

Forestry and Flood Alleviation in the Vale of Pickering: a Case Study



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Slowing the Flow at Pickering:

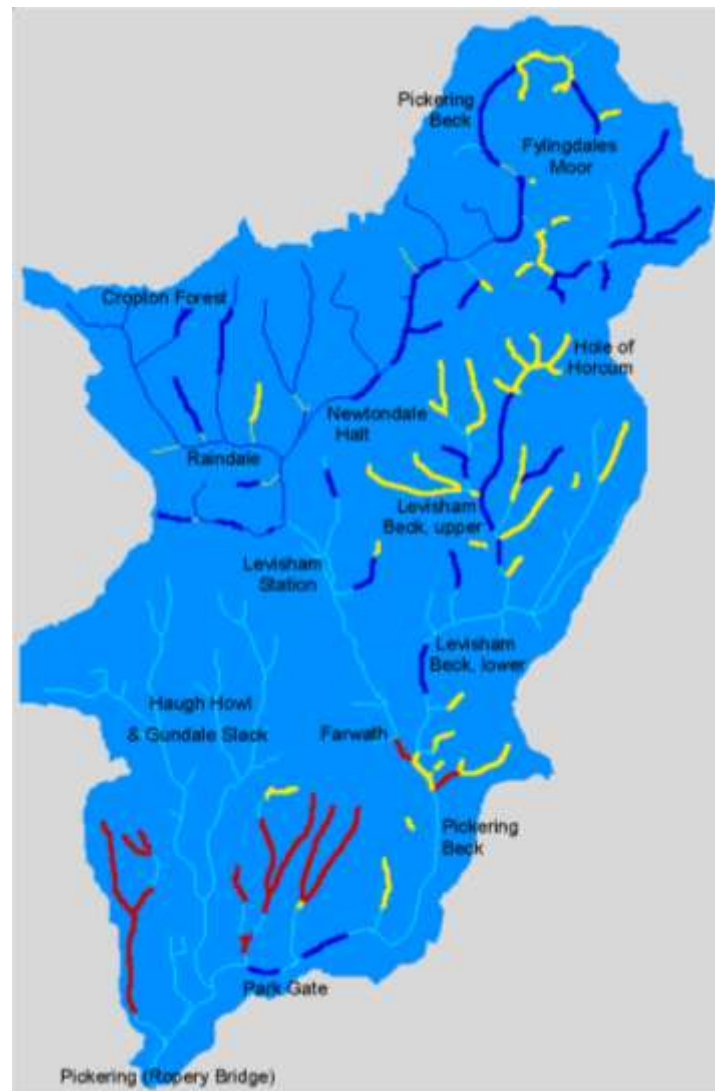
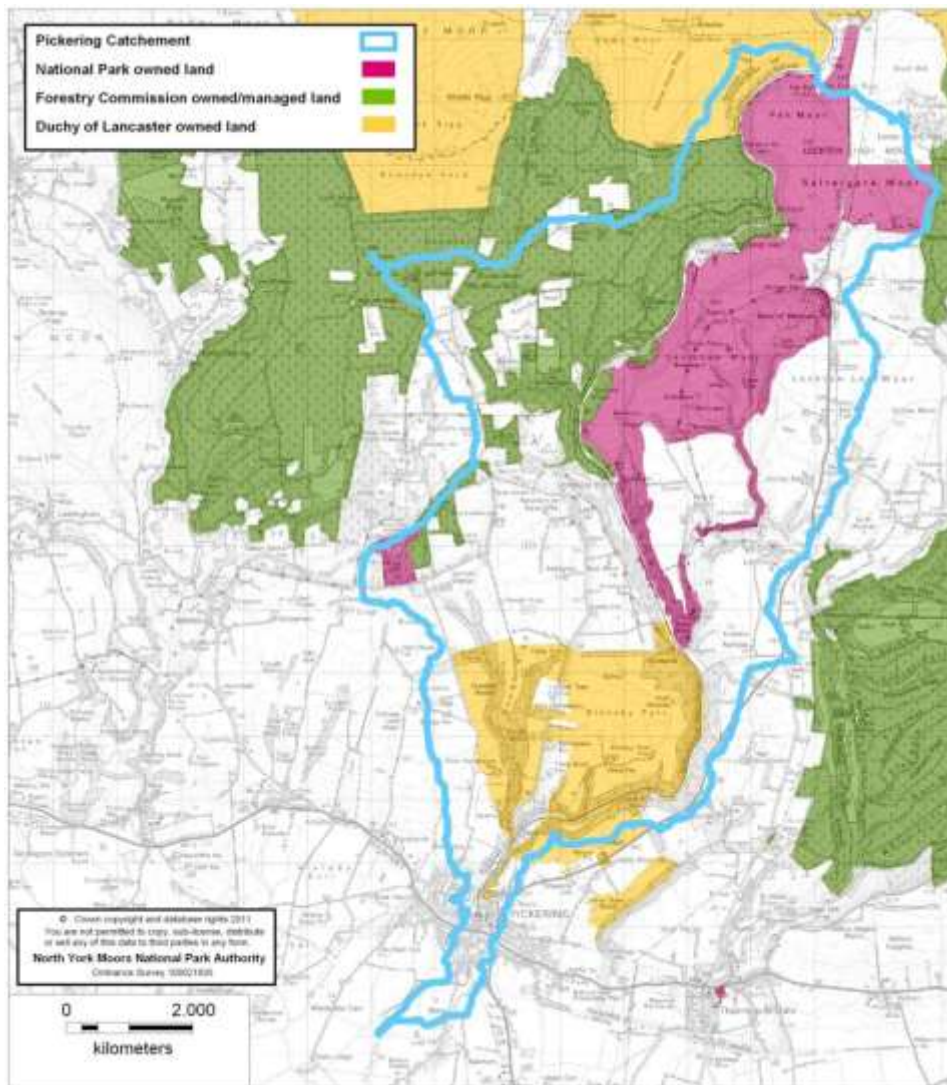
To demonstrate how the integrated application of a range of land management measures can help reduce flood risk at Pickering, as well as deliver wider multiple benefits for local communities.



How trees can help reduce flood risk:

- By reducing the volume of flood water at source
- By slowing down the movement of flood water to watercourses
- By enhancing flood storage on the flood plain and delaying the downstream passage of the flood peak
- By reducing sediment delivery and siltation



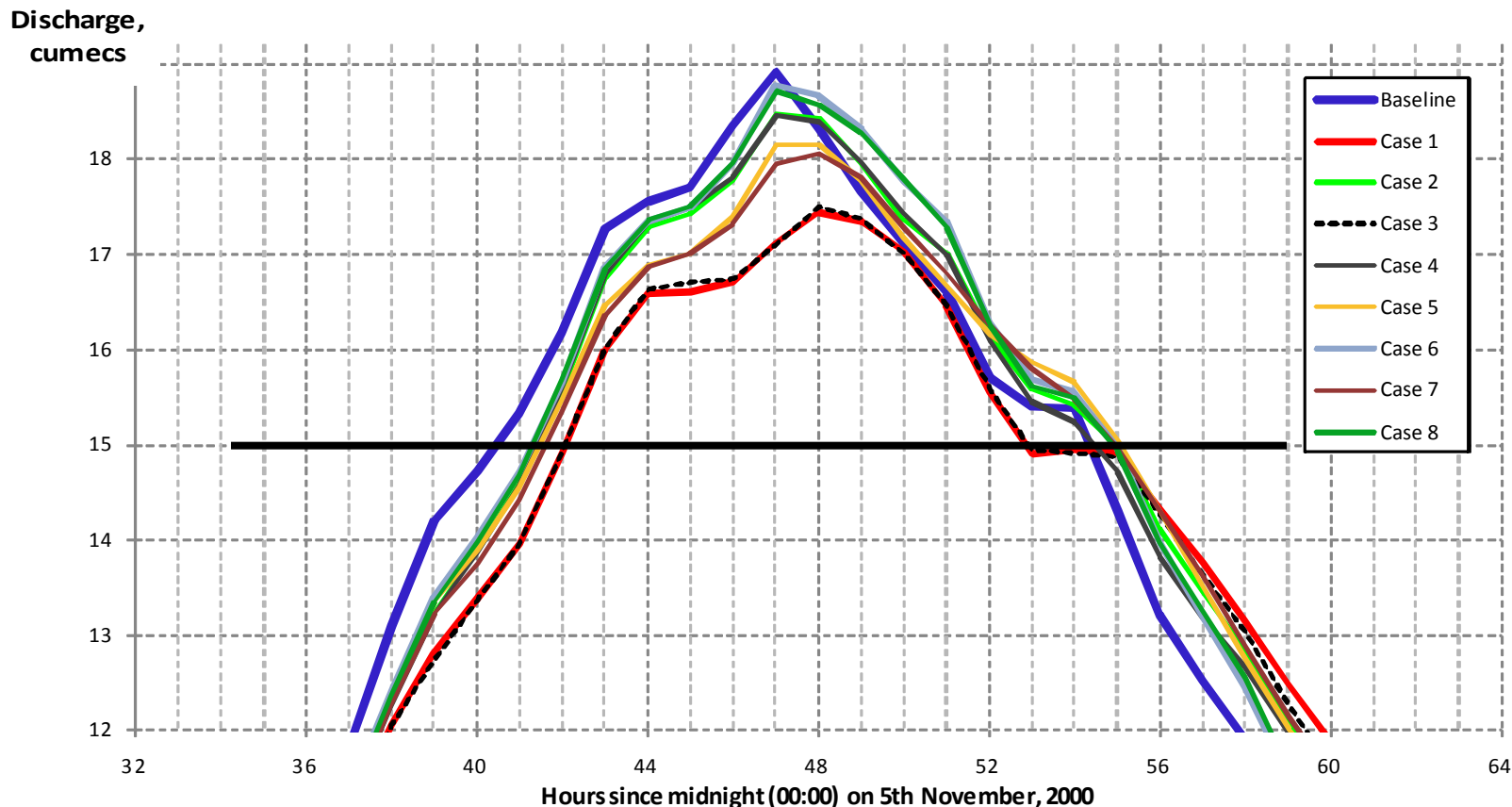


17 ha of riparian woodland planted or naturally regenerated (50 ha target)



Constructed 100 LWD dams within existing woodland





Planting 50 ha of riparian woodland and installing 100 LWD dams could reduce 1 in 25 year flood peak by 20% of required margin (From Odoni and Lane, 2010)

Trial of two timber minibunds



Conclusions:

- Studies confirm that woodland creation can make a significant contribution to mitigating downstream flooding.
- Significant barriers exist to securing targeted restoration of woodland for flood mitigation; need to increase financial incentives for woodland creation and link payments to Catchment Flood Management Plan objectives.