TWO TWISTY RIVER PHENOMENA

FLOW & FRICTION together cause BACKWASH & VORTEX SHEDDING

Backwash



Friction causes twisting along the Turbine House wall This creates rolling balls of water called eddies Think of tiny wheels rolling along the wall

6

 (\mathbf{G})

9



()

You are here

Turbine House



eddies break

away



The eddies form larger areas of rotation next to the main flow

> Rubbish collects In the corner—see outside near where you came in



Bridge

ackwash The backwash appears by the downstream bank



River bank



Vortex Street

You can see a vortex street in the wake of the stanchion outside (clouded a bit by turbulence)

> Friction from bridge supports or stanchions causes eddies (vortices) to break off either side



Historical Figures: Osbert Reynolds, Theodore von Karman