**Logic for Resolving Ambiguous Peaks**

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For a peak p in the extended loci of two neighboring loci, A and B, the following information is known:

1. The number of unambiguous peaks in A and in B
2. Whether p is an accepted OL allele in A and in B
3. Whether p has ERD (excessive residual displacement) in A and in B
4. Whether p is a (pure) pull-up peak
5. Whether p is below the fractional filter in A and in B

The train of logic for resolving whether p belongs to A or to B is as follows:

**Case 1a**: the number of unambiguous peaks in A and in B is balanced, i.e., either they are equal or both A and B have at least 2 peaks.

**Case 1b**: A has 0 peaks and B has more than 0.

**Case 1c**: A has 1 peak and B has 2+ peaks.

Given these cases:

I: If 1b, assign to A.

II: if accepted OL in A but not B, assign to A.

III: If p is below the fractional filter in B but not A, assign to A.

IV: If p has ERD in B but not A, assign to A.

V: If none of the above and 1a is true, p is ambiguous. If 1c is true, assign to A.