

# Mapping Gorse at Greenham and Crookham Commons

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## Introduction

This paper aims to inform the Commissioners of the extent of gorse cover on Greenham and Crookham Commons, and the change in this extent since last measured in 2015.

This is a joint project between BBOWT and West Berkshire Council – WBC funded the use of the Unmanned Aerial Vehicle (UAV), and BBOWT has undertaken the post-flight data analysis.

## Method

The technique employed was the same as in 2015:

Kaarbontech were employed to fly an Unmanned Aerial Vehicle (UAV) over Greenham Common to take aerial photos and measure the visible ground height.

These data were stitched together by Kaabontech and added to BBOWT's Geographical Information System (GIS) for analysis.

The height data was compared to Lidar, which measures the ground levels. This allows us to measure the height of vegetation above ground level. Areas of vegetation that are over 25cm in height are highlighted, as it is assumed that these are scrub or trees, rather than heather or grass.

This mapping is then sense-checked against the aerial photographs.

## Results

The UAV was only able to map the area within the lozenges accurately as it is not permitted to fly over third party land. This is considered sufficient as it is a significant sample size.

The area of vegetation above 25cm in height is **17.8ha**, from a mapped area of 138ha which equates to approximately **13%** of the total area. This figure currently includes all scrub and trees above 25cm in height, not just gorse. Further 'ground truthing' of the data will have to be carried out to rectify this.

## Conclusions

In order to meet Favourable Condition, the gorse should cover between 2% and 10% of the Commons. The vegetation above 25cm on height currently covers 13%.

This compares favourably with 2015, in which the area of vegetation above 25cm in height was 26.5ha (19%).