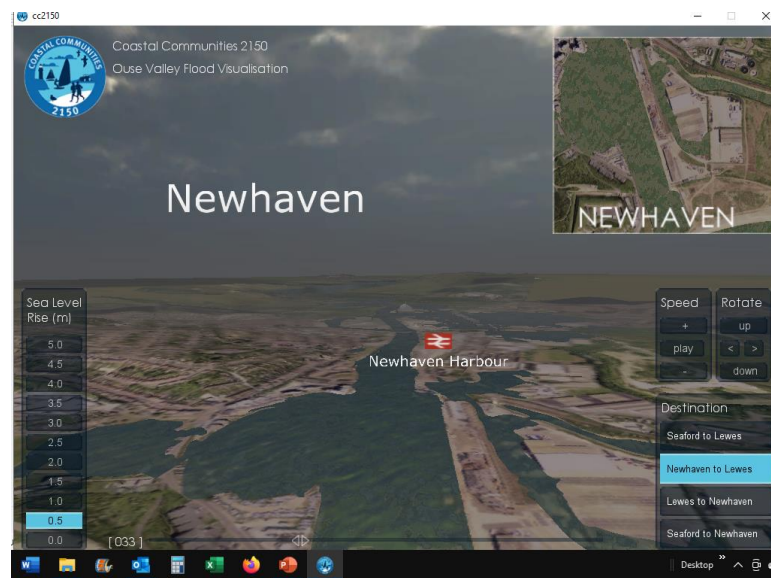


# The Ouse Valley 2150 possible scenarios



**Today**



**0.5 metre rise**



**1 metre rise**

The digital fly through can be found here <http://www.fusiongfx.com/EA/sussexouse/>



## NASA Data Helps International Community Prepare for Sea Level Rise

Sea level rise and flooding projections are among the tools now available to coastal communities.

[Full story](#)

GLOBAL MEAN SEA LEVEL

OCEAN MASS

STERIC HEIGHT

GREENLAND ICE MASS CHANGE

ANTARCTICA ICE MASS CHANGE

**IPCC 6th Assessment Report Sea Level Projections**

Median projections of global and regional sea level rise, relative to a 1995-2014 baseline.

[About the data](#)

**Data**

Scenario

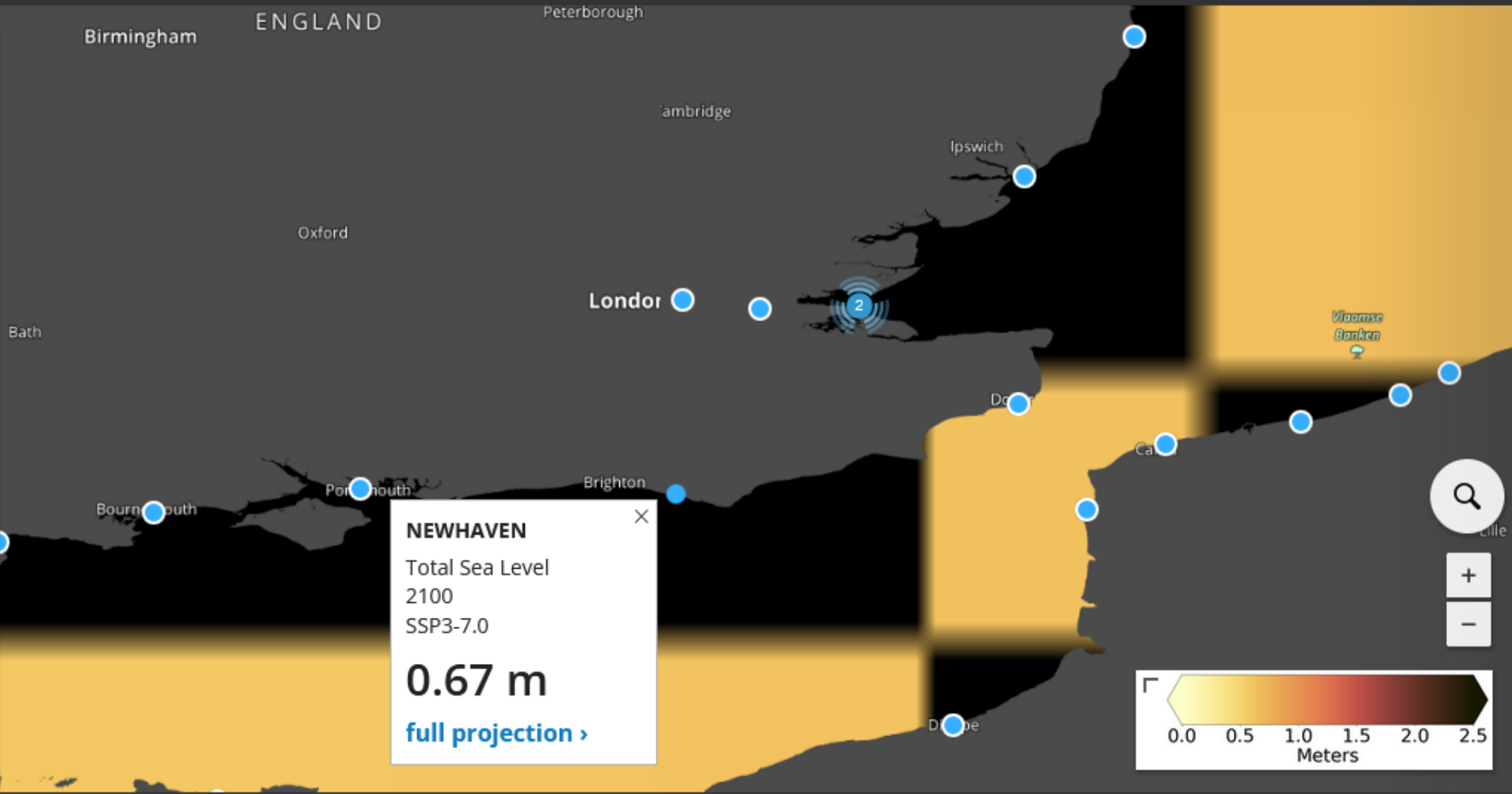
Warming Level

**Process**

Total Sea Level

**Decades**

2100

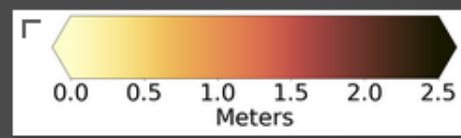


**NEWHAVEN**

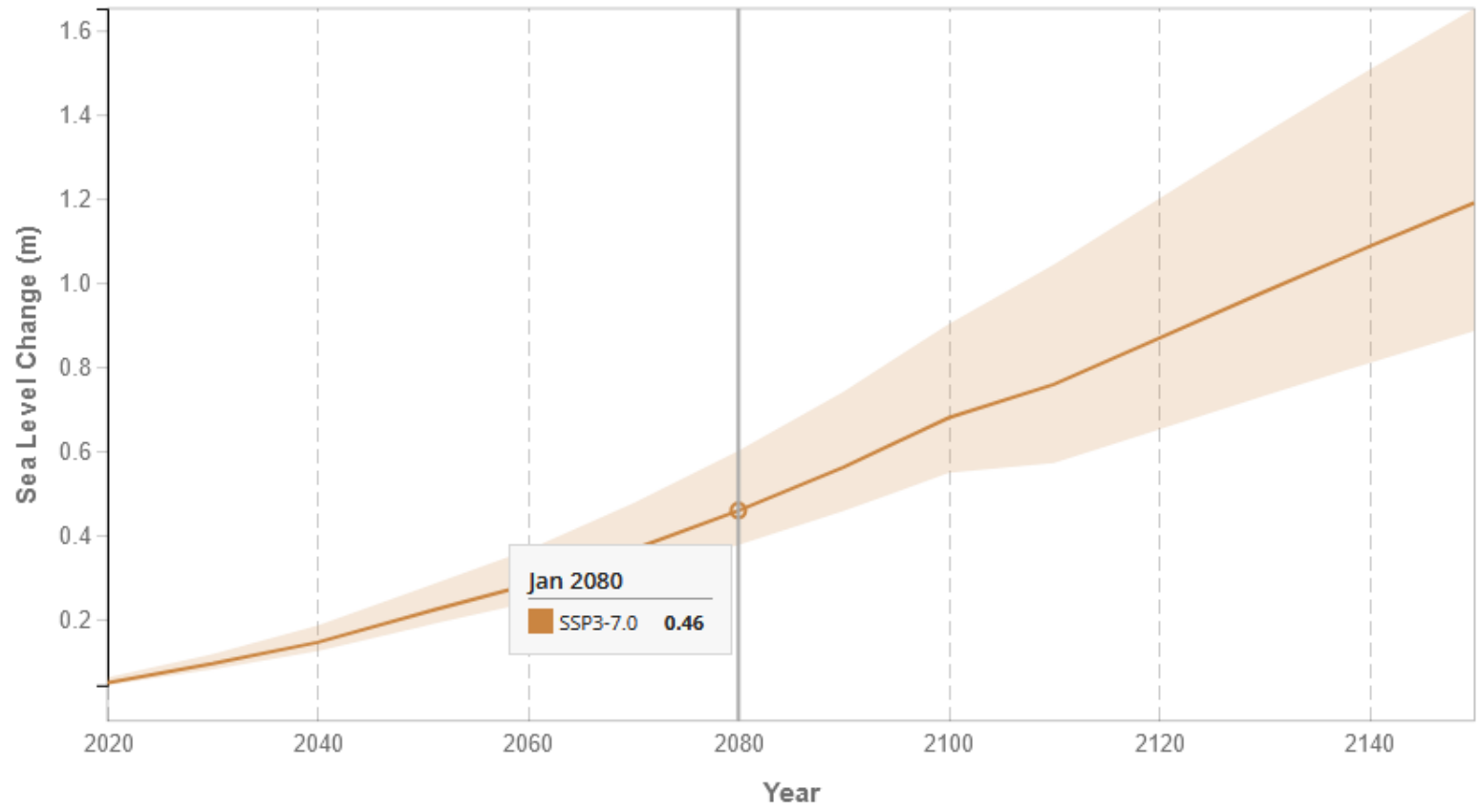
Total Sea Level  
2100  
SSP3-7.0

**0.67 m**

[full projection >](#)



Data for the individual contributions can be downloaded under 'Get Data'.



Median/Likely range  
 — SSP3-7.0

- Display Range
- Take Snapshot

In 55 years' time it will be 2080. If the average age of the young people in the room is 10, you will be 65 – ten years younger than me.

Click+drag to zoom + RESET

# Hard line

Hard structures can be built to hold back high tides and floodwaters:

- Concrete walls
- Raised, reinforced river banks
- New raised bridges
- Raised shingle beach



# Hard line



The riverside in Lewes with higher flood walls and a new raised bridge for the high street

# Soft focus

Softer, more natural features can be used to defend land against flooding:

- Breakwaters and beach
- Earth embankments

Some areas would be allowed to flood and develop salt marsh and mud flats

Newhaven might still need hard defences



# Soft focus



Seaford beach with new breakwaters and salt marsh in the foreground near Tide Mills



# Get wet

- Flood damage could be limited and people and businesses protected, at least in the short term
- Regular disruption of businesses, infrastructure and services
- Local protection may not help in the most severe floods
- Flood damage, clean-up and insurance expensive in long term
- Pollution risk from floodwaters
- Farming in low-lying areas would be affected



## **FLOOD WARNING**

FLOODING IS EXPECTED. IMMEDIATE ACTION REQUIRED.

# Get wet



Temporary shutters protect shops on Cliffe High Street in Lewes from flooding while a boat ferries people around

# Higher ground

Buildings and infrastructure could be moved from the shoreline and flood plain to higher ground:

- Abandon areas that flood often
- New buildings on hills
- New road and bridge



# Higher ground



The view across a flooded Newhaven harbour to new buildings on the hillside near Denton

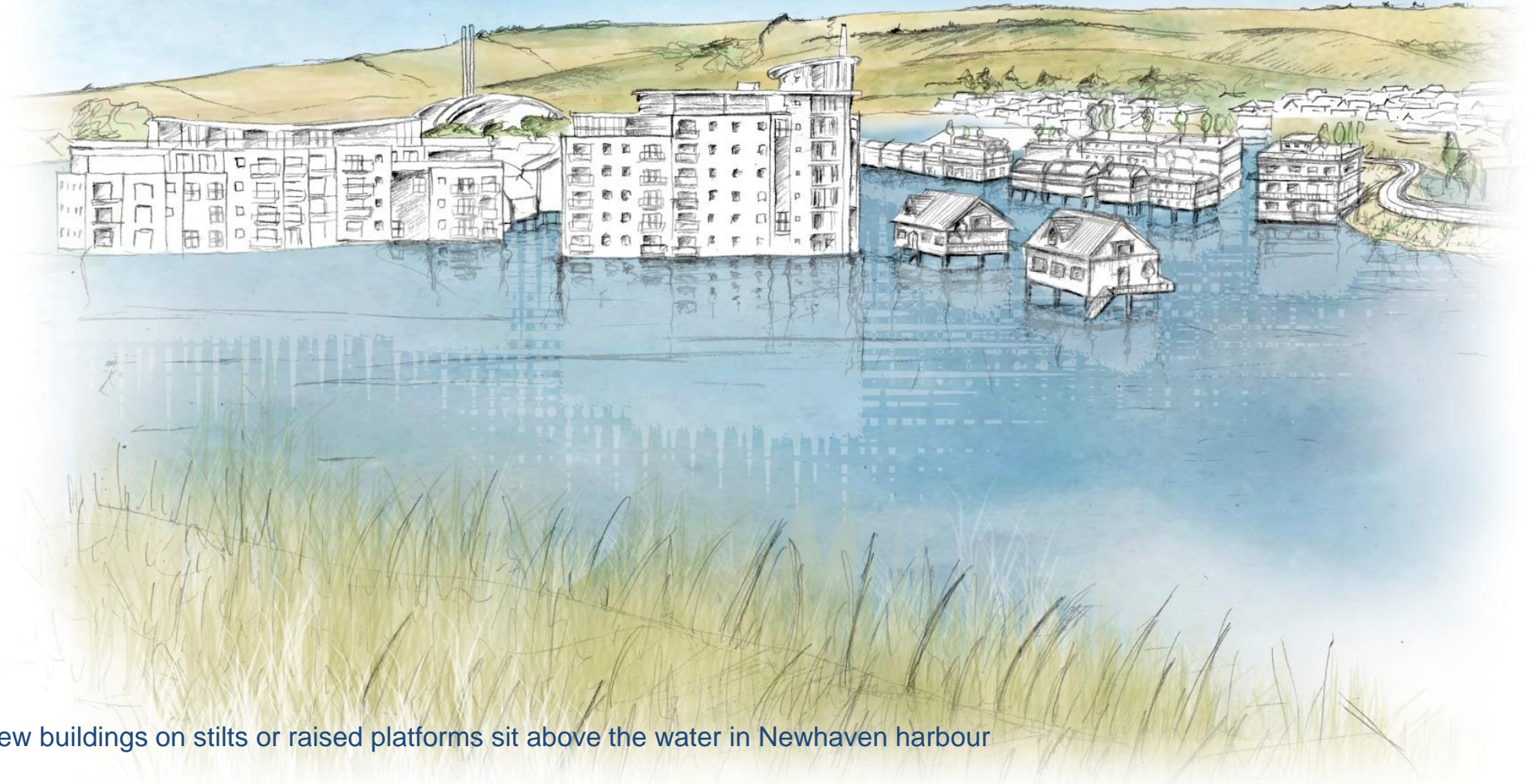
# Rise up

Buildings and infrastructure could be raised above the flood level:

- Buildings on stilts or floating platforms
- Railway re-built on stilts or an embankment
- Parts of road re-built on stilts or embankment with new bridge
- Boats and raised walkways for getting around



# Rise up

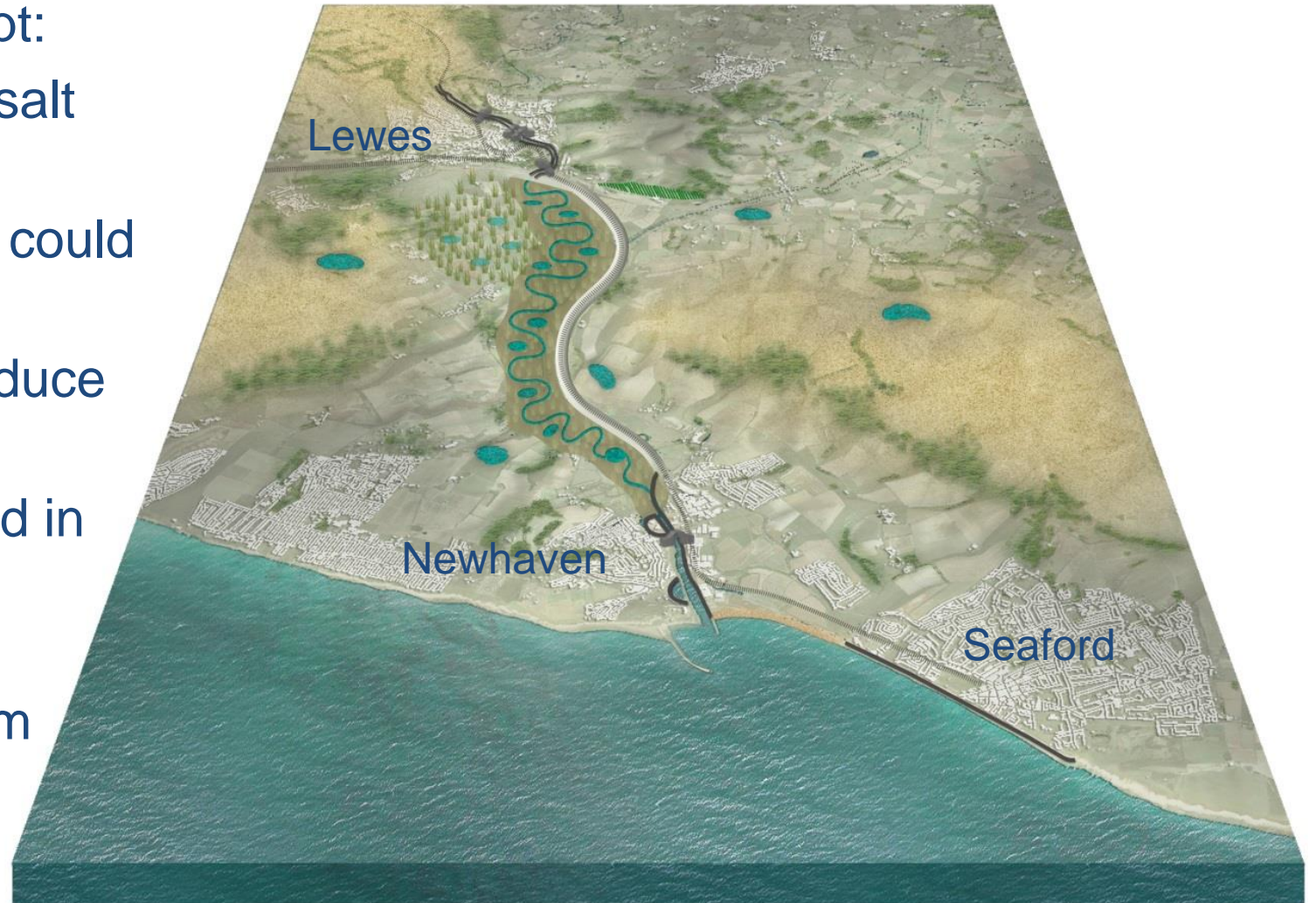


New buildings on stilts or raised platforms sit above the water in Newhaven harbour

# New growth

Farming will also need to adapt:

- Flood plain could revert to salt marsh, better for grazing
- New crops such as grapes could suit warmer climate
- Trees planted on hills to reduce flooding from heavy rains
- Reservoirs could be needed in case of drought
- More poly-tunnels and greenhouses to protect from extreme weather



# New growth



Mount Caburn with a vineyard and trees planted on lower slopes and salt marsh grazing along the river



# Coastal Communities 2150 Adaptation concepts

Six concepts of how the lower Ouse valley could adapt to long term climate change:

- **Hard line:** building hard structures to hold back high tides and flood waters
- **Soft focus:** using softer, natural flood defences like salt marsh and embankments
- **Get wet:** accepting some flooding and protecting buildings and infrastructure
- **Higher ground:** moving buildings and infrastructure to higher ground
- **Rise up:** raising buildings and infrastructure up on stilts, embankments and floating platforms
- **New growth:** changing farming practices to adapt to changing weather conditions and seasons, and cope with more extreme weather and floods

