

York Flood Inquiry Recommendations

The York Flood Inquiry has made 88 recommendations, these are listed below and brief comments are made to expand on some of these recommendations, respond to their intentions or identify how they will be considered further.

All recommendations are reproduced as per the Inquiry document based on the chapter's contained in the report, they are not numbered in the report but are numbered below to support cross referencing with the CYC Action Plan in Annex 3 where appropriate – all linked actions are in bold text below.

Local Emergency Response Recommendations

1. RMA's and Emergency Responders should review their emergency and business continuity plans to incorporate the lessons learnt during the Boxing Day flood, to increase resilience and to ensure that they are robust enough to cope with a sustained period of emergency.
 - All RMA's and the LRF have carried out reviews following the flood, a range of action plans have been developed to deliver the outputs of the reviews. The CYC action plan in Annex 3 develops approaches to many of the below recommendations

EA Recommendations

2. The EA should further develop its tools and techniques for predicting and modelling river flooding, particularly on the Foss, taking account of extreme and multiple events.
 - New telemetry, monitoring and forecasting is being developed by the EA on the River Foss catchment
3. The EA should endeavour to discuss decisions, such as opening the Foss Barrier, with their Multi-Agency partners, where possible.
4. EA should work with its partners to progressively develop and bring into use flood visualisation and mapping tools that are designed to meet the needs of flood-risk managers and emergency responders.
5. The EA should continue to work with the utilities companies (i.e. Category 2 Responders) to improve their understanding of risk and their capacity to make assets more resilient.
 - EA and CYC work with utilities companies as part of the LRF set up, in addition to this the National Flood Resilience Review has pushed utility companies to reassess their resilience to flooding. **See action 27**
6. EA to consider as part of their ongoing review of flood warning measures, loud hailers and/or the installations of sirens along the urban stretch of the Foss catchment, together with a plan for education of the public, annual testing and maintenance.

7. EA should consider the feasibility of an opt-out telephone flood warning schemes to all homes and businesses liable to flooding, including those with ex-directory numbers.
8. EA should consider reviewing trigger levels to ensure that the flood warning measures can be issued in a timely manner, to allow residents and businesses the maximum prospect of instigating their own flood resilience measures.
9. EA to incorporate information about how the Flood Warnings operate in their next educational campaign.

CYC Recommendations

10. CYC should do their best to ensure that staff on the customer service line are kept up to date with information, including road closures and contact details to pass out, during an emergency, a direct link to Silver Command could be considered.
 - A wide range of steps have been taken following CYC debriefs. **See actions 2, 9, 10, 13, 14, 15, 18, 30, 43, 46, 47**
11. RMAs should develop plans for door-knocking, coordinated by CYC, to enhance flood warnings before flooding and to provide information and assess welfare needs once flooding has receded.
 - Door knocking post floods is carried out by RMA's to enable identification of flooded properties, support needed for vulnerable people and to support future flood defence/resilience programmes, this was carried out following the event and more than 900 properties were visited. It is, however, extremely difficult to comprehend that this could be achieved in advance of a flood event, with 7000 properties theoretically at risk the resource and training needs for any RMA would be significant. It is not accepted that this is a realistic expectation and the inquiry report accepts this (p47 and 52) but it will be discussed with all partners.
There are opportunities to reinforce warning messages in some locations that are more vulnerable to flooding. **See action 4**

Demountable Defence Recommendations

12. CYC should investigate the use and deployment of both temporary and demountable barriers along the river Foss and Ouse where appropriate.
 - Both watercourses are Main River, this action should be directed towards the the EA with CYC in support.
All defence needs in the city are currently being consider by the EA and CYC as part of the York 5 Year plan, demountable and/or permanent defence measures will be consider as part of this work.
13. CYC should conduct a review of how to involve volunteers in filling sandbags should be carried out to ensure that a protocol is in place that has considered health and safety issues.

- The role of volunteers is being considered in some detail, registers of volunteers are being developed and supporting procedures will be formulated. **See action 42, 58**
14. CYC should give some considerations as to whether a more efficient method can be adopted to communicate the address of residents requesting sandbags.
 - Will need to be considered further, however, a range of measures have been considered to identify how information can be easier transferred between the depot and Customer Services. **See action 13, 14, 15**
 15. CYC should consider making reciprocal arrangements with another Council or outsource the service to a customer care centre to ensure a resilient service.
 - To be developed further. **See action 11**
 16. CYC should continue to improve the resilience of the customer care department during an emergency which should include considering providing maps, considering locating them in the same place as the communications team.
 - A range of actions have already been considered. **See action 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 43, 46, 47, 56**
 17. Risk Management Authorities should consider the resilience of their communication systems to ensure that they can cope in the event of the failure of critical infrastructure. This should include an evaluation of the use of RAYNET (the Radio Amateurs' Emergency Network).
 - A range of radios have been purchased and tested for CYC operational staff to utilise in the event of comms failure. **See action 10, 38**
 18. EA and CYC to consider sending letters annually to residents, in flood risk areas, reminding them of the flood risk and emergency plans and to encourage them to prepare personal emergency plans and to have flood boxes and remove all important possessions to a safe place.
 - **See action 4, 5**
 19. CYC staff to record their good practice during the flood event so that this can be used as a source of guidance for future emergencies.
 - The wide range of debriefs recorded in Annex 3 show that CYC have consider good practice and areas where lessons can be learnt.
 20. RMA's to review and enhance their Emergency Plan so that it contains clear roles and responsibilities for warning and informing and a clear evacuation plan, with sufficient information about vulnerable residents, so that the effort can be co-ordinated effectively.
 - **See action 21, 29, 50**
 21. CYC to review the internal resources required to deliver their role as LLFA which should include considering the provisions to fulfil their flood risk management role and a trial of training reserve emergency planning officers, to offer resilience to the current duty rota.
 - The delivery of the LLFA role has not been consider to this point, further work required to achieve this. Some consideration has been made to identify opportunities to reinforce the emergency planning resources available during an event. **See action 30**

Communications Recommendations

22. NYLRF, CYC and EA should consider reviewing their communication strategy to embed further system and protocols to engage with social media
- Significant resources are required to stay aware of all social media sources during a rapidly escalating flood event but it is accepted that this is an important role. **See action 12, 16, 44**
23. RMA's should ensure that media briefings are co-ordinated to avoid conflicting messages.
- **See action 12, 16, 23, 31, 32**

Councillors Recommendations:

24. Flood/Emergency Procedures Awareness training should be considered for councillors and councillors should commit to attend the training.
- Guidance and training has been previously provided to councillors, need to ensure this is updated and reinforced. **See action 22, 23, 24, 39**
25. A short guidance document should be produced for councillors so that they have reference material to assist councillors with what to do in an emergency.
26. Information should be given or made available for councillors to access during an emergency so that a consistent message can be communicated to residents.
- **See action 22, 23, 24, 39**

James Street Recommendations

27. CYC and the Travellers Trust should give consideration as to whether a specific evacuation plan is needed for the site.
- Currently being considered in partnership with the Travellers Trust
28. CYC should give consideration to see whether the site could be made more resilient to flooding which includes looking at flood alleviation measures to see if greater protection can be provided.
- Currently being considered in partnership with the Travellers Trust
29. Efforts should be made to see whether insurance can be secured, via Flood Re, by residents of the James Street site.

NYP Recommendations

30. The Inquiry agrees with NYP, CYC and NYLRF proposal that a different venue is identified to locate Silver Command in for any future flood incidents. This should mean that those people working hard to respond to an emergency on our behalf can do so in an environment that facilitates them in carrying out their role.
- **See action 3, 36**
31. If a problem arises with Foss Barrier or other protection measures, partner agencies should be consulted, before any decisions are taken by the EA, where the situation allows.

32. Trigger levels should be reviewed in the Multi-Agency Flood Plan to ensure that they allow sufficient time for consultation.
33. Maps of York identifying the potential flood zones and predicted inundation, along with information about vulnerable residents should be made available to Silver Command, as soon as it is convened.
34. With the details known about flood risk a detailed Evacuation plans should be developed as part of the Multi-Agency plan so that flood risk and information about residents could be incorporated.
35. Agencies should consider to whether relevant flood visualisation data, held in electronic map format, can be made available online to Gold and Silver Commands.
36. NYLRF to continue to provide training including simulations of emergency situations and the Emergency Responders to endeavour to participate in such exercises.

NYFR Recommendations

37. NYFR to formalise the arrangements adopted as a result of the Boxing Day floods as a model for future emergency deployments.
38. NYFR to consider a review of the coordination of a multi-agency flood rescue to establish a clear command structure and protocol to incorporate the volunteer services.

NYLRF Recommendations

39. NYLRF and Risk Management Agencies should consider whether Bronze Command can be located separately from any Rest Centre that is set up in an accessible location.
40. SRMRT to review their deployment plans/shift patterns to ensure that there is sufficient resilience for personnel to be deployed for a safe amount of time and so that procedures can be adopted to see if working arrangements can be agreed with other rescue organisations. Any requirements for additional equipment be met.
41. Silver Command to ensure Mountain Rescue have relevant flood zone/inundation maps to assist with evacuation as soon as possible.
42. Emergency Responders to consider a review of the coordination of a multi-agency flood rescue to establish a clear command structure and protocol to incorporate the volunteer services potentially under the control of the Fire and Rescue Service.
43. When the Multi-Agency Flood Plan is updated NYLRF to consider input from the Mountain Rescue Service to enhance the emergency planning for evacuation and to consider suitable rest areas so that volunteer organisations can be given food and rested.

YAS Recommendation

44. YAS to review their business continuity and emergency plans to ensure their resilience in light of what was learnt during the response to the Boxing Day flood.

Military Response Recommendation

45. The Multi-Agency Emergency Plan should be reviewed to ensure that there is sufficient resilience should military assistance be unavailable.

Utilities Recommendations

46. NYLRF, CYC and the Utilities companies should continue to work together to share data and coordinate their actions so that there is a clear understanding of the parties roles and responsibilities as defined in the Multi-Agency Emergency Plan.
 - EA and CYC work with utilities companies as part of the LRF set up, in addition to this the National Flood Resilience Review has pushed utility companies to reassess their resilience to flooding. **See action 27, 50**
47. NYLRF, CYC, EA and the utilities should continue to work together to improve the understanding of risk and their capacity to make assets more resilient.
 - **See action 27, 50**
48. BT should conduct a review of the resilience of their critical infrastructure to ensure that there is a suitable plan in place to protect the assets in case of future flooding, this may include retaining demountable flood defences.
49. BT should remain signed up to EA Flood Alerts and Warnings and has a robust system in place to monitor and respond appropriately to them.
50. BT should review its business continuity to ensure that there are suitable contingency plans should the Stonebow Exchange be affected again.

Voluntary Sector Recommendations

51. The role of the voluntary sector is already mentioned in the Multi-Agency Emergency Flood Plan but the Inquiry feel that this needs to be updated in light of the work that has been done by the various Third Sector Organisations.
 - **See Action 58**
52. York CVS and CYC/NYLRF should ensure that contact details are updated regularly to that they can be used to mobilise and co-ordinate the volunteer effort.
 - **See Action 58**
53. York CVS should agree a protocol with the NYLRF/CYC as to how the voluntary sector will be involved in emergencies situations.
54. Consideration should be given by York CVS to support an event or emergency drill to ensure that the learning captured by the "Ready for Anything" conferences held this year are not lost.

55. Multi-Agencies including CYC should consider whether Third Sector input could be utilised to provide support in identifying and assisting the vulnerable in future emergency situation.
56. CYC and Multiagency should consider how a clear message could be given inviting/tailoring donations to what is required and creating a clear policy to deal with surplus donations.
57. MIRT should review their plans to incorporate the lessons learnt from December including considering zoning rest centres so that they can be set up in areas of the city where they are easily accessible to the residents that need them.

Recovery Recommendations

58. CYC and NYLRF should evaluate and share lessons from the recovery phases to inform their planning for future emergencies.
 - A wide range of issues have already been considered by CYC/NYLRF to further inform the recovery phase, however, there are no formal roles and responsibilities for many risk management authorities in the recovery phase following a flood. This is recognised nationally and will be reinforced by CYC officers following the recommendations made in this report. **See Action 43, 45, 49, 54**
59. CYC should consider whether there is any solution to the issue created by the fact that often the most vulnerable tenants were allocated ground-floor flats (the most affected by flooding).
60. CYC to consider the take-up of property flood resistance and resilience by residents and businesses.
61. Government to consider whether there could be a mechanism to ensure that adequate resources are available to local authorities to be applied to the recovery phase.

Insurance Recommendations

62. It would be beneficial if those companies who offer Flood RE ensure that their sales staff are fully aware of the criteria for acceptance to Flood Re and promote its use.
63. CYC should continue to promote and raise awareness of Flood Re to those residents in areas at risk of flooding.
 - CYC have promoted Flood Re across a wide range of flood meetings and will continue to do so. All Flood Re issues raised in the report will be raised nationally.
64. Government should give consideration to an extension of Flood Re for Businesses.
65. CYC to consider should encourage the take-up of property flood resistance and resilience by residents and businesses.

- CYC have fully implemented the property resistance and resilience grant that has been provided by Government in response to the floods. CYC will continue to promote flood resilience at all opportunities.

Grants Recommendations

66. The Inquiry supports the recommendations of the Bonfield Report and would encourage CYC and Government to adopt them.
67. Consideration be given by Government to make the Property Level Resilience Grant automatically available to the property owners or their contractors before repair works start.
68. Residential and business properties need to be made more flood resilient and CYC and Make it York should explore ways to support and encourage that process.
69. Flood Re should consider requiring insurers to incorporate flood resilience measures into any reinstatement works after a property has been flooded.
70. Government should consider providing funds to local authorities to assist with the administration of the Property Level Resilience Grants.
71. CYC should review the grant processes in order to learn from and improve their processes.
72. CYC to consider providing a list of accredited/approved surveyors and contractors to residents to ensure quality and confidence in the measure chosen.
73. CYC and Make it York should encourage businesses in flood risk areas to increase their resilience and prepare business continuity plans.
74. Government should undertake a review of the post flood recovery grants, including an assessment of whether a marketing grant for business could be introduced in conjunction with CYC and grant recipients in order to improve its administration and accessibility.

- CYC accept all of the above and will progress issues internally and with national colleagues. CYC fully support the Bonfield Review and have liaised closely with DCLG throughout the current flood resilience grant process, we will input the recommendations from the inquiry.
- Further work is required to identify how the promotion, management and delivery of flood resilience can be delivered outside of the current Government funded initiative. Significant resources are required to deliver this work and although the interventions are funded the officer resources are not. CYC would need to consider the need for further resilience work and the ways in which it could be funded.

TRCF Recommendations

75. CYC to reinforce the existing training guidance to those departments directly dealing with issues arising from flooding events in the future.

76. CYC to consider whether they can provide ongoing support to council tenants following the flooding when they have moved back in.

77. TRCF to continue to work with CYC and NYLRF to share lessons from the recovery phase to inform planning for future emergencies.

- CYC Have worked with all council tenants extensively since the floods, further work is needed to understand the issues raised by TRCF and embed the lessons learnt into our procedures.

Community Ideas Recommendations

78. To capture the current enthusiasm for flood wardens some training should be considered for any new volunteers.

- CYC Emergency Planners work with the EA to identify and train flood wardens, further work is required to identify how this can be expanded.

79. CYC should continue to encourage communities to prepare Neighbourhood and Community Action Plans.

- CYC Emergency Planners are working with a range of communities to support the development of plans. **See Action 5**

80. York CVS and the Third Sector should consider how they can encourage and promote community groups that have formed in response to the floods.

The Future Recommendations

81. The Inquiry endorses the six steps identified to improve communication about flood risk identified by the NFRR and would recommend that these were taken into consideration by CYC and the EA in future communications about flood risk.

82. CYC and utility providers should work more closely to improve the resilience of critical infrastructure and ensure that they all have a better understanding of their obligations under the emergency plans.

- **See Action 27, 50**

Catchment Management Recommendations

83. RMA's, of which the IDB is one, need to share ideas to co-ordinate their efforts so that solutions can be reached that can take into account the whole of the catchment area this includes considering new areas or methods for water attenuation and storage.

84. The Inquiry has been told about the benefits of whole catchment models therefore we would recommend additional modelling of the waterways in York, particularly the Foss.

85. Consideration should be given to developing the most effective ways of ensuring that development does not result in increased flood risk, including considering of land drainage and whether developments should be able to automatically connect to the current sewage system.

86. CYC should continue its commitment to co-ordination with neighbouring local authorities so that catchment wide solutions can be developed.

- The EA and CYC are currently developing a catchment wide plan to identify ways in which interventions remote from York can reduce future flood risks, all relevant RMA's and partners will be included in this work, consultation will be carried out on the initial outputs in Spring 2017.
- CYC work closely with all neighbouring authorities and partners and will continue to do so, however, effective cross boundary catchment solutions need to be considered in the context of shared roles/resources and how all authorities can work together to achieve this.
- The City of York Strategic Flood Risk Assessment is currently being reviewed to ensure the latest modelling and climate change information is utilised to ensure developments are carried out in a resilient and sustainable way. All partners will be involved in this commission to ensure a shared and agreed approach to planning led flood resilience and sustainable drainage.

Flood Defence Upgrade Recommendations

87. The Inquiry fully supports the public consultation on the proposed flood defences upgrades in York and would encourage residents to express their views to the EA.

88. The Inquiry would encourage the EA to consider early implementation, subject to Government funding rules, of their plans to protect the currently unprotected parts of York.

89. The Inquiry would encourage the EA to consider demountable defences in unprotected areas of York such as at Clementhorpe.

90. Additional funding and the appropriate resources for the EA and CYC therefore should be confirmed at the earliest opportunity to enable all of the necessary works to be undertaken including the uplands water catchment management proposals.

- CYC are working closely with the EA in the development of the current 5 year plan, the demands on resources will be significant in the delivery of the schemes and interventions that the plan has initially recommended. Both authorities will need to review the delivery mechanisms for this work, an initial approach is detailed in Annex 4 of this report.