RIVER FLOOD MANAGEMENT SOFT ENGINEERING PROS AND CONS

Method	Purpose	Advantages	Disadvantages
River Restoration	Restores the river to its natural state with meanders and wetland areas	• Increases the number of habitats • Restores wetland areas • Slows down water flow reducing flooding downstream	• Expensive to construct the new channels • Some areas will flood
Floodplain Zoning	Restricts land use in areas that are at high risk of flooding and ensures high value buildings are not in flood prone areas	• Low cost • Conserves habitats on floodplains and wetlands	• Restricts areas where houses can be built and may impact on economic development • Can only happen in places where development has not already happened

Afforestation	Planting of trees to increase interception and infiltration. Trees also use up large quantities of water	• Inexpensive • Absorbs and stores CO_2 • Slows down water transfer, increasing lag time	• Can increase acidity in the soil • Loss of farmland
Flood warnings	Monitoring of rivers to provide people with warnings when flooding may occur	• Helps people to prepare and evacuate if needed • Less expensive than hard engineering	• Expensive to set up monitoring equipment • People may not take warnings seriously