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# **Ellon Flood Study and Future Plans**

## **3<sup>rd</sup> December 2018**

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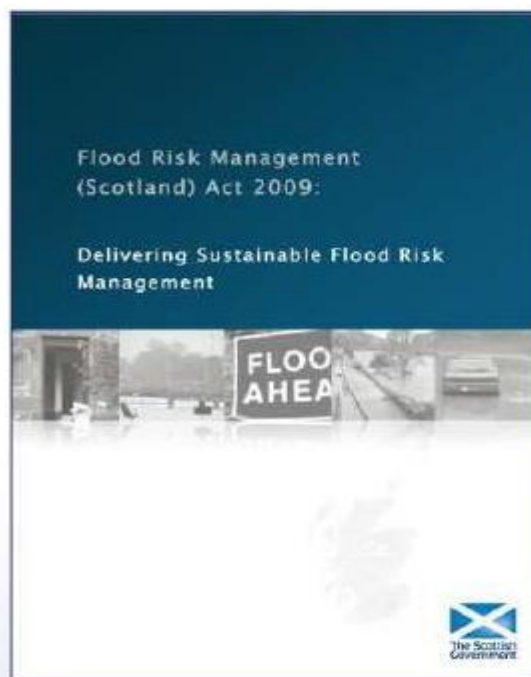
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## Introduction

- Community Council – Thank you
- FRM Act 2009 – PVAs and NE LPD
- Local Flood Risk Management Plan 2016 - 2022
- Flood Recording January 2016
- Meetings with residents
- Current Position

# Flood Risk Management (Scotland) Act 2009



.... a **risk-based, sustainable and plan-led approach** to managing floods - delivered at the **catchment scale**



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## Flood Risk Management Strategy

- SEPA published the Flood Risk Management Strategy and was approved by the Environment Minister in December 2015
- A strategy is available for each of the 14 Local Plan Districts in Scotland
- <http://apps.sepa.org.uk/FRMStrategies/>



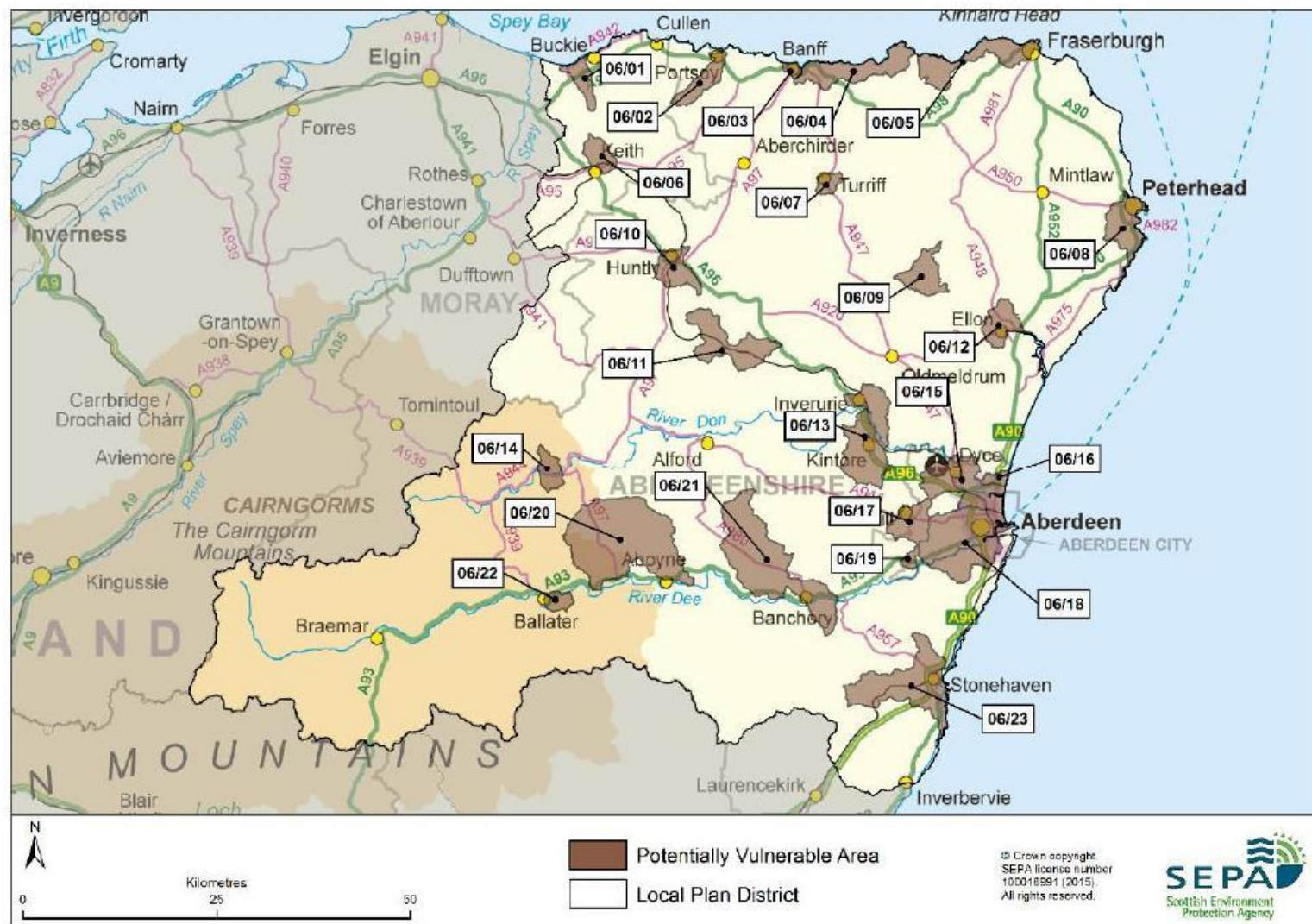


Figure 2: The North East Local Plan District with Potentially Vulnerable Areas identified (Reproduced from North East Flood Risk Management Strategy, SEPA (December 2015))



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## Flood Risk Management (Scotland) Act 2009 North East Local Plan District

### Local Flood Risk Management Plan 2016 – 2022

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#### Abstract

*This is the first Local Flood Risk Management Plan for the North East Local Plan District, describing the actions which will contribute to managing the risk of flooding and recovering from any future flood events. The task for local authorities, Scottish Water, the Scottish Environment Protection Agency (SEPA), the Scottish Government and all other responsible authorities and public bodies is to deliver this plan.*

Published by Aberdeenshire Council, June 2016



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## **North East Local Flood Risk Management Plan 2016 - 2022**

- 6 year plan
- Take forward the objectives and actions set out in Flood Risk Management Strategies
- Provides detail on the funding, timeline of delivery, arrangements and co-ordination of actions



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## North East Local Flood Risk Management Plan 2016-2022

[North East Local Flood Risk Management Plan 2016-2022](#)

### North East LFRMP Individual PVA's

1. [Portgordon](#)
2. [Portsoy](#)
3. [Banff](#)
4. [Macduff](#)
5. [Fraserburgh and Rosehearty](#)
6. [Newmill](#)
7. [Turriff](#)
8. [Peterhead](#)
9. [Methlick](#)
10. [Huntly](#)
11. [Insch](#)
12. [Ellon](#)
13. [Inverurie and Kintore](#)
14. [Heugh-head](#)
15. [Aberdeen City - Bridge of Don](#)
16. [Aberdeen City - Denmore](#)
17. [Westhill](#)
18. [Aberdeen City - Deeside](#)
19. [Peterculter](#)
20. [Aboyne](#)
21. [Banchory and Torphins](#)
22. [Ballater](#)
23. [Stonehaven](#)





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This Potentially Vulnerable Area is centred on Ellon. It is approximately 19km<sup>2</sup>.

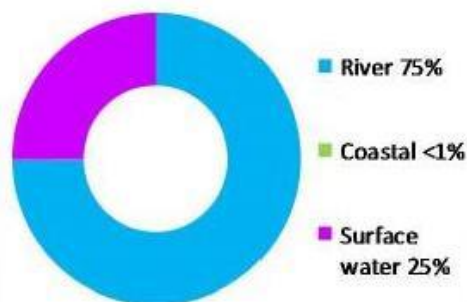
The A920, A948, B9005 and a short section of the A90 pass through the area.



The main river in the area is the Ythan, which is tidally influenced downstream of Ellon.

There are approximately 110 residential and 40 non-residential properties at risk of flooding.

The Annual Average Damages are approximately £300,000 with the majority due to river flooding.



Annual Average Damages by flood source

## Ellon Potentially Vulnerable Area



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### **Actions to manage flooding in Potentially Vulnerable Area 06/12**

Actions describe where and how flood risk will be managed. These actions have been set by SEPA and agreed with flood risk management authorities following consultation. Selection of actions to deliver the agreed objectives was based on a detailed assessment and comparison of economic, social and environmental criteria. The actions shaded and then described below have been selected as the most appropriate for Ellon Potentially Vulnerable Area.

Selected actions					
Flood protection scheme/works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans
Flood protection study	Natural flood management study	Maintain flood warning	Awareness raising	Surface water plan/study	Emergency plans/response
Maintain flood protection scheme	Strategic mapping and modelling	Flood forecasting	Self Help	Maintenance	Planning policies





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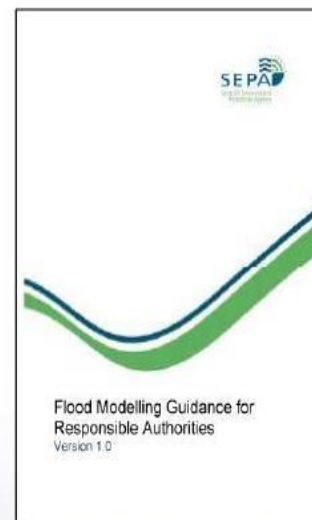
<b>Action (ID):</b>	<b>FLOOD PROTECTION STUDY (6012010005)</b>		
<b>Objective (ID):</b>	Reduce flood risk in Ellon from the Broomies / Bronie Burn (601203) Reduce flood risk in Ellon from the Modley Burn (601202) Reduce flood risk in Ellon from the River Ythan (601201)		
<b>Delivery lead:</b>	Aberdeenshire Council		
<b>Priority:</b>	National:	Within local authority:	
	55 of 168	1 of 12	
<b>Status:</b>	Scheduled	Indicative delivery:	2016-2019
<b>Description:</b>			
<p>Aberdeenshire Council will undertake a flood protection study to evaluate options for flood management to reduce the risk of flooding in Ellon from the River Ythan, Modley Burn and Broomies / Bronie Burn. The study will be completed by the Summer 2019</p> <p>The study has the potential to benefit 77 residential properties, 18 non-residential properties, sections of road network and a school at risk of flooding in this location, with potential damages avoided of up to £6.1 million. A reduction in flood risk would have a positive benefit to the health and wellbeing of the community and socially vulnerable people located within the study area and may also contribute to enhanced biodiversity and economic activity.</p> <p>The study will take a sustainable and integrated approach by coordinating with the river basin management plan. It will be undertaken with due consideration to internationally, nationally and locally designated sites including listed buildings. It will also explore opportunities for enhancing biodiversity and for promoting economic activity and social wellbeing.</p> <p>The study will consider natural flood management measures along with traditional flood defences by exploring opportunities for online and offline flood storage, flow control structures, modification to conveyance capacity of watercourses by sediment and channel management, modifications to the bridges to improve conveyance, the construction of direct defences, river / floodplain restoration, runoff control through catchment and riparian tree planting, land-use and land-management changes, etc. Additionally, the study will also consider property level protection and property relocation. It is expected that the recommended flood protection scheme will comprise a combination of such measures to ensure a sustainable and integrated approach to flood risk management by due consideration of impacts on economy, society, environment and cultural heritage.</p>			



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## Ellon Flood Protection Study

- The flood study will consist:
  - Data collection and surveys
  - Hydrological analysis
  - Detailed modelling
  - Recommended actions to reduce flood risk
  - Economic appraisal (benefit/cost analysis)





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## Possible recommendations from Study

- Possible actions to reduce flood risk:
  - Direct defences
  - Upstream storage
  - Natural flood management
  - Property level protection
- Any formal Flood Protection Scheme would be taken forward in the next Flood Risk Management Planning Cycle 2022 – 2027.





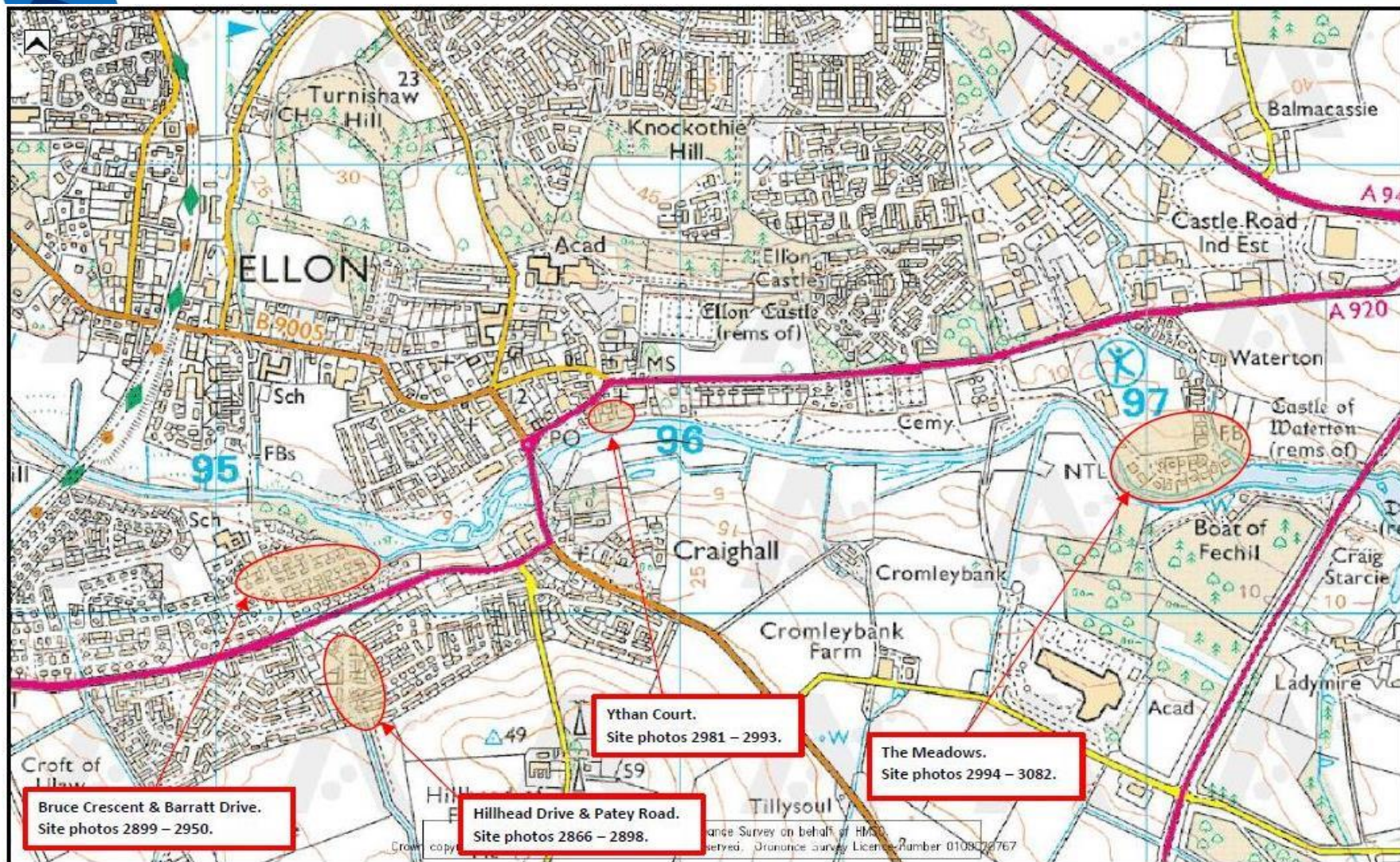


Figure 01: Plan of Ellon, with locations of 08/01/16 site inspections highlighted.





(1) Hillhead Drive



Photo 01: Burn at Hillhead Drive (taken 08/01/16)



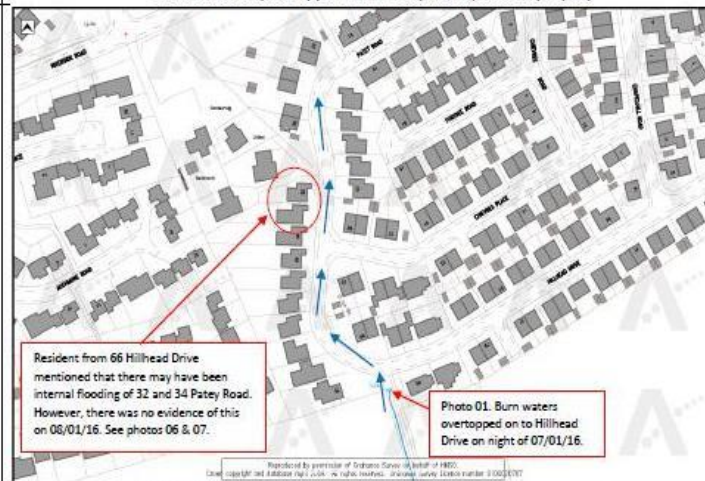
Photo 04: Footpath opposite 34 Patey Road (taken 08/01/16)



Photo 06: 34 Patey Road (taken 08/01/16)



Photo 02: Road opposite 87 Hillhead Drive (taken 08/01/16)



Resident from 66 Hillhead Drive mentioned that there may have been internal flooding of 32 and 34 Patey Road. However, there was no evidence of this on 08/01/16. See photos 06 & 07.

Photo 01. Burn waters overtopped on to Hillhead Drive on night of 07/01/16.



Photo 03: Road opposite 97 Hillhead Drive (taken 08/01/16)



Photo 05: Footpath opposite 32 Patey Road (taken 08/01/16)



Photo 08: Road opposite 30 Patey Road (taken 08/01/16)



Photo 07: 32 Patey Road (taken 08/01/16)

Photo 08: 02 Barratt Drive (taken 08/01/16)





(3) Market Street Car Park & Ythan Court

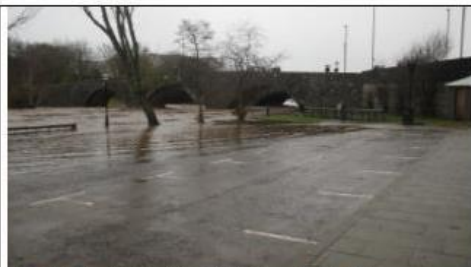


Photo 01: Market Street Car Park (taken 08/01/16)



Photo 04: Road to Ythan Court looking East (taken 08/01/16)



Photo 06: Birness, Ythan Court (taken 08/01/16)



Photo 02: Market Street Car Park (taken 08/01/16)

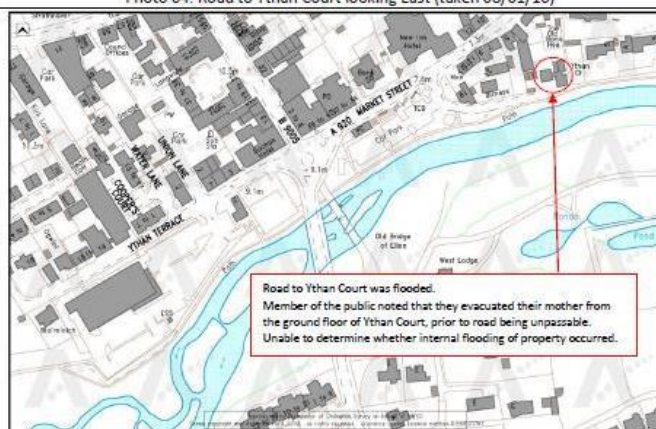


Photo 07: Ythan Court (taken 08/01/16)



Photo 03: Market Street Car Park, with debris line evident at base of steps to Market Street (taken 08/01/16)



Photo 05: Road to Ythan Court looking West (taken 08/01/16)



Photo 08: Ythan Court (taken 08/01/16)



(4) The Meadows



Photo 01: Road flooded adjacent to 01 The Meadows (taken 08/01/16)



Photo 04: 02 The Meadows (taken 08/01/16)



Photo 06: Waterton Cottages, with Broomies Burn on the right (taken 08/01/16)



Photo 02: Flood water being pumped into sports field by Fire Service (taken 08/01/16)

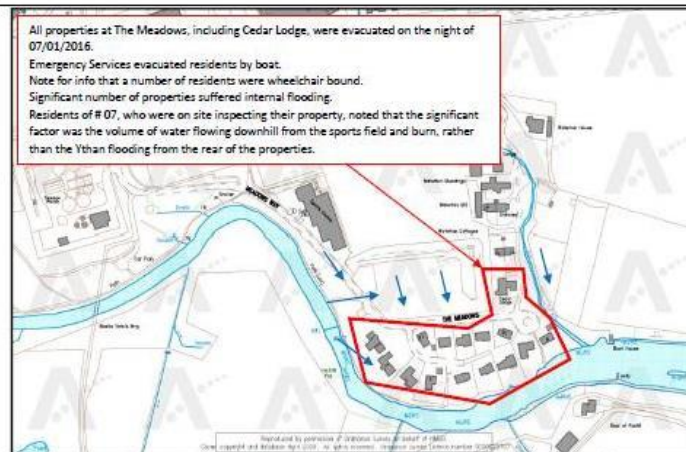


Photo 07: Road adjacent to Cedar Lodge, leading to 10 The Meadows (taken 08/01/16)



Photo 03: 01 The Meadows (taken 08/01/16)



Photo 05: 04 The Meadows (taken 08/01/16)



Photo 08: 11 The Meadows (taken 08/01/16)





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## Meetings with Residents and Current Position

- Ellon Flood Meeting – 21<sup>st</sup> April 2016
- Bruce Crescent (meeting with Scottish Water) – 28<sup>th</sup> Nov. 2016
- Meadows Flood Action Group – 23/04/18 + 25/06/18
- Flood Study - Public Engagement Event 1 – 3<sup>rd</sup> Dec. 2018
- Flood Study - Public Engagement Event 2 – Spring 2019
- Flood Study – Completion – Summer 2019



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## C.C. Storage container for emergency response

- 20ft container at Ballater Primary School
- 250m of HESCO Jackbox barrier
- 3 pallets of new, heavy-duty pre-filled polypropylene sandbags





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## New Sandbag Container in McColl's Car Park







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## Promoting Resilience - Property-Level Protection

- Flood protection products to homes and businesses
- Flood gates, vent guards and FloodSaxs
- Reduced reliance on council supplied sandbags
- Grant scheme?





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**Thank you**

**Questions?**

Lee Watson

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