

Harrogate Congestion Study

Engagement Group

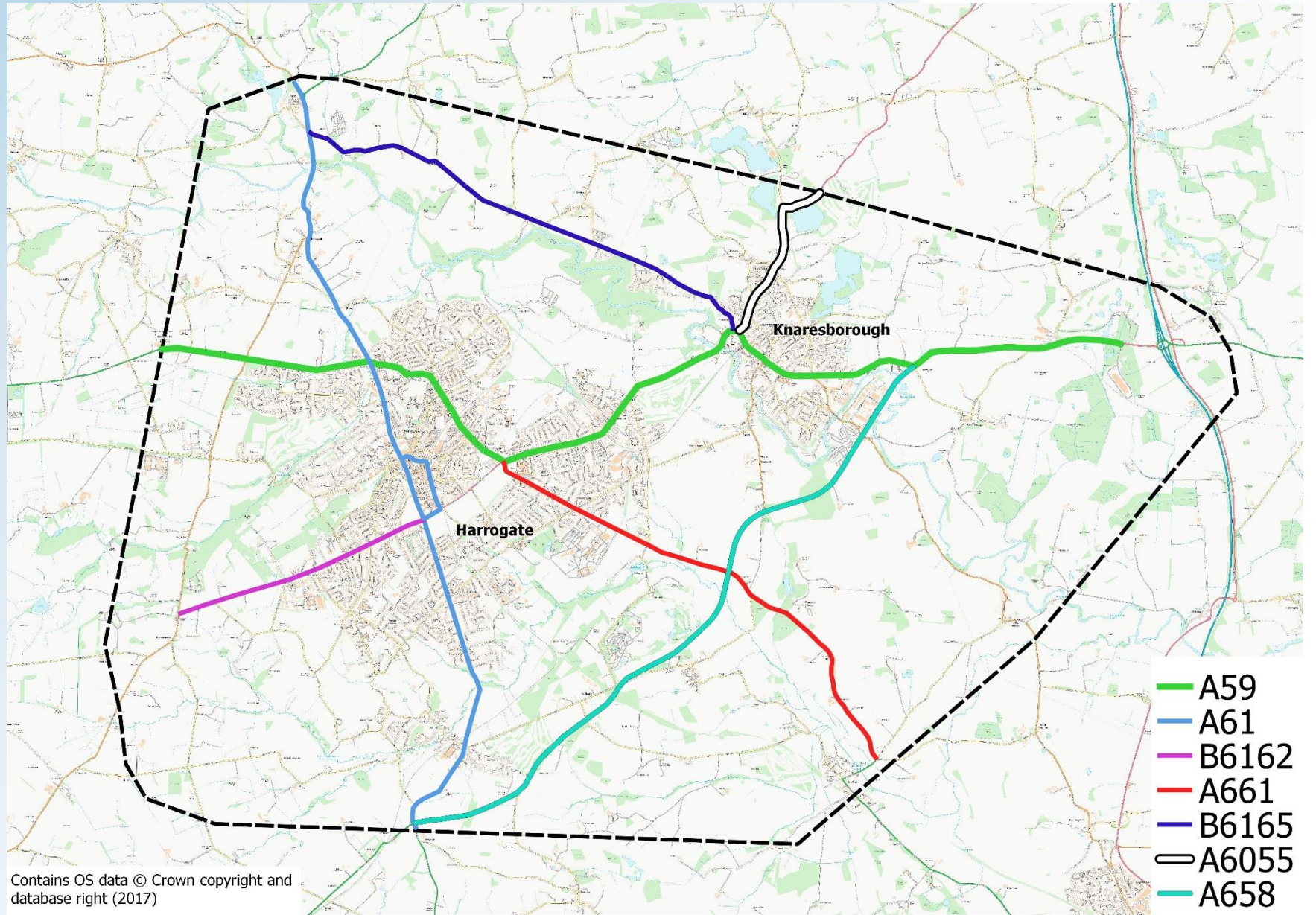
5th June 2018

Background:

Study Overview

- Stage 1 study undertaken in 2017 with Options Assessment Report (OAR) published in November / December.
- This included:
 - Thorough evidence review, to understand the current and future situation, based upon the perception of traffic congestion in the vicinity of Harrogate and Knaresborough.
 - Determining the need for intervention.
 - Setting of Strategic and Specific objectives.
 - Identification of potential schemes / measures to address this issue.
 - High level appraisal of interventions to reduce Long List to Short List.
 - Formation of Packages, which included interventions considered to be complementary to each other.
 - Detailed (EAST) appraisal of Packages and subsequent prioritisation.

Background: Study Area



Background:

Key findings and need for intervention

- **Cross boundary commuting is high** due to mismatch in prevalence of low value jobs and a well-educated and qualified resident population.
- Aspiration to grow Harrogate's economy, particularly in relation to higher value sectors; local transport network consistently identified as a **barrier to achieving inward investment and realising this growth**.
- Key routes through the study area (A59, A61 and A661) carry very **high volumes** of traffic, **for the standard of road**.
- **Journey times** are up to **145% higher in the peak** hour compared to the Interpeak, with average **speeds** that reduce to **9km/hr** on some roads in the busiest periods.
- The majority (**over 90%**) of trips are either purely **internal or have an origin or destination in the main urban areas** – through traffic is a very minor issue (7% of traffic). Approx. half of all traffic, in both the AM and PM peak periods, is made up of trips that are wholly within the Harrogate/Knaresborough urban area (**avg. length 2.5km**).
- High traffic flows and existing congestion are contributing to **Air Quality issues** on key routes with AQMA's being either declared or considered in the sites of most concentrated congestion.
- Local Plan growth = almost **5,700 additional trips** in each peak hour **by 2035**. Majority of junctions forecast to operate with significant delays and increases in journey times of up to 26%.
- Without intervention, within the study area, the A59 will remain a constraint on the entire route, limiting the benefits of improvements in other locations and its potential as a strategic east-west corridor.

Background:

Strategic Objectives

Strategic Level Objectives

S01 - Support the Sustainable Growth of Harrogate and Knaresborough in line with National, Regional and Local Policies and Plans

S02 - Improve the Quality of Life for Local Communities

S03 - Support Sustainable Economic Growth

S04 - Protect and enhance the built and natural environment

S05 - Improve East-West Connectivity

Background:

Specific Objectives

SPD	Specific Objective (SO):	Primary Contribution to SOs					Secondary Contribution to SOs				
		S01	S02	S03	S04	S05	S01	S02	S03	S04	S05
SPD-01	Reduce congestion and delay and improve journey time reliability on routes through the study area	Yellow		Purple		Red		Blue		Green	
SPD-02	Improve network resilience and efficiency					Red	Yellow		Purple		
SPD-03	Reduce the number of HGVs in the town centres of Harrogate and Knaresborough		Blue		Green	Red			Purple		
SPD-04	Reduce the number of road user casualties		Blue								
SPD-05	Improve the safety of Non-Motorised Users (pedestrians, cyclists and equestrians)		Blue								
SPD-06	Increase modal shift to more sustainable modes of transport	Yellow	Blue	Purple						Green	
SPD-07	Increase levels of walking and cycling for utility purposes (non-sport or leisure)	Yellow	Blue	Purple						Green	
SPD-08	Reduce levels of pedestrian severance in and around the centres of Harrogate and Knaresborough		Blue				Yellow		Purple		
SPD-09	Contribute to improvements in air quality	Yellow	Blue		Green						
SPD-10	Contribute to local environmental targets	Yellow	Blue		Green						
SPD-11	Contribute to a reduction in greenhouse gas emissions				Green		Yellow	Blue	Purple		
SPD-12	Contribute to climate resilience	Yellow			Green						
SPD-13	Contribute to a reduced dependency on fossil fuels				Green		Yellow				
SPD-14	Reduce noise and vibration in residential areas and the town centres	Yellow	Blue		Green						
SPD-15	Reduce the impact of traffic upon the unique characteristics of the urban centres of Harrogate and Knaresborough	Yellow	Blue		Green						
SPD-16	Contribute to the improved health of local residents		Blue				Yellow				
SPD-17	Support an increase in the proportion of high value jobs in the study area			Purple			Yellow	Blue			
SPD-18	Maximise sustainable access to new development sites	Yellow		Purple							
SPD-19	Support targeted growth in the visitor economy			Purple			Yellow				
SPD-20	Improve the connectivity and accessibility of Leeds Bradford Airport from Harrogate and Knaresborough			Purple				Blue			

Background:

Previous Stakeholder engagement

- During Stage 1 extensive engagement undertaken between May and July 2017 including:
 - *1 to 1 meetings*
 - *Questionnaire*
- The key issues and / or themes identified by stakeholders (and incorporated into our Stage 1 work), were:
 - *Impact of school travel;*
 - *Levels of public transport*
 - *Traffic signal operation and coordination;*
 - *Car parking (cost and availability);*
 - *Economy (focused too much on low value sectors);*
 - *Environment (unique setting, air quality);*
 - *Provision of sustainable transport; and*
 - *Poor visitor experience*
- Stakeholders also offered ideas for improvement options which have been included in the OAR

Background:

Option generation and sifting

Long List

- Identified from a range of sources:
 - Review of historical schemes
 - Review of existing policies and strategies
 - Review of existing studies and proposals
 - Consideration of issues and opportunities identified in the evidence review
 - Stakeholder consultation
 - Internal study team workshop
- 38 interventions identified in the following categories:
 - Information
 - Demand Management
 - Highways
 - Parking
 - Public Transport
 - Cycling
 - Walking

Background:

Option generation and sifting

Short Listing

Determined by Initial Sift which considered:

- Contribution to Specific Objectives
- Deliverability
- Dependence upon other interventions
- Indicative cost
- Timescales

15 interventions removed from the process at this point

Background:

Option generation and sifting

Packaging

Packages of Interventions considered to be the most appropriate solution to the complex nature of the traffic issues in Harrogate and Knaresborough

Packaging based upon:

- Potential impact on mode choice and behaviour
- Spatial category (for particular types of movement or in specific locations)
- Fit and contribution to metrics including economy, environment, feasibility and risk

5 Packages formed to be taken forward to EAST appraisal:

- **Package A:** Demand Management Package
- **Package B:** Demand Management and Behaviour Change Package
- **Package C:** Relief Road Only Package
- **Package D:** Relief Road and Highway Operational Improvement Measures Package
- **Package E:** Relief Road, Highway Operational Improvement Measures plus Sustainable Travel and Urban Realm Improvement Package

Background:

Option generation and sifting

Package Prioritisation

Detailed appraisal using DfT EAST – based upon Five Case Model:

- Strategic Case
- Economic Case
- Financial Case
- Commercial Case
- Management Case

Greatest level of benefit:

- **Package B:** Demand Management and Behaviour Change Package
- **Package E:** Relief Road, Highway Operational Improvement Measures plus Sustainable Travel and Urban Realm Improvement Package

Reasonable benefit:

- **Package A:** Demand Management Package

Lowest level of benefit:

- **Package C:** Relief Road Only Package
- **Package D:** Relief Road and Highway Operational Improvement Measures Package

Packaging Recommendation

Package B:

Demand management and behavioural changes

- A1 Variable Message Signs
- A2 Real Time Passenger Information
- A3 Area wide signage strategy
- A4 Publicity campaigns for sustainable transport
- A5 Improved digital provision
- A6 Personalised journey planning
- B1 Extend pedestrianisation of Harrogate central core
- B2 Congestion charge / low emission zone
- B4 Area wide travel planning
- B7 HGV ban / loading restrictions
- B8 20mph speed limits / zones
- B9 Car sharing
- B10 Car clubs (electric vehicles)
- B11 Work with schools to ameliorate the impact of school run
- C3 Network optimisation
- C4 Area wide signal strategy review
- D1 Area wide car parking strategy
- E1 Bus / rail interchange development and public realm improvements
- E4 Sustainable transport options for new developments
- E11 Improved access to rail stations
- F1 Cycling infrastructure Plan
- G1 Area wide public realm strategy

Packaging Recommendation

Package E:

Relief Road, highway operational improvement measures, sustainable transport interventions and urban realm improvements

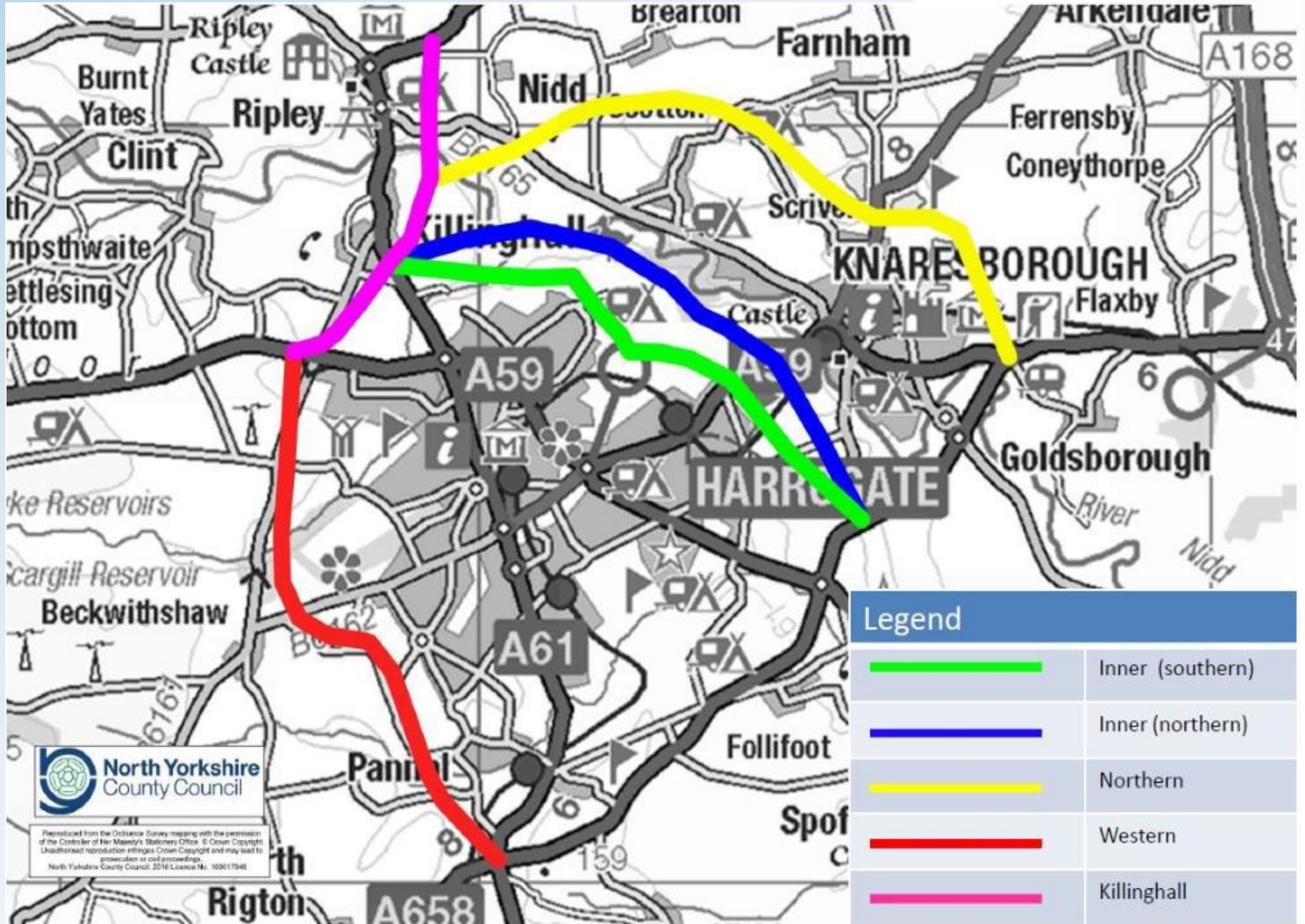
- A1 Variable Message Signs stations
- A2 Real Time Passenger Information
- A3 Area wide signage strategy
- B1 Extend pedestrianisation of Harrogate central core
- B7 HGV ban / loading restrictions
- B8 20mph speed limits / zones
- C1 Relief Road
- D1 Area wide car parking strategy
- E1 Bus / rail interchange development and public realm improvements
- E11 Improved access to rail
- F1 Cycling infrastructure Plan
- G1 Area wide public realm strategy

Packaging Recommendation Relief Road option

In order to assess the packages that contain a relief road option, a generic relief road corridor had to be put forward.

5 options modelled using the Harrogate Knaresborough Strategic Model.

Inner southern and inner northern (including Killinghall tie-in) offer the greatest traffic relief.



Scope of Further Work:

Why?

- Recommendation from Area Committee and decision of NYCC Executive Committee to delay public consultation, subject to further option development of the two highest scoring Packages (B&E).
- To identify potential specific locations and resulting impacts of the non-relief road interventions
- To provide a comparative BCR for both packages

Methodology

- Review of Long List, Short List & Package Formation
- Further development of non-relief road Interventions
- Appraisal and determination of benefits for each Package
 - Active Mode Appraisal
 - Further relief road modelling
- Addendum to the OAR

Scope of Further Work:

Programme

Task	Timescales
Further option Development: <ul style="list-style-type: none"> Review long list Review and agree shortlist Review and challenge of initial appraisal outcomes Finalise Short List and Package Components 	April / May 2018
Develop Individual Components	June / July 2018
Produce Package Plans <ul style="list-style-type: none"> High level schematic / visual plan Interdependencies and related benefits Alignment with strategy and policy aspirations Indicative programme High level Package costs and consideration of funding sources Quantitative Risk Assessment Engagement meeting no. 2 	
Develop Appraisal Specification	
Package Appraisal <ul style="list-style-type: none"> Active Mode Appraisal Further Relief Road modelling Engagement meeting no. 3 	July – September 2018
Produce Package BCRs	September 2018
OAR Addendum	October 2018

Questions and discussion