East Sussex Fire & Rescue Service

Responding to Climate Change

East Sussex
Fire & Rescue Service

Facing the Challenge

"Climate has changed over the last century and is likely to continue to change throughout the 21st century"

"Climate scenarios show that …. increase in frequency of hot summers….. increased winter rainfall and higher sea levels"

Effects of Climate Change on Fire and Rescue Services in the UK - CLG Dec 2006

Facing the Challenge

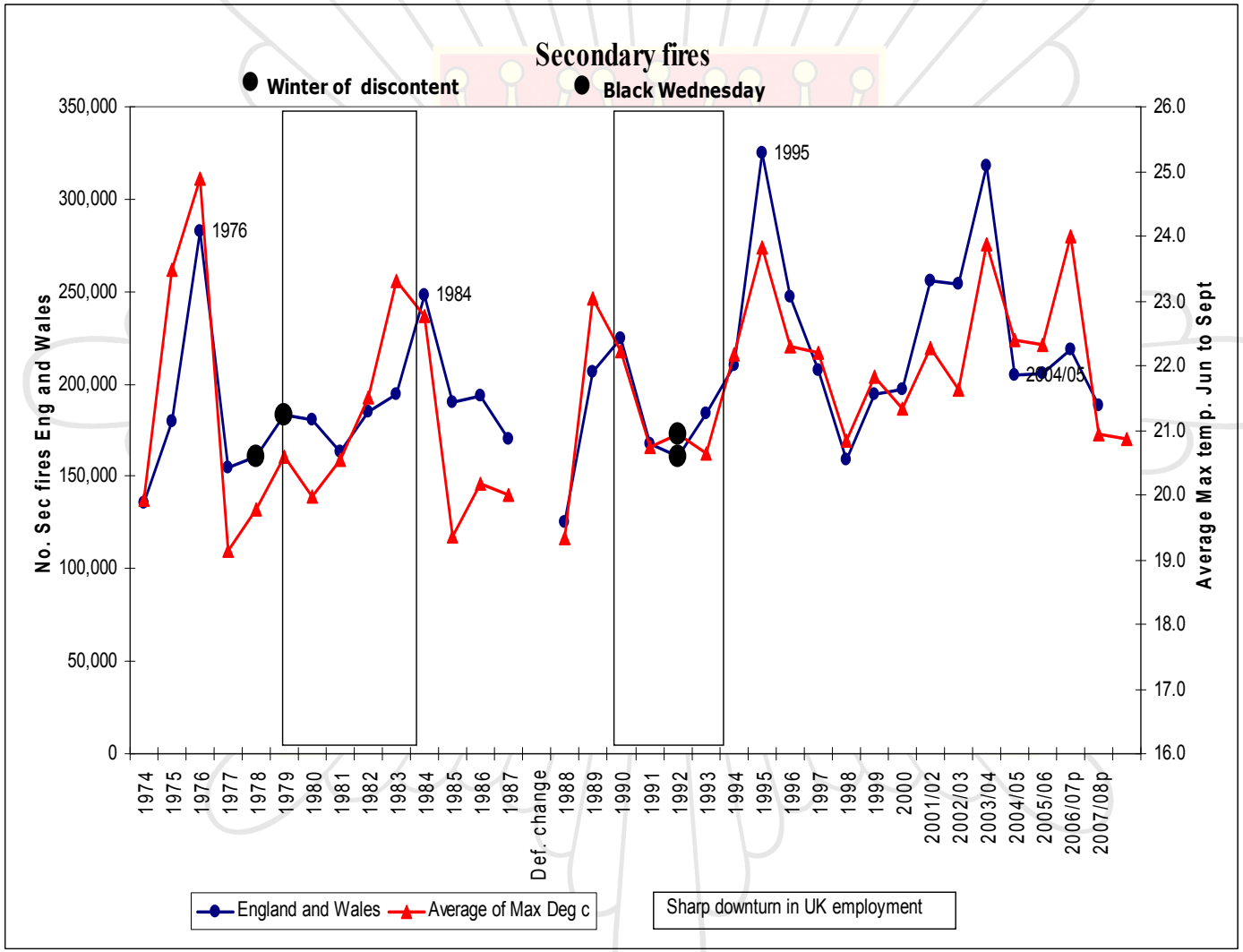
Fire and Rescue Services must act to reduce the impact of its activities on the Environment.

Regardless of any action we take, our organisations and services ***will*** be impacted by climate change in at least 5 key areas over the next 50 years;

- **High Summer Temperatures**
- **Floods**
- **Drought**
- **Storms**
- **Social Impact - Migration**

Facing the Challenge: Flooding

Facing the Challenge: Higher Temperatures



Fire and Rescue Service

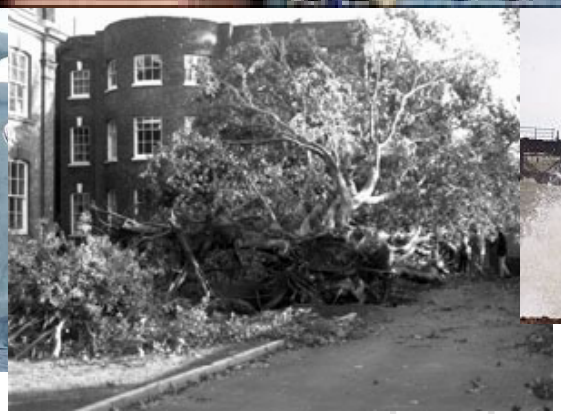
“Safeguarding the environment and heritage (both built and natural)” is part of what government expects of the Fire and Rescue Service.

National Framework 2006-08

“Achieving safer and more sustainable communities.”

ESFRS Vision Statement

Now



What we are doing

- Traditionally the role of the Fire and Rescue Service has been to save life and property.
- This role continues but we must now more proactively protect the environment and measure the contribution we make.
- Community fire safety measures within the Fire and Rescue services can be shown to be reducing the CO_2 yields.
- Estate management – fuel efficiency & insulation
- Fleet management – latest technology
- Environmentally efficient fire fighting media eg 1:7 foam

What we are doing

Adaptation

NI 188

Mitigation

NI186

What we are doing

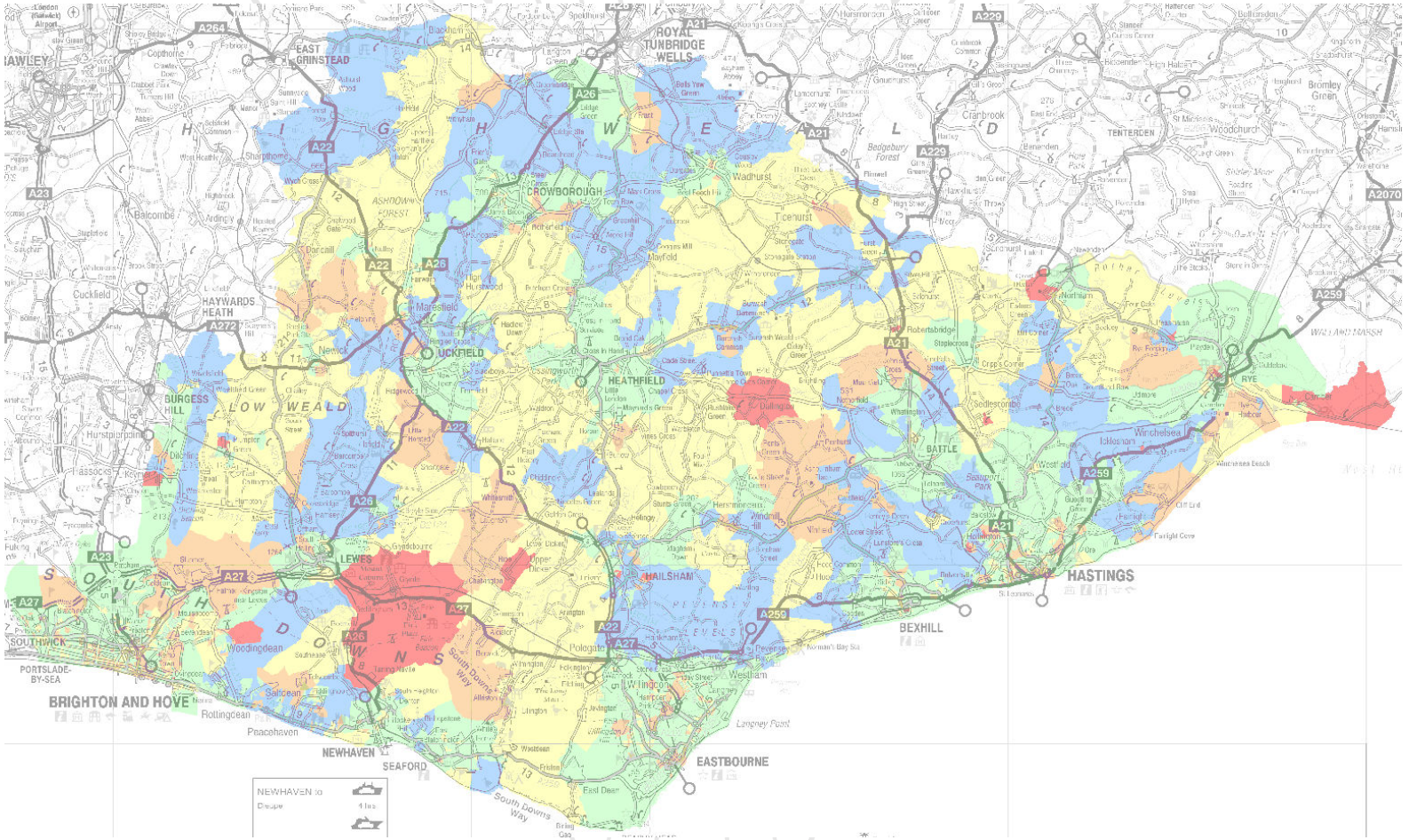
Mitigation by taking action to reduce greenhouse gas emissions released by fire service activity.

Adaptation by taking action to minimise the effect of unavoidable global warming on how we deliver our services in the future.

Adaptation by Emergency Planning

Analyzing the Risk from Flooding Events

Response Areas




The past is not a reliable
indicator for the future

Where and what is the risk?

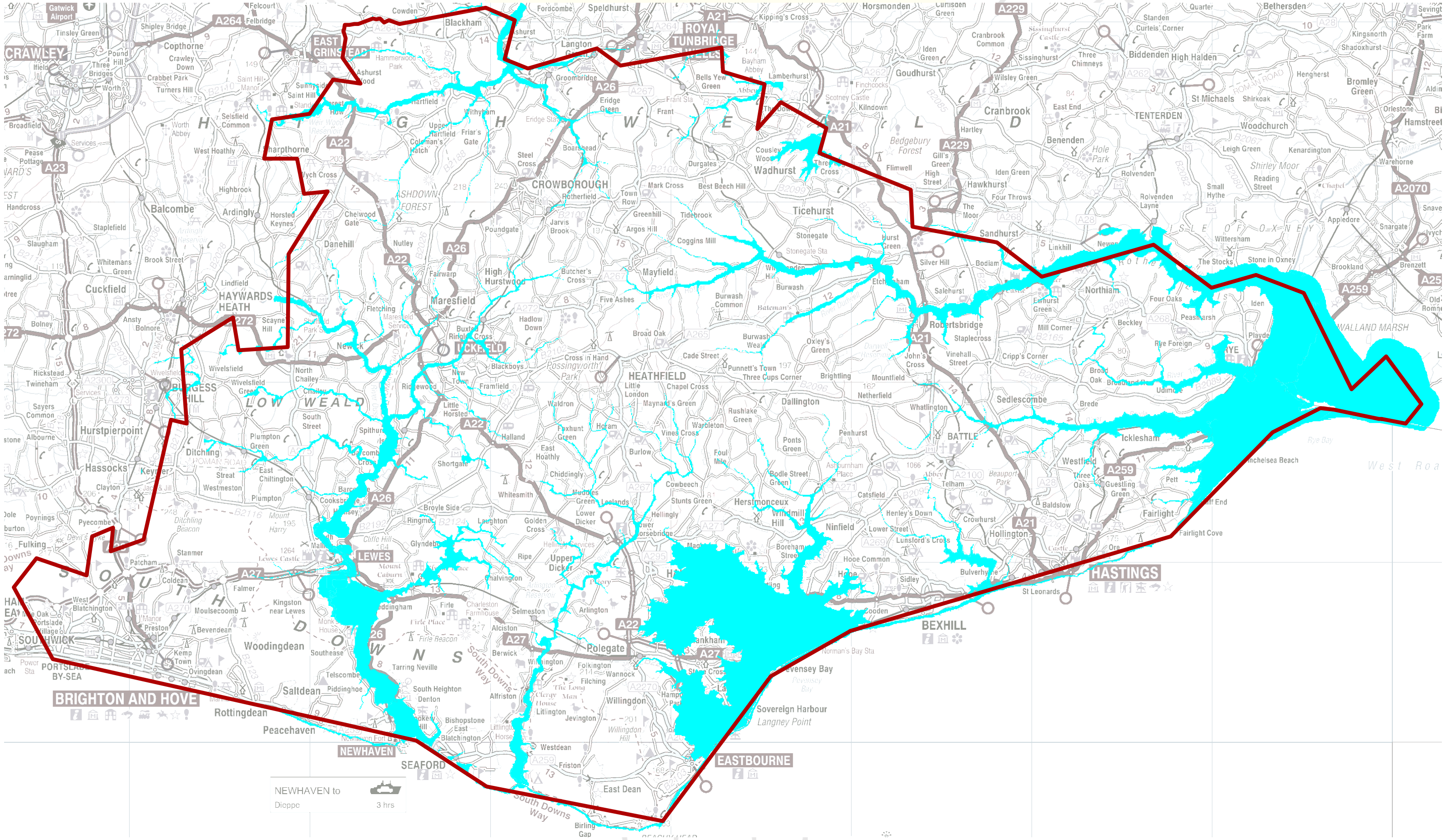
Pitt Review – December 2007

Urgent Recommendations #4: *"The Review recommends that all Local Resilience Forums urgently review their current local arrangements for flood rescue to consider whether they are adequate in light of the summer's events and their local community risk registers."*

Urgent Recommendations #8: *"The Review recommends that the guidance currently under preparation by Cabinet Office to provide local responders with advice on the definition and identification of vulnerable people and on planning to support them in an emergency should be issued urgently."*

Urgent Recommendations #10: *"The Review recommends that Category 1 responders should be urgently provided with a detailed assessment of critical infrastructure in their areas to enable them to assess its vulnerability to flooding."*

Major Flood Areas



ESFRS Flooding Model

Premises in floodzone	Total Premises in ESFRS area	% Premises in floodzone
30,645	364,624	8.4%

63k people

Other Buildings within Flood Risk Area (Zone 2)

FSEC Code	Occupancy Type	In Flood Zone	In Total	% within flood zone
A	Hospital	0	30	0%
B	Care Home	29	555	5%
C	HMO	678	3,079	22%
E	Hostel	6	16	38%
F	Hotel	152	380	40%
H	Other sleeping accomodation	9	66	14%
J	Further education	46	175	26%
K	Public building	44	207	21%
L	Licensed premise	277	1,439	19%
M	School	51	357	14%
N	Shop	2,015	8,667	23%
P	Other premises open to the public	314	2,049	15%
R	Factory or warehouse	758	1,349	56%
S	Office	544	3,343	16%
T	Other workplace	1,589	4,929	32%
	Grand Total	**6,512**	**26,641**	**24%**

Where are the chemical storage sites?

Where are the heritage risks and listed buildings?

How do we identify Critical Infrastructure

Flooding – Wider Impact

Anyone else at risk?

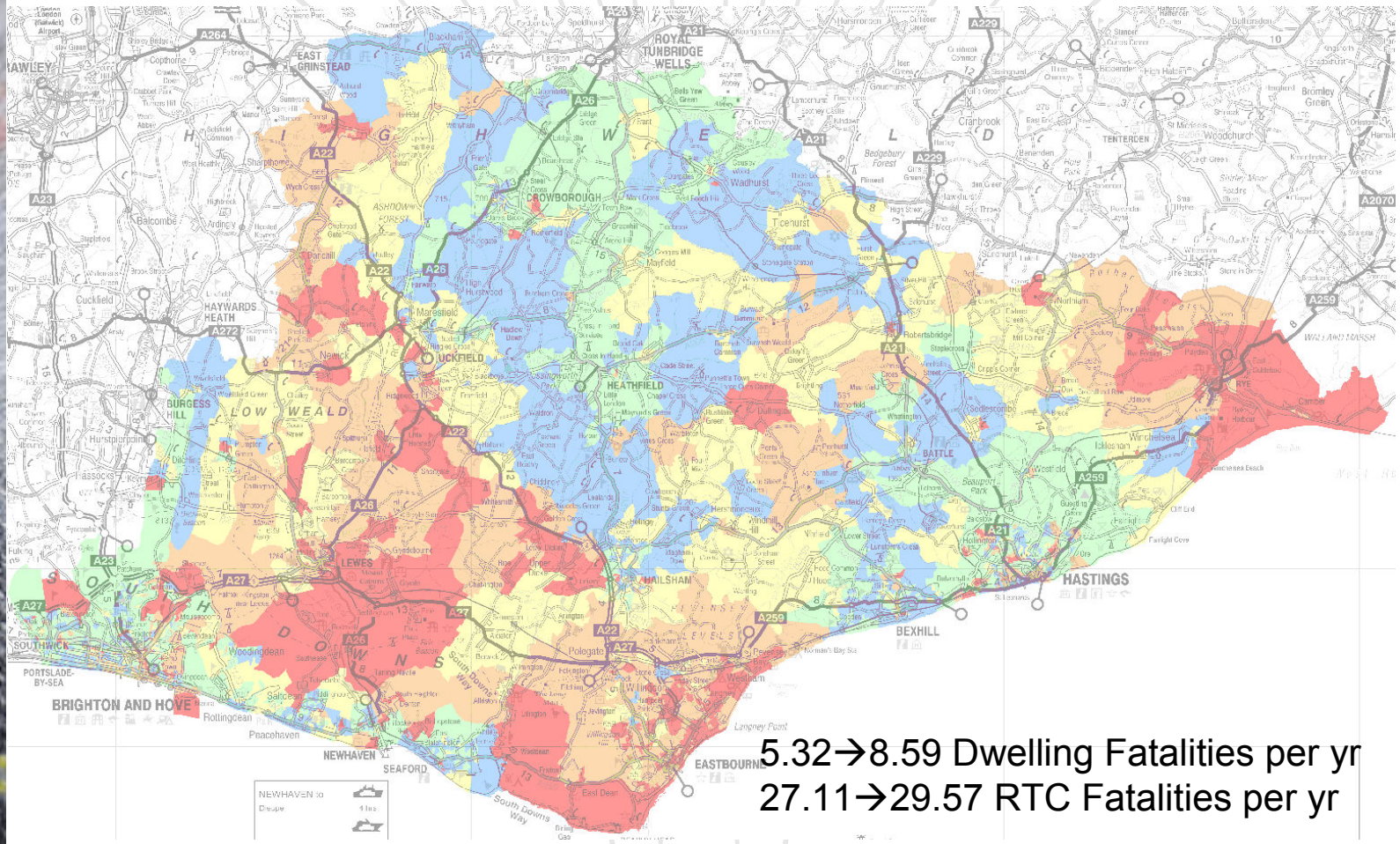
Infrastructure adversely affected, leading to:

-- Drastically increased response times

-- Some areas become unreachable “islands”

Also, some Fire Stations flooded what are our plans
For new stations in the future : PPS 25?

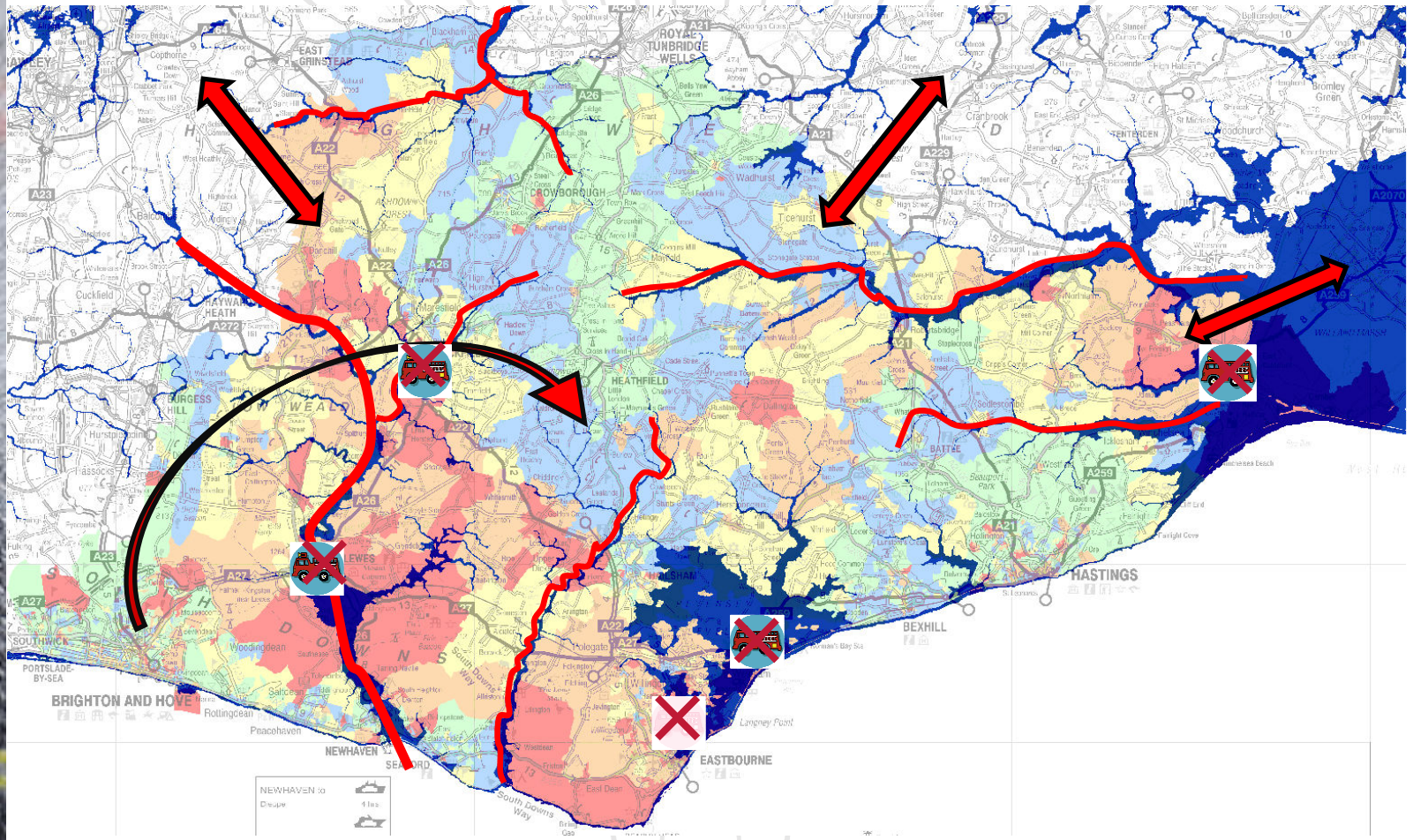
ESFRS Flood Model



5.32→8.59 Dwelling Fatalities per yr
27.11→29.57 RTC Fatalities per yr

That's an increase of 5.7 fatalities per yr!

Emergency Planning Considerations



Summary

The process has allowed us to:

- Quantify the risk (what, who & how much)
- Highlight consequential risks and vulnerabilities
- Identify further areas of analysis
  - Key / core stations
  - Location of resources / kit
  - Cross-border / regional response resilience

Summary

And so the results of Climate Change are not only embedded in the Integrated Risk Management Planning processes for East Sussex Fire and Rescue Service, we are now better prepared to contribute to the delivery plans as part of the Local Area Agreement.

East Sussex Fire & Rescue Service

Response to Climate Change

Questions?