This is an Open Report

Report to:	**Economy, Environment, Culture and Housing Scrutiny Committee**
Date:	**25 January 2012**
Subject:	**Strategic Transport Route Assessment Plan (STRAP) Annual Performance Report**
Report of:	**Corporate Director (Places)**
Contact officer:	**Mark Tilley 01942 489108** **Mike Worden 01942 489104**
Cabinet Portfolio Holder:	**Councillor K Anderson** **Councillor David Molyneux**

Purpose / summary:	The purpose of this report is to provide the Scrutiny Committee with the opportunity to review and comment on the content of the Annual Performance Report associated with the Strategic Transport Route Assessment Plan (STRAP). The report provides details of proposals which have been implemented in 2011. The results of Tranche 3 average journey time rates are detailed (May to July 2011). These results help determine the effectiveness of the interventions implemented. In conjunction with the emerging Transport Strategy for the Borough, new interventions have been identified through further investigations with timescales for implementation as detailed.
Alternative options considered and reason for selecting the one recommended:	The alternative option is not to undertake STRAP for Wigan, but the attached report makes clear the reasons why this should be done and the benefits it brings to the Wigan Community by identifying and tackling the causes of traffic congestion to improve journey time reliability.
Recommendation:	It is recommended that the Scrutiny Committee: • Supports the contents of the Annual Performance Report detailing the progress to date for the STRAP.

- Acknowledges the evidence of the effectiveness of the interventions implemented.

- Notes that the amber and yellow coloured interventions identified in Appendix F in route priority order throughout 2012, funded through the Traffic Revenue Works Programme, Local Transport Plan's Highways Capital Programme and Developer contributions will be delivered.

- Acknowledges the further development of the STRAP, in conjunction with the emerging Transport Strategy for the Borough, including the deployment of Tranche 5 and 6, which will be undertaken in 2012.

Risks / Implications:

Financial:	Within existing budgets
Staffing:	Within existing resources
Policy:	Network Management Plan
Equal Opportunities - Has a Diversity Impact Assessment been conducted?	A diversity impact assessment is not necessary at this stage. However, equality and diversity implications have been considered when producing this report
Wards affected:	All

Has the Head of Service – Legal and Risk (Monitoring Officer) confirmed that the recommendations within this report are lawful and comply with the Council's Constitution?	**Yes**
Has the Director - Corporate Services confirmed that any expenditure referred to within this report is consistent with the Council's budget?	**Yes**
Are any of the recommendations within this report contrary to the Policy Framework of the Council?	**No**

Tracking/Process:

	Consultation	Ward Members	Partners
Committee	Overview & Scrutiny	Cabinet	Council
	Economy, Environment, Culture and Housing Scrutiny Committee 25/1/12		

There are no Background Papers to this Report within the meaning of Section 100D of the Local Government Act 1972.

Proper Officer Gillian Bishop

Date 10th January 2012

1.0 Background

1.1 The first Strategic Transport Route Assessment Plan (STRAP) Annual Performance Report was presented to the Economy Environment Culture and Housing (EECH) Scrutiny Committee on 19 January 2011. It provided an overview of the work undertaken in terms of assessments completed, interventions identified, interventions implemented and the future intervention work programme for 2011. This report provides details on the progress to date following the first full year of implementing the STRAP.

1.2 For the purpose of the STRAP, the strategic route network was defined as:

- All routes with the 24 hour Annual Average Weekday Traffic (AAWT) flows of 10,000 vehicles or greater.

1.3 Given the route selection criteria, identified 31 routes were identified which met this criteria (refer to Appendix A, Location Plan of Strategic Route Assessments).

1.4 Tranche 1 of the 31 route assessments were all undertaken during the period 4 May 2010 to 15 July 2010. Journey time rates were calculated for each route by recording journey times during the assessment period on a singular day.

1.5 During the period September to November 2010, all 31 routes were re-assessed as part of Tranche 2, providing additional data to compare seasonal variations in journey times across the Borough. This allowed us to identify:-

- emerging consistent congestion hotspots, despite seasonal variations; and
- priority areas for further investigation and investment.

Journey time rates were again calculated for each route by recording journey times during the assessment period on a singular day.

1.6 Tranche 2 was undertaken throughout the Autumn when historically traffic flows are higher, the weather is poorer, and it is darker during the afternoons. Consequently, it was accepted that Tranche 2 average journey times would be typically slower, than when the Spring/Summer Tranche 1 was undertaken.

2.0 Trafficmaster Data for Tranche 1 and 2

2.1 Since last year's report, we have investigated and obtained more accurate journey time rate data. Transport for Greater Manchester (TfGM) have supplied Trafficmaster data for the 31 identified routes which provides journey time rates for thousands of vehicular trips along each of the routes. This presents far more accurate data than the singular day journey time rates given in last year's report. It also provides details of average vehicle speeds in miles per hour.

2.2 Trafficmaster journey time data is collected from in-vehicle Global Positioning System (GPS) devices. The GPS location reports generated by these devices are mapped to a version of the Ordnance Surveys Integrated Transport Network (ITN). From these mapped GPS reports, it is possible to derive an average speed and journey time rate for each of the routes.

2.3 The average journey time rates (minutes per mile) for each of the routes has been calculated, using Trafficmaster data (refer to Appendix B, Tranche 1 Trafficmaster data and Appendix C, Tranche 2 Trafficmaster data).

3.0 Trafficmaster Data for Tranche 3

3.1 TfGM have supplied Trafficmaster data for Tranche 3 which provides details of average journey times rates and average speeds (refer to Appendix D, Tranche 3 data). The data is from the period 4 May 2011 to 15 July 2011.

3.2 This data has been used as a direct comparison to Tranche 1 data which is from the same time period in 2010. This comparison has helped determine the effectiveness of interventions implemented and provided evidence for areas requiring further investigation and investment.

3.3 Appendix E provides details of the overall average journey time rates for Tranche 3 compared to Tranche 1. Details of the interventions implemented and roadworks on each of the routes which would have influenced the results, is provided. In summary:

- 13 of the routes were faster by greater than 5 seconds, 11 were the same or within a tolerance of plus/minus 5 seconds and 7 were slower by more than 5 seconds in Tranche 3.
- The overall improvement in average journey time rates across the improved routes in Tranche 3 is 3 minutes and 9 seconds.
- The overall increase in average journey time rates across the slower routes in Tranche 3 is 1 minute 36 seconds.
- The overall improvement across all 31 routes is 1 minute 33 seconds.
- The largest improvement was on Route 6 A577 Wigan to Hindley. This was the most congested route in Tranche 1 and 3 and the average journey rate has improved by 35 seconds from 4 minutes 48 seconds in Tranche 1 to 4 minutes 13 seconds in Tranche 3.
- The second largest improvement was on Route 17 A58 Liverpool Road/Market Street from Platt Bridge to the Borough boundary. This was the 4th most congested route in Tranche 1 and the average journey rate has improved by 27 seconds from 4 minutes 4 seconds in Tranche 1 to 3 minutes 37 seconds in Tranche 3.

4.0 Evidence of Effectiveness of Interventions Implemented

4.1 As detailed in last year's report, the results of Tranche 1 and 2 indicated that the most congested route in the Borough is Route 6 A577 from Wigan to Hindley. The A577 Wigan Road/A58 Liverpool Road, *"Bird junction",* in Hindley Town Centre was our top priority to investigate and implement engineering solutions to help relieve congestion in 2011.

4.2 The proposed intervention at this junction involved reducing the footway on Wigan Road and Liverpool Road to enable a short right turn lane to be provided on Wigan Road on the approach to the junction. The traffic island on Wigan Road at the junction with Cross Street was reduced in size to enable a right turn lane to be provided on Wigan Road on approach to this junction.

4.3 This intervention was implemented along Route 6 by 19 June 2011, which was half-way through Tranche 3. As detailed in 3.2 above, the largest improvement in average journey time rates from Tranche 1 to 3 was on Route 6. This intervention helps reduce congestion for vehicles travelling in an eastbound direction. In Tranche 1 the time taken to travel the 2.3 miles from Wigan to Hindley, in the pm peak, was 15 minutes and 42 seconds compared to 11 minutes and 24 seconds in Tranche 3, an improvement of 4 minutes and 18 seconds. This data provides evidence of the positive effectiveness of this intervention.

4.4 The second largest improvement in average journey time rates was on Route 17 A58 Liverpool Road/Market Street from Platt Bridge to the Borough boundary with Bolton. The footway on Liverpool Road at the junction with Wigan Road was reduced which enables more vehicles to travel though this section. This intervention helps reduce congestion for vehicles travelling in an eastbound direction. In Tranche 1 the time taken to travel the 2.5 miles along the A58, in the pm peak, was 11 minutes and 17 seconds compared to 9 minutes and 34 seconds in Tranche 3, an improvement of 1 minute and 43 seconds. This data provides evidence of the positive effectiveness of this intervention.

4.5 The majority of the interventions have been implemented after Trance 3 (after 15 July 2011). Therefore, their effectiveness can only be assessed when we receive the results of Tranche 4 in the coming months. The Tranche 4 data will enable a direct comparison with Tranche 2.

5.0 Priority Ranked Interventions 2012

5.1 In order to produce a priority ranking of the routes for interventions, the routes were ranked from 1 (representing the slowest route) though to 31 (representing the fastest route). The Priority Ranked Interventions spreadsheet has been updated and is in Appendix F.

5.2 A total list of 104 interventions have been identified to help improve journey times on these key corridors. For the interventions implemented, the date it was implemented and the actual cost of the intervention is detailed in the spreadsheet (Appendix F). The priority ranked interventions in Appendix F are coloured coded as follows:

- There have been 47 interventions implemented which are coloured green.
- The amber interventions (11) are ones we committed to implement in 2011 but for the reasons given they have not yet been implemented. The timescales for implementation are detailed.
- There have been 12 interventions which have been abandoned for the various reasons identified following further investigation, which are shown in red.
- There have been 6 new interventions identified through further on site recordings. These interventions along with 4 of the medium term interventions identified last year will be implemented in 2012 and are shown in yellow.
- There are 12 interventions which form part of our medium to long term plans for tackling congestion.
- There are 12 interventions linked with the Transport Strategy.

6.0 Interventions for 2012 considering 2016 modelling data from Local Development Framework

6.1 In January 2011, Wigan Council commissioned the Greater Manchester Transportation Unit (GMTU) and Greater Manchester Passenger Transport Executive (GMPTE), now Transport for Greater Manchester (TfGM) to undertake transport modelling to inform the development of its Local Development Framework (LDF), upcoming Core Strategy Examination in Public and provide supportive evidence for the emerging Transport Strategy for the Borough.

6.2 Both the LDF and Transport Strategy periods are 2011-2026, but given prevailing economic uncertainties, Wigan Council (in agreement with the Highways Agency) specified that the modelling work should look initially at the period up to 2016.

6.3 A primary aim of the modelling work was to identify the highway impacts, but also to identify locational influences on mode split from the LDF development sites across the Borough, with the anticipated development on the designated Key Strategic Site, LDF Broad Locations and adopted UDP sites (namely: Parsonage, Northleigh, Bickershaw, Pemberton Colliery, South of Wigan and East Lancashire Road Corridor Housing), alongside committed transport schemes.

6.4 Examination of the results showed a step-change in network performance from the 2009 baseline to the 2016 baseline (without the LDF development sites being added). The anticipated growth in traffic over this five-year period is expected to increase total travel time by all vehicles on the road network by between 19 and 23%, and total travel distance by between 12 and 15%.

6.5 The modelling results also showed that a number of junctions operate over-capacity in the 2009 base year and that there would be a modest increase in the number of junctions affected by increased congestion by 2016. Overall, the growth in background traffic to 2016 is likely to have a greater impact on junction performance than the additional traffic generated by the LDF development sites. Nevertheless, the traffic generated to have a modest detrimental impact on a number of junctions, include:

- Leigh Road/Atherton Road signalised junction, Atherleigh Way/ Twist Lane roundabout (evening peak hour) and A573 Warrington Road junctions with Bickershaw Lane and A58 Lily Lane.

- B5207 Golborne Road / Slag Lane junction (morning peak hour).

- A580 East Lancashire Road particularly at its junction with Chaddock Lane.

- There is also degradation in performance at the East Lancashire Road junction with the A577 Mosley Common Road; and

- A49 Warrington Road/Worthington Way junction, which is forecast to experience some increase in delay in both peak hours, in addition to Warrington Road/B5238 Poolstock Lane roundabout and Warrington Road/Little Lane.

6.6 The traffic modelling charts reporting Appendix G capture the areas worst affected by congestion in 2016 with thicker lines:

- Chart 1 – 2016 – Junctions approaching or over capacity in the AM Peak Hour
- Chart 2 - 2016 – Junctions approaching or over capacity in the PM Peak Hour
- Chart 3 - Development traffic percentage – AM peak-hour
- Chart 4 - Development traffic percentage – AM peak-hour

6.7 These areas have been fed into the STRAP_Priority Ranked Interventions spreadsheet, with some additional corridors requiring attention to help off-set future congestion hotspots with any potential schemes being developed in these areas. These are highlighted in pale blue in the table in Appendix F.

7.0 Development of STRAP in Conjunction with the Transport Strategy

7.1 Through the research, evidence reviews and consultation undertaken to support the development of the Borough's Transport Strategy, it is clear and apparent that congestion will not disappear. Urban traffic congestion tends to maintain itself in equilibrium, based on personal thresholds linked to the value of time and convenience.

7.2 STRAP is about aiding network flow by intervening in key hotspots, mainly junctions. However, we need to get more cars off the road network and that involves a significant modal shift and new approaches to transport options. The quality of travel alternatives has a significant effect on reducing congestion. If alternatives are inferior, few motorists will shift mode. If travel alternatives are attractive (relative to the congestion thresholds of driving), motorists are more likely to shift modes. We also need to adjust our transport planning over time to think less about physical movements and more about people's ability to reach services and destinations.

7.3 The actual number of motorists who shift from driving to sustainable alternatives may be relatively small (just a few percent of the total), but this can be enough to reduce road congestion delays and can be aided by the promotion of sustainable travel solutions.

7.4 Whilst the detail of the transport strategy is still in development, there are key schemes and issues that are confirmed and need incorporating into the STRAP for future consideration and reflection. These are highlighted in the table in Appendix F in blue, and include schemes that are development led, resulting in more integrated transport planning and consider transport demand management solutions from the outset.

8.0 Recommendations

8.1 It is recommended that the Scrutiny Committee:

- Supports the contents of the Annual Performance Report detailing the progress to date for the STRAP.

- Acknowledges the evidence of the effectiveness of the interventions implemented.

- Notes that the amber and yellow coloured interventions identified in Appendix F in route priority order throughout 2012, funded through the Traffic Revenue Works Programme, Local Transport Plan's Highways Capital Programme and Developer contributions will be delivered.

- Acknowledges the further development of the STRAP, in conjunction with the emerging Transport Strategy for the Borough, including the deployment of Tranche 5 and 6, which will be undertaken in 2012.