

*Sharing environmental information in Berkshire and Oxfordshire*

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## BIODIVERSITY IMPACT ASSESSMENT CALCULATOR – TIME TO TARGET CONDITION

### INTRODUCTION

Thames Valley Environmental Records Centre (TVERC) has carried out a literature review to establish the time taken to achieve good habitat condition when creating or restoring habitats. Time to target condition is often a contentious issue when considering net gains for biodiversity for development sites. TVERC wanted to establish what the published evidence was for habitat creation and restoration projects in achieving good condition.

TVERC has reviewed 70 papers and other publications to extract information on the time taken to achieve good condition for different habitats. The full list of references can be found below. Table 1 provides a summary of the time to good condition for different habitat types. We considered three condition scenarios:

- A. At least  $n$  years to good condition. This is where the condition of created or restored habitats was better than the starting habitat, but not is not considered to be in good condition for that habitat in general.
- B. Certain species or groups improved in  $n$  years. Different species react differently to habitat creation and restoration. This shows that the fortunes of specific species or species groups had improved over time.

- C. Fully or very close to fully restored / created in *n* years. The condition of the habitats was similar to that or existing good quality habitat in this time.

TABLE 1: TIME TO GOOD CONDITION FOR DIFFERENT HABITATS UNDER DIFFERENT SCENARIOS

Habitat	Action	Condition scenario	Mean	Median	Max
<b>Woodland</b>	Restore	A	9	7	19
		B	7	6	10
		C	71	75	80
	Create	A	30	30	30
		B	61	74	80
		C	71	75	80
<b>Broadleaved woodland</b>	Create	A	30	30	30
		B	75	75	80
<b>Riparian woodland</b>	Restore	A	5	5	5
		B	7	6	10
<b>Coniferous woodland</b>	Restore	A	5	5	5
<b>Heathland</b>	Restore	A	5	4	10
		B	8	10	10
		C	16	13	30
	Create	B	10	10	10
		C	16	13	30
		C	16	13	30
<b>Lowland Heath</b>	Restore	A	6	5	10
		B	3	3	3
<b>Standing water</b>	Restore	B	18	21	28
		A	12	12	20
		B	11	11	11
<b>Running water</b>	Restore	A	12	12	17
		C	21	21	39
		C	21	21	39
	Create	A	3	3	3
		B	10	10	10
		B	10	10	10
<b>Wetland</b>	Restore	A	8	8	8
		B	14	14	14
	Create	A	8	8	8
		C	6	6	10
<b>Reedbed</b>	Restore	B	29	29	30
		A	5	5	7
		B	2	2	2
<b>Grassland</b>	Restore	A	14	13	30
		B	10	10	12
		C	20	20	24
	Create	A	8	8	8
		B	2	2	2
		B	2	2	2
<b>Wet Grassland</b>	Restore	A	5	5	5
		B	4	4	4
		C	50	50	50
	Create	A	5	5	5

Habitat	Action	Condition scenario	Mean	Median	Max
		B	4	4	4
<b>Calcareous Grassland</b>	Restore	A	33	33	60
		B	20	20	20
<b>Meadows</b>	Restore	A	11	11	20
		B	5	5	6
	Create	B	73	73	75
<b>Acid Grassland</b>	Create	A	6	6	6
<b>Bare ground</b>	Create	A	2	2	2
<b>Wall</b>	Create	A	1	1	1
<b>Park</b>	Restore	B	20	20	20
<b>Lake</b>	Restore	B	15	15	15

TVERC has used the median time to good condition in calculating risk factors for creating or restoring different habitat types in the Biodiversity Impact Assessment Calculator. These times will also be used in the best practice guidelines that are being developed in completing a biodiversity impact assessment calculation. TVERC recommends that these figures are used in time to target calculations in the calculator as they are based on the best available evidence. Significant deviations for these times will need to be justified.

TVERC will review and update this literature review and the figures derived from it periodically as time and funding allows.

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## FEEDBACK

TVERC welcomes feedback or additional information to help improve the calculator and this review. Please send any comments or information to [tverc@oxfordshire.gov.uk](mailto:tverc@oxfordshire.gov.uk)

## ABOUT TVERC

Thames Valley Environmental Records Centre (TVERC) is a 'not for profit' organisation covering Berkshire and Oxfordshire. We are run by a partnership and are one of a national network of local records centres. We are a member of the Association of Local Records Centres (ALERC) and the National Biodiversity Network (NBN). Our funding partners include all the local authorities in Oxfordshire & Berkshire plus the Environment Agency. We also work closely with the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust.

## WHAT WE DO

We provide our funding partners with annually updated species and sites information as GIS tables, and undertake surveys of local wildlife sites. We also carry out data analysis for the monitoring of local authority Local Plans. We provide information to parish councils, local people, conservation bodies, land-owners, students and commercial organisations such as ecological consultants and utilities companies via data searches, data licensing and data exchanges. We provide other services such as ecological surveys, data analysis & presentation and training.

## OUR RECORDS

We hold around 1.8 million records of flora and fauna in Berkshire and Oxfordshire plus information about Local Wildlife and Geological Sites, NERC Act S41 Habitats of Principal Importance (previously called UK Biodiversity Action Plan (BAP) habitats) and Ecological Networks (Conservation Target Areas and Biodiversity Opportunity Areas). We collect this data from the general public, skilled volunteer /amateur recorders, professionals working for wildlife charities (BBOWT and RSPB), professionals working for government agencies (the Environment Agency & local authorities) and ecological consultants. This information is used:

- by planning authorities and developers to make informed decisions on the design and location of sustainable development
- to help farmers, land-owners and conservation organisations manage land in the best way to enhance biodiversity
- by nature partnerships to direct wildlife conservation work
- by teachers, students and scientists for education and scientific research.

For more information please visit our website: [www.tverc.org](http://www.tverc.org)