Name of meeting: **Cabinet**
Date: **13 December 2016**

Title of report: **Flood Response Policy and Flooding Operational Plan**

Is it likely to result in spending or saving £250k or more, or to have a significant effect on two or more electoral wards?	**Yes**
Is it in the Council's Forward Plan?	**Yes**
Is it eligible for "call in" by Scrutiny?	**Yes**
Date signed off by Director & name **Is it signed off by the Assistant Director - Financial Management, Risk, IT and Performance?** **Is it signed off by the Assistant Director – Legal, Governance & Monitoring?**	**Jacqui Gedman – 02/12/16** **Debbie Hogg – 01/12/16** **Julie Muscroft – 05/12/16**
Cabinet member portfolio	**Cllr McBride and Cllr Khan**

Electoral wards affected: **All**
Ward councillors consulted: **None**
Public or private: **Public**

1. Purpose of report

To present a new "Flood Response Policy" and associated "Flooding Operational Plan" for approval

2. Key points

- Recent flood events in the district, particularly the flooding to Mirfield on Boxing Day, have highlighted weaknesses in the support the Council provides to affected communities

- The Council has a well-established severe weather plan for snow clearance/gritting and the new flood plan follows similar principles, optimising the use of existing resources. The aim being to support communities at risk from flooding and maintain a resilient transport network at times of severe weather. Whilst the operational processes

and resources are similar for the weather events, the location, impact and timing is much less predictable for high rainfall events.

- The Policy and Plan have been developed jointly between Flood Management, Emergency Planning and Highways Operational teams

- The policy outlines the Council's responsibilities during flood events and how it intends to manage the risk of flooding to communities with complementary drainage asset management, flood risk management initiatives and community awareness. The policy promotes targeted and proportionate support to communities affected by flooding, informed by the best possible evidence and information. The policy also revises the Council's approach to providing sandbags, clarifying priorities for the supply of sandbags.

- The operational plan details the actions to be taken before, during and following severe flooding:

    - Targeted maintenance of drainage assets to maximise available capacity before heavy rainfall
    - Moving from a reactive to a proactive approach to provide community support before flooding occurs, when possible
    - Sharing expertise in the Council to use all available information on impending flood events to agree the level of action required and where it should be directed
    - Ensuring that Council operational resources are available 24/7, 365 days a year, making best use of existing arrangements to provide an affordable, proportionate response
    - Providing an escalating response to impending flooding through the declaration of action levels with predefined operational resources, progressing from limited checking/clearance of drainage assets to the deployment of all available resources, coordinated through the Council's Major Incident Plan
    - High flood risk locations have been identified in the Plan where we expect to deploy resources first. The locations may change, as new information on risk is available, flood mitigation measures are developed and feedback from actual flood events is analysed.
    - A judgement will be made by the Senior Decision Makers as to when and where resources should be deployed. It may be that flooding is anticipated in particular locations and not across the whole district

- Whilst the Policy sets out the Councils responsibilities and intentions, the Operational Plan provides a detailed action plan which will be regularly adjusted to reflect new evidence on local flood risk and the associated revised priorities. For this reason, it is requested that changes to the Flooding Operational Plan are delegated to the "Head of Service – Highways and Operations".

3. Implications for the Council

The new approach is a refinement of existing operational activity funded through the Council's Severe Weather budget. The unpredictability of the frequency and severity of flooding creates a risk of unexpected costs. It is anticipated that most flood events can be accommodated in the existing budget. The high costs associated with extreme flood events can often be reclaimed from central government via the Bellwin Scheme or emergency flood funding.

4. Consultees and their opinions

Cllr Khan fully supports the Policy and Operational Plan to implement a new approach to support communities during flood events.

5. Next steps

Operational arrangements are in place to allow immediate implementation of the Plan, as and when required.

6. Officer recommendations and reasons

Members are asked to approve the Policy and Operational Plan to implement a new approach to support communities during flood events. The policy and plan support the council's commitment to improve Economic Resilience. Members are asked to delegate revision of the Operational Plan to "Head of Service – Highways and Operations", to allow adjustment of the operational arrangements in the Plan to reflect new information and revised priorities.

7. Cabinet portfolio holder recommendation

Cllrs McBride and Khan support the report and the officer recommendations

8. Contact officer and relevant papers

Tom Ghee, Flood Management and Drainage Group Engineer
Tel. 01484 221000
email: tom.ghee@kirklees.gov.uk

Appendix 1: Flood Response Policy
Appendix 2: Flooding Operational Plan

9. Assistant Director responsible

Kim Brear, Assistant Director - Place
Tel. 01484 221000
email: kim.brear@kirklees.gov.uk

Appendix 1

Kirklees Flood Response Policy

A policy outlining the Councils' responsibilities during a flood event and the proportionate actions it will take to provide operational support to the community before, during and after the event.

29 November 2016

Kirklees Flood Response Policy

1. Introduction

The purpose of this policy is to set out the principles that the Council follows during flooding events which have a major disruptive impact on our community including businesses, education, transport, health and social care. Flood management is an important role undertaken by the Council, involving a variety of interventions, both short and longer term, to reduce the risk and impact of flooding across the district. Flood management is also about meeting the needs of local communities across the district, particularly the most vulnerable residents, and includes a focus on protecting residential and commercial property, maintaining access to essential services and facilitating community resilience.

Flood support is required throughout the year with little seasonal certainty. The challenge is to provide a responsive service that can be sustained and supported in a background of general budget reductions.

This policy reflects the preventative measures and good practice (making sure we have optimum capacity in the system) outlined in the Well-maintained Highways: Code of Practice for Highway Maintenance Management (Roads Liaison Group, July 2005) and the Code's latest Update dated 18th September 2013.

The current version is at: http://www.ukroadsliaisongroup.org

The management of flooding is shared across a number of organisations and agencies with the Council's Emergency Planning Team having a key role in the strategic management / co-ordination of the more severe flood events, supported by the Council's operational resources. The Environment Agency, Yorkshire Water, the Canal and Rivers Trust and the Highways Agency all have roles to play as asset managers.

This Flood Response Policy complements other council initiatives to better protect local communities from the effects of flooding, namely –

- Flood Risk Management programme - identifying and delivering mitigation projects in areas of higher flood risk, and
- Drainage Asset Improvement - assessing the capacity requirements for highway drainage systems and establishing effective maintenance programmes
- The Severe Weather Management Plan - the flood response policy along with the winter maintenance policy forms the basis of the councils response to severe weather in maintaining a resilient network to keep Kirklees safe and operating at times of severe weather

2. Legislation and Guidance

2.1. The Flood and Water Management Act 2010 places a statutory duty on the Council, as Lead Local Flood Authority (LLFA), to manage

flood risk from local sources. The legal duty, as LLFA, to develop and maintain a Local Flood Risk Management Strategy has defined actions for the council which help it to understand more clearly the location and level of flood risk across the district and identify and implement mitigation measures that help to manage the risk. This developing knowledge base for local flood risk will help in the prioritisation and coordination of the council's response to major flood events with improved targeting of resources.

2.2. Section 100 of the Highways Act 1980 requires the council to drain the public highway and provides powers to prevent the flow of water onto the public highway. Highway drainage assets, such as road gullies, highway drains, culverted watercourses and trash grilles protecting culvert entrances undergo routine, cyclical maintenance which helps to maintain an efficient drainage system to keep the highway clear of floodwater. In severe flood situations, the interaction of river systems, small watercourses and overland surface water flows can often overwhelm highway drainage systems.

2.3. The Civil Contingencies Act 2004 places a legal duty on the Council, as emergency planning authority to:

- assess the risk of emergencies occurring and use this to inform contingency planning;
- put in place emergency plans and business continuity management arrangements;
- to train staff in their roles and responsibilities and run exercises to test emergency plans;
- put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency;
- share information with other local responders to enhance co-ordination;
- co-operate with other local responders to enhance co-ordination and efficiency; and
- provide advice and assistance to businesses and voluntary organisations about business continuity management

3. Objectives and Cost Effectiveness

3.1. Objectives – The objectives of the flooding response service is to

- Reduce the risk to "life and limb" of the communities in Kirklees Council
- Reduce the economic and social impact of flooding on homes and businesses in Kirklees
- Reduce the impact of flooding on private and public infrastructure in Kirklees Council

- Provide operational support to other agencies and partners during flood events
- Provide mutual aid support to other partners where priorities and resources allow

3.2. Cost effectiveness - Budgetary constraints and the need to provide value-for money services are key issues for all local authorities.

- **The most efficient use of limited resources will be achieved by implementing an operational response to a flood event that is proportionate to the event and the associated level of risk.**
- The reliability of weather forecasts, flood alerts and intelligence gathering on local high risk areas are key to responding to events in an appropriate way.
- Wide community engagement on local flood risk will help communities and individuals to understand better the flood risk they face and encourage a self- help approach.

4. Weather Forecasting, Flood Predictions and Monitoring

4.1. A well-established arrangement is in place between the Council and the Met Office to highlight forthcoming severe rainfall events (This is part of the Met Office's National Severe Weather Warning System (NSWWS) and provides regional forecasts on a County basis – escalating warnings from weather alerts through to warnings). As well as descriptive text on the events, an assessment of risk from the event is provided by the Met Office which provides a basis on which the Council can judge the potential risk and impact of the event (it should be noted that the information is only a forecast and therefore cannot be 100% reliable).The Met Office provides a Met Officer Advisor for each Local Resilience Forum area. The Met Office Advisor is available to provide the "local picture" of the regional forecast.

The Met Office also provides an on-line tool, Hazard Manager, which provides an ongoing update of the developing risk from the rainfall event.

4.2. In addition to the weather forecast, a sophisticated assessment of risk from river flooding is issued as appropriate by the Environment Agency. The risk of flooding from the larger rivers in the district is assessed from information received from level gauges within the river catchments, providing regular updates with a series of escalated warnings from Flood Alert to Flood Warning to Severe Flood Warning. Based on the risk, the Environment Agency may call a multi-agency teleconference in order to provide additional information to partners.

4.3. Learning from national flood events resulted in a collaboration between the Met Office and Environment Agency resulting in the Flood Forecasting Centre. The Flood Forecasting Centre produces

Flood Guidance Statements for partners which outline the risk of flooding over a 5 day period. The aim is to provide partners with more lead in time for flooding events so partners can undertake any necessary preparatory work deemed appropriate.

4.4. Advance information on extreme rainfall events is received by a number of partners and service areas within the council. The Council's operational response to a predicted flood event will be initiated following agreement and decision between the Council's Flood Management team and the Emergency Planning Team. Information received from both external forecasts and internal intelligence will be assessed by the two teams to ensure that the ongoing operational response is appropriate.

4.5. Work will continue with partners and other organisations to monitor new technology/information which may help to give more certainty to forecast information.

4.6. The decision-making process, the actions to be initiated and the resources to be made available are detailed in the Flooding Operational Plan.

5. Sandbag Policy

Has been reassessed following experience from recent flood events and is attached to this policy (see Appendix A).

6. Community Self-Help

6.1. Extreme rainfall events always provide the potential for risk to "life and limb". The expectations on the local communities (individual residents, businesses, etc.) to take responsibility for their own safety and property, has to be tempered by the level of risk they might face. The Councils response to flood events, and where it targets its limited resources to support communities, is informed by an improving record of knowledge of high risk areas and high risk flood receptors, such as transport routes, critical infrastructure, vulnerable people, care homes, schools etc.
Nevertheless, all communities should understand the particular risks they face and to this end, the Council is undertaking a comprehensive community engagement programme to share information it holds on local flood risk, providing advice that can help individuals to reduce the risk they might face from local drainage systems (see Appendix B)

7.2. Advice is also available to the public on the Council website, via the link http://www.kirklees.gov.uk/community/yourneighbourhood/emergencyPlanning.aspx

7. Operational Arrangements with Partners

7.1. Where river flood alerts have been issued, the Environment Agency become operationally active in monitoring the main river network in the district. Arrangements are in place for “on the ground” EA staff to highlight any issues that need to be actioned on the smaller watercourses that the Council has responsibility for. Often, the general public are not able to discriminate between a council and an EA responsibility when they report an issue. Contact information is held by the requisite call centres to forward requests for assistance/ information to the appropriate body.

7.2. The nature of rainfall events often means that small catchments are affected rather than a widespread impact on the whole district. Often a neighbouring district will suffer from flash flooding in a river catchment which has little impact on Kirklees. Mutual arrangements are in place to offer resources to neighbouring districts in these situations.

7.3. Utility companies are responsible for managing flood risk to their own infrastructure. The Council will offer support when it is able to do after it has fulfilled its responsibilities to local communities. The Council work with utility companies to identify critical infrastructure that is at higher risk of flooding.

7.4. Significant work is ongoing with other agencies and significant landowners to look at initiatives to reduce the rate of run-off from the upper catchments.

8. Flooding Operational Plan

The Council’s Flooding Operational Plan is maintained with the purpose of providing the necessary procedural and functional arrangements necessary to carry out the service in accordance with this Policy.
All aspects of the Flooding Operational Plan, including service delivery arrangements, will be reviewed annually in consultation with key stakeholders to allow for any changes in circumstances.

9. Communication and Publicity

9.1. Weather forecasting is becoming more reliable and, providing a precautionary approach is taken, the Council is able to provide advance warning to communities of events that may cause damage and disruption.
9.2. The Flood Management webpages on the Council’s website provide the main source of information for the general public on flood risk and the council’s operational support during extreme rainfall events.

Regular updates on ongoing flood events will be posted on the Council's homepage.

9.3. Community/organisation social media accounts are increasingly becoming a valuable source of information as to the issues that are being faced and managed locally.

9.4. The West Yorkshire Resilience Forum holds the West Yorkshire Media Protocol and Toolkit which, in a wide scale event, would be followed when communicating to the public.

9.5. The council's communications team has a well-established process of media engagement ensuring quick and comprehensive dissemination of information. A bespoke communications plan will be initiated when the response levels in the operational plan are triggered (see Appendix C in the Operational Plan).

10. Mutual Aid

The close working relationship adopted by all the West Yorkshire Plus Districts ensures that this will be implemented when necessary. Formal arrangements are in place via the West Yorkshire Resilience Forum.

11. Risk

11.1. Financial - The council has committed operational resources to provide a 24/7, 365 days a year support service during flood events. The level of service is deemed to be proportionate to the level of risk but will be assessed following significant flood events to determine whether it remains fit for purpose.

11.2. Operational - The Flooding Operational Plan and associated plans/procedures detail the operational resource and process that will be allocated to flooding support. As the Council implements flood risk mitigation plans/measures and drainage infrastructure improvements, supplemented by updated evidence of flood risk, it will reassess the appropriateness of its operational plan.

11.3. Knowledge/Expertise – The resources available to manage and deliver the policy and associated plan are limited and training/succession planning will be promoted.

Appendix A – Sandbag Policy

1. **Background**

The council's policy on providing sandbags during flood events was last assessed following the summer flooding in June 2007. The district has suffered a number of less severe flood events since then and it is appropriate and timely to consider the effectiveness of the policy as part of the overarching new policy on flood response.

The intention is to publish and use a policy that is prioritised on need and mindful of the limited resources that the Council will have at its disposal during a flood event.

2. **The Policy**
3. There is no statutory requirement for a Local Authority to provide sandbags, nor to prevent a property from flooding. Property owners/tenants are responsible for protecting their own property and therefore should make their own arrangements to protect their properties, making plans in advance of a flooding incident.
4. As a responsible Local Authority, Kirklees Council recognises that there are vulnerable people and premises that may require assistance to protect them during a flooding incident. This policy has been developed to ensure that the council's resources are deployed to where they are needed most.
5. The Council does hold a limited stock of sandbags throughout the year, primarily to assist in preventing flooding of the Highway. However the Council will attempt to help others where resources will allow. Requests for the supply of sandbags will only be considered to protect occupied residential properties that are in imminent danger of flooding.
6. The supply and distribution of sandbags will normally be enabled when the Council implements its Flooding Operational Plan.
7. Requests will be prioritised as follows:
    1. **Vulnerable individuals, the elderly and infirm**
    2. **Hospitals, Care Homes, schools etc.**
    3. **Council buildings and critical infrastructure.**
    4. **Residential properties.**
    5. **Business or other non-residential properties.**
8. The Council holds historical records of those areas and properties where flooding is most likely to take place first. The Council may choose to deliver sandbags to those locations first, before consideration of sandbag delivery to locations requested by the general public
9. It should be noted that:
    - When the supply of sandbags is deemed appropriate, every effort will be made by the council to make a timely delivery but no guarantee can be made that sandbags will be delivered
    - The Council will endeavour to deliver the minimum number of sandbags to alleviate the situation known at the time of receipt of the request
    - Requests for sandbags will not be considered for protecting gardens, out buildings or other non-residential structures.
    - Commercial premises should make their own arrangements.

- Requests for sandbags will not be considered in anticipation of flooding, following advance weather forecasts or Environment Agency warning.
- The Council will not collect sandbags following the flooding. Property owners will be expected to dispose of sandbags at Council Household Waste Recycling Centres or safe disposal elsewhere.
- The best defence is to plan in advance and not rely on the local authority to protect your property during flooding.

Appendix B – Community Engagement Programme

1. The Council, as Lead Local Flood Authority for the area, has responsibility under the Flood and Water Management Act 2010 to manage local flood risk. An integral part of this responsibility is to ensure that members of the community understand the risk they face and are supported in taking responsibility for their own land and property. The Councils Local Flood Risk Management Strategy has a number of actions that support this aim.
2. A community engagement programme on local flood risk management is being developed which will transfer knowledge on local flood risk issues from the Council to individual communities, encouraging them to take actions to manage the risk to their land and property. The engagement programme will include:
   2.1. A structured programme of engagement that will include bespoke letter/leaflet drops to affected communities/individuals
   2.2. An explanation of rights and responsibilities they might have as riparian owners, if they have a watercourse crossing their land.
   2.3. Advice on how riparian owners can minimise the risk of flooding from the watercourse through regular maintenance
   2.4. Highlighting those communities/ individuals at risk from predicted river and surface water flooding
   2.5. Encouraging those landowners to take appropriate actions/make preparations for future flood incidents, raising awareness of Environment Agency flood warning information and local observations, such as trash grille condition, river levels etc

3. The overarching intention of the engagement programme is to transfer knowledge on local flood risk from the Council to those individuals at risk of flooding and provide them with simple advice and tools that will put them in the best place possible to take immediate action should flooding be imminent. The Council will continue to support those communities most at risk but awareness-raising and advice will reduce the expectations from the general public on the Council and reduce the burden on the Council protecting individual properties from flooding.

Appendix 2

Kirklees Flooding Operational Plan

A policy outlining the Councils' responsibilities during a flood event and the proportionate actions it will take to provide operational support to the community before, during and after the event.

29 November 2016

Kirklees Flooding Operational Plan

1. Introduction

The plan states a commitment to deliver an appropriate series of actions by an adequate level of resource to mitigate the risk of flooding from severe rainfall events in the district.

The plan is divided into three distinct areas –

1.1. Routine maintenance activities to drainage assets under the Council's control, prior to rainfall events to maintain capacity within the drainage systems.

1.2. An appropriate level of response by the council to support communities (individuals and businesses) at risk of flooding during a flood event. Communicating flood risk information to communities/partners prior to and during rainfall events.

1.3. An appropriate level of response by the council to support the recovery process following a flood event.

1.1. Routine Maintenance of Drainage Assets

The council has responsibilities as both asset manager and enforcement authority to ensure the safe and efficient operation of certain drainage systems in the district.

Highway Drainage – The council has responsibility for the maintenance of highway drainage assets which includes highway gullies, highway drains, highway ditches, trash grilles protecting culvert entrances and culverted watercourses that run under the public highway. Much of the highway drainage system is unrecorded with only the visible elements, road gullies, trash grilles and ditches, receiving planned maintenance. The "Well Managed Highways" code of practice is used as a framework for local maintenance programmes. Reactive maintenance to trash grilles, in advance of predicted rainfall, will be triggered by the decision to declare a Level 1 Response (See process outlined in item 2 below).

Flood Risk Management Plans – The Council has a general responsibility to understand and manage flood risk in the district and has a variety of plans in place and information available to make judgements on which areas of the district are most vulnerable to flooding. This information has been used in the Flooding Operational Plan to direct where best to place initial resources to monitor a developing flood situation. As knowledge of local flood risk develops, the most vulnerable areas detailed in this plan will be updated as part of the annual review.

1.2. Operational Support from the Council during Flood Events

The Kirklees Flood Action Policy outlines the legal and moral responsibilities the council has with regard to providing support to the community during flood events. The Council provides resources (including labour, vehicles, sandbags, flood barriers, road signage, communication and the like) to help reduce the impact on the community but the resources provided will depend on the scale and impact of the flood event.
A decision process has been developed to use the available information on a forecasted rainfall event to determine the appropriate level of resource to be mobilised. The process needs to be flexible and adaptable to new information from site feedback or revised forecasting.

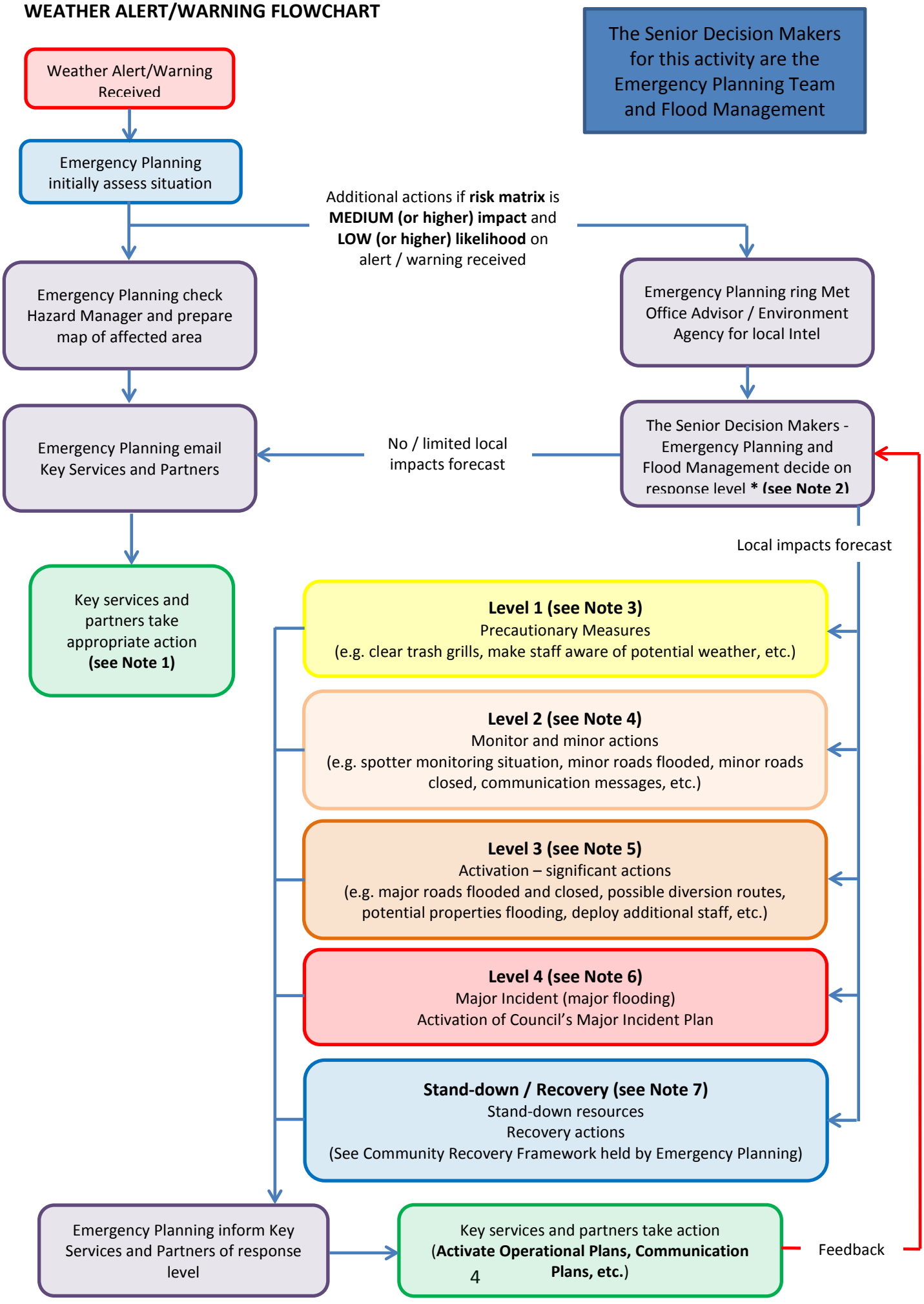
1.3. Supporting the Recovery Process

The Councils Community Recovery Framework will be activated through the process outlined in the section below.

2. Decision Making

The following flow chart outlines the process that will be followed to determine how the Council will respond to the threat of a flood event:

WEATHER ALERT/WARNING FLOWCHART



*** NB. The response level can be activated when severe weather is forecast or severe weather is occurring**

Explanation of Activities

Note 1 – *Initial Service-based decisions*

- Individual service areas/ partners to consider localised actions and monitor any change/new information

Note 2 - *Analyse intelligence on risk (Where possible during normal weekday working)*

- Flood Management and Emergency Planning to discuss available information on the level of flood risk expected.
- Appropriate action level to be decided and notified to Streetscene Operational Manager

Note 3 – *Precautionary Measures (Where possible during normal weekday working)*

- Check grille clearance records and initiate check/clearance visits where required. Judgement on whether to clear higher priority grilles, or all grilles, to be made following discussion at the previous stage (Note 2) – see Appendix A for details of grille locations
- Check sandbag stock levels. Consider the need to increase stock levels following discussion at the previous stage (Note 2)

Note 4 – *Monitor and Minor Actions (All times)*

- Mobilise Level 2 resources
- Position "spotters" at known high flood risk areas (See Appendix B) with detailed site information (See Appendix C).
- Establish feedback reports to Operational Manager, Emergency Planning and Flood Management to monitor developments
- Assess need for advance delivery of sandbags to higher risk locations
- Position Flood Warning signs if minor flooding to roads
- Increase sandbag stock levels
- Follow communication plan and provide information to the community and operational teams.

Note 5 – *Major Activation and Significant Actions (All times)*

- Operational Manager, Emergency Planning and Flood Management to consider feedback from spotters and escalate actions where appropriate. Mobilise Level 3 resources for deployment at priority sites. Emergency Planning to notify other relevant Council services of the elevated response level to allow them to initiate their own operational plans
- Arrange and maintain road closures and establish signed diversion routes where necessary
- Arrange for the distribution of sandbags as necessary
- Follow communication plan and provide information to the community and operational teams.

Note 6 – Major incident

- Councils Major Incident Plan activated and decisions/resource deployment to be coordinated/managed in accordance with that Plan

Note 7 – Stand-down / Recovery

- Stand-down or reduce resources when the impact of the flooding is no longer escalating and pressure on the Council's resource commitments is reducing
- The Community Recovery Framework (held by the Emergency Planning Team) should be activated in order to manage the recovery phase of the flooding

Operational Resource Levels

Stage	Resources	Guaranteed Resource Availability		Estimated frequency
		Weekday/day-time	Outside normal hours	
Pre event assessment	Emergency Planning/Flood Management discussion	Yes	Yes	6 times a year
Level 1	Clear Grilles in advance of event	Yes	No	4 times a year
Level 2	Spotters, sandbag filling	Yes	Yes (part)	Once a year
Level 3	Spotters, sandbag filling/delivery	Yes	Yes (part)	Once every 2 years
Level 4	Spotters, sandbag filling/delivery	Yes	Yes (part)	Once every 6 years

Weekday/day-time resources can be found within existing operational (Highways) workforce

"Out of Hours" resources required (maximum)

Level 1 - Not required

Level 2 – Spotters (13 - man, van, flood/road closed signs)
Sandbag filling (4 men)

Level 3 – Spotters (13 - man, van, flood/road closed signs)
Sandbag filling (4 men)
Sandbag delivery (4 no gangs)

Level 4 - Managed and mobilised through the Council's Major Incident Plan

"Out of hours" resources are available through the winter period via the existing stand-by arrangements – generally November to April.
The unpredictability and low frequency of heavy rainfall/flooding means that is uneconomic to extend the winter standby arrangements through to the rest of the year. The risks are greatest at the extended public holidays (Christmas and Easter) and to cover this risk the winter standby arrangements will be extended to include Easter every year. A limited resource is available through the rest of the year from the highways night working crews which will be supplemented with ad hoc arrangements as and when response triggers are activated in accordance with this plan.

Contact Details

During normal working hours – Resources always available in the office-based Emergency Planning, Flood Management and Operational teams

Outside normal working hours – Standby arrangements for all 3 teams are in place and contact information is detailed in the weekly standby list via the “out of hours” arrangements in the CCTV room

Appendix A – Locations of Trash Grilles

Dearneside Road, Denby Dale
Kenyon Bank, Denby Dale
Barnsley Road, Denby Dale
Brook Meadows, Denby Dale
Coal Pit Lane, New Mill
Butterley Lane, New Mill
Lingwood Close, New Mill
Arrunden Lane, Cartworth
Meal Hill Lane, Holme
Dean Brook Rd, Netherthong
Hall Ing Lane, Honley
Meltham Road, Big Valley
Armitage Road, Armitage Bridge
Nields Road, Slaithwaite
Clough Road, Slaithwaite
Halifax Road, Birchencliffe
Birchencliffe Hill Road, Birchencliffe
Newsome Road, Newsome
James Street, Liversedge
Heybeck Lane, Woodkirk
Chadwick Lane, Hopton
Clough Lane, Hightown
Snelsins Lane, Cleckheaton
George Street, Liversedge
Bradford Road, Cleckheaton
Monk Ings, Birstall
Red Doles Road, Fartown

Appendix B - Higher Risk Flood Locations

Holme Valley

- Holmfirth Town Centre (River and SW) **Spotter 1**

- New Mill Road, Honley (River and SW) **Spotter 2**
  Armitage Road, Armitage Bridge (River and SW)

Colne Valley

- Milnsbridge Town Centre (River and SW) **Spotter 3**

- Crimble Bank, Slaithwaite (River and SW) **Spotter 4**
  West Slaithwaite Road/Manchester Road, Slaithwaite (SW)

- Station Road, Marsden (River) **Spotter 5**

Fenay Beck

- Albany Road/Waterloo Road, Dalton (SW) **Spotter 6**

- Low Town/Church Green, Kirkburton (River) **Spotter 7**

Spen Valley

- Dewsbury Road/Neville Street, Cleckheaton (SW) **Spotter 8**
  Balme Road, Cleckheaton (River)

- Broomer Street, Ravensthorpe (River and SW) **Spotter 9**

- Radulf Gardens, Liversedge (River) **Spotter 10**

Dearne Valley

- Barnsley Road, Scissett (River) **Spotter 11**
  Parkgate, Skelmanthorpe (River)

River Calder

- Cooper Bridge (SW) **Spotter 12**
  Queens Square, Huddersfield (River)
  Huddersfield Road/Wood Lane, Battyeford (SW)

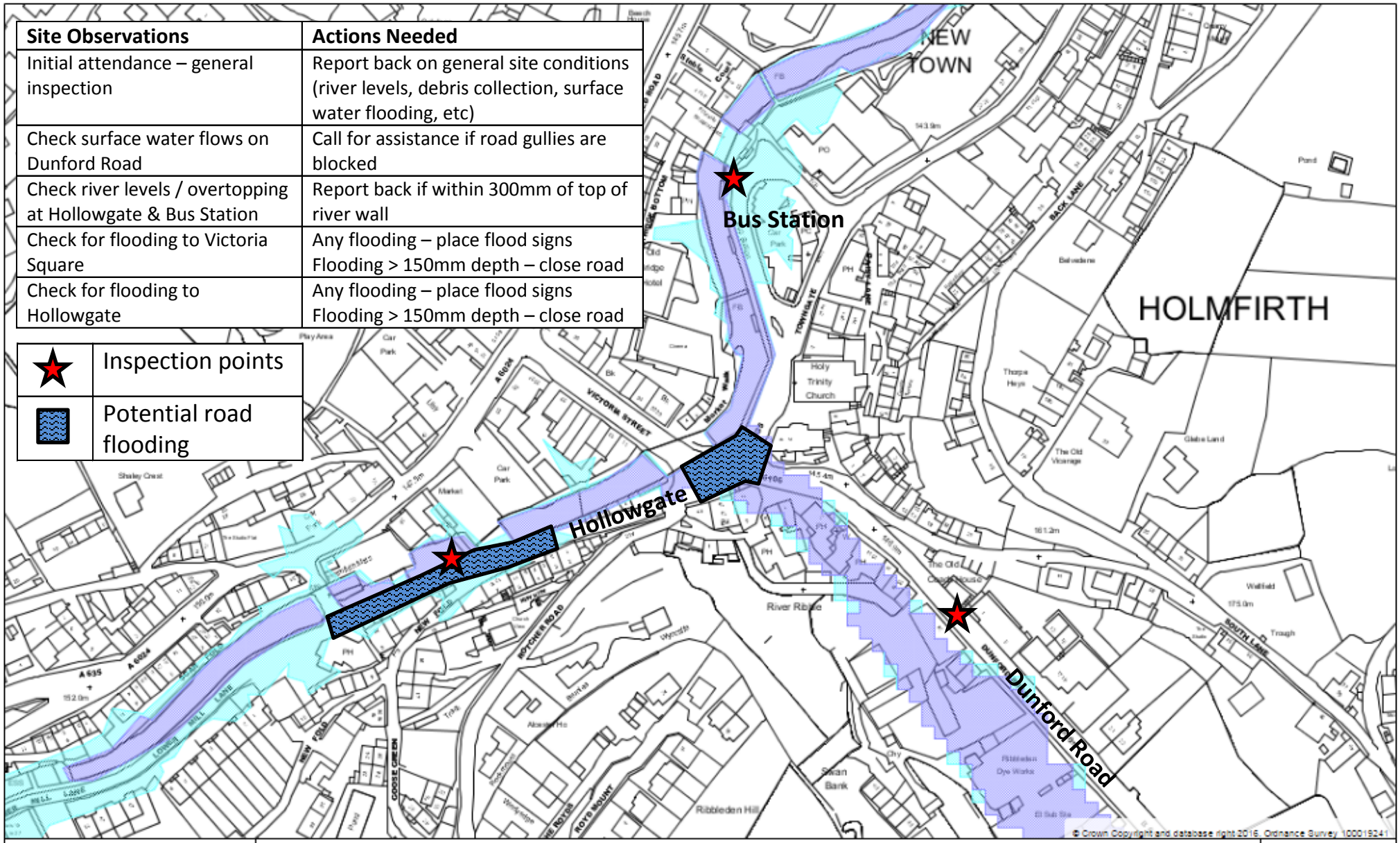
- Steannard Lane, Mirfield (River) **Spotter 13**
  Newgate, Mirfield (River)

NB – The above locations are flexible and spotters may be directed to cover more than one location, depending on the advice issued following appraisal of the weather and river condition reports. Other locations not listed above may be identified during a rainfall event and Spotters may be redirected to those locations.

Appendix B – High Risk Locations Detailed Plans

Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check surface water flows on Dunford Road	Call for assistance if road gullies are blocked
Check river levels / overtopping at Hollowgate & Bus Station	Report back if within 300mm of top of river wall
Check for flooding to Victoria Square	Any flooding – place flood signs Flooding > 150mm depth – close road
Check for flooding to Hollowgate	Any flooding – place flood signs Flooding > 150mm depth – close road

★	Inspection points
▭	Potential road flooding



Kirklees Council

Tel: 01484 221757 (Internal 860 1757) E-Mail: maps@kirklees.gov.uk

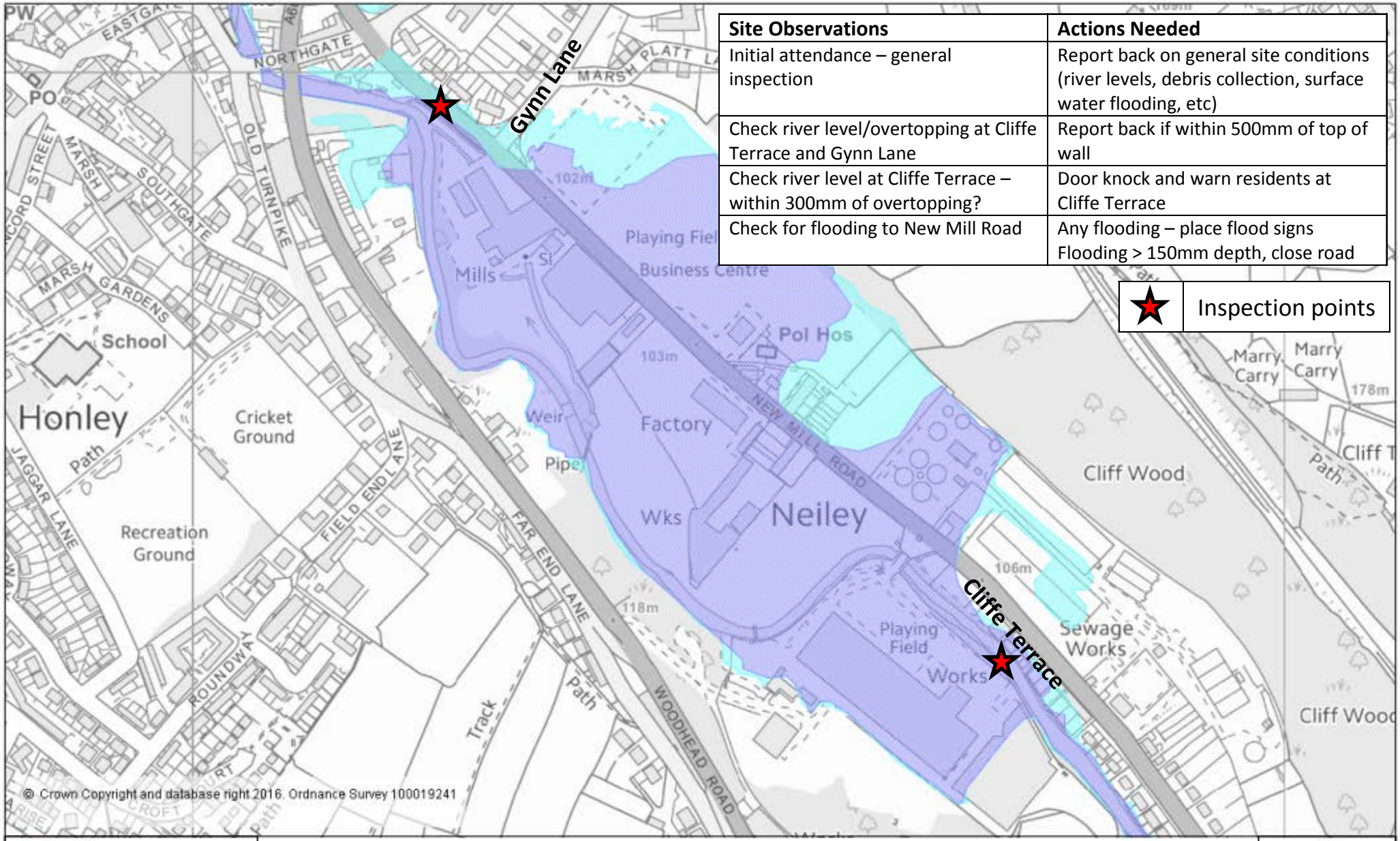
50 m

Spotter 1

Holmfirth Town Centre

Scale = 1 : 2000

N W E S



Kirklees COUNCIL

Tel: 01484 221757 (Internal 860 1757)
E-Mail: maps@kirklees.gov.uk

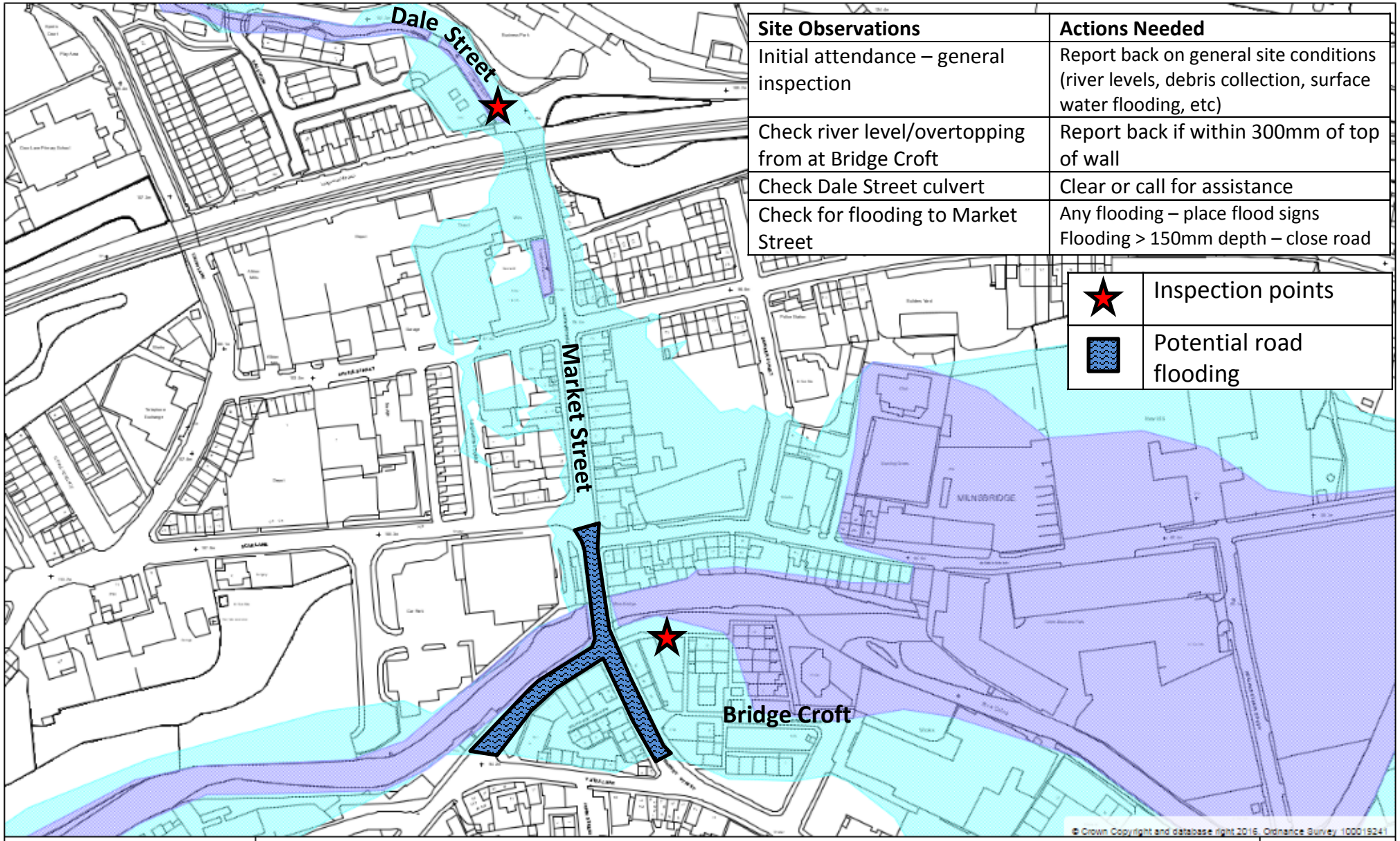
Spotter 2

New Mill Road, Honley

0 m 150 m 300 m

Scale 1 : 4500

N W E S



Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check river level/overtopping from at Bridge Croft	Report back if within 300mm of top of wall
Check Dale Street culvert	Clear or call for assistance
Check for flooding to Market Street	Any flooding – place flood signs Flooding > 150mm depth – close road

★	Inspection points
▮	Potential road flooding

Kirklees Council

Tel: 01484 221757 (Internal 860 1757) E-Mail: maps@kirklees.gov.uk

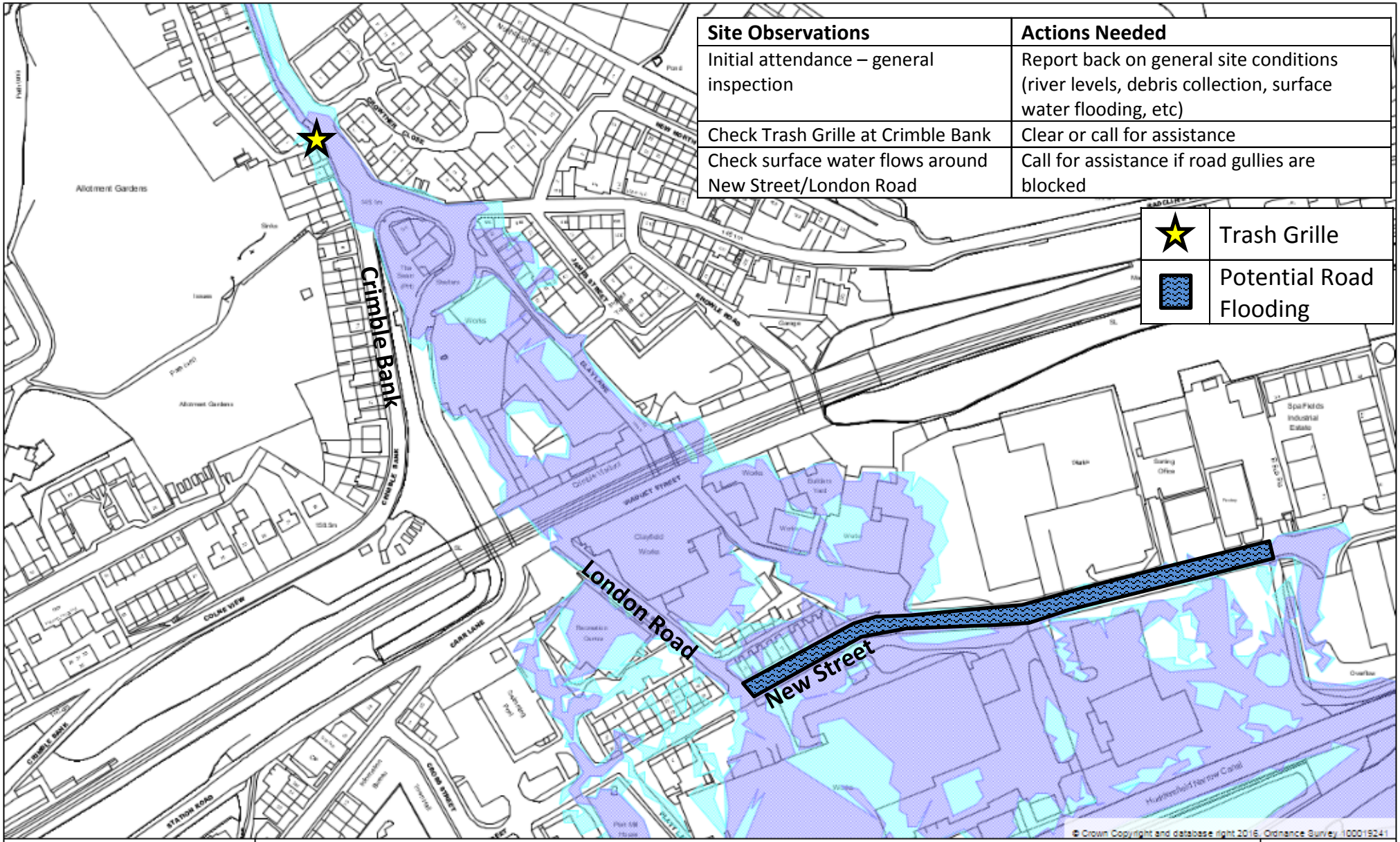
50 m

Spotter 3

Milnsbridge Town Centre

Scale = 1 : 2400

N W E S



Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check Trash Grille at Crimble Bank	Clear or call for assistance
Check surface water flows around New Street/London Road	Call for assistance if road gullies are blocked

Kirklees Council

Tel: 01484 221787 (Internal 860 1787) E-Mail: mapping@kirklees.gov.uk

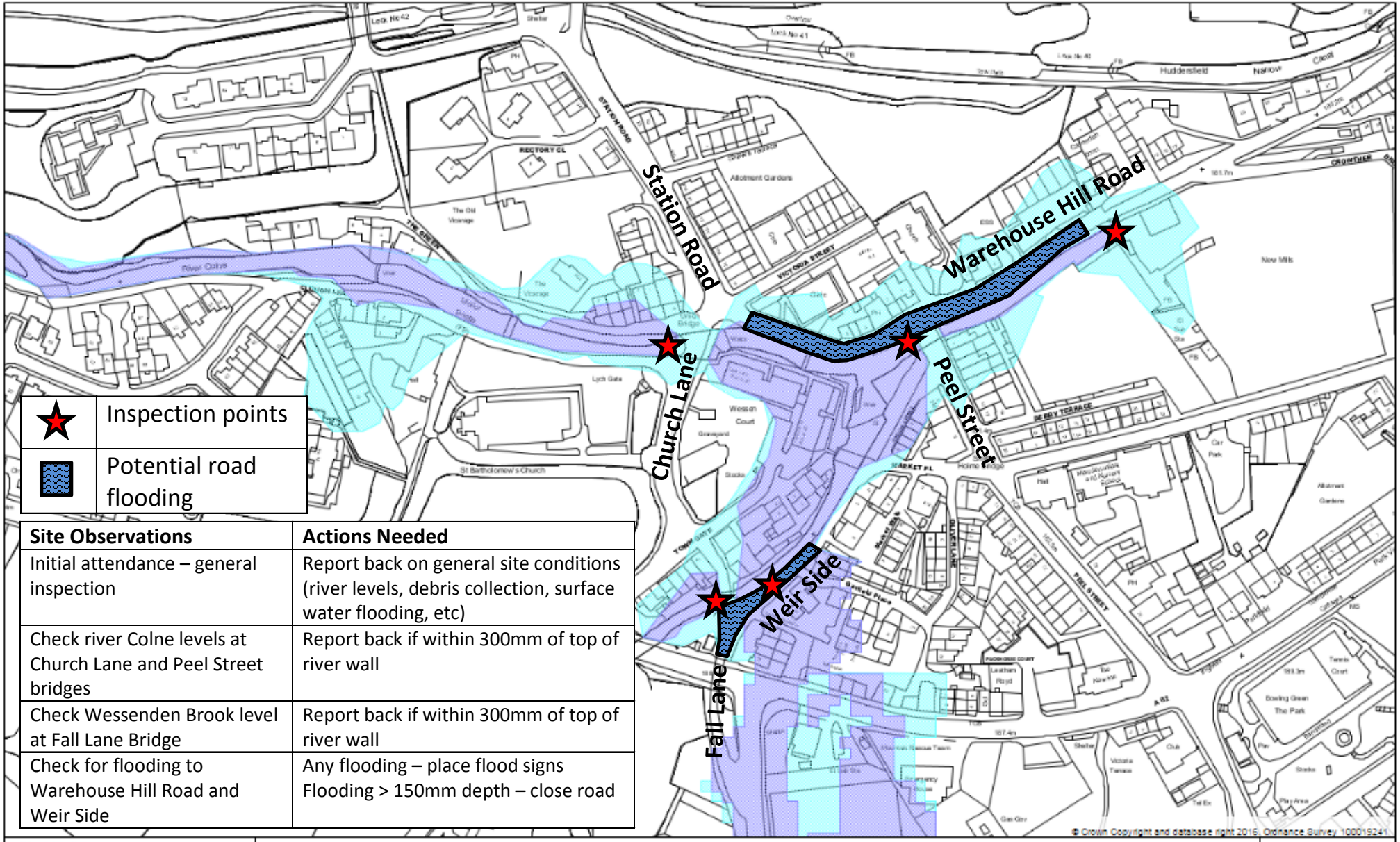
50 m

Spotter 4

Crimble Bank, Slaithwaite

Scale = 1 : 2350

N W E S



Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check river Colne levels at Church Lane and Peel Street bridges	Report back if within 300mm of top of river wall
Check Wessenden Brook level at Fall Lane Bridge	Report back if within 300mm of top of river wall
Check for flooding to Warehouse Hill Road and Weir Side	Any flooding – place flood signs Flooding > 150mm depth – close road

Kirklees Council

Tel: 01484 221757 (Internal 860 1757) E-Mail: mapping@kirklees.gov.uk

Spotter 5

Station Road, Marsden

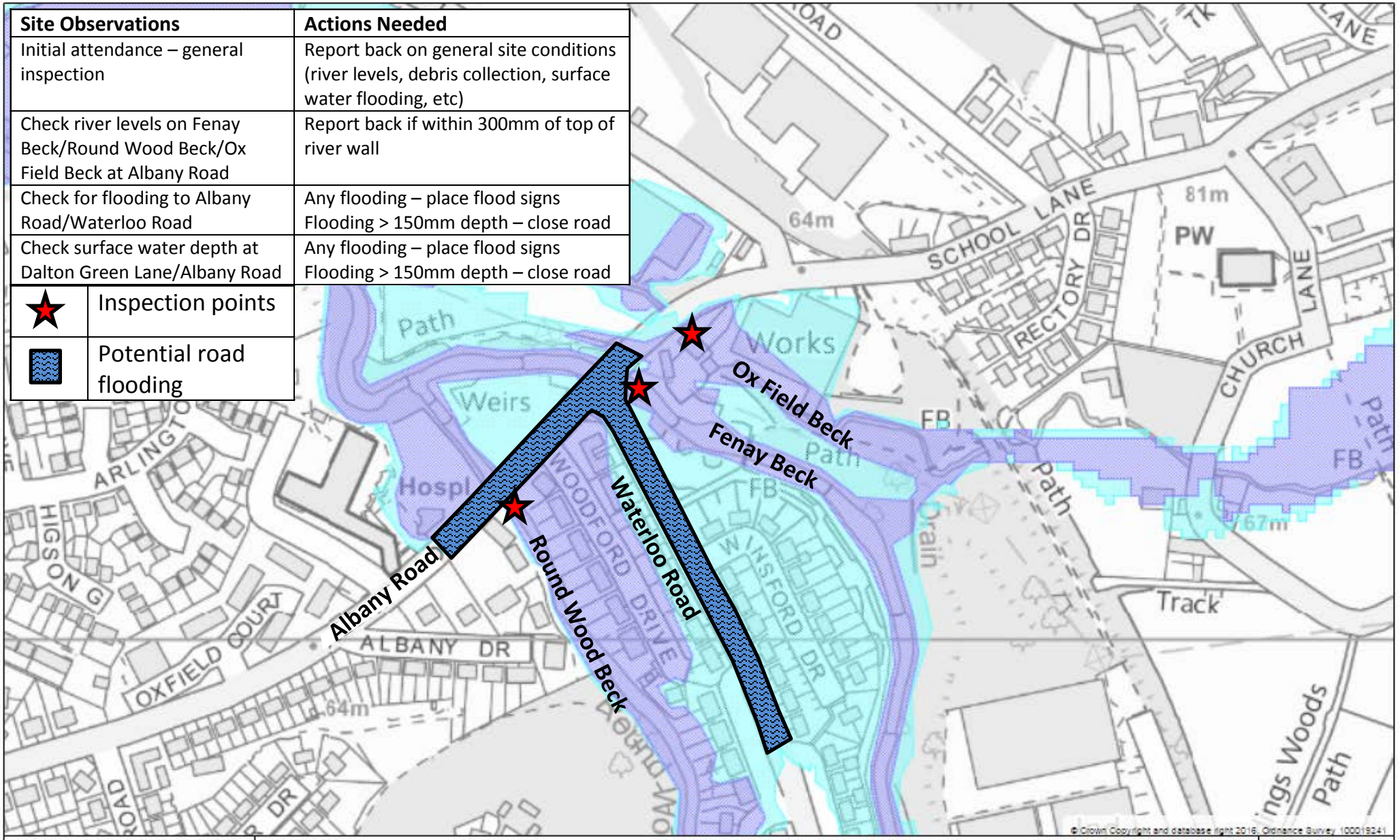
50 m

Scale = 1 : 2350

N W E S

Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check river levels on Fenay Beck/Round Wood Beck/Ox Field Beck at Albany Road	Report back if within 300mm of top of river wall
Check for flooding to Albany Road/Waterloo Road	Any flooding – place flood signs Flooding > 150mm depth – close road
Check surface water depth at Dalton Green Lane/Albany Road	Any flooding – place flood signs Flooding > 150mm depth – close road

★	Inspection points
▭	Potential road flooding



Kirklees Council

Tel: 01484 221757 (Internal 860 1757)/E-Mail: maps@kirklees.gov.uk

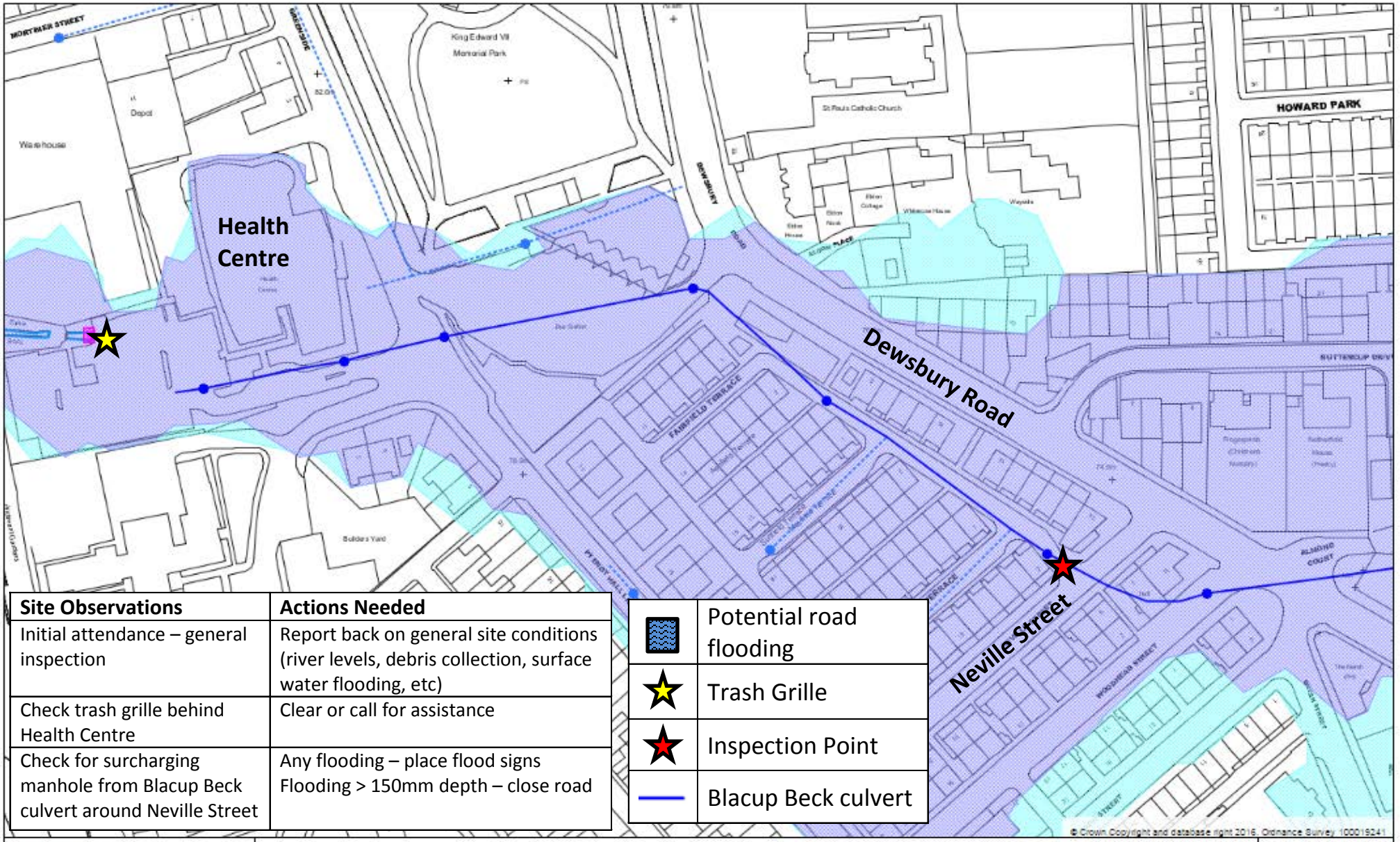
Spotter 6

Albany Road/Waterloo Road, Dalton

100 m

Scale = 1 : 3000

N W E S



Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check trash grille behind Health Centre	Clear or call for assistance
Check for surcharging manhole from Blacup Beck culvert around Neville Street	Any flooding – place flood signs Flooding > 150mm depth – close road

Kirklees Council

Tel: 01484 221757 (Internal 860 1757)E-Mail: maps@kirklees.gov.uk

Spotter 8

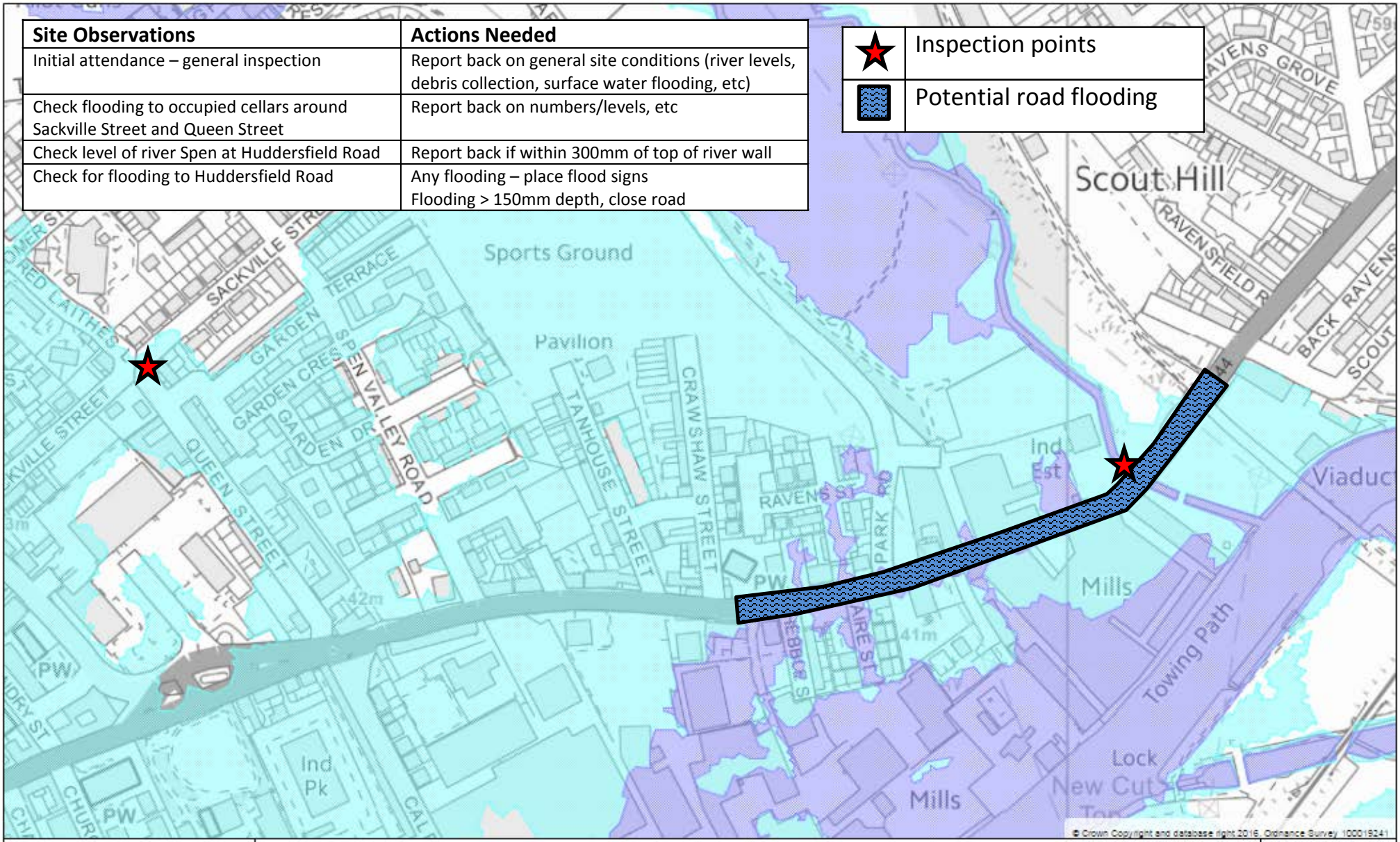
Dewsbury Road/Neville Street, Cleckheaton

50 m

Scale = 1 : 1250

N W E S

Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check flooding to occupied cellars around Sackville Street and Queen Street	Report back on numbers/levels, etc
Check level of river Spen at Huddersfield Road	Report back if within 300mm of top of river wall
Check for flooding to Huddersfield Road	Any flooding – place flood signs Flooding > 150mm depth, close road



Kirklees COUNCIL

Tel: 01484 221757 (Internal 860 1757)E-Mail: maps@kirklees.gov.uk

Spotter 9

Hunsworth Lane/Balme Road . Cleckheaton

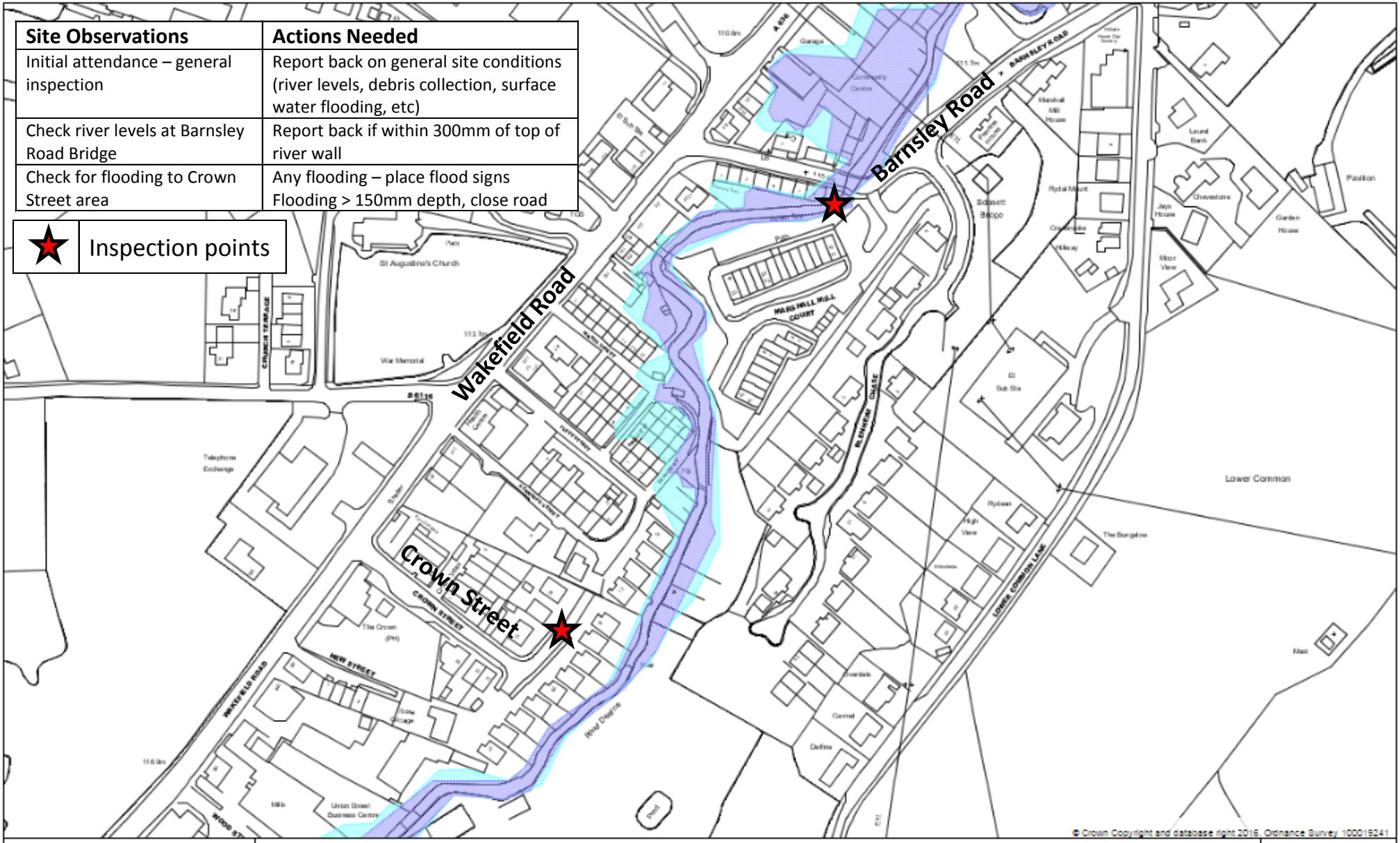
100 m

Scale = 1 : 3700

N W E S

Site Observations	Actions Needed
Initial attendance – general inspection	Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check river levels at Barnsley Road Bridge	Report back if within 300mm of top of river wall
Check for flooding to Crown Street area	Any flooding – place flood signs Flooding > 150mm depth, close road

★ Inspection points

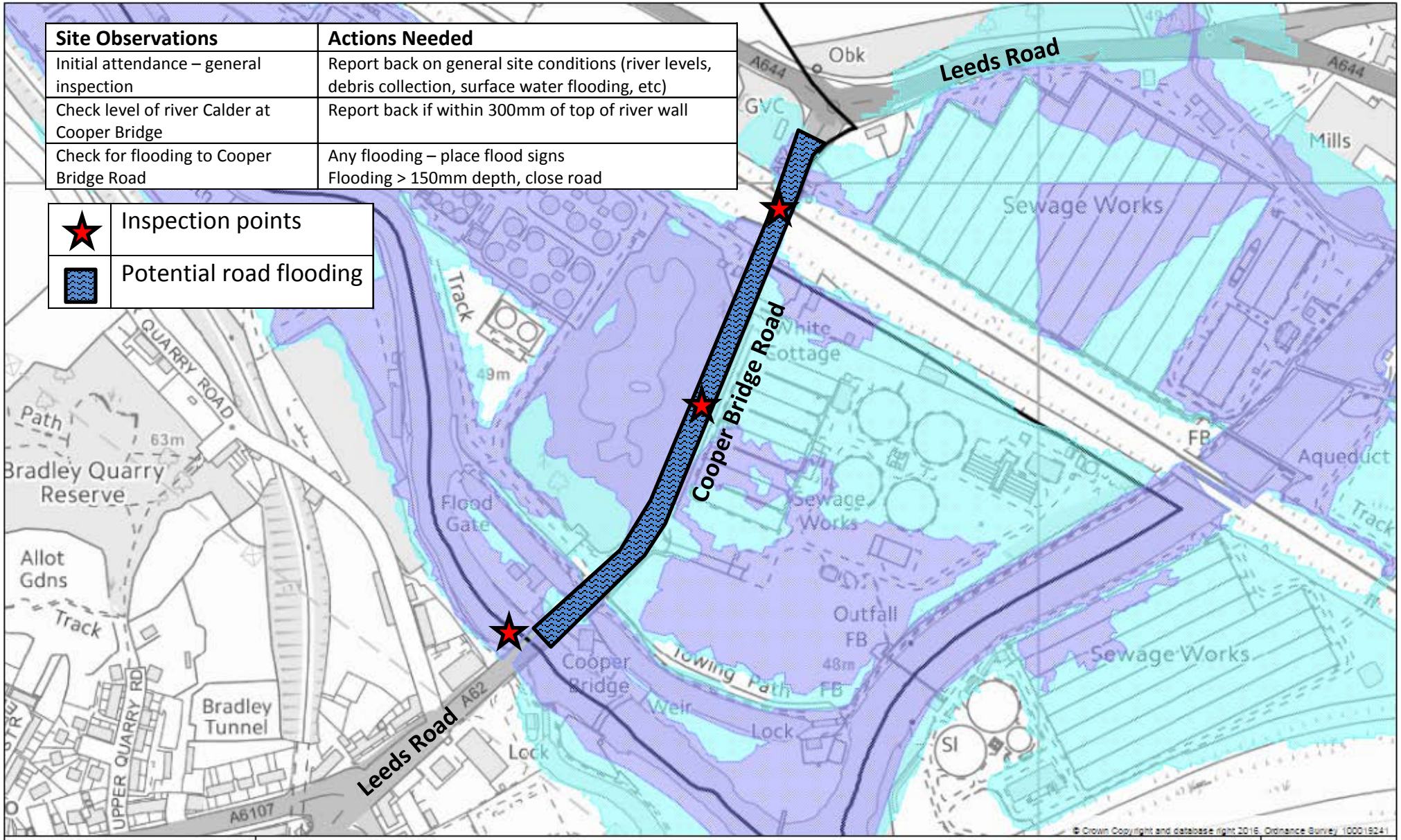


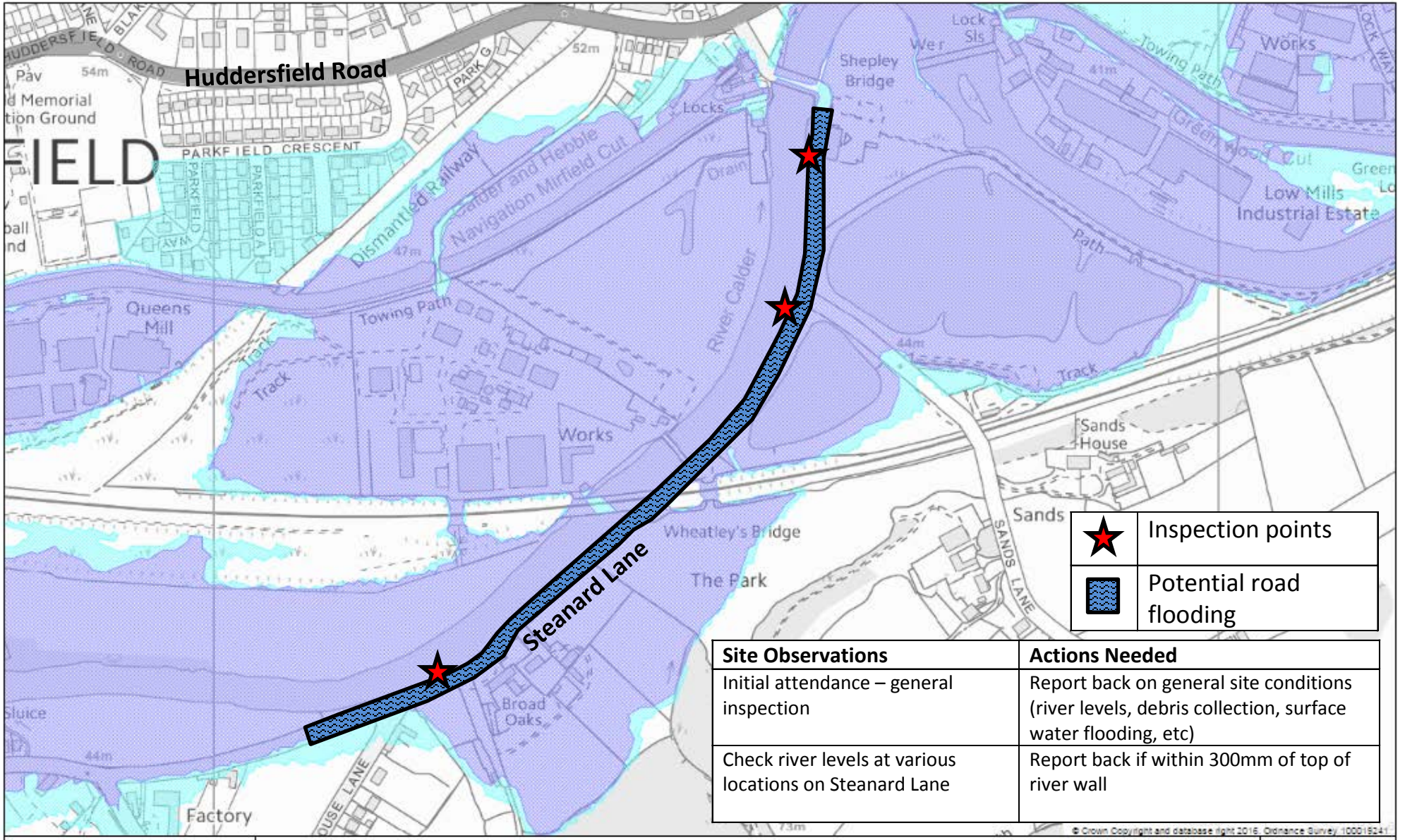
Kirklees Council

Tel: 01484 221757 (Internal 860 1757) E-Mail: maps@kirklees.gov.uk

Spotter 11

Barnsley Road, Scissett


Site Observations
Actions Needed
Initial attendance – general inspection
Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check level of river Calder at Cooper Bridge
Report back if within 300mm of top of river wall
Check for flooding to Cooper Bridge Road
Any flooding – place flood signs
Flooding > 150mm depth, close road
Inspection points
Potential road flooding
Leeds Road
Cooper Bridge Road
Obk
A644
GVC
Mills
Sewage Works
Track
49m
White Cottage
QUARRY ROAD
Path
63m
Bradley Quarry Reserve
Flood Gate
FB
Aqueduct
Allot Gdns
Track
Outfall
Towing Path
48m
Cooper Bridge
Weir
Lock
SI
UPPER QUARRY RD
Bradley Tunnel
A62
A6107
© Crown Copyright and database right 2016. Ordnance Survey 100019241
Kirklees COUNCIL
Tel: 01484 221757 (Internal 860 1757) E-Mail: maps@kirklees.gov.uk
Spotter 12
Cooper Bridge, Huddersfield
100 m
Scale = 1 : 4000
N
W
E
S


Huddersfield Road
Steanard Lane
Inspection points
Potential road flooding
Site Observations
Actions Needed
Initial attendance – general inspection
Report back on general site conditions (river levels, debris collection, surface water flooding, etc)
Check river levels at various locations on Steanard Lane
Report back if within 300mm of top of river wall
Kirklees Council
Spotter 13
Steanard Lane. Mirfield
100 m
Scale = 1 : 5000
N
W
E
S

Appendix C - Communication Plan

	Flooding Communication Channel Planner		
Proactive	**Audience**	**Channel**	**Contact Type**
	At risk Properties (Fluvial / River) 12,000 properties	"You are at risk of flooding" Direct Mailshot to affected properties.	Direct Mail - Push/Online
	Riparian Ownership (properties near water) QTY TBC	Riparian Owners Leaflet - Direct Mailshot to properties.	Direct Mail - Push/Online
	At risk Properties (Surface water) 15,000 properties	TBC	TBC
	At risk businesses	TBC	
	Our own awareness campaigns	TBC	
	Promoting Environment Agency campaigns	Social Media	
Reactive L1	Precautionary Measures - (e.g. clear trash grills, make staff aware of potential weather, etc.)		
	Audience	**Channel**	**Contact Type**
	Kirklees residents, businesses and travellers	Social media - show the ongoing work to clear / prepare messages	push
Reactive L2	Monitor and minor actions (e.g. spotter monitoring situation, minor roads flooded, minor roads closed, communication messages, etc.)		
	Audience	**Channel**	**Contact Type**
	Kirklees residents, businesses and travellers	Social media - show the ongoing work to clear / prepare messages	push
	Kirklees residents, businesses and travellers	E-newsletter with updates and warnings	
Reactive L3	Activation – significant actions (e.g. major roads flooded and closed, possible diversion routes, potential properties flooding, deploy additional staff, etc.)		
	Audience	**Channel**	**Contact Type**
	Kirklees residents, businesses and travellers	Website front page warnings and disruptions page	Pull
	Kirklees residents, businesses and travellers	E-newsletter with updates and warnings	Push
	Kirklees residents, businesses and travellers	Local Press	Push