

## Electorate calculation processes

### Introduction

1. This explains the processes we have used during our 2023 Review of UK Parliament Constituencies when calculating the electorate of each of our proposed constituencies.
2. The definition of electorate for this review is in the Parliamentary Constituencies Act 1986, and is the parliamentary electorate on the electoral register published on 2 March 2020, including attainers. Attainers are those who appear on the register and who became 18 years of age during the year following 2 March 2020.
3. The electorate of each proposed constituency in this review has to be no less than 69,724 and no more than 77,062 (the *statutory electorate limits*), unless one of the specified exemptions from the *statutory electorate limits* apply.
4. Each of Scotland's Electoral Registration Officers provided us with a copy of the electoral register for 2 March 2020 for their area.
5. We calculate the parliamentary electorate from the electoral register for each electoral ward, council area, existing constituency and by postcode.
6. The postcode boundaries which we used were the most recently available from National Records of Scotland (NRS) at the start of the review in January 2021.
7. We published the electoral ward, council area and existing constituency electorate datasets on our website for the review [www.bcomm-scotland.independent.gov.uk/?q=reviews/2023-review-uk-parliament-constituencies](http://www.bcomm-scotland.independent.gov.uk/?q=reviews/2023-review-uk-parliament-constituencies).

**Calculating constituency electorate**

8. The process we use to calculate the electorate of a proposed constituency comprises the following steps:
- Step 1. We identify all of the wards that are wholly contained in the proposed constituency and the corresponding ward electorates;
  - Step 2. We identify all of the wards which are partly within a proposed constituency (part-wards).
  - Step 3. For each part-ward, we calculate the initial part-ward electorate as the sum of the postcode electorates whose centroids are contained in the part-ward.
  - Step 4. The initial constituency electorate is the total of the ward electorates and the initial part-ward electorates.

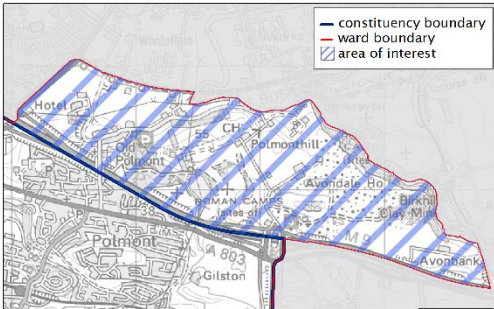
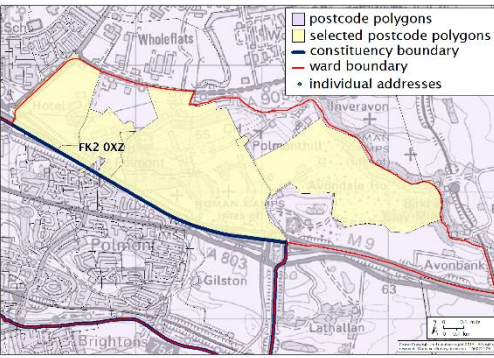
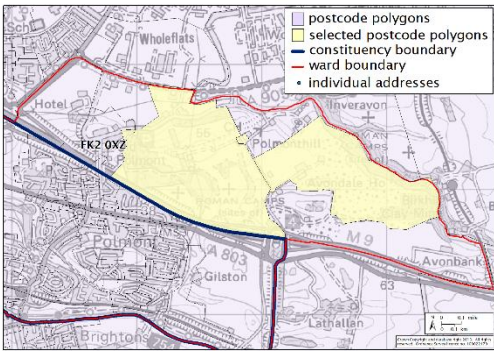
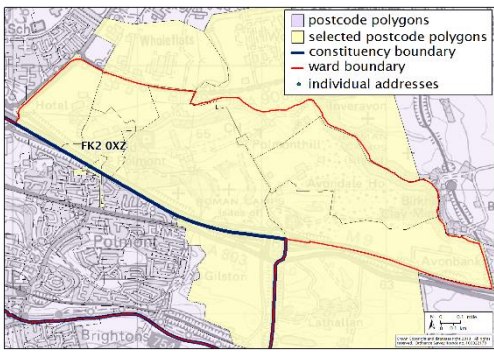
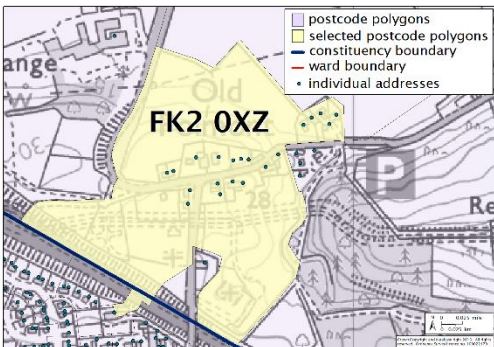
**Confirm constituency electorate is within statutory electorate limits**

9. Where a proposed constituency contains one or more part-wards, we take the following steps for each part-ward to ensure that the constituency electorate is within the statutory electorate limits. The steps are illustrated in Figure 1.
- Step 1. The initial part-ward electorate is the total of the postcode electorates for the postcodes which have their centroid in the part-ward.
  - Step 2. We calculate the minimum part-ward electorate as the total of the postcode electorates which are completely within the part-ward.
  - Step 3. We calculate the maximum part-ward electorate as the total of the postcode electorates which are wholly or partly within the part-ward.
  - Step 4. We calculate the minimum constituency electorate as the total of ward electorates for wards wholly contained in the constituency and the minimum part-ward electorates.
  - Step 5. We calculate the maximum constituency electorate as the total of ward electorates for wards wholly contained in the constituency and the maximum part-ward electorates.
  - Step 6. If the minimum constituency electorate is below the minimum statutory electorate limit or the maximum constituency electorate is above the maximum statutory electorate limit, we examine postcodes which crossed the boundary of the part-ward. We start with the postcode with the largest postcode electorate. For these postcodes, we study the location of individual addresses, and the number of electors at these addresses, in order to refine the minimum constituency electorate and the maximum constituency electorate.
  - Step 7. We continue step 6 until we can determine that the refined minimum constituency electorate and maximum constituency electorate are within the statutory electorate limits.

### **Accept constituency electorates**

10. If the constituency electorate remains outside the statutory electorate limits, we amend the constituency design and repeat the process. Otherwise, we accept the initial constituency electorate or refined constituency electorate as the constituency electorate.
11. For a group of constituencies covering a set of council areas, we calculate the minimum constituency electorate and the maximum constituency electorate for the last constituency checked by subtracting the maxima and minima for the other constituencies from the council area totals.
12. We publish the accepted constituency electorates for the proposed constituencies on our website for the review [www.bcomm-scotland.independent.gov.uk/?q=reviews/2023-review-uk-parliament-constituencies](http://www.bcomm-scotland.independent.gov.uk/?q=reviews/2023-review-uk-parliament-constituencies).

Figure 1: calculating maximum and minimum part-ward electorates

<p>Ward to be divided between two constituencies</p>																						
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