

Appendix R

Navigation Features

R.1 Explanation of Types of Navigation Features

Wing dams are structures extending from the shore into a channel (USACE, n.d.-b). These structures have a variety of uses ranging from protecting the shore to manipulating currents within a waterbody (USACE, n.d.-b). Revetments are designed to hold a river in desired alignment by stabilizing the riverbanks and to maintain proper navigation channel alignment (USACE, n.d.-c). Lights and other aids that end in odd numbers on the Mississippi River are located on the port side (left side when facing the bow [front] of a vessel) when entering from seaward (USCG 2024). A lateral buoy is used to indicate the vessel's route and identify well-defined channels in conjunction with a conventional direction of buoyage (a system of buoys for marking a channel) (HIFLD 2024).

R.2 Unaffected Civil Works Navigation Features

The following civil works navigation features are within the navigation region of influence but on the western (right descending bank) of the Mississippi River and are unlikely to be affected by the Local Redevelopment Authority's proposed redevelopment:

- U.S. Army Corps of Engineers (USACE) submerged revetment from approximately river mile (RM) 543.2 to RM 544.5
- USACE wing dams located at approximately RMs 544.7, 544.8, 544.9, 545.1, 545.3, 545.8, 546, and 546.2
- USACE submerged revetment located approximately at RM 546.4 to RM 548.5, near the mouth of the Maquoketa River