Malton, Norton and Old Malton Pumping Plan

Background

This plan sets out the key locations where pumps were deployed in December 2012 in Old Malton, Malton and Norton, both in a standby capacity in the first instance and escalations as subsequent triggers were reached. This pumping plan provides a record of activities which proved useful in the events of 2012.
The aim is that it is available to be used as guidance for pumping activities in future events. Also included are factors/triggers which should be taken into account when considering pump deployment.

It is important that the plan remains flexible, subject to review and updating following future events. It must also remain consistent with the operational response of the individual agencies concerned. The plan does not represent a commitment to supplying resource nor does it devolve any of the agencies of any additional commitment or responsibility.

2012 Floods Pump Locations

During the 2012 floods, a number of strategic points were identified for the positioning of temporary pumps to augment the existing main river defences. These activities had a significant positive effect on flood levels, including those resulting from surface water and ground water flows. The pump locations are shown in Maps 1 – 4 and the activities described in the accompanying tables.

Indicative triggers for activating the pumping plan in future events

Based upon historic data, and using input form the relevant Risk Management Authorities and local residents, multi-agency discussions are initiated at a trigger Level of 3.3m on the River Derwent (at Mill Beck) OR a 20m level from the borehole monitoring at Broughton. This initially takes the form of a multi- agency teleconference, to assess the risk of flooding to the Malton, Norton and Old Malton areas and appropriateness of instigating all or part of the plan.

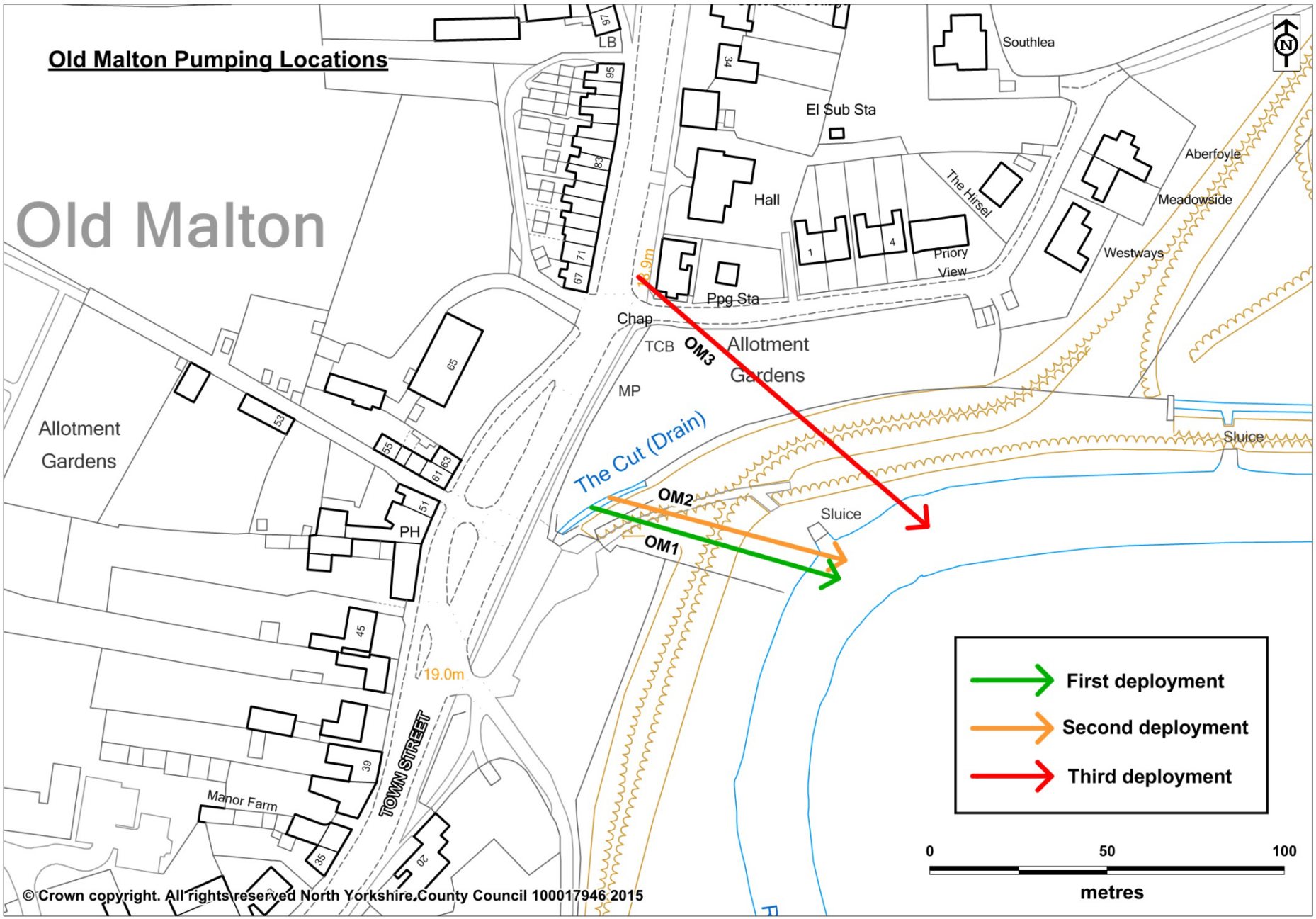
Other factors which may be considered in this discussion may include -

1. Whether the Derwent is still rising – time to peak / size of peak as far as it is possible to approximate from upstream gaging
2. Assessment of weather forecast of rainfall both locally in Malton and in the wider catchment
3. Recent weather conditions – as a guide to the degree of saturation in the catchment
4. Current and forecast demand for pumping resource across the region – combined across all agencies

Trigger Levels: Deploying pumps

Following on from the 2012 floods and the lessons learnt, a number of triggers of when to deploy pumps in future floods have been identified. A colour code system has been created to identify when pumps should be deployed. The green pumps on the maps are those which should be consider to be deployed first to respond to flooding. If the situation deteriorates or the current pumps are not having an effect on water levels then the amber pumps, and if necessary red pumps, should also be considered. These locations can be seen in the maps attached in conjunction with the tables below (Maps 1 – 4).

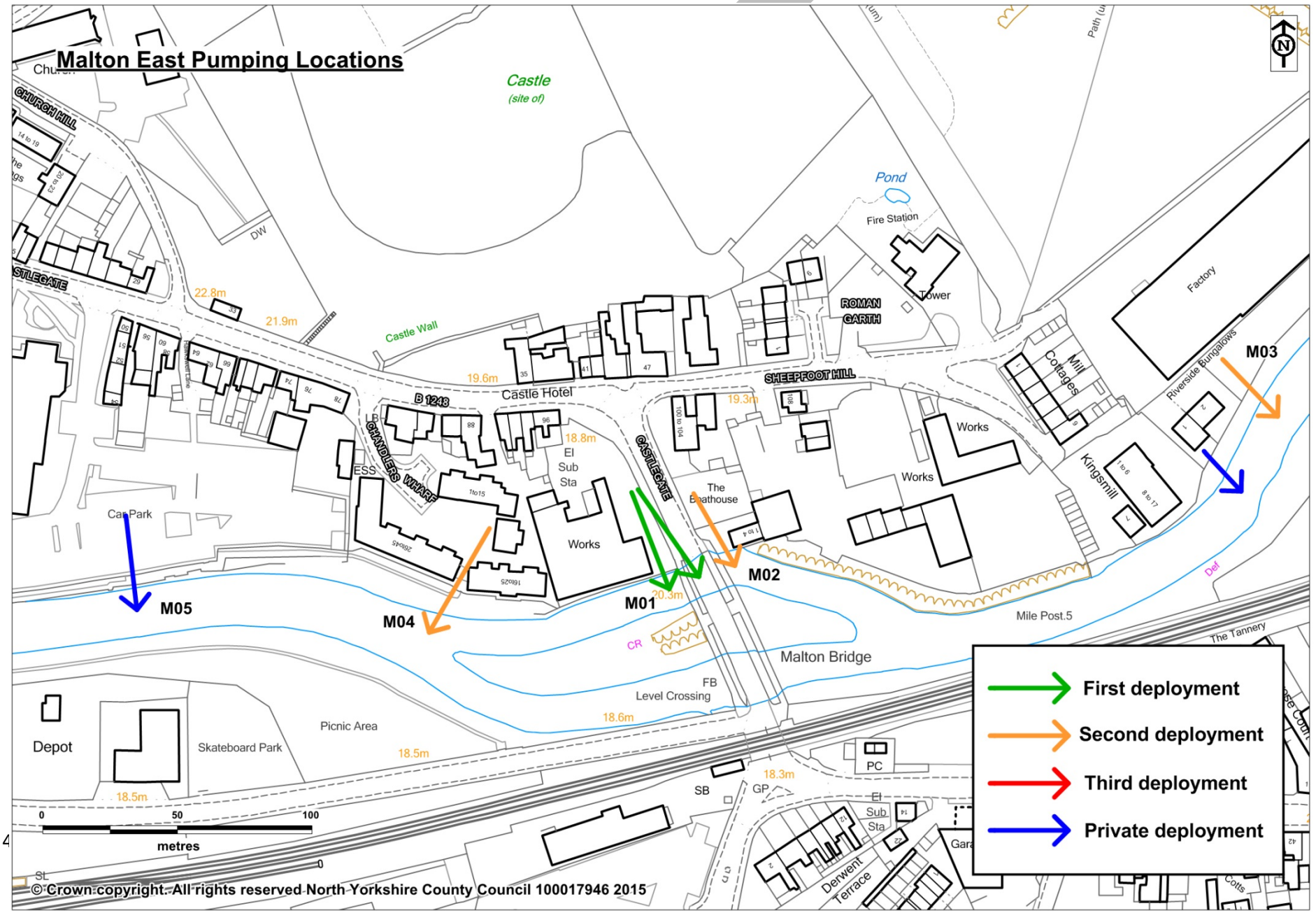
Map 1 – Old Malton Pumping Locations used in 2012 Incident Response



Pumping Activities from 2012 Incident Response – Old Malton

Pump Number	Organisation that supplied/managed pump	Details of Response	Was road Closure Required?	Trigger for pump deployment		Points of Consideration / Lessons Learnt
				Observations	River Level	
OM1	EA	**Position of Intake** From the Cut (Drain) **Position of Discharge/outfall** Over main flood bank into river	No	The Cut in Old Malton became bank full		If OM1, 2 and 3 are deployed early enough, as they were in 2012, it is unlikely that additional pumps will be needed.
OM2	EA	**Position of Intake** From the Cut (Drain) **Position of Discharge/outfall** Over main flood bank into river	No	The Cut in Old Malton became bank full		See OM1
OM3	NYCC Highways	**Position of Intake** Main hole near junction of Lascelles Lane and the B1257 **Position of Discharge/outfall** Over main flood bank into river	Yes – Lascelles Lane	Increasing water levels on the B1257		See OM1

Map 2 – Malton East / Castlegate Pumping Locations used in 2012 Incident Response

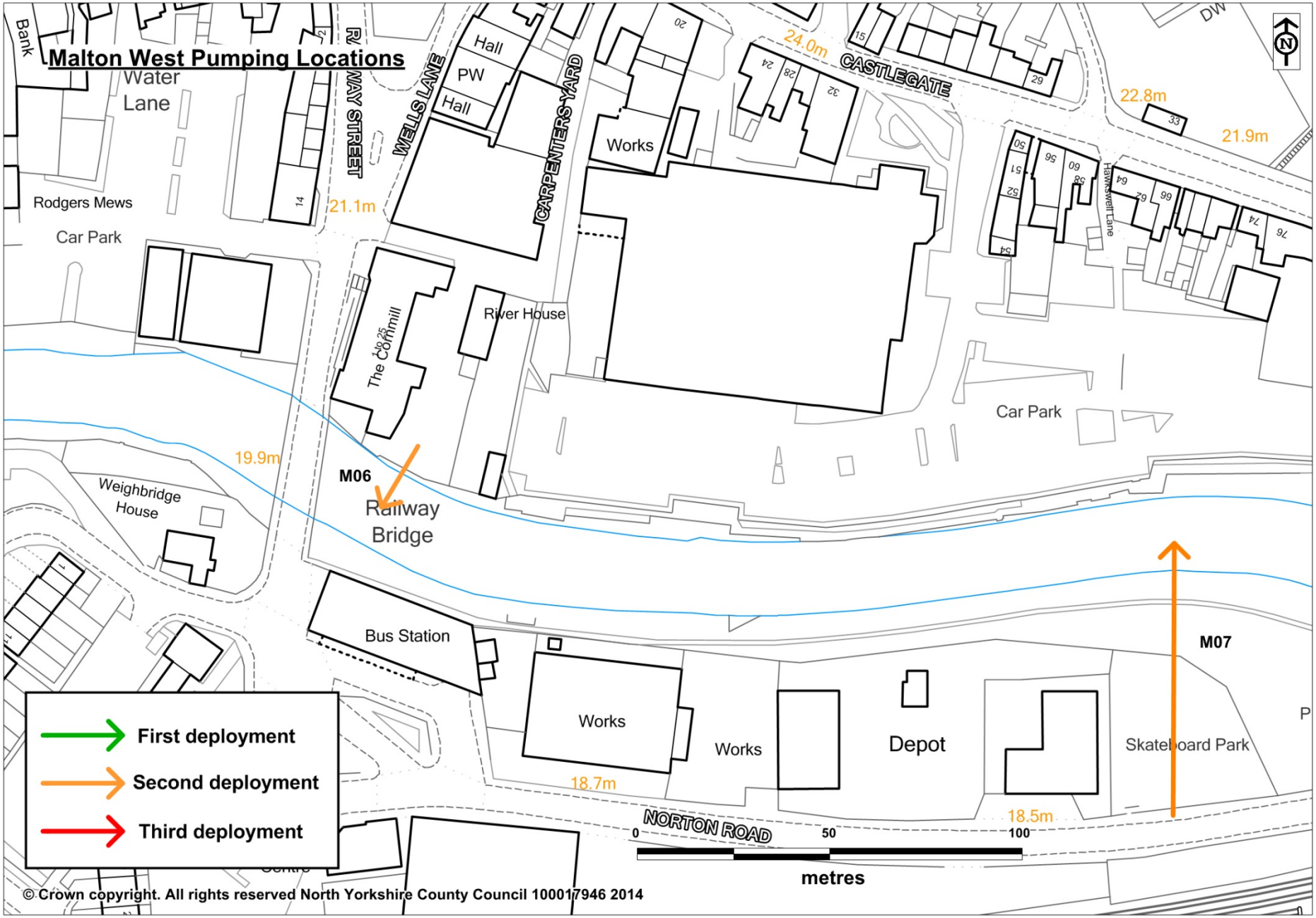


Pumping Activities from 2012 Incident Response – Malton East / Castlegate

Pump Number	Organisation that supplied/managed pump	Details of Response	Was road Closure Required?	Trigger for pump deployment		Points of Consideration / Lessons Learnt
				Observation	River Level	
MO1	YWS	**Size -** 2 x 12 inch **Position of Intake** Taylor's Yard **Position of Discharge/outfall** Discharge to river over flood wall	No – but bridge closed anyway	Drain levels		
MO2	RDC	**Size -** 1 X 6 inch **Position of Intake** The Boathouse Yard **Position of Discharge/outfall** Over main flood bank into river	No – but bridge closed as part of main river defence	Drain levels		**NOTES –** This is the lowest point and forms a Natural sump for the collection of ground water flow.
M03	1 x RDC 1 x privately owned	**Size –** RDC – 8" 2" private pump **Position of Intake** manhole **Position of Discharge/outfall** Over main flood bank into river	No – but bridge closed as part of main river defence			
M04	RDC	**Size –**3" **Position of Intake** From arch to river under flats **Position of Discharge/outfall** Over main flood bank into	No – but bridge closed as part of main river defence			Vulnerable population = Old people's flats - hence was critical one to keep clear. Mainly ground water – some seepage in 2012

		river				
M05	Morrison's	**Size -**	No			Private pump

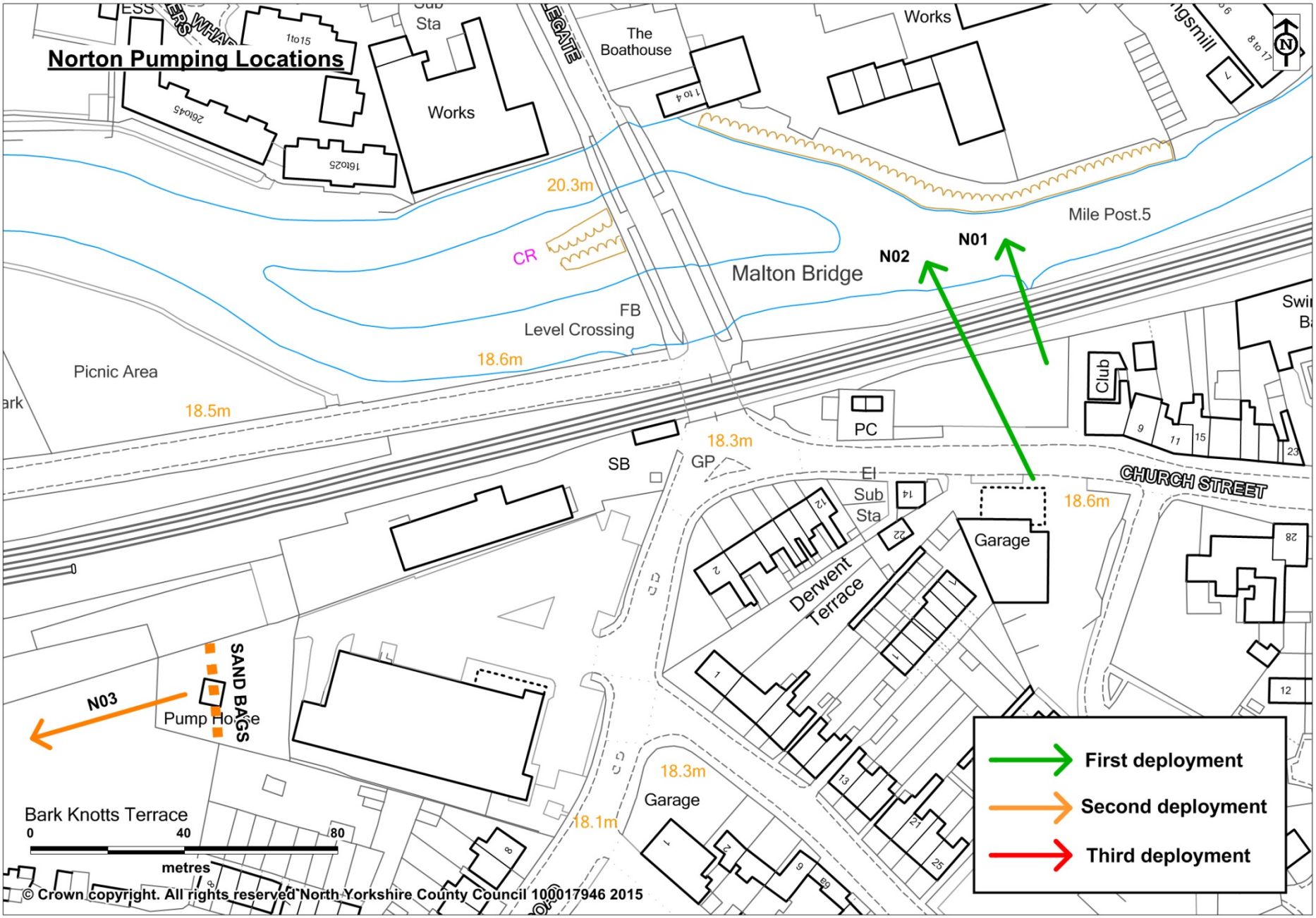
Map 3 – Malton West Pumping Locations used in 2012 Incident Response



Pumping Activities from 2012 Incident Response – Malton West

Pump Number	Organisation that supplied/managed pump	Details of Response	Was road Closure Required?	Trigger for pump deployment		Points of Consideration / Lessons Learnt
				Observation	River Level	
MO6	NYF&R x2	**Size -**1000 Lpm and 2500 Lpm **Position of Intake** Behind Cornmill flats **Position of Discharge/outfall** Over main flood bank into river	No			Pumping required due to basement flats flooding. Some floodwall leakage – repaired post event
MO7	NYF&R	**Size -**2500 Lpm **Position of Intake** Road next to Skateboard Park **Position of Discharge/outfall** Over main flood bank into river	No			Was needed to address overflowing surface water system and some floodwall leakage – repaired post event

Map 4 – Norton Pumping Locations used in 2012 Incident Response



Pumping Activities from 2012 Incident Response – Norton

Pump Number	Organisation that supplied/managed pump	Details of Response	Was road Closure Required?	Trigger for pump deployment		Points of Consideration / Lessons Learnt
				Observation	River Level	
N01	YW	**Size -** **Position of Intake** Land opposite the garage **Position of Discharge/outfall** Over flood bank to river	No But rail traffic impacted	gardens in St Nicolas Street start flooding		**Trigger** – Result of inspections by the YWS duty operator. **NOTES** - Drainage system overtopped first at this location and affected a number of properties.
N02	YW	**Size –** **Position of Intake** Chamber in the hand car wash **Position of Discharge/outfall** Over flood bank to river	Yes And rail traffic impacted	gardens in St Nicolas Street start flooding		See NO1
N03	EA	**Size –** **Position of Intake** From YW pumping station into the field to the left **Position of Discharge/outfall** Over flood bank to river	No	Lidl loading bay starts to flood		Sand Bag wall was put in to protect pumping station to rear of Lidl carpark (see map) and any trapped water pumped out