## Annex B

**Key York cycling statistics results from 2010:**

- Overall cycling levels are up on a baseline year of 2008 by between +10% and +16%.

- A larger percentage increase is generally seen on the on-road sites +15% (figures 1 and 2) compared to off road +10% (figure 3).

- Limited surveys of bridges have shown a +16% increase with Millennium Bridge being the busiest river crossing (table 2).

- There is only limited data (2 years) available for the more minor off road routes including a cordon based around Clifton Moor. These show a small decrease of –1% in cycling numbers 2009 to 2010 (figure 4).

- Some 80% of commuting cycling trips make use of on road facilities, 20% use the off road (mainly riverside) routes to access the city centre.

- Blossom Street is the busiest on-road radial cycle route (1775, 12-hour two way flow) followed by Bootham (1550, 12-hour 2 way flows) (table 1).

- Tuesdays and Wednesdays are the busiest cycling days whereas Sunday is the quietest (table 3).

- Hob Moor and Cinder Lane show high levels of cycling during peak periods, 70% of trips during the peak, 30% off peak. In comparison Naburn Bridge has a more even split with 53% during peak 47% off peak - more leisure cycling (table 4).

- The more commuter based routes show a much larger percentage of cycle trips on weekdays, compared to more leisure cycling routes showing a sway towards weekend based trips (table 5).

- During 2010, 83% of weekdays were effectively 'dry' during the morning peak. 2010 was an exceptionally cold year, particularly during the winter months.

- Cycling levels show a reduction of approximately -20% on wet days with longer distance (leisure) routes far more affected than commuting routes (table 6).

- September, June and July are the busiest cycling months (up to 40% above the annual average), whereas December and January are the quietest. December 2010 showed an 80% reduction in measured cycle flows. This was due to a combination of snow and ice in the early part of the month, followed by the Christmas holiday period in the latter. Based on cycle flows from all year round (not including weekends and bank holidays), it is clear to see the influence that school holidays and seasonal weather patterns in particular have on cycle trips (figure 5).

**Figure 1**

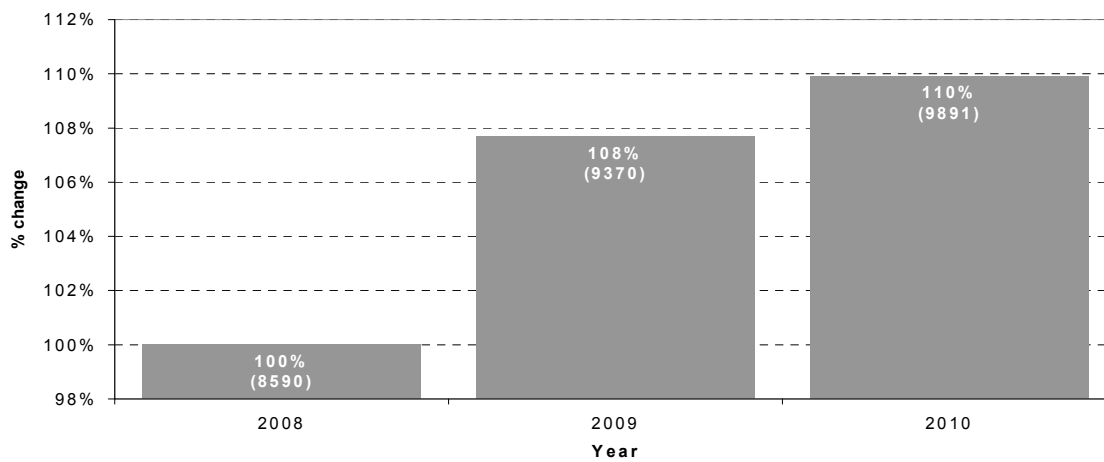**Change of cycle flow detected on all on-road radial routes (2008 baseline)**
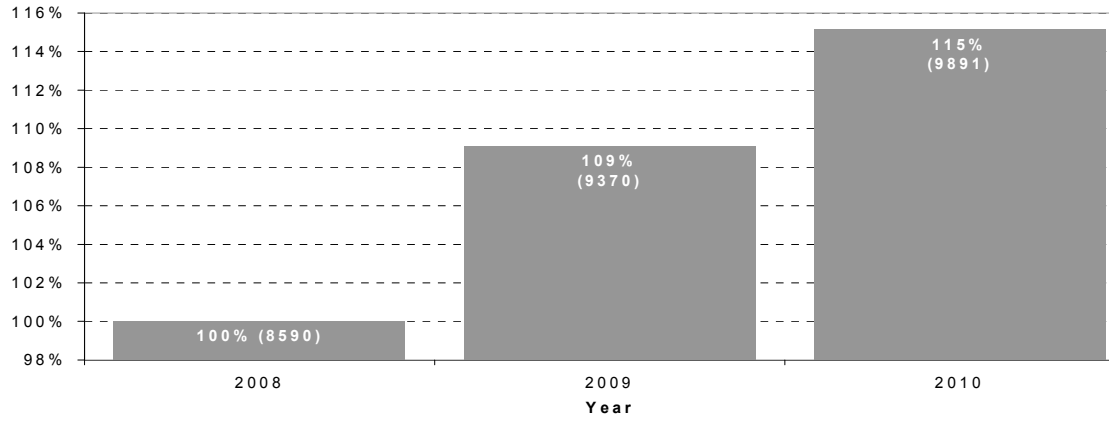


**Figure 2**

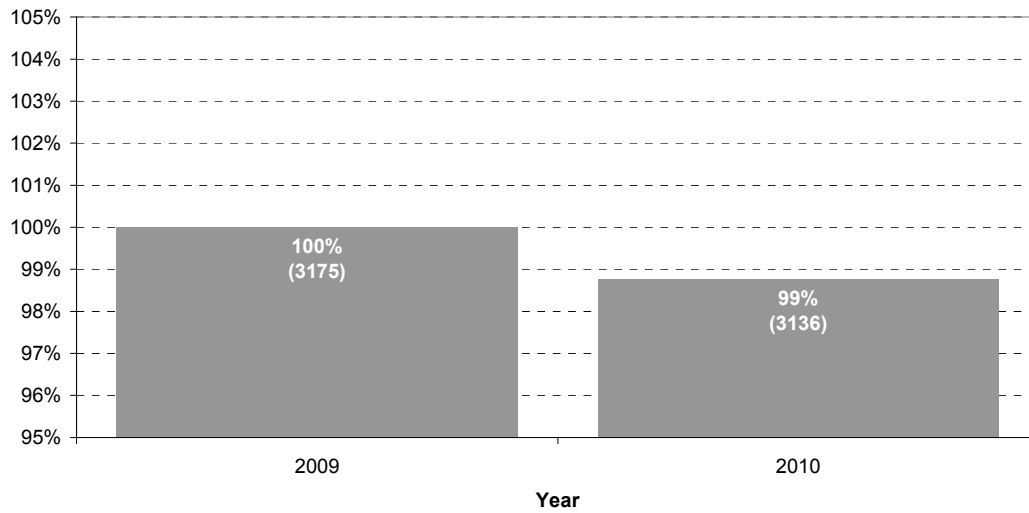**Change of cycle flow detected on bridge routes (2006 baseline)**



**Figure 3**

**Change of cycle flow detected on main off-road routes (2008 baseline)**
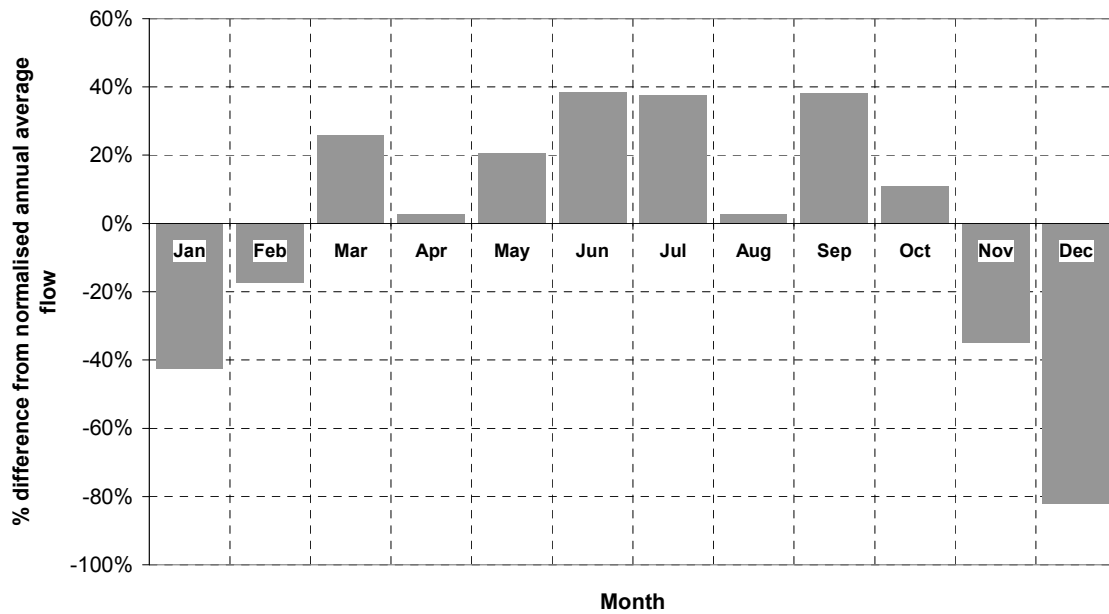
**Figure 4**

### Change of cycle flow detected on minor off-road radial routes
### (2009 baseline)



**Figure 5**

### 2010 AM peak cycling profile based on average flow throughout the year
**(based on 2 high useage off-road sites)**

**Table 1 – Cycle flow detected on on-road radial**

| On-road radial | 12-hr weekday, 2-way cycle flow |
|---|---|
| Blossom Street | 1775 |
| Bootham | 1550 |
| Heworth Green | 1000 |
| Lawrence Street | 975 |
| Fulford Road | 950 |
| Clarence Street | 900 |
| Layerthorpe | 850 |
| Huntington Road | 825 |
| Bishopthorpe Road | 525 |
| Heslington Road | 400 |
| Leeman Road | 150 |
| **Total** | **9900** |


**Table 2 – Cycle flow detected on bridges**

| Bridge | 12-hr weekday, 2-way cycle flow |
|---|---|
| Millennium Bridge (cyclist & pedestrian only) | 1800 |
| Lendal Bridge | 1650 |
| Ouse Bridge | 1550 |
| Clifton Bridge | 950 |
| Skeldergate Bridge | 800 |
| Scarborough Bridge (cyclist & pedestrian only) | 500 |
| A1237 Bridge | 325 |
| Naburn Bridge (cyclist & pedestrian only) | 150 |
| **Total** | **7725** |


**Table 3 – Difference in cycle flow compared to the average weekday flow**

| Day | % difference from 12-hr weekday average, 2-way cycle flow |
|---|---|
| Wednesday | +4% |
| Tuesday | +4% |
| Thursday | +2% |
| Monday | -3% |
| Friday | -7% |
| Saturday | -33% |
| Sunday | -44% |

**Table 4 – Cycle flow by route split between peak and off-peak times**

| Cycle Route | Peak trips | Off-peak trips |
|---|---|---|
| Hob Moor | 72% | 28% |
| Cinder Lane | 71% | 29% |
| Terry Avenue | 66% | 34% |
| Rawcliffe Ings | 63% | 37% |
| Naburn Bridge | 53% | 47% |

**Table 5 – Cycle flow by route split between weekdays and weekends**

| Cycle Route | Route type | Weekdays | Weekends |
|---|---|---|---|
| Hob Moor | Commuter | 67% | 33% |
| Cinder Lane | Commuter | 70% | 30% |
| Terry Avenue | Commuter/Sustrans Route 65 | 64% | 36% |
| Rawcliffe Ings | Sustrans Route 65 | 48% | 52% |
| Naburn Bridge | Sustrans Route 65 | 38% | 62% |

**Table 6 – Decreases in cycle flow detected during periods of wet weather**

| Cycle Route | Route type | Trip decrease on wet days |
|---|---|---|
| Hob Moor | Commuter | -9% |
| Cinder Lane | Commuter | -14% |
| Terry Avenue | Commuter/Sustrans Route 65 | -23% |
| Rawcliffe Ings | Sustrans Route 65 | -40% |
| Naburn Bridge | Sustrans Route 65 | -43% |

## How is cycling monitored in York?

York has a network of automatic cycle monitoring detectors installed on it's major off-road cycle links. These continuously monitor cycle numbers and there is data going back a number of years.

As part of the Cycling City project this automatic network was extended to include some shared use links such as Malton Road, some of the lesser used links round Clifton Moor and some rural links such as Naburn Bridge on the Sustrans Network.

On-road cycling is monitored using manual counts undertaken as part of our annual monitoring of traffic levels at the bridges and main radials.

## The problem with monitoring cycling

The difficulty with monitoring of cycling trends is the high degree of variability of the numbers of cyclists recorded passing any given point on the highway network. There is both a high level of variability between consecutive days and an underlying seasonal variation between months. Even the seasonal variability does not appear to be consistent so one spring can be very different to another. The graph (figure 6) shows an example of daily totals for the counter on Cinder Lane - a popular riverside radial cycle / pedestrian path running to the north-west of the York. The daily variability is plus or minus 10% this makes spotting and attributing small changes difficult.

**Figure 6**

### Seasonal variability 'noise' graph
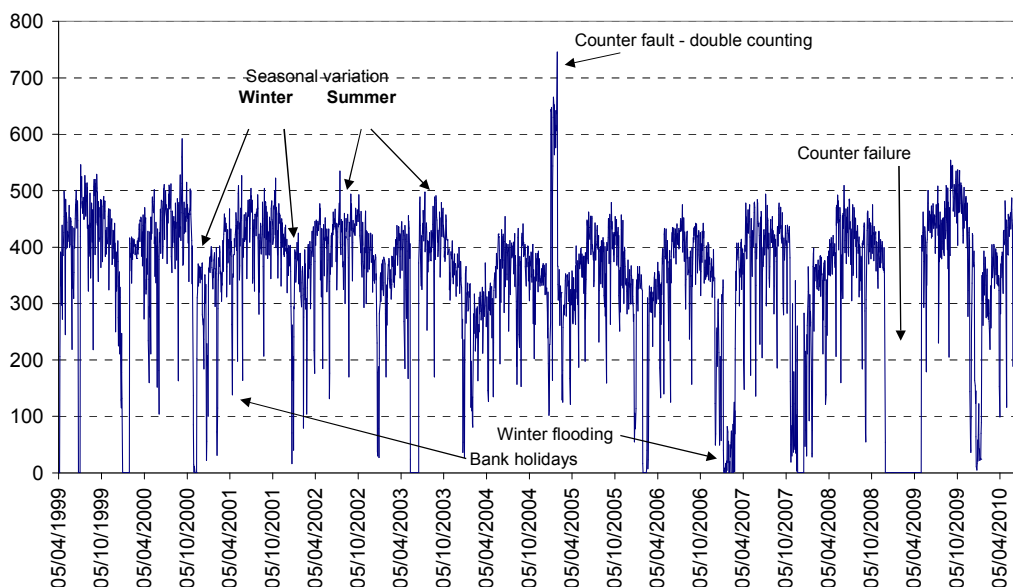
**What are the causes of the variability?**

The main causes of variability in cycling numbers are:

- The weather – wet, wind and cold can all influence the number of people cycling
- Obstruction due to flooding / ice / snow / mud / leaves on the off-road (riverside) tracks
- Darkness during winter months can act as a deterrent for both on and off road cycling.
- Educational term times – school and university term times have influences on the number of pupils and students cycling. They also have an influence on parental travel behavior.
- Holiday patterns; Apart from the obvious influence of public holidays peoples holiday behavior will have an influence on the number of cyclists - more people will take a Friday off than a Tuesday and more people take holidays during summer months than winter. We may see more leisure cycling and less commuting as a result of these effects.
- Where we are observing the cycling numbers – commuting routes are perhaps less variable than leisure routes.

**How do we spot trends?**

The advice from the DfT is to only use data from the cycling neutral months of April, May, June, September and October. This should exclude the variability detected during winter months. During these neutral months only data is used from school days i.e. excluding weekend, school holidays and bank holidays.

"Outliers" are removed from the remaining data, very low values might be due to obstructions and high values possibly special events such as events.