



Presentation 2, slide 13

# An adaptation pathway in action: assessing and appraising options

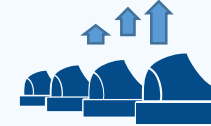
During development of the pathways set out in the Thames Estuary 2100 Plan, multiple options had to be appraised. This factsheet explains the way the different impacts of each option were assessed.



## Strategic Environmental Assessment



## Economic appraisal



or



- Legally required assessment of environmental and social impacts of flood risk management options, and how they conform to environmental legislation.
- Recommends impact mitigation and enhancement, and sets out requirements under the Habitat Regulations, as outlined below.

- Assessment of overall worth to society of flood risk management options. Monetary value is placed on positive and negative impacts, using cost-benefit analysis.
- 16 impact categories (see over) were used in the first version of the Thames Estuary 2100 Plan.

Improving the existing system is the best environmental option for all stages of the Plan, and the best economic option for the early stages. For later stages, the best economic options will be either improving the existing system, or a new barrier farther downstream.

As there is no need for an immediate decision, the choice will be made during a future review, when updated costs and benefits will more accurately reflect the economy, the environment, and society's values at the time. This is one advantage of the adaptation pathways approach.

## Impact mitigation and enhancement

- Transport construction materials by river where possible.
- Consult residents, and give warning of planned works.
- Consider flood warning, emergency planning, spatial planning and building design in floodplain management.
- Give vulnerable populations extra assistance with flood warning or emergency planning.
- Enhance floodplain habitats for fish, birds and invertebrates, with possible economic benefits from improved recreational and commercial fisheries.



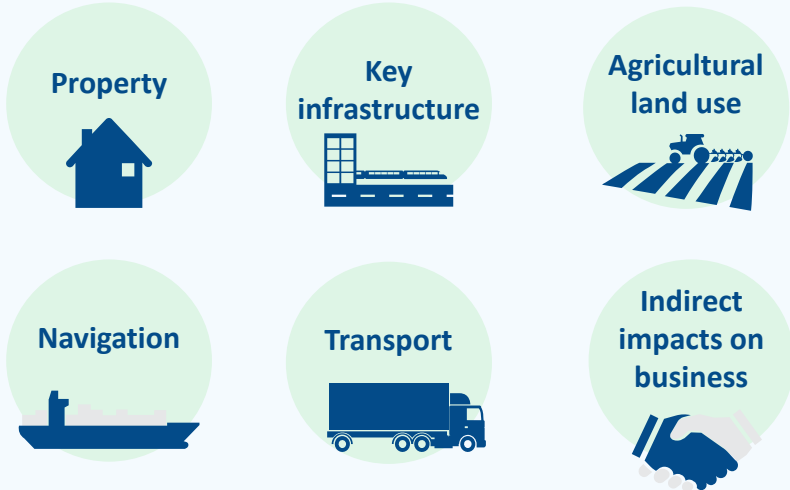
## Habitat Regulations Assessment

- An assessment under the Habitats Directive of impacts on designated habitat sites.
- There may be a significant loss of valuable intertidal habitat over the next century, as flood defences prevent the landward migration of habitats that would otherwise naturally occur in response to sea level rise.
- Intertidal and freshwater habitat creation projects will compensate for losses due to coastal squeeze.



# Economic appraisal: Impact categories

## Economic impacts



## Environmental impacts



## Social impacts



## Technical impacts



## Other impacts



New impact categories, such as carbon costs and natural capital, will be added in reviews.