Structural Impediments
(August 8, 2017)

Issue: Provide guidance related to steps that can be taken to clarify under what conditions structural impediments limit effective sediment site investigation and/or remediation, as well as continuing obligations needed at these sites.

Background: Structural impediments in relation to sediments are structures or other objects in a waterway that cannot be moved and limit the ability of a responsible party to fully investigate or remediate contamination from a site. Structural impediments typically encountered at sediment sites include utility lines (i.e. gas, sewer, fiber optic and other cables), abutments, culverts, pilings and piers associated with bridges, railways, roadways and seawalls (bulkheads), and could include sensitive archaeological/historical sites. In some cases, engineering controls installed for one site may be a structural impediment for another project. For instance, an engineered cap may be an impediment to future sampling, since the act of sampling could undermine the control.

In some cases, the impediment can be temporarily or permanently relocated to allow for work in the area to commence, such as the large-scale Legacy Act remediation project on the Kinnickinnic River in Milwaukee. Several cables were replaced to allow for dredging activities, and landowners replaced unstable seawalls to allow for deeper dredging adjacent to the walls. The cost of addressing the impediments in this case allowed for a better cleanup for the long-run and created documentation as to the specific locations, depths, etc. of the new structures and relocated utilities.

In some cases, such as with bridge abutments, the ability to dredge adjacent to the structures may be limited by the owner. The Wisconsin Department of Transportation (DOT) generally requires setbacks from bridge structures that are in the water to maintain structural integrity. DNR or others have not been limited from sampling adjacent to the structures if the sampling method will not come in contact with the structure, but dredging offsets have been required from DOT to protect the structures. The distance of the offset is determined on a case by case basis. In this instance, the abutment is the impediment keeping the adjacent material from being removed, but sampling of this material will provide information for determining the need for actions to manage the sediment using other means (i.e. sediment capping or other techniques).

According to § 292.12 (2)(b) Wis. Stats., DNR has the authority to "Require an investigation of the extent of residual contamination and the performance of any necessary remedial action if a building or other structural impediment is removed that had prevented a complete investigation or remedial action at the site" as a condition of approving an interim action, remedial action, LGU action under 292.11(9)(e) or case closure.

If it is determined that a structural impediment has limited the ability of a responsible party to complete a site investigation or remedial action, then continuing obligations addressing the impediments will be required at the site as a condition of approving an interim or remedial action or case closure.

Type of changes (admin, legislative, rule, etc.):

Resources needed to implement:

Information should be incorporated into fact sheets for internal and external audiences to provide appropriate steps to take to address structural impediments encountered at a site. For instance, if a structural impediment is hampering a responsible party from conducting a complete site investigation, this must be documented and reported as part of the site investigation. Continuing obligations will be imposed that require completing investigation if the impediment is removed in the future.

If, during design and/or implementation of a remedial action a structural impediment interferes with completing a thorough clean up, then the residual contamination considered to be left inaccessible by the impediment must be documented, and continuing obligations imposed, including documentation on BRRTS and RR Sites map.

Comments: