Section 11 Performance Management: Targets and Trajectories

Overview to Targets and Trajectories

Local authorities are required to set robust targets and trajectories for the delivery of the LTP and it is against these that the success of the Plan will be judged.

In selecting indicators and targets, Southend has focused on monitoring the delivery of the Shared Priorities (corresponding to Southend's local objectives for Tackling Congestion, Delivering Accessibility, Providing Safer Roads, and Achieving Better Air Quality) and delivery of the Asset Management Plan (corresponding to Southend's local objective, Improving the Highway).

Specific targets and indicators have not been identified for monitoring Southend's other local objectives (relating to Quality of Life, Regeneration, Achieving an Efficient Transport System, and Raising Community Awareness), although many of the Shared Priority targets and indicators will be used as proxy measures for monitoring delivery of these objectives.

Selected indicators include:

- best value performance indicators specified by DfT;
- other mandatory indicators specified by DfT;
- indicators from LTP1 which are still considered relevant in terms of monitoring the on-going delivery of the strategy;
- new indicators which monitor new aspects of the strategy.

Selection of indicators has been based on the Cause-Effect diagrams included in Chapters 6 to 9, which illustrate the process through which the strategy is expected to achieve the Shared Priority outcomes. This output – process – outcome relationship is reflected in the following hierarchy of targets:

- Key outcome indicator targets – targets which directly measure the achievement of the shared priorities;
- Intermediate outcome indicator targets – targets which represent proxy measures or milestones towards key outcome targets (including mandatory indicators for bus user satisfaction, mode share, cycling, etc.); and
- Contributory output indicator targets – targets for those indicators which measure the delivery of schemes, policies or initiatives which are felt to contribute towards the achievement of outcome targets.

Targets have been identified to monitor each element of the LTP delivery programme. The relationship between LTP2 targets and scheme/strategy elements is shown in **Table 11.1**.

Table 11.1: Relationship between Targets and Strategy Elements

LTP2 Targets	Traffic Management	Environmental Rooms and Distributors (incl 20 mph zones and traffic calming)	Route Hierarchy (Traffic & Freight Signage)	Asset Management	Smarter Choices and Travel Planning	Parking	Intelligent Transport Systems	Passenger Transport	Walking and Cycling	Community and Road Safety	Safer Journeys to School	Accessibility
Tackling Congestion												
TC1. Average vehicle delay	✔		✔		(✔)		✔	(✔)	(✔)			
TC2. Vehicle occupancy					✔							
TC3. Area wide veh-kms	✔				✔	(✔)	(✔)	✔	✔		✔	
TC4. AM peak period traffic flow					✔	✔	(✔)	✔	✔		✔	
TC5. Bus patronage					✔			✔				
TC6. Rail patronage					✔			✔				
TC7. Cycling trips		✔							✔			
TC8. Mode share of travel to school		(✔)			✔			✔	✔		✔	
TC9. % trips to town centre by bus					✔			✔				
TC10. Satisfaction with local bus services								✔				
TC11. Bus punctuality	✔						✔	✔				
TC12. Satisfaction with public transport information							✔	✔				
TC13. School travel plans					✔						✔	
TC14. Workplace travel plans					✔							

✔ = Direct Link (✔) = Indirect Link

Table 11.1: Relationship between Targets and Strategy Elements

LTP2 Targets	Traffic Management	Environmental Rooms and Distributors (incl 20 mph zones and traffic calming)	Route Hierarchy (Traffic & Freight Signage)	Asset Management	Smarter Choices and Travel Planning	Parking	Intelligent Transport Systems	Passenger Transport	Walking and Cycling	Community and Road Safety	Safer Journeys to School	Accessibility
Delivering Accessibility												
AC1. Proportion of Southend's population aged 16-19 living within 30 minutes by public transport of the 4 main post 16 education centres.								✔				✔
Safer Roads												
SR1. Number killed and seriously injured	(✔)	✔			(✔)					✔	✔	
SR2. Children killed and seriously injured	(✔)	✔			(✔)					✔	✔	
SR3. Slight injuries	(✔)	✔			(✔)					✔	✔	
Air Quality												
Levels of PM10	✔	✔	(✔)									
Levels of NO2	✔	✔	(✔)									
Asset Management												
AM1. Condition of Principal Road				✔								
AM2. Condition of Non-Principal Roads				✔								
AM3. Condition of Unclassified Roads				✔								
AM4. Condition of Footways				✔								
AM5. Bridge condition.				✔								

✔ = Direct Link (✔) = Indirect Link

Regional Indicators

As yet, there are no finally agreed regional targets. All Local Authorities in the region have agreed that they will therefore delay introducing regionally based targets into their Local Transport Plans until there is greater certainty about which performance indicators will finally be adopted and the stretch of the related targets.

Target Setting

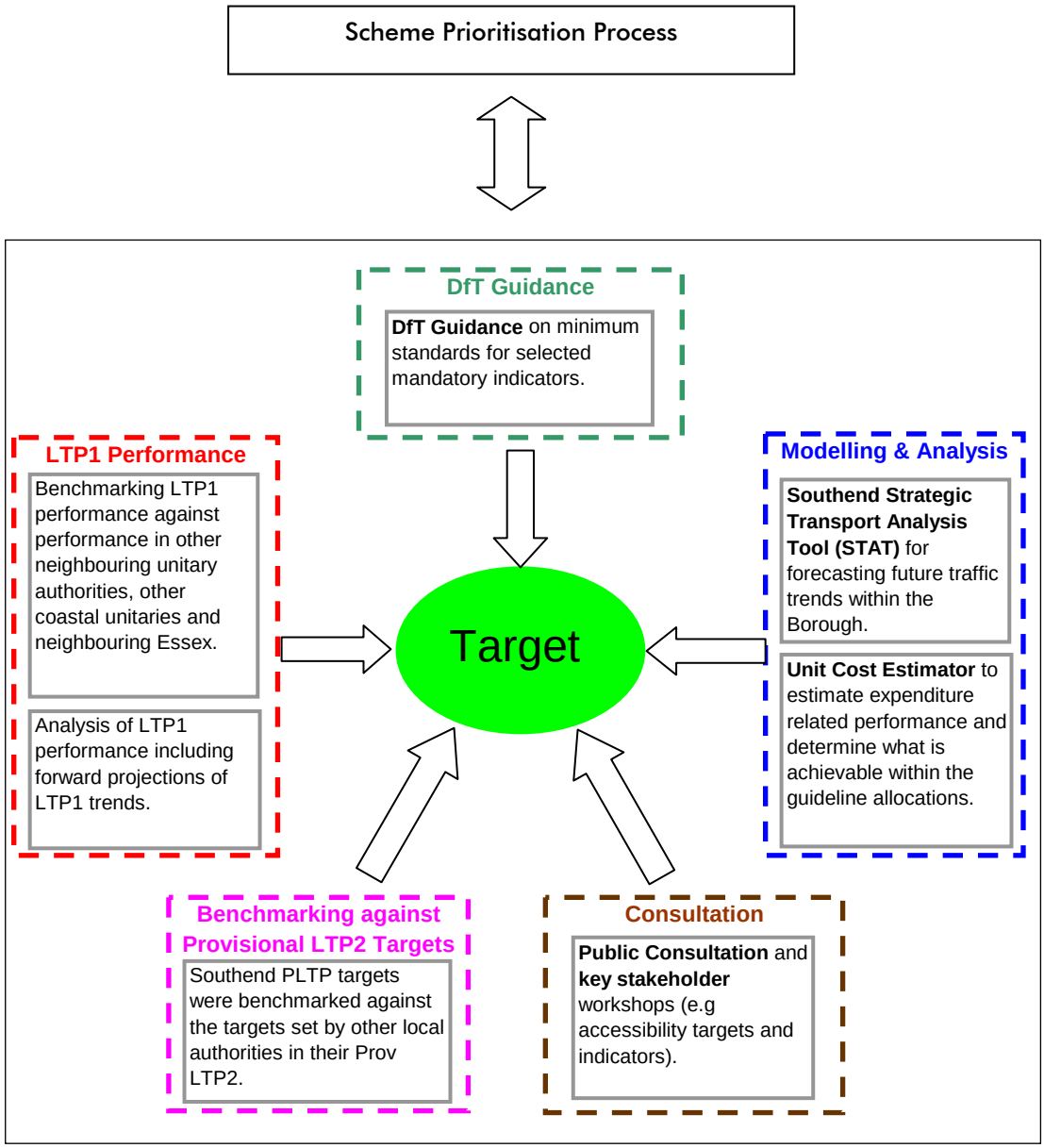
Targets have been set to be challenging, but also realistic. They have been identified using a variety of approaches, with the different methodologies being used to challenge, verify and refine the targets (**Figure 11.1**).

Southend Strategic Analysis Tool

Six of the targets have been informed by modelling results from Southend's Strategic Transport Analysis Tool (STAT) (see Appendix C):

- Congestion (average vehicle delay) – TC1;
- Growth in vehicle kilometres – TC3;
- Change in AM peak period traffic flow into Southend Town Centre – TC4;
- Bus patronage – TC5;
- Mode share of trips to the town centre by bus – TC9;
- Total killed and seriously injured – SR1.

Figure 11.1 – Identifying and Developing Robust Targets for Southend



Southend's Unit Cost Estimator

This uses unit costs (e.g. cost per 1% progress towards target, or per casualty saving) from LTP1, to estimate the expected progress in LTP2, based on an identified level of expenditure. The approach has been used to ensure that future outcomes estimated using the above approaches are realistic, given the funding available.

Future progress is estimated using the following steps:

- the cause-effect diagrams included in Sections 6 to 9, have been used to identify the areas of expenditure which impacted on performance in LTP1 for a specific target. Total expenditure (disaggregated by LTP capital, non-LTP capital, and revenue) between 2001/2 and 2004/5 has then been calculated.

e.g. £10.51m was spent on road safety schemes during this time period (consisting of £7.99m LTP capital expenditure on accident reduction, Safer Routes to School and traffic calming schemes; £2.52m Non-LTP expenditure on school crossing patrols, education, training and publicity, a Government Bursary for School Travel Plan Officers and private contributions to safety).

- monitoring output data from LTP1, shows progress made between 2001/02 and 2004/05, and allows the unit cost of progress to be estimated.

e.g. the average number of killed or seriously injured casualties (KSIs) decreased by 21 between 2001-05 from 1994-98, giving a unit cost of £0.5m per accident saving (£10.51m ÷ 21).

- application of the unit cost estimate to LTP2 levels of funding to estimate the expected outcome in 2010/11.

e.g. planned LTP2 expenditure on road safety related measures is £8.13m, based on guideline funding levels (consisting of £6.57m of LTP Capital and £1.56m from non-LTP funds). Applying the unit cost of £0.5m per KSI saving suggests that KSI levels will reduce by 16 in LTP2 (£8.13m ÷ £0.5m per KSI reduction), or by 19 when pro-rataed against the 2001-2004 baseline.

This approach is not felt to provide a robust target, when used in isolation (as it fails to take into account other local circumstances), however, has proved useful in verifying and refining the LTP2 targets.

It has been used to inform the following targets, where LTP1 data was available:

- % increase in cycling trips (Target TC7);
- % of trips to town centre made by bus (Target TC9);
- % of users satisfied with local bus services (Target TC10);
- Total number of people killed or seriously injured (Target SR1); and
- Number of children killed or seriously injured (Target SR2).

Benchmarking

Benchmarking has been used to inform Southend's targets in two ways.

Firstly, current performance has been benchmarked against that of similar unitary authorities. This has helped identify strengths and weaknesses in our current performance, and the scale of improvement which might be realistic. For example, current levels of bus use in Southend (annual journeys per head of population) are already higher than in neighbouring authorities, and this may limit the scope for further patronage growth.

Secondly, Southend's final LTP2 targets have been compared against those set by other local authorities in their Provisional LTP2s (the most recent targets at the time of printing), and reviewed where necessary. Comparisons have been undertaken using the LTP2 target benchmarking spreadsheets produced by Atkins on behalf of the Local Transport Planning Network.

This process identified the need to re-examine targets relating to peak period traffic flow, bus punctuality and bus patronage. Further evidence was collected and more realistic targets have subsequently been produced. Further details are provided in Appendix C1.

Scheme Prioritisation

Southend's targets have been developed to be achievable within the level of funding allocated to each strategy element in Section 10. Schemes have been prioritised in accordance with their contribution to the Southend's LTP objectives, and in turn, their contribution to the LTP targets.

Detailed Analysis

A detailed description of the methodology used to quantify each target is included in Appendices. This also describes

- actions required by Southend Borough Council and other stakeholders and partners to ensure delivery of the targets;
- identification of specific schemes identified as high priorities within the Scheme Prioritisation process which ensure delivery of the target;
- the principal risks associated with target delivery; and,
- monitoring arrangements.

Performance Management and Target Review

Section 10 outlines Southend's approach to Programme and Project Management, which will ensure the successful delivery of 'target based' projects needed to deliver the LTP2 targets outlined in this chapter.
This includes:

- fortnightly meetings between Project Managers and the Project Management Group to monitor and review delivery of schemes. Meetings are increasingly focusing on scheme impacts and delivery of LTP targets;
- monthly Partnership Management Group meetings, to review resources and overall programme delivery. This provides an opportunity to re-focus the programme throughout the year to ensure schemes and targets are delivered;
- quarterly meetings with the Partnership Board to ensure that progress on programme and target delivery is recognised at a corporate level, and that senior officers and members are aware of the resources needed to deliver the LTP.

In addition, the Traffic Management and the Transport, Information, Planning and Road Safety Teams are being restructured into (i) a Network Management Group, tasked with day-to-day network management issues in accordance with the Traffic Management Act, and (ii) a Transport Policy Group which will focus on setting policy, delivering capital schemes. This will allow the Council to focus more clearly on the delivery of LTP targets.

Performance against the identified targets will continue to be reviewed as part of the Annual / Biennial Progress Report process and, where appropriate, targets will be stretched in response to better than expected performance.

During LTP1, Southend produced an Annual Data Monitoring Report, which presents detailed results and analysis of data relating to;

- Automatic and Manual Traffic Monitoring;
- Cycle and Pedestrian Monitoring;
- the Town Centre CCTV questionnaire survey;
- 'Before' and 'After' surveys undertaken in Environmental Rooms.

This provides a detailed picture of transport trends in Southend, the impact of LTP schemes, and helps inform LTP policy. The Annual Data Monitoring Report will continue to be produced throughout LTP2.

In addition, data relating to bus patronage and road accidents is collected on a six-monthly or quarterly basis, in order to assess mid-year progress towards LTP targets. A mid-year review of monitoring data will continue to be undertaken during LTP2 and will enable adjustments to be made to the delivery programme throughout the year.

Tackling Congestion

Achieving the aim of reduced congestion will require encouraging drivers to both consider other more sustainable travel options and to make more considered travel choices in order to make better use of the road network.

Targets and indicators which will be used to monitor delivery of the Tackling Congestion shared priority are outlined in **Table 11.2** and **Figure 11.2**.

The key measure of congestion is based on average vehicle delay (seconds lost per vehicle kilometre). This is supported by a range of intermediate outcome targets and indicators which are proxy measures of congestion (e.g. growth in vehicle kilometres and AM peak period traffic flow) or measure milestones towards improved congestion (e.g. % of vehicles with more than 1 occupant; bus, rail and cycle usage; mode share for school trips; % of trips to the town centre by bus; bus punctuality and reliability; and satisfaction with the local bus service and provision of local public transport information).

A number of these targets have been informed by Southend's Strategic Transport Analysis Tool (STAT) (TC1, TC3, TC4, TC5, and TC9) and predict an increase in congestion, veh-kms, and peak period traffic flow into the town centre. This reflects the significant amount of new development and intensification which the Local Development Framework provides for: 5000 additional jobs and 2750 additional houses across the borough between 2001 and 2011. Targets TC7, TC9 and TC10 have been challenged and verified using unit cost estimates. Targets are based on implementation of non-Major Scheme elements of the Local Transport Plan only. The planned dualling of the A1159 between Cuckoo Corner and Priory Crescent (a potential major scheme) has not been reflected in the targets.

Two output targets relating to the number of effective School and Workplace Travel Plans have been set, as these are important elements of the strategy, and rely on effective joint working between the Council, schools and employers.

Finally, four additional indicators have been identified which will monitor changes in travel behaviour in Southend, and will help identify and explain cause-effect relationships (e.g. bus patronage on the A13 Public Transport Corridor, and mode share for trips into the town centre). Targets have not been set for these indicators, as they are sub-elements of other targets. However, monitoring data will be recorded annually in order to help explain progress towards targets. Current and historic data for these indicators is presented in the Appendices.

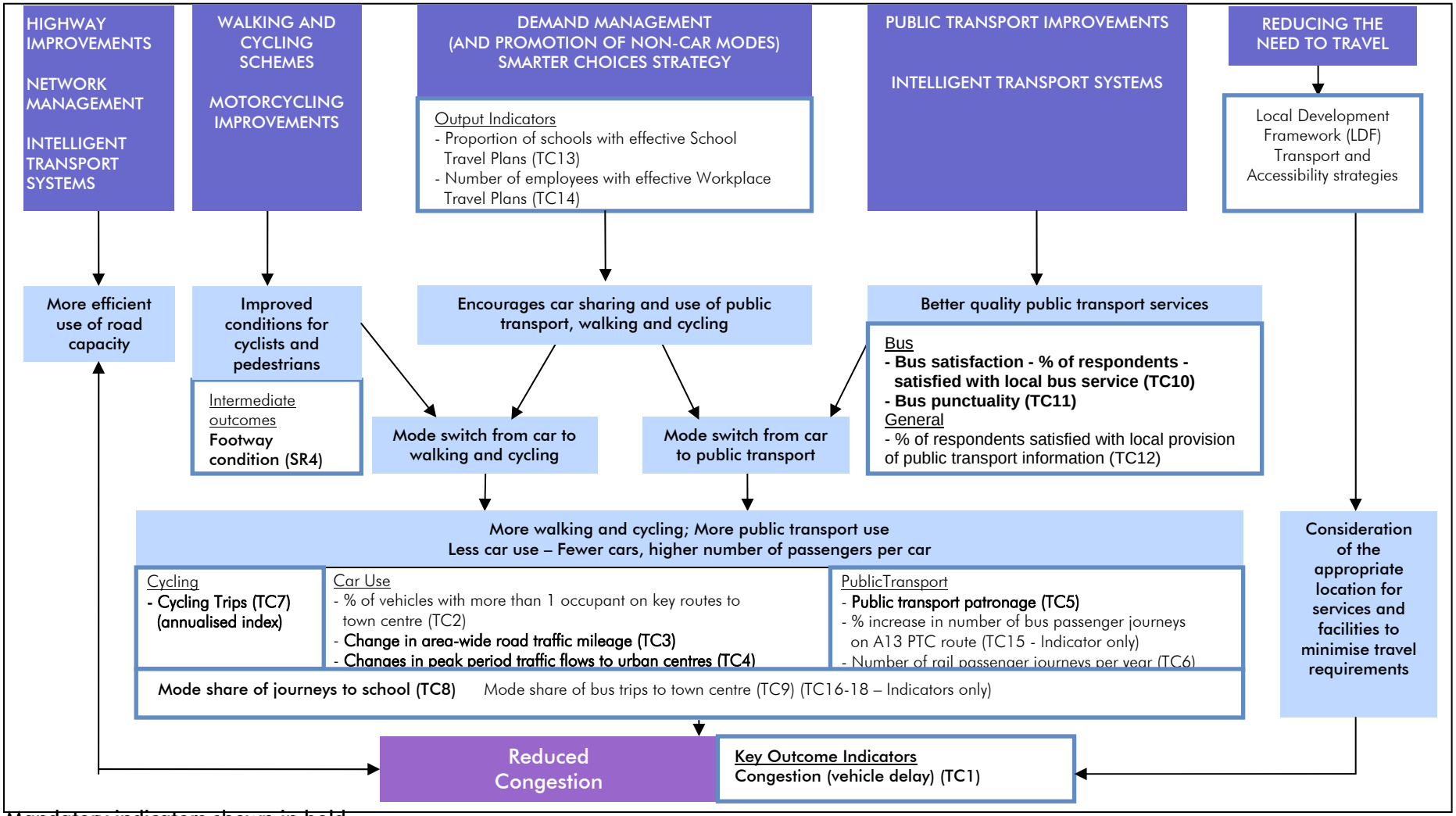
Table 11.2 – Tackling Congestion Targets and Indicators

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	Assessment of target against DfT criteria where applicable
Key Outcomes	TC1: Reduce average vehicle delay (seconds lost per veh-km) on strategic roads (A127, A1159, A13) during a typical AM peak hour, by 9% in 2010/11, compared with a Do Nothing scenario. (2003/04 = 4.4 seconds lost per veh-km; 2010/11 Do Nothing = 12.3 seconds; 2010/11 LTP2 Target = 11.3 seconds)	Mandatory (LTP7)	-
Intermediate Outcomes	TC2: Ensure that by 2010/11, i) 20% of vehicles during the AM peak, ii) 35% of vehicles during the inter-peak, and iii) 30% of vehicles during the PM peak on key routes to the town centre have more than 1 occupant.	Local Target	-
	TC3: Ensure growth in vehicle kilometres on local roads does not exceed 2.1% p.a., or 13% when compared with 2004.	Mandatory (LTP2)	-
	TC4: Ensure that the growth in AM peak period (8-9am) traffic flow into Southend Town Centre does not exceed 12% between 2004/05 and 2010/11.	Mandatory (LTP6)	-
	TC5: Maintain the average number of bus trips undertaken by Southend's residents – corresponding to an increase in annual bus patronage from 8.58 million in 2004/05 to 9.13 million in 2010/11.	BVPI102	-
	TC6: Ensure that by 2010/11 the number of rail passenger journeys exceeds the levels observed in 2003/04, i.e. 6.14 million	Local Target	-
	TC7: Achieve a 5% increase in cycling trips between 2004/05 and 2010/11.	Mandatory (LTP3)	This target exceeds DfT's minimum 'satis-factory' criteria of no reduction in cycling levels.
	TC8: Maintain current mode share for travel to school, i.e. 57% of primary school pupils and 68% of secondary school pupils travelling by non-car modes. (Provisional target awaiting further DfT guidance)	Mandatory in 2006/07 (LTP4)	This target meets DfT's minimum 'satisfactory' criteria of no reduction in the ratio between the total number of pupils and the total number of car journeys to school between baseline and 2010/11.
	TC9: Increase the % of trips to the town centre by bus from 18% in 2003/04 to 20% in 2010/11.	Local Target	-

Table 11.2 – Tackling Congestion Targets and Indicators (cont'd)

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	Assessment of target against DfT criteria where applicable
Intermediate Outcomes	TC10: Increase the % of householders satisfied with local bus services from 54% in 2003/04 to 60% in 2009/10	Mandatory (BVPI104)	This target is more stretching than DfT's minimum 'satisfactory' criteria of maintaining bus satisfaction levels to 2009/10 if the level in 2003/4 is greater than 50%.
	TC11a: x% of all scheduled services depart within a window of 1 minute early and 5 minutes late at the following locations (i) start of route (ii) intermediate turning points (iii) non-riming points TC11b: Average excess waiting time on frequent service routes (Targets to be set in 2006/07 once baseline data is available)	Mandatory (LTP5)	-
	TC12: Increase the % of householders satisfied with the provision of local public transport information from 49% in 2003/04 to 58% in 2009/10.	Local Target (BVPI103)	-
Outputs	TC13: Increase the proportion of schools in Southend with effective School Travel Plans from 75% in 2004/05 to 95% in 2010/11.	Local Target	-
	TC14: Increase the number of employees covered by an effective Workplace Travel Plan, from 20% to 29% (i.e. from 13,000 to 19,000 employees or 10 to 30 work places from 2004/5 to 2010/11).	Local Target	-
Indicators Only	TC15: Number of bus passenger journeys on the A13 Public Transport Corridor	Local Indicator	-
	TC16: % of trips to the town centre by train	Local Indicator	-
	TC17: % of walking trips to the town centre	Local Indicator	-
	TC18: % of cycling trips to the town centre	Local Indicator	-

Figure 11.2: The Role of Targets and Indicators in Monitoring the Delivery of the Tackling Congestion Priority



Mandatory indicators shown in bold

Potential risks associated with delivering the Tackling Congestion targets, and mitigation measures are summarised in **Table 11.3**.

Table 11.3 – Tackling Congestion: Potential Risks and Mitigation Measures

Potential Risks – Tackling Congestion	Mitigating Measures
A continued reduction in the real cost of travel by private car compared with travel on public transport. Nationally, the cost of motoring declined by 6% between 2000 and 2003, compared with a 5% increase in bus and coach fares, and a 1% increase in rail fares (Transport Trends, DfT, 2004).	
Reluctance on the part of the public to change travel behaviour, and lack of commitment from schools and employers to develop and implement effective travel plans.	While Southend is committed to developing effective Travel Plans and undertaking personalised travel planning, many sectors of society are likely to remain resistant to change. However, national campaigns and changes in attitude towards health and exercise may help overcome some of this resistance.
Commercial decisions made by bus and rail operators.	Southend will continue to work with the local bus and rail operators to ensure integration of LTP objectives and the commercial priorities of operators, through Quality Partnership and the Bus Punctuality Improvement Plan.
A significant increase in traffic volumes, related to the planned development in Southend, may make it more difficult to encourage people to cycle on busy roads.	Southend will seek to address these issues through their cycle training and road safety programmes.
Potential Risks – Generic	**Mitigating Measures**
Possible public opposition to schemes affecting development and/or implementation programme. e.g cycling schemes.	Ensure that, where appropriate, schemes are developed in conjunction with suitable public consultation to address actual or perceived concerns.
The effect of funding restrictions or spend profiles allowing adequate development and implementation periods to provide the most appropriate, best value solution.	Critical path for all stages of scheme to be established and milestones identified.
Changes in standards (design, safety, environmental) affecting design and implementation.	Design staff to be fully aware of current standards and best practice. Local design requirements to be identified and agreed between all parties developing schemes.
Underestimation of pre-tender estimate for tendered works, leading to inadequate funding.	Construction estimates to be monitored and validated at all stages.
Conflict and/or incompatibility between schemes developed within the local authority or with schemes from outside bodies e.g developers.	Within the authority, adequate lines of communication to be set up between departments to identify overlapping areas of interest. Proposals from without the authority to be communicated within authority by point of contact.

Delivering Accessibility

Targets and indicators which will be used to monitor the Delivering Accessibility shared priority are outlined in **Table 11.3** and **Figure 11.3**.

A series of local (key outcome) indicators – relating to employment, health, education and safety issues - were identified through the Stage 1 and Stage 2 Workshops with key stakeholders, undertaken as part of the Accessibility Planning process. In consultation with Essex County Council, a shared target has been set for access to Post-16 education as this a core issue in TGSE. It reflects the importance of Southend as a regional hub for education and the strong cross border movements as students travel into Southend from Essex.

Two intermediate outcome targets, primarily identified to monitor other Shared Priorities will also help monitor the Delivering Accessibility shared priority.

- TC12 - % of respondents satisfied with local provision of public transport information – will be used to monitor improvements in Travel Information and Awareness; and,
- SR4 – Footway Condition – will be used to monitor improvements in facilities for pedestrians and cyclists.

Finally, an output indicator in the form of '% of bus fleet complying with DiPTAC levels of accessibility', will be used to monitor improvements in the physical accessibility of the transport environment.

Table 11.4 – Delivering Accessibility Targets and Indicators

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	See Tables 8.1 & 8.2 of Accessibility Strategy
Key Outcome	AC1: To increase from 85% to 95% the proportion of Southend's population aged 16-19 living within 30 minutes by public transport of the 4 main post 16 education centre by 2008.	Local Target	-
Outcome Indicators	AC2: % of Southend's population aged 16 or over living within 30 minutes of the Thorpe Bay & Prospects College Vocational and Skills Training Centre.	Local Indicator	DA1
	AC3: % of Southend's population aged 16 or over living within 30 minutes of SEEVIC site at Benfleet.	Local Indicator	DA2
	AC4: % of employable population living within 30 minutes of the Northern Fringe & Shoeburyness Industrial Estates.	Local Indicator	DA3
	AC5: % of paitients living within 30 minutes of Southend Hospital.	Local Indicator	DA4
	AC6: Number of crime incidents recorded on public transport (i) buses (ii) at rail stations.	Local Indicator	DA5
	AC7: Proportion of people who feel unsafe walking.	Local Indicator	DA6
Output Indicator	AC8: % of bus fleet complying with DiPTAC levels of accessibility.	Local Indicator	DA6

Figure 11.3: The Role of Targets and Indicators in Monitoring the Delivering Accessibility Shared Priority

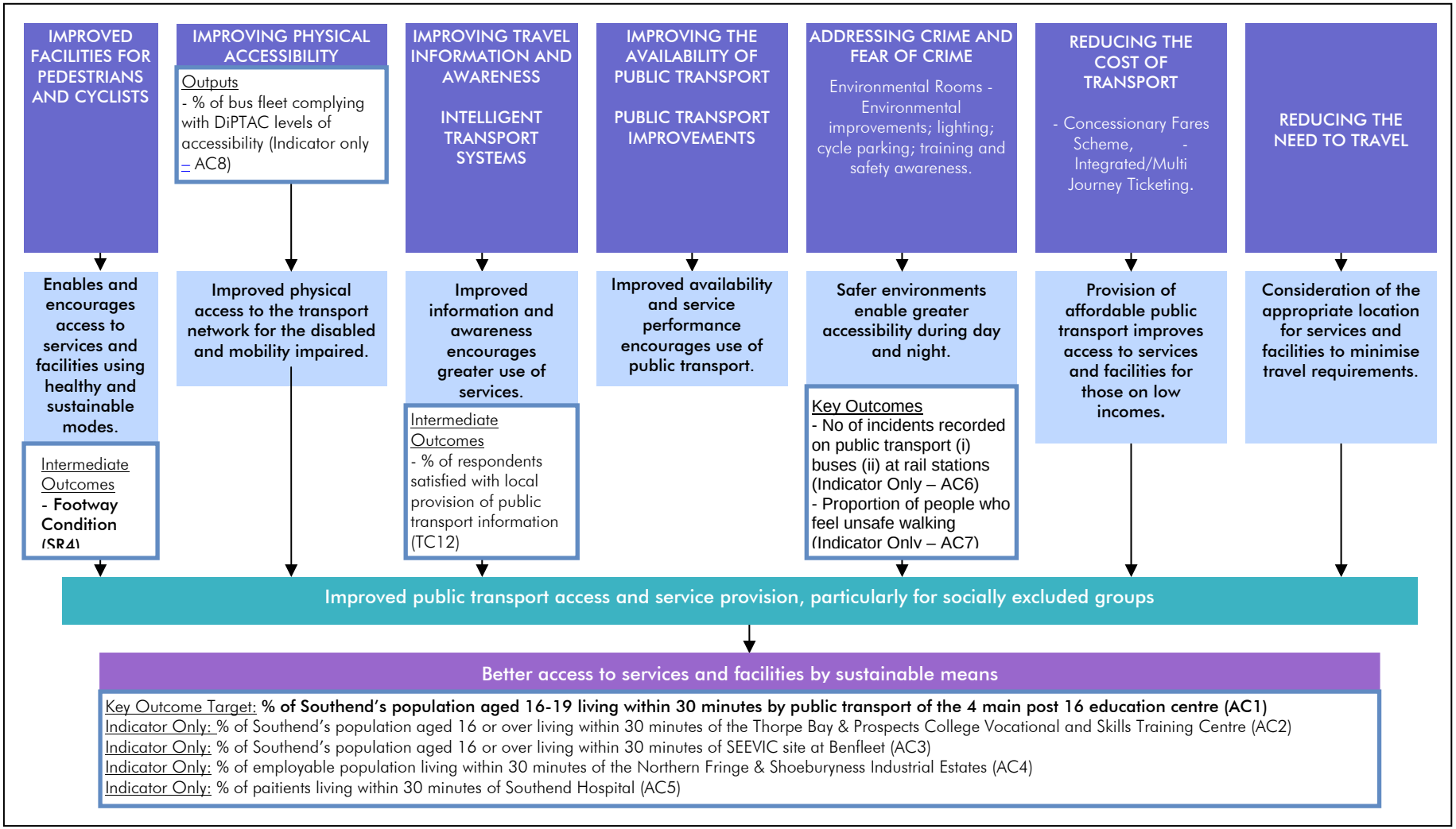


Table 11.5 – Delivering Accessibility: Potential Risks and Mitigation Measures

Potential Risks – Delivering Accessibility	Mitigating Measures
Insufficient partnership funding is secured to undertake the review of Further Education and Selective School transport provision.	We will seek to secure sufficient developer contributions through Section 106 agreements.
The review of Direct Transport provided by the Passenger Transport & Haulage Group is delayed.	A review of transport services is already being funded by the Council. In addition, £6,000 has been identified in the LTP2 Accessibility Strategy. A further £6,000 will be sought from partners, e.g. LEA.
The Selective Schools do not co-operate with the review.	We will work with these schools to engage them in the process.
Potential Risks – Generic (see Table 11.3)	

Safer Roads

Targets and indicators which will be used to monitor delivery of the Safer Roads shared priority are outlined in **Table 11.6** and **Figure 11.4**.

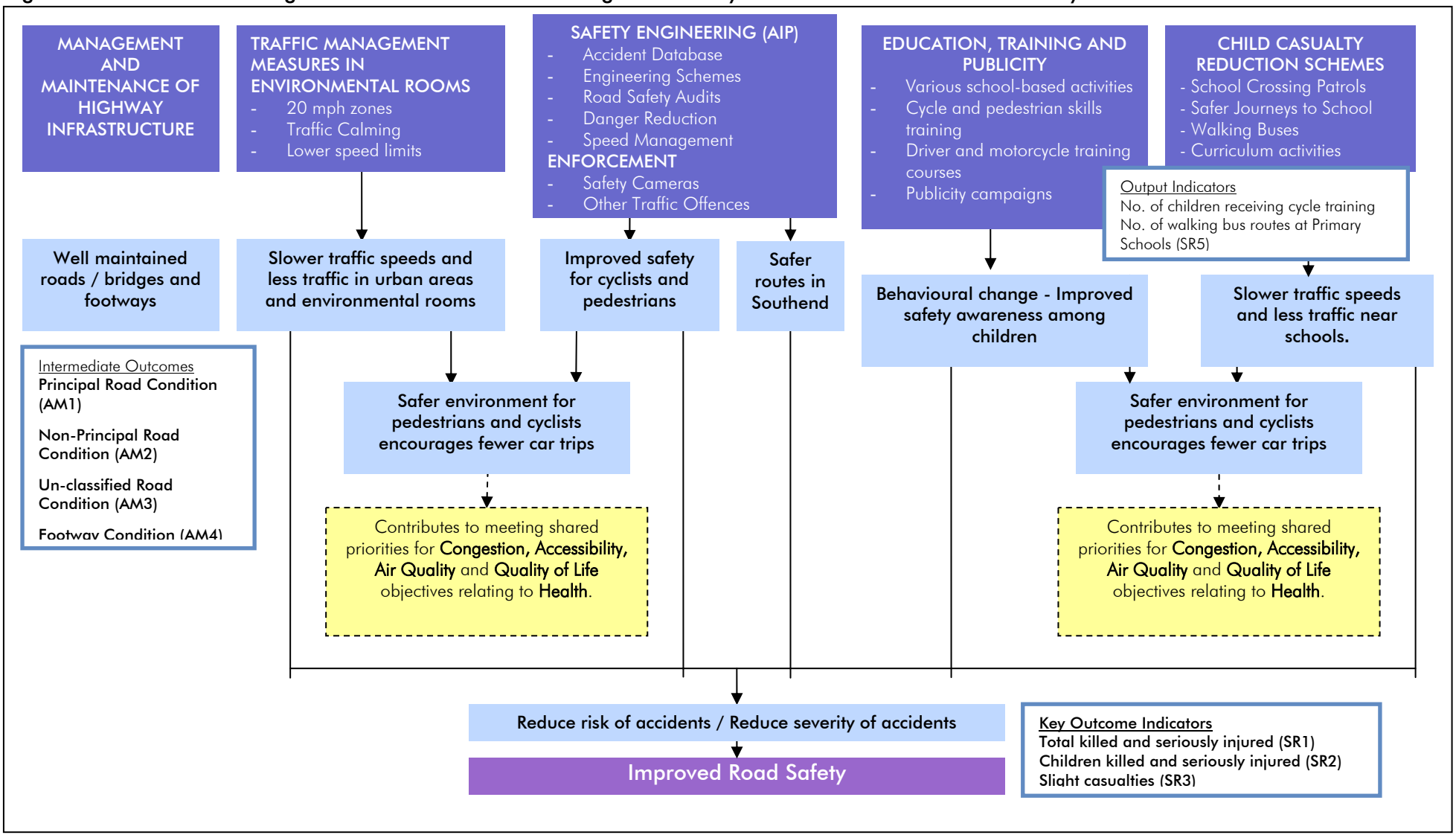
The national targets for the total number of people killed and seriously injured (KSIs), the number of children killed and seriously injured and slight injuries have been adopted. These targets have been verified using benchmarking evidence to ensure that they are realistic. In addition the KSI target is supported by evidence from Southend's STAT model, and Unit Cost Estimates from LTP1.

Two additional indicators have been identified to monitor delivery of Education, Training and Publicity outputs. Targets have not been set for these indicators as their main purpose is to help identify cause-effect relationships and ensure the Council is delivering value for money.

Table 11.6 – Safer Roads Targets and Indicators

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	Assessment of target against DfT criteria where applicable
Key Outcomes	SR1: Achieve a 40% reduction in the total number of killed and seriously injured casualties between 1994-98 and 2010 (or a 26% reduction, from 94 KSIs in 2001-04 to 69 KSIs in 2010).	Mandatory (BVPI99x)	This target is in line with DfT's minimum 'satisfactory' criteria.
	SR2: Achieve a 50% reduction in the number of children killed and seriously injured, between 1994-98 and 2010 (or a 40% reduction, from 15 child KSIs in 2001-04 to 9 KSIs in 2010).	Mandatory (BVPI99y)	This target is in line with DfT's minimum 'satisfactory' criteria.
	SR3: Maintain the number of slight injuries, at or below the average number for 2001-04 (691 injuries), corresponding to a 14% reduction in the rate of injuries per 100 million vehicle kilometres between 2001-04 and 2010.	Mandatory (BVPI99z)	This target exceeds DfT's minimum 'satisfactory' criteria of no increase over recent levels.
Outputs	SR4: No. of children receiving cycle training	Local Indicator	-
	SR5: No. of walking bus routes at Primary Schools	Local Indicator	-

Figure 11.4: The Role of Targets and Indicators in Monitoring the Delivery of the Safer Roads Shared Priority



Potential risks associated with delivering the Safer Roads targets, and mitigation measures are summarised in **Table 11.7**.

Table 11.7 – Safer Roads: Potential Risks and Mitigation Measures

Potential Risks	Mitigating Measures
Continued growth in motorcycling use – nationally motorcycling increased by 22% (in terms of veh-kms undertaken) between 2000 and 2003 (Transport Trends, DfT, 2004). This could result in an increase in accidents involving motorcyclists in Southend, although nationally the increase in KSIs over this period was only 4%.	Southend currently support and promote motorcycling courses and safety campaigns run by the Police and other local training organisations. In addition, the Council will draw up a programme of work, in partnership with the Police, to target high risk road users. This will combine engineering, enforcement, education, training and publicity; there will be a special emphasis on the use of appropriate protective clothing by motorcyclists.
The easier, less expensive initiatives have already been implemented, therefore casualty reduction schemes during the period of LTP2 are likely to be less effective per unit cost when compared to those works undertaken in previous years. Continued progress will become more difficult as accidents become more dispersed, and more accident hot spots are treated. Absolute numbers of KSIs (averaging 94 per annum between 2001 and 2004) and child KSIs (averaging 15 per annum between 2001 and 2004) are now low. Considerable year-to-year fluctuation can be expected and accidents are expected to become increasingly scattered geographically.	Southend has developed its accident database, by linking it with other databases containing details of the highway network. This will help identify and prioritise safety problems in the area as well as monitoring outcomes and hence the effectiveness of local safety initiatives. It is intended to develop and trial different intervention criteria, especially for the investigation of clusters and types of child accidents, and routes attracting motorcycle accidents. .
Changes to the road safety ETP programme to reflect national best practice will necessitate a period of consolidation during which there may be a reduction in the number of children receiving ETP services.	Southend's approach to child casualty reduction contains a strong focus on Education, Training and Publicity but also includes School Crossing Patrols, and the Safer Journey to School programme incorporating Walking Buses. Effective cross-working between these three main areas of work should limit the potential down-turn in ETP work during the period of consolidation.

Achieving Better Air Quality

Targets and indicators which will be used to monitor delivery of the Achieving Better Air Quality shared priority are outlined in **Table 11.8**.

The targets reflect the objectives in the Government's National Air Quality Strategy for particulate matter (PM10) and nitrogen dioxide (NO2).

Table 11.8 – Achieving Better Air Quality Targets and Indicators

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	Assessment of target against DfT criteria where applicable
Key Outcomes	AQ1: Maintain levels of PM10 below 20 ug/m3, and ensure no AQMAs are declared.	Local Indicator	-
	AQ2: Maintain levels of NO2 below 40 ug/m3, and ensure no AQMAs are declared.	Local Indicator	-

Potential risks associated with delivering the Air Quality targets, and mitigation measures are summarised in **Table 11.9**.

Table 11.9 – Achieving Better Air Quality: Potential Risks and Mitigation Measures

Potential Risks – Air Quality	Mitigating Measures
The significant amount of development provided for in the Local Development Framework, will result in an increase in congestion, vehicle kilometres undertaken, and peak period traffic flow into the town centre.	Southend's strategy for Tackling Congestion and Achieving Better Air Quality will help minimise the impact of increased traffic. In particular, the Network Management strategy will help prevent the high emission rates associated with idling traffic. In addition, improved walking and cycling links between Environmental Rooms, and improvements to the quality of the environment within the Rooms, will help encourage greater use of walking and cycling for short trips.
Potential Risks – Generic (see Table 11.2)	

Asset Management

Targets and indicators which will be used to monitor the effectiveness of the Transport Asset Management Plan are outlined in **Table 11.10**.

Table 11.10 – Asset Management Targets and Indicators

	Targets and Indicators with Full Implementation of LTP2 in Line with the Planning Guideline	Type	Assessment of target against DfT criteria
Key Outcomes	AM1: To maintain the current condition of Principal Roads during LTP2, i.e. ensure that the % of road length in need of repair remains below 10%.	Mandatory (BVPI223)	-
	AM2: Non-Principal Roads – Target to be set once baseline data from 2005/06 SCANNER surveys is available.	Mandatory (BVPI224a)	-
	AM3: To maintain the current condition of Unclassified Roads during LTP2, i.e. ensure that the % of road length in need of repair remains below 13%.	Mandatory (BVPI224b)	-
	AM4: Reduce the % of footway in need of repair, from 51% in 2004/05 to 41% in 2010/11.	Mandatory (BVPI187)	-
	AM5: Improve the condition of the bridge stock in Southend from 'poor' to 'good', i.e. increase the Bridge Stock Condition Index score from 79 in 2004/05-2005/06 to 90 by 2010/11.	Local Indicator	-

Potential risks associated with delivering the Asset Management targets, and mitigation measures are summarised in **Table 11.11**.

Table 11.11 – Asset Management: Potential Risks and Mitigation Measures

Potential Risks – Asset Management	Mitigating Measures
Bad or unusual weather can severely affect the condition of the roads and footways.	Develop adaptation strategies to minimise the effects that this will have on road and footway condition.
Effect of new infrastructure on future maintenance costs.	Design to aspire to nil increase in future maintenance costs/ make provision for future costs or identify and minimise net increase in costs.
Under-funding will not allow the target to be achieved.	In the event of a funding deficit, resources will need to be diverted to those bridges presenting a risk to public safety; this will result in further deterioration of the remainder of the bridge stock. During the period of the LTP it is planned to implement an asset management system which will assist in efficient prioritisation of resources.

Other Local Priorities

Specific targets and indicators have not been identified for other local priorities, relating to Quality of Life, Regeneration, an Efficient Transport System, and Raising Community Awareness.

Delivery of these local objectives will be monitored using indicators identified for monitoring delivery of the Shared Priorities (**Table 11.12**).

Table 11.12 Indicators for Monitoring the Delivery of Southend's Local Objectives

	Indicators
Quality of Life	Noise and Climate Change TC3: Vehicle kilometres on local authority managed roads – proxy measure TC4: AM peak period traffic flow – proxy measure TC8: Mode share of journeys to school – proxy measure TC9, 16, 17, 18: Mode share of journeys to the town centre – proxy measure AQ1: PM10 (Particulate Matter) levels AQ2: Nitrogen Dioxide levels
	Quality of public spaces and better streetscapes AC6: No of incidents recorded on public transport (i) buses (ii) at rail stations AC7: Proportion of people who feel unsafe walking TC17: % of walking trips to the town centre TC18: % of cycling trips to the town centre See also Noise and Climate Change for proxy measures.
	Community safety, personal security and crime AC6: No of incidents recorded on public transport (i) buses (ii) at rail stations AC7: Proportion of people who feel unsafe walking SR1: Total killed and seriously injured SR2: Number of children killed and seriously injured SR3: Number of slight injuries. Progress in achieving a 'Safer Community' will also be monitored by other service areas in the Council, through the Community Plan, which contains targets relating to the number of vehicle crimes committed and the percentage of residents who feel safe when alone outside in Southend.
	Healthy communities TC7: Cycling trips TC17: % of walking trips to the town centre TC18: % of cycling trips to the town centre AC5: % of patients living within 30 minutes of Southend Hospital. AQ1: PM10 (Particulate Matter) levels AQ2: Nitrogen Dioxide levels
	Sustainable and prosperous communities TC1: Congestion - Average vehicle delay – proxy measure
	Landscape and biodiversity Progress in achieving an 'Environmentally Aware Community' will be monitored by other service areas in the Council, through the Community Plan, which contains targets relating to the Local Biodiversity Action Plan.
Regeneration	TC1: Congestion - Average vehicle delay – proxy measure Progress in achieving the Regeneration objective, will also be monitored by other service areas in the Council, through measures such as employment rate.
An Efficient Transport System	TC3: Vehicle kilometres on local authority managed roads – proxy measure for 'reducing the need to travel'. AC4: % of employable population within 30 minutes by public transport of the Northern fringe and Shoeburyness industrial estates – proxy measure for 'integrated land use and transport'.
Raising Community Awareness	TC12: % of users satisfied with the provision of local public transport information. TC13: % of schools with effective School Travel Plans TC14: Number of employers with effective Workplace Travel Plans

Glossary of Abbreviations

ANPR	Automatic Number Plate Recognition
APR	Annual Progress Report
AQMA	Air Quality Management Area
ASTRID	Automatic SCOOT Traffic Information Database
AVL	Automatic Vehicle Location
CCTV	Close Circuit Television
CPGS	Car Park Guidance System
CPZ	Controlled Parking Zone
DfES	Department for Education and Skills
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DPD	Development Plan Document
ECC	Essex County Council
EEDET	East of England Directors of Environment and Transport
EERA	East of England Regional Assembly
EEDA	East of England Development Agency
EIP	Examination in Public
ERCDT	English Regions Cycle Development Team
ETP	Education Training Publicity
FAS	Framework Accessibility Strategy
FTA	Freight Transport Association
GDP	Gross Domestic Product
GPS	Global Positioning System
HGV	Heavy Goods Vehicle
ITS	Intelligent Transport System
INGRID	Integrated Incident Detection
JTW	Journey to Work
KSI	Killed or Seriously Injured
LARSOA	Local Authority Road Safety Officers Association
LDF	Local Development Framework
LDS	Local Development Scheme
LIFT	Local Improvement Finance Trust
LOTS	London to Southend Movement Study
LSP	Local Strategic Partnership
LTA	Local Traffic Authority
LTP	Local Transport Plan
LTP1	First Local Transport Plan
LTP2	Second Local Transport Plan
MOD	Ministry of Defence
NCN	National Cycle Network
NMD	Network Management Duty
NHS	National Health Service
ONS	Office for National Statistics
ODPM	Office for the Deputy Prime Minister
P&R	Park and ride
PDA	Personal Digital Advisors
PIA	Personal Injury Accident
PNR	Private Non-residential
PROW	Public Rights of Way
PTW	Powered two wheelers

QBP	Quality Bus Partnership
QRP	Quality Rail Partnerships
RES	Regional Economic Strategy
RMS	Route Management Strategy
RoSPA	Royal Society for the Prevention of Accidents
ROWIP	Rights of Way Improvement Plan
RSO	Road Safety Officer
RSS	Regional Spatial Strategy
RTPI	Real Time Passenger Information
RTPTI	Real Time Public Transport Information
RTS	Regional Transport Strategy
RUC	Road User Charging
SBC	Southend-on-Sea Borough Council
SCS	Smarter Choices Strategy
SEA	Strategic Environmental Assessment
SERT	South Essex Rapid Transit
SJ2S	Safer Journeys to School
SPD	Supplementary Planning Document
SRSS	Southend Road Safety Strategy
SSGA	Southend School Governors' Association
STAT	Strategic Transport Analysis Tool
STA	School Travel Advisors
STP	School Travel Plan
TEN-T	Trans-European Transport Network
TGSE	Thames Gateway South Essex
TGSEP	Thames Gateway South Essex Partnership
TIF	Transport Innovation Fund
TMA	Traffic Management Act
TRL	Transport Research Laboratory
TRO	Traffic Regulation Order
USA	Updating and Screening Assessment
UTC	Urban Traffic Control
VFM	Value for Money
VMS	Variable Message Signing