Potomac River Basin Drinking Water Source Protection Partnership

Potomac Spills Groups.io Protocol Exercise

July 11, 2019

Background:

The Water Quality Workgroup and the Emergency Response/Early Warning Workgroup of the Potomac River Basin Drinking Water Source Protection Partnership updated the Utility Spill Response Plan in June, 2019. As part of that process, they worked with the Emergency Response/Early Warning Workgroup to develop protocols for communication and uploading documents during a spill response on the Potomac Spills Groups.io website. The new Spill Response File Protocols were the subject of an online exercise held July 11, 2019, 10:30 am – 12:20 pm.

Everyone on the Groups.io listserv was invited to participate. A conference call with the two workgroups was held on July 9 to prepare for the exercise and to solicit volunteers for specific tasks.

The following report describes the scenario, the timeline, and insights and takeaways from the exercise.

Scenario:

Potomac River flow: 8,400 CFS
Sodium cyanide spill: 40,000 gallons at 32% solution
Spill location: Harpers Ferry railroad bridge, train derailment
Spill date and time: July 10 at 12:15 PM
Spill duration: 10 hours

Timeline:

July 11, 10:30 AM

- ICPRB sends out the spill notification to the spills.io listserv
- ICPRB staff runs the spill model
- ICPRB staff creates a folder under files using the naming convention
- ICPRB Staff creates five subfolders in Files under the primary spill folder
    - Model Runs
    - Laboratory Information
    - Photos
    - Archived Messages
    - Miscellaneous
- ICPRB Staff sends out email containing model run information and uploads the information under Files\YEAR_MONTH_DAY<Name of SPILL>\Model Runs, using the proper naming convention

Between July 11, 10:30 AM – July 11, 11:30 AM

- Email correspondence between members of the group

- Different agencies upload photographs under Files\ YEAR_MONTH_DAY<Name of SPILL>\ Photos
- Different agencies upload sampling information and CoC with appropriate naming conventions under Files\ YEAR_MONTH_DAY<Name of SPILL>\ Laboratory Information
- SDS is uploaded under Files\ YEAR_MONTH_DAY<Name of SPILL>\ Laboratory Information

July 11, 11;30 AM –Inject

- Scenario Update
    - Sodium cyanide spill: 75,000 gallons at 32% solution
    - Spill date and time: July 10 at 10:15 PM
    - Spill Duration: 12 hours
- ICPRB sends out email with updated scenario
- ICPRB reruns model with new information
- ICPRB Staff sends out email with updated model run information and uploads the information under Files\YEAR_MONTH_DAY<Name of SPILL>\Model Runs, using the proper naming convention

Between July 11, 11:30 AM – July 11, 12:30 PM

- Email correspondence continues between members of the group
- Different agencies upload second round of sampling information and CoC with appropriate naming conventions
- Treatability studies, if any available can be uploaded under: Files\YEAR_MONTH_DAY<Name of SPILL>\Miscellaneous

July 11, 12:30 PM

- The exercise concludes
- ICPRB sends out email saying that the exercise has concluded.
- ICPRB Staff archives the message threads related to the exercise under Files\ YEAR_MONTH_DAY<Name of SPILL>\ Archived Messages

Results:

- Many organizations participated enthusiastically in the exercise and used it as an opportunity to re-evaluate their own processes.
- A few communication protocols and procedures also got tested during the exercise. For e.g. MWCOG initiated the process of organizing a call to coordinate efforts.
- At least 59 emails were sent during the exercise timeframe.
- A total of 14 documents were uploaded to the folder in Groups.io, including an archive of the email threads.
- The files uploaded followed the naming protocol laid out in the Spill Response Files Protocols.
- Email thread archives, documents related to the exercise, and other information can be found in the Groups.io folder: 2019_JUL_10_SodiumCyanide*EXERCISE EXERCISE EXERCISE*.

Insights and Takeaways:

- Many organizations took this opportunity to evaluate their membership list on Groups.io. As a result, 10-15 additional names were added to the listserv.
- Many email recipients learned that their email's time stamp was set to a different time zone on Groups.io and took steps to correct it.
- Emails to and from WSSC were delayed. Some were received late into the evening. Jin Shin of WSSC has opened a ticket with IT to see if it an issue with their system. They were able to resolve the issue at their end.
- Jessica Edwards-Brandt of Loudoun Water asked the following question during the exercise: Does the model account for increased rate of withdrawal from the River if WSSC, WAD, and Fairfax pull more to fill tanks during this type of activity (considering the spill is so close to our intake?)

  Heidi Moltz of ICPRB answered as follows: The model estimates travel times based on dye trace studies done by USGS under a range of flow conditions. The model does not explicitly consider river withdrawals (or expected changes in river withdrawals). Instead, the inputs include flows at specific USGS gages and information about the spill quantity and material. The downstream most gage used in the model on the main stem Potomac River is Point of Rocks. That being said, it is possible to use flow as a scenario variable and input different conditions to evaluate changes in travel times and concentrations under different flows. Using the model in this way, it can help to understand the potential impacts of changing river flows.
- Anne Spiesman from Washington Aqueduct asked if the information from the Water Contamination Information Tool (WCIT) could be shared/uploaded on the Spills Groups.io website. On consultation with EPA (Cathy Magliocchetti and Patty Kay) it was confirmed that it would be acceptable to post information from WCIT on the Spills Groups.io website, due to the closed nature of the group and because during a real spill event, expediency would be important to the responders.