

Stormwater Quality Improvements - Technology and Opportunities in Discharge Compliance

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All railroads have stormwater compliance requirements at multiple levels of agency authority. It is critical that each individual facility inside each train yard meet all requirements. Doing so carries many benefits -- protecting the environment, improving water quality, preventing uncontrolled discharges or permit exceedances, avoiding monetary penalty, and protecting the company's reputation.

Union Pacific has pioneered a process to leverage location-specific site challenges with innovative solutions to produce the benefits described above. Approaches range from a large retention pond evaporating storm water coupled with a sand filter system to enhanced filtration units that reduce contaminants to underground injection control vaults.

This presentation will discuss the evaluation process Union Pacific has built to assess current operations and land use planning while adhering to discharge requirements. Obstacles such as groundwater depth, soil types, and site geography all play roles. We will discuss how to choose the correct equipment with considerations such as flow control, performance capability, physical footprint, and costs.

Union Pacific is committed to improving its environmental performance. With the help of various outside entities and cutting edge technology this presentation will show real world examples to protect our natural environment and improve water quality.