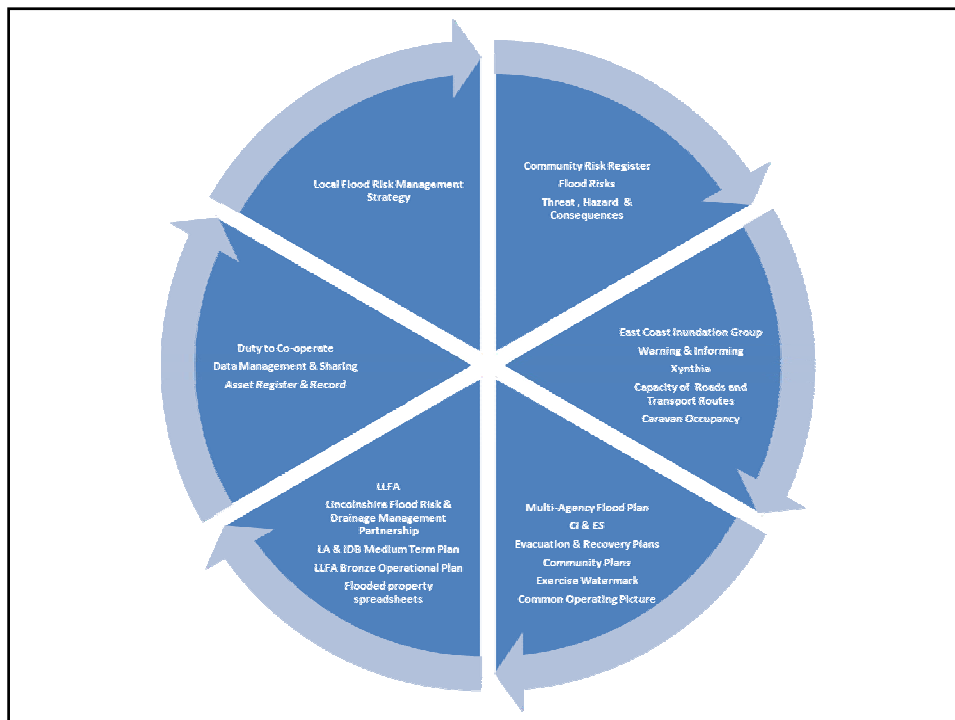


Increasing Community Flood Resilience in Lincolnshire

Mervyn Pettifor
Director FMSS Ltd



TOP RISKS

- Pandemic Flu
- East Coast Flooding
- Inland Flooding
- Rapid Response Catchment (Louth)
- Severe Weather
- Fuel Shortages
- Loss of Critical Infrastructure
- Animal Disease
- Oil Pollution
- Industrial Accidents
- Transport Accidents

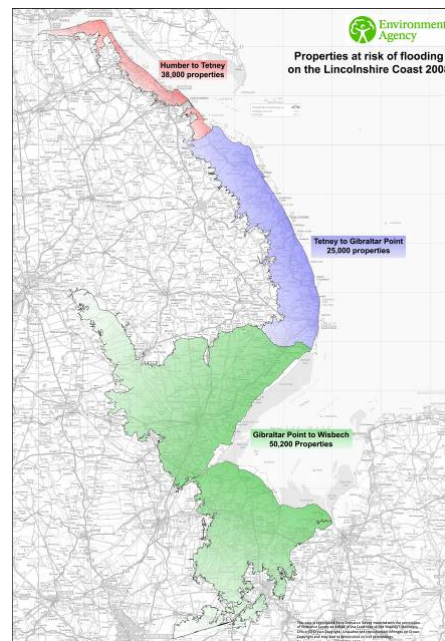
COMMUNITY RISK

REGISTER FOR LINCOLNSHIRE

Lincolnshire's Resilience Forum
PREPARING FOR EMERGENCIES

Lincolnshire - Flood Risks Now

- 75,000 houses
- 200,000 people
- 6,000 businesses
- 40,000 caravans
- 125,000 hectares of agricultural land
- >£3bn of infrastructure (roads, hospitals, etc)



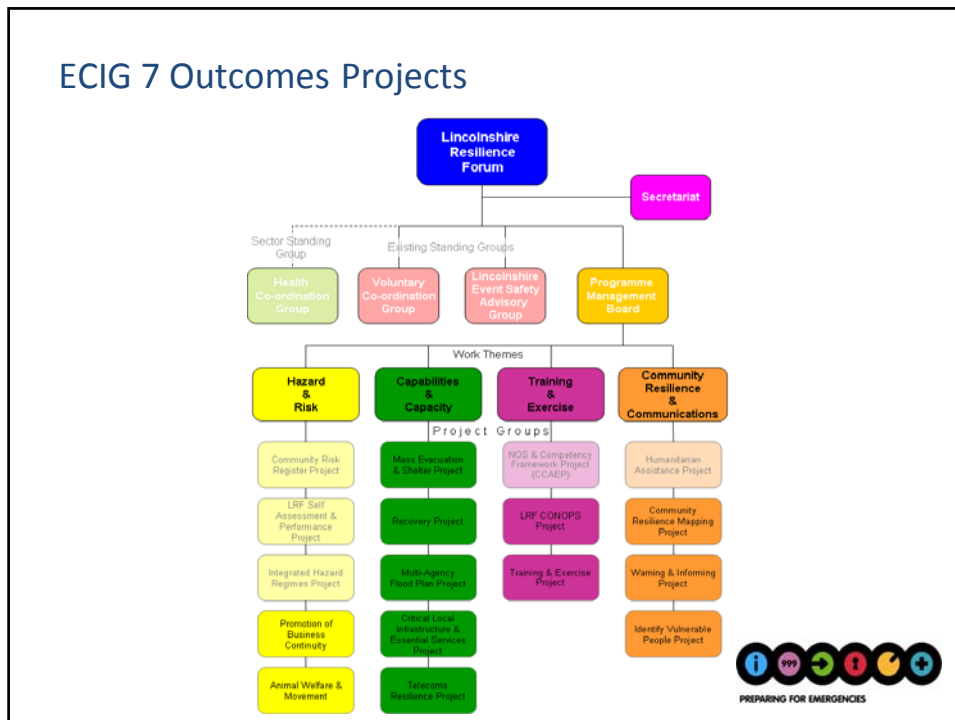
Most properties lie below average sea level many bungalows, and a large elderly population



The largest concentration of caravans in Europe?



ECIG 7 Outcomes Projects



How do we know when we have achieved the outcomes?

We have planned for it

- Awareness of flooding at a strategic level in the county
- We have refined and accurate modelling of the threat and planning assumptions
- We have plans developed, validated by regional and national bodies and agreed by responders

Coastal Communities know the risk

- CRR published and circulated
- The 'single truth' on coastal flooding has been developed and agreed
- Community awareness is assessed as above the national average

People (communities) know what to do when it happens

- Communities are resilient
- Processes for warning & informing during an emergency have been developed and verified
- Vulnerable premises have business continuity plans in place

We deliver a joint, integrated response & recovery

- Generic CONOPS drives an integrated response
- Local response is supported at regional and national levels

We are well resourced

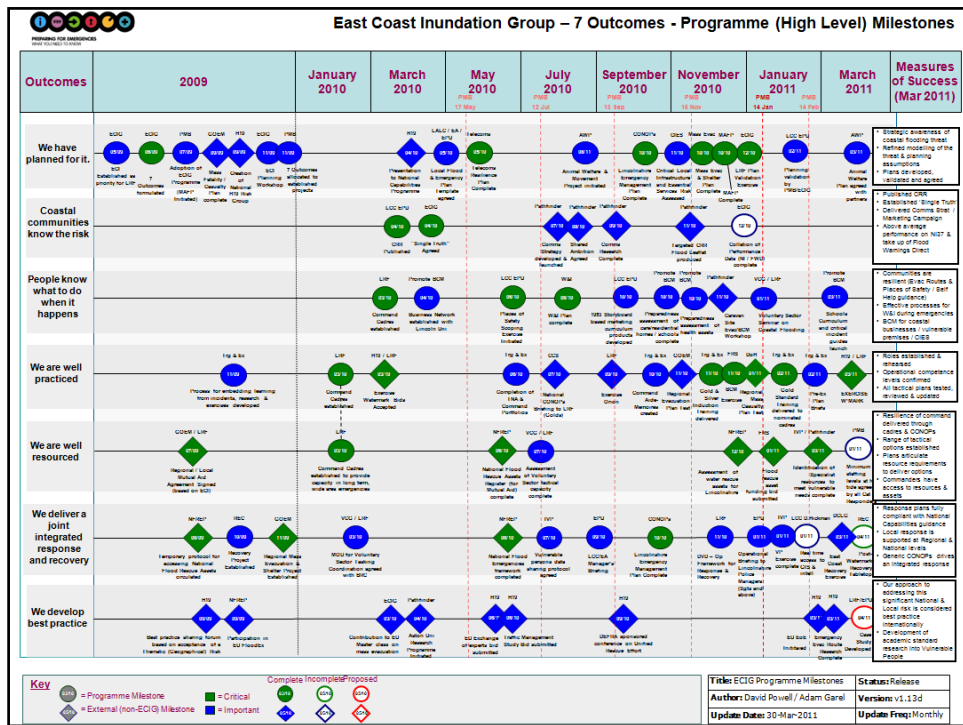
- Resilience of command is secured through cadres
- Commanders have access to resources within and outside of Lincolnshire
- All tactical options are supported by tested resource plans

We are well practised

- Operational competence levels have been developed and agreed within a national framework of reference
- Emergency management roles have been established and rehearsed
- All tactical plans have been reviewed, tested and updated

We develop best practice

- Lincolnshire's approach is rated as best practice internationally
- Academic research centres around our approach



HR Wallingford
Working with water

EX 6509

East Coast Flooding
The effective use of roads in Lincolnshire and Norfolk to evacuate people

Report EX 6509
Release 3.0
May 2011

HRV
CONRUX DAVTS

UNIVERSITY OF LEEDS
Institute for Transport Studies (ITS)

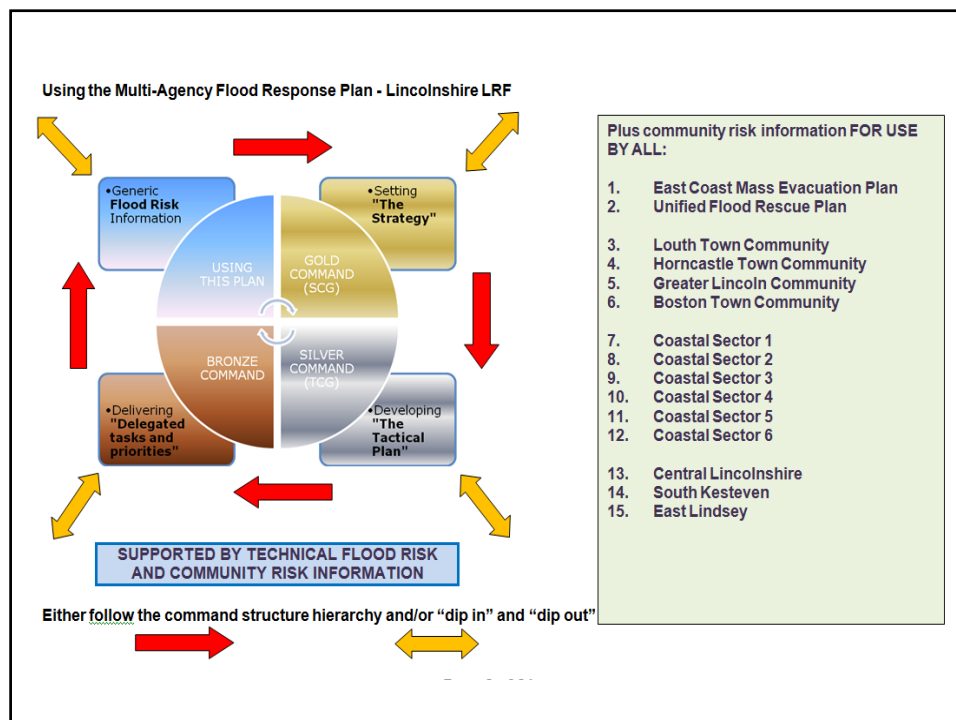
we're prepared for **COASTAL FLOODING** in Lincolnshire - are you?

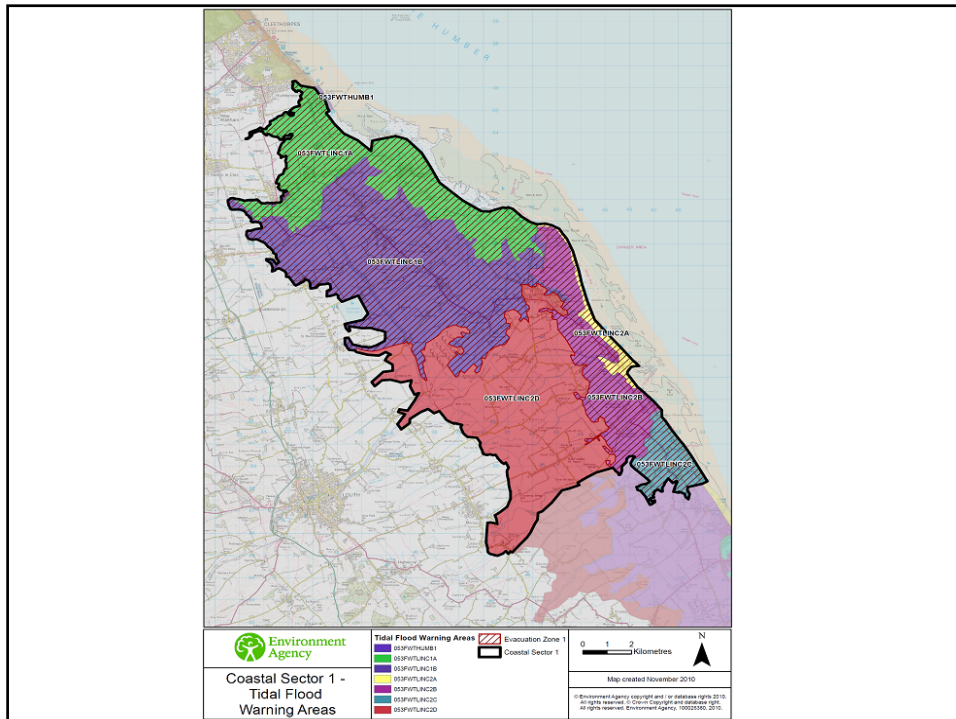
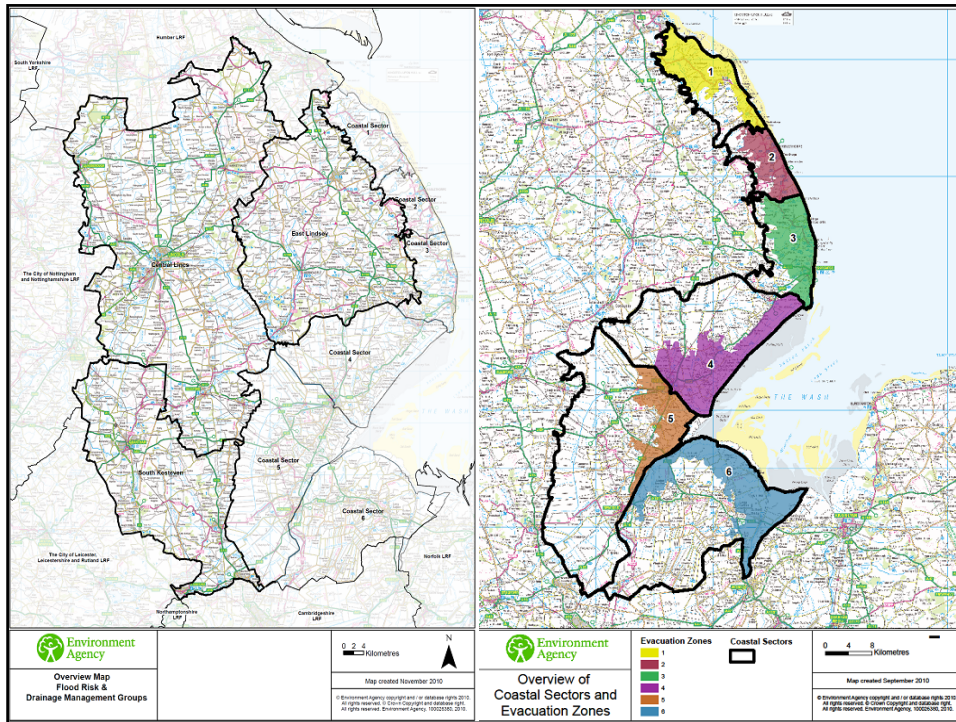
make a plan: www.lincolnshireprepared.co.uk
make a call: Floodline 0845 988 1188

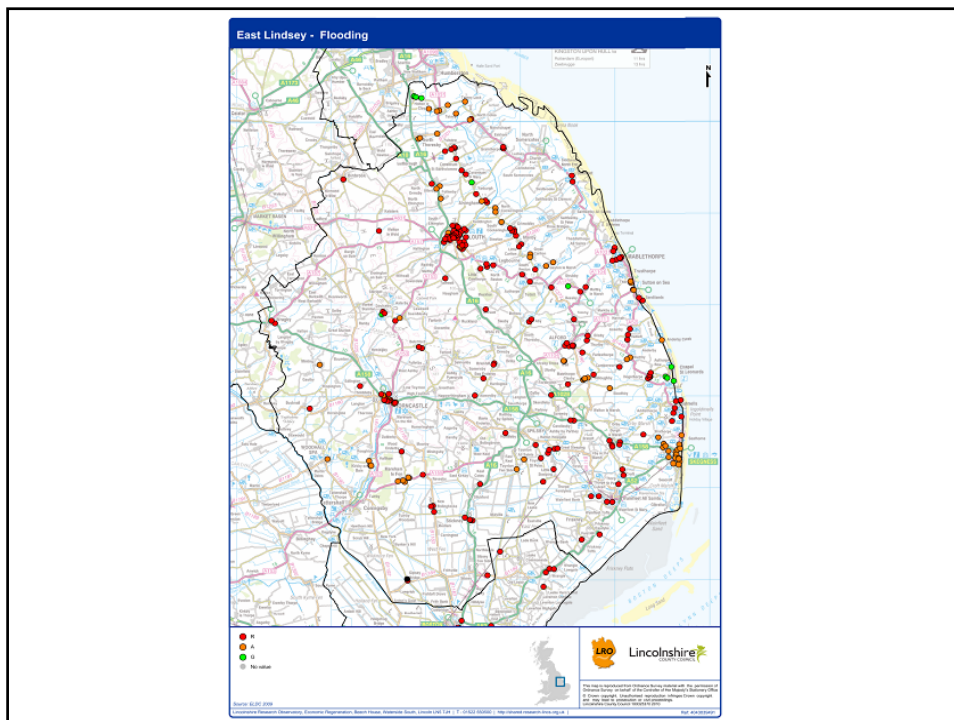
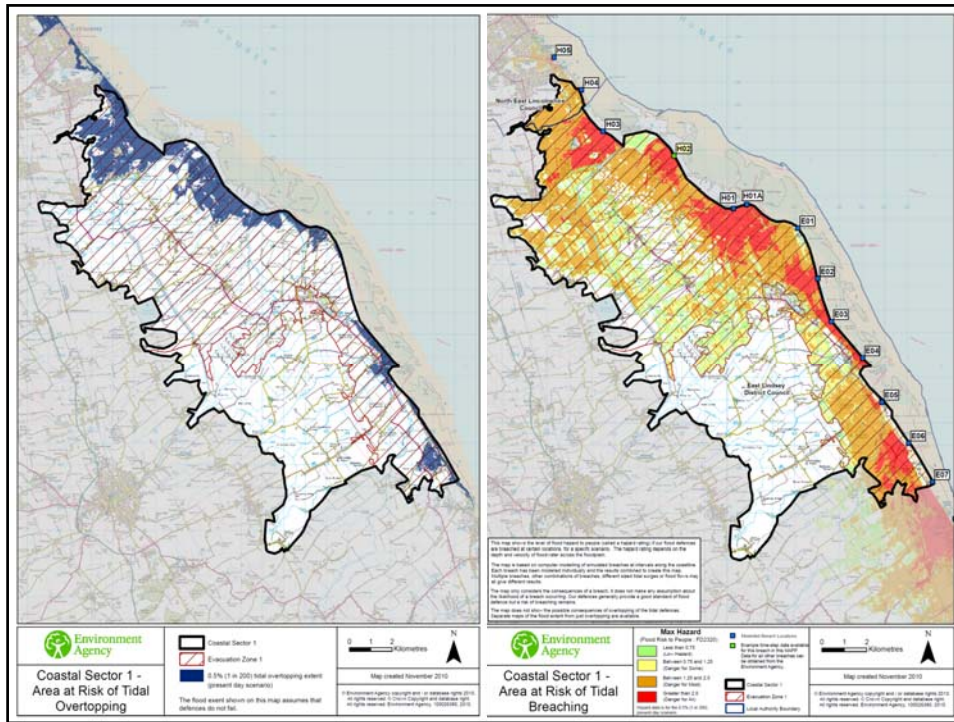
Environment Agency **Lincolnshire**

Lessons learned from French experiences with storm Xynthia

- Devastating wind and surge tide event in 2010
- Sea defences over topped and breached in south west coastal areas
- Many homes, large areas of low lying land and infrastructure flooded
- Full scale multi-agency emergency response and recovery
- Exchange visits, conferences & seminars



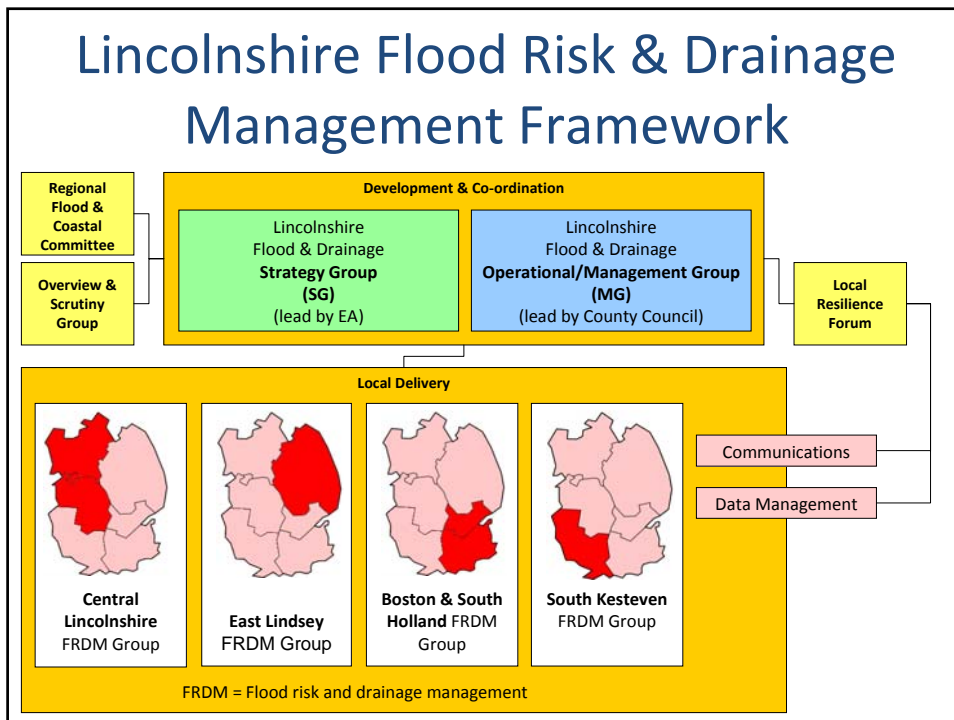
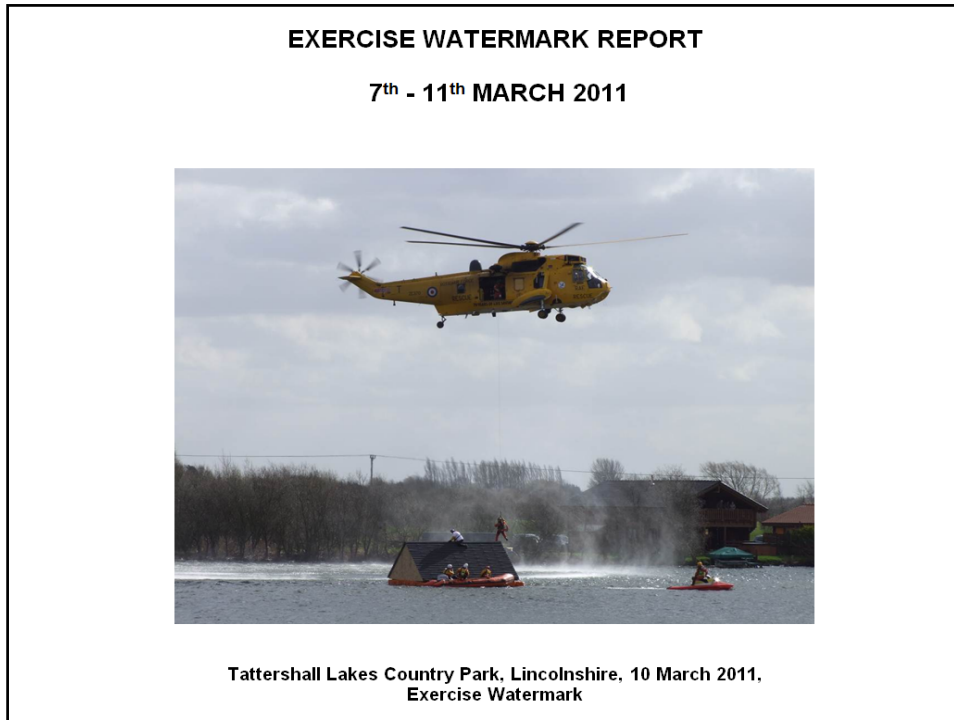




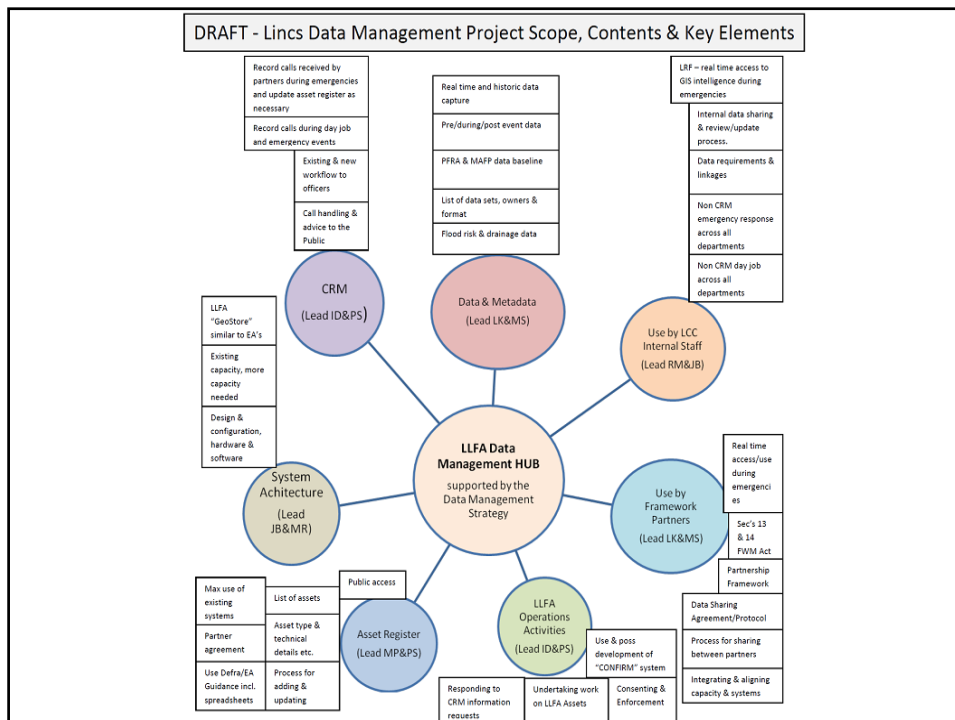
Critical Infrastructure & Essential Services

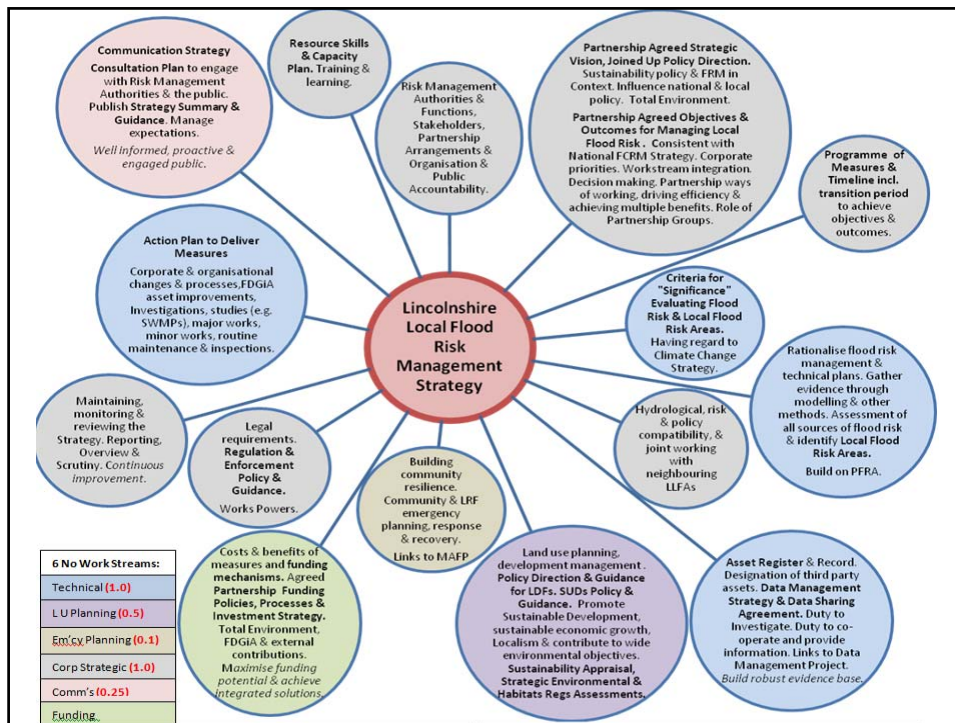
- Maps and lists of CI & ES in communities provided in the MAFP
- Location, dependency and resilience very important
- Enables targeted emergency planning, response and recovery

FWA	FWA Name(s)	Parish	FWA code(s)	Community					Source of Flood Risk			
				No. of Parish Population (ELDC Oct 2010)	No. of Parish Households (ELDC Oct 2010)	No. of Vulnerable People under 14 years (EPU Oct 2010)	No. of Vulnerable People over 75 years (EPU Oct 2010)	No. of Properties in Parish in Flood Warning Area registered to FWD (EA Oct 2010)	Approx number of Properties in "Danger to All" areas at risk from Breaching of Sea Defences (EA)	Tidal	Fluvial	Surface Water
LINC 1A	Tidal flooding of low lying areas in Humberston, Tetney Lock, Tetney and North Cotes Airfield	Tetney CP	053FWTLINC1A	1782	695			FWA total = 342 props 73/66	#	#	#	
		North Cotes CP		703	263			166/142	#		#	
		North Somercotes CP		1599	676			2/3				
		Grainthorpe & Austen Fen CP		715	289			0/0	#	#	#	
		Marshchapel CP		686	282			2/1	#		#	



- **PARTNER ORGANISATIONS:**
-
- **The Environment Agency**
- **Lincolnshire County Council**
- **West Lindsey District Council**
- **East Lindsey District Council**
- **City of Lincoln Council**
- **North Kesteven District Council**
- **South Kesteven District Council**
- **Boston Borough Council**
- **South Holland District Council**
- **ADA (Lincolnshire Branch)**
- **Gainsborough IDB**
- **Newark Area IDB**
- **Ancholme IDB**
- **North East Lindsey IDB**
- **Lindsey Marsh DB**
- **Witham First District IDB**
- **Upper Witham IDB**
- **Witham Third IDB**
- **Witham Fourth District IDB**
- **Black Sluice IDB**
- **Welland and Deepings IDB**
- **South Holland IDB**
- **North Level IDB**
- **King's Lynn IDB**
- **Anglian Water**
- **Severn Trent Water**





Thank you

www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/

mervyn.pettifor@floodmss.co.uk