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Levees: Definitions and Potential Sources of Flooding



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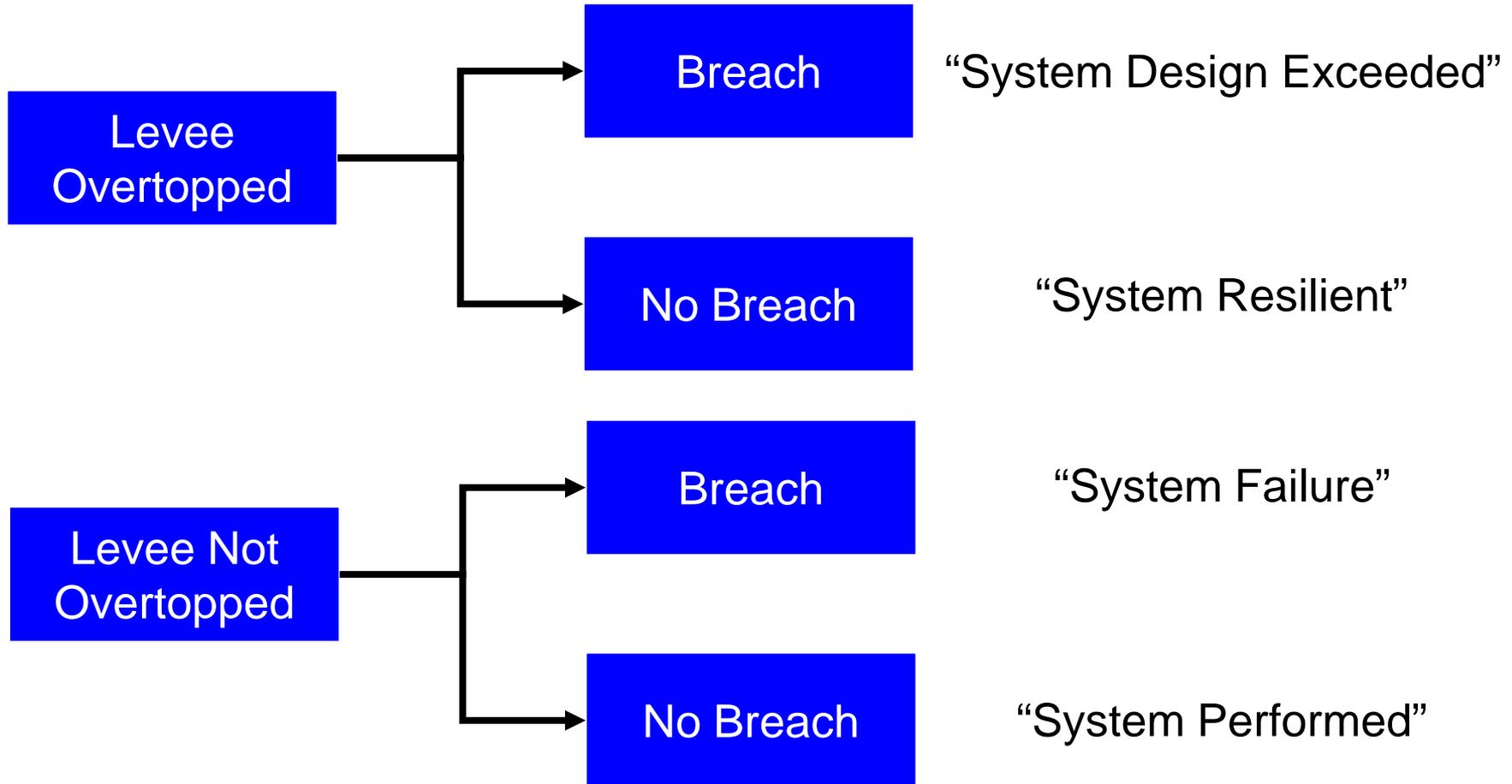
Definitions

- **Levee:** an earth embankment, floodwall, or structure along a water course whose purpose is flood damage reduction or water conveyance
- **Overtopping:** Water levels that exceed the crest elevation of a levee and flow into protected areas
- **Breach:** a rupture, break, or gap in a levee system whose cause has not been determined
- **Overtopping Breach:** a breach whose cause is known to be a result of overtopping (system exceeded)
- **Failure Breach:** a breach in a levee system for which a cause of failure is both known and occurred without overtopping. Usually requires an investigation to determine cause.



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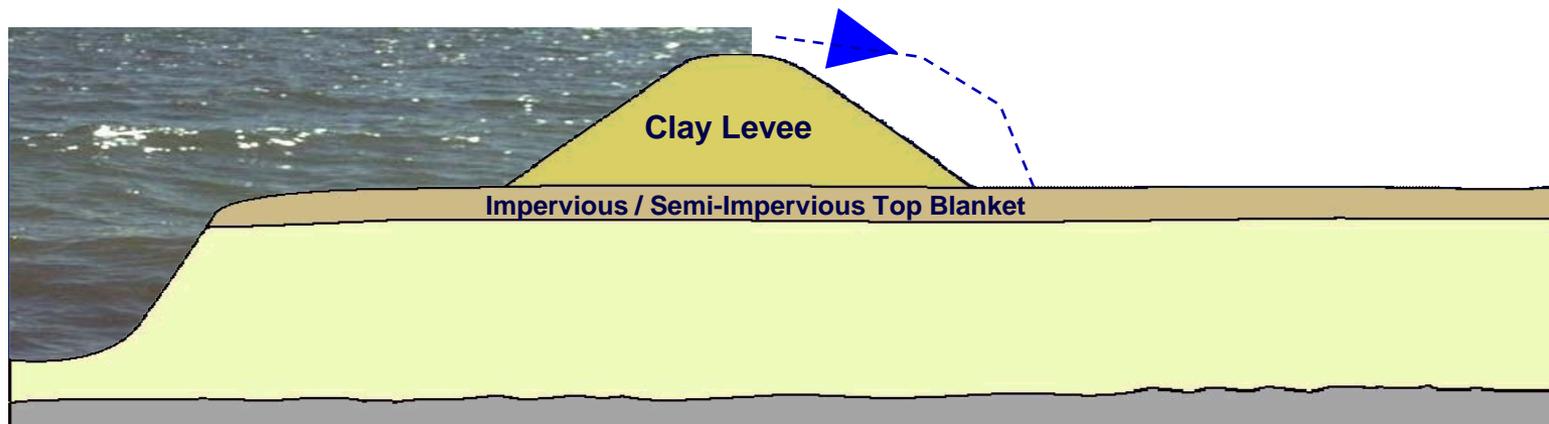
Flooding Descriptions





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Levee Overtopped



Levee Overtopped

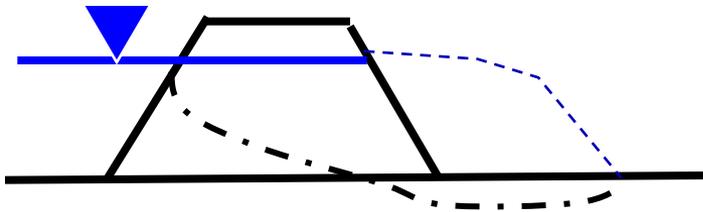
- (1) **Breach** – Does not imply cause of breach is known; however, the levee has been compromised (after overtopping) – Must be repaired to function prior to next event.
- (2) **Non-Breach** – Levee may be damaged but is not compromised; Flooding as a result of overflow/overwash and other sources. Must be inspected.



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Levee Failed

Levee Failure



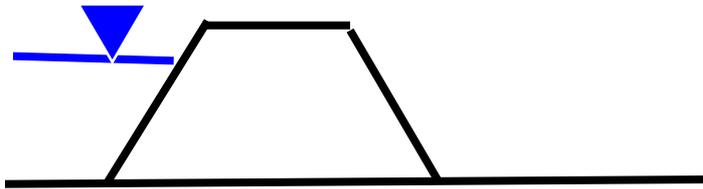
Failure – without Overtopping – Implies cause of breach is known to be a result of poor levee performance and occurred without overtopping. This designation should only be applied in circumstances where studies and investigations have revealed the cause of the breach with little uncertainty.



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Interior Flooding

Levee Performs as Designed



Levee is not overtopped and is not breached.

Interior Flooding can still occur due to the following:

- (a) Seepage and/or Boils
- (b) Interior Drainage – Run off behind the levee
- (c) Levee Penetrations – Drainage conduits not closing
- (d) Pump Station Failures – Pump problem or lose of power
- (e) Closure Structures