



PIPE CULVERT FLOTATION

SOIL RESISTANCE + PIPE WEIGHT

– BUOYANCY FORCE ≥ 0.0
(OR ELSE THE PIPE FLOATS)

FLOTATION RISK THROUGHOUT THE U.S.

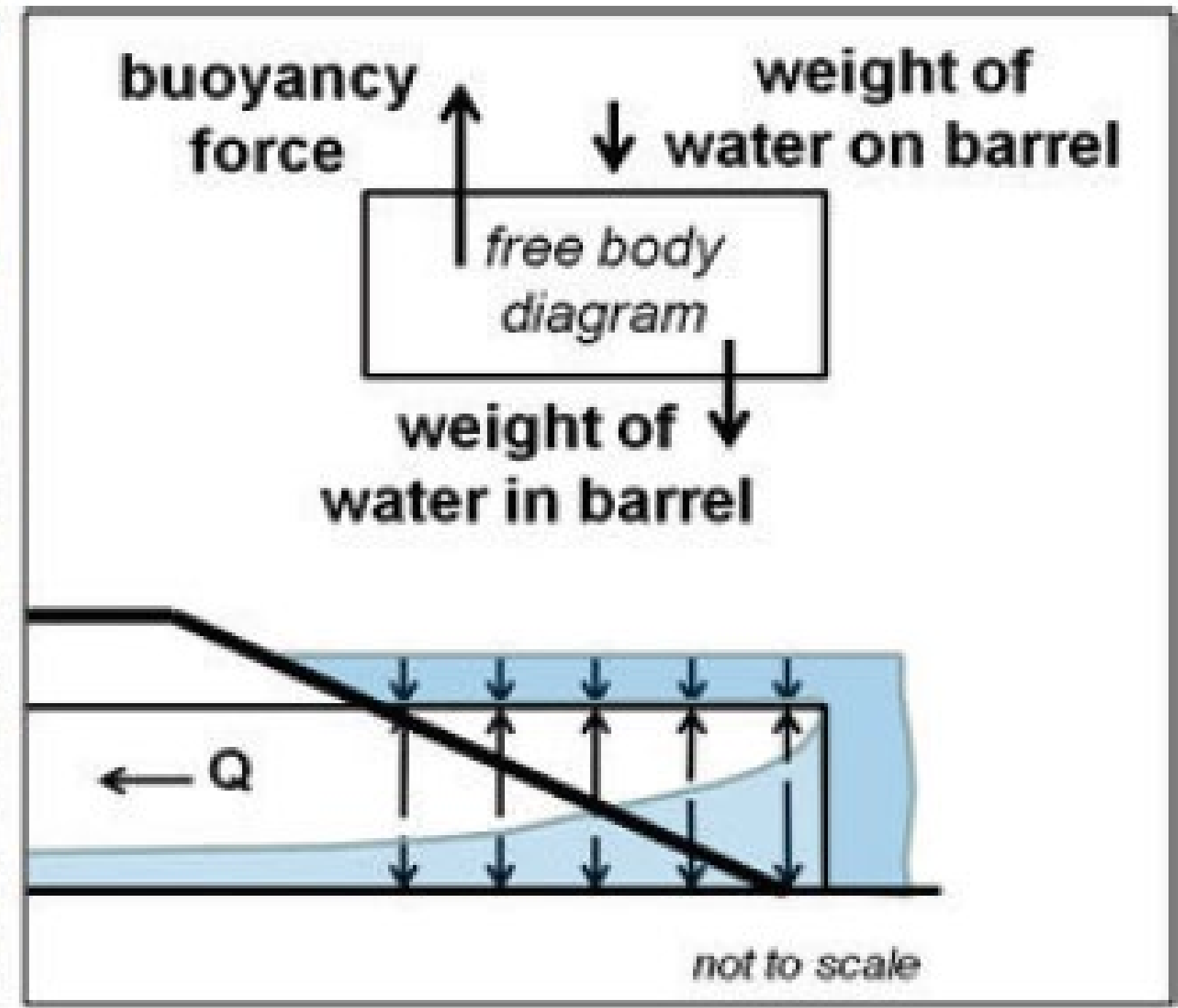


Figure 5.19. Unanchored thin edge projecting.

FHWA HYDRAULIC DESIGN OF HIGHWAY CULVERTS (HDS 5)

SOLUTIONS



USE CONCRETE PIPE



CONCRETE WINGWALLS,
HEADWALLS & RIP RAP



ANCHORING SYSTEMS



CONCRETE END
TREATMENTS