



Avoidance and Minimization Measures

Amtrak is continually identifying ways to further avoid, minimize, and mitigate impacts to resources. Amtrak sought to avoid and minimize impacts to Waters of the U.S., including wetlands wherever practicable and to other sensitive resources such as SAV, anadromous fish, and the northern map turtle. The avoidance and minimization measures are described below.

The Susquehanna River Rail Bridge project includes numerous methods that have been proposed to avoid or minimize impacts to wetlands and streams. Along the corridor, several retaining walls have been proposed. In the Havre de Grace area, retaining walls are provided to reduce the impacts to Lily Run. In the Perryville area, retaining walls are provided along the track corridor to reduce the amount of fill needed and ultimately minimize the impacts to adjacent wetlands.

In addition to the Susquehanna River, the project corridor crosses several streams, including Lewis Run, Lily Run, and Mill Creek. At Lily Run and Mill Creek, existing culverts will be extended upstream rather than replacing the entire culvert therefore minimizing the impacts to those streams.

Other methods of minimizing the impacts to wetlands and streams is the use of stormwater Best Management Practices (BMPs). These stormwater BMPs will collect and treat stormwater runoff prior to discharging to downstream wetlands and streams. Similarly, the project proposes to remove existing impervious areas upstream of wetlands and streams.

Avoidance and measures employed for the in-river construction is discussed in detail in the Construction Access Means and Methods document located in Appendix L. A summary of the mitigative measures that will be employed during construction are described below:

- Restrict the use of impact hammers or pile driving equipment for any in-water installation to TOY restrictions for anadromous fish, northern map turtle, and SAV. An underwater noise monitoring plan will be implemented to ensure anadromous fish and other aquatic species are not being affected.
- Install Turbidity curtains during shaft construction and demolition of existing piers.
- Decanting and sediment control BMPs for dewatering of temporary suspended cofferdams.