

TRANSPORT FOR LONDON

SAFETY, HEALTH AND ENVIRONMENT ASSURANCE COMMITTEE

SUBJECT: ENVIRONMENTAL TARGETS FOR TFL

DATE: 12 MARCH 2010

1 PURPOSE AND DECISION REQUIRED

- 1.1 This report provides the Committee with an outline of TfL's proposed approach to the development of, and recommendations for, Group-wide environmental targets, as requested by the Committee in November 2009.
- 1.2 The Committee is asked to note this report and agree the targets proposed.

2 BACKGROUND

- 2.1 TfL has eight Group-wide environmental objectives and associated Key Performance Indicators (KPIs). TfL has reported publicly on progress against these indicators since 2004. TfL is now looking to develop these objectives and KPIs by establishing targets at Group level.

3 ENVIRONMENTAL TARGETS

Scope

- 3.1 Targets are proposed for three key areas:
 - (a) CO₂ emissions;
 - (b) emissions to air of nitrogen oxides (NOx) and particulate matter less than ten microns in diameter (PM10); and
 - (c) reuse and recycling of Commercial and Industrial (C&I) waste and Construction and Demolition (C&D) waste.

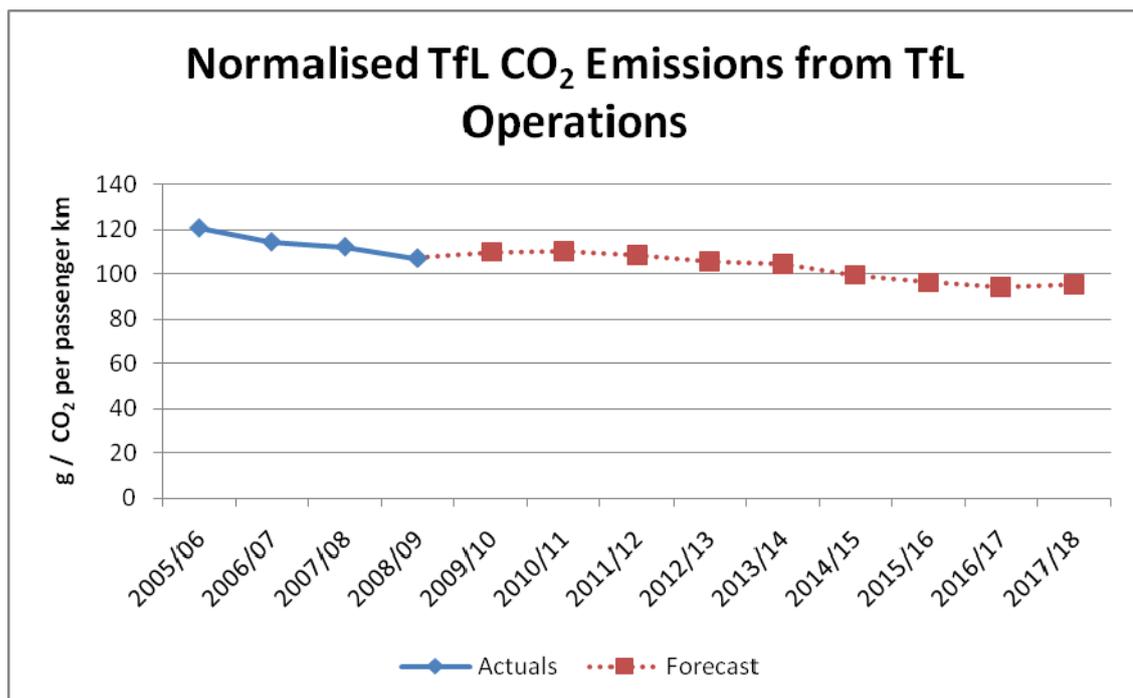
Approach

- 3.2 The proposed Group-wide targets are based on currently funded programmes in the TfL Business Plan and the targets were developed through the aggregation of a series of modal forecasts.
- 3.3 The baseline year is 2005/06 as this represents the first year with a complete data set for TfL's current organisation structure and the KPIs selected. The targets will be set for 2017/18, which is the period covered by the TfL Business Plan. There will be annual interim targets increasing each year along a broadly linear trajectory.
- 3.4 Reporting will follow the scope of the TfL Environment Report, which includes all services and operations over which TfL has a significant degree of control.

CO₂ reduction target

- 3.5 As TfL operates a growing transport network, its absolute CO₂ emissions forecasts tend to increase marginally from the 2005/06 baseline to 2017/18, but there is a small decrease from 2008/09 to 2017/18. While TfL can refer to its absolute CO₂ emissions to set the context, the focus for target setting will be on improving efficiency, measured as grams CO₂ per passenger kilometre.
- 3.6 The target will cover TfL activities for which CO₂ emissions can be normalised by passenger kilometres which are: London Underground, London Buses, London Overground, Docklands Light Railway, London Tramlink, taxis and private hire vehicles.
- 3.7 Based on analysis of the Environment Report and forecast data a Group-wide target of 20 per cent reduction in grams CO₂ per passenger kilometre by 2017/18 (from 121g/passenger km in 2005/06 to 95g/passenger km in 2017/18) is proposed. Emissions in 2008/09 were 107 grams per passenger kilometre, which equals an 11 per cent reduction since 2005/06. Figure 1 shows the year by year normalised emissions reductions since 2005/06 and the forecast through to 2017/18.

Figure 1 – Normalised CO₂ Emissions (Grams per passenger kilometre)



- 3.8 Crossrail will become operational in 2017 so data normalised by passenger kilometre will only be available after that. In the mean time, Crossrail will specify a CO₂ emissions design target for its rolling stock.

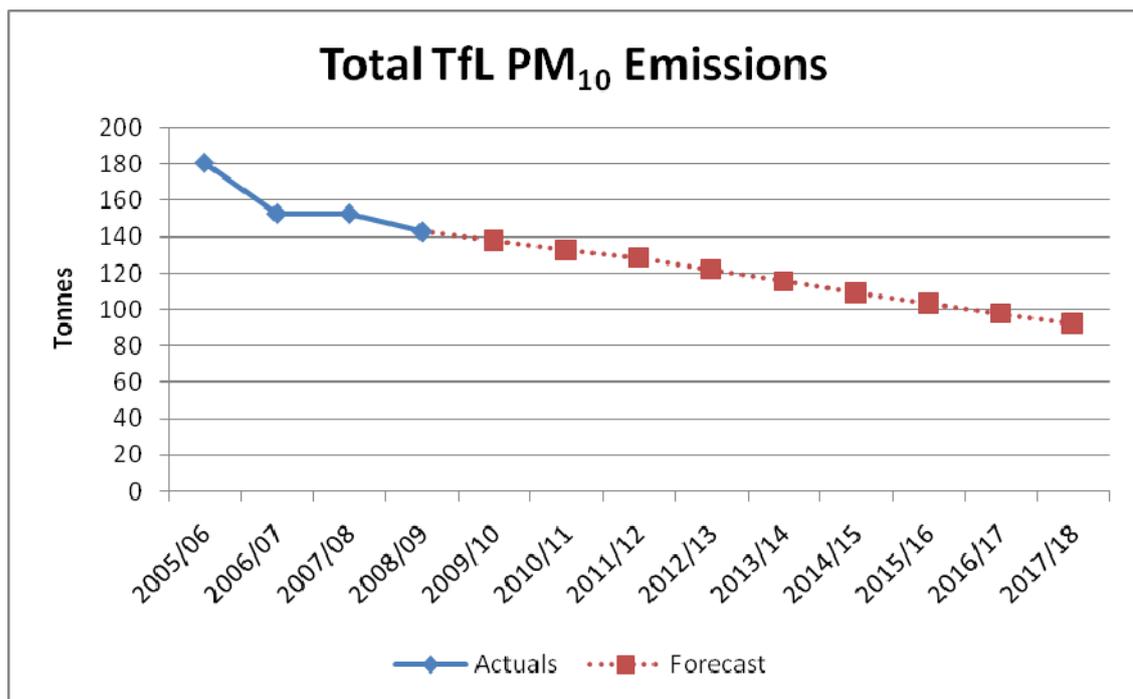
Air emission targets

- 3.9 The proposed air emissions targets cover total emissions of PM10 and NOx from London Underground (only for NOx as PM10 are not relevant), London Overground, taxis, private hire vehicles, Dial-a-Ride, London River Services and London Buses.

PM10

- 3.10 The principal contributors to PM10 emissions are taxis, private hire vehicles and London River Services, which together produce around 90 per cent of the total PM10 emissions.
- 3.11 For PM10, a target of 50 per cent absolute reduction in emissions (from 180 tonnes in 2005/06 to 90 tonnes in 2017/18) is proposed. Emissions in 2008/09 were 143 tonnes, amounting to a 21 per cent reduction since 2005/06. Figure 2 shows the year by year emissions reduction from 2005/06 and forecast through to 2017/18.

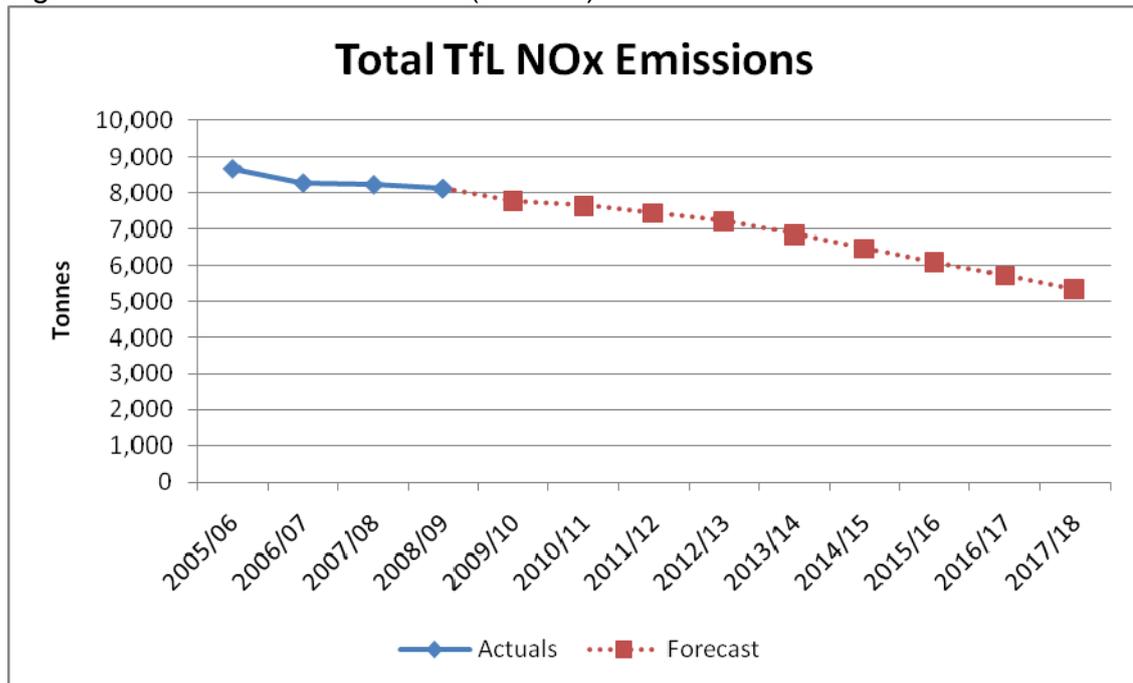
Figure 2 - Total PM10 Emissions (tonnes)



NOx

- 3.12 The principal contributors to NOx emissions are buses, taxis and private hire vehicles, which together account for some 95 per cent of total NOx emissions.
- 3.13 For NOx, a target of 40 per cent reduction in emissions (from 8,670 tonnes in 2005/06 to 5,330 tonnes in 2017/18) is proposed. Emissions in 2008/09 were 8,120 tonnes, which is a 6 per cent reduction since 2005/06. Figure 3 shows the year by year emissions reduction from 2005/06 and forecast through to 2017/18.

Figure 3 – Total NOx Emissions (Tonnes)



Waste reuse and recycling targets

Commercial and Industrial (C&I) Waste

3.14 The C&I waste target will apply to all modes, with London Underground currently being the main contributor. It is proposed to set a target of achieving 70 per cent recycling of C&I waste by 2017/18 (with interim targets increasing each year along a broadly linear trajectory). This is aligned to the London Plan, which requires 70 per cent recycling of C&I waste by 2020. The TfL recycling rate for C&I waste in 2005/06 was 27 per cent.

3.15 Group Property and Facilities has set a target for Head Offices to recycle 65 per cent of C&I waste this year, rising to 95 per cent by 2011.

Construction and Demolition (C&D) Waste

3.16 The C&D waste target will apply to all modes. Initially, the main contributor to C&D waste will be Crossrail and therefore it is proposed to follow the guidance it has been given by the Government's Waste Resources Action Programme (WRAP) for target setting on C&D waste and excavated materials. The target proposed will be to reuse or recycle at least 90 per cent of C&D waste (with interim targets increasing each year along a broadly linear trajectory) over the period to 2017/18 and to achieve 95 per cent by 2017/18. This is in line with targets proposed in the draft Mayor's Vision for Waste in London (95 per cent recycling of this material by 2020).

3.17 The performance on percentage of excavated waste material reused or recycled will be reported, as well as for all of TfL. The majority arises from Crossrail which will report on how excavated material will be reused at the Royal Society of Birds Wallasea Island Project.

4 LINK WITH MAYOR'S TRANSPORT AND AIR QUALITY STRATEGIES

- 4.1 The draft Mayor's Transport Strategy sets policies and key performance indicators for transport in London as a whole. The TfL Group-wide targets are aligned with the outcomes required by the strategy and help to demonstrate TfL's commitment to making an appropriate direct contribution to the relevant strategy goals.
- 4.2 Delivery against the TfL Group-wide targets for PM10 and NOx emissions will contribute to achieving the aims of the Mayor's Air Quality Strategy.
- 4.3 TfL's proposed environmental targets are focused on the organisation's own performance or that of areas where it has direct influence, following the same reporting boundaries as the TfL Environment Report.

5 RECOMMENDATION

- 5.1 The Committee is asked to NOTE the report and AGREE the targets proposed.

6 CONTACT

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