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Integrating Geography and Statistics for Census 2021

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Integrating Geography and Statistics

- UN-GGIM's Global Statistical Geospatial Framework outlines five principles for integration.
- Close collaboration between mapping agencies and statistical offices



The 5 principles of the GSGF

Census Geographies

Output Areas (OAs)

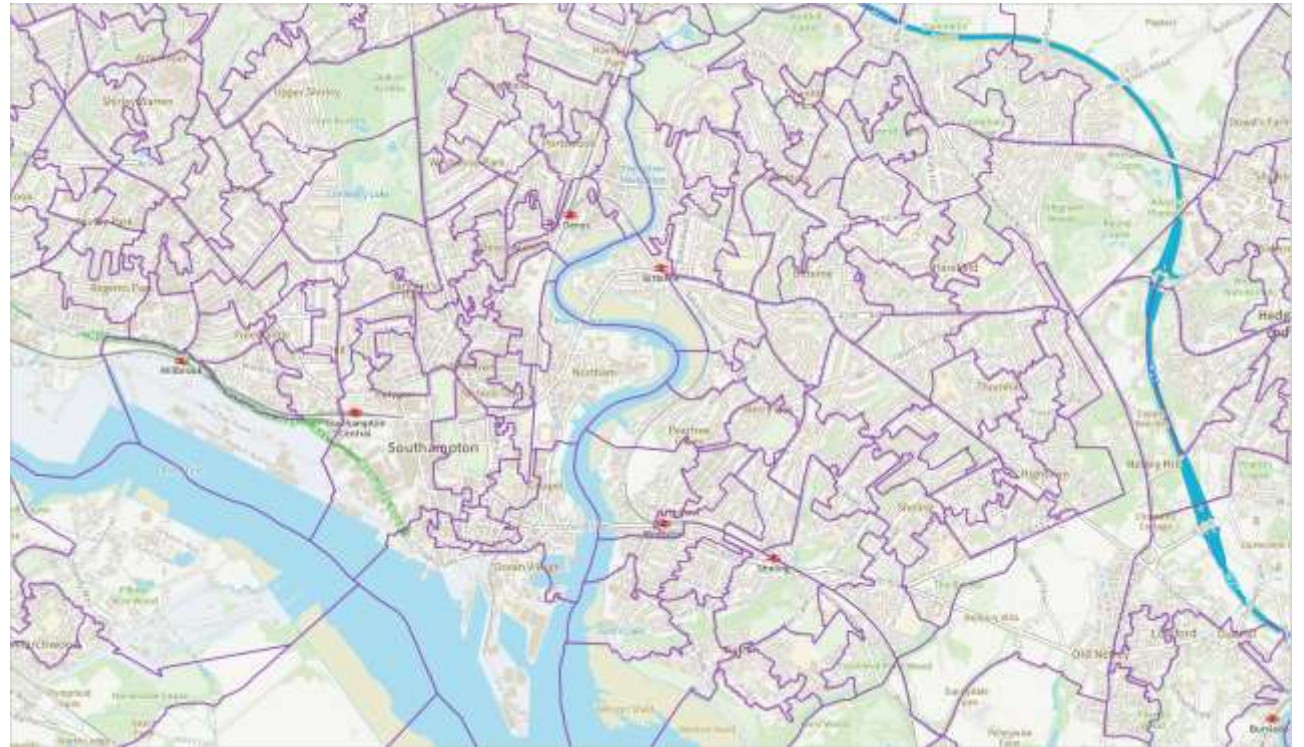
- Built from postcode areas
- Threshold: 100 people and 40 households



Census Geographies

Lower Layer Super Output Areas (LSOAs)

- Aggregated OAs
- Threshold: 1000 - 3000 people and 400-1200 households



Use of Common Geographies

- Common geographies are assigned unique codes
- These codes allow easy linkage of statistics

LSOA Code	LSOA Name	All Ages	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E01011949	Hartlepool 009A	917	7	16	13	12	15	18	9	19	11	17	19	13	14	12	18	12	14	17	9	11
E01011950	Hartlepool 008A	665	4	6	6	4	6	5	5	0	7	3	5	7	7	4	3	8	6	5	8	
E01011951	Hartlepool 007A	655	7	6	10	6	14	4	6	7	11	5	5	10	8	8	12	8	6	5	2	4
E01011952	Hartlepool 002A	795	8	6	12	12	12	10	17	12	12	11	17	19	16	18	9	8	5	12	8	7
E01011953	Hartlepool 002B	1,023	13	14	17	17	12	21	22	23	22	27	14	14	20	16	17	13	13	17	17	11
E01011954	Hartlepool 001A	1,082	14	15	12	24	19	18	19	21	29	26	7	15	10	13	11	17	14	17	7	17
E01011955	Hartlepool 003A	685	3	9	12	4	10	6	11	10	11	14	7	14	11	13	10	8	7	7	6	8
E01011957	Hartlepool 003C	647	9	7	3	7	11	4	8	13	8	7	10	16	9	12	3	6	4	7	8	5
E01011959	Hartlepool 014A	1,322	10	14	20	10	17	8	10	8	15	11	8	21	11	11	12	25	24	14	17	15
E01011960	Hartlepool 014B	631	3	4	2	1	3	7	10	8	5	3	4	5	5	3	2	4	6	5	7	8
E01011961	Hartlepool 012A	672	12	7	11	7	6	12	9	5	10	14	9	11	11	9	11	6	6	9	5	10
E01011962	Hartlepool 012B	689	17	10	7	8	14	9	14	16	14	14	13	12	13	8	13	10	9	9	13	11
E01011963	Hartlepool 014C	635	1	3	4	4	2	8	5	7	4	6	7	7	9	7	9	5	6	3	11	3
E01011964	Hartlepool 007B	699	13	8	11	6	3	10	6	8	8	8	12	10	14	19	10	10	12	14	9	14
E01011965	Hartlepool 006A	755	4	5	6	7	4	3	10	6	6	10	3	17	9	9	5	9	12	12	19	10
E01011966	Hartlepool 006B	660	9	9	3	11	8	7	5	3	2	9	8	9	7	12	13	9	11	8	8	1
E01011967	Hartlepool 007C	815	8	13	10	9	11	10	10	12	20	9	14	13	10	10	10	15	11	18	11	8

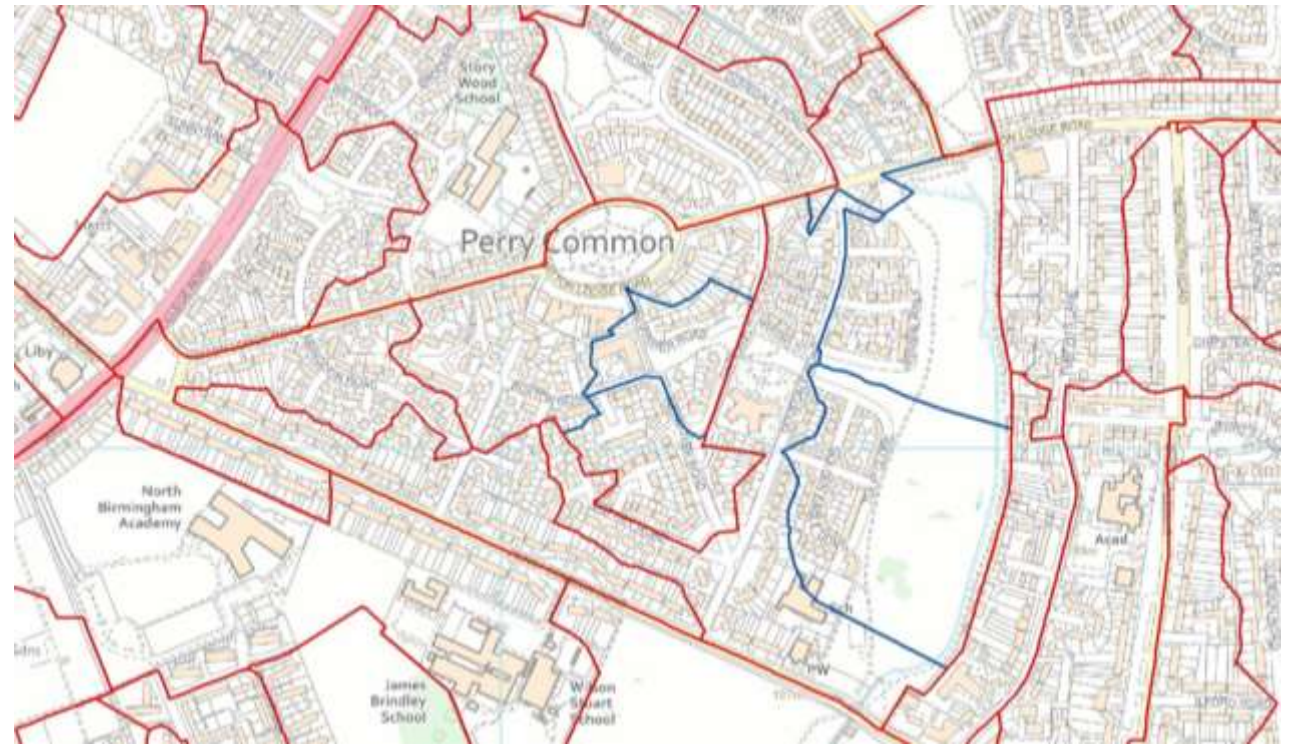
Changes in 2021

- Maintenance of 2011's common geographies
- Why?
 - Population change and urban redevelopment



Changes in 2021

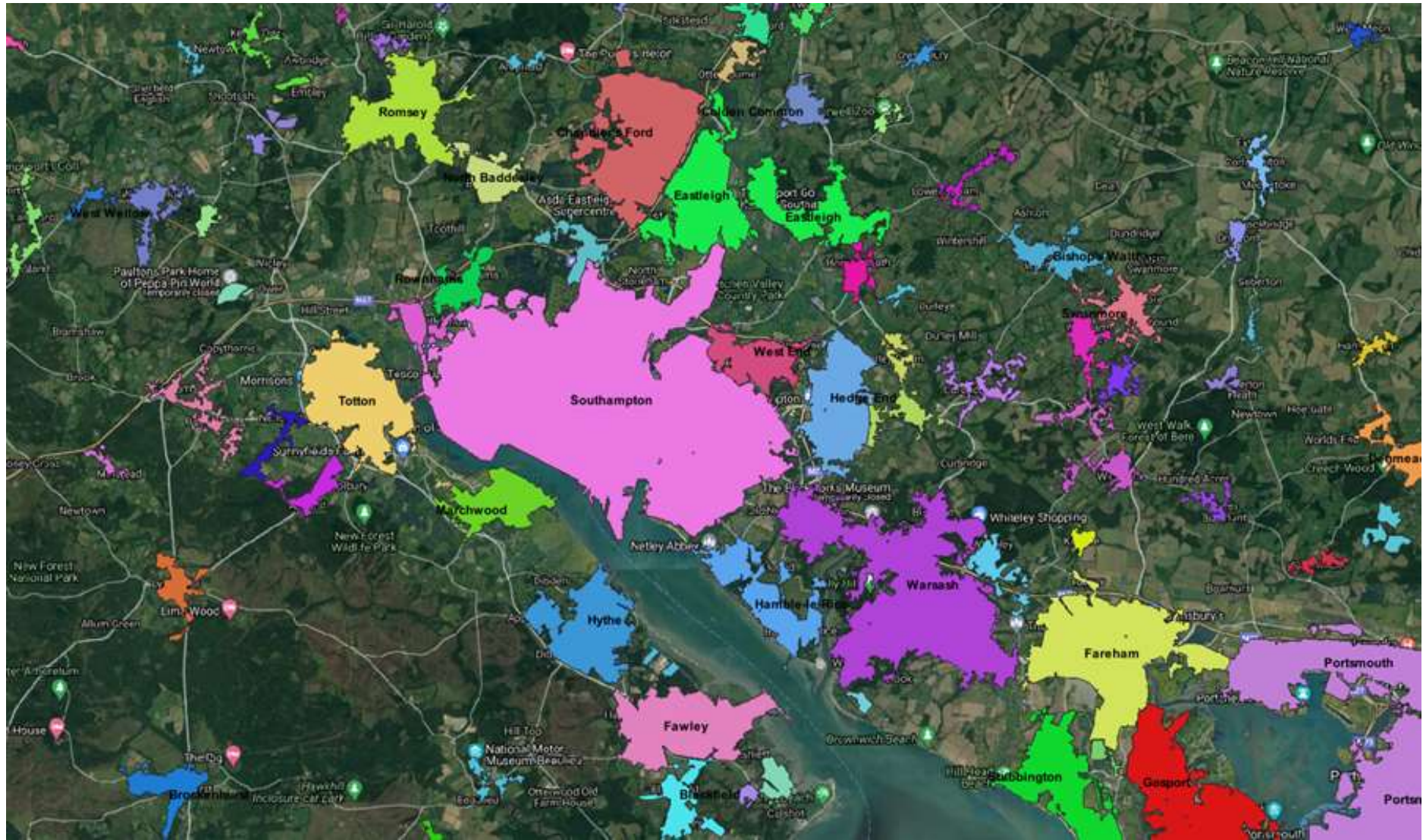
- Boundaries realigned to Local Government boundaries
- Areas split or merged to maintain thresholds
- Change minimised wherever possible



red: 2011, blue: proposed 2021 changes

Built Extents

- Working with Ordnance Survey – UK's mapping agency
- Updates since 2011
 - Improved resolution – 25m
 - Automated process
 - Clustering technique to improve separation of proximal areas
 - Better naming of urban areas
- In the future: updated more regularly



Summary

- Common geographies are one of the 5 GSGF principles
- Census geographies are the foundational common geographies in the UK
- Census 2021 geographies are being updated to account for population growth and development