

Technical Briefing Note

Project: Land East of Wixams, Bedfordshire

Technical Briefing Note TN1: Response to Site Assessment Under Bedford Borough Local Plan Review

Date: August 2021

1. Introduction and Background

1.1. Aspect Ecology is advising Wates Developments in respect of ecological matters relating to land east of Wixams, Bedfordshire. The site is being promoted for residential development under the Bedford Borough Local Plan Review.

1.2. Following the Call for Sites submission under the Local Plan Review, Bedford Borough Council have published Site Assessments for each of the submitted sites¹. In relation to the land east of Wixams site, the following assessment has been made under the biodiversity and green infrastructure criteria:

2a) Within or adjoining site of nature conservation importance?

+ The site is not within or adjoining a site of nature conservation importance

2b) In an area where protected species are known or likely to exist?

xx Protected species recorded on the site

2c) Potentially able to achieve a net gain in biodiversity?

? Uncertain or insufficient information

2d) Able to link into the green infrastructure opportunity network?

Nothing chosen

1.3. The site has been subject to ecological survey work by Aspect Ecology in January 2020 as set out in the 'Preliminary Ecological Appraisal' (August 2020) which accompanied the Call for Sites submission. However, it is considered that the Council's Site Assessment does not accurately reflect the findings of this work, or the opportunities for biodiversity and green infrastructure under the proposals. Accordingly, this note provides further discussion of the relevant criteria in relation to the site.

2. Criteria 2a – Within or adjoining site of nature conservation importance?

2.1. As set out in the Preliminary Ecological Appraisal, no ecological designations are located within or bounding the site, the nearest statutory ecological designation being Kings Wood and Glebe

¹ Following the methodology set out in: Bedford Borough Council (July 2020) *Local Plan Review: Site Selection Methodology*.

Meadows, Houghton Conquest Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR), located approximately 2.2km to the south of the site, whilst the nearest non-statutory designation is Wilstead Meadows County Wildlife Site (CWS) located approximately 400m to the east of the site. The site is not located within a SSSI Impact Risk Zone in relation to residential development.

2.2. As such, the '+' rating set out under the Site Assessment is considered to be appropriate.

3. Criteria 2b – In an area where protected species are known or likely to exist?

3.1. The survey work undertaken at the site in January 2020 did confirm presence of the protected species Badger, with several setts recorded at the boundaries of the site. The site is also considered to offer potential for protected species including bats, Dormouse, breeding birds, Great Crested Newt and reptiles and specific Phase 2 surveys are recommended at the planning application stage to determine presence/absence of such species. However, no Badger setts were recorded within the area of the site proposed for development, whilst potential for other faunal species is largely limited to field boundary habitats which could readily be retained under the proposals. There are also substantial opportunities for mitigation and enhancement within the site given the large areas of land available.

3.2. Likely on the basis of the above confirmed protected species presence, the site has been assigned a 'xx' rating. However, the wording of the criteria does not take into account whether protected species are likely to be impacted, and clearly disadvantages sites that have been subject to specific ecology work (with field surveys likely to identify one or more protected species, whereas this is unlikely to be confirmed by a desk based appraisal only).

3.3. Given that the identified Badger setts are located outside of the proposed development area, whilst further information is required in relation to other protected species, a rating of '?' (uncertain or insufficient information) is considered to be more appropriate.

4. Criteria 2c – Potentially able to achieve a net gain in biodiversity?

4.1. As indicated in the Preliminary Ecological Appraisal, there are substantial enhancement opportunities available under the proposals, with large areas in the southern part of the site available for new habitat creation.

4.2. To provide further detail on this matter, the Defra Biodiversity Metric 3.0 calculation tool has been used to quantify the level of biodiversity net gain that can be achieved under the proposed development. The results of this exercise are set out below and in the accompanying metric calculations (see Appendix 5820/1).

4.3. The metric takes account of the size, distinctiveness and ecological condition of existing and proposed habitat areas to provide a proxy measure of the present and forecast biodiversity value of a site, and therefore determine the overall change in biodiversity value.

4.4. To establish the habitat baseline, broad habitat areas have been identified based on the survey work undertaken at the site, with habitat condition based on the associated guidance. Given the early stage of the project, no specific detail has been worked up in regard to landscaping proposals, although broad habitat areas have been identified based on the illustrative Site Layout (Re-Format drawing no: F19146-RFT-01-XX-DR-A-0103: see Appendix 5820/2) to inform the post-development habitat creation, with a number of assumptions made based on comparative developments and what is realistic and feasible under the proposed scheme. The

Site Layout drawing shows a red line boundary relating to the northern part of the site which incorporates the area proposed for built development, whilst the large area of open space to the south of the site is shown with a blue line boundary. For the purposes of the metric calculations, the 'site habitat baseline' and 'site habitat creation' is based on the red line boundary only (shown at Plans 5820/BNG1 and BNG2), with the opportunity to provide further net gain within the remaining site area.

- 4.5. Calculations have been undertaken based on habitat areas only, rather than linear features (e.g. hedgerows), given that details of hedgerow retention and new planting are not shown under the broad site layout plan. However, it is likely that a substantial gain in linear features could be provided as part of the detailed layout.

Biodiversity Metric Results

- 4.6. The site is currently dominated by arable land and smaller areas of species-poor grassland of low distinctiveness, with habitats of medium distinctiveness limited to small areas of scrub and young woodland (see attached Plan 5820/BNG1). These scrub and woodland areas will be fully retained under the proposals, whilst there are substantial opportunities for new habitat creation within the large areas of open space around the edges of the built development area. Based on the illustrative site layout, the broad habitat creation categories of woodland/scrub, grassland and SUDS are identified (see attached Plan 5820/BNG2).
- 4.7. Given the illustrative nature of the current proposals, a number of assumptions are made in relation to the habitats to be created and likely habitat condition that can be achieved:
- For the areas shown as built development, a 70/30 split is assumed in terms of buildings/hardstanding and gardens. Based on experience of other schemes, between 30% and 50% of development parcels typically comprises gardens or other amenity space (depending on housing density), such that this is a precautionary assumption;
 - For broad areas of tree planting shown on the site layout plan, a 50/50 split is assumed in terms of woodland and mixed scrub creation;
 - For broad areas of grassland shown on the site layout plan, a 50/50 split is assumed in terms of species-rich wildflower grassland (assigned as other neutral grassland) and other grassland areas to be managed for amenity/recreational purposes (assigned as modified grassland). A larger area of species-rich grassland could readily be incorporated, such that this represents a precautionary assumption.
 - A moderate condition is assumed for habitats to be created within open space areas, which is considered to be appropriately precautionary based on the specific criteria and likely condition which can be achieved through appropriate management.
- 4.8. A summary of the habitat units under the baseline and post-development scenarios is set out below, together with the overall change in habitat units.

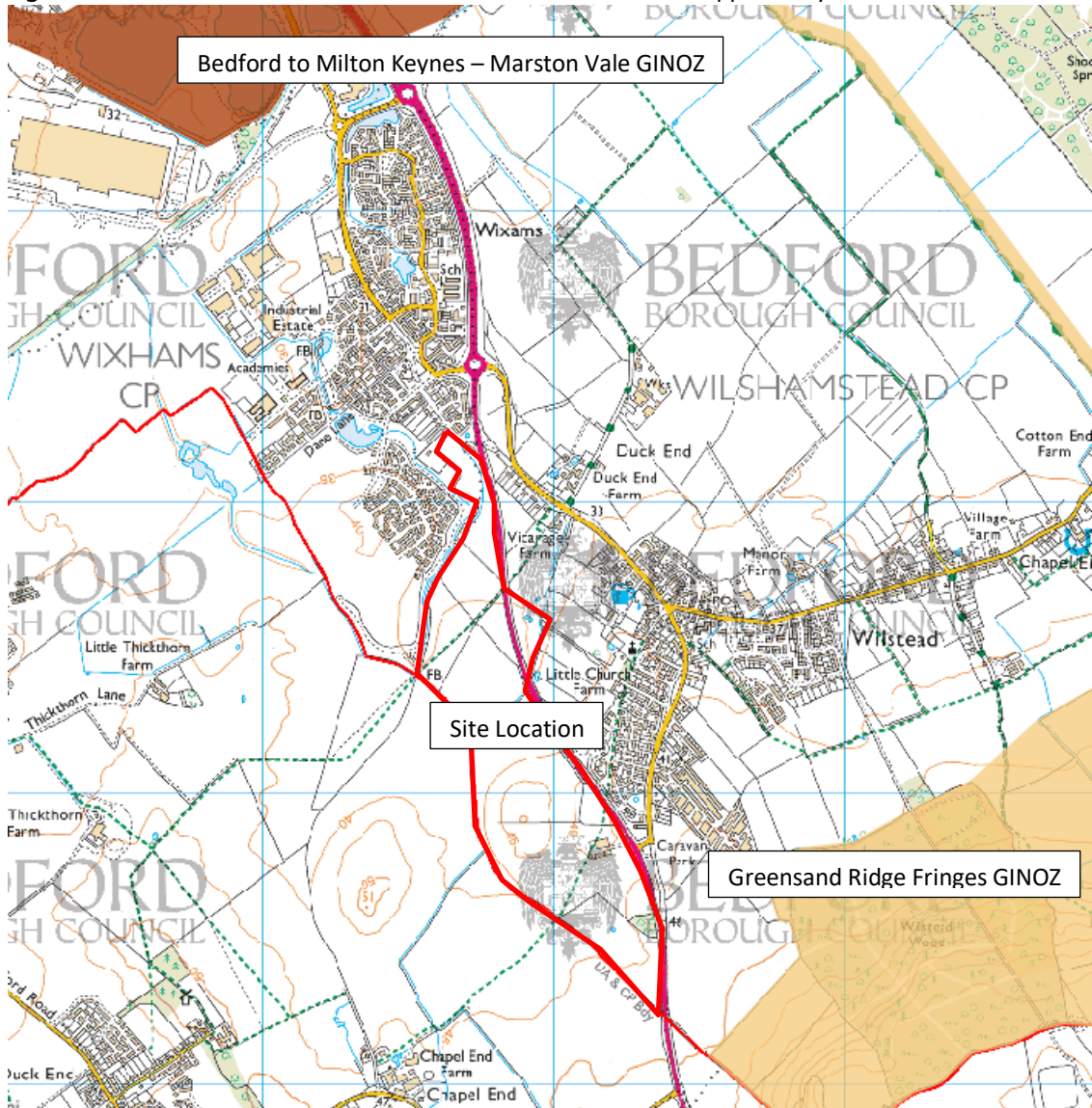
Baseline habitat units	54.32
Post-development habitat units	71.68
<i>Retained habitats</i>	<i>2.44</i>
<i>Habitat creation</i>	<i>69.24</i>
<i>Habitat enhancement</i>	<i>0.00</i>
Total net unit change	+17.36
Total net % change	+31.96%

- 4.9. As this sets out, it is considered that a 31.96% biodiversity net gain could be achieved under the proposals. Given this is based on a number of precautionary assumptions, whilst further gain could be delivered within the additional site area to the south, this is considered to be a robust assessment, and given the size of the site, is considered to represent a substantial gain at the local scale.
- 4.10. Accordingly, a rating of ‘+’ (development of the site will enable the achievement of a net gain in biodiversity) can be assigned under the Site Assessment.

5. Criteria 2d – Able to link into the green infrastructure opportunity network?

- 5.1. No specific discussion of this matter was set out in the previous Preliminary Ecological Appraisal. Accordingly, further detail is set out below.
- 5.2. Based on a review of the Green Infrastructure Network Opportunity Zones (GINOZ) under the Bedford Borough Council Policies Map 2020, the site is located between two zones, with Bedford to Milton Keynes – Marston Vale GINOZ located approximately 1250m to the north, and Greensand Ridge Fringes GINOZ approximately 250m to the south (see Figure 1 below).
- 5.3. The Bedford Green Infrastructure Plan (November 2009) identifies Bedford to Milton Keynes – Marston Vale GINOZ as being dominated by industrial heritage associated with former brickworks and current brickpit landfill activities. Identified green infrastructure opportunities largely relate to wetland and woodland habitats.
- 5.4. Greensand Ridge Fringes GINOZ is described as being dominated by arable fields separated by woodland belts, historic hedgerows and hedgerow trees, together with ancient woodlands. Identified green infrastructure opportunities largely relate to woodland, scrub and grassland habitats.
- 5.5. On the basis of the above, it is evident that the site is well located to contribute to a new green infrastructure link between these two zones, linked by existing green infrastructure including the Wixams New Town green corridors and clearly able to enhance the network. In particular, creation of new wetland, woodland and grassland habitats (as indicated above in relation to biodiversity net gain) would correspond with the identified green infrastructure opportunities for the adjoining zones to the north and south.

Figure 1. Site location in relation to Green Infrastructure Network Opportunity Zones



5.6. The majority of the site is also located within an identified 'Network Expansion Zone' under the National Habitat Network shown on the MAGIC website, relating to existing lowland meadows.

5.7. Accordingly, a rating of '+' (the site is within or adjoining the green infrastructure opportunity network and able to enhance the network) can be assigned under the Site Assessment.

6. Conclusion

6.1. This note sets out a review of the relevant biodiversity and green infrastructure criteria informing the Site Assessment under the Bedford Borough Local Plan Review for the land east of Wixams site.

6.2. As set out in the relevant sections above, it is considered that the ratings under these criteria should be as follows:

2a) Within or adjoining site of nature conservation importance?

+ The site is not within or adjoining a site of nature conservation importance

2b) In an area where protected species are known or likely to exist?

? Uncertain or insufficient information

2c) Potentially able to achieve a net gain in biodiversity?

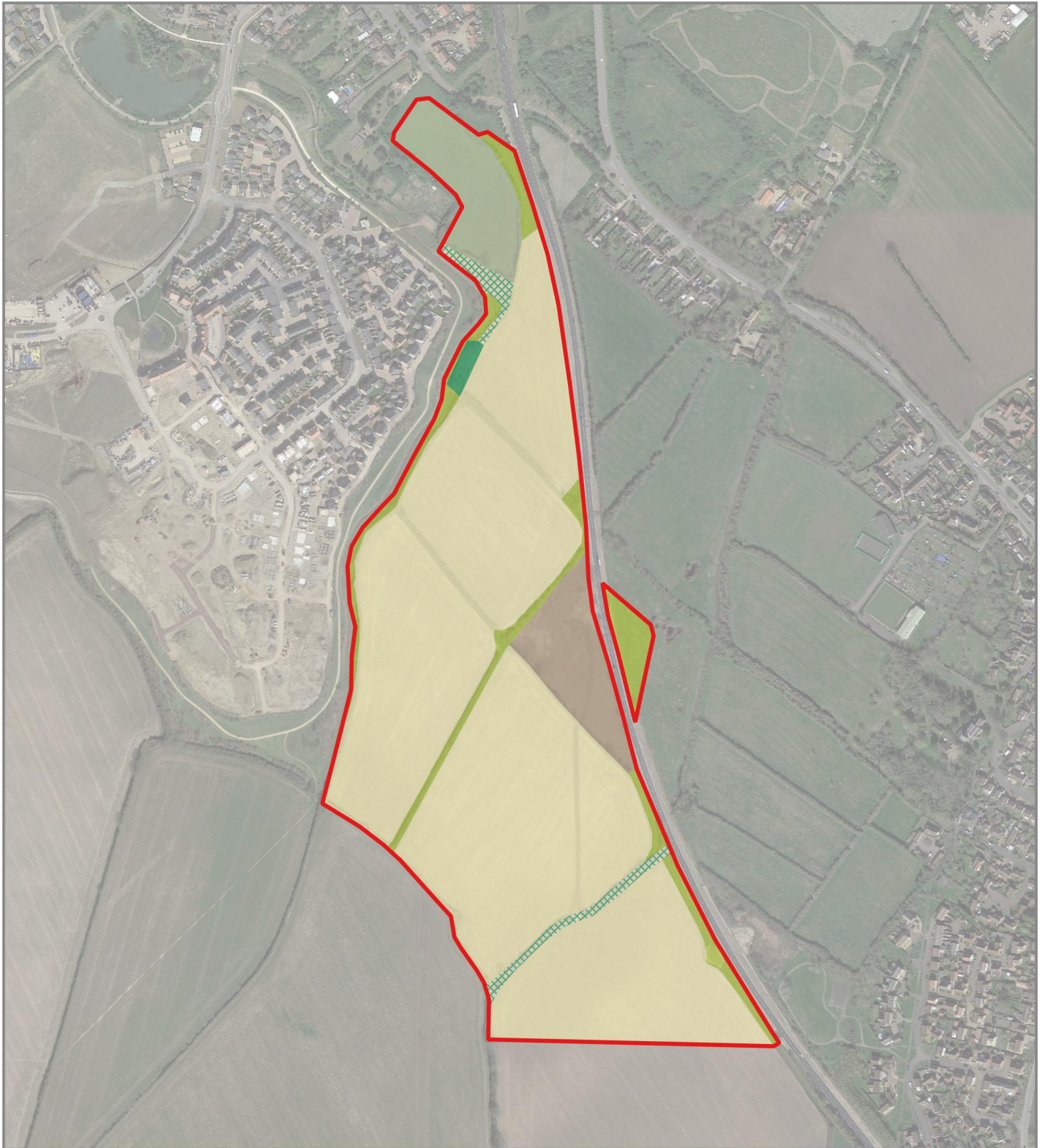
+ Development of the site will enable the achievement of a net gain in biodiversity

2d) Able to link into the green infrastructure opportunity network?

+ The site is within or adjoining the green infrastructure opportunity network and able to enhance the network

Plan 5820/BNG1:

Biodiversity Net Gain – Existing Habitats



Key:

-  Site Boundary
-  Arable (19.31ha)
-  Improved Grassland (1.46ha)
-  Semi-improved Grassland (1.87ha)
-  Bare Ground/Compound Area (1.43ha)
-  Dense Scrub (0.51ha)
-  Broadleaved Woodland (0.1ha)

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Land East of Wixams,
 Bedfordshire

Biodiversity Net Gain -
 Existing Habitats

5820/BNG1

August 2021

PROJECT	
TITLE	
DRAWING NO.	
REV	-
DATE	










Plan 5820/BNG2:

Biodiversity Net Gain – Proposed Development



Key:

-  Site Boundary
-  Built Development and Gardens (11.22ha)
-  SUDS (2.04ha)
-  Woodland and Shrub Planting (4.82ha)
-  Grassland Creation (5.98ha)
-  Retained Dense Scrub (0.51ha)
-  Retained Broadleaved Woodland (0.1ha)

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Land East of Wixams,
 Bedfordshire

Biodiversity Net Gain -
 Proposed Development

5820/BNG2

August 2021

PROJECT	
TITLE	
DRAWING NO.	
REV	-
DATE	



Appendix 5820/1:

Biodiversity Metric 3.0 Results

Headline Results

[Return to results menu](#)

On-site baseline	<i>Habitat units</i>	54.32
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	71.68
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site net % change <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	31.96%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%

Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00

Total net unit change <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	17.36
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	31.96%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%

Trading rules Satisfied?	Yes
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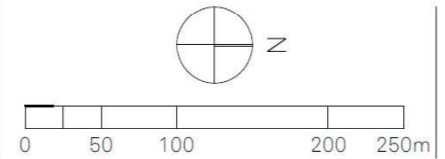
Appendix 5820/2:

Illustrative Site Layout



rev.	date	changes description
P03	8/11/2020	Amended to engineer comments
P02	8/11/2020	Amendments from consultant comments
P01	2/11/2020	

status	issued by
S1	RP
S1	
S0	



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 Land west of A6, Wixams
 document title
 Site Layout

project	originator	volume	level	type	role	number
F19146	RFT	01	XX	DR	A	0103
status	suitability description					revision
S1	Suitable for Co-ordination					P03