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Vegetation on Dutch levees in practice

ABSTRACT

Dutch national legislation states no trees on levees are permitted. This approach is grounded on safety considerations. Two failure mechanisms, related to the presence of trees on levees, are supposed to increase the risk to flooding. Despite the regulations, trees are not an unusual sight on Dutch levees. Several reasons for the presence of trees on levees will be discussed, of which a number are similar to the Californian practice. Dutch levees with trees provide sufficient strength to withstand high water levels. By a number of practical cases it will be demonstrated how the required safety level can be guaranteed without the removal of trees. Two approaches will be addressed, one based on levee aspects and the other based on tree theory.

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Geotechnical engineer with DHV Consultancy from the Netherlands. Description of duties: Geotechnical aspects of levees with a main goal to secure the safety against flooding, including specialized knowledge of foreign elements influencing the stability of levees.