

# East of Bath Park & Ride



**LDF Steering Group  
21<sup>st</sup> March 2016**

# Outline of presentation



- ① Consideration of each of the potential site locations in light of Council resolution.
- ② feasibility and deliverability of each site option;
- ③ costs associated with each site option;
- ④ The transport benefits of each site option;
- ⑤ The visual impact of each site option.

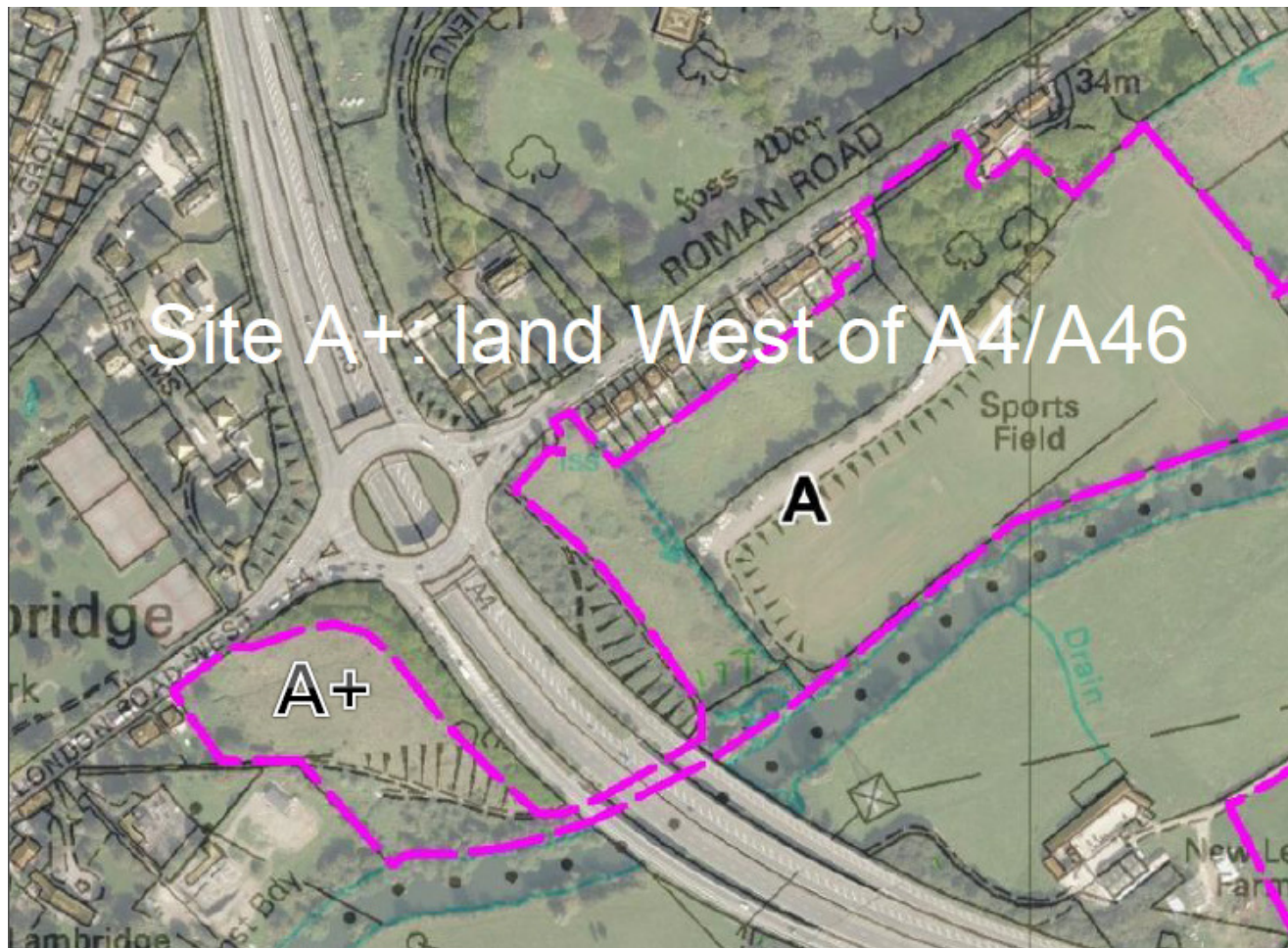
## Council resolution:

- ④ that the cross-party Local Development Framework Steering Group review all the options for the location of an East of Bath Park & Ride prior to Cabinet selecting a preferred site early next year,
- ④ Site A+
- ④ Site H+
- ④ Site 10
- ④ Site B
- ④ Site F
- ④ Site F+

# Costs

- ④ Excludes land costs. Development costs are indicative estimates at 2016 prices. Further analysis will be required to refine the cost estimates
- ④ The repayment costs of borrowing £23m would be between £920,000 and £1.6m per annum depending on the repayment period (50 or 20 years respectively). The existing P&R contract provides a contribution of £500,000/annum

# Site A+

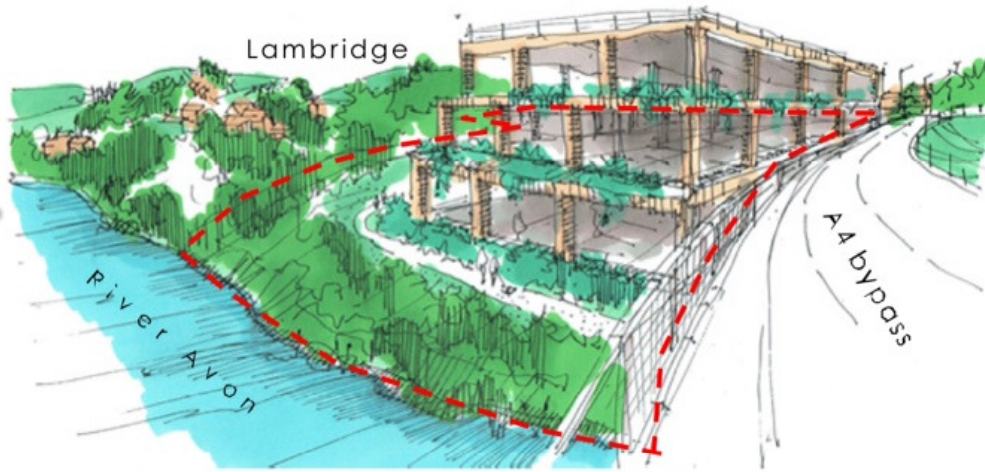


# Site A+

	The feasibility and deliverability of each site option;	The costs associated with each site option;	The transport benefits of each site option;	The visual impact of each site option.	Other environmental factors to consider
<b>Site A+ Land to the west of the A4/A46 Junction</b>	Highway England approval required. AQ impacts –ve Land ownership mostly DfT would appear to own the land Additional congestion on A4/A46 roundabout	£XXXm (minimum) (excludes land purchase)	Well placed to attract users from both A4 and A46 corridors. Forecast demand 1,472 vehicles per weekday. Capacity up to 1,200 on four decks	High negative impact overall. High negative impact on WHS	Negative impact on air quality Difficult to mitigate if decked Not in AONB but located in WHS



# Park & Ride Options



Sketch view



Proposals



Photograph



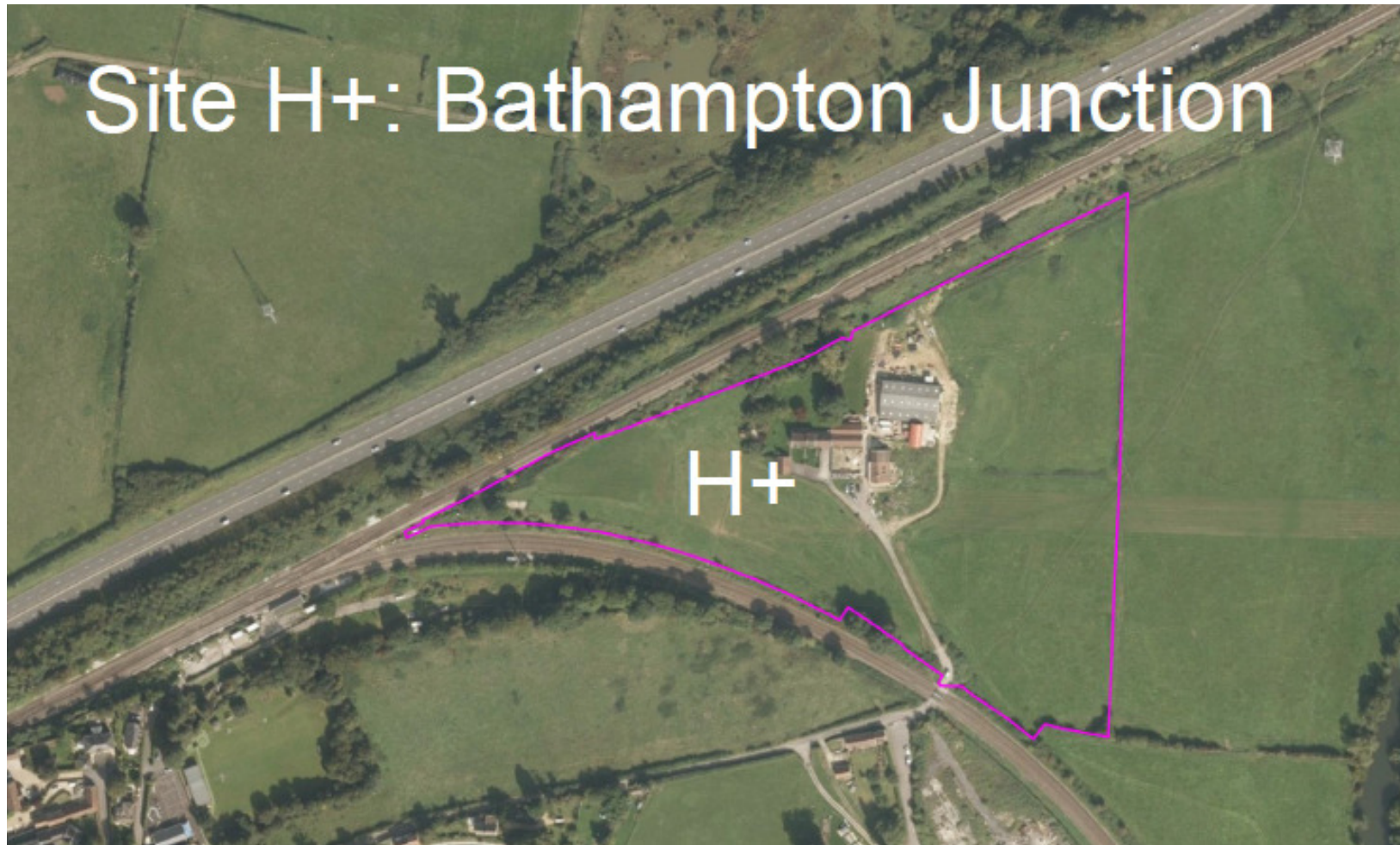
Location  Shows general direction of sketch view

Site A+ Land west of A4 / A46





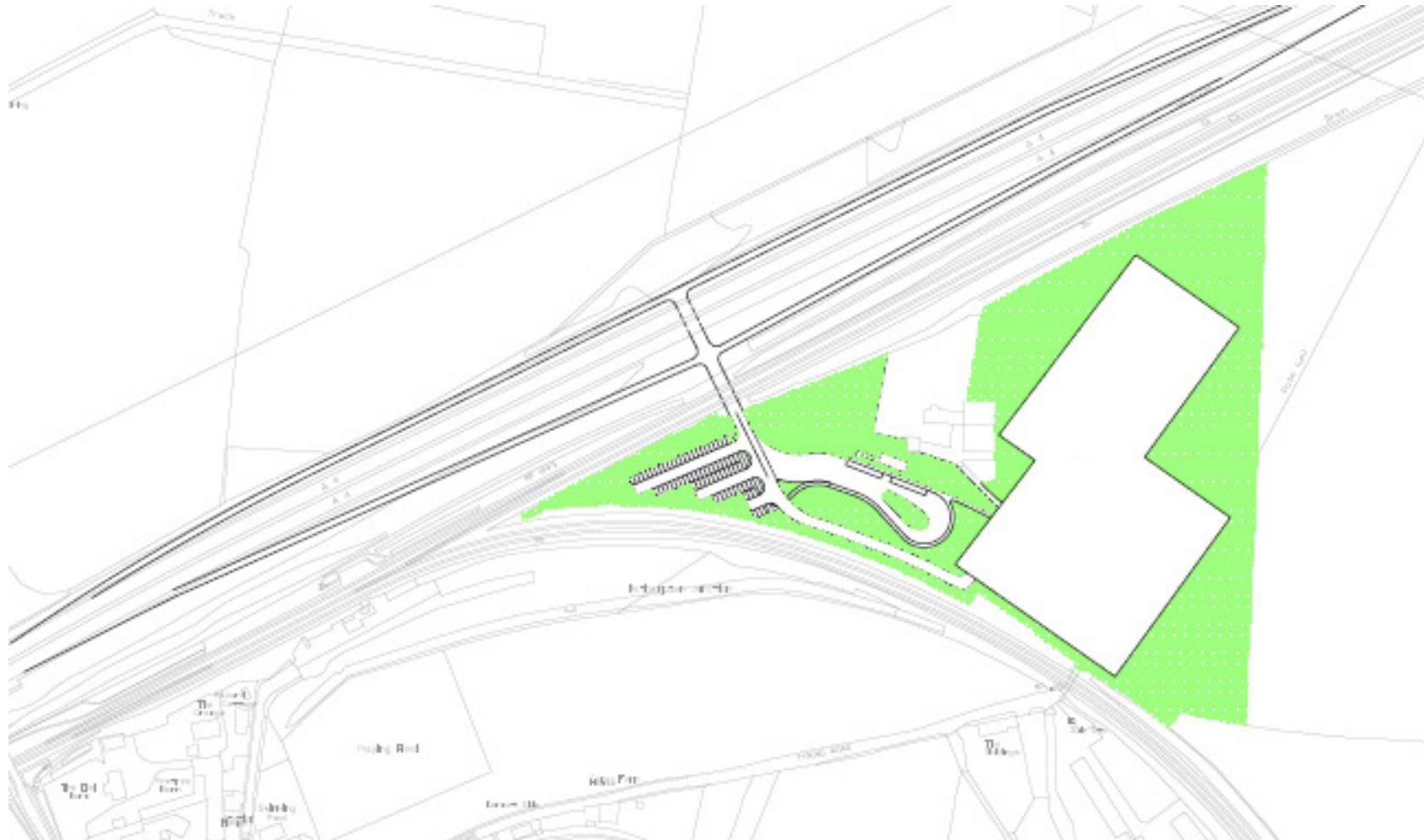
# Site H+



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# Site H+ indicative layout (structure)



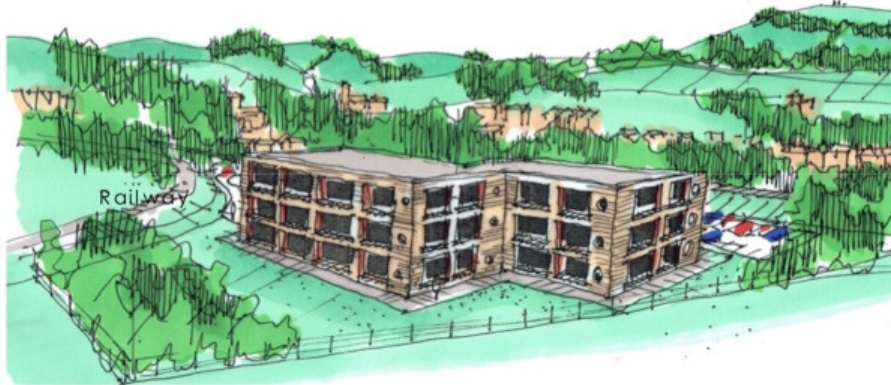
Bath and North East Somerset – *The place to live, work and visit*

# Site H+ access arrangements

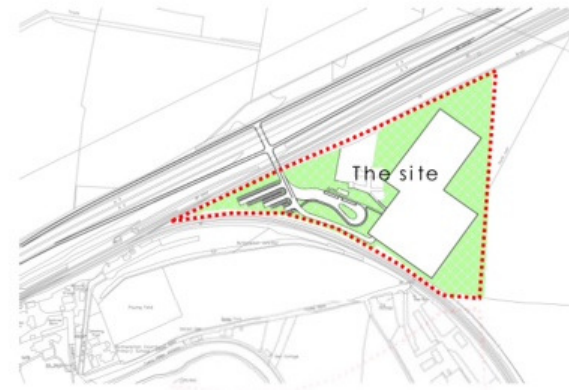


# Park & Ride Options

Solsbury Hill



Sketch

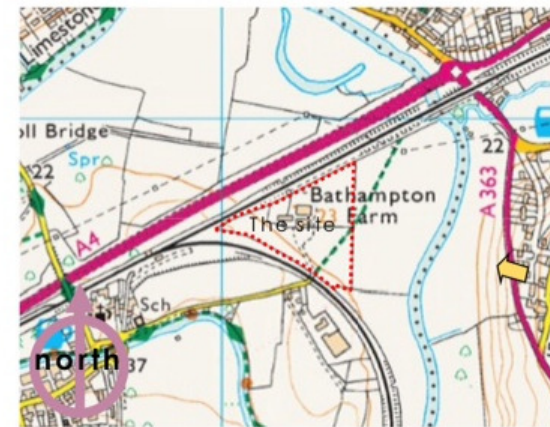


Proposals



Photograph

Oblique aerial view extracted from Google Earth



Location

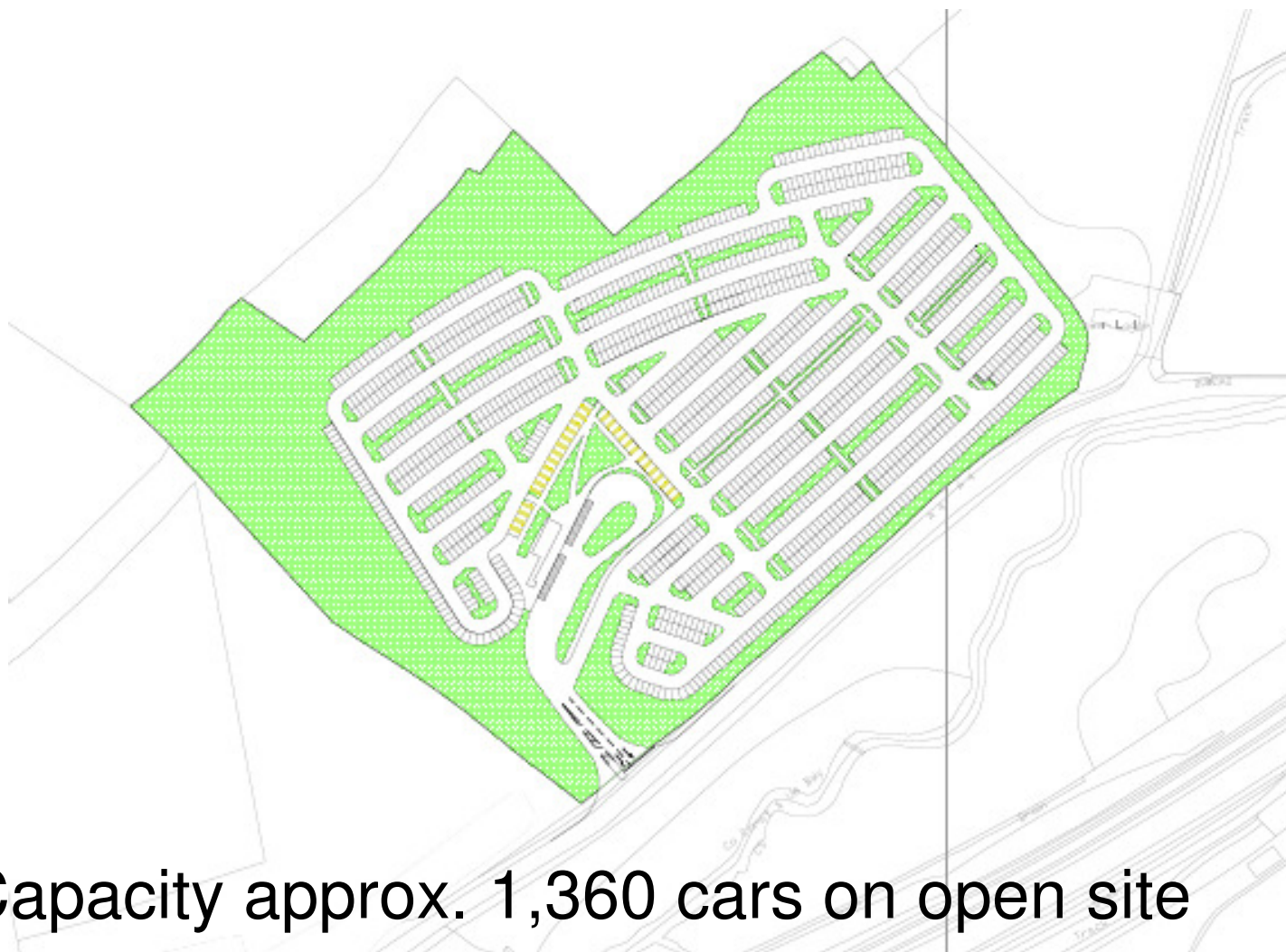
Shows general direction of sketch view

# Site H+ Bathampton Junction

# Site H+

	<b>The feasibility and deliverability of each site option;</b>	<b>The costs associated with each site option;</b>	<b>The transport benefits of each site option;</b>	<b>The visual impact of each site option.</b>	<b>Other environmental factors to consider</b>
<b>Site H+ Bathampton Junction bus based</b>	Highway England & Network Rail approval required. Flooding Impact on Grade II LB. Land acquisition required.	£XXXm(minimum) – £51.4m (minimum decked) (excludes land purchase)	Site of adequate capacity for either surface (1,040 spaces) or multi-storey (650 spaces per level) car park. Forecast demand 1,245 vehicles per weekday. Does not preclude future option of being accessed additionally by rail.	High negative impact overall.	Flood risk Located in AONB Hard to mitigate and very difficult if decked

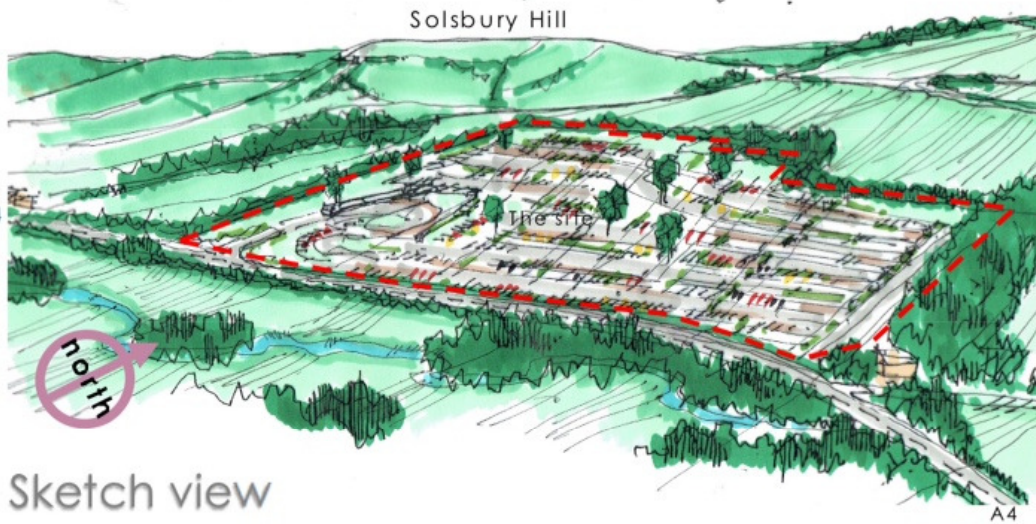
# Site 10



🚌 Capacity approx. 1,360 cars on open site



# Park & Ride Options



Sketch view



Proposals



Photographs



Location

# Site 10 Land west of Box Lodge

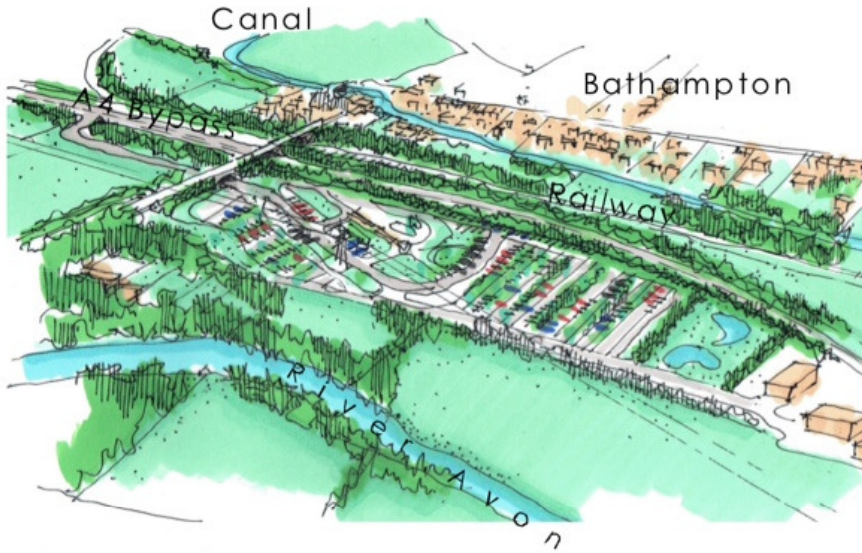
# Site 10

	<b>The feasibility and deliverability of each site option;</b>	<b>The costs associated with each site option;</b>	<b>The transport benefits of each site option;</b>	<b>The visual impact of each site option.</b>	<b>Other environmental factors to consider</b>
<b>Site 10 Land west of Lower Lodge, Box Road</b>	No approvals required from third parties to gain access. Site privately owned.	£XXXm (excludes land purchase)	Only serves A4 corridor but could be considered in conjunction with another site for A363 & A46 traffic. Forecast demand 500 vehicles per weekday. Capacity of up to 1,360 spaces.	High and negative overall given separation from settlement, rural setting in AONB & WHS setting	Hard to mitigate Located in AONB

# Site B: land West of Mill Lane



# Park & Ride Options



Sketch view



Proposals



Oblique aerial view extracted from Google Earth

Photograph



Location

Shows general direction of sketch view

Please note that these diagrams are for illustrative purposes only & are not to scale.

Site B Land west of Mill Lane

# Site B A4

	<b>The feasibility and deliverability of each site option;</b>	<b>The costs associated with each site option;</b>	<b>The transport benefits of each site option;</b>	<b>The visual impact of each site option.</b>	<b>Other environmental factors to consider</b>
<b>Site B A4 Batheaston Bypass: land west of Mill Lane</b>	Highways England approval required. Land acquisition required.	£XXXm (excludes land purchase)	Forecast demand 850 to 970 vehicles per weekday plus 370 to 430 vehicles per weekday with an additional RUH service (total 1,220 to 1,400 spaces). Capacity of up to 1,400 spaces.	High negative impact overall.	Limited opportunity to mitigate Not in AONB

# Site F: Land East of Mill Lane



# Park & Ride Options



Sketch view



Proposals



Photograph

Oblique aerial view extracted from Google Earth



Location

Shows general direction of sketch view

Site F Land east of Mill Lane

Please note that these diagrams are for illustrative purposes only & are not to scale.

# Park & Ride Options



Proposals

## Site F Land east of Mill Lane

Please note that these diagrams are for illustrative purposes only & are not to scale.



# Site F

	<b>The feasibility and deliverability of each site option;</b>	<b>The costs associated with each site option;</b>	<b>The transport benefits of each site option;</b>	<b>The visual impact of each site option.</b>	<b>Other environmental factors to consider</b>
<b>Site F A4 Batheaston Bypass: land east of Mill Lane</b>	Highways England approval required. Site owned by Council	£XXXm	Forecast demand 850 to 970 vehicles per weekday plus 370 to 430 vehicles per weekday with an additional RUH service (total 1,220 to 1,400 spaces). Capacity of up to 1,400 spaces.	High negative impact overall.	Not in AONB

# Site F+ Bathampton Meadow

Significant opportunity for Ecological enhancement



# Park & Ride Options



Sketch view



Photograph

Oblique aerial view extracted from Google Earth

Bath & North East  
Somerset Council



Proposals



Location

Shows general direction of sketch view

Site F+ Land east of Mill Lane

Please note that these diagrams are for illustrative purposes only & are not to scale.

# Park & Ride Options

Bath & North East Somerset Council



# Site F+ Land east of Mill Lane

Proposals

Please note that these diagrams are for illustrative purposes only & are not to scale.



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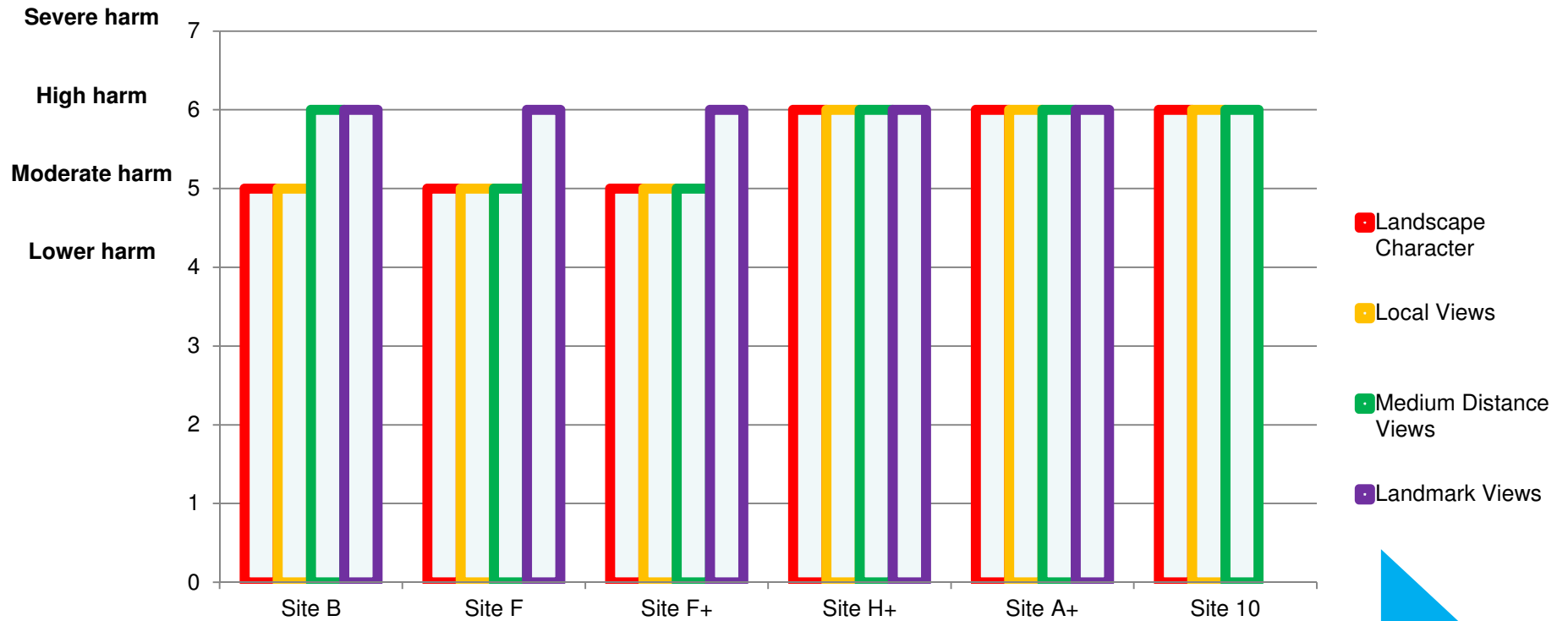
# Site F+

	<b>The feasibility and deliverability of each site option;</b>	<b>The costs associated with each site option;</b>	<b>The transport benefits of each site option;</b>	<b>The visual impact of each site option.</b>	<b>Other environmental factors to consider</b>
<b>Site F+ A4 Batheaston Bypass: land east of Mill Lane</b>	Highways England approval required. Site owned by Council	£XXXm	As above	High negative impact reduced with mitigation	Not in AONB Ecological and landscape mitigation would reduce Green Belt and landscape impact and deliver biodiversity gain

# Environment and Heritage scores

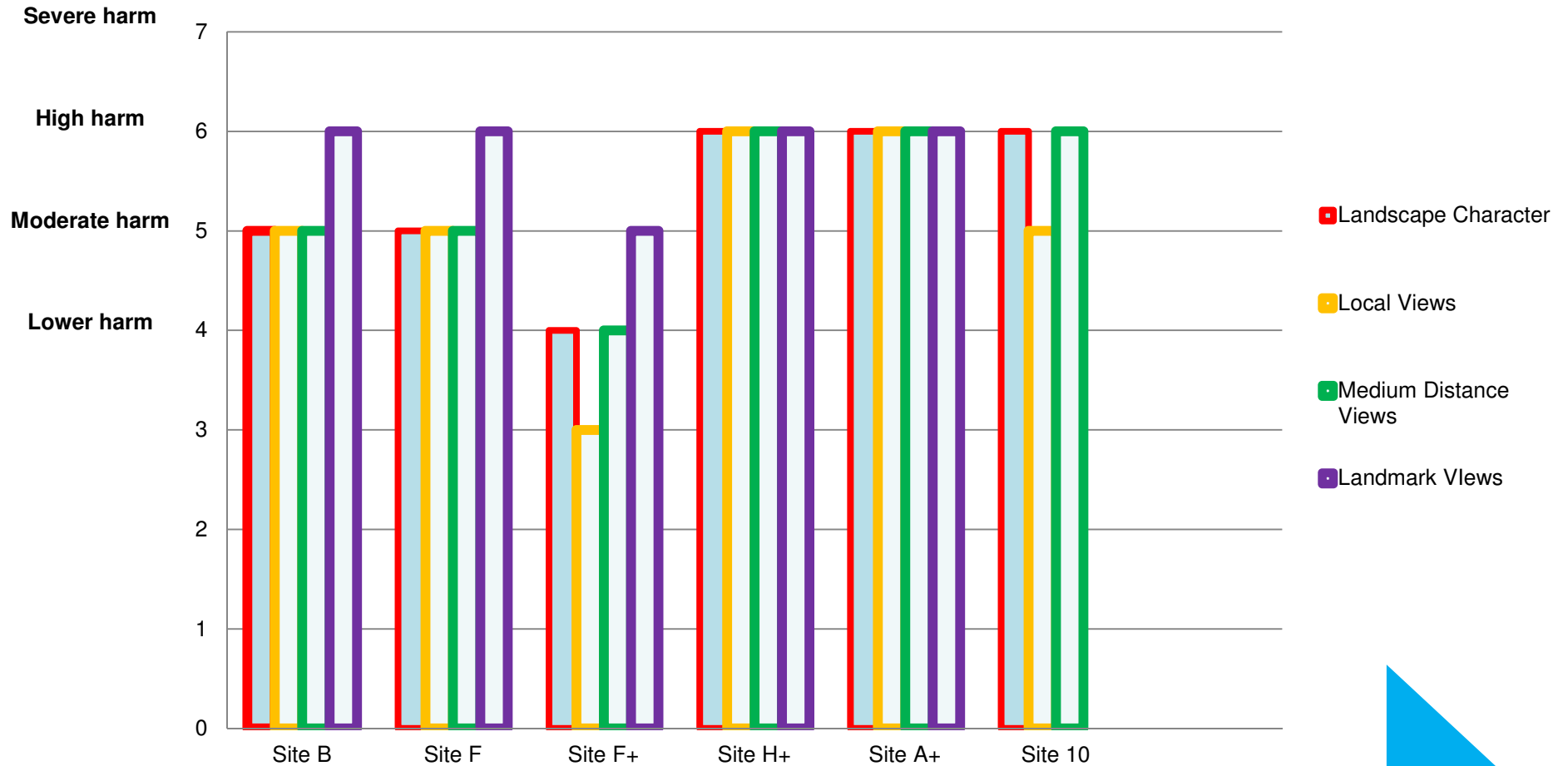
Sites	Landscape	Ecology	Archaeology	Heritage	Flood Risk	Air Quality	Green Belt	Opportunity to mitigate	Environment & Heritage combined
Site A+: Land west of A4/A46	RED	AMBER	RED	RED	NO	RED	AMBER*	RED	RED
Site B: Land west of Mill Lane	RED	AMBER	RED	RED	NO	GREEN	RED	AMBER	RED
Site F: Land east of Mill Lane	RED	AMBER	AMBER	RED	NO	GREEN	RED	AMBER	RED
Site F+: Land east of Mill Lane	AMBER	AMBER	AMBER	AMBER	NO	GREEN	AMBER	GREEN	AMBER
Site H+: Bathampton Junction	RED	RED	RED	RED	YES	GREEN	RED	RED	RED
Site 10: land west of Lower Lodge, Box Road	RED	AMBER	GREEN	GREEN	NO	AMBER	AMBER	AMBER	AMBER

## Chart of Relative Landscape & Visual Harm on Completion (yr 0)

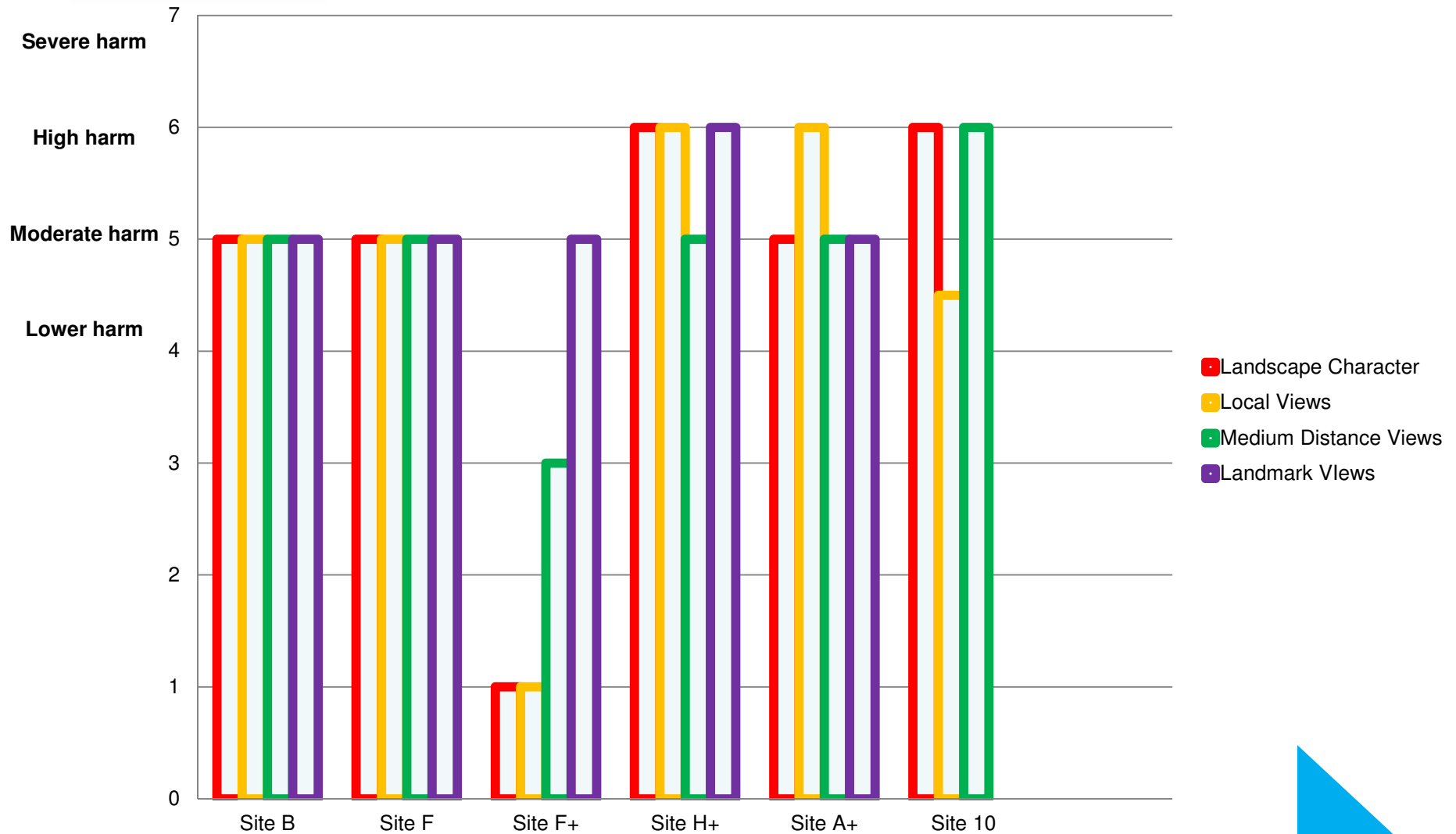




## Chart of Relative Landscape & Visual Harm for Early Years (5-15)



# Chart of Relative Landscape & Visual Harm for Later Years (15 - Maturity)



## The air quality issue...



...relates primarily to **NITROGEN DIOXIDE (NO<sub>2</sub>)** because it exceeds the annual average national objective level of **40 micrograms per cubic metre** in **specific parts** of Bath and North East Somerset.

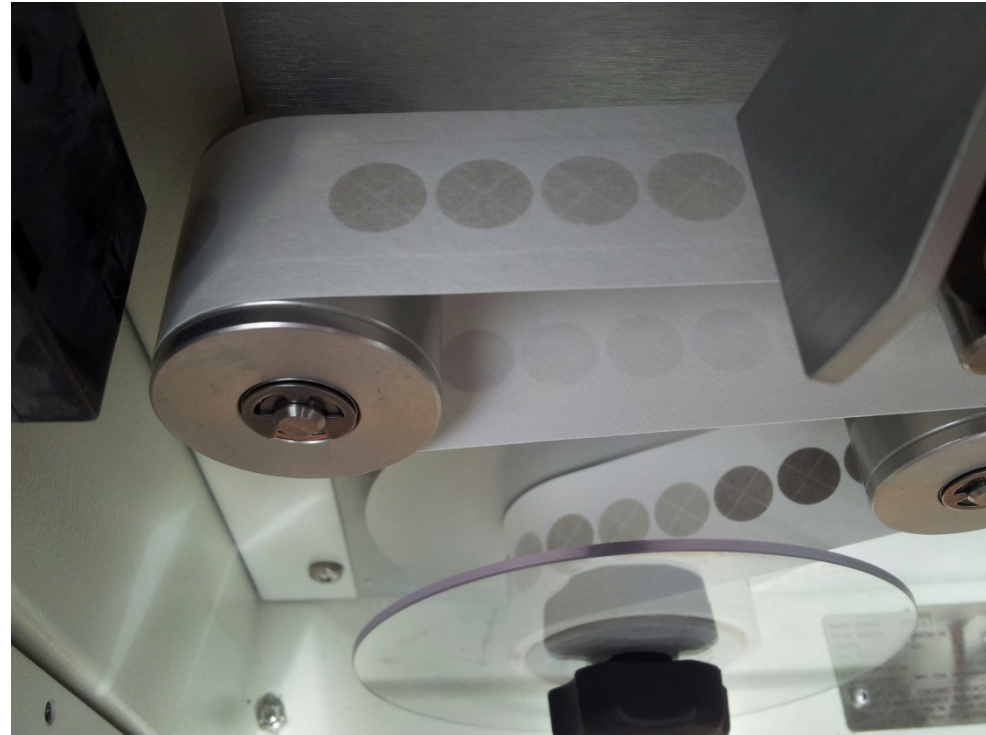
## Monitoring network:

### Automatic monitors in enclosures:

- London Road (Snow Hill)  
*NITROGEN DIOXIDE (NO<sub>2</sub>), PM<sub>10</sub>, PM<sub>2.5</sub>*
- London Road (Antiques shop)  
*NITROGEN DIOXIDE (NO<sub>2</sub>)*
- Guildhall  
*NITROGEN DIOXIDE (NO<sub>2</sub>)*
- Lower Bristol Road  
*NITROGEN DIOXIDE (NO<sub>2</sub>), PM<sub>10</sub>*

### Moveable automatic monitors:

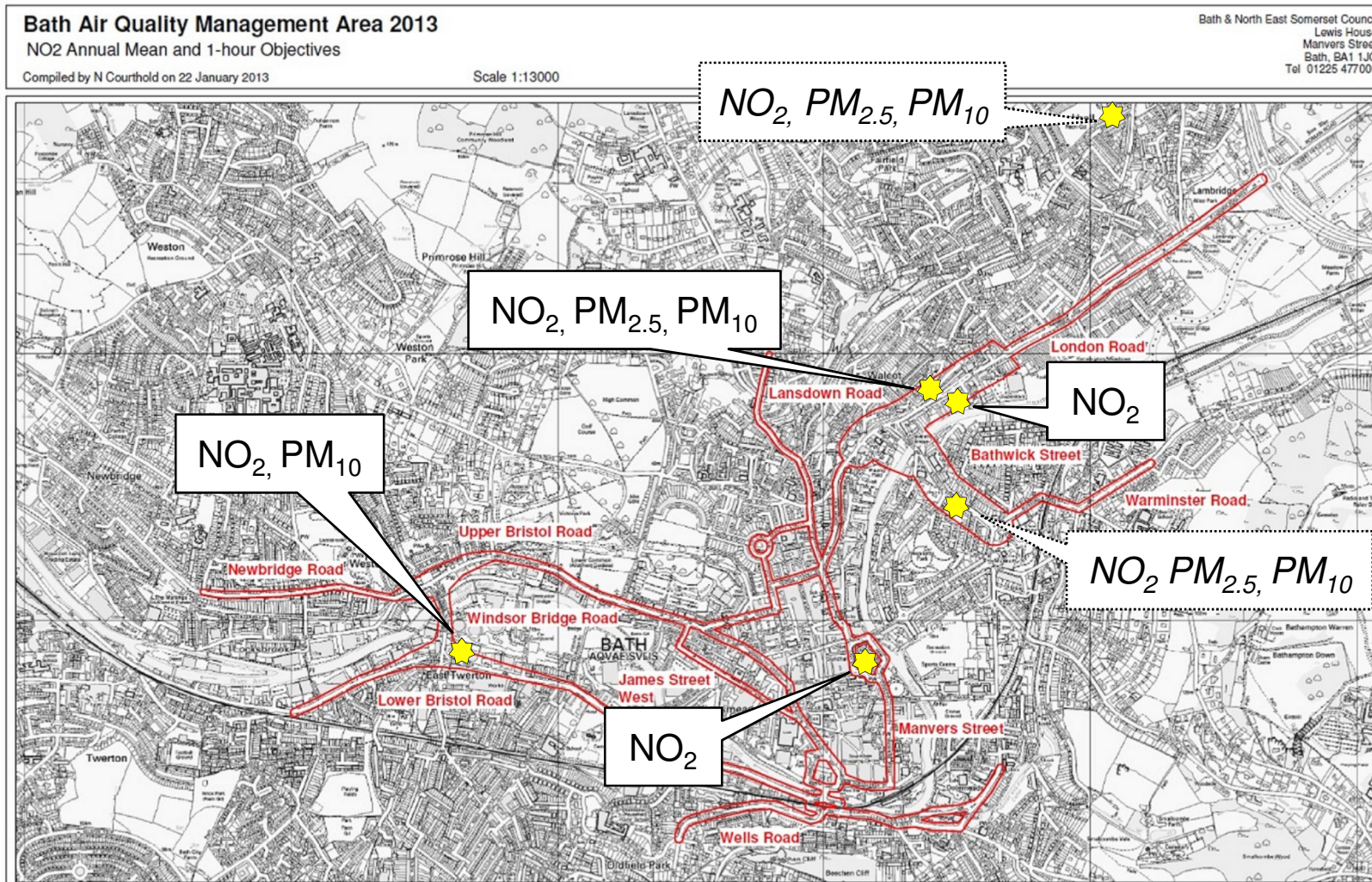
- Bathwick Street
- Larkhall schools (planned)  
*NITROGEN DIOXIDE (NO<sub>2</sub>), PM<sub>2.5</sub>, PM<sub>10</sub>*



### NO<sub>2</sub> diffusion tubes:

- 60+ locations
- changed monthly for monthly average values

# Automatic monitoring



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# Monitoring Sites

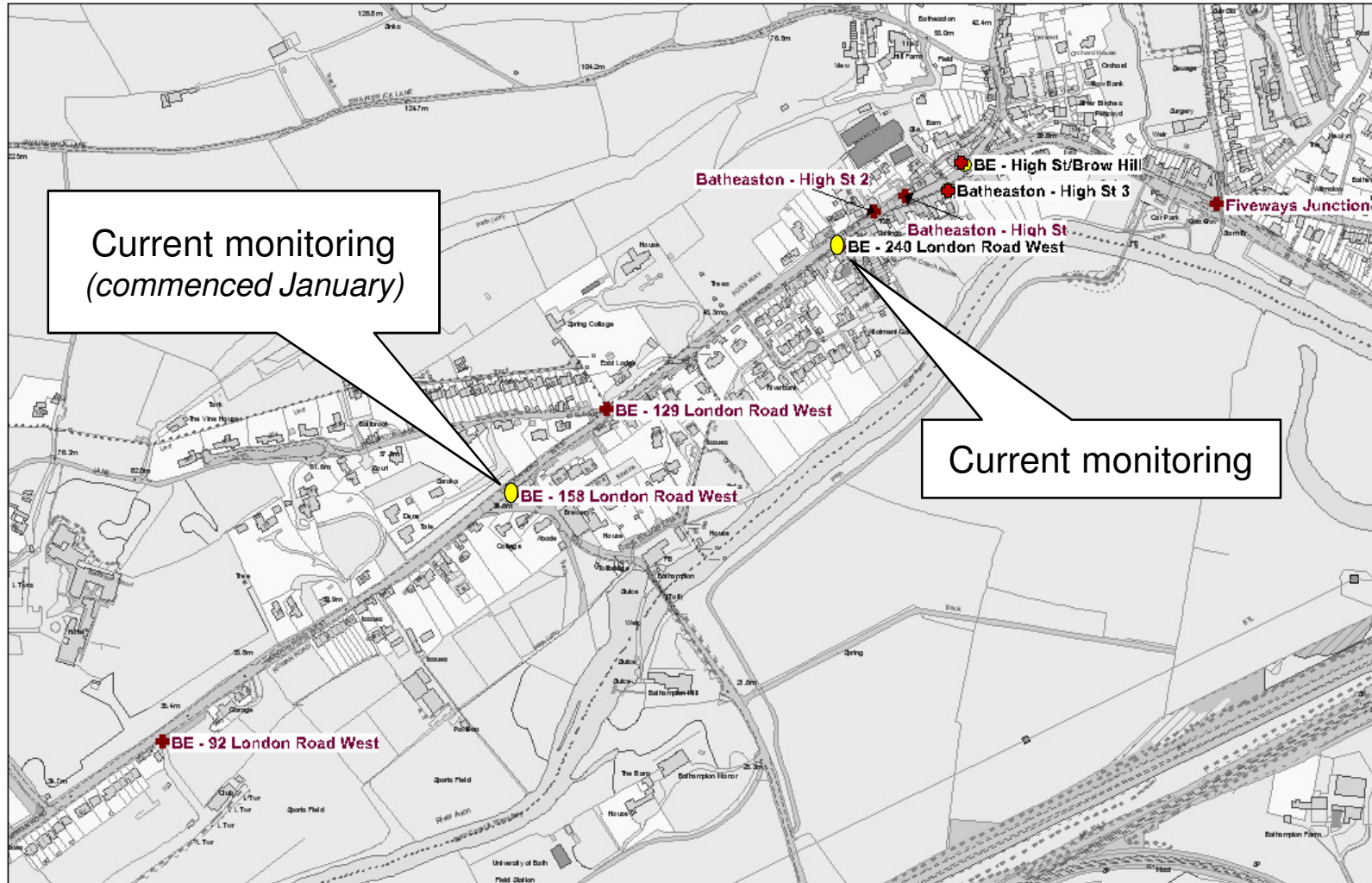
Batheaston

Author: N Courthold

Date: 16/03/2016

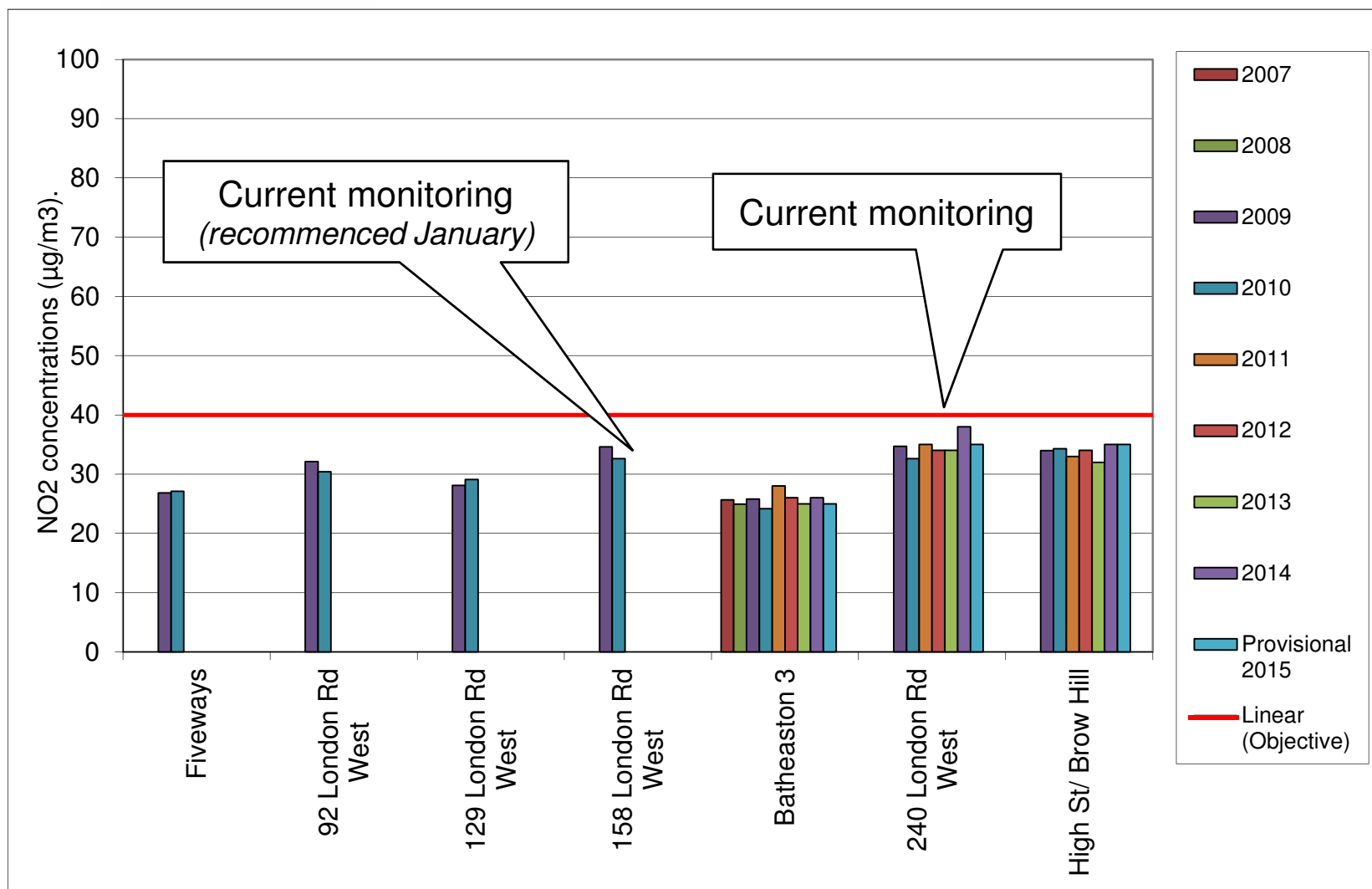
Scale: 1:6000

Bath & North East  
Somerset Council



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# Batheaston monitoring



Thank you for listening  
Any Questions?