

Different Water Environments Require Different Decisions

Environment	Storm Concerns	Planning Emphasis
Protected inland ponds and small lakes	Wind setup, rapid runoff, floating branches, shoreline anchor erosion.	Early removal is often practical. Verify that “protected” remains true under forecast wind direction and inflow.
Large lakes	Long fetch can generate damaging waves even without a tide.	Treat exposed shorelines more like coastal sites; consider retrieval time and distant debris.
Rivers	Rising stage, faster current, whole trees, reversing eddies and inaccessible banks.	Current can increase after local rain has ended. Remove early or use a site-specific plan; do not work from flooded banks.
Canals and drainage waterways	Rapid water-level change, concentrated flow and debris from upstream neighborhoods.	Check that the curtain will not become a blockage or redirect flooding; coordinate with the responsible authority.
Bays and estuaries	Storm surge, tide, wind waves, reversing current and vessel movement.	Evaluate both load directions, water-level range and navigation. Removal is strongly favored when safely feasible.
Harbors and marinas	Some wave shelter, but high risk from boats, docks, pilings and loose equipment.	Debris and crushing may control risk more than current. Secure surrounding property and coordinate harbor operations.
Open coastal environments	Surge, breaking waves, large debris and limited safe access.	A standard deployed curtain should not be assumed to survive. Plan removal well before onset of hazardous marine conditions.
High-current or high-wave sites	Large hydrodynamic load, limited inspection access and rapid escalation.	Require project-specific engineering and conservative stop-work/removal triggers.

