COMMUNITY GUIDE

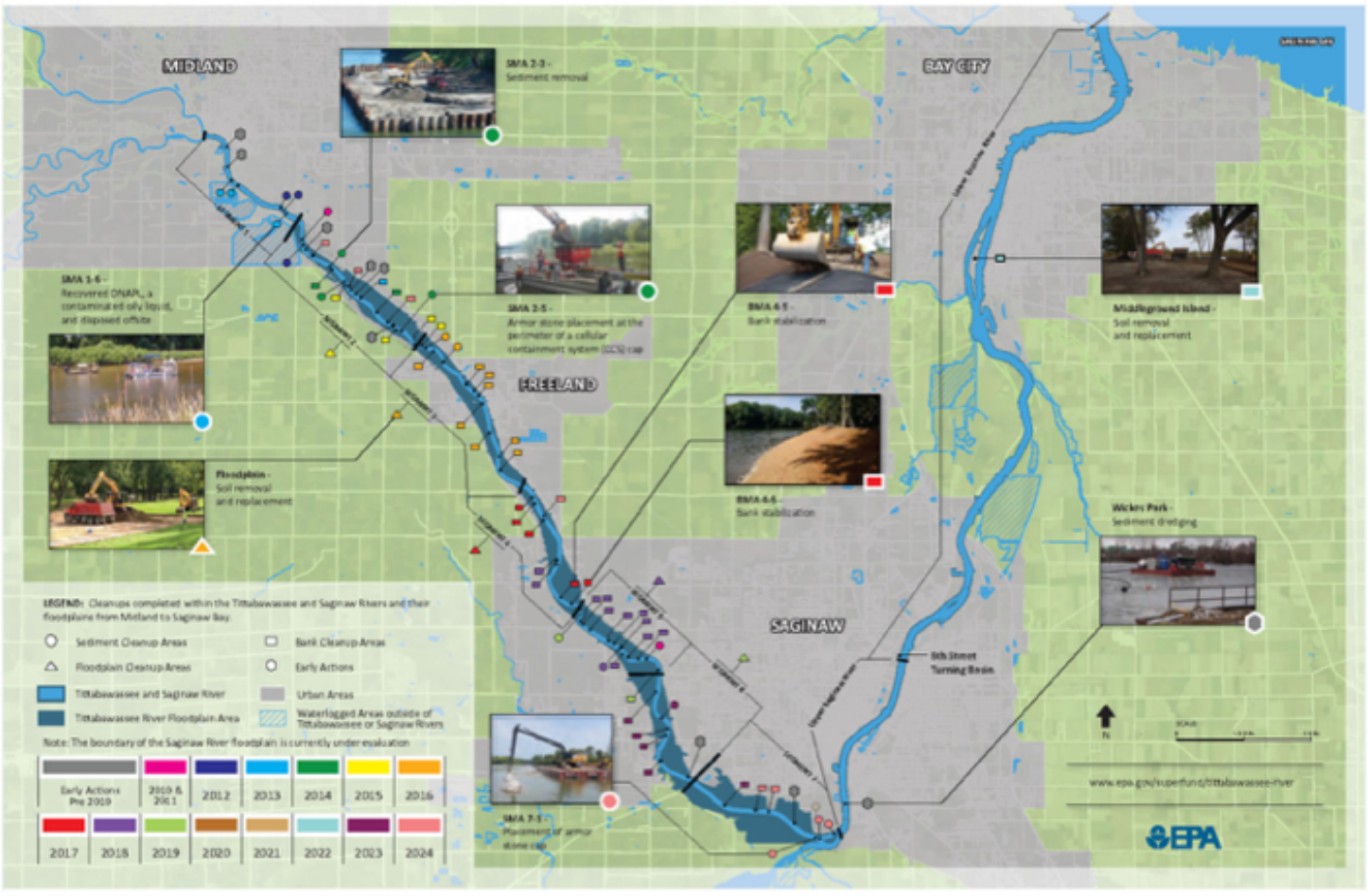
to Sediment Management Areas and Bank Management Areas

How did the Tittabawassee River Become Contaminated?

Dow Chemical Co., or Dow, has been operating at its Midland plant since the 1890s. Dioxin (primarily furans) is found in and along the Tittabawassee and Saginaw Rivers and in Saginaw Bay from former waste management practices at Dow's Midland plant. In the past, chemicals got into the Tittabawassee River, where they settled in some sediment and built up in some riverbanks. Current waste management practices ensure no unacceptable contaminants are released from Dow's facility.

"Dioxin" refers to a large family of similar chemicals, including furans. The U.S. Environmental Protection Agency, or EPA, has concluded that dioxin may cause cancer or other health effects, such as skin problems, liver damage and reproductive issues, depending on exposure. Dioxin is not created intentionally but can be formed by human activity or naturally – by fires, for example. Dioxin binds strongly to soil or sediment particles and does not dissolve in water easily.

How are agencies and Dow cleaning up the river?

EPA, working with the Michigan Department of Environment, Great Lakes, and Energy, or EGLE, is overseeing Dow's investigation and cleanup of the river. Together, they took early actions from 2007 to 2011. EPA then divided the Tittabawassee River into seven segments ranging from 3 to 4 miles each for cleanup working stages from upstream to downstream, as depicted in the figure below.

Dow started cleanups in Segment 1, a 3-mile stretch next to Dow's Midland plant, in 2012. Cleanups have progressed each year, segment by segment. EPA selected the cleanup plans for Segments 6 and 7 in 2019, and Dow completed construction work in the final segment, Segment 7, in 2024.