Bathampton Meadows Alliance presentation to the East of Bath Transport Public Scrutiny Day 22nd March 2016



Our themes

- Park and Rides (P&R) are not being used as believed. There is extensive spare capacity in both city centre and P&R
- The current approach to P&R evidence, such as the Hill report, has focused on theoretical projections rather than the reality of driver behaviour and driving trends
 - To bring to life what they forecast would require a major behaviour-change programme for drivers throughout the city and beyond
 - We are concerned that reports are commissioned but not then fed into the decision-taking process in good time
- There is undoubtedly an issue with congestion and pollution in Bath, both in the city and to the East.
 - Until the Council understand properly who goes where, when and why, as well as what would motivate drivers to switch, there can be no properly-evidenced plan.
 - P&R will only exacerbate this situation, not solve it, as they generate congestion and emissions
 - To the East, congestion and pollution are rising and approaching EU limit levels for nitrogen dioxide. This has a real impact on peoples' health. The Council must address this by extending the Air Quality Management Area
 - Even if the Council went ahead for plans for a P&R, any planning application on the Meadows (sites A, A+, B and F) must be rejected on emissions grounds alone
- The Conservative manifesto pledge was to <u>identify and consult on</u> an East Park and Ride, <u>not deliver one</u>. Evidence presented then and since shows clearly it is an outdated solution
 - It is not enough to build a P&R, just to satisfy the lobby who say 'something must be done'. To be fair, this lobby just wants a proper solution that works and quickly P&R isn't it
- Defra policy no longer supports P&R as part of an integrated transport solution Bath needs to think again

Bath Park & Rides Usage Analysis Andrew Lea 22/03/2016



P&R Capacity levels

"90% Capacity"

"Always full"

"80% capacity"

"Our Park Rides are a true success story"



ASSUMPTIONS

- #1 There is no source of data to understand Park & Ride usage over the long term
- #2 Bath Park & Rides must be full all the time as congestion is still high
- #3 If we build a Park & Ride to the East of Bath it will be filled
- #4 We need 1600 new Park & Ride spaces now
- **#5** We cannot plan for increased Park & Ride usage

ASSUMPTION #1

There is no source of data to understand Park & Ride usage over the long term

BATH: HACKED

Home Datasets Tutorials Developers News About

BANES Historic Car Park Occupancy
Shows the trend of occupancy of BANES car parks, with data updated every 5 minutes. Includes

Manage Ma

ADILLO

| | ID ⊕ ≔ | LastUpdate | 6 ≔ | Name 1 | ■ Description | Capacity |
|------|-------------------|------------------------|-----|----------------------|---|----------|
| 1 ≔ | 02987b26f333deaf | 21/10/2014 05:29:23 AM | | Lansdown P+R | Lansdown P+R / Lansdown Road / P+R / La | |
| 2 ≣ | 7664e6263200ebf8 | 21/10/2014 10:20:00 AM | | Avon Street CP | Avon Street CP / A367 Green Park Road / C | |
| 3 ≣ | dc64a203f2ef6e77 | 18/10/2014 06:02:14 AM | | SouthGate Rail CP | SouthGate Rail CP / A367 St James Parade | |
| 4 ≔ | 7ebcad4f0775c934 | 19/10/2014 02:10:00 PM | | Charlotte Street CP | Charlotte Street CP / A4 Charlotte Street / | |
| 5 ☱ | 39add8376d35247 | 19/10/2014 03:40:00 AM | | Charlotte Street CP | Charlotte Street CP / A4 Charlotte Street / I | |
| 6 ≣ | c907eeddafb798c9 | 21/10/2014 04:30:00 AM | | Avon Street CP | Avon Street CP / A367 Green Park Road / C | |
| 7 ≣ | 61a558c2cff090d2 | 21/10/2014 09:10:00 AM | | Avon Street CP | Avon Street CP / A367 Green Park Road / C | |
| 8 ≔ | 21eda82a39a9ce8 | 18/10/2014 05:44:59 AM | | Avon Street CP | Avon Street CP / A367 Green Park Road / C | |
| 9 朣 | f6fefdb6378be22b | 22/10/2014 04:43:34 PM | | SouthGate General CP | SouthGate General CP / A367 St James Par | |
| 10 朣 | 02188c92d3695ce8 | 23/10/2014 06:13:33 AM | | SouthGate Rail CP | SouthGate Rail CP / A367 St James Parade | |
| 11 ≔ | 7f1bcf6e5d01f08d4 | 19/10/2014 07:04:22 PM | | Lansdown P+R | Lansdown P+R / Lansdown Road / P+R / La | |
| 12 ≔ | 0cdc910721f26737 | 23/10/2014 12:55:01 AM | | Avon Street CP | Avon Street CP / A367 Green Park Road / C | |
| 13 ≔ | 2fd21fdd4e1588f3 | 22/10/2014 09:19:22 AM | | Lansdown P+R | Lansdown P+R / Lansdown Road / P+R / La | |

Home Catalog Terms of Service Privacy Policy Accessibility Contact Us

What is Bath Hacked?

BANES Historic Car Park Occupancy Levels across all main car parks in Bath

יטוומי

- Data is collected by sensors on the entry and exit barriers for the car parks
- > The data provides the **occupancy** level of the car parks
- The data also provides the status of the car parks
- The data is collected every 5 minutes and recorded
- Currently the historic data goes back to October 2014

"With regards the parking data, then the data is as accurate as the sensors. They will break and go offline from time to time, but we've published the same data. So it's as good as its going to get, although will have errors in. I would say, though, that they're quite easy to spot in the data"

Jon Poole, Research Manager, BANES

Data period

March 1st 2015 to February 29th 2016 unless otherwise stated

المالم

Terminology

Average Capacity Level – the average capacity level achieved over a given period

Ave Height 1+ Ave Height 2

2

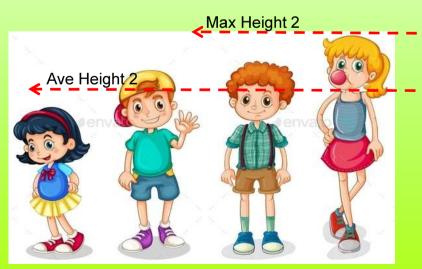
Ave Height 1

Class 1

Maximum Average Capacity Level – the maximum capacity reached each day averaged over a given period

Max Height 1 + Max Height 2

2



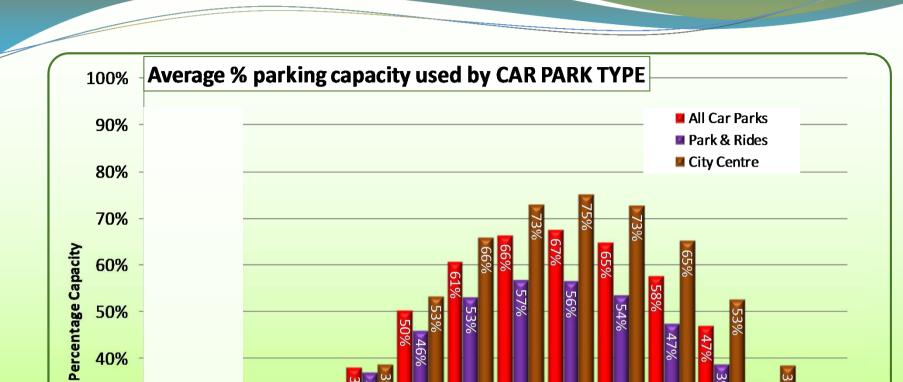
Class 2

DATA TRUTH #1

Usable and accurate data is available to understand P&R usage over a full year.

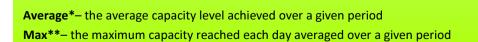
ASSUMPTION #2

Bath Park and Rides must be full all the time as congestion is still high



Time

MALION



7to8

8to9

9to10

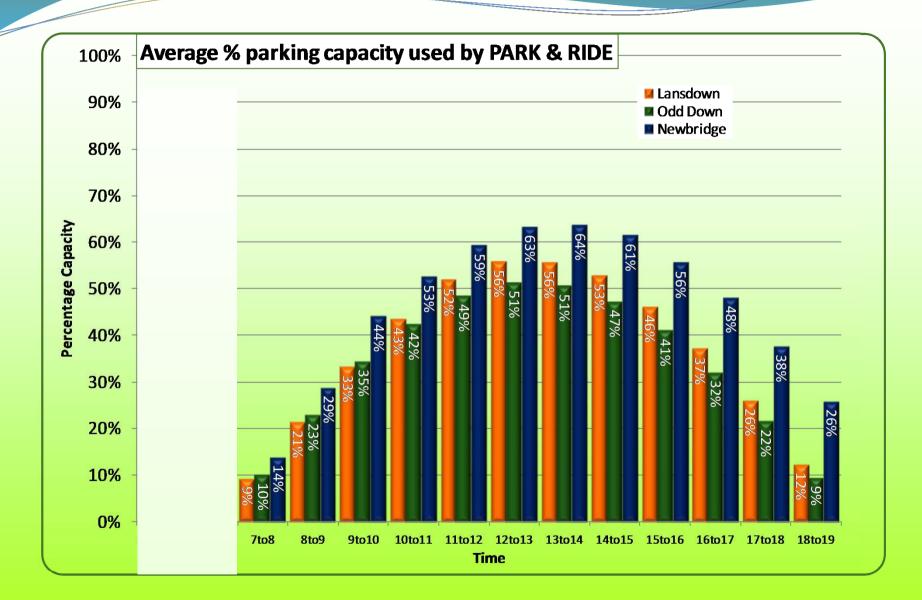
30%

20%

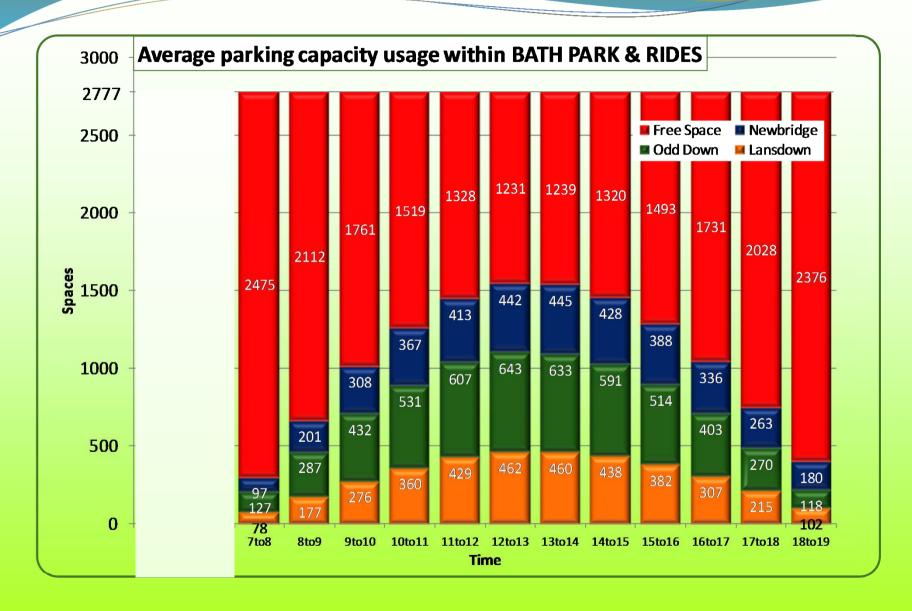
10%

0%

10to11 11to12 12to13 13to14 14to15 15to16 16to17 17to18 18to19



MOLICI



MILLION

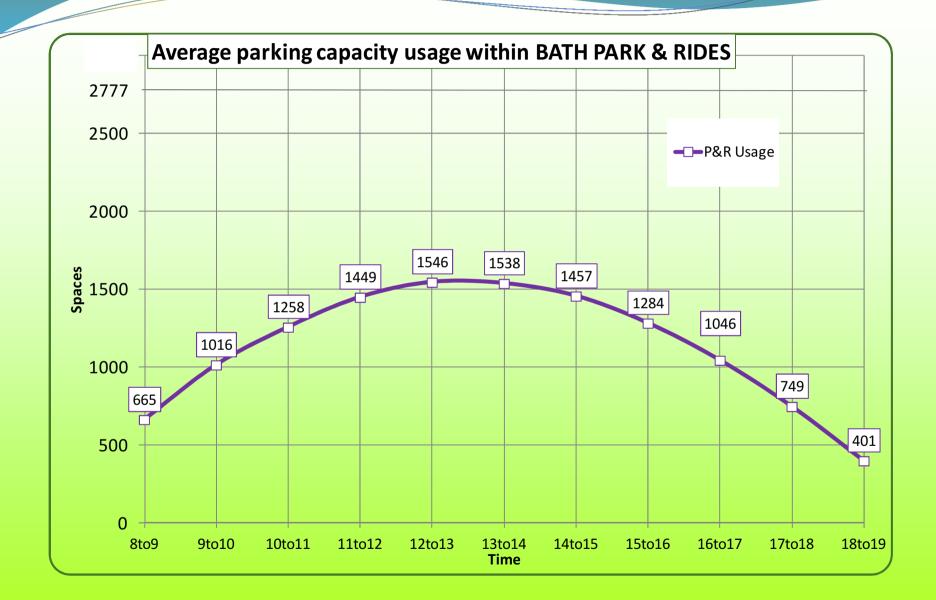
TO TO

DATA TRUTH #2

Park & Ride usage is at its lowest when congestion is at its highest

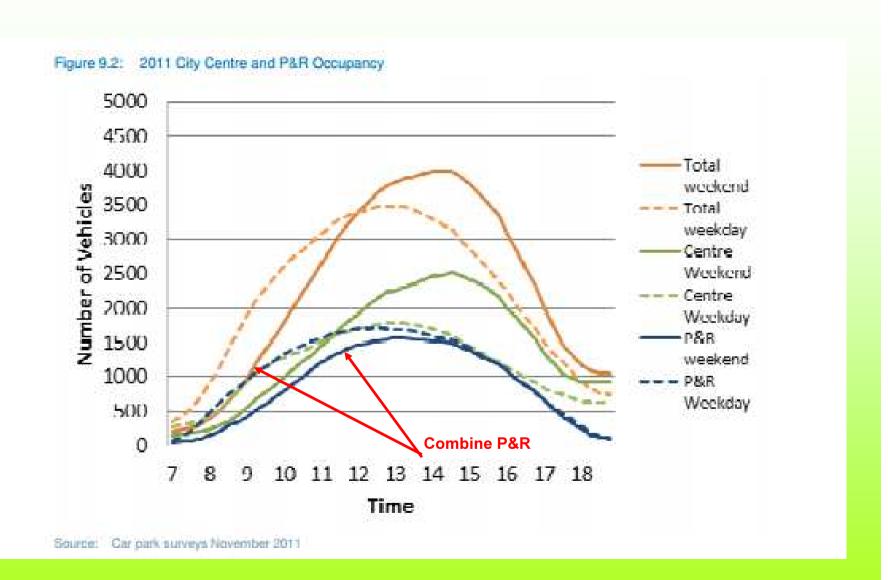
ASSUMPTION #3

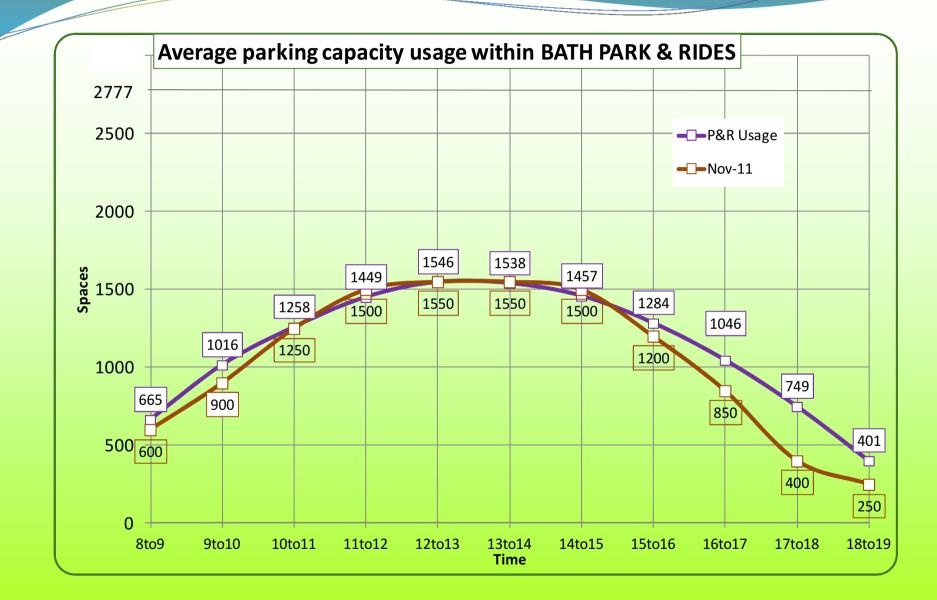
If we build a Park & Ride to the East of Bath it will be filled



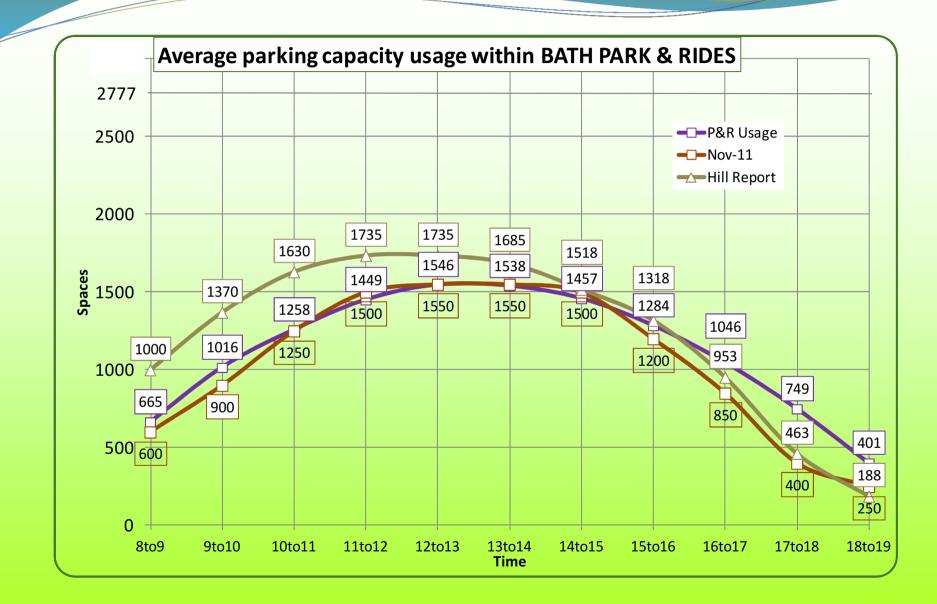
MAILUL







MAILUL



Maille

Talle.

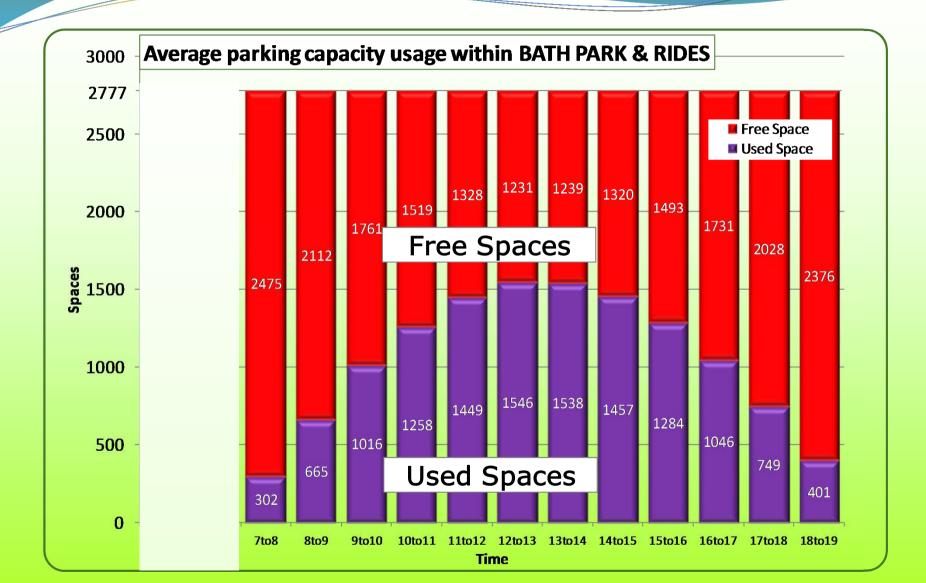
DATA TRUTH #3

Car user behaviour has followed a similar trend over the last 5 years

1316

ASSUMPTION #4

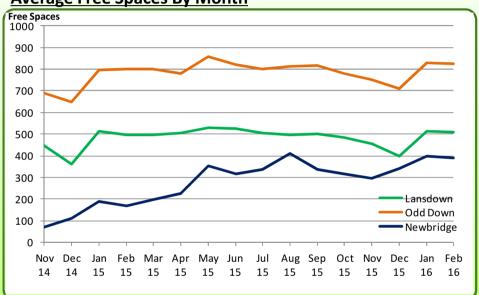
We need 1600 new Park & Ride spaces now



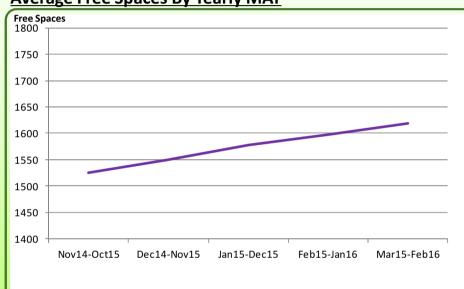
MAILUL

Free Spaces in Bath Park & Rides

Average Free Spaces By Month



Average Free Spaces By Yearly MAT



Newbridge P&R capacity increase not seeing an increase in usage

| Newbridge Capac | ity Change | | | |
|-----------------|-----------------|-----------------|--------|----------|
| | 20/1/15-29/2/15 | 20/1/16-29/2/16 | Change | % Change |
| Capacity | 464 | 698 | 234 | 50% |

VOI IOI

Average* – the average capacity level achieved over a given period

DATA TRUTH #4

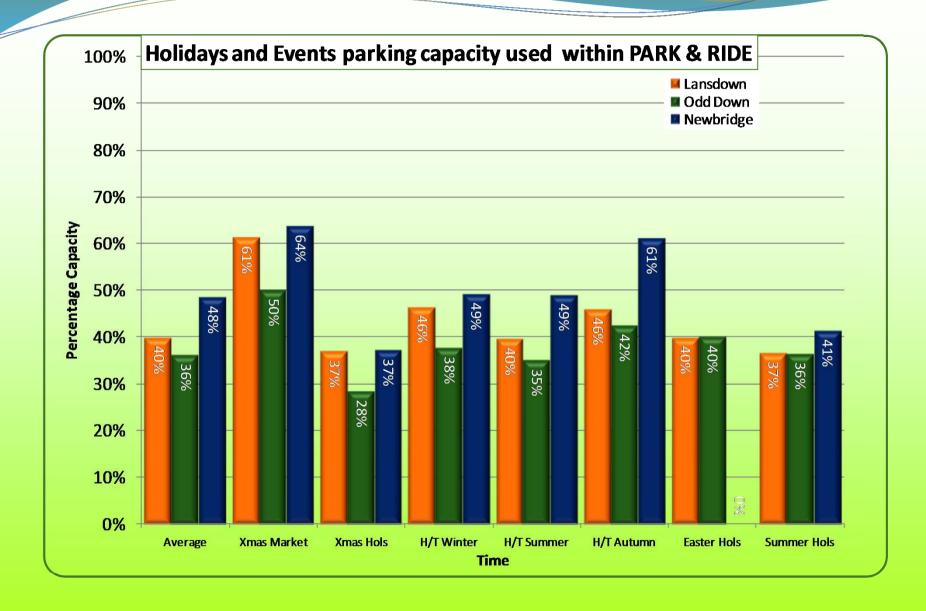
There is excessive spare capacity at the current P&R across the day of between 1,143 and 2,475 spaces.

1316

ASSUMPTION #5

We cannot plan for increased parking need





Key Influences on Park & Ride Capacity

| | Lansdown | Newbridge | Odd Down | P&R Max |
|-----------|----------|-----------|----------|----------|
| | P+R | P+R | P+R | Capacity |
| Saturday | 100 | 100 | 100 | 100% |
| Friday | 100 | 100 | 92 | 97% |
| Monday | 100 | 100 | 90 | 97% |
| Saturday | 100 | 100 | 90 | 97% |
| Tuesday | 100 | 100 | 88 | 96% |
| Wednesday | 100 | 100 | 87 | 96% |
| Thursday | 98 | 100 | 87 | 95% |
| Wednesday | 100 | 100 | 83 | 94% |
| Tuesday | 98 | 100 | 85 | 94% |
| Monday | 100 | 99 | 84 | 94% |
| Friday | 100 | 100 | 82 | 94% |
| Thursday | 98 | 97 | 83 | 93% |
| Saturday | 100 | 100 | 76 | 92% |
| Friday | 100 | 99 | 77 | 92% |
| Thursday | 99 | 94 | 80 | 91% |
| Saturday | 100 | 94 | 67 | 87% |
| Wednesday | 86 | 99 | 71 | 85% |
| Wednesday | 85 | 98 | 73 | 85% |
| Tuesday | 78 | 92 | 74 | 81% |

ADITO!

Days when capacity reaches 100%

16 15

Between 1st March 2015 and 29th February 2016

•Capacity levels reached 100% on 21 days at one or more Park and Rides at some point in that day.

1

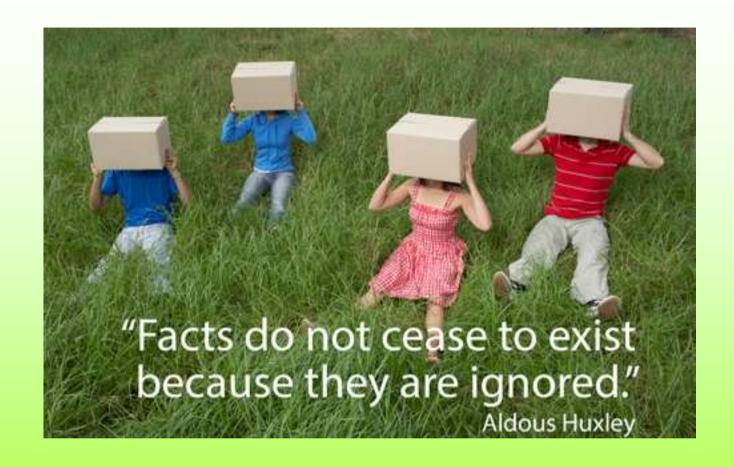
- There are 19 days when average Park and Ride capacity exceeded 80%.
- Of these 19 days, 17 where as a result of the Xmas Market.

DATA TRUTH #5

Capacity levels are at their highest due to predictable events

Review

- **#1** We have over 365,000 rows of cleaned data
- **#2** Park & Ride usage is at its lowest when congestion is at its highest
- **#3** Driver behaviour is not changing
- #4 Park & Ride usage is at best stagnant even with greater capacity
- **#5** Up-to 9am an East Park and Ride will only take 384 cars off the London road
- #6 When Capacity levels are high it is due to actual and predictable events



Thank You

Evidence behind the City's parking numbers Christine Boyd



Parking numbers

- Council 'needs' 1400-1600 spaces
- Where does this need come from?
- The need is not explained in Transport Strategy or supporting document

CH₂MHILL

The best kept secret in Bath

Hill report - a secret recipe to fix traffic

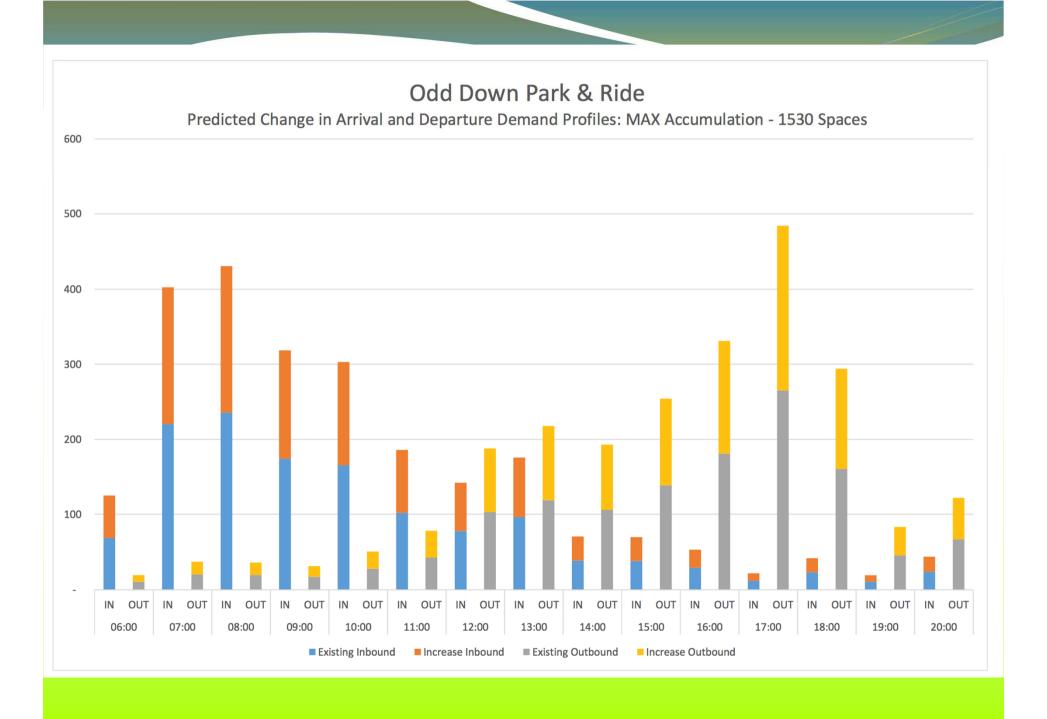
- Invisible document
- Mystery assumptions
- ✓ No brief
- ✓ No version control
- ✓ No minutes



Hill Report 'assumptions'

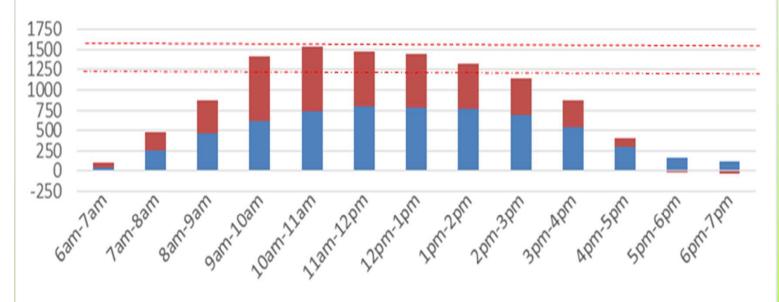
- 1600 spaces to east
- 300 at Odd Down
- 300 at Lansdown
- Capacity of existing sites raise to 85%

Double the amount of P&R!



569 more cars off the road by 10 am

Fill Profile Hill assumes is needed at each P&R to offset Enterprise Area growth - this one is Odd Down but all are similar (Source: Hill report Appendix C)



Assumed capacity Current capacity

- Predicted fill required as set out by Hill (note requires a 1530 space car park)
- Fill Level on survey day in question (date unknown)

BUT...do we need this much parking?

- Transport strategy says 5700 spaces
- We already have 6857 spaces
- Not about parking, it's about congestion!

Hill gives incredible results!

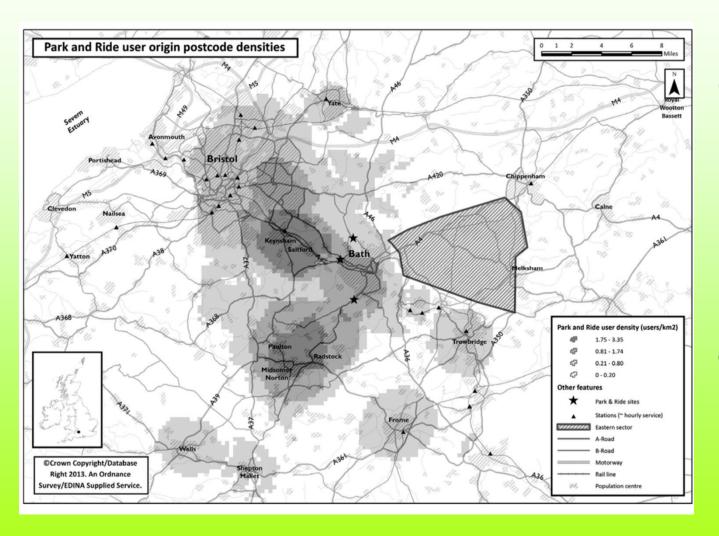
- EA creates 4700 extra trips the in PM peak
- Double P&R it makes 3000 disappear



- 1700 is 4% increase on the 42189 traffic movements in the PM peak
- That's okay! EA can go ahead
- Commuters can use P&R
- Commuters from west can use east P&R

We would all be using P&R

Would P&R to east be used?

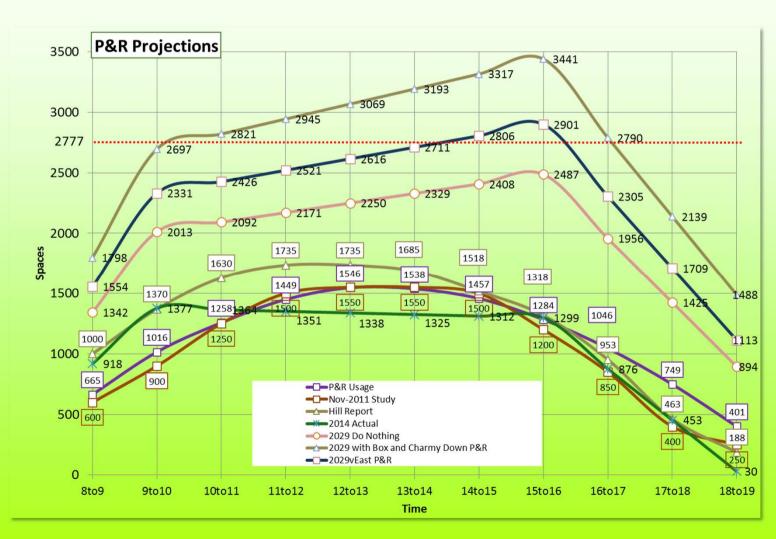


The Eastern Sector 'virtually no demand for P&R'



- 10% of CCCP or 373 users from east
- B&NES no behavioral studies of their own
- 48% of users would not have driven into trip to city
- Odd Down a 'suitable proxy' but only 36% full
- 75% of users are shoppers, so no chance of extracting 1,314 cars from London Road by

Even the latest forecast by Mott McDonald doesn't stack up – we need to think, not knee-jerk



Evidence (or lack of it) around congestion and emissions – Fiona Meldrum

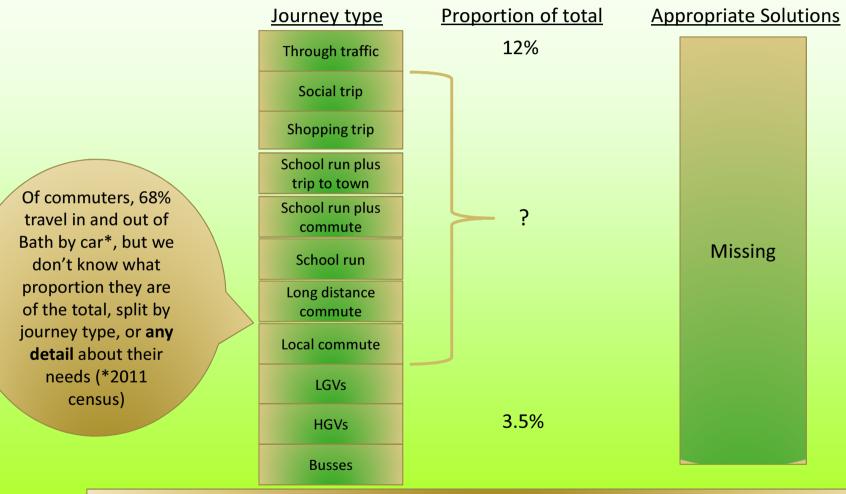


Where's this and when?



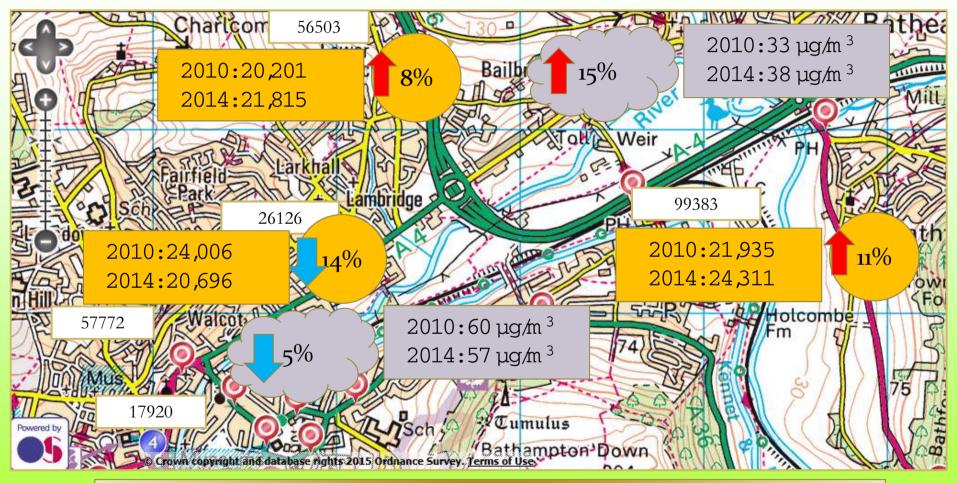
"The Traffic Management Act 2004 (TMA) imposed network management duties on local authorities to tackle congestion. Understanding congestion is therefore a key requirement in being able to tackle it.." Source: Oxfordshire County Council Congestion Report 2014

Nobody in BaNES seems to know how the congestion problem actually breaks down....



How can we plan effectively to reduce the volume of traffic or change specific behaviours without a proper understanding of who travels where, when and why?

And worryingly to the East we see a growth pattern...



We know where the majority of the London Road volume comes from – 58% of morning peak comes from the A4/Wiltshire and 51% of afternoon peak leaves for it*

Chart Source: Dept for Trans Annual Average Daily Flows (AADFs) & Banes Air Quality Monitoring 2015 Screening Assessment * Source: Banes traffic count at A46/London Road roundabout 04/07/2013

Let's just pause on air quality - pollution isn't just a minor irritant – it has major health impacts

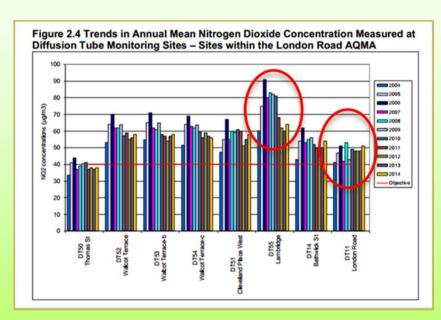
- 40,000 deaths in the UK are attributable to outdoor air pollution
- Air pollution can cause, or contribute to, low birth weight, pre-term births, cancer, asthma, chronic bronchitis, stroke and heart and circulatory disease, diabetes, obesity, and changes linked to dementia.
- Air pollution is harmful to everyone. However, there are factors that make some people more vulnerable: developing foetus, age, existing medical conditions, obesity, and living, learning or working near busy roads.
- Road traffic in B&NES contributes up to 92% of the total nitrogen dioxide (NO₂) concentration.

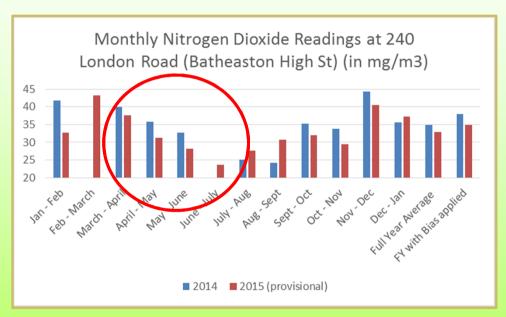
There isn't some magical line between the city and Batheaston – people's health in both locations is adversely impacted by pollution

There is seemingly no plan by the Council to bring congestion and hence pollution down to EU limits

- Transport strategy
 - No targets, just aims and no target to reduce car use
 - No implementation plan yet
 - Assumptions questioned by the Hill report
- Air Quality Action Plan
 - No focus on personal car use, except 1 target on work-based travel plans
 - Of the 16 actions in the previous plan, only 5 had measurable benefits set as targets and of these only 1 had had an impact when last reviewed the one on work-based travel plans (0.3% impact)
 - Next plan should have started by now...
- Planning for the Enterprise Area
 - Incredibly, the Hill report only <u>plans to maintain the congestion status quo</u> and in fact even its black box model cannot maintain this in the afternoon. Banes are planning to make congestion worse...

There is evidence from Bath itself that getting traffic moving and preventing it makes a difference to emissions



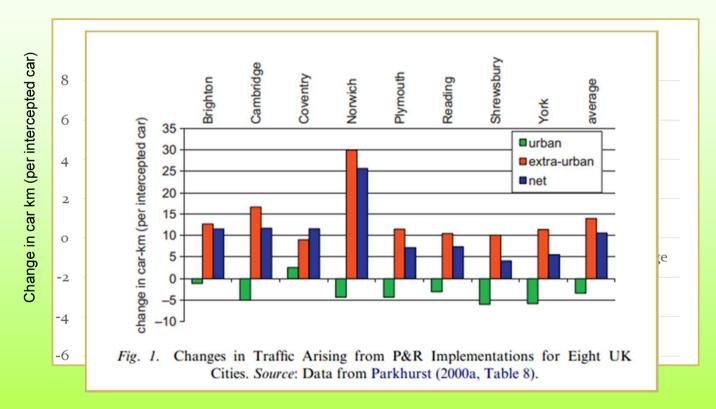


At the Lambridge end of the London Road where traffic crawls the most and there is a set of lights, readings are significantly higher

Source: Banes Air Quality Monitoring 2015 Screening Assessment and 2015 provisional results

When the A36 shut for 4 months in 2015 (March – June inclusive), average nitrogen dioxide levels were 32 vs 39.5 in 2014. Toll bridge traffic fell by 40%. For the full year excluding these months and any bias, the readings were the same at 34 mg/m3 so underlying pollution remained the same

But Park and rides do not solve the traffic issues they are meant to – instead they generate more traffic



'City fringe type facilities lead to an increase in Vehicle Km Travelled. The results range from about 1 to 4 additional kilometres per P+R user'*

'Fewer than one out of every two P&R users is a *target group* user who would have otherwise driven into the city'*

^{*}Source: Zijlstra, Vanouttrive and Verhetsel 2015

Any park and ride on the meadows would bring even more traffic through the villages

Bathampton:

Rat run through the village from the A₃6 to cross the toll bridge, down to the A₄6/A₄ roundabout then onto the A₄.

Also parking in the George pub car park and walking to the bus

Batheaston:

From the M4 drivers would rat run from J17 of the M4 to avoid J18 and the A46, passing through Batheaston

People currently using the A₄ bypass could switch back onto Batheaston High St to avoid the traffic lights put in to provide access to a park and ride

And this is before a link road is in the picture to bring more pollution through the valley as it bypasses on the A₃6, A₄ bypass, A₄6 route

Our analysis also sees no impact on London Road congestion

Council Evidence

900 commuters off the London Road (7-9am)

15% of traffic off the London Road (7-10am) BMA Evidence from same start point

250 commuters off the London Road

5% of traffic off the London Road

And we mustn't forget the 4,500 supressed demand crossing the toll bridge and the commuters who enter from Wiltshire via A36 and Brassknocker Hill. Or the Tom Tom technology that diverts to the 'best 'route.

Crucially Defra no longer support P&R either in their policy guidance

- •2009 Guidance was already lukewarm towards P & R: "Park & Ride is unlikely to affect town centre traffic levels, and may simply add to the amount of traffic entering the town"
- New 2016 Guidance removes reference to P & R as a tool altogether from its Policy Document

Instead, emphasis is given to......

Traffic Schemes: Speed limit restrictions, Intelligent Traffic Management, SCOOT, Improving Traffic Flows through eg Junction design

Promoting
Behaviour Change
- School &
Workplace Travel
Plans, Travel
Awareness
Campaigns

Access Controls on most polluting vehicles – Clean Air Zones & Variable Charging Schemes Promoting Low
Emission
Transport:Green
Bus Technology
Fund, OLEV
schemes

Smarter Choices
Campaigns to
encourage modal
shift to more
sustainable modes
of transport

What more do we need to do to demonstrate that park and ride will generate congestion and pollution and isn't the answer to the East's issues?

Banes needs to think again

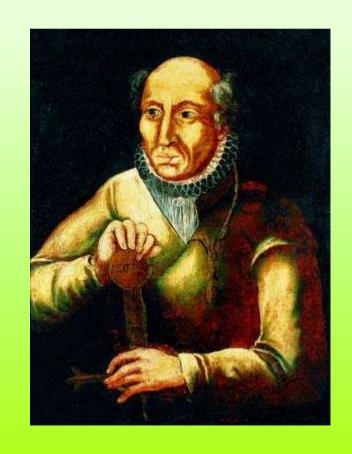
Pollution in the East of Bath Some Legal Context – Annie Kilvington



It's all about the Dose

"What is it that is not a poison? All things are poison and nothing is without poison. It is only the dose that makes a thing not a poison."

-Paracelsus, 1493 – 1541, Founder of Modern Toxicology



...So when is a poison not a poison?

"...meeting EU standards should be the minimum requirement. Regardless of EU rulings it is unacceptable that UK citizens could have their health seriously impaired over decades before this public health problem, is brought under control"

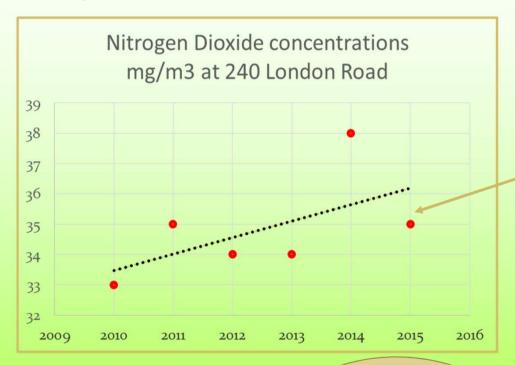
-House of Commons Environmental Audit Committee, 6th Report of Session 2014-2015

Don't wait till 40

"There are significant health effects below our limit values, and so not attaining our limit values should be seen in a very negative light. They are not a magic barrier we have to cross. They are our minimum expectations to protect public health."

-Dr Ian Mudway, Kings' College London, in evidence to House of Commons Environmental Audit Committee

A Recap – What is the NO2 Dose at Batheaston right now?



A36 shut for 4 months – Toll Bridge traffic down by 40%. Traffic diverts via Sally in the Woods/Winsley. Seen in the monthly pollution readings.

Excluding March – June, both years HAVE THE SAME AVERAGE

BASE LEVELS

Annual trend of Rising NO2 levels at monitoring points in Batheaston

NO2 annual averaged levels continue to hover just below EU Limit Values

For 2 out of 3 Winter
Months in each of last
two years, EU Limit
values have been
BREACHED

Let's not hide behind the Average

- Peak NO₂ Reading of 44.2 for 2014
- Peak NO₂ Reading of 43.2 for 2015

A Dose like this has Legal Consequences

- BANES has statutory duty to *reverse*Batheaston's current poor air quality, through compliance with obligations re:
 - emissions monitoring, reporting and action on Air Quality Plans; and
 - Planning and development

Emissions Monitoring & Reporting – A New Regime for 2016

- The Law has Changed. New 2016 AQMA Policy & Technical Guidance have been issued to replace the 2009 Versions.
- New Regime puts Local Authorities at the heart of delivery of targeted pollution reduction measures

The Statutory obligation under the Environment Act has not changed....

BANES *must* designate AQMA where national air quality objectives are unlikely to be, or are not being, met. -*Sn* 83 EA And so:

• Failure to designate an area which is or is likely to exceed the national (and EU) limit values for NO2 is a breach of statutory duty

The AQMA Policy Guidance 2016 – What's New?

- Councils not to waste resources attempting to narrow down parameters of AQMA to detriment of identifying measures & taking action.
- Where trans boundary pollution an issue, a broader AQMA gives flexibility to respond to pollution issues.

The AQMA Policy Guidance 2016 – What's New?

 New Fast Track Process so Council's can quickly declare or extend AQMA where:

"normal annual monitoring and local intelligence shows a persistent exceedance (or risk of exceedance)."

- Councils with long AQMA history discouraged from lengthy deliberations
- Annual Status Reports to replace 3 year reporting cycles

Annual Status Report June 2016

The 2016 Route to an AQMA for Batheaston

Are air quality objectives being, or likely to be exceeded?

Batheaston annual mean concentration NO2 2014 - 38µg/m3 - and for 2015 when adjusted for A36 closure

Continue to submit ASR by 30 April annually. Apply Fast Track AQMA as soon as any projected exceedance of an objective

Apply a Fast Track AQMA

What does Batheaston's poor air quality mean for Planning & Development in the Area?

- UK is being sued by EC for ongoing breach of NO₂ limit values, and risks annual fines of £300 million
- Planning authorities must seek to prevent or reduce extent of this breach; they have a duty to seek to achieve compliance with the Air Quality Directive
- DEFRA has written to all Local Authorities to remind them of the power under the Localism Act 2011 to pass on fines to Local Authorities responsible for breaches of EU Legislation

Where am I going with this?

Here!

 A planning authority cannot grant permission for a development which would lead to a breach of the EU limit values in the area of development – because this would be taking a measure which jeapordises the fulfilment of the UK's obligations under the Directive.

YOU CAN'T DO IT.

Finally, two cities recommended to abandon P&R during their scrutiny process – we can do the same

WORCESTER

IPSWICH

COVENTRY
POOLE
PRESTON
WEYMOUTH
CARDIFF
COLCHESTER

READING TRURO

