from additional data to properly characterize the gravity of the community's concern about sedimentation in the area. We would recommend that information from the following publications be incorporated into the TMDL Watershed Characterization:

Peoria Lake Sediment Investigation, ISWS report, Demissie and Bhowmik, 1986
The Sediment Budget of the Illinois River, ISWS report, Demissie et. al., 2004

The TMDL Stage 1 report lists some average TSS (total suspended solids) target criteria for potential Load Reduction Strategy (LRS). The numbers presented in the report were from averages from existing data generalized from USGS and IEPA reports. There is concern that if the criteria for TSS load reduction strategy are based upon existing averages alone, the goals would not reasonably characterize any reduction in the solids load, given the known geomorphic differences in the region, lack of area-specific sediment and nutrient concentrations and typical EPA LRS models used. The final TMDL implementation plan would be lacking if it doesn't include a component for reducing sediment, a key water quality concern in the region.

The most persistent and still unmanaged problem facing the Illinois River is sedimentation in the river channel and the backwater lakes. The desired future conditions for the Illinois River Basin including recommended levels of terrestrial and aquatic restoration and reductions in sediment loads are provided in the Comprehensive Plan for the Restoration of the Illinois River Basin (USACE 2007). In the Comprehensive Plan, recommendations are categorized by segments of the Illinois River system and their individual watersheds.

To maximize effectiveness and meaningfully decrease sediment delivery from tributaries the TMDL implementation plan needs to include or incorporate a watershed plan that addresses sediment pollutants. Even though sediment does not currently have regulatory standards, the watershed planning process needs to identify target areas that have the highest sediment delivery from the subwatersheds.

The watershed planning component should also use newer in-channel assessment protocols using specific indices to measure channel stability. This information helps prioritize areas where channels are contributing the most sediment and better characterizes and scientifically justifies the selection and prioritization of targets for unstable stream channel reaches. Targeting BMP's for sediment pollution control is now a contemporary component of modern watershed planning and also considered an element of the TMDL implementation process where groups can address serious pollution problems known to exist and that currently have no regulatory standards to be included in a traditional TMDL implementation plan.

Response

The target value that was chosen for the TSS LRS is taken from a USGS publication- *Present and Reference Concentrations and Yields of Suspended Sediment in Streams in the Great Lakes Region and Adjacent Areas*(<http://pubs.usgs.gov/sir/2006/5066/>). From this document, “Spatial Regression-Tree Analysis (SPARTA) was applied to landuse-adjusted (residualized) TSS data and environmental-characteristic data to determine the natural factors that best described the distribution of median and VM (volumetrically weighted) TSS concentrations and yields and to delineate zones with similar natural factors affecting TSS, enabling reference or natural concentrations and yields to be estimated.” In order to develop the TMDL and LRS, a target value must be used. This project will incorporate methodologies from the reports mentioned above and use the information.

10. After having heard the presentation at the public meeting, we are concerned that the data being collected may not be accurate, if compiled by an organization who is biased towards a particular outcome. We would ask that any data being gathered come from an impartial organization with nothing to gain from the outcome.

Response

Data being used for this TMDL report are water quality, watershed characteristics and NPDES. Illinois EPA staff collects the water quality samples. The watershed characteristic data includes land use (provided by Illinois Department of Natural Resources), soil (provided by Illinois NRCS), population (provided by US Census Bureau), water flow (provided by United States Geology Survey) and climate (provided by Illinois State Water Survey). The NPDES facilities have permits they must comply with and send in water quality reports to stay in compliance. Illinois EPA also does Facility Related Stream Surveys (FRSSs) in which the discharge along with points upstream and downstream are sampled for water quality parameters.

The following questions are in relation to the DePue/ New Jersey Zinc/ Mobil Chemical Superfund Site. The following webpage has more information-

<http://www.epa.gov/region5superfund/npl/illinois/ILD062340641.htm>

For more information from Illinois EPA, please call or email Jay Timm (217)-557-4972 or Jay.Timm@Illinois.gov. We are currently doing the TMDL/LRS on Lake DePue for phosphorus, dissolved oxygen, siltation/sedimentation, total suspended solids and aquatic algae. Cadmium, Endrin, silver and zinc are also parameters that are causes of impairment for the lake. The source of these impairments is contaminated sediments. There are no water quality standards to use for target values and this makes it difficult to do a TMDL on. The implementation plan will focus on reducing the TMDL/LRS parameters in the watershed.

11. The Village of DePue believes it is being held at arm’s length to the development process for remedial/corrective actions for the site. The monthly progress reports indicate many remedial planning activities are nearing completion. Essentially the Village has had little or no input to that planning/development process.

Response

CERCLA provides for public participation in the form of a Citizens Advisory Group (CAG). Illinois EPA suggested in the June 17, 2010 letter from Doug Scott that a broad-based Citizens Advisory Group (CAG) be formed in DePue. A previous CAG was disbanded by its members several years ago. Under the new Illinois Freedom of Information Act law, which became effective Jan. 1, 2010, factual (noninterpretive) portions draft documents are now available, when requested under the authority of FOIA. Illinois EPA advises that membership and conduct of the CAG should be

developed in accordance with the CAG guidance provided by the IEPA Office of Community Relations, which is responsible for ensuring that all public participation opportunities are made available to the affected citizenry. The most effective means of input to this IEPA action is through the CERCLA process.

12. The Village of DePue believes that presently completed remedial activities are stopgap in nature and do not have the best interest of residents in mind. Also with literally decades of contaminated plant site/surrounds history behind it, and with a fifteen-year history as a Superfund site the remediation/corrective action process is proceeding at a snail's pace at best. As brief example:
- a) The large slag pile sitting on a bog north of Marquette Street has contaminated (and continues to contaminate) surface and ground water for decades.
 - b) Monitoring wells recently drilled in the Village should have been placed years ago in an attempt to more completely define/monitor ground water contamination.

This sluggishness in response has placed the Village in a desperate situation, finding it difficult to maintain basic services to the community, and being unable to attract businesses or families to depreciated properties. Hopefully an expedited process change can be introduced.

Response

The IEPA wishes to note that closure of the phosphogypsum stack was on-going consistent with the IL regulations at the time the 1995 Interim Consent Order was signed and entered into the court system. The Consent Order was presented for public comment and no comments were received opposing in-place closure of the GypStack. Final action has not yet been taken on the zinc slag pile. The existing top cap of the primary zinc smelter slag pile was placed in response to a Consent Order with IEPA's Bureau of Water in the mid 1980s, well prior to CERCLA becoming involved in the DePue site. The Interim Consent Order driving the current work "invisions" in-place closure of the slag pile and again the IEPA must note that the Interim Consent Order received no negative public comment on this issue.

13. The Village of DePue understands that IEPA presently supports an in- place management scheme for wastes remaining on site, in Lake DePue, in the Village of DePue itself and its surrounding areas. The Village is in complete opposition to that stance. The Village suggests that in addition to remediation processes, IEPA consider restoration activities like Brownfield redevelopment plans or equivalencies for the site/affected areas. The Village believes that restoration and maintenance of Lake DePue is critical to the Village's future. This natural resource needs to be returned to its original state for environmental, recreational, economic and moral reasons.

Response

This is a National Priorities List site, so the CERCLA remedy selection process must be followed. After the remedial investigation/feasibility study (RI/FS) process is complete for each operable unit, the Village and all interested citizens will be afforded a formal opportunity to comment of the proposed remedy.

14. The Village of DePue believes that some environmental samples utilized to draw conclusion for site remedial and corrective action activities may not be representative, were inappropriately selected, are potentially biased, and may not have been provided adequate data validation. The Village requests that an overview of sampling and analytic processes be provided to appropriate Village representatives.

Response

This issue was addressed in Director Scott's June 17, 2010 letter. Letter is attached.

15. The Village of DePue believes that the human health risk assessment process related to site contaminants is not being dealt with in the urgent and expeditious manner it deserves. As example, studies like the “Public Health Assessment” completed by the Agency for Toxic Substances & Disease Registry on the Village suggests a strong link between site contaminants and diseases seen in DePue; as example the Multiple Sclerosis cluster. The Village believes corrective actions are required.

Response

CERCLA addresses the current and future environmental condition of a site. Past releases to the air will be investigated via soil sampling. Past injuries due to operation of industrial sites are not addressed by CERCLA.

16. The Village of DePue believes that the ecologic risk assessment process related to site contaminants is not being dealt with in the urgent and expeditious manner it deserves. With controls on the intake/consumption of Lake DePue and surrounds biota, uptake of site-released contaminants is obviously occurring. The Village believes corrective actions are required.

Response

The IEPA concurs.

17. In relation to points 4 and 5 above (i.e. human health and ecological impacts), the Village of DePue believes that the synergistic effect of multiple contaminant exposure must be considered if site remediation/corrective action efforts are to be truly effective. Remedial investigation documents consistently refer to single contaminant exposure. It is the Village’s position that single contaminant exposures would be the exception rather than the rule to contaminants (e.g. metals, radionuclide, etc.) that either existed or presently exist on site and impacted surrounds. It is the Village’s position that short and long term multiple stressor exposure must be taken into consideration.

Response

The HHRA will be developed in accordance with EPA’s Risk Assessment Guidance for Superfund (RAGS), as required by CERCLA.

18. The Village of DePue requests that the Agency make every effort possible to simplify and concisely report its conclusions on remedial/corrective activities for the site. Summarized findings with direct remedial activities planned in response to those findings might be a solution to the problem of referencing volumes of individual samples and tables. If not already in existence, the Village requests that individual contaminant mappings by volume and for all environmental media (i.e. Surface and ground water, air disposition plots, and land distribution) be generated and distributed to appropriate Village representatives.

Response

Factsheets will be prepared on a more frequent schedule. Attached is the newest factsheet. To the extent these exhibits are available in draft of final documents; IEPA will provide them to the Village in response to Freedom of Information Act requests. In addition, fact sheets are developed in an effort to make the technical and regulatory language more understandable to the affected citizens.