AECOM

Fenland Neighbourhood Planning Vision

Stage 2 Appendices

February 2011

Shaping Fenland's Future

Appendices

AECOM

Appendices

a) Settlement hierarchy assessment tables

b) Broad locations for growth – physical opportunities and constraints plans and assessment tables

c) CCC Population forecasting methodology

d) Locations of existing social infrastructure

e) Social infrastructure assumptions and projected demand

f) Projected gas and electricity loading estimates

g) Fenland Market Report

Appendix A

Settlement hierarchy assessment tables

Market Towns

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Wisbech	20460	13	117	16	24	4	19	Permanent	10	Y	3	7	1	12	Yes
March	19150	67	14	23	16	3	11	Permanent	9	Y	3	5	1	12	Yes
Whittlesey	12690	44	14	21	8	1	8	Permanent	8	Y	2	3	1	4	Yes
Chatteris	9480	24	12	15	6	1	1	Permanent	2	Y	1	2	1	7	Yes

Market town clusters

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Wisbech	20460	13	117	16	24	4	19	Permanent	10	Y	3	7	1	12	Yes
Collett's Bridge	100	0	0	0	0	0	0		0		0	0	0	0	
Fitton End*	70	0	0	0	0	0	0		0		0	0	0	1	
Gorefield *	820	2	0	0	0	1	1	Mobile	2	Y	0	1	0	3	
Leverington	1790	1	0	0	1	1	2	Mobile	1	Y	0	1	1	3	
Elm	1650	2	0	0	0	1	3	Mobile	1		0	1	1	4	
Friday Bridge	1370	1	0	0	1	1	2	Mobile	1	Y	0	1	0	4	

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
March	19150	67	14	23	16	3	11	Permanent	9	Y	3	5	1	12	Yes
Westry	160	0	0	0	0	0	0		1		0	0	0	4	

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Chatteris	9480	24	12	15	6	1	1	Permanent	2	Y	1	2	1	7	Yes

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Whittlesey	12690	44	14	21	8	1	8	Permanent	8	Y	2	3	1	4	Yes
Pondersbridge	120	0	0	0	0	0			1		0	0	0	2	
Eastrea	810	0	0	0	0	0	1		1		0	0	1	2	
Coates	1150	1	0	0	1	0	2	Mobile	2	Y	0	1	1	2	

Local service centres/clusters

Wimblington/DoddingtonHub

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Wimblington	1780	2	3	0	0	1	2	Mobile	2	Y	0	1	0	8	Yes
Doddington (H)	2140	3	1	1	1	1	2	Mobile	2	Y	1	1	0	8	Yes
Total	3920	5	4	1	1	2	4	0	4	0	1	2	0	16	0

Manea Hub

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Manea	1810	2	0	0	2	1	1	Mobile	2	Y	1	1	0	1	Yes
Total	1810	2	0	0	2	1	1	0	2	0	1	1	0	1	0

Wisbech St. Mary cluster

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Murrow	970	0	0	0	0	0	1	Mobile	1	Y	0	1	0	2	
Parson Drove	900	2	0	0	1	1	2	Mobile	2	Y	1	1	0	2	
Wisbech St. Mary *	3140	1	0	0	1	1	3	Mobile	2	Y	0	1	0	4	
Guyhirn	660	1	0	0	0	0	1	Mobile	0	Y	0	1	0	6	
Tholomas Drove	100	0	0	0	0	0	1		0		0	0	0	3	
Ring's End	90	0	0	0	1	0	0	Mobile	1		0	0	0	3	
Total	5860	4	0	0	3	2	8	0	6	0	1	4	0	20	0

Villages

Name	Pop	Convenience	A2_Compar	Banks	Food_Drink	Post_Office	Pub	Library	Church	Village_Hall	Doc_Surgery	Prim_School	A_SS	A_higher_centre	Industry
Tydd St. Giles	730	1	0	0	0	0	1	Mobile	2	Y	0	0	0	2	
Tydd Gote	80	1	0	0	0	1	1		1		0	0	0	2	
Foul Anchor	80	0	0	0	0	0	0	Mobile	0		0	0	0	2	
Newton	440	0	0	0	0	0	1	Mobile	1	Y	0	1	1	2	
Stonlea	80	0	0	0	0	0	0		0		0	0	0	0	
Benwick	920	0	0	0	0	0	1	Mobile	0	Y	0	1	0	2	
Christchurch	540	0	0	0	0	0	2	Mobile	1	Y	0	1	0	1	
Coldham	170	0	0	0	1	0	0	Mobile	0		0	0	0	4	
Turves	360	0	0	0	0	0	1	Mobile	0		0	0	0	1	
Ramsey Mereside	40	0	0	0	0	1	1		1		0	0	0	3	
Total	3440	2	0	0	1	2	8	0	6	0	0	3	1	19	0

Appendix B

Broad locations for growth – physical opportunities and constraints plans and assessment tables

Chatteris - Detailed assessments

Criteria	Low	Medium	High	North	East	South	West
Land and Water Resources							
Brownfield Land	Brownfield	Partially brownfield	Greenfield site	Some small areas of underutilised land surrounding industrial units	Greenfield	Greenfield	Some cleared sites used for storage of the A141
Grade of Agricultural Land	Grade 5	Grade 3-4	Grade 1-2	Mainly grade 2 with some grade 3 to the north west	Mainly grade 3 with some grade 1 / 2 to north east	Grade 2	Grade 1
Water Resource (Extraction)	No extraction issues	Some extraction issues but can be mitigated	Unmitigatable issues	Surplus of water resources. Higher levels of growth will however require more stringent water use requirements			
Water Network Capacity (Pipe network)	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	Higher growth scenarios are likely will require more stringent standards for water use			

Criteria	Low	Medium	High	North	East	South	West
WWT Capacity	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	New strategic mains will be required for the majority of growth Nightlayers Fen is failing its water quality objectives, hence discharges from Chatteris STW may need to be reviewed. Water resources			
Minerals	Not within safeguarded minerals area	N/A	Within or partly within safeguarded minerals area	Land northeast of Chatteris is within safeguarded area	Not within safeguarded minerals area	Not within safeguarded minerals area	Not within safeguarded minerals area
Proximity to Hazardous Pipelines and Gas Compressor Stations (assuming sensitivity level 3 – large developments for more than 30 dwelling units)	High pressure main unlikely to affect creation of Opportunity Zone	N/A	High pressure main running throughmiddle of potential Opportunity Zones	Medium pressure main along route of A141 Location of services unlikely to affect the creation of Opportunity Zones in this area	Location of services unlikely to affect the creation of Opportunity Zones in this area	Location of services unlikely to affect the creation of Opportunity Zones in this area	Medium pressure main along route of A141 Location of services unlikely to affect the creation of Opportunity Zones in this area
Biodiversity							
Proximity to European and National wildlife sites	Over 5km	5km-300m	Within 300m	Over 5km	Over 5km – however any further east than the A142 and development will encroach on 5km	Over 5km	Over 5km
National / Local Designation	Not on site	Adjacent	Onsite				

Criteria	Low	Medium	High	North	East	South	West
BAP / HAP priority species/area	Not on site	N/A	On-site				
Onsite habitat	Limited / Monoculture	Moderate / Some mix of habitat and species	High / Diverse mix of species	Mainly agricultural land. Significant number of large tree standards	Mainly agricultural land.	Mainly agricultural land.	Mainly agricultural land.
Landscape, townscape and heritage							
Historic Features (SAMs, listed buildings, structures and features)	No heritage asset / opportunities to make positive impact (dependent on type heritage asset)	N/A	Limited opportunities to make positive impact (dependent on type heritage asset)	Few heritage constraints	Need to consider listed buildings on Wenny Road	Need to consider Grade II listed building in south east of southern zone within Tithe Barn Farm.	Few heritage constraints
Relationship to settlement pattern (inc morphology, visual impact and character of settlement)	Character / urban design assessment demonstrates positive impact to town centre and surrounding uses	No overall impact	Character / urban design assessment demonstrates negative impact to town centre and surrounding uses	Located within 1km of the northern end of the centre – potential direct access along Furrowfields Road. Limited development area due to A142	Located within 1km of town centre – potential direct route along Wenny Road. Located adjacent to school. Visibility impact lessened due to mature field boundaries. Limited development area due to A142. Existing parkland could be incorporated / enhanced within new development.	Would extend town to south – becomes more linear in form. Development areas outside of 1km. Highly visible area from A142. Large area of open space could be incorporated within new development.	Barriers to movement – busy A141 and major ditch. Uses are employment related – not suitable area for residential
Climate Change and Flood Risk							
Flooding	Out of Flood	2	3a or b	Flood risk zone 3.	Mostly outside of flood	Mostly outside of flood	With flood risk zone 3

Criteria	Low	Medium	High	North	East	South	West
	Zone			Some land to the north west out of flood risk zone	risk zone	risk zone	
Potential low carbon/ renewable energy sources for new built development.	Established	Viable subject to onsite analysis	No capacity	Although relatively low, heat requirements could support district heating Windspeeds could support large turbines	Although relatively low, heat requirements could support district heating Windspeeds could support large turbines	Although relatively low, heat requirements could support district heating Windspeeds could support large turbines	Although relatively low, heat requirements could support district heating Windspeeds could support large turbines
Potential for increase from transport related carbon emissions	Located within walking distance (1km) to public transport hub or key employment / retail	Located within cycling distance (3km) to public transport hub or key employment / retail	Located further than 3km from public transport hub or key employment / retail	Within 2km of town centre and employment sites. There is no railway station in Chatteris.	Within 1km of town centre and 2km of employment sites. Within 1km of Community College. There is no railway station in Chatteris.	Within 2km of town centre and employment sites to the west of the town and within 3km of the northern employment site. Within 1km of Community College. There is no railway station in Chatteris.	The site is 1-1.5km from the town centre and within 1km of the employment sites to the west of the town and within 2km of the northern employment site. There is no railway station in Chatteris.
Pollution							
Noise	Not next to noisy neighbour (road / industry)	N/A	within 300m of noisy neighbour (road / industry)	A142 and A141 likely to create noise issues in northern zone	A142 may present noise pollution further from town centre	Some noise issues from in east and west of zone from A142 and London Road respectively.	Industrial uses and A141 likely sources of noise for sites in west.
Land contamination	More than	Within 50-	Within 50m or				

Criteria	Low	Medium	High	North	East	South	West
	500m away from known contaminated land	500m of known contaminated land	located on known contaminated land				
Healthy, Inclusive and Accessible Communities							
Road network safety and capability	Direct access to strategic and/or principal road network with minimal network capacity constraints (AM and PM peaks)	Indirect access to strategic and/or principal road network and, or some network capacity constraints (AM and PM peaks)	Requires new infrastructure to access strategic and/or principal road network, or significant network capacity constraints (AM and PM peaks)	Potential for new access off A142 and / or A141. Capacity of highway network unknown but development to the north likely to help minimise extra pressure on town centre junctions.	Potential for new access off A142. Capacity of highway network unknown but development to the east likely to help reduce extra pressure on town centre junctions.	New link to A142 required or access to Chatteris and principal road network via B1050 London Road. Capacity of highway network unknown but development likely to increase pressure on town centre junctions and the B1050.	Potential for new access off A141, however river is a barrier on the western side of the road, therefore new bridge(s) required. Development to the south of the A141 to avoid the river. Capacity of highway network unknown but development to the west likely to help reduce extra pressure on town centre junctions.
Rail access	Less than 1k (walking)	Less than 3km (cycling)	Greater than 3km (bus and car access)	Greater than 3km from nearest railway station	Greater than 3km from nearest railway station	Greater than 3km from nearest railway station	Greater than 3km from nearest railway station
Bus access	Good public transport connections and / or less than 500	Moderate public transport connections and / or	Poor public transport connections and / or >1500 new	Within 1km of five bus routes. Improvements to existing routes could be provided	Within 1km of two bus routes but these provide limited services. Improvements to existing routes could be provided	Poor connections and would require new bus route connecting site, employment areas and town centre.	Poor connections and would require new bus route connecting site, employment areas and town centre.

Criteria	Low	Medium	High	North	East	South	West
	dwellings (does not support improvements to bus infrastructure)	500 – 1500 new homes potential service level improvements on existing routes	homes supports new commercial bus service	and potential to divert into development east of Doddington Road.	and potential to divert into development from Wenny Road or A142.		
Opportunity to improve quality of life in most deprived areas	Adjacent to bottom quartile IMD	Within 2km of area in bottom quartile IMD	Within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD
Economic Activity							
Proximity to existing employment areas	Less than 2km	2-5km	Over 5km	Within 2km of existing employment areas.	Within 2km of existing employment areas.	Within 2km of existing employment areas except for the northern area which is within 3km.	Within 2km of existing employment areas.

Wisbech - Detailed assessments

Criteria	Low	Medium	High	North	East	South	West
Land and Water Resources							
Brownfield Land	Brownfield	Partially brownfield	Greenfield site	Greenfield	Greenfield with some very small areas (i.e. lorry yard) that might be developable	Greenfield with some smaller areas (i.e. car storage to the southwest) that might be developable	Greenfield
Grade of Agricultural Land	Grade 5	Grade 3-4	Grade 1-2	Grade 1	Grade 1	Grade 1 with some grade 2 to the south west (mostly developed already)	Grade 1 beyond areas of non-agricultural land (playing fields)
Water Resource (Extraction)	No extraction issues	Some extraction issues but can be mitigated	Unmitigatable issues	No ecological constraints identified			
Water Network Capacity (Pipe network)	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	Surplus against target headroom until last 5 years of plan period (to 2031). Higher growth scenarios are likely will require more stringent standards for water use			
WWT Capacity	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	Treatment - Capacity shortfall but serviceable within BAT and WFD standards Transmission – new strategic mains will be required for the majority of growth			

Criteria	Low	Medium	High	North	East	South	West
Minerals	Not within safeguarded minerals area	N/A	Within or partly within safeguarded minerals area	Some small areas may be partly within safeguarded minerals area	Not within safeguarded minerals area	Not within safeguarded minerals area	Not within safeguarded minerals area
Proximity to Hazardous Pipelines and Gas Compressor Stations (assuming sensitivity level 3 – large developments for more than 30 dwelling units)	High pressure main not on site or located on edge of site	N/A	High pressure main running throughmiddle of the site	Not on site	Intermediate pressure main running under Sandy Lane / Broad End Road	Local High pressure mains runs under New Drove in the south west of the broad location	Not on site
Biodiversity							
Proximity to European and National wildlife sites	Over 5km	5km-300m	Within 300m				
National / Local Designation	Not on site	Adjacent	Onsite				
BAP / HAP priority species/area	Not on site	N/A	On-site			Habitat restoration ambition to south	
Onsite habitat	Limited / Monoculture	Moderate / Some mix of habitat and species	High / Diverse mix of species	Mostly agricultural. Small pocket of trees	Mostly agricultural.	Mostly agricultural.	Mostly agricultural.
Landscape, townscape and heritage							
Historic Features (SAMs, listed buildings, structures	No heritage asset / opportunities	N/A	Limited opportunities to make	Historic features focussed towards the west. Few	Few notable heritage features.	Few heritage constraints, although a number of listed buildings and	Significant cluster of listed buildings fronting River Nene in town

Criteria	Low	Medium	High	North	East	South	West
and features)	to make positive impact (dependent on type heritage asset)		positive impact (dependent on type heritage asset)	heritage features in eastern section. North west of Wisbech, development would need to consider Leverington church and other listed buildings.		church in Elm south of A47.	centre. Development should not have significant impact on their setting, however.
Relationship to settlement pattern (inc morphology, visual impact and character of settlement)	Character / urban design assessment demonstrates positive impact to town centre and surrounding uses	No overall impact	Character / urban design assessment demonstrates negative impact to town centre and surrounding uses	The area west of river Nene poses coalescence issues with settlements such as Leverington which has its own identity and scale.	This area would continue pattern of growth eastwards away from the town centre. As such, it could have a limited relationship with the centre.	This area includes significant employment uses, which could conflict with residential uses.	This area benefits from proximity to the town centre (within 1-2 km radius), the historic core and the port. Development closest to the town centre would have to be sensitive to the Georgian heritage and listed buildings on either side of River Nene.
Climate Change and Flood Risk							
Flooding	Out of Flood Zone	2	3a or b	Food risk zone 3. Some smaller areas of zone 2	A strip of land, approx 500m wide extends along the eastern edge of the town that is outside the flood zone. Beyond this to the east is zone 3.	Areas to the south west are in zone 3. Towards the south east there are areas with limited risk.	Flood risk zone 3 extends into the town centre
Potential low carbon/ renewable energy	Established	Viable subject to	No capacity	Heat densities are high enough to	Heat densities are high enough to support district	Heat densities are high enough to support district	Heat densities are high enough to support district

Criteria	Low	Medium	High	North	East	South	West
sources for new built development.		onsite analysis		support district heating across Wisbech. They are particularly high in the northwest The area around Wisbech is considered to have medium-high capacity to small groups of wind turbines. Windspeeds could support large turbines	heating across Wisbech. The area around Wisbech is considered to have medium-high capacity to small groups of wind turbines. Windspeeds could support large turbines	heating across Wisbech. They are particularly high in the southeast. The area around Wisbech is considered to have medium-high capacity to small groups of wind turbines. Windspeeds could support large turbines	heating across Wisbech. The area around Wisbech is considered to have medium-high capacity to small groups of wind turbines. Windspeeds could support large turbines
Potential for increase from transport related carbon emissions	Located within walking distance (1km) to public transport hub or key employment / retail	Located within cycling distance (3km) to public transport hub or key employment / retail	Located further than 3km from public transport hub or key employment / retail	Located within 3km of the town centre (Wisbech Bus Station) and port. Within 4km southwest Wisbech employment area.	Located within 3km of the town centre (Wisbech Bus Station) and main employment areas.	Located adjacent to southwest Wisbech employment area, good level of bus service on the A1101 and within 2km (Wisbech Bus Station).	Located within 2km of the town centre (Wisbech Bus Station), within 2km of the southwest Wisbech employment area.
Pollution							
Noise	Not next to noisy	N/A	within 300m of noisy neighbour	Potential noise from A1101 / industry	Few noise constraints, although further from	A47 likely to be source of noise.	Few noise constraints, although to the south

Criteria	Low	Medium	High	North	East	South	West
	neighbour (road / industry)		(road / industry)		town centre, there may be noise impact arising from A47		there may be conflicts with industrial / employment uses
Land contamination	More than 500m away from known contaminated land	Within 50-500m of known contaminated land	Within 50m or located on known contaminated land				
Healthy, Inclusive and Accessible Communities							
Road network capability	Direct access to strategic and/or principal road network with minimal network capacity constraints (AM and PM peaks)	Indirect access to strategic and/or principal road network and, or some network capacity constraints (AM and PM peaks)	Requires new infrastructure to access strategic and/or principal road network, or significant network capacity constraints (AM and PM peaks)	Access to the A1101 would be constrained by the existing capacity of the town centre (Freedom Bridge roundabout junction) for traffic routing to the south (A47). Likely to require significant road improvements / new infrastructure.	Access to the east potentially via local roads that link to the A47. Access to the west would be constrained due to the residential nature of existing roads and unsuitability for significant development traffic and new road link to A1101 likely to be required.	There is potential for access onto the A1101 which links to the A47 and adjacent employment areas.	Access to the B198 Cromwell Road is constrained by the river and would require a new road bridge with an internal vehicle route to open up the site, and improvements to existing links with B198 (New Bridge Lane).
Rail access	Less than 1k (walking)	Less than 3km (cycling)	Greater than 3km (bus and car access)	There is no railway station in Wisbech	There is no railway station in Wisbech	There is no railway station in Wisbech	There is no railway station in Wisbech
Bus access	Good public	Moderate	Poor public	Within 1km of two	Within 1km of one bus	Within 1km of six bus	Within 1km of two lbus

Criteria	Low	Medium	High	North	East	South	West
	transport connections and / or less than 500 dwellings (does not support improvements to bus infrastructure)	public transport connections and / or 500 – 1500 new homes potential service level improvements on existing routes	transport connections and / or >1500 new homes supports new commercial bus service	bus routes. Poor connections and would require new bus route connecting site, employment areas and town centre.	route. Poor connections and would require new bus route connecting site, employment areas and town centre.	routes. Improvements to existing routes could be provided and potential to divert into development from A1101.	routes on Barton Road. Poor connections and would require new bus route connecting site, employment areas and town centre.
Opportunity to improve quality of life in most deprived areas	Adjacent to bottom quartile IMD	Within 2km of area in bottom quartile IMD	> 5km from area in bottom quartile IMD	Development within or adjacent to areas of Waterlees ward in bottom IMD quartile	Development adjacent to areas of Staithe and Hill wards in bottom IMD quartile	Development within or adjacent to areas of Medworth and Hill wards in bottom IMD quartile	Development within or adjacent to areas of Medworth, Clarkson and Hill wards in bottom IMD quartile
Economic Activity							
Proximity to existing employment areas	Less than 2km	2-5km	Over 5km	Within 1km of employment areas. Within 2km of town centre	Within 2km of the town centre and southwest Wisbech employment area.	Within 1km of employment areas. Within 2km of town centre	Within 1km of town centre and employment area

Whittlesey - Detailed assessments

Criteria	Low	Medium	High	North	East	South	West
Land and Water Resources							
Brownfield Land	Brownfield	Partially brownfield	Greenfield site	Greenfield	Potential to infill employment land in the southeast	Greenfield	Mineral works
Grade of Agricultural Land	Grade 5	Grade 3-4	Grade 1-2	What is available is grade 3	Grade 2 to the north of the A605. Some grade 2 also to the south, interspersed with	Land to the southwest is grade 2 and grade 1 to the south and southeast	Non-agricultural land to the west (brick works?)
Water Resource (Extraction)	No extraction issues	Some extraction issues but can be mitigated	Unmitigatable issues	Peterborough Water Resource Zone – No forecast deficit at peak demand. 'AWS have indicated that sufficient water resources are likely to be available for growth up to the end of the plan period; however water resources are close to their sustainable limit and may require further sustainability reductions in the future.' (more details could be provided once options can be sent to AWS for assessment)			
Water Network Capacity (Pipe network)	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	No new trunk mains or upgrades are likely to be required as a result of development. (more details could be provided once options can be sent to AWS for assessment)			
WWT Capacity	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	Treatment capacity shortfall – additional flow will require a tighter consent but achievable within BAT and WFD standards. To be investigated further in WCS stage 2.			
Minerals	Not within safeguarded minerals area	N/A	Within or partly within safeguarded minerals area	Not within safeguarded minerals area	Not within safeguarded minerals area	Partially located within minerals allocation	Partially located within minerals allocation

Criteria	Low	Medium	High	North	East	South	West
Proximity to Hazardous Pipelines and Gas Compressor Stations (assuming sensitivity level 3 – large developments for more than 30 dwelling units)	High pressure main not on site or located on edge of site	N/A	High pressure main running throughmiddle of the site	Not on site	Medium pressure main under Eastrea Road	Not on site	Not on site
Biodiversity							
Proximity to European and National wildlife sites	Over 5km	5km-300m	Within 300m	Within 300m of the Nene Washes	Within 5km of the Nene Washes.	Within 5km of the Nene Washes	Within 5km of the Nene Washes.
National / Local Designation	Not on site	Adjacent	Onsite		County Wildlife Site to southeast		County Wildlife Site
Onsite habitat	Limited / Monoculture	Moderate / Some mix of habitat and species	High / Diverse mix of species	Largely agricultural land up to Nene Washes	The north-eastern section is largely monoculture farmland although there are some intact hedgerows and hedgerow trees. Towards the south east (in addition to the county wildlife sites) there are several areas with good vegetation cover as well as a large pond	Mostly monoculture farmland. Some roadside trees and a small wood.	Some highly vegetated areas and a number of large ponds interspersed with mineral/brick works. Given the surrounding uses these are probably not as rich as they could be offering potential for enhancement thorough restoration.
Landscape, townscape and heritage							
Historic Features	No heritage	N/A	Limited	Few heritage	Few heritage constraints	Few heritage constraints	Few heritage constraints

Criteria	Low	Medium	High	North	East	South	West
(SAMs, listed buildings, structures and features)	asset / opportunities to make positive impact (dependent on type heritage asset)		opportunities to make positive impact (dependent on type heritage asset)	constraints apparent.	apparent. May need to consider setting of listed buildings towards Eastrea.	apparent.	apparent.
Relationship to settlement pattern (inc morphology, visual impact and character of settlement)	Character / urban design assessment demonstrates positive impact to town centre and surrounding uses	No overall impact	Character / urban design assessment demonstrates negative impact to town centre and surrounding uses	Located just over 1km to town centre. Direct route into centre along East Delph.	Development would conform to linear morphology of town	Station Road and Church Street provide direct connections to centre. However, railway acts as barrier.	Development over 1km away from centre. Development would conform to linear morphology of the town
Climate Change and Flood Risk							
Flooding	Out of Flood Zone	2	3a or b	Flood risk zone 3	There is a 500m-700m outside of flood risk zone. Beyond this is flood risk zone 3	Flood risk zone 3	Some areas to the northwest and southwest are outside flood risk areas but mainly within flood risk zone 3.
Potential low carbon/ renewable energy sources for new built development.	Established	Viable subject to onsite analysis	No capacity	Heat densities are relatively low, but likely to be high enough to support district heating The area around	Heat densities are relatively low, but likely to be high enough to support district heating The area around Whittlesey is considered	Heat densities are relatively low, but likely to be high enough to support district heating The area around Whittlesey is considered	Heat densities are relatively low, but likely to be high enough to support district heating The area around Whittlesey is considered

Criteria	Low	Medium	High	North	East	South	West
				Whittlesey is considered to have medium-high capacity to small groups of wind turbines. Windspeeds could support large turbines	to have high capacity to small groups of wind turbines. Windspeeds could support large turbines	to have high capacity to small groups of wind turbines. Windspeeds could support large turbines	to have high capacity to small groups of wind turbines. There is already a group of turbines to the west of the town. As such there might be a cumulative impact to take into consideration.
Potential for increase from transport related carbon emissions	Located within walking distance (1km) to public transport hub or key employment / retail	Located within cycling distance (3km) to public transport hub or key employment / retail	Located further than 3km from public transport hub or key employment / retail	Located within 3km of town centre, employment areas and Whittlesey railway station.	Located within 3km of Whittlesey town centre, employment area to the southeast of Whittlesey near the railway station and Whittlesey Rail Station.	Within 1km of the town centre and railway station. Employment areas are within 1km (land north of the railway line).	Located within 3km of town centre but greater than 3km to Whittlesey railway station. Benefits from greater proximity to employment centre of Peterborough.
Pollution							
Noise	Not next to noisy neighbour (road / industry)	N/A	within 300m of noisy neighbour (road / industry)	Few noise pollution issues.	A605 potential source of noise pollution	May be noise pollution arising from employment uses in south east of southern broad location.	A605 potential source of noise pollution
Land contamination	More than 500m away from known	Within 50-500m of known	Within 50m or located on known				

Criteria	Low	Medium	High	North	East	South	West
	contaminated land	contaminated land	contaminated land				
Healthy, Inclusive and Accessible Communities							
Road network capability	Direct access to strategic and/or principal road network with minimal network capacity constraints (AM and PM peaks)	Indirect access to strategic and/or principal road network and, or some network capacity constraints (AM and PM peaks)	Requires new infrastructure to access strategic and/or principal road network, or significant network capacity constraints (AM and PM peaks)	Potential access via B1040 / B605. Further access would be required via new residential roads.	Potential for new access junction(s) onto A605 Eastrea Road. This is a single carriageway primary road. Capacity of route unknown but likely to be some congestion at town centre junctions due to through traffic heading to Peterborough. Traffic calming on A605 could push through traffic onto A47 (T) to the north.	No direct access to town centre. Potential new access off B1040 Ramsey Road and B1093 Station Road. Routes constrained by existing development, bridges and level crossings, and significant development traffic likely to cause congestion in the town centre at A605 junctions which is the main flow of trafficonly access into town from south.	Potential for access off A605 Peterborough Road. Capacity of route unknown but likely to be constrained by level crossing to west of Whittlesey.
Rail access	Less than 1k (walking)	Less than 3km (cycling)	Greater than 3km (bus and car access)	Access to Whittlesey rail station within 3km	Access to Whittlesey rail station within 3km, however there is no direct access.	Access to Whittlesey rail station within 1km (land north of the railway line).	Access to Whittlesey rail station greater than 3km
Bus access	Good public transport connections and / or less than 500	Moderate public transport connections and / or	Poor public transport connections and / or >1500 new	Nearest local bus routes are on A605 and in the northeast of Whittlesey. New route likely to be	Existing bus routes to Peterborough and March run on A605 Eastrea Road (routes 33 and 701).	There is a bus route on each of the two B roads (B1040 and B1093), which would provide access to town centre and	There is a bus corridor along the A605 which would provide access to town centre, Peterborough and March.

Criteria	Low	Medium	High	North	East	South	West
	dwellings (does not support improvements to bus infrastructure)	500 – 1500 new homes potential service level improvements on existing routes	homes supports new commercial bus service	required.		Peterborough, with connections to March.	
Opportunity to improve quality of life in most deprived areas	Adjacent to bottom quartile IMD	Within 2km of area in bottom quartile IMD	> 5km from area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD	No sites within 5km of area in bottom quartile IMD
Economic Activity							
Proximity to existing employment areas	Less than 2km	2-5km	Over 5km	Within 2km of town centre and 3km of the employment area near the railway station. Greater than 3km from the quarries to the west of Whittlesey. Majority of employment demand likely be west in Peterborough.	Within 2km of town centre and 1km of employment land adjacent to railway station. Greater than 3km from the quarries to the west of Whittlesey. Majority of employment demand likely to be west in Peterborough.	Within 1km of town centre and employment land adjacent to railway station. Within 3km from the quarries to the west of Whittlesey. Majority of employment demand likely to be west in Peterborough.	Within 2km of town centre and 3km of employment land adjacent to railway station. Majority of employment demand likely be west in Peterborough.

March - Detailed assessments

Criteria	Low	Medium	High	North	East	South	West
Land and Water Resources							
Brownfield Land	Brownfield	Partially brownfield	Greenfield site	Mineral works and rail siding may provide some potential	Greenfield	Greenfield	Greenfield
Grade of Agricultural Land	Grade 5	Grade 3-4	Grade 1-2	Land to the north is grade 2. There is also a county wildlife site which should be protected and enhanced	East and south east area grade 3. North east is grade 2.	Small pocket of grade 2 to the south, but mainly grade 3 to the southwest	Area of grade 3 directly west with grade 2 beyond
Water Resource (Extraction)	No extraction issues	Some extraction issues but can be mitigated	Unmitigatable issues	Surplus forecast until the last 5 years of the plan period. No ecological constraints			
Water Network Capacity (Pipe network)	No capacity issues	Exceeds existing Capacity but has commitment improvements	Exceeds existing Capacity	Medium high growth scenarios would require water use standards.			
Waste Water Treatment Works Capacity	No capacity issues	Exceeds existing Capacity but has commitment	Exceeds existing Capacity	Capacity shortfall. Downsteam WFD water quality targets for phosphate and ammonia not achievable within BAT.			

Criteria	Low	Medium	High	North	East	South	West
		improvements					
Minerals	Not within safeguarded minerals area	N/A	Within or partly within safeguarded minerals area	Some areas in the west of northern zone within minerals allocation. Less of a constraint in the northeast.	Not within safeguarded minerals area	Not within safeguarded minerals area	Not within safeguarded minerals area
Proximity to Hazardous Pipelines and Gas Compressor Stations (assuming sensitivity level 3 – large developments for more than 30 dwelling units)	High pressure main not on site or located on edge of site	N/A	High pressure main running throughmiddle of the site	Not on site	Not on site – medium pressure runs under western edge from Smith's Drive to Badgeney Road	Intermediate main to the south under Lamb's Hill Drove	Local High Pressure Main runs south of Burrowmoor Rd
Biodiversity							
Proximity to European and National wildlife sites	Over 5km	5km-300m	Within 300m	On the cusp of being within 5km	Over 5km	Over 5km	Over 5km
National / Local Designation	Not on site	Adjacent	Onsite	County wildlife sites directly north	Not on site	Not on site	Not on site
BAP / HAP priority species/area	Not on site	N/A	On-site				
Onsite habitat	Limited / Monoculture	Moderate / Some mix of	High / Diverse mix of species	Mostly agricultural land	Mostly agricultural land. Small groups of trees	Mostly agricultural land	Mostly agricultural land

Criteria	Low	Medium	High	North	East	South	West
		habitat and species					
Landscape, townscape and heritage							
Historic Features (SAMs, listed buildings, structures and features)	No heritage asset / opportunities to make positive impact (dependent on type heritage asset)	N/A	Limited opportunities to make positive impact (dependent on type heritage asset)	A number of monuments are present across the northern area. The setting of the church located on Wisbech Road would require consideration. The route of a former Roman Road runs through March north of the town centre.	A number of monuments are present across the eastern area.	A number of monuments are present across the southern area. Listed building south of Knight's End Road in southwest March. Cluster of listed buildings located between Church Street and Wimblington Road	A number of monuments are present across the western area.
Relationship to settlement pattern (inc morphology, visual impact and character of settlement)	Character / urban design assessment demonstrates positive impact to town centre and surrounding uses	No overall impact	Character / urban design assessment demonstrates negative impact to town centre and surrounding uses	The proximity of train station presents itself as an opportunity for growth to the North-East although the railway line poses some severance issues. The rest of the sites in the North are	The railway and flooding to present constraints to large scale development in this area. Moreover, connections through to the town centre are not direct and therefore while it is close to the centre, in reality routes though would be more problematic.	The linear morphology of the town and the severance and incompatible use issues in the North, allows for the town to grow toward the South zone. Isle of Ely Way restricts major expansion to the West and railway to the East.	A key advantage of development to the west is the opportunity to exploit the riverside and provide a connection through to the town centre. .

Criteria	Low	Medium	High	North	East	South	West
				unsuitable due to incompatibility of adjacent uses such as large employment areas, marshalling yards, land fill sites, prison etc.			
Climate Change and Flood Risk							
Flood risk	Out of Flood Zone	2	3a or b	An area of flood risk zone 3 separates that town from the industrial estate at Westry to the north west. There is also some flood risk zone 3 extending in towards the town in the north east. There are however considerable areas outside of the flood risk zone	Significant areas within flood risk zone 3. Some areas outside of the flood risk zone to the south east.	Some flood risk zone 3 to the southwest but mostly out of the flood risk zone	Most of the north west March is in flood risk zone 3. Significant areas are outside the flood risk zone towards the south west.
Potential low carbon/ renewable energy sources for new built development.	Established	Viable subject to onsite analysis	No capacity	Although relatively low, heat requirements could support district	Although relatively low, heat requirements could support district heating	Although relatively low, heat requirements could support district heating	Although relatively low, heat requirements could support district heating

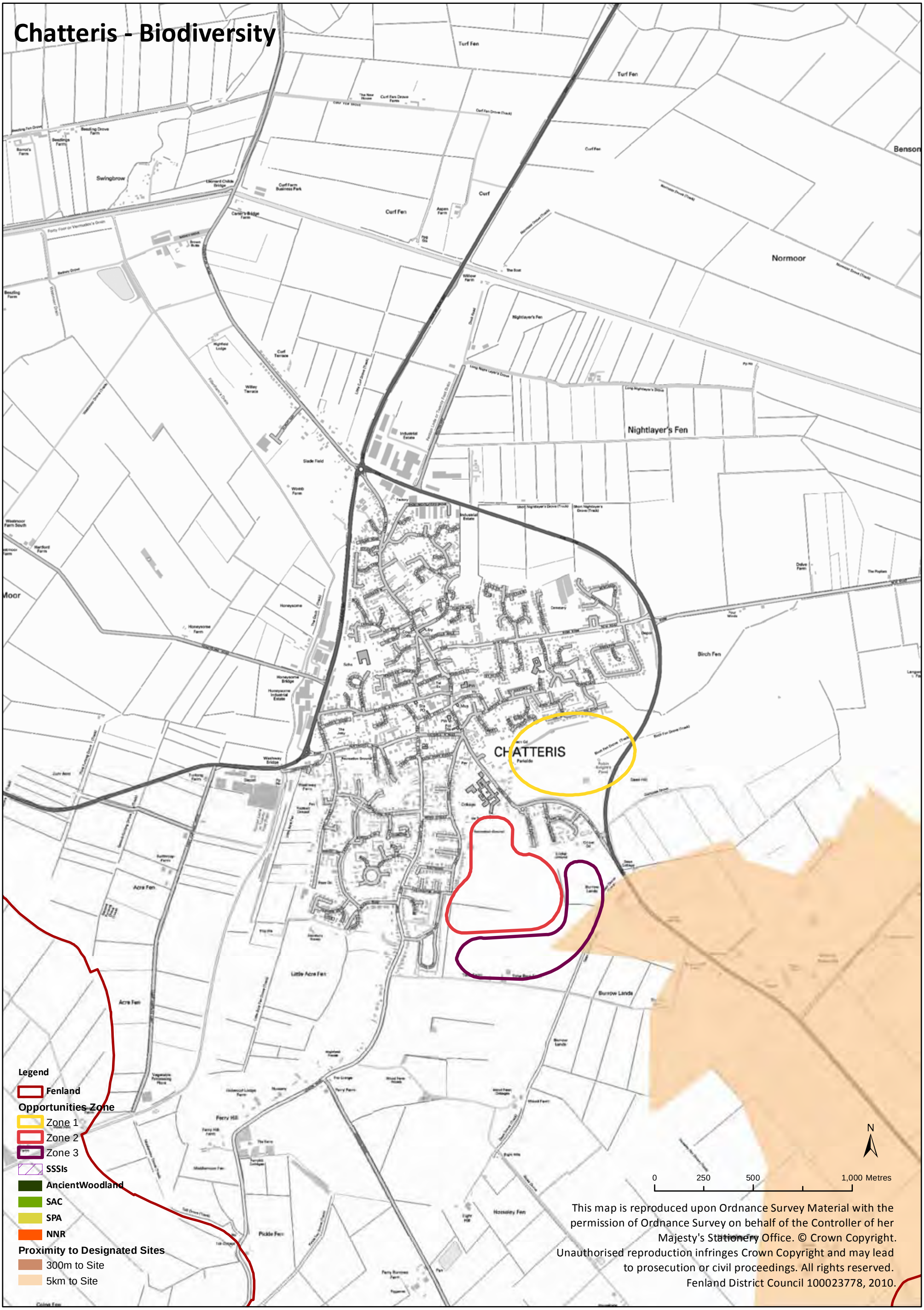
Criteria	Low	Medium	High	North	East	South	West
				heating There is an existing single turbine. The area around north March is considered to have high capacity to small groups of wind turbines. Windspeeds are high enough to support large turbines.	The area around east March is considered to have high capacity to small groups of wind turbines. Windspeeds are high enough to support large turbines.	The area around south March is considered to have a medium-high capacity to small groups of wind turbines. Windspeeds are high enough to support large turbines.	The area around west March is considered to have high capacity to small groups of wind turbines. Windspeeds are high enough to support large turbines.
Potential for increase from transport related carbon emissions	Located within walking distance (1km) to public transport hub or key employment / retail	Located within cycling distance (3km) to public transport hub or key employment / retail	Located further than 3km from public transport hub or key employment / retail	The site is located within 1km of the railway station and within 2km of the town centre and employment centre.	The site is located within 2km of the railway station and town centre and within 3km of the employment centre.	The sites are located within 2km of the town centre. The railway station and the employment centre are greater than 3km away.	The site is located within 2km of the town centre and within 3km of the employment centre and railway station.
Pollution							
Noise	Not next to noisy neighbour (road / industry)	N/A	within 300m of noisy neighbour (road / industry)	Several sites within 300m of industrial uses. A141 may be source of noise in north west of the area.	Fewer noisy neighbours in eastern area.	Few noise sources in southeast, A141 may cause noise pollution within sites to the southwest.	Many sites would be located within 300m of A141

Criteria	Low	Medium	High	North	East	South	West
Land contamination	More than 500m away from known contaminated land	Within 50-500m of known contaminated land	Within 50m or located on known contaminated land				
Healthy, Inclusive and Accessible Communities							
Road network safety and capability	Direct access to strategic and/or principal road network with minimal network capacity constraints (AM and PM peaks)	Indirect access to strategic and/or principal road network and, or some network capacity constraints (AM and PM peaks)	Requires new infrastructure to access strategic and/or principal road network, or significant network capacity constraints (AM and PM peaks)	Access to March Town Centre is constrained by the railway level crossing and the B1101 / Estover Road / Norwood Road double mini-roundabout junction. Access opportunities onto the B1101 limited and easier to access off Estover Road. Likely to require significant junction improvements at double-mini and extra pressure on level crossing may have implications in	Access onto B1099 Upwell Road likely to be only feasible option. Likely to require link improvements on B1099 to support development. Capacity of highway network unknown but development to the east likely to increase pressure on town centre junctions.	Potential for new access off A141 and / or B1101. Capacity of highway network unknown but development to the west likely to help lower extra pressure on town centre junctions.	Potential for new access off A141. Capacity of highway network unknown but development to the west likely to help minimise extra pressure on town centre junctions.

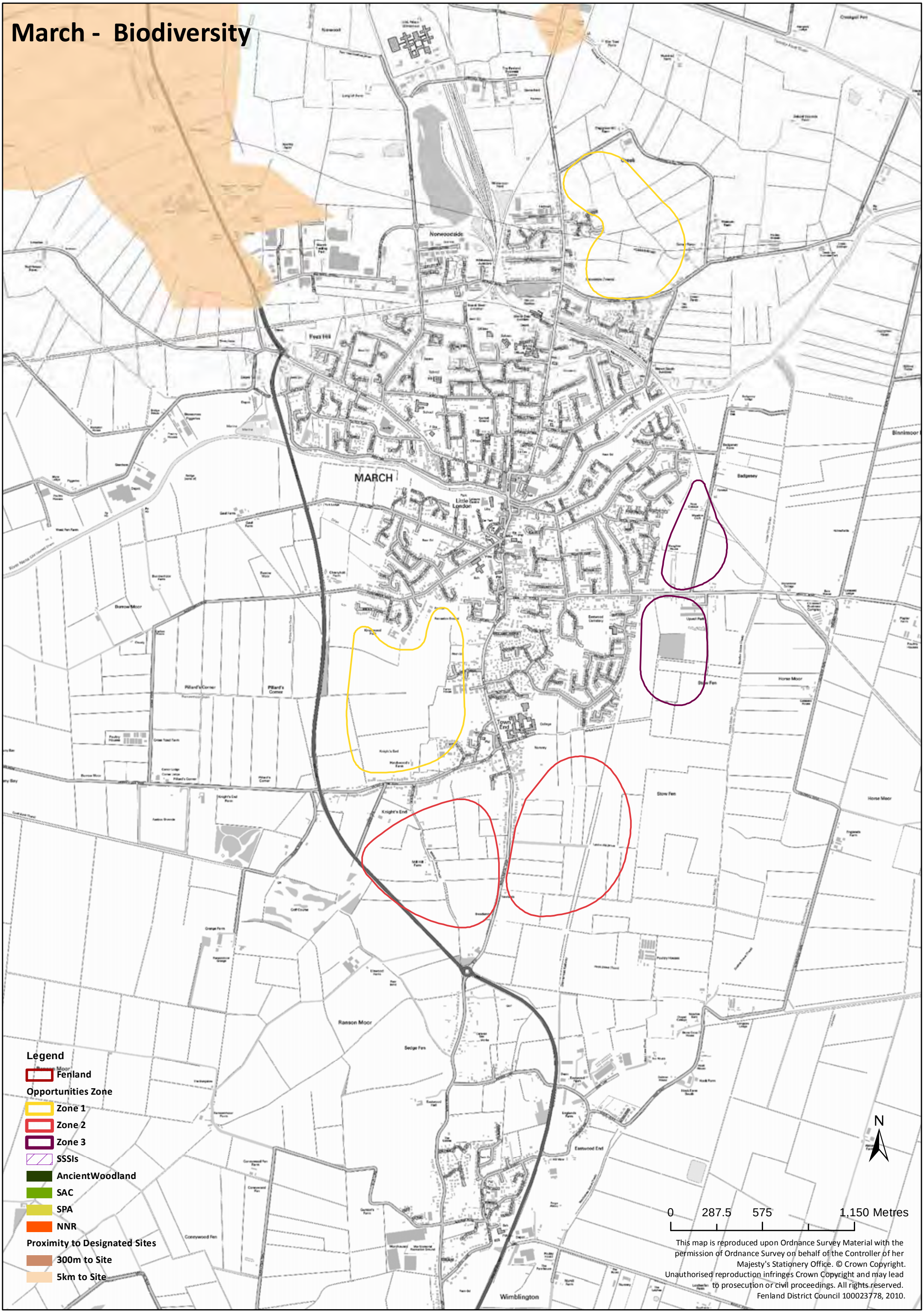
Criteria	Low	Medium	High	North	East	South	West
				terms of bridge infrastructure.			
Rail access	Less than 1k (walking)	Less than 3km (cycling)	Greater than 3km (bus and car access)	Within 1km of the railway station.	Within 2km of the railway station.	The railway station is more than 3km.	The railway station is less than 3km away.
Bus access	Good public transport connections and / or less than 500 dwellings (does not support improvements to bus infrastructure)	Moderate public transport connections and / or 500 – 1500 new homes potential service level improvements on existing routes	Poor public transport connections and / or >1500 new homes supports new commercial bus service	Within 1km of five bus routes. Improvements to existing routes could be provided and potential to divert into development from B1101.	Poor connections and would require new bus route connecting site, employment areas and town centre.	Within 1km of five bus routes. Improvements to existing routes could be provided and potential to divert into development from B1101.	There is the potential for services to be improved to access the site or a new service to be provided.
Opportunity to improve quality of life in most deprived areas	Adjacent to bottom quartile IMD	Within 2km of area in bottom quartile IMD	> 5km from area in bottom quartile IMD	Some sites within 2km of bottom quartile IMD areas.	Sites within or immediately adjacent to bottom quartile IMD areas in March East ward.	Some sites within 2km of bottom quartile IMD areas.	Some sites within 2km of bottom quartile IMD areas.
Economic Activity							
Proximity to existing employment areas	Less than 2km	2-5km	Over 5km	Sites within 1km of existing	A number of sites within 2km of existing	A number of sites within 2km of existing	A number of sites within 2km of existing

Criteria	Low	Medium	High	North	East	South	West
				employment areas. Sites within 2km of town centre.	employment areas. Sites within 1km of town centre.	employment areas. Sites within 2km of town centre.	employment areas. Sites within 1km of town centre.

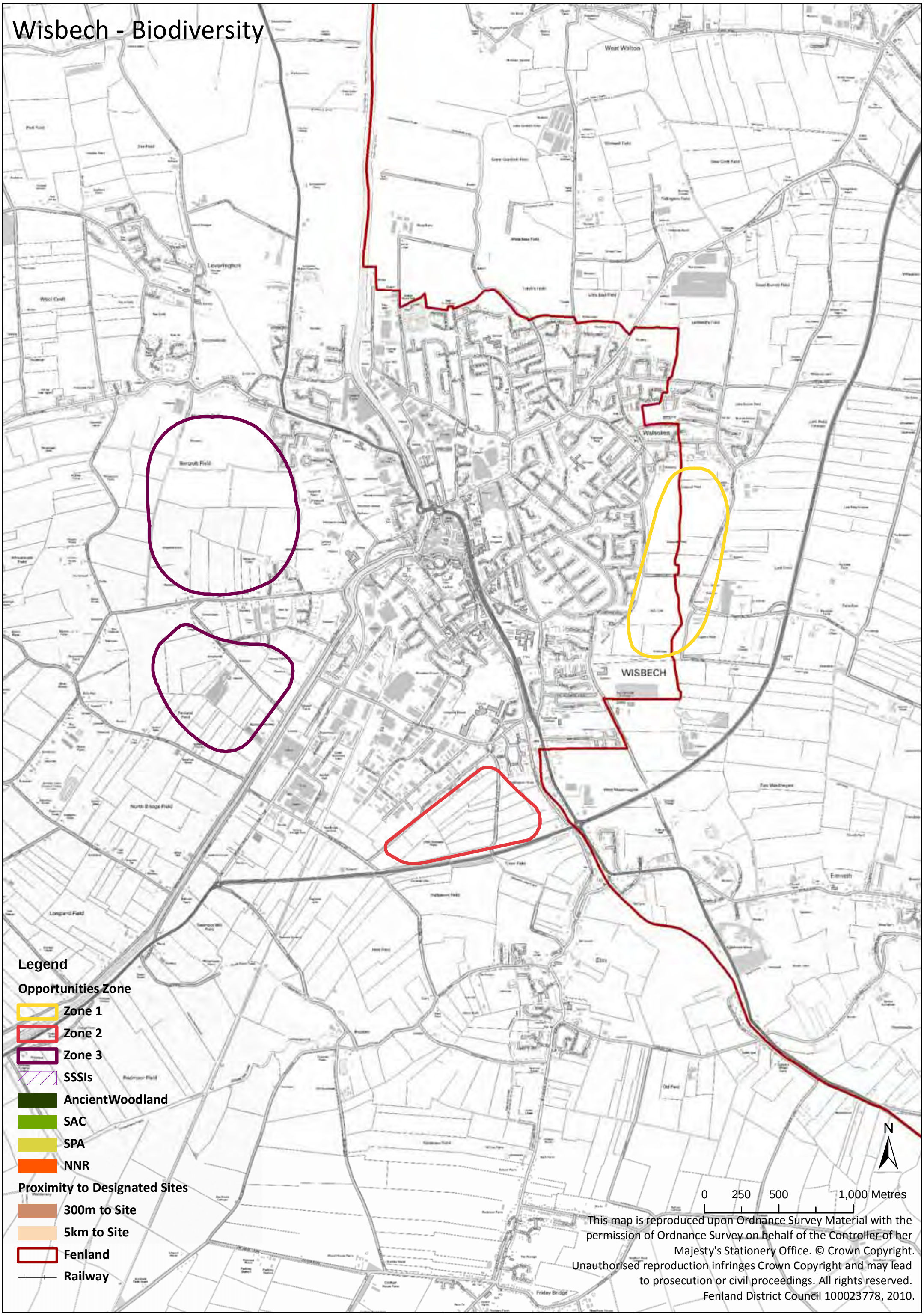
Chatteris - Biodiversity



March - Biodiversity



Wisbech - Biodiversity



Whittlesey - Biodiversity

WHITTLESEY

Ponedersbridge

Legend

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3
- SSSIs
- AncientWoodland
- SAC
- SPA
- NNR

Proximity to Designated Sites

- 300m to Site
- 5km to Site

0 285 570 1,140 Metres

N

March - Proximity to Employment Areas

MARCH

Legend

Fenland

Key Hub - Railway Stations

Opportunities Zone

Zone 1

Zone 2

Zone 3

Key Hub - Employment

Key Hub - Town Centre

2km from Empolyment Centres

5km from Empolyment Centres

N

0 287.5 575 1,150 Metres

Wisbech - Proximity to Employment Areas

WISBECH

Legend

- Key Hub - Railway Stations

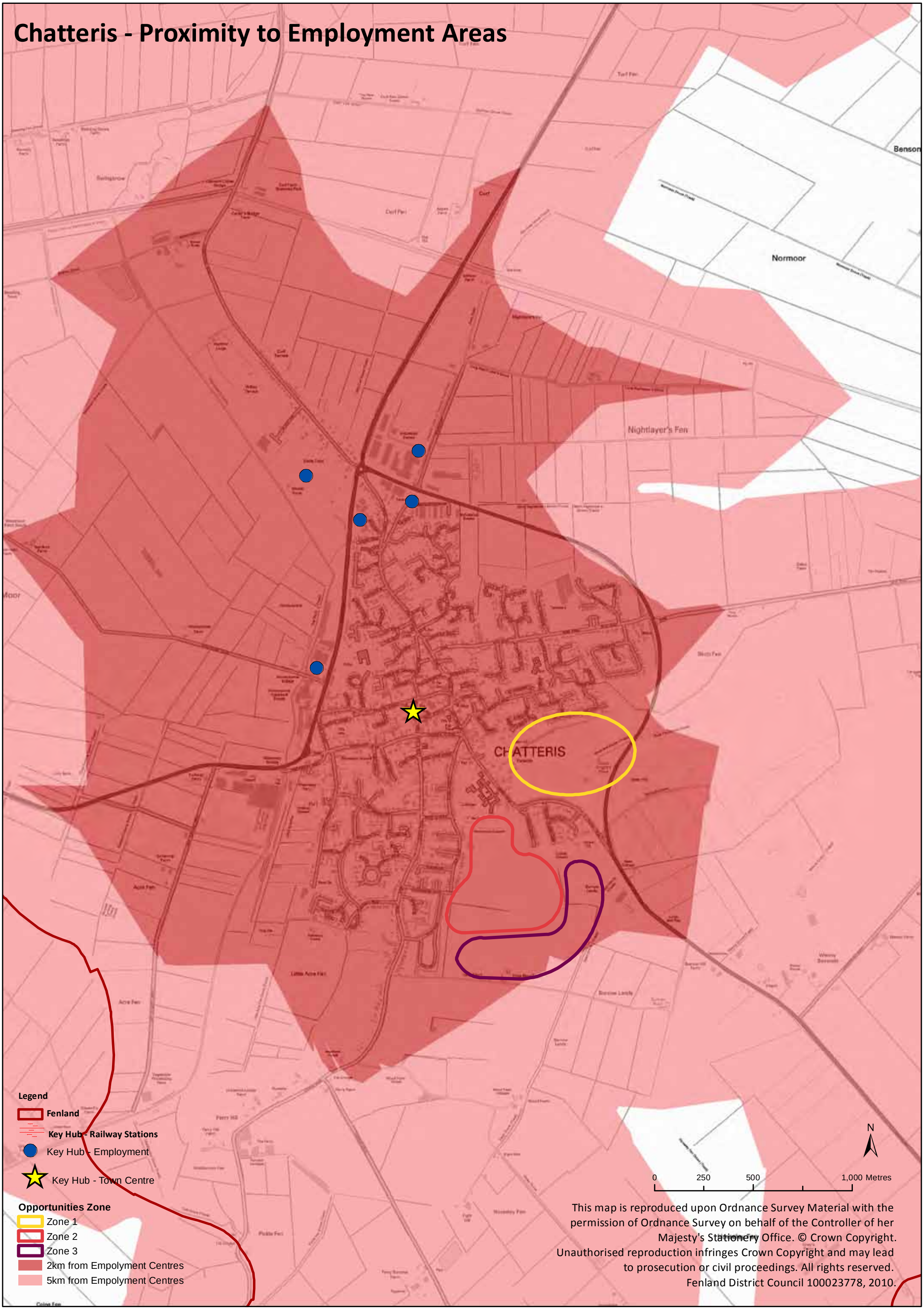
Opportunities Zone

- Zone 1
- Zone 2
- Zone 3
- Key Hub - Employment
- Key Hub - Town Centre
- 2km from Empolyment Centres
- 5km from Empolyment Centres
- Fenland
- Railway

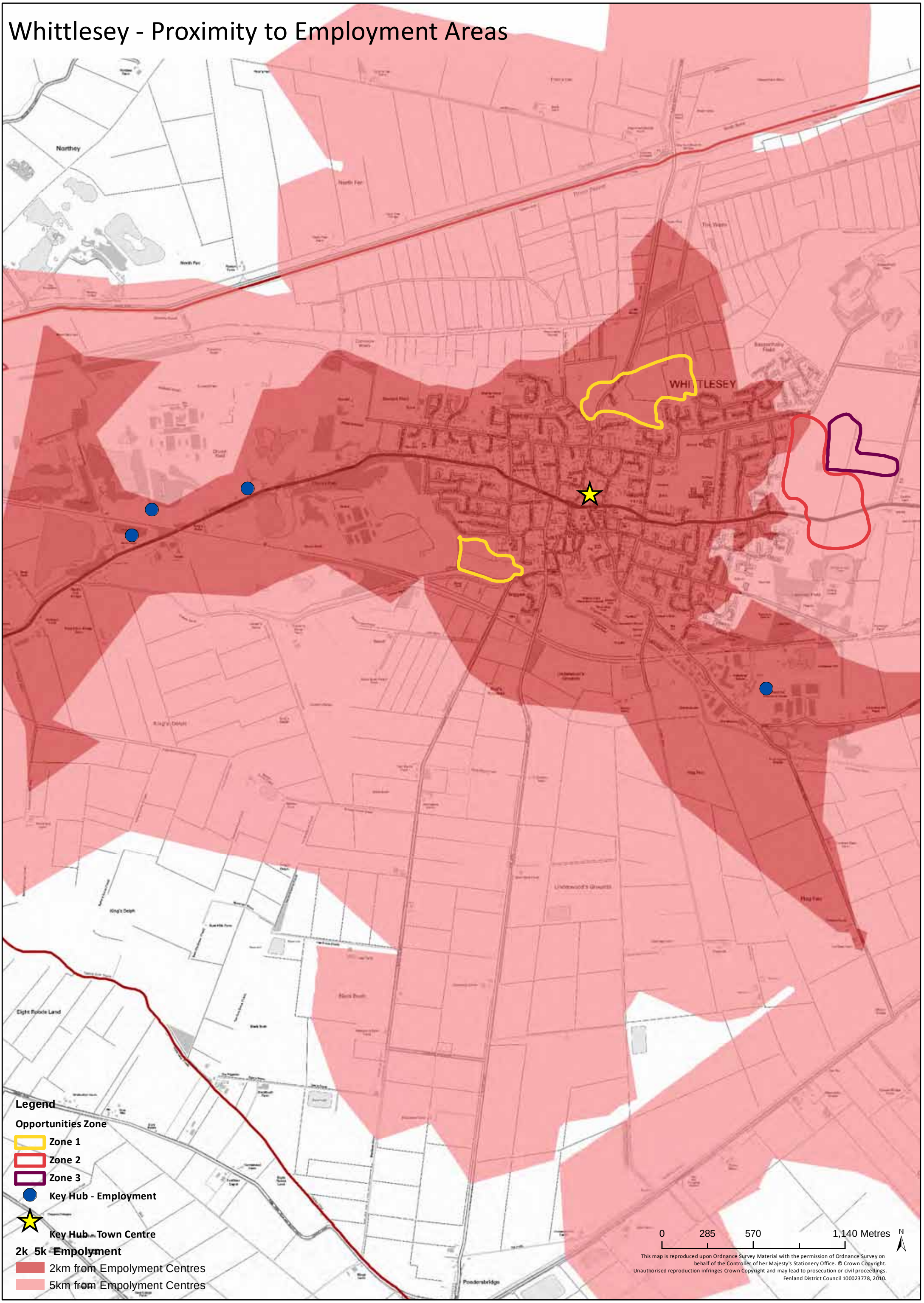
N

0 250 500 1,000 Metres

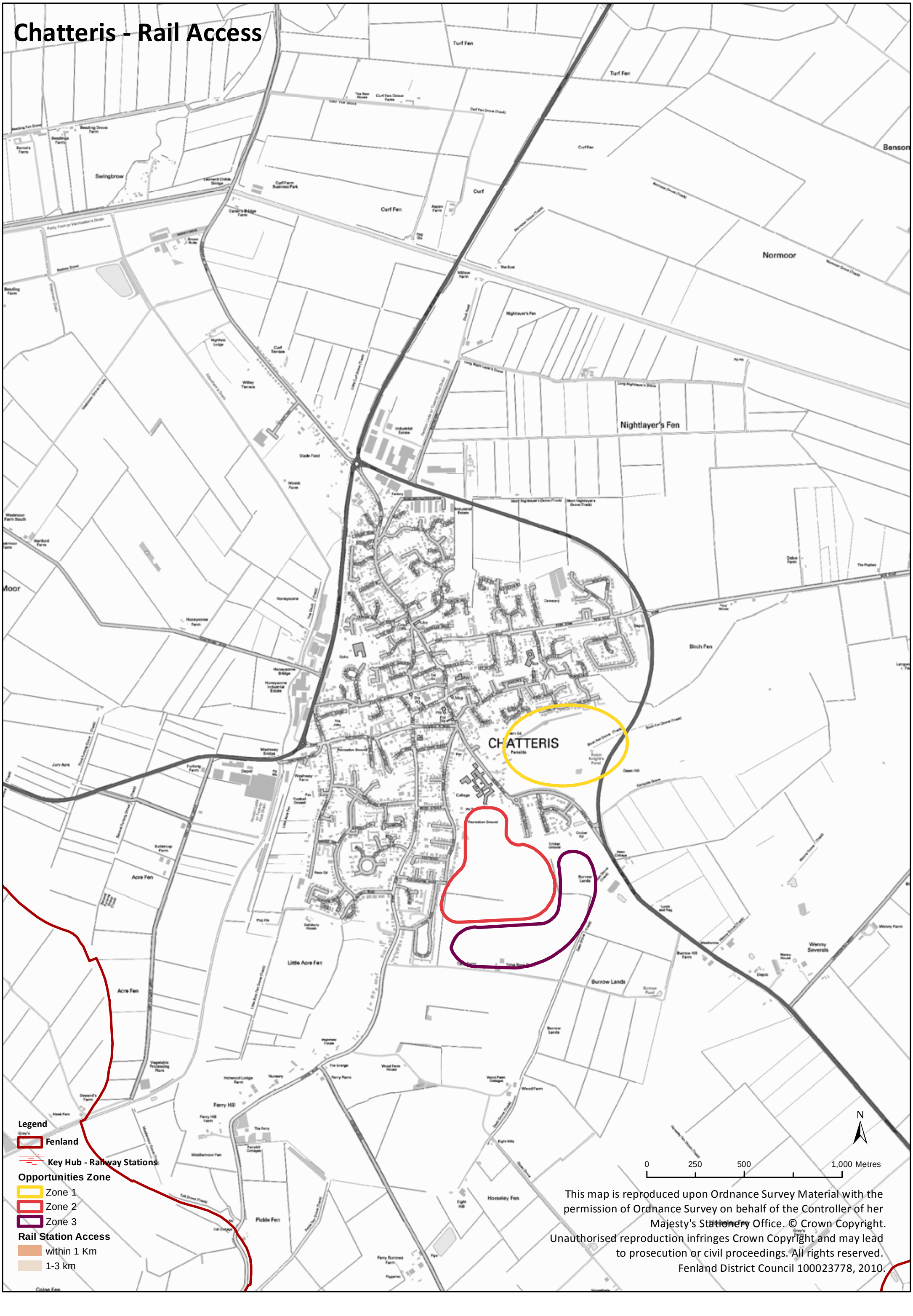
Chatteris - Proximity to Employment Areas



Whittlesey - Proximity to Employment Areas



Chatteris - Rail Access



March - Rail Access

MARCH

Knight's End

Wimblington

Ransom Moor

Legend

- Fenland
- Key Hub - Railway Stations

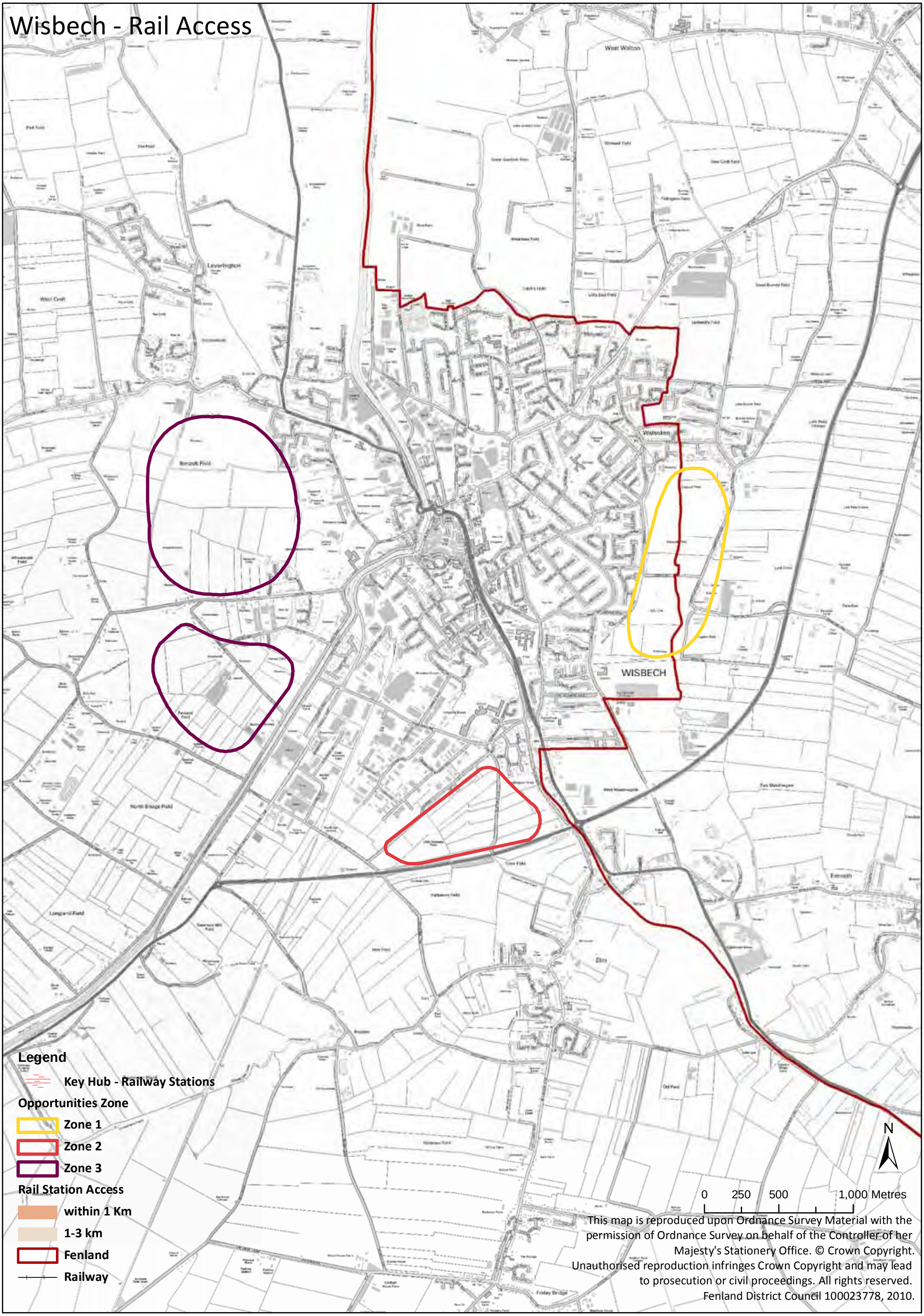
Opportunities Zone

- Zone 1
- Zone 2
- Zone 3
- within 1 Km
- 1-3 km

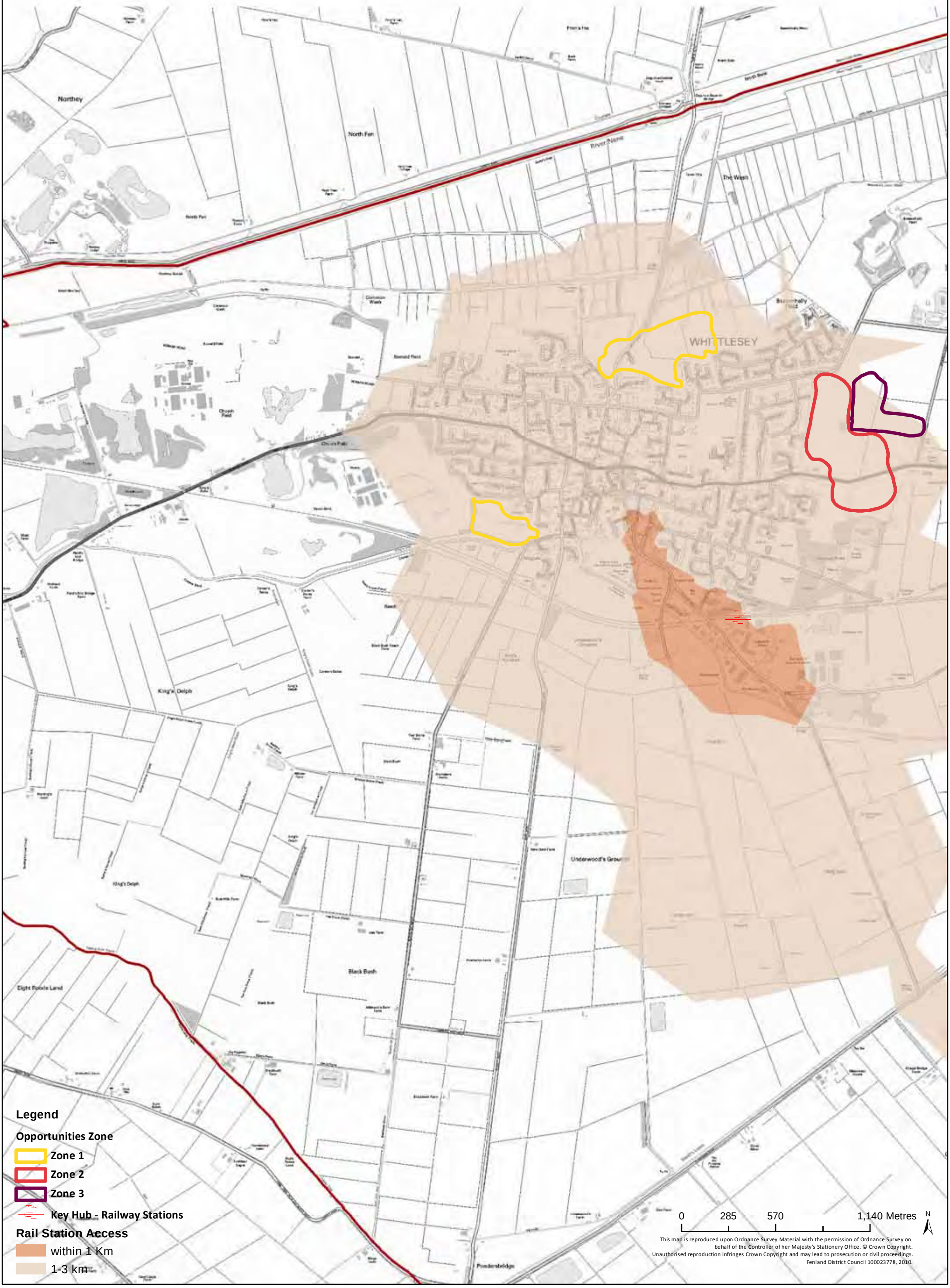
N

0 287.5 575 1,150 Metres

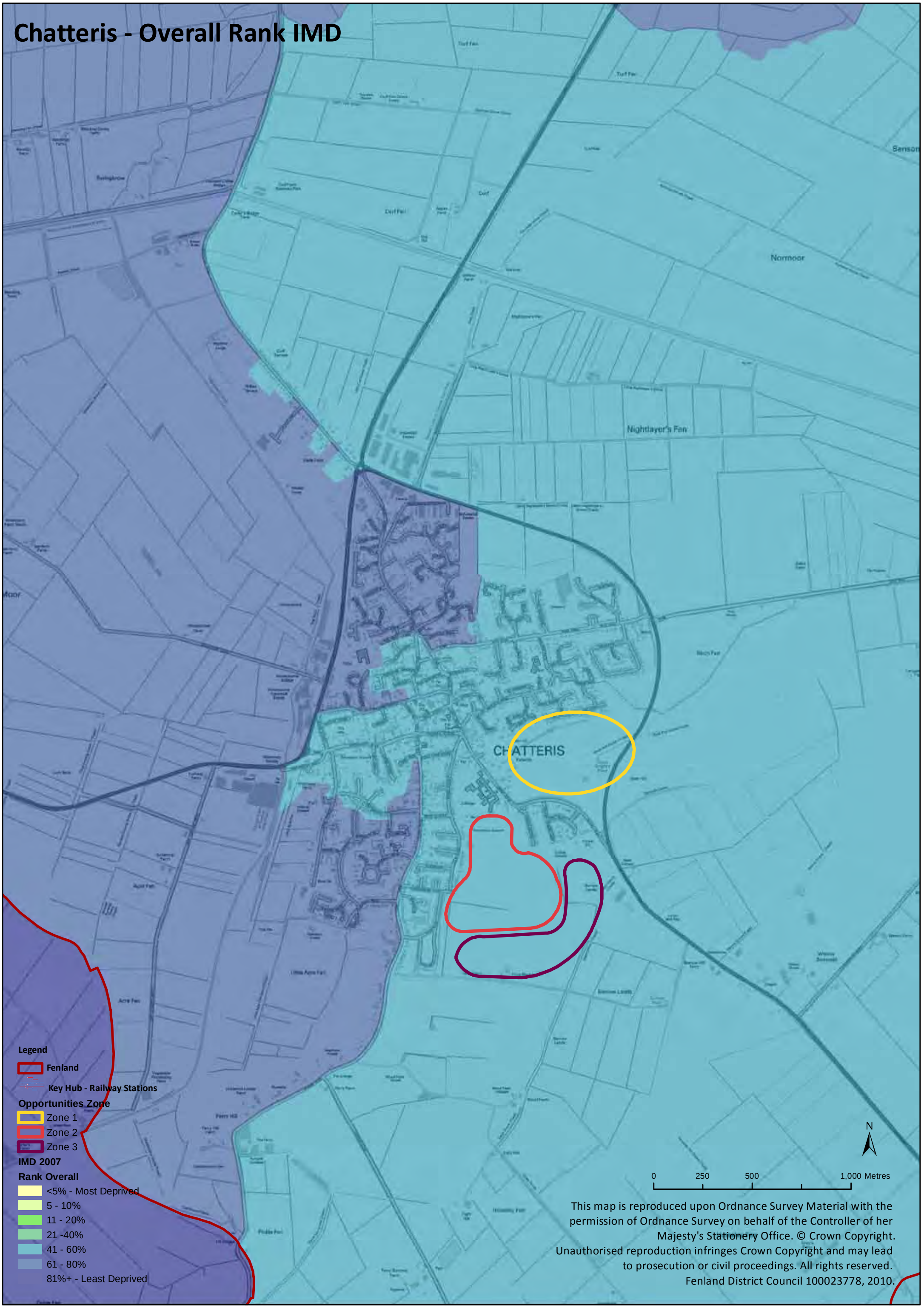
Wisbech - Rail Access



Whittlesey - Rail Access



Chatteris - Overall Rank IMD



March - Overall IMD

MARCH

Legend

Fenland

Key Hub - Railway Stations

Opportunities Zone

Zone 1

Zone 2

Zone 3

IMD 2007

Rank Overall

<5% - Most Deprived

5 - 10%

11 - 20%

21 -40%

41 - 60%

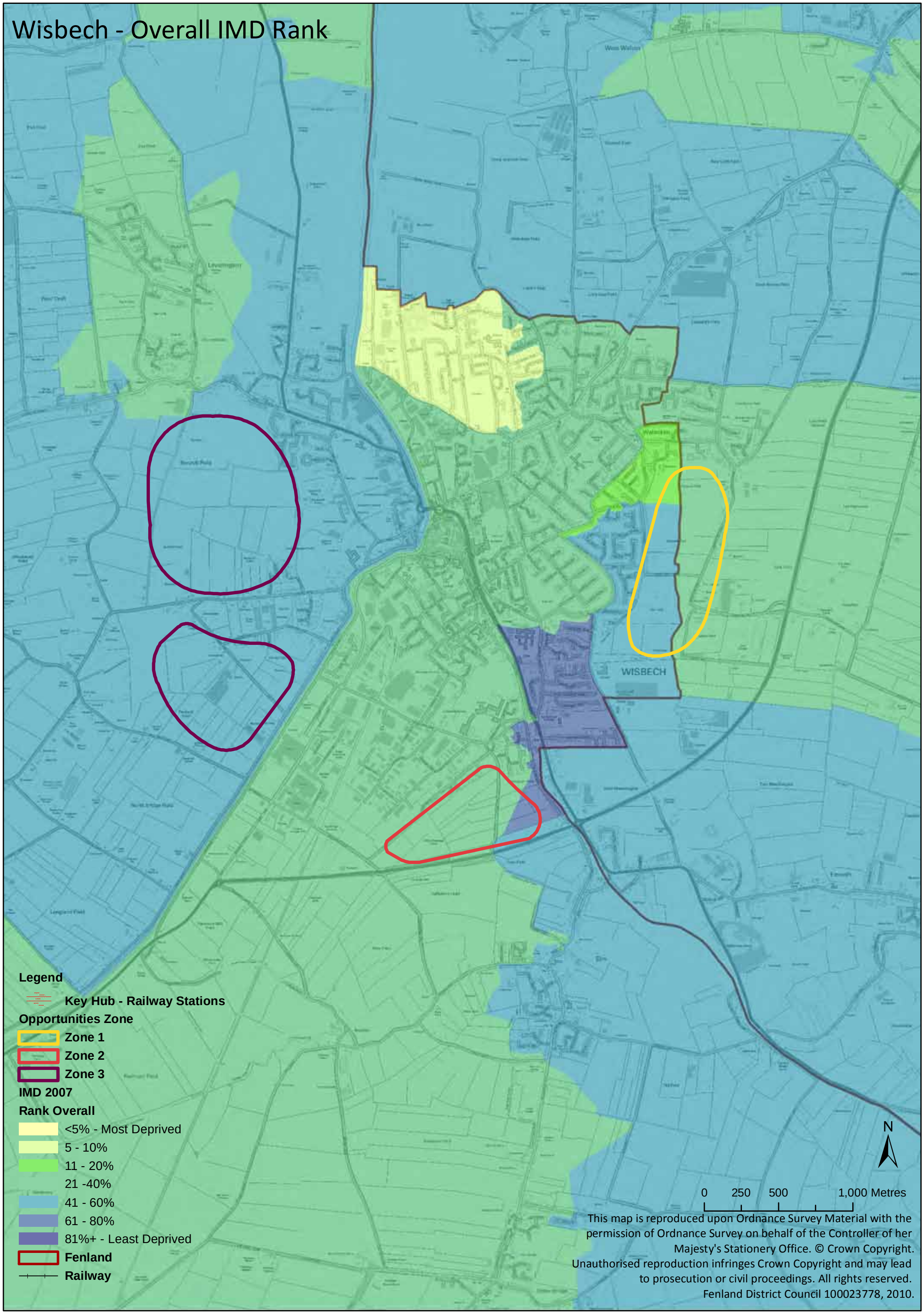
61 - 80%

81%+ - Least Deprived

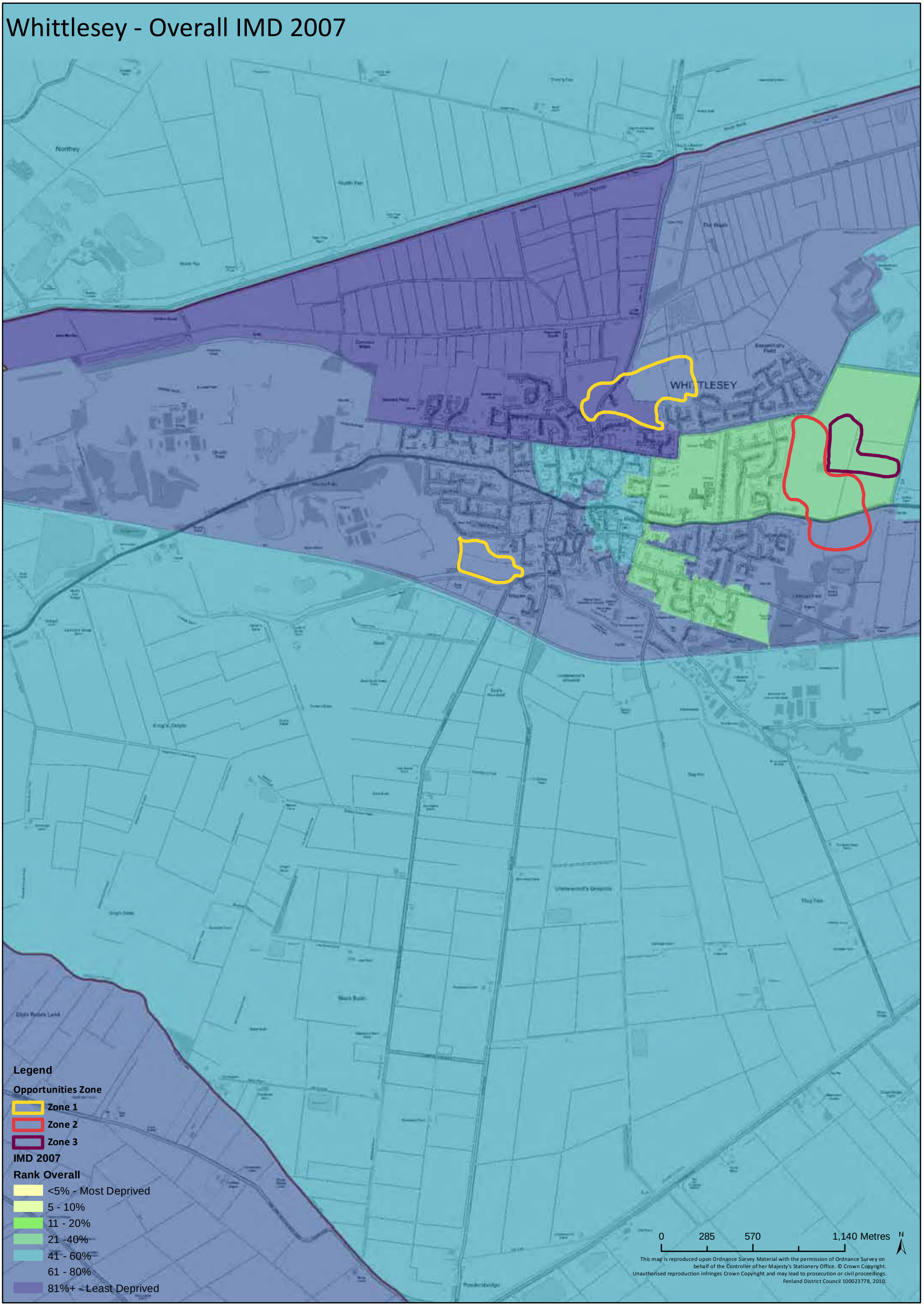
N

0 287.5 575 1,150 Metres

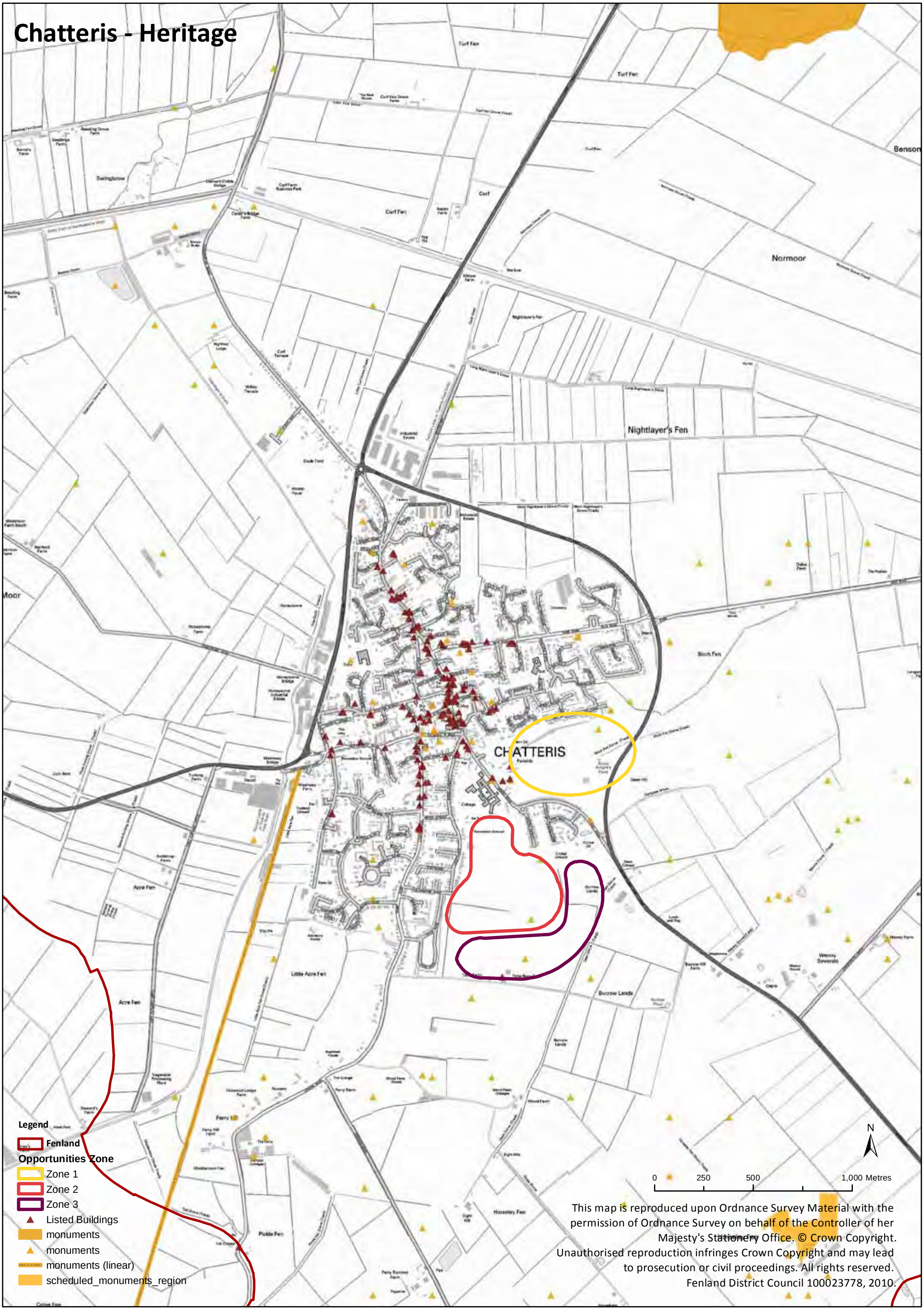
Wisbech - Overall IMD Rank



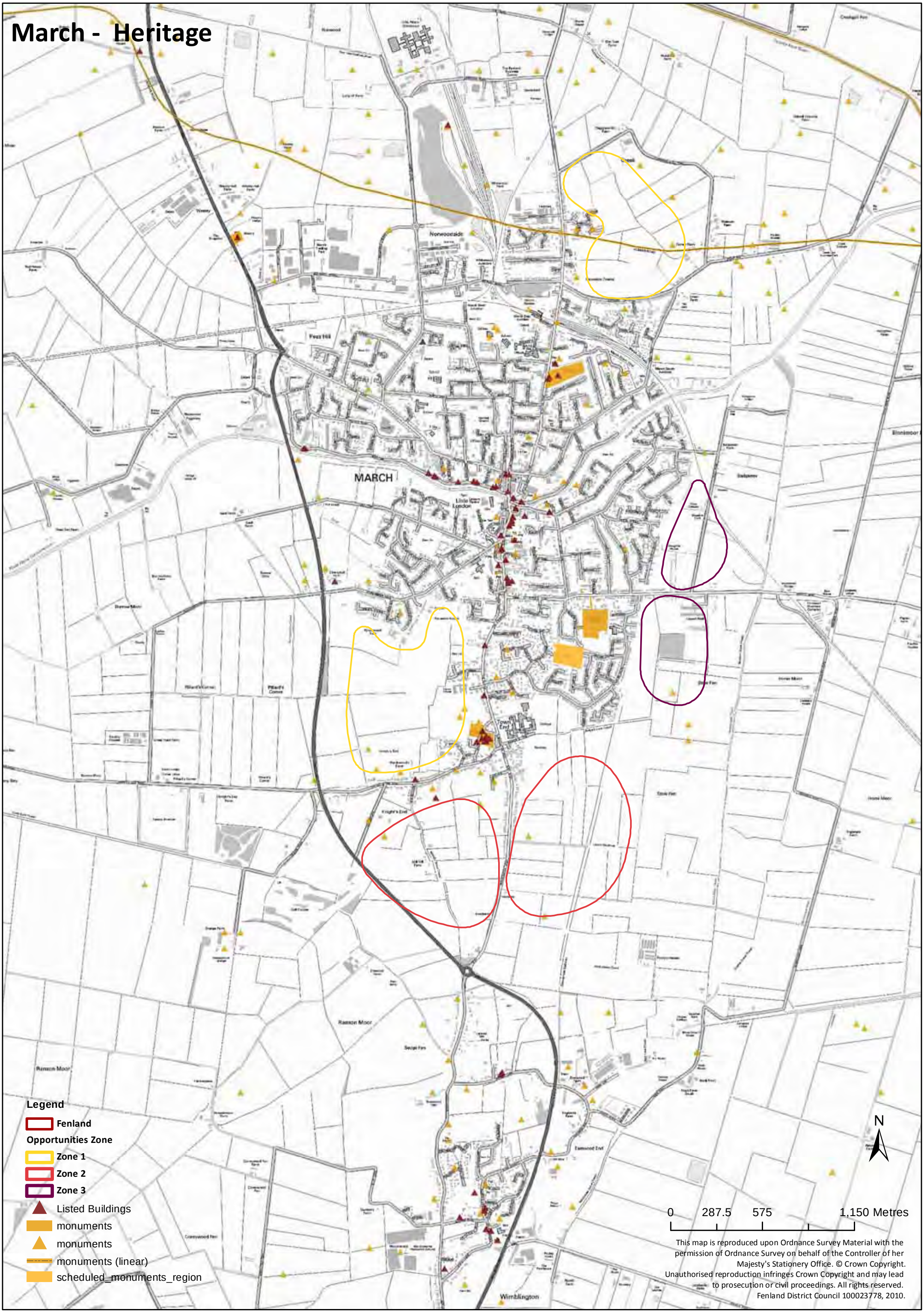
Whittlesey - Overall IMD 2007



Chatteris - Heritage



March - Heritage



Wisbech - Heritage

West Walton
Leverington
WISBECH
Walsoken
Elm
Emneth

Legend

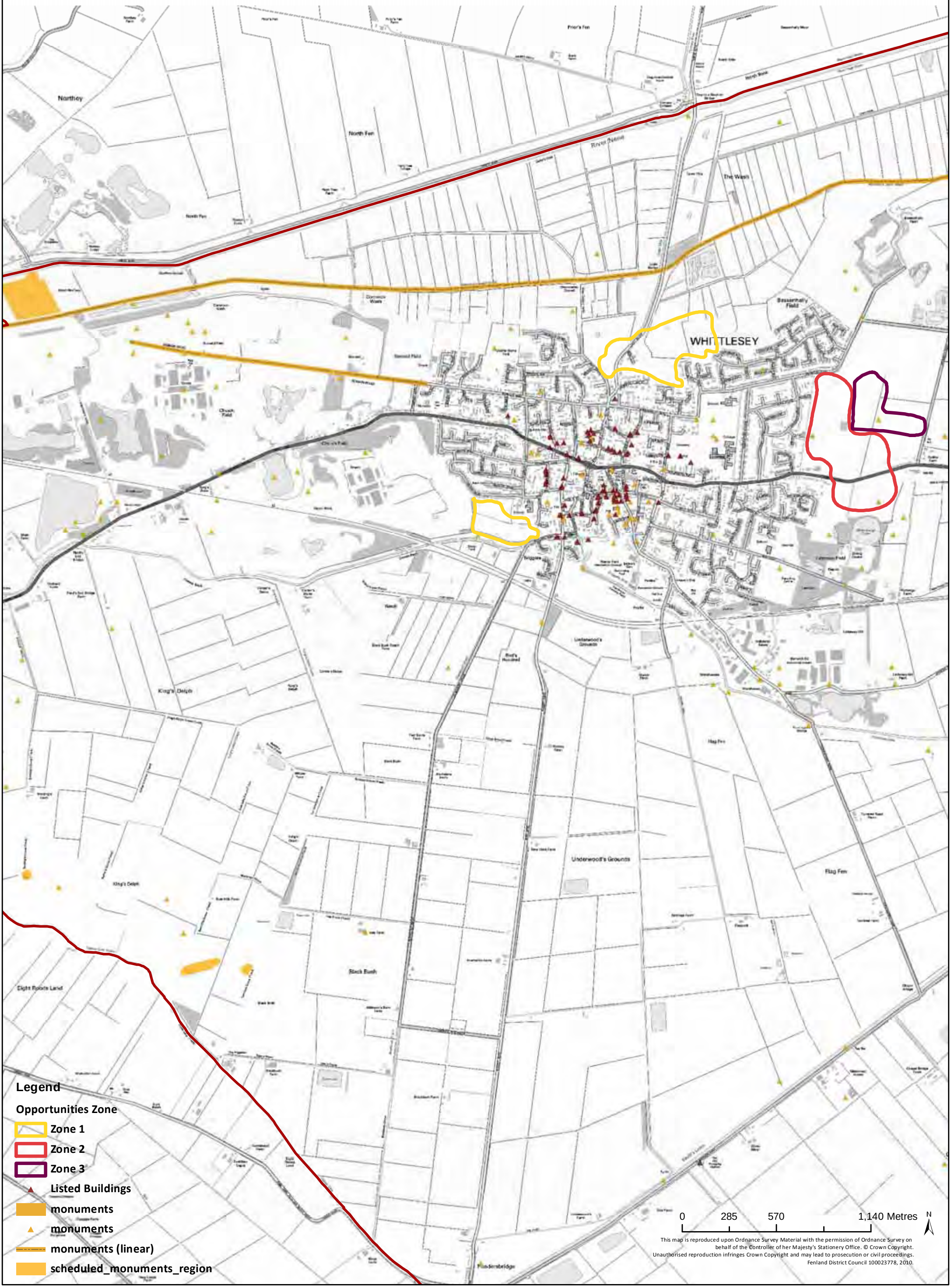
Opportunities Zone

- Zone 1
- Zone 2
- Zone 3
- Listed Buildings
- monuments
- monuments
- monuments (linear)
- scheduled_monuments_region
- Fenland
- Railway

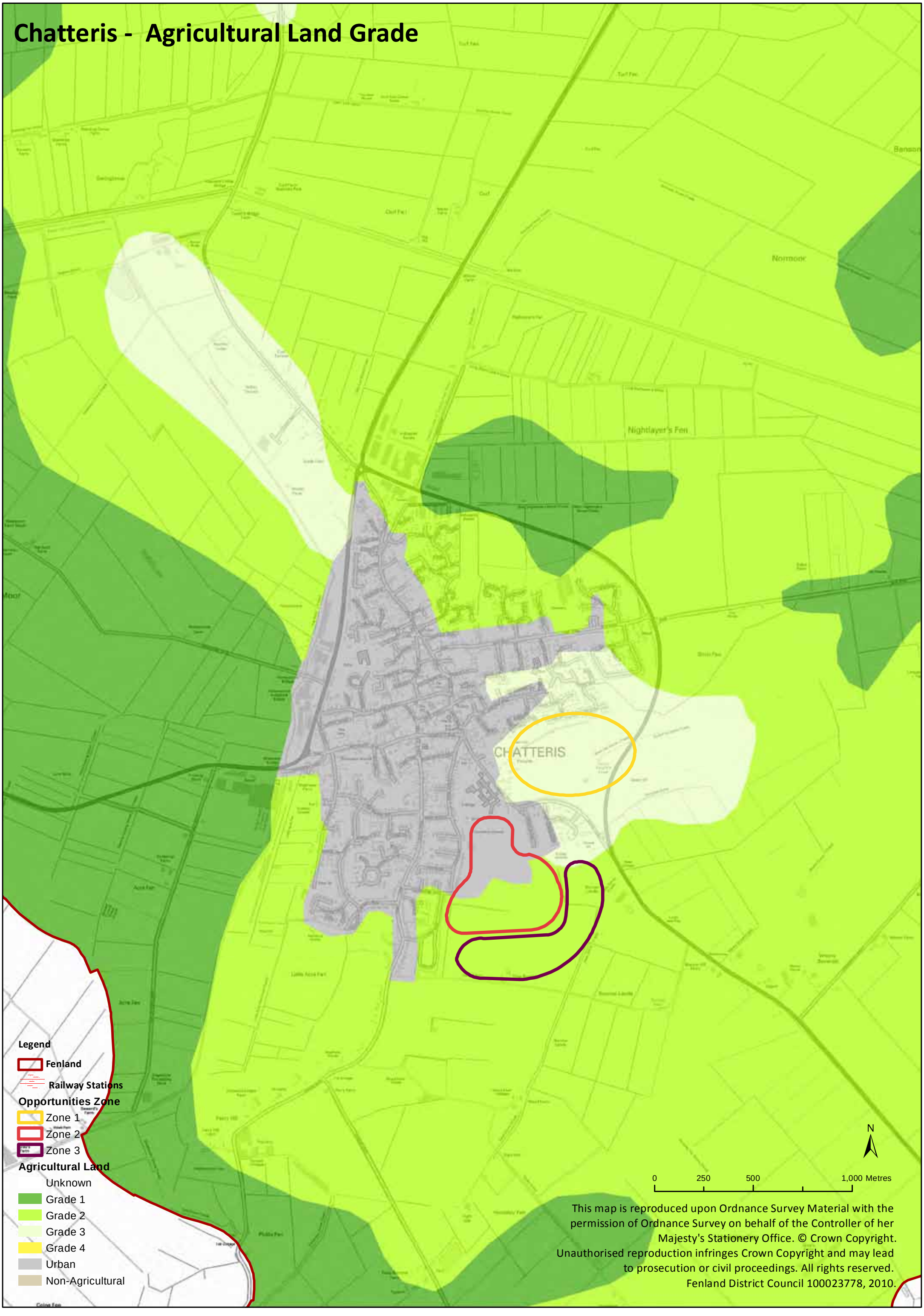
N

0 250 500 1,000 Metres

Whittlesey - Heritage



Chatteris - Agricultural Land Grade



March - Agricultural Land Grade

MARCH

Legend

- Fenland
- Railway Stations

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

Agricultural Land

- Unknown
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Urban
- Non-Agricultural

N

0 287.5 575 1,150 Metres

Wisbech - Agricultural Land Grade

Legend

Opportunities Zone
- Zone 1
- Zone 2
- Zone 3
- Railway Stations
- Fenland

Agricultural Land
- Unknown
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Urban
- Non-Agricultural
- Railway

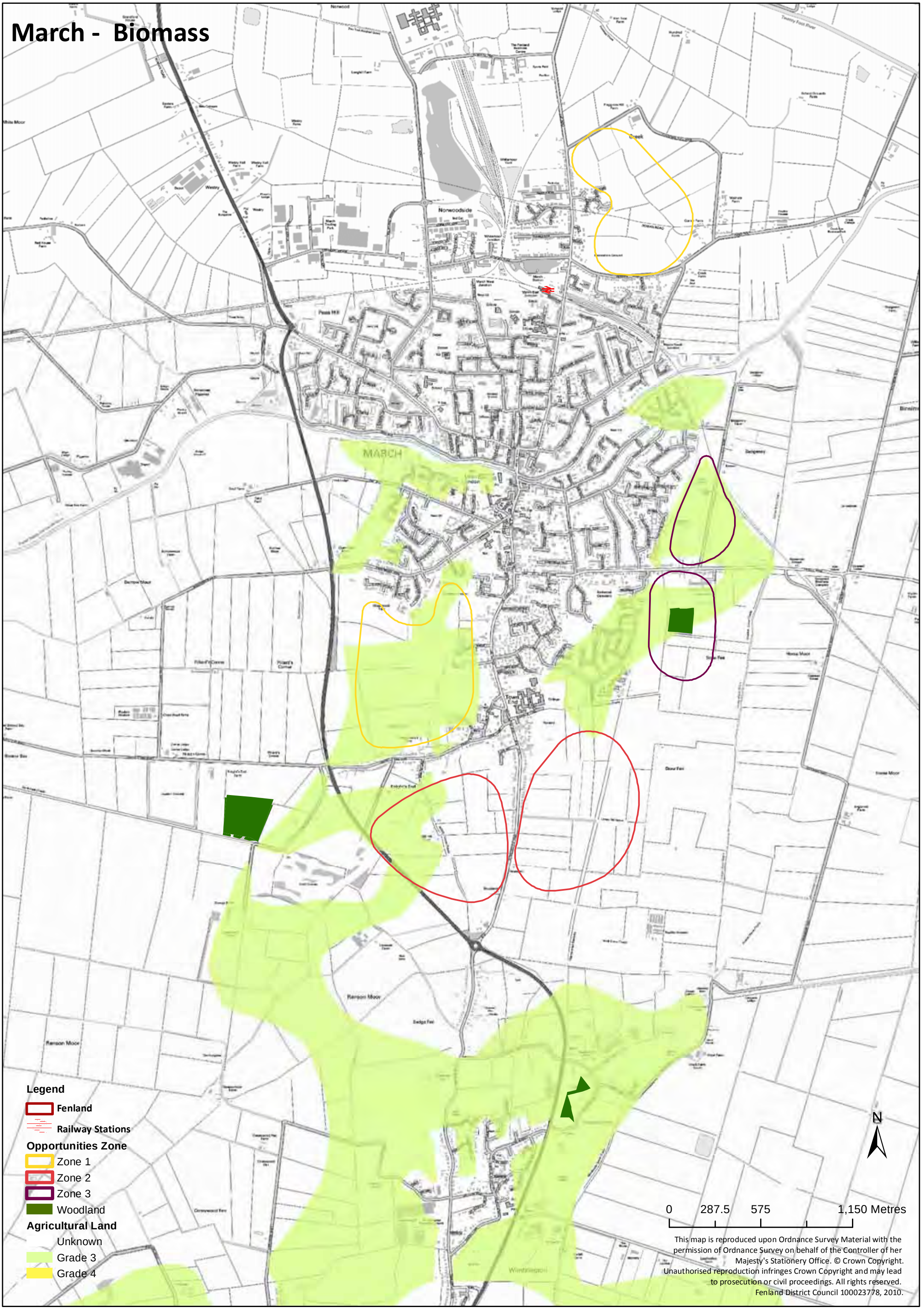
WISBECH

Emneth

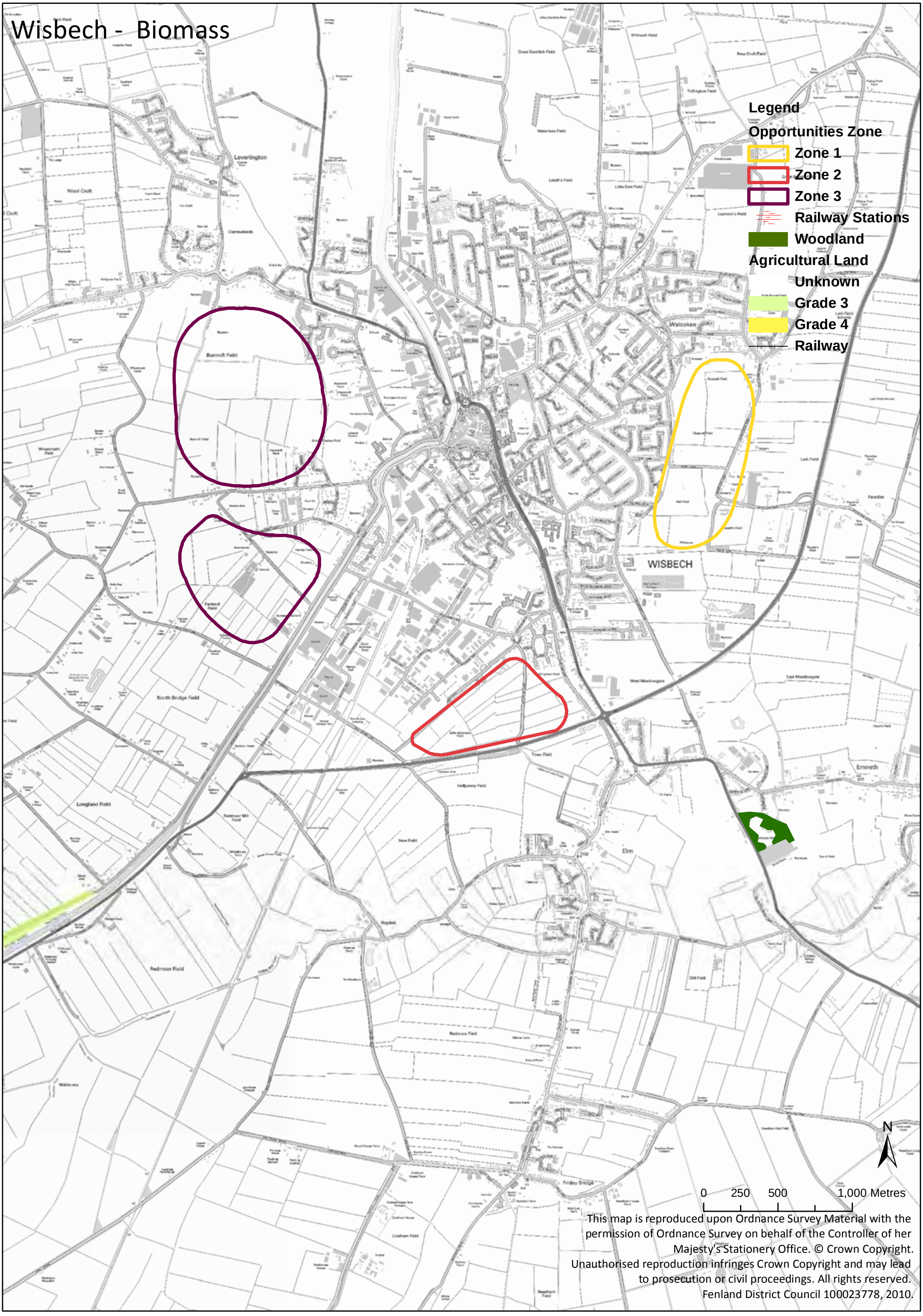
N

0 245 490 980 Metres

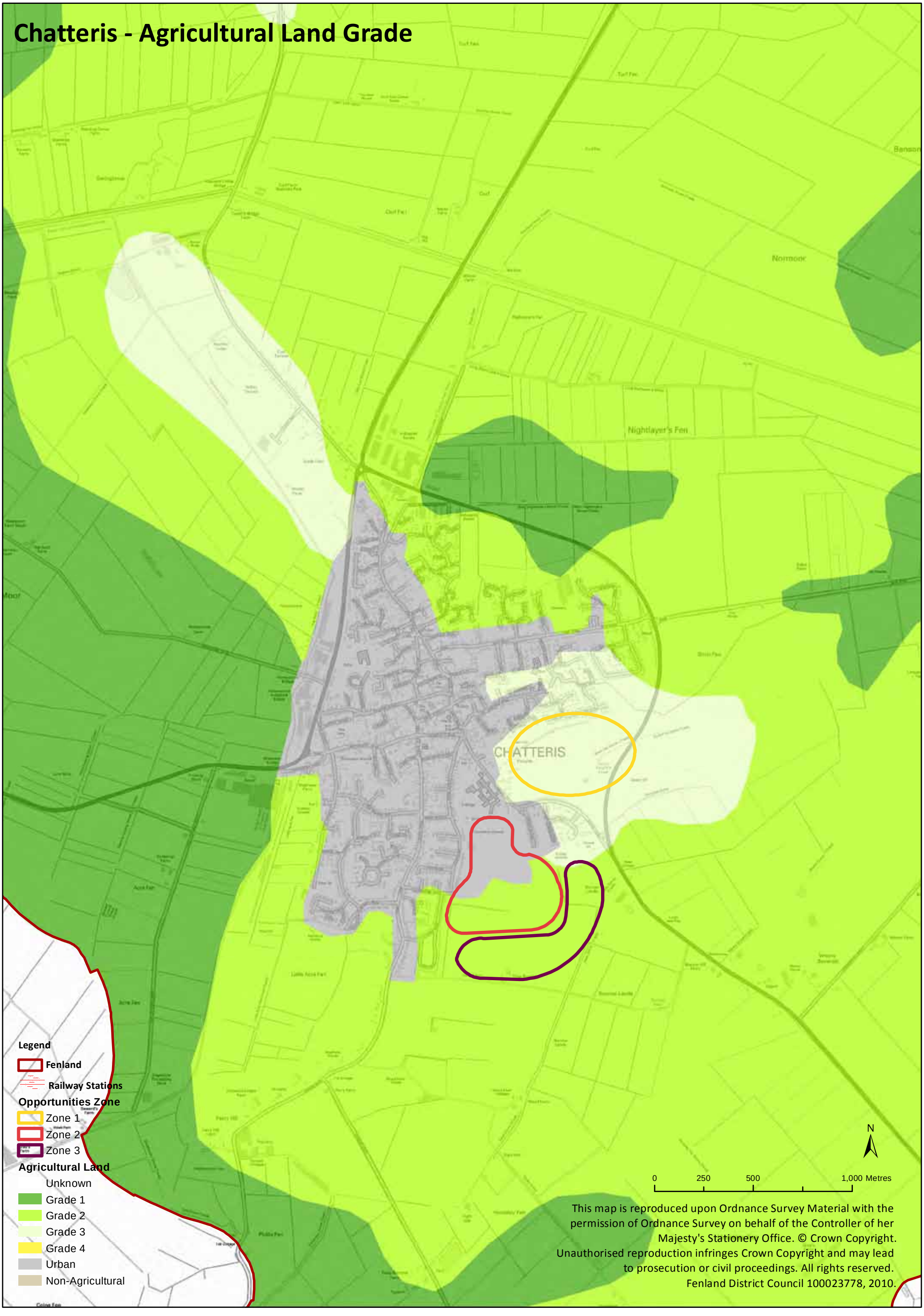
March - Biomass



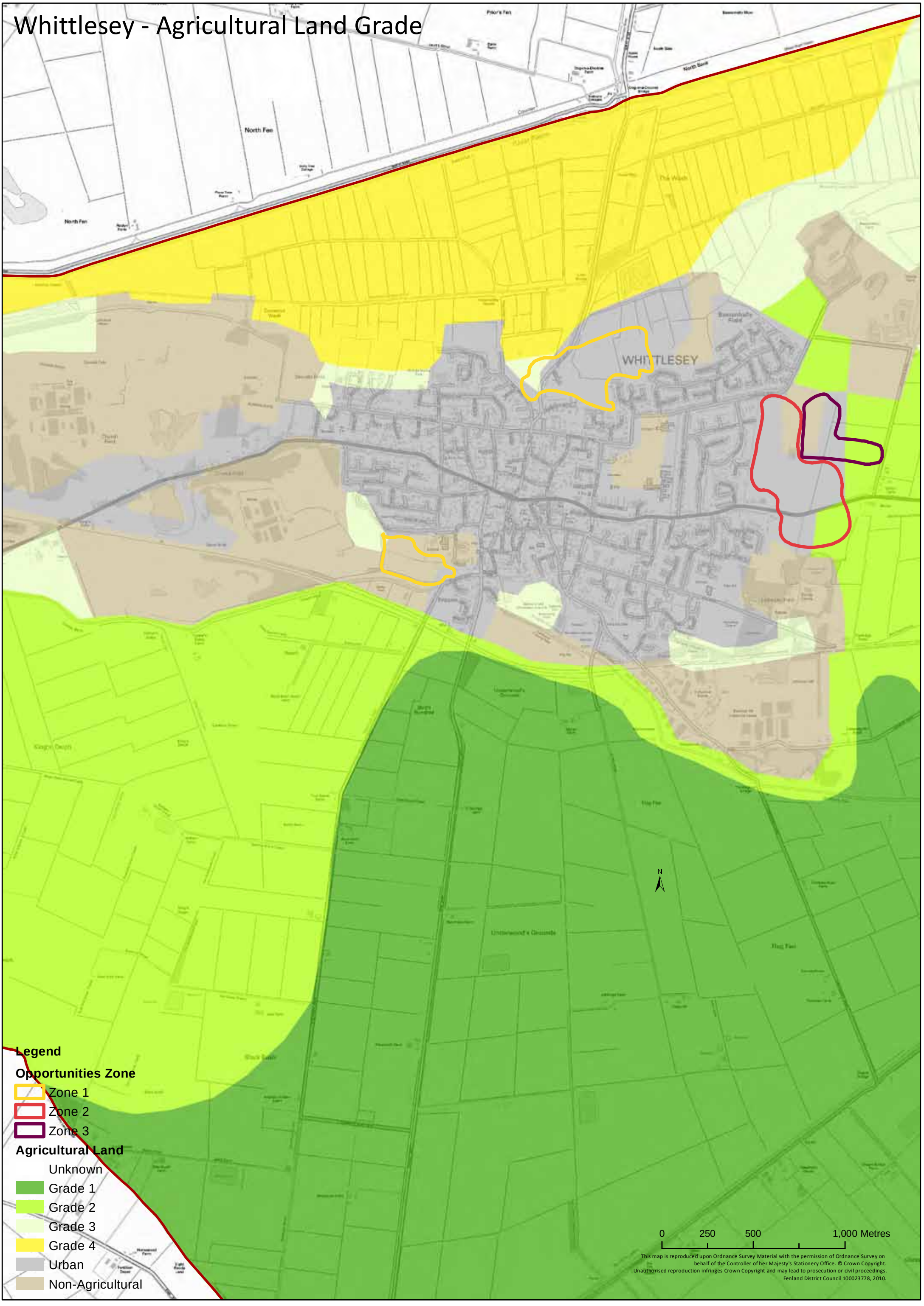
Wisbech - Biomass



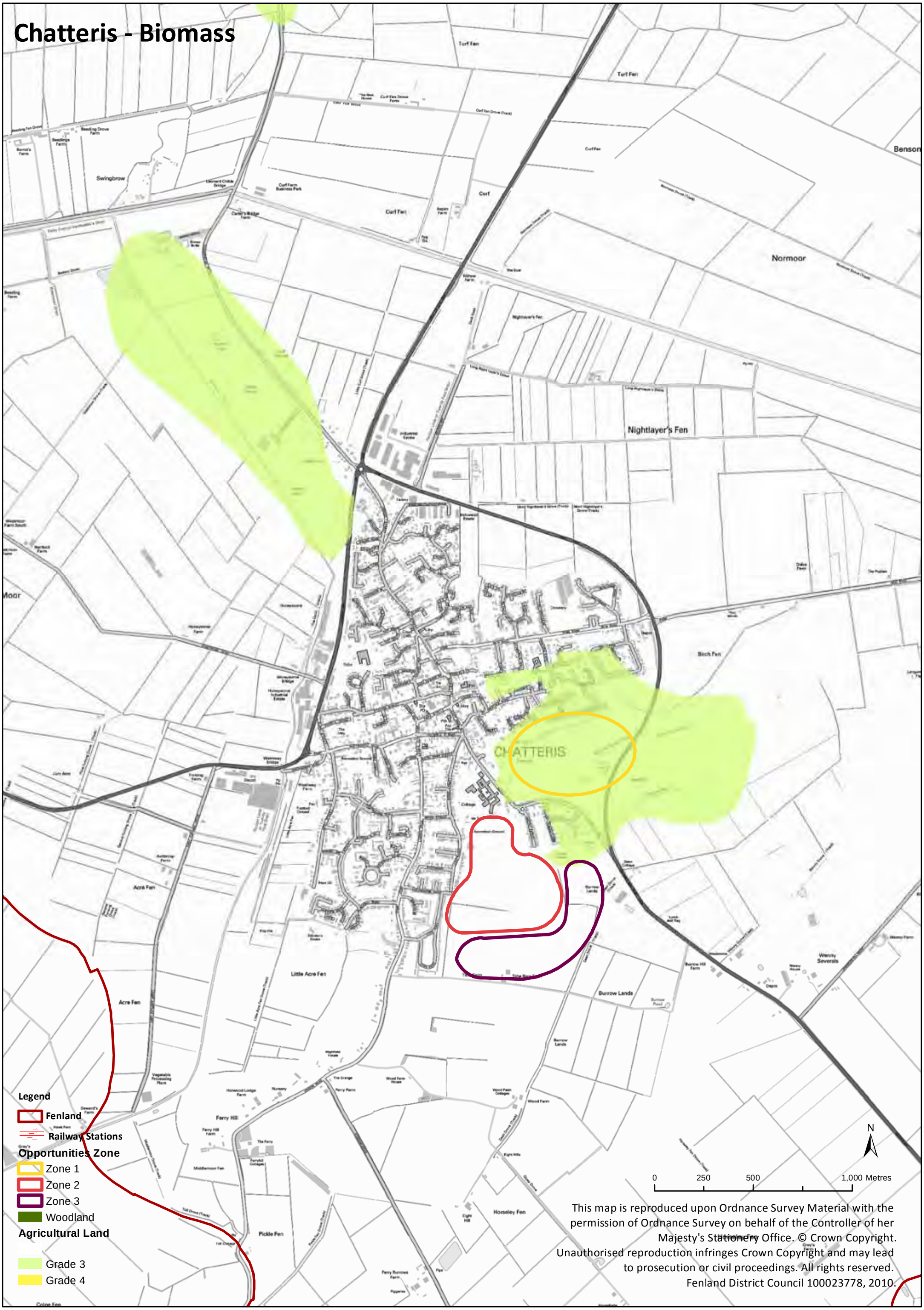
Chatteris - Agricultural Land Grade



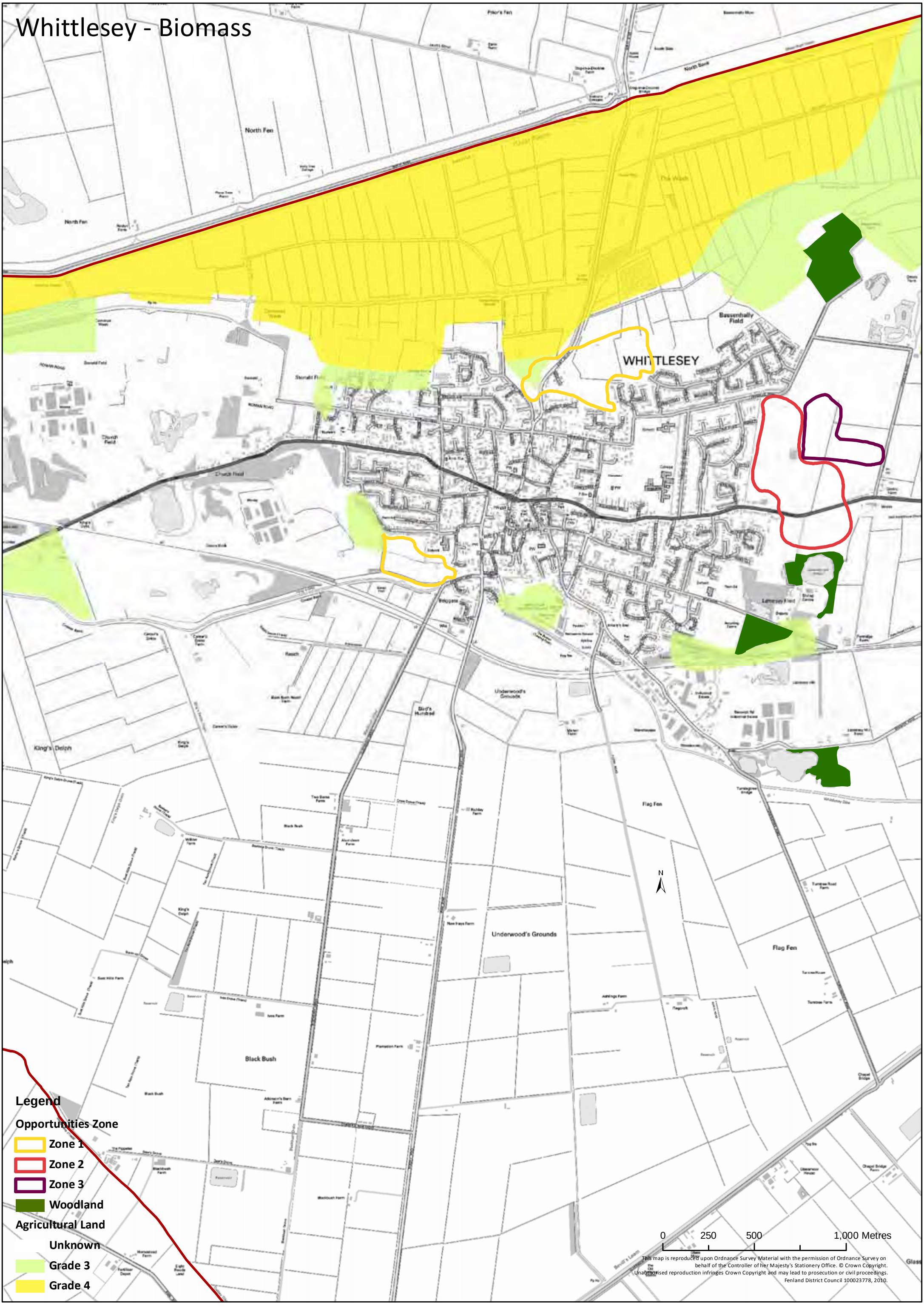
Whittlesey - Agricultural Land Grade



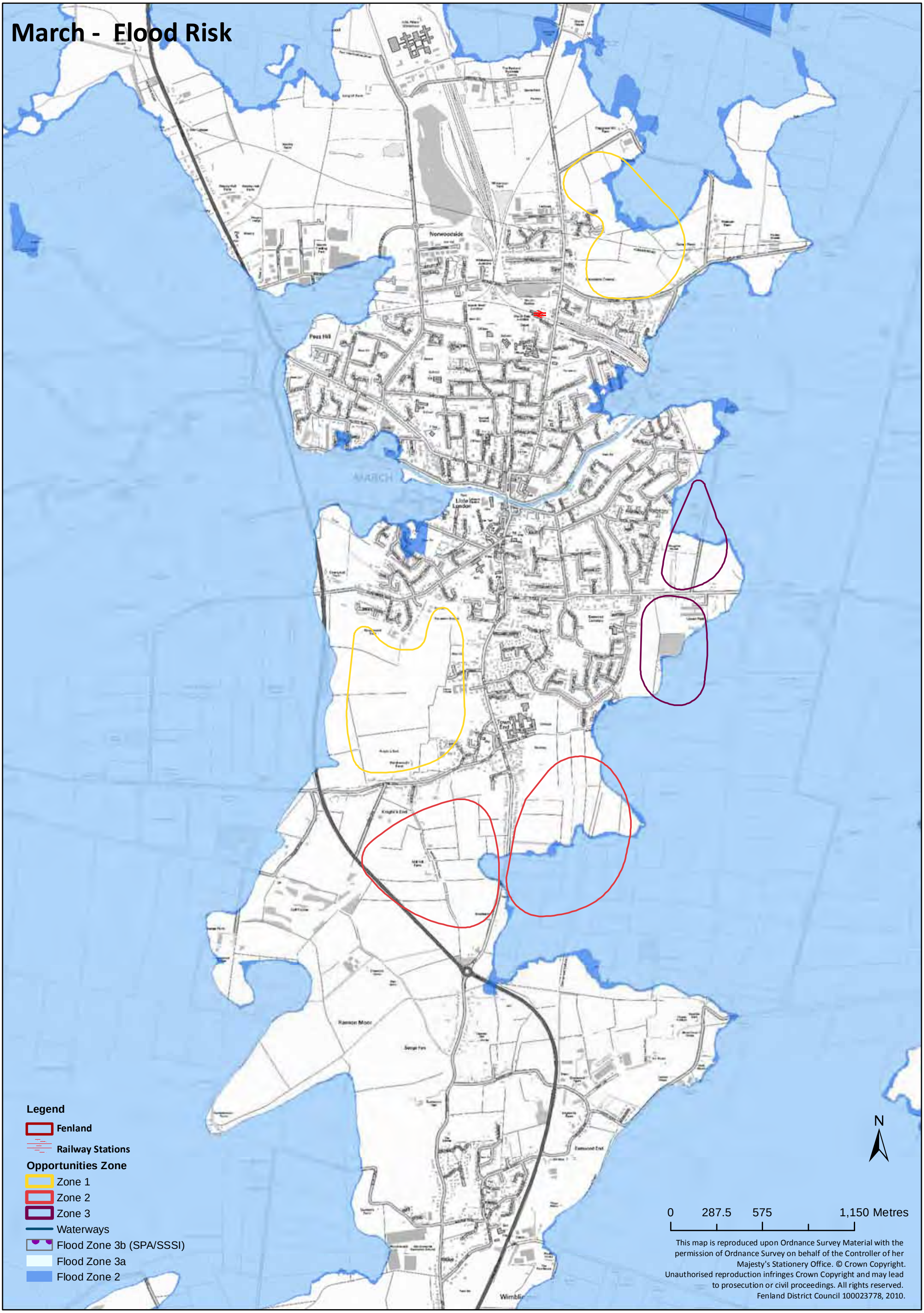
Chatteris - Biomass



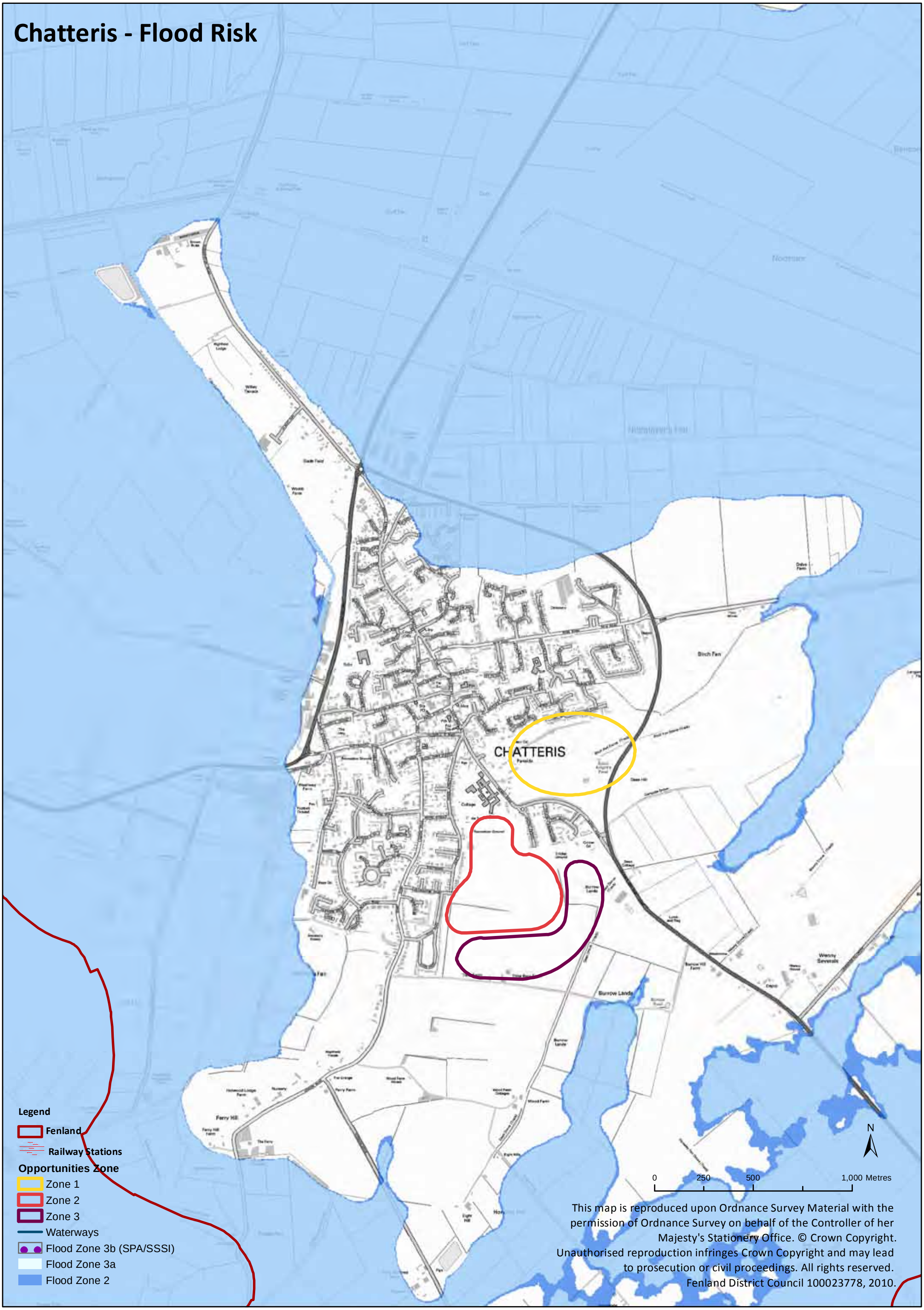
Whittlesey - Biomass



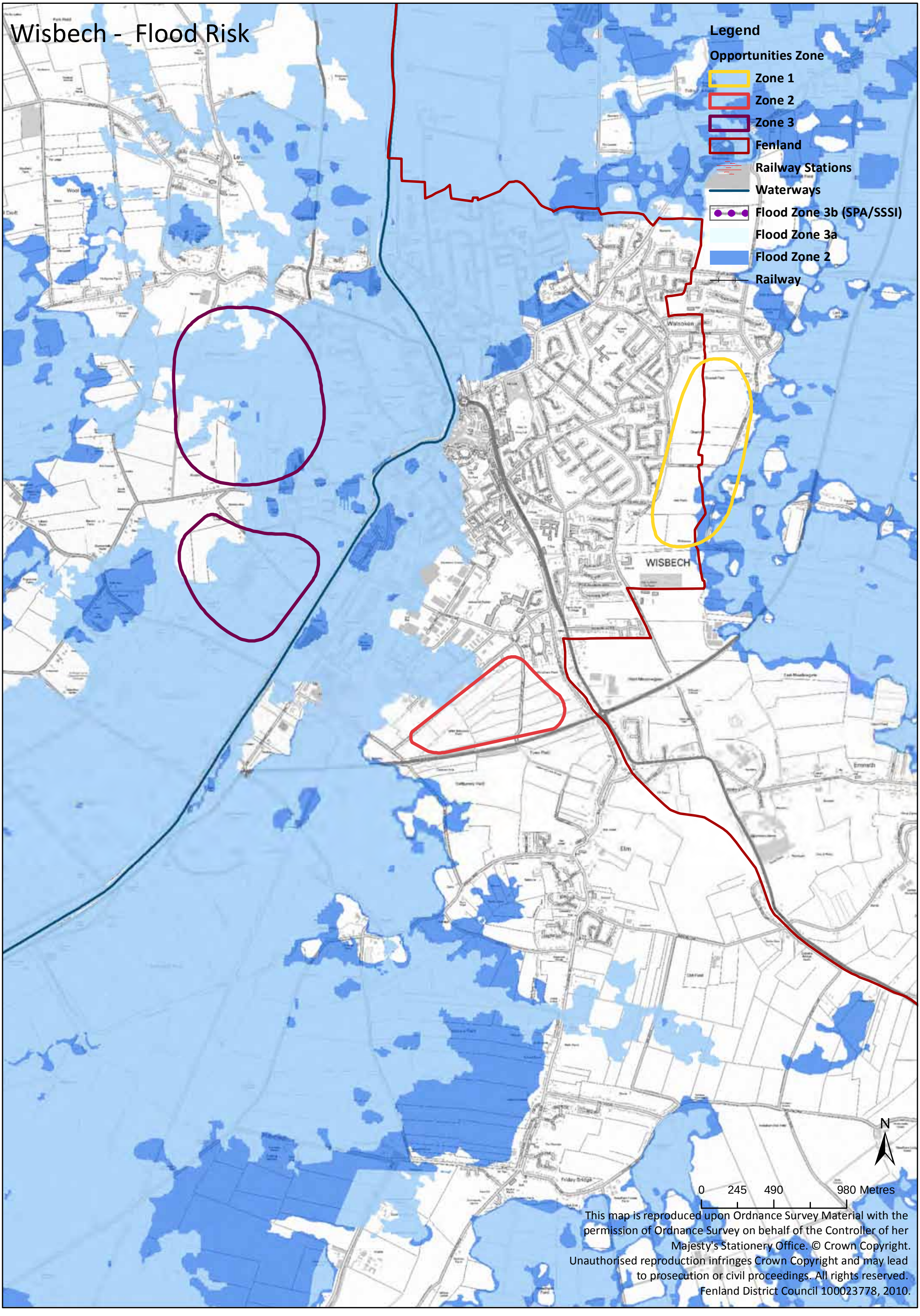
March - Flood Risk



Chatteris - Flood Risk



Wisbech - Flood Risk



Whittlesey - Flood Risk

Legend

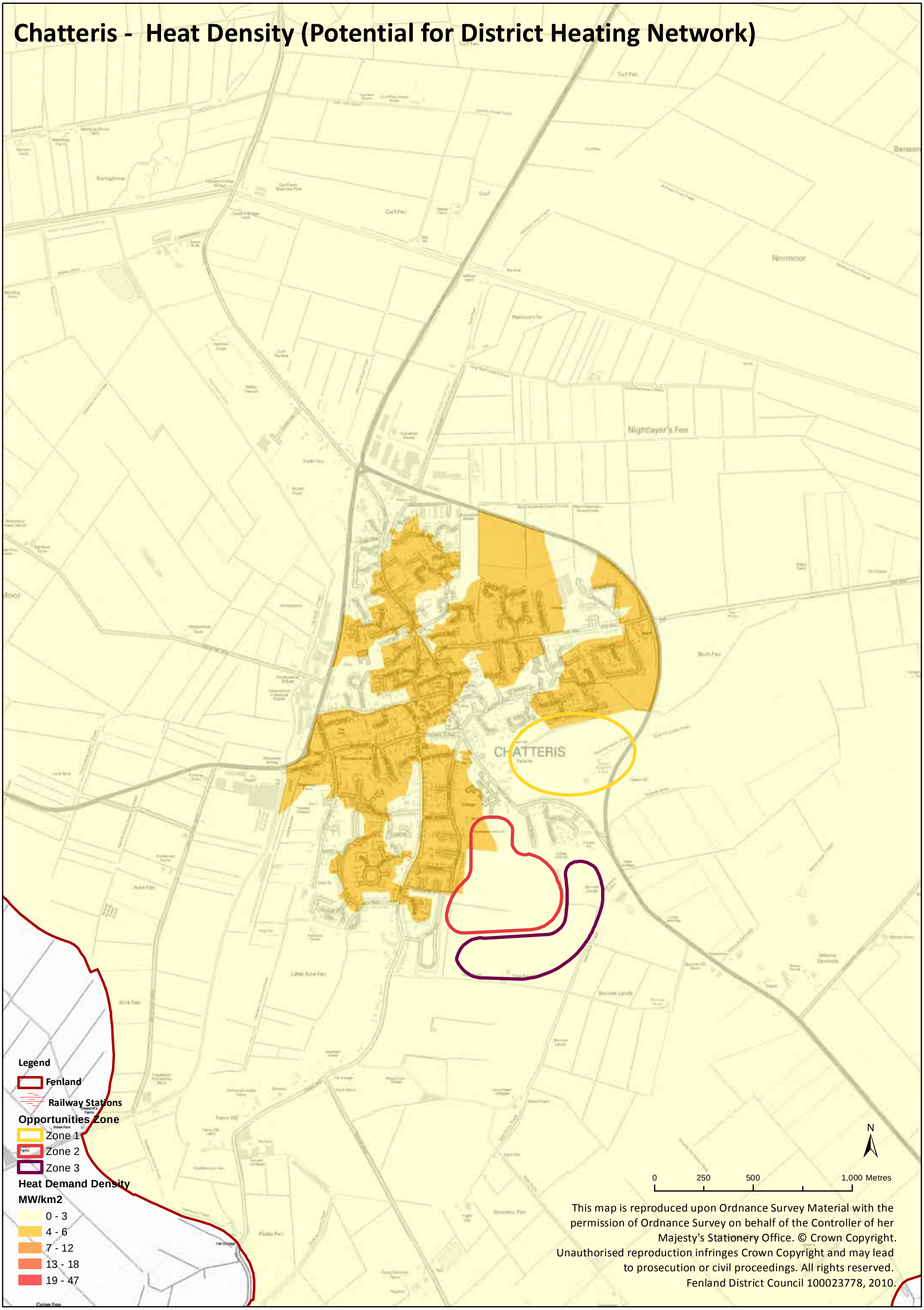
Opportunities Zone

- Zone 1
- Zone 2
- Zone 3
- Waterways
- Flood Zone 3b (SPA/SSSI)
- Flood Zone 3a
- Flood Zone 2

0 285 570 1,140 Metres

N

Chatteris - Heat Density (Potential for District Heating Network)



March - Heat Density (Potential for District Heating Network)

MARCH

Legend

Fenland

Railway Stations

Opportunities Zone

Zone 1

Zone 2

Zone 3

Heat Demand Density

MW/km2

0 - 3

4 - 6

7 - 12

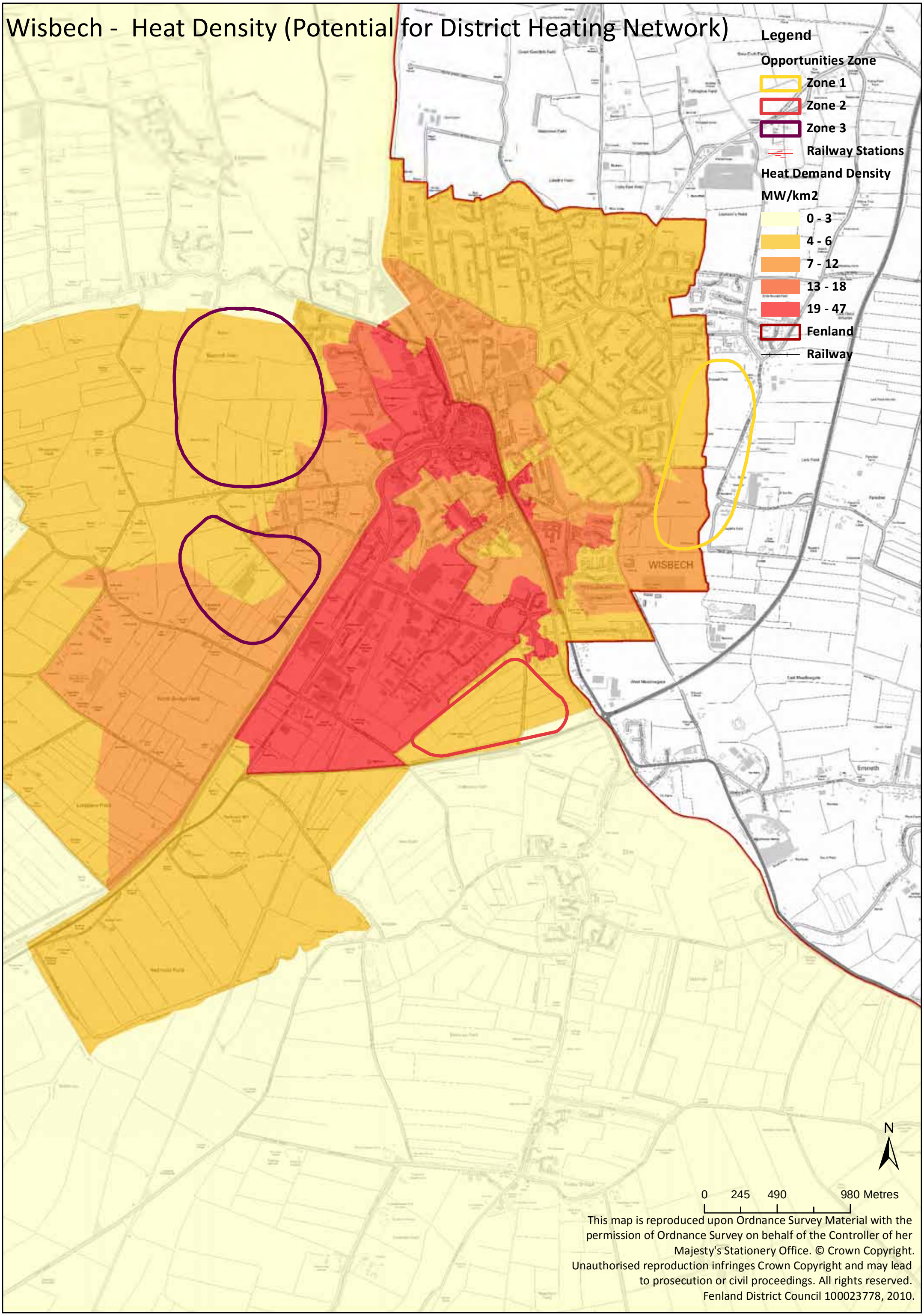
13 - 18

19 - 47

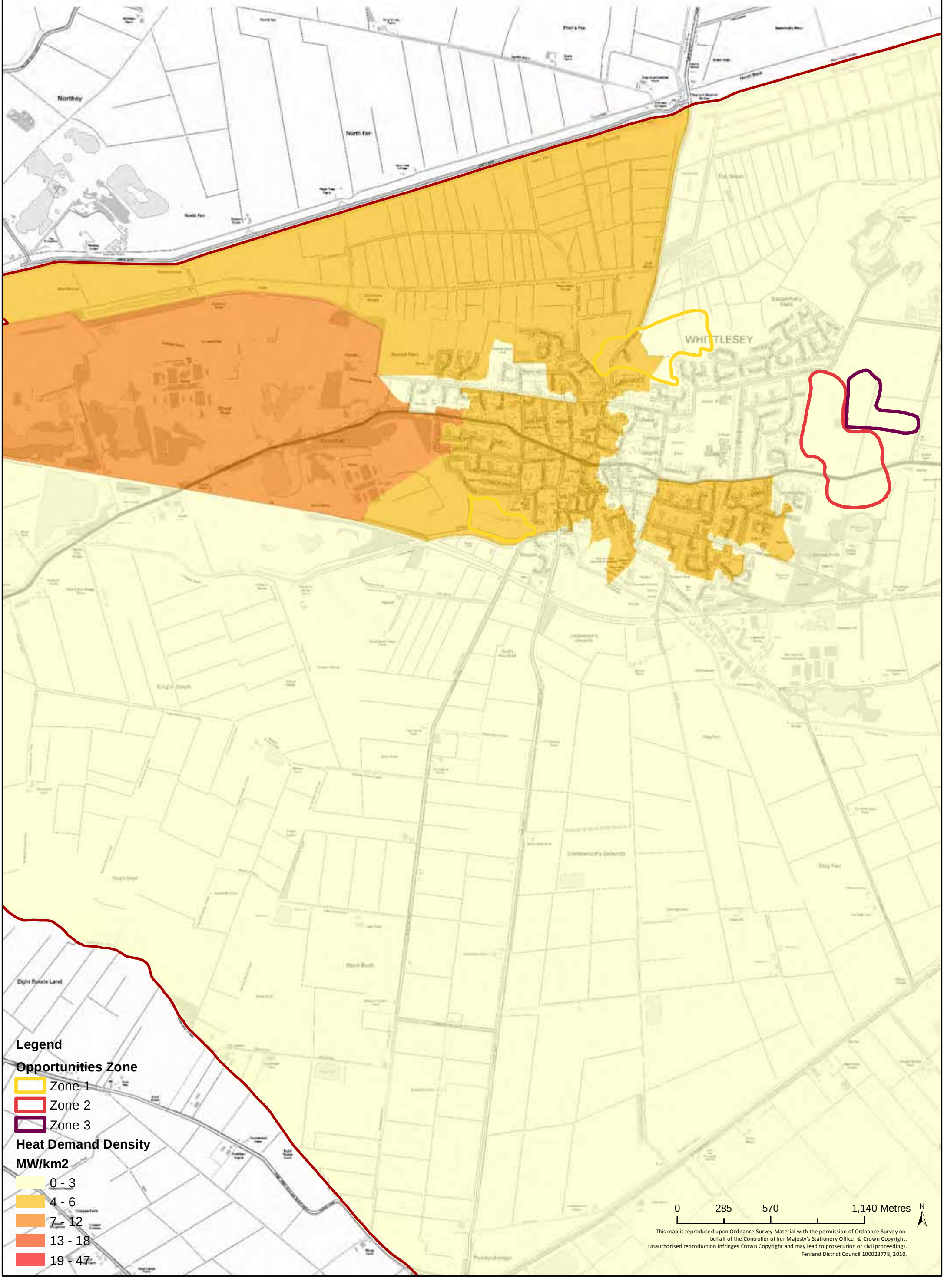
N

0 287.5 575 1,150 Metres

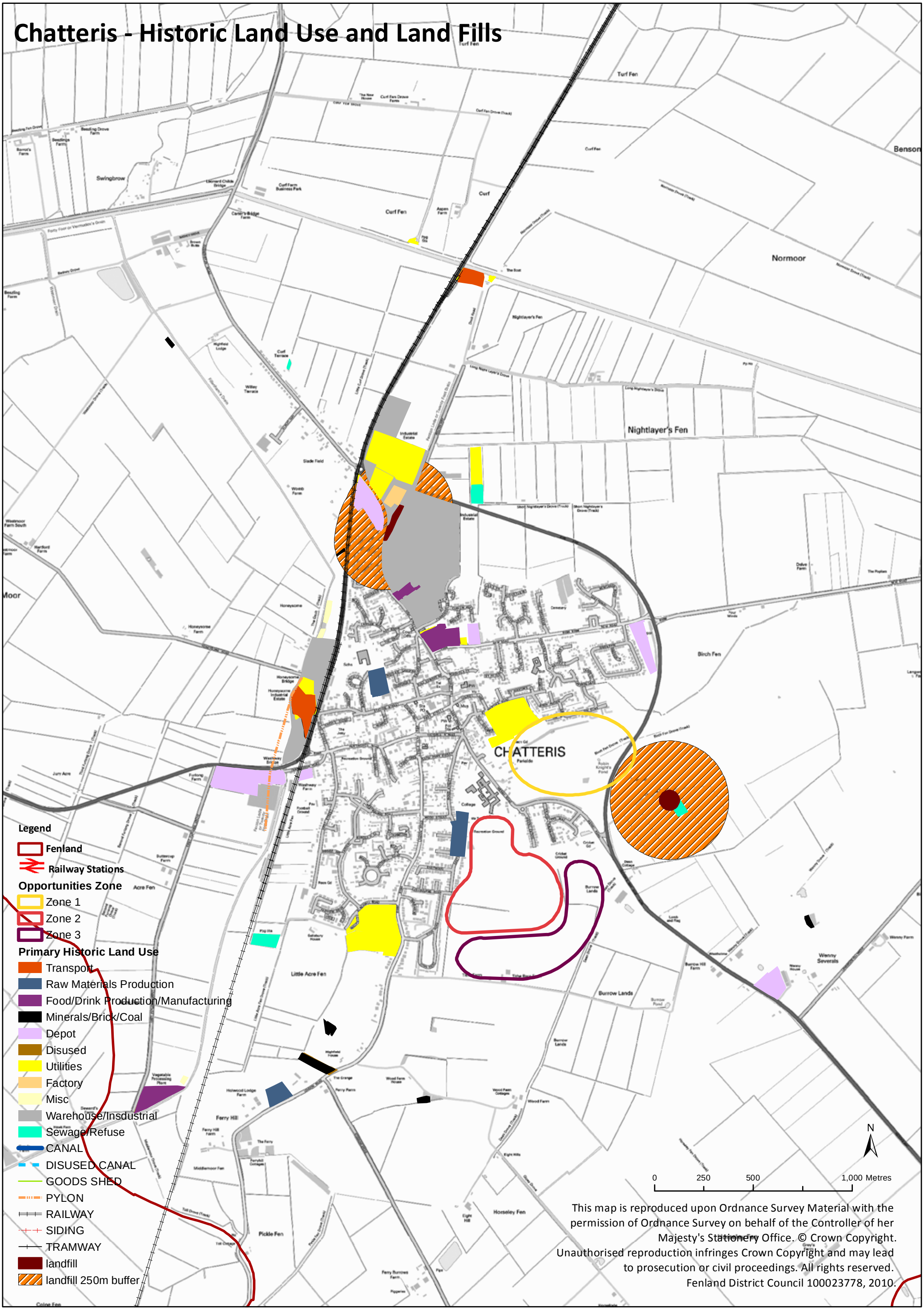
Wisbech - Heat Density (Potential for District Heating Network)



Whittlesey - Heat Density (Potential for District Heating Network)



Chatteris - Historic Land Use and Land Fills



March - Historic Land Use and Land Fills

Legend

- Fenland
- Railway Stations

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

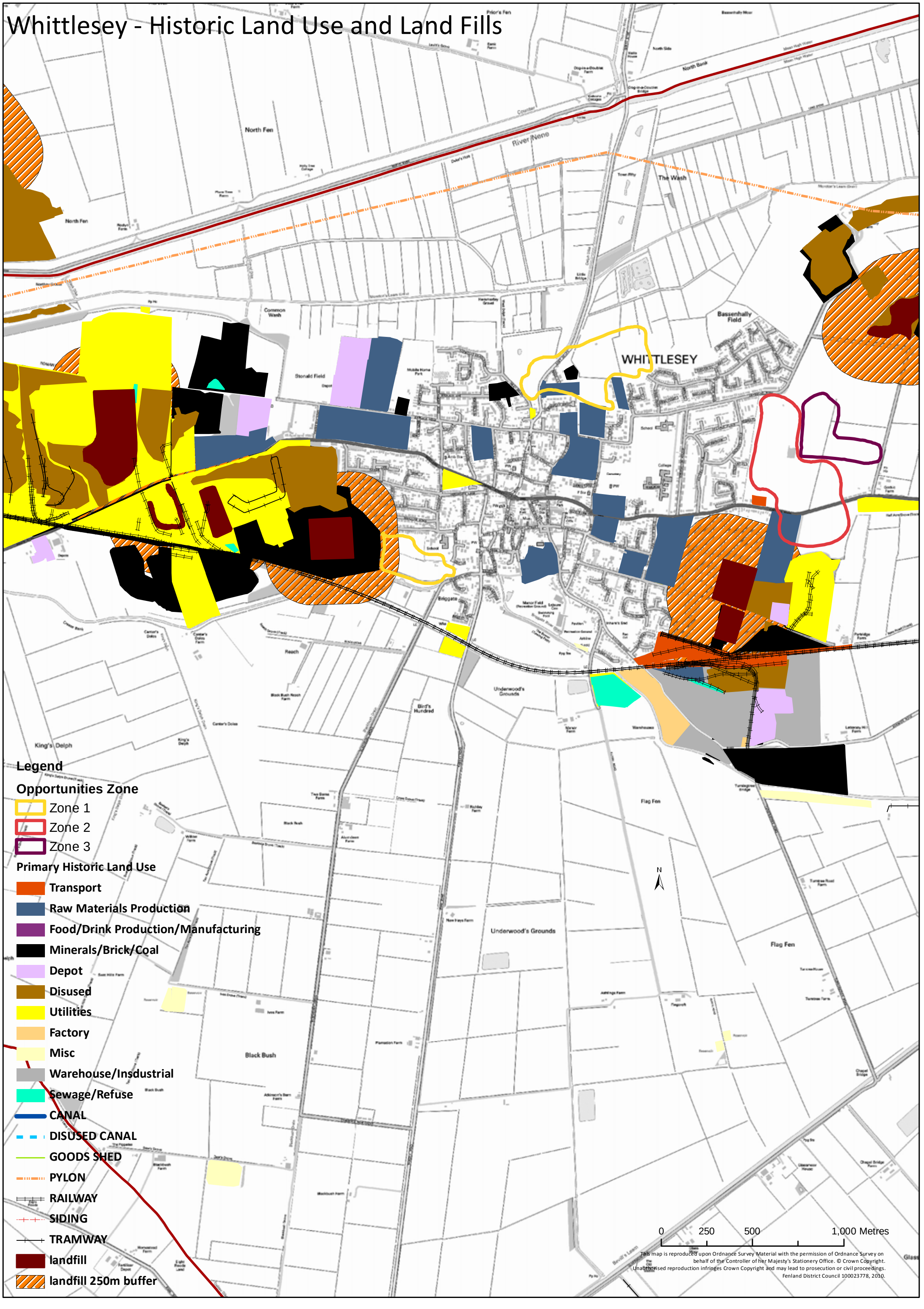
Primary Historic Land Use

- Transport
- Raw Materials Production
- Food/Drink Production/Manufacturing
- Minerals/Brick/Coal
- Depot
- Disused
- Utilities
- Factory
- Misc
- Warehouse/Insdustrial
- Sewage/Refuse
- CANAL
- DISUSED CANAL
- GOODS SHED
- PYLON
- RAILWAY
- SIDING
- TRAMWAY
- landfill
- landfill 250m buffer

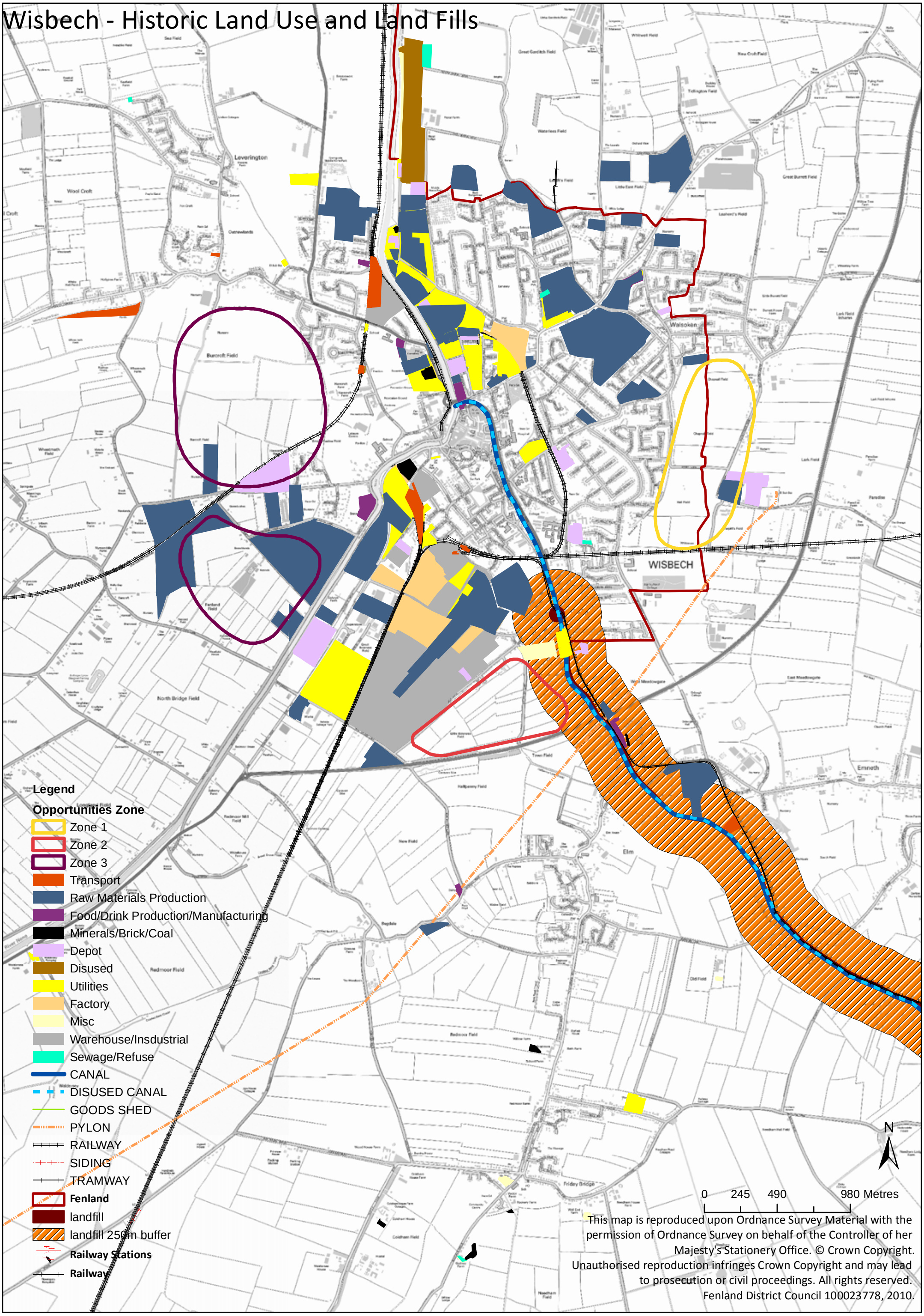
N

0 287.5 575 1,150 Metres

Whittlesey - Historic Land Use and Land Fills



Wisbech - Historic Land Use and Land Fills



March - Potential for increase from transport related carbon emissions

MARCH

Legend

Fenland

Opportunities Zone

Zone 1

Zone 2

Zone 3

Key Hub - Railway Stations

Key Hub - Employment

Key Hub - Town Centre

Distance from Major Hubs

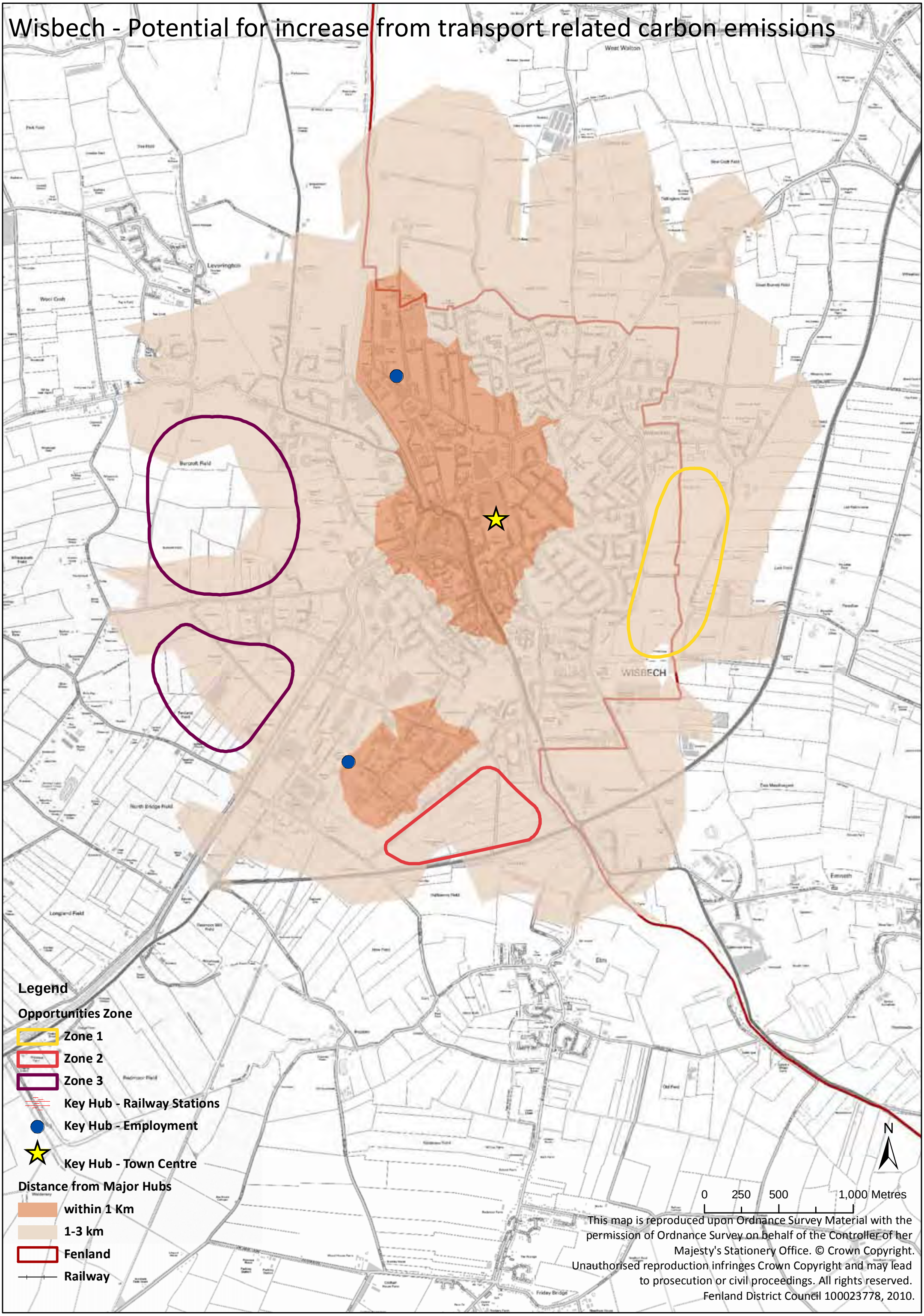
within 1 Km

1-3 km

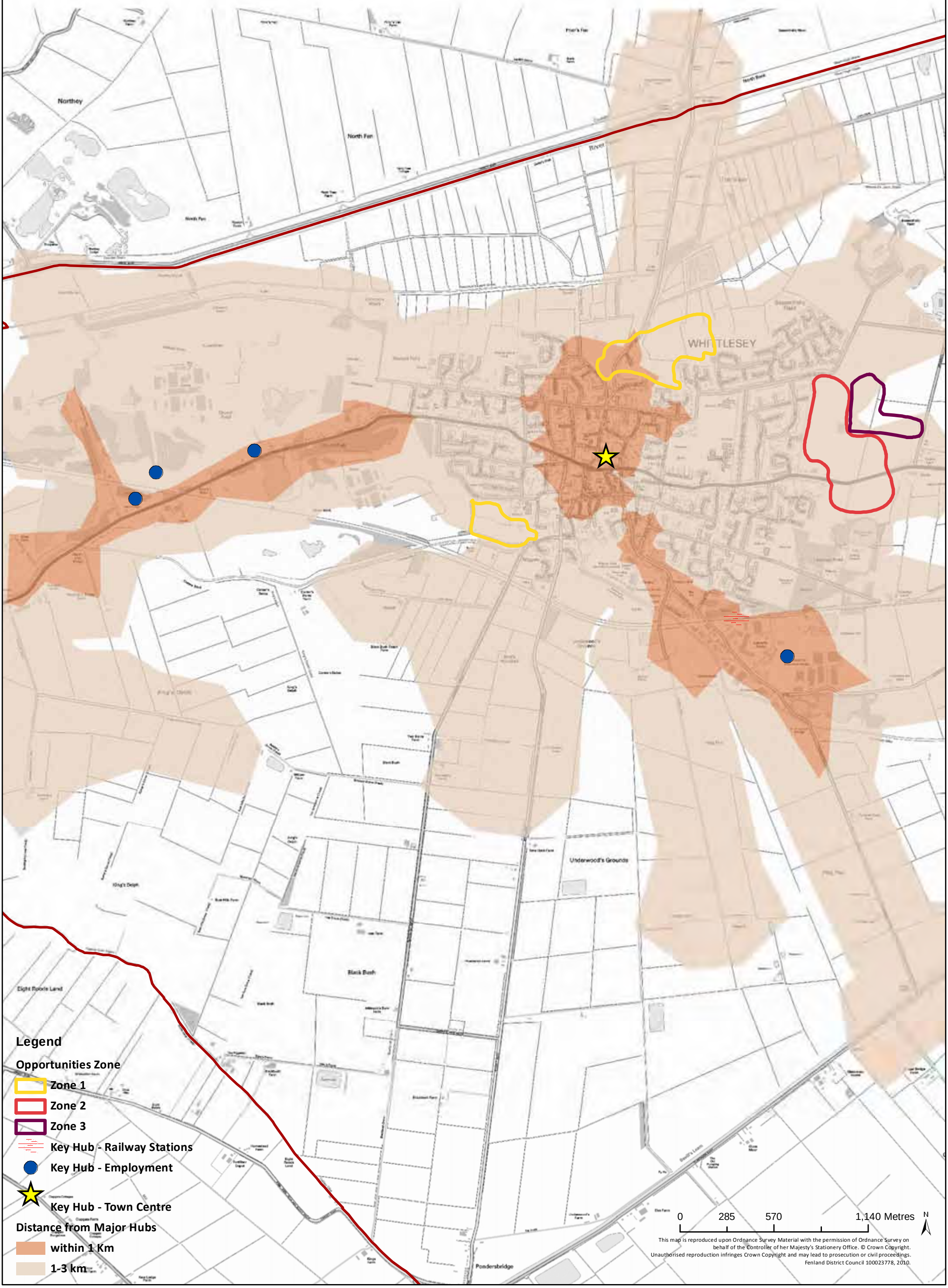
N

0 287.5 575 1,150 Metres

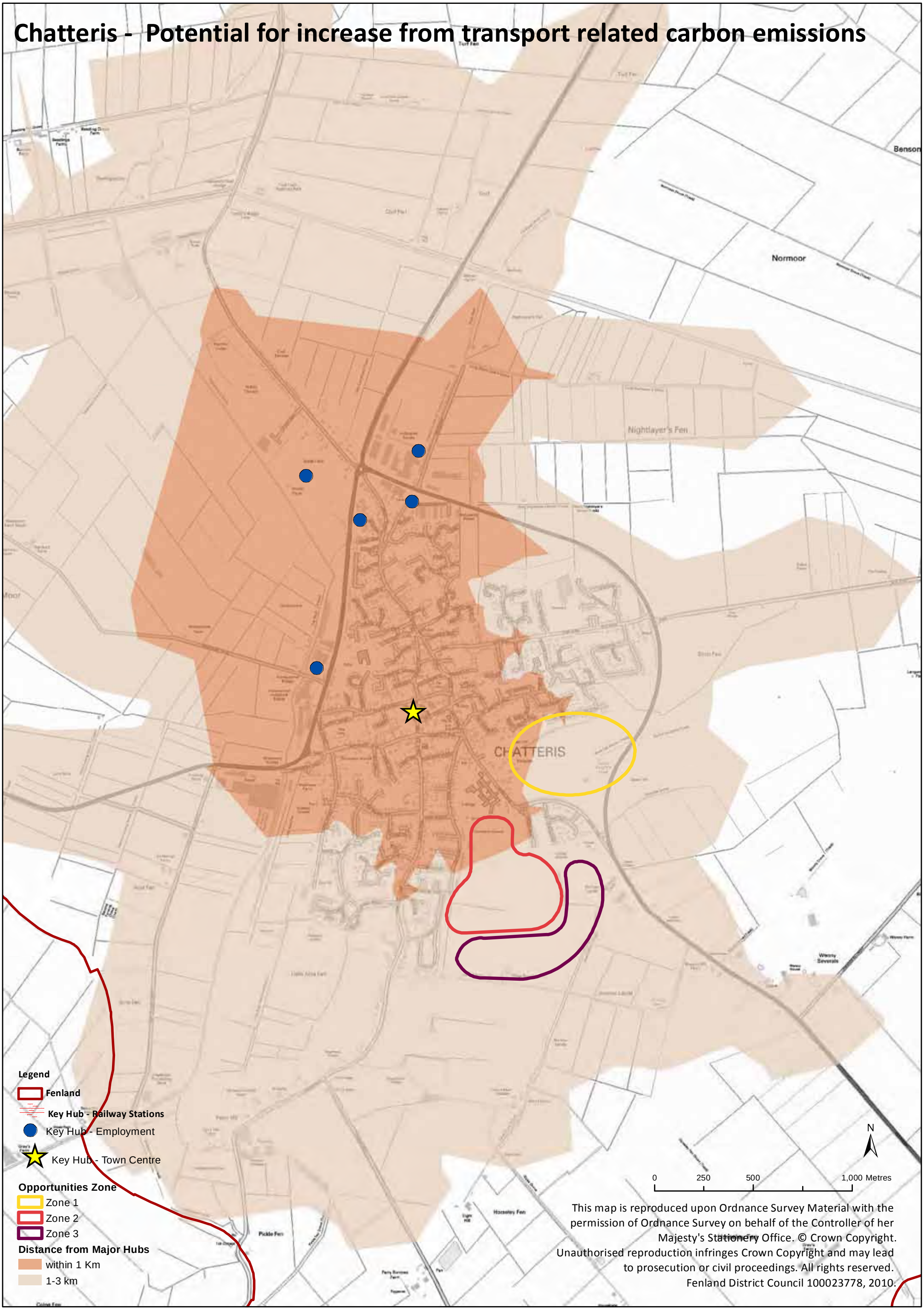
Wisbech - Potential for increase from transport related carbon emissions



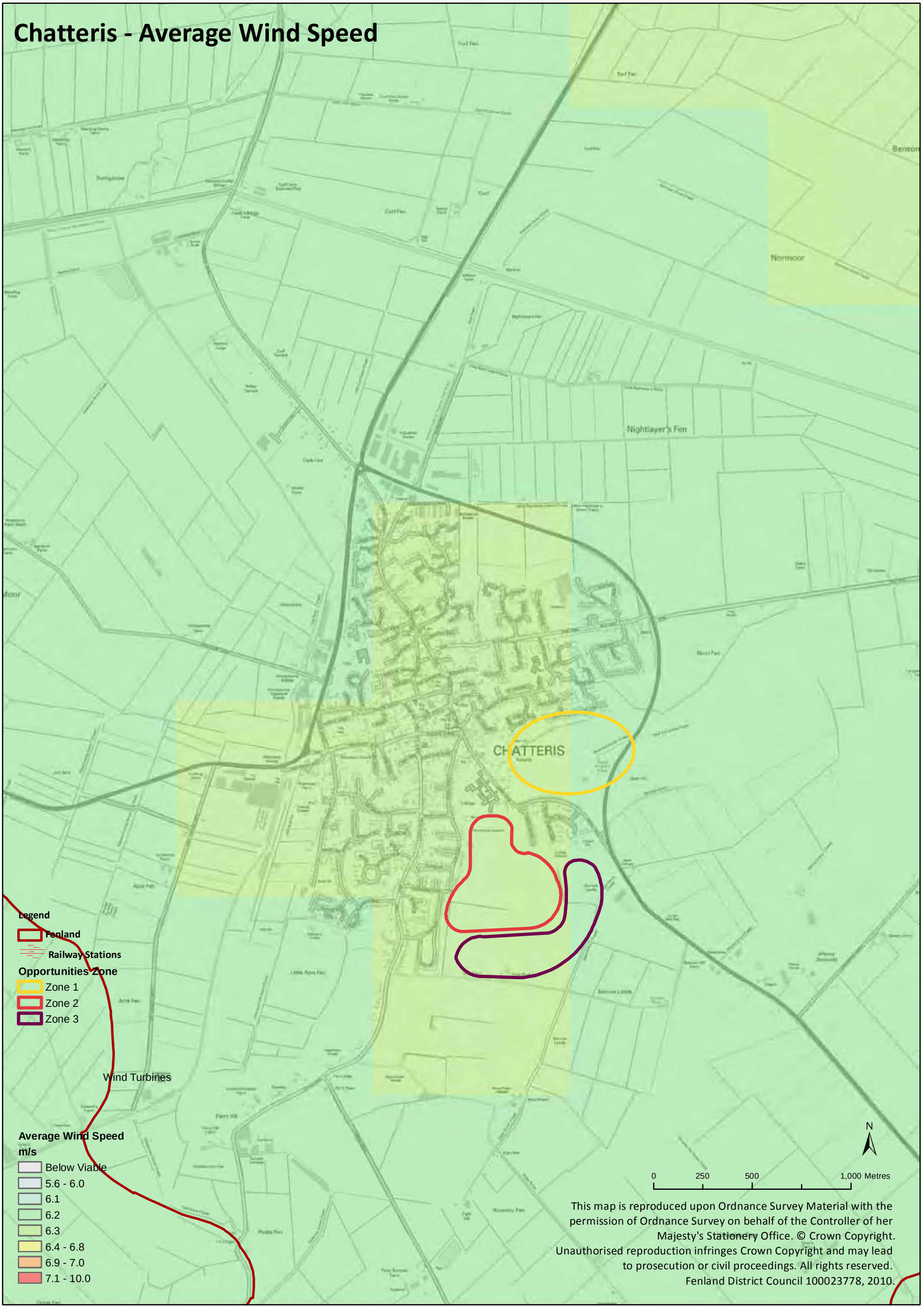
Whittlesey - Potential for increase from transport related carbon emissions



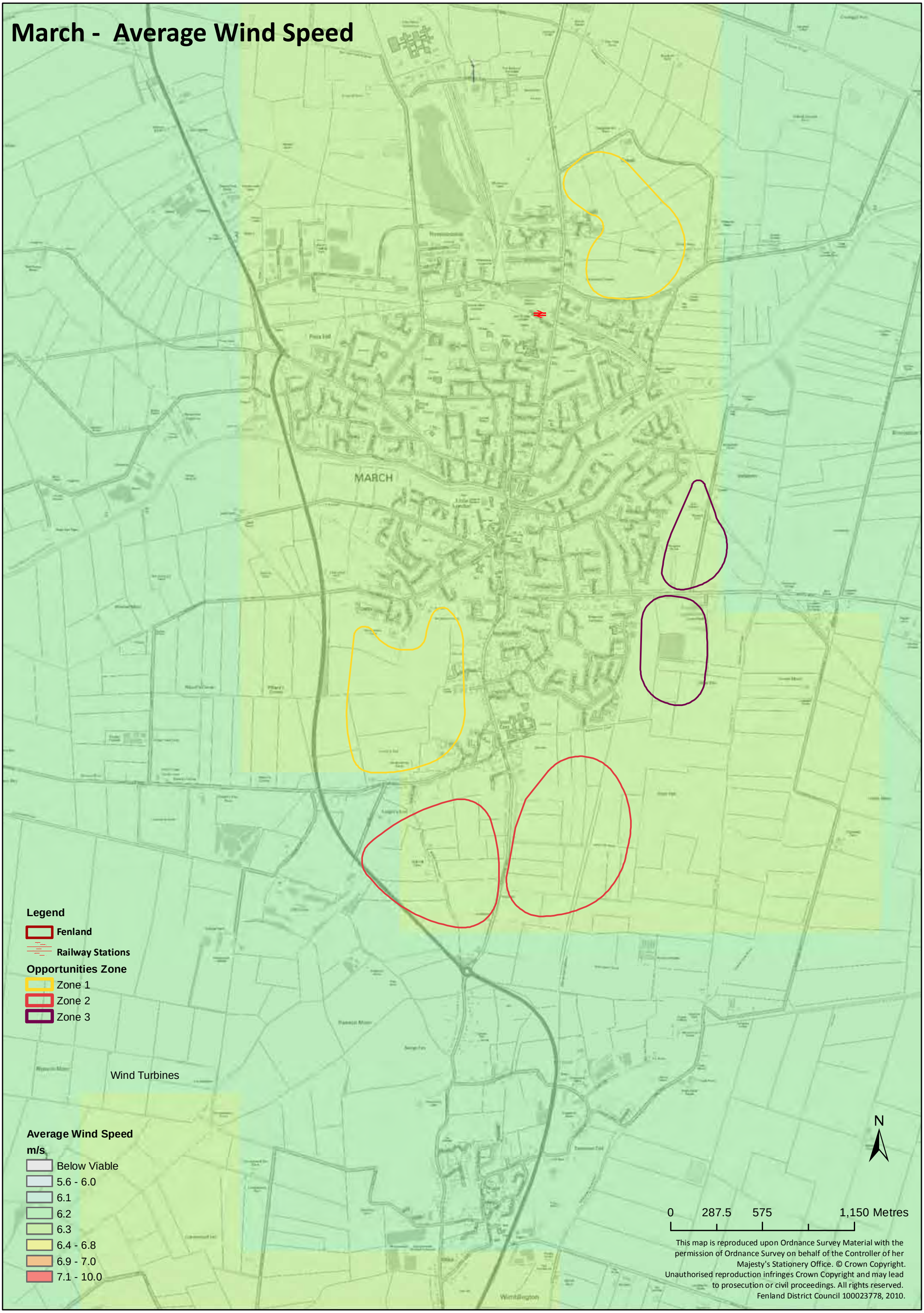
Chatteris - Potential for increase from transport related carbon emissions



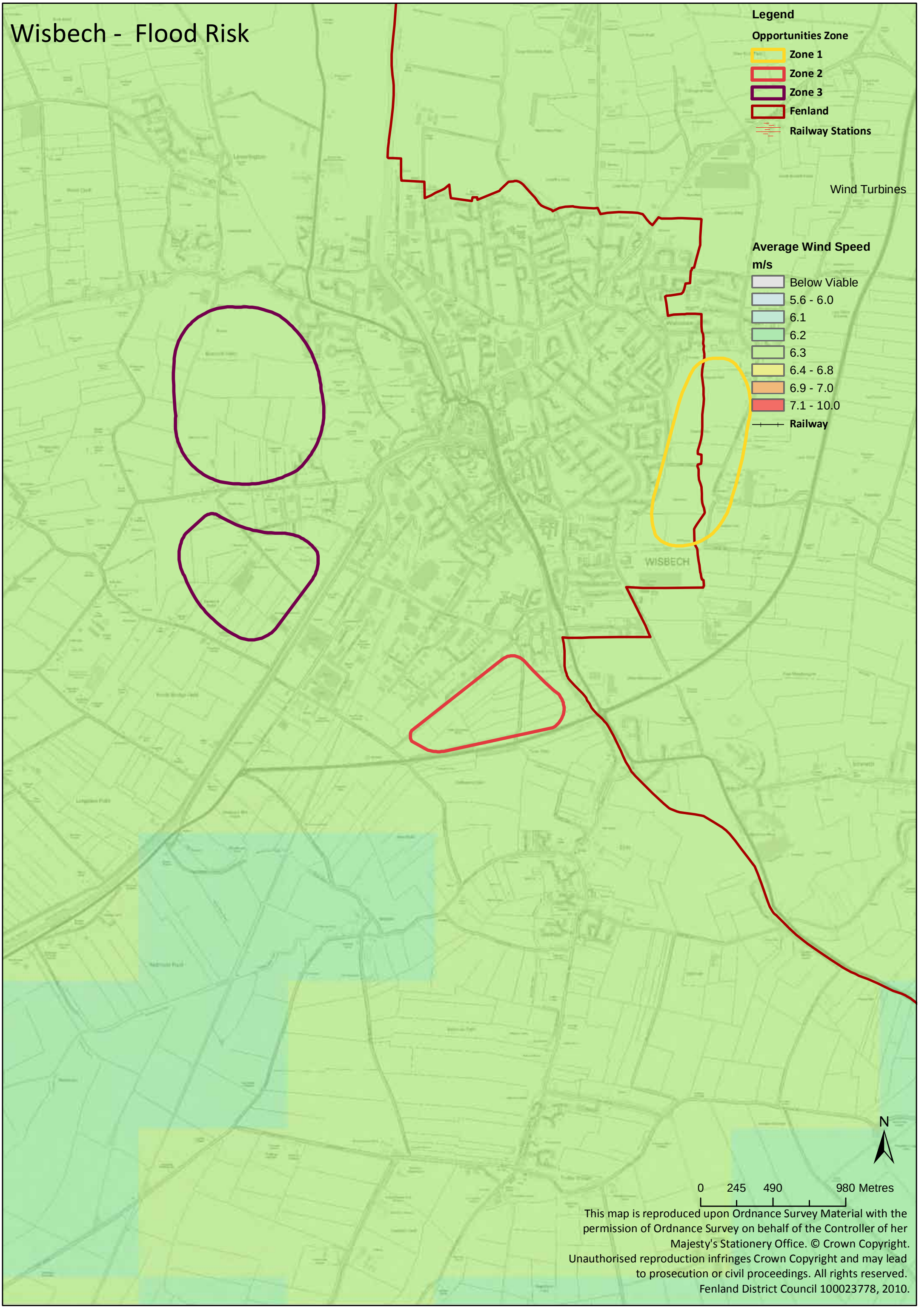
Chatteris - Average Wind Speed



March - Average Wind Speed



Wisbech - Flood Risk



Whittlesey - Average Wind Speed

WHITTLESEY

Legend

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

Wind Turbines

Average Wind Speed

m/s

- Below Viable
- 5.6 - 6.0
- 6.1
- 6.2
- 6.3
- 6.4 - 6.8
- 6.9 - 7.0
- 7.1 - 10.0

0 285 570 1,140 Metres

N

Appendix C

CCC Population Forecasting Methodology

"No Housing Growth" district- and ward-level population forecasts for Shaping Fenland

Introduction & Methodology

Overview

This paper accompanies the "no housing growth" district and ward level population forecasts produced by Cambridgeshire County Council Research Group (CCCRG) in November 2010 to support the work of AECOM towards the Shaping Fenland project. The paper outlines the methods used to produce the forecasts and highlights the limitations of the forecasts.

Introduction

Fenland District Council commissioned a consultant team, led by AECOM Design + Planning, to undertake the Shaping Fenland project. The project aims to develop an integrated economic, social and spatial strategy and infrastructure delivery plan to guide future housing and employment growth up to 2031. The work is intended to inform the emerging draft Core Strategy.

As part of their work, AECOM and Fenland District Council commissioned the Research Group to produce specific population forecasts for Fenland, based on a "no housing growth" scenario. These will form part of AECOM's methodology, along with their own assessment of population growth resulting from new housing. The commissioned forecasts are intended for use in this specific project only and are not suitable for other purposes. Ward level forecasts were requested for 2011, 2016, 2021, 2026 and 2031, with 2009 as the baseline year. The populations are broken down by age, using the following age groups: 0-3, 4-10, 11-15, 16-19, 20-24, 25-44, 45-64, 65-74 and 75+.

This paper begins by outlining the limitations of the commissioned forecasts and outlining alternative forecasts that are available, then briefly sets out the forecasting methodology.

Comparison with other population projections

It is important to emphasise that the commissioned forecasts are not intended to represent a realistic growth or demographic scenario, but are intentionally 'artificial' and highly constrained to fit in with AECOM's methodology and the Shaping Fenland project. In particular, the forecasts are not a 'natural change' (or nil net-migration) scenario, which would show the levels of change expected from the current population (and therefore their associated housing 'need'); these forecasts simply show the demographic consequences of building no houses at all in Fenland beyond 2010.

A range of alternative forecasts are available for Fenland. Firstly, the Research Group produces a set of 'policy-based' district- and ward-level forecasts annually that take planned levels of house-building into account. The next set is planned for release in mid-November. These show the population change associated with planned housing growth. Secondly, the Office for National Statistics (ONS) produces district-level projections for the whole country, which are 'trend-based'. This means that they assume that past trends, in terms of factors like migration, continue as they have in recent years. The extension of this is that the ONS forecasts broadly assume that house-building will continue at the average rate of recent years. The ONS forecasts are not available at ward level: the Research Group's ward level forecasts are the only source of small area population forecasts available.

Why do these “no housing growth” forecasts show population decline?

It may seem surprising that, by assuming no housing growth, the forecast population should actually decline rather than stay stable. The key is remembering that the link between dwellings and population is through households. In simple terms, if the number of dwellings remains constant, so must the number of households. Fenland’s population is ageing, as is the population nationally. This means that, in the future, a higher proportion of the population will be older adults and a lower proportion of the population will be children and young people. The extension of this is that more households will be made up of older adult couples (perhaps whose children have now left home) or single older adults (including those affected by bereavement), and therefore the average number of people per household will be lower than it is at present. If the number of households remained constant into the future, that would equate to fewer people that it does at present. Building no houses in coming years would imply significant out-migration from Fenland as, in simple terms, there would be no vacant dwellings for newly formed households to occupy. Put another way, in order to provide housing for Fenland’s current population, some house-building is necessary.

Methodology

◆ Definitions

The population forecasts are forecasts of the resident population. This definition is the same as that used in the 2001 Census as all students are counted at their term-time address. The forecasts include all persons living in communal establishments as well as those living in private households

◆ District level population forecasts

Cambridgeshire County Council Research Group runs a local authority level, single year of age, population forecasting model. This model determines the total population forecasts and age and sex structure for each district. All further forecasts are derived from those produced in this model.

The model works by ageing forward the population by sex and single year of age from a base date, year by year. Population change is forecast by allowing for the main components of population change: births and deaths (which together give natural change), and assumptions about future migration. Allowance is made for the behaviours of specific population groups, such as students and the Armed Forces. This is a standard population forecasting methodology, as used, for instance, by the Office of National Statistics.

Base population

The base year for the population used in the latest forecasts is 2009. The base populations are derived from the Research Group’s population model, run forward from an original base year of 2001 to give annual mid-year population estimates for each year since 2001. The original 2001 base is derived from the 2001 Census. The population model is run to produce population estimates in the same way as it is run to produce population forecasts, as detailed below, except that actual births and deaths by age are input instead of forecast ones. Net migration rates are then adjusted until the model generates the estimated mid-year total population of the area concerned. This total estimated population is produced by rolling forward the 2001, census-based, total population on the basis of changes in electoral rolls, numbers of children aged 0-3 (from NHS Child Health Register), changes in school rolls and data on house-building. Changes in the transient population are calculated separately, on the basis of annual surveys of institutional populations and other data sources.

The estimated population by age and sex calculated by the model is then calibrated with other known data, particularly for specific age-groups. The main groups used recently for calibration are 0-4s from the NHS Child Health Register, 4-15s from school rolls, 17+ population based on electoral rolls, older age groups from NHS GP registration data. The estimates produced by the model are further checked by comparing the numbers of households calculated by the model with information on numbers of dwellings completed since 2001.

Fertility Assumptions

Births are forecast by applying age-specific fertility rates to the numbers of women of child-bearing age in the local population. These age-specific fertility rates provide a basic fertility curve that can be adjusted upward or downward according to forecast changes in age-specific fertility. The numbers of births forecast in any year are therefore dependent on the forecast age-specific fertility rate and on the numbers of women in childbearing age groups. The forecast age-specific fertility rates used in the model are derived from the national series used in the 2008-based ONS population projections. The national

age-specific fertility rates are adjusted at district level to take account of differences between local and national fertility patterns. The adjustment is done on the basis of a detailed comparison of recent national and local age-specific rates.

Mortality Assumptions

The process by which deaths are calculated in the model is very similar to that used to calculate births. Deaths are forecast by applying age-specific mortality rates to the number of men and women in the local population. These rates provide a basic pattern of mortality that can be varied according to forecast changes in age- and sex-specific mortality rates. The number of deaths forecast in any one year is therefore a product of the sex and age structure of the population and the death rates being applied to the population in that year. The forecast sex- and age-specific mortality rates used in the model are derived from the national series used in the 2008-based ONS population projections. The national mortality rates are adjusted at district level to take account of differences between local and national mortality patterns. The adjustment is done on the basis of a detailed comparison of recent national and local age-specific rates.

Migration Assumptions

Migration is modelled in two stages: firstly, an age and sex structure of in- and out-migrants is determined; secondly, annual totals for the level of net migration are forecast. Net migration is the balance between migration into an area and migration from it. The age and sex structure of migrants gives the probability of migrants being of a particular age and sex. This structure is determined for the base year of the model and then fitted to forecast totals of net migration to produce numbers of migrants into or out of an area by sex and age.

The age and sex structure of migrants used in the model is based on that found at the 2001 Census for each district. Adjustments have been made to the age-structures of migrants in some districts during the course of running the model to produce annual mid-year estimates. Migration is the only variable in the model that significantly affects the size of many age-groups as they move through the population – the child and adult age-groups before the ages at which mortality begins to have a major impact. .

The model operates by holding out-migration constant (at 2001 levels) and adjusting in-migration to give an assumed rate of net migration. In this model run, significant levels of net out-migration are required to hold total numbers of households at their current level, which thereby allows the forecast population to be accommodated within the existing housing stock.

◆ Ward level population forecasts

The total growth forecast for each district for 2021 is determined by the district level forecasting model, as described above. This forecast is broken down into constituent ward forecasts on the basis of the distribution and phasing of housing growth as given by the ward level dwelling stock forecasts. The method used is as follows.

The Research Group's mid-2009 population estimates by ward and age group form the base for the ward level forecasts. The total population change by age for each district for 2009-2011, 2011-2016 and 2016-2021, 2021-2026 and 2026-2031 is taken from the "no housing growth" district level forecasts, as described above. Changes are applied sequentially, such that the 2009 ward age estimates are used as the base for the 2011 forecasts, which then become the base for the 2016 forecasts, which then become the base for the 2021 forecasts, and so on.

The ward-level model was developed to allow district-level changes to be distributed between constituent wards on the basis of the distribution and phasing of planned housing growth. The ward level forecasting methodology therefore considers two distinct population groups. Firstly, the "new" population: people moving into new dwellings. People moving into new houses usually have different characteristics to the existing population and often tend to be younger. This is particularly the case for new settlements like Cambourne and Northstowe. Secondly, the "local" population: people currently living in existing housing in the area. This population is, in general, ageing, so the number of people in younger age groups is dropping while the number in older age groups is rising.

In terms of the "new" population, additional population is allocated to wards based on the number of additional dwellings forecast. An average of 2.5 people is allocated per new dwelling, with a relatively young age structure as indicated by Census data. This is slightly higher than average household size in the population overall, reflecting the tendency for families and younger people to move into new housing. Total population change by age related to new dwellings across the district is then subtracted from

overall population change by age. This leaves the population change that can be attributed to change in the “existing” population. This change is then distributed between wards on the basis of the ward’s current population size and structure. In other words, change to the existing population is assumed to be equally spread (in proportional terms) across all the wards in a district.

In the case of these “no housing growth” forecasts, as no housing growth is assumed, no change is forecast on the basis of new dwellings or the “new” population; the only changes relate to the “existing” population.

The ward-level forecasting model operates in five-year age bands. Conversion of these into the requested age groupings, including 0-3s, 4-10s, 11-15s and 16-19s, have been done on a simple pro-rata basis.

Notes for use

These forecasts should be referenced as **Cambridgeshire County Council Research Group “no housing growth” scenario for Shaping Fenland, November 2010**.

Forecast figures at district-level should be published rounded to the nearest 100. Ward-level forecasts by age may be published to nearest 10.

Appendix D

Locations of existing social infrastructure

Wisbech Cluster

Nursery Education

Legend

Infrastructure Clusters

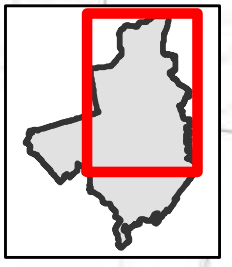
- Wisbech Cluster
- Nursery/creche

Walking time to Nursery

- 5 min
- 10 min
- 15 min

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3



0 1,125 2,250 4,500 Metres

N

Wisbech Cluster

Primary Education

Legend

Infrastructure Clusters

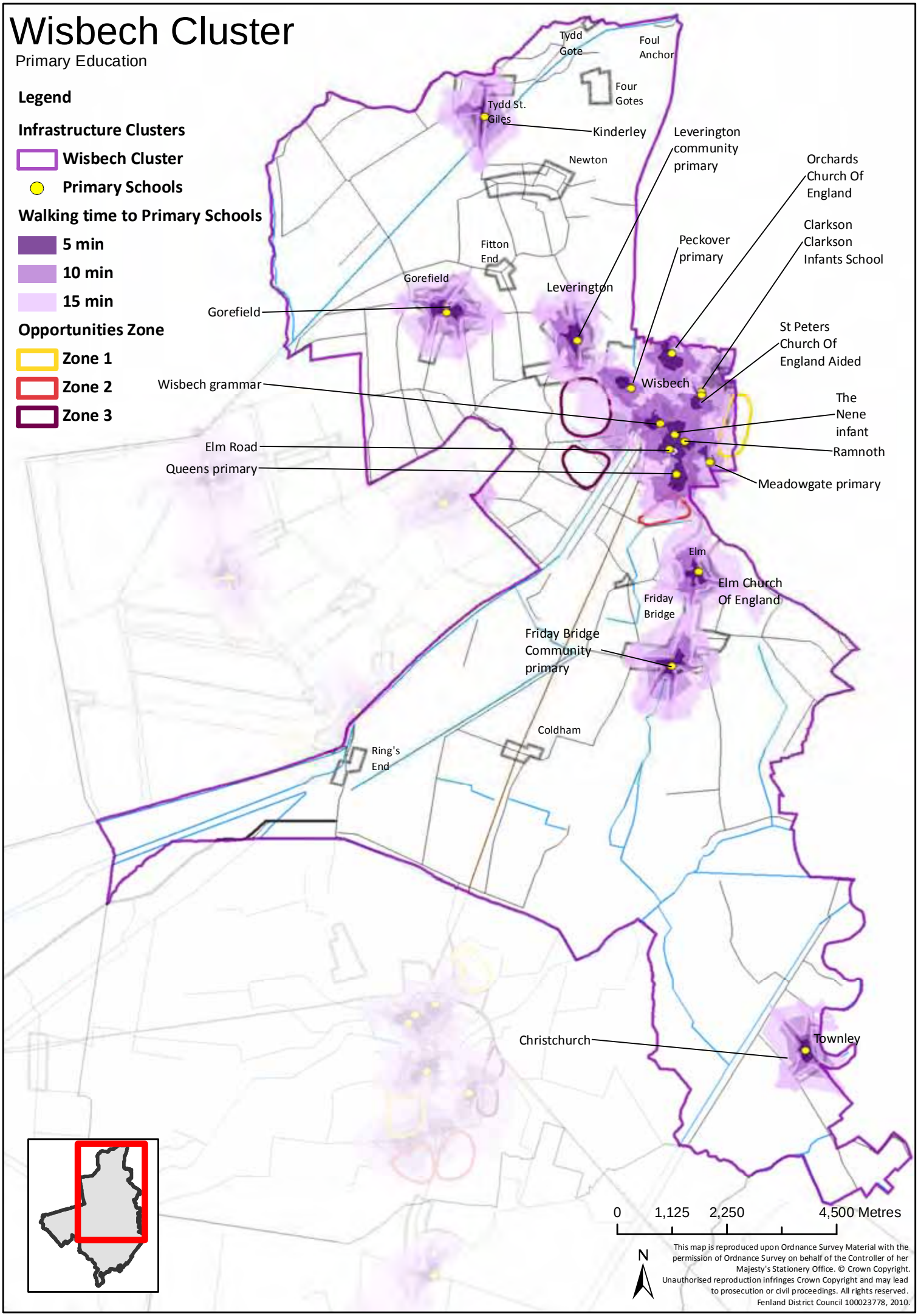
- **Wisbech Cluster**
- **Primary Schools**

Walking time to Primary Schools

- **5 min**
- **10 min**
- **15 min**

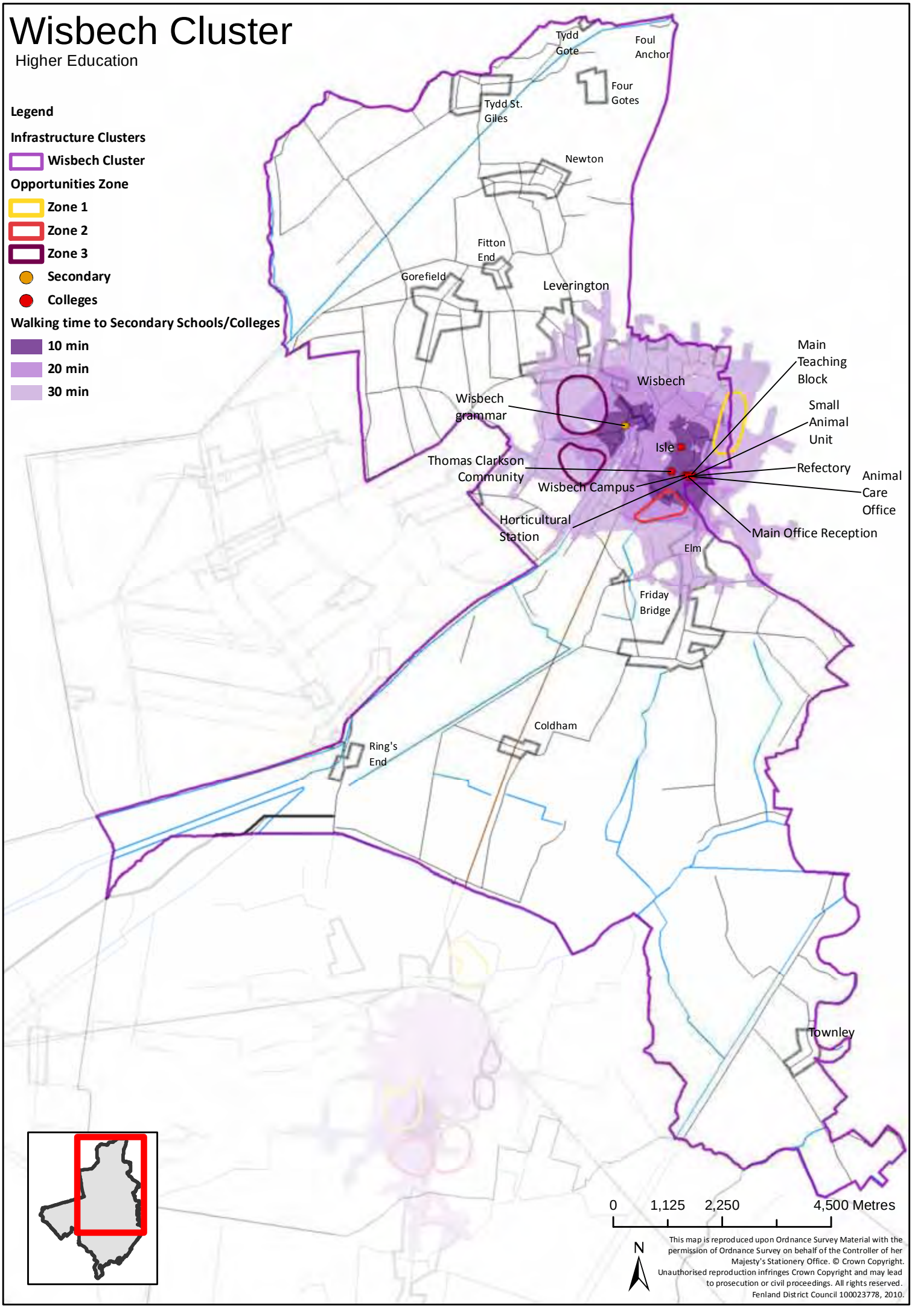
Opportunities Zone

- **Zone 1**
- **Zone 2**
- **Zone 3**



Wisbech Cluster

Higher Education



Wisbech Cluster

Health Facilities

Legend

Infrastructure Clusters

- Wisbech Cluster

Medical Facilities

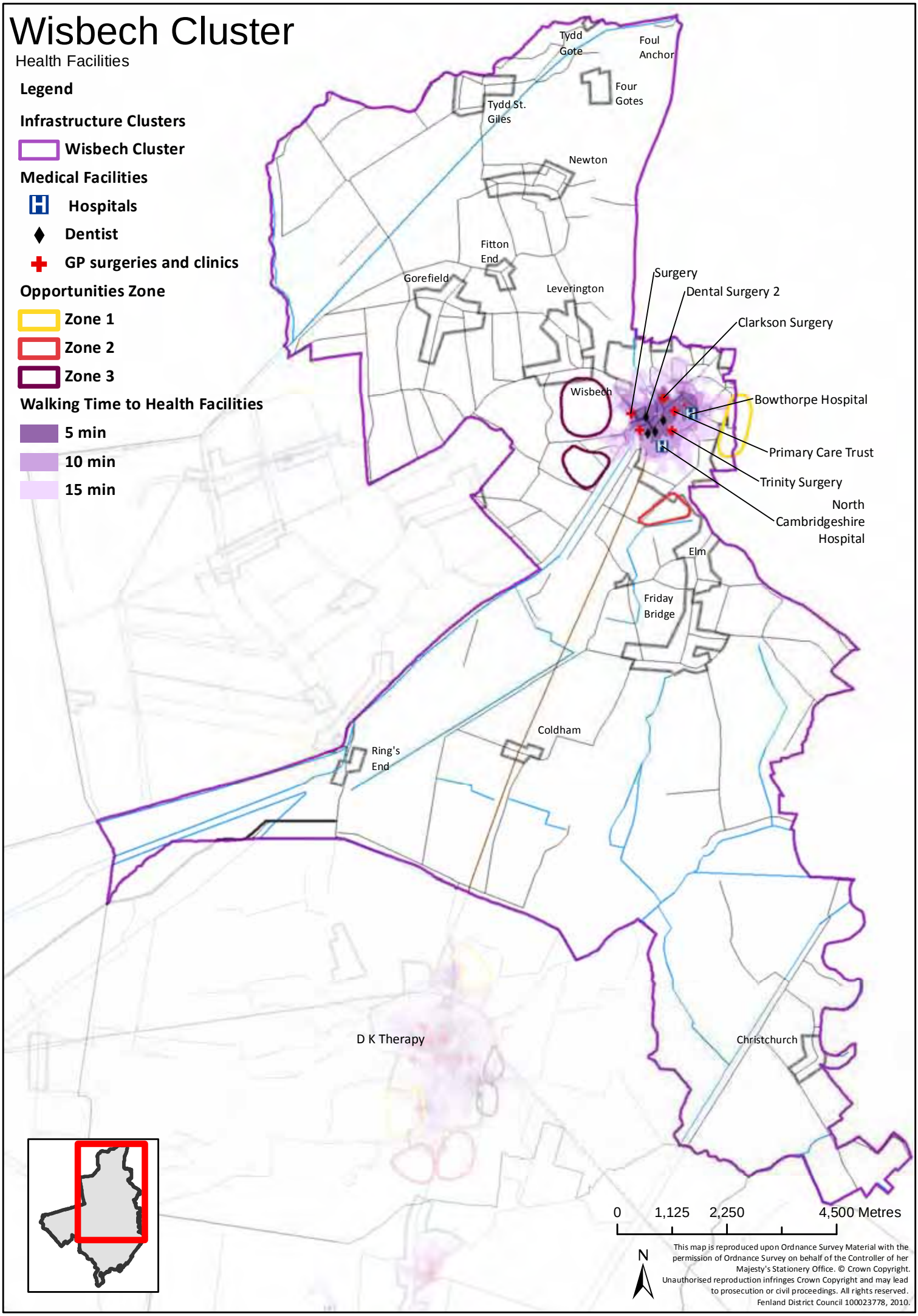
- Hospitals
- Dentist
- GP surgeries and clinics

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

Walking Time to Health Facilities

- 5 min
- 10 min
- 15 min



Wisbech Cluster

Leisure & Community Facilities

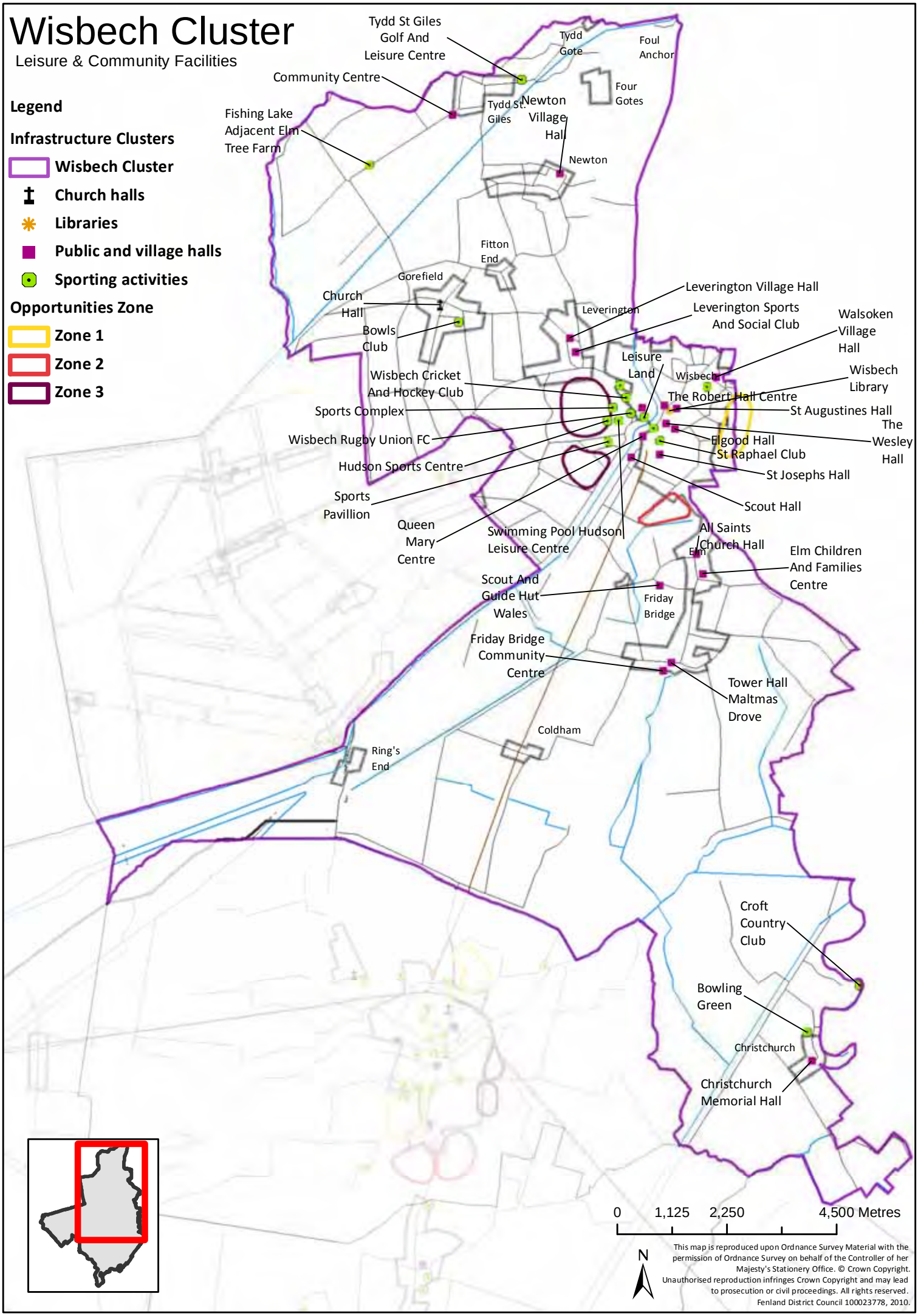
Legend

Infrastructure Clusters

- Wisbech Cluster
- Church halls
- Libraries
- Public and village halls
- Sporting activities

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3



Wisbech Cluster

Open Space

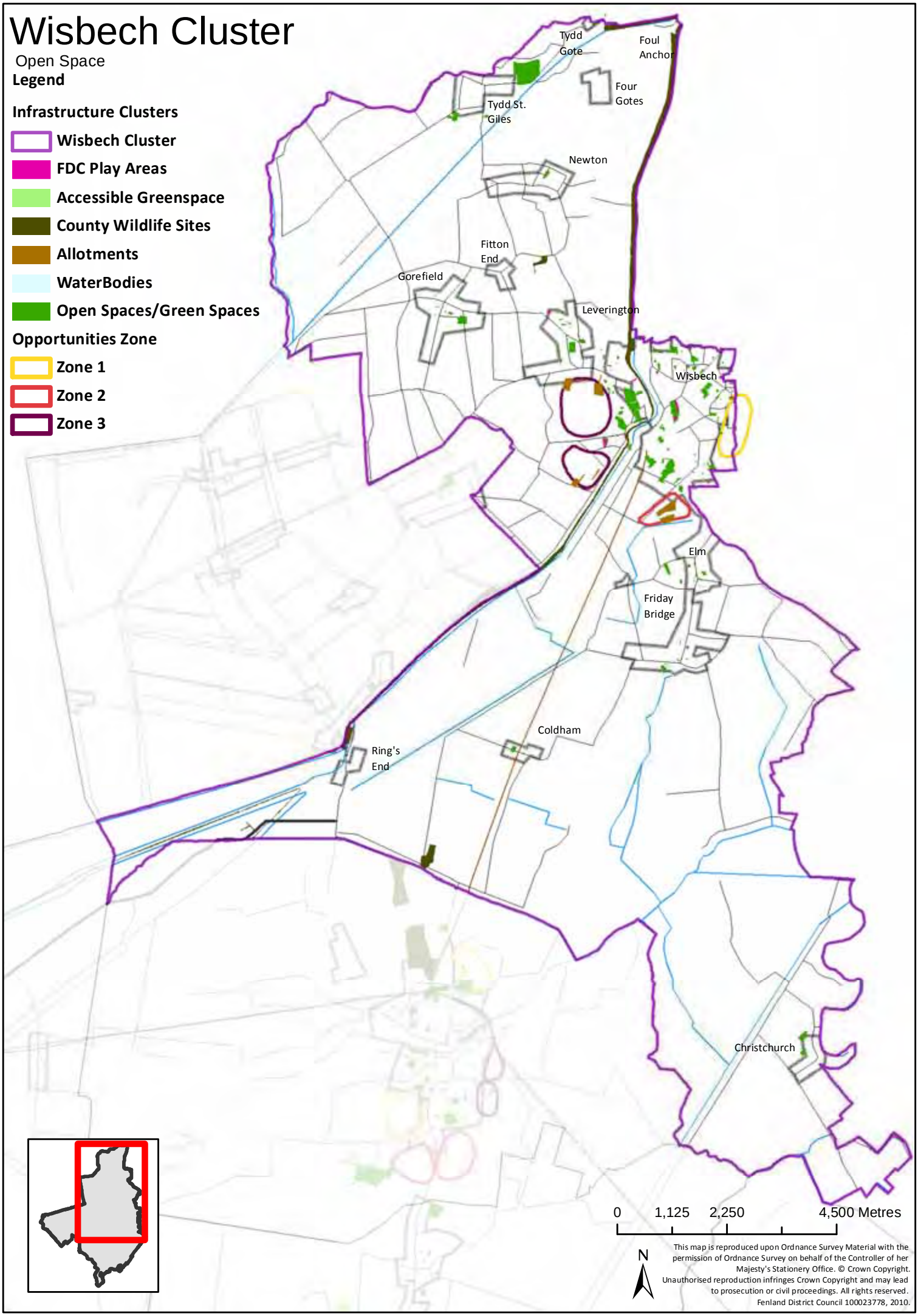
Legend

Infrastructure Clusters

- Wisbech Cluster
- FDC Play Areas
- Accessible Greenspace
- County Wildlife Sites
- Allotments
- WaterBodies
- Open Spaces/Green Spaces

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3



Wisbech Cluster

Emergency Services

Legend

Infrastructure Clusters

Wisbech Cluster

Emergency Sevices Fenland

Ambulance Station

Fire Station

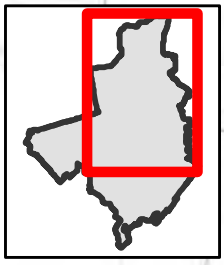
Police Station

Opportunities Zone

Zone 1

Zone 2

Zone 3



Tydd Gote

Foul Anchor

Four Gotes

Tydd St. Giles

Newton

Fitton End

Gorefield

Leverington

Mid Anglia Constabulary

Wisbech

Ambulance Station

Wisbech Fire Station

Elm

Friday Bridge

Coldham

Ring's End

Christchurch

0 1,125 2,250 4,500 Metres

N

March Cluster

Nursery Education

Humpty Dumpty

Westry

Maple Grove community playgroup

Burrowmoor nursery

Jimanilnos Club Burrowmoor

March

Cavalry Community Play Group

Legend

Infrastructure Clusters

March Cluster

Opportunities Zone

Zone 1

Zone 2

Zone 3

Nursery/creche

Walking time to Nursery

5 min

10 min

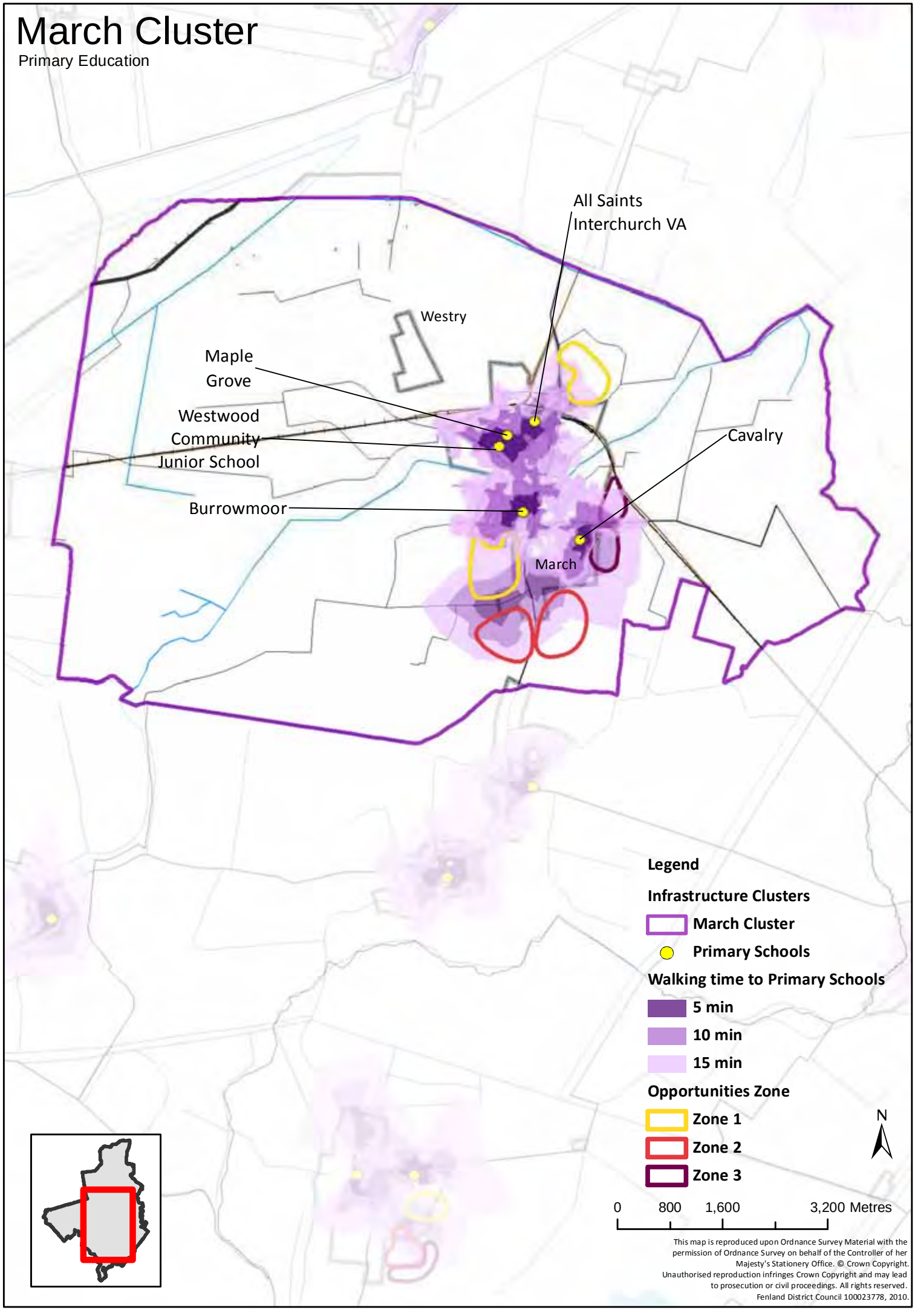
15 min

N

0 800 1,600 3,200 Metres

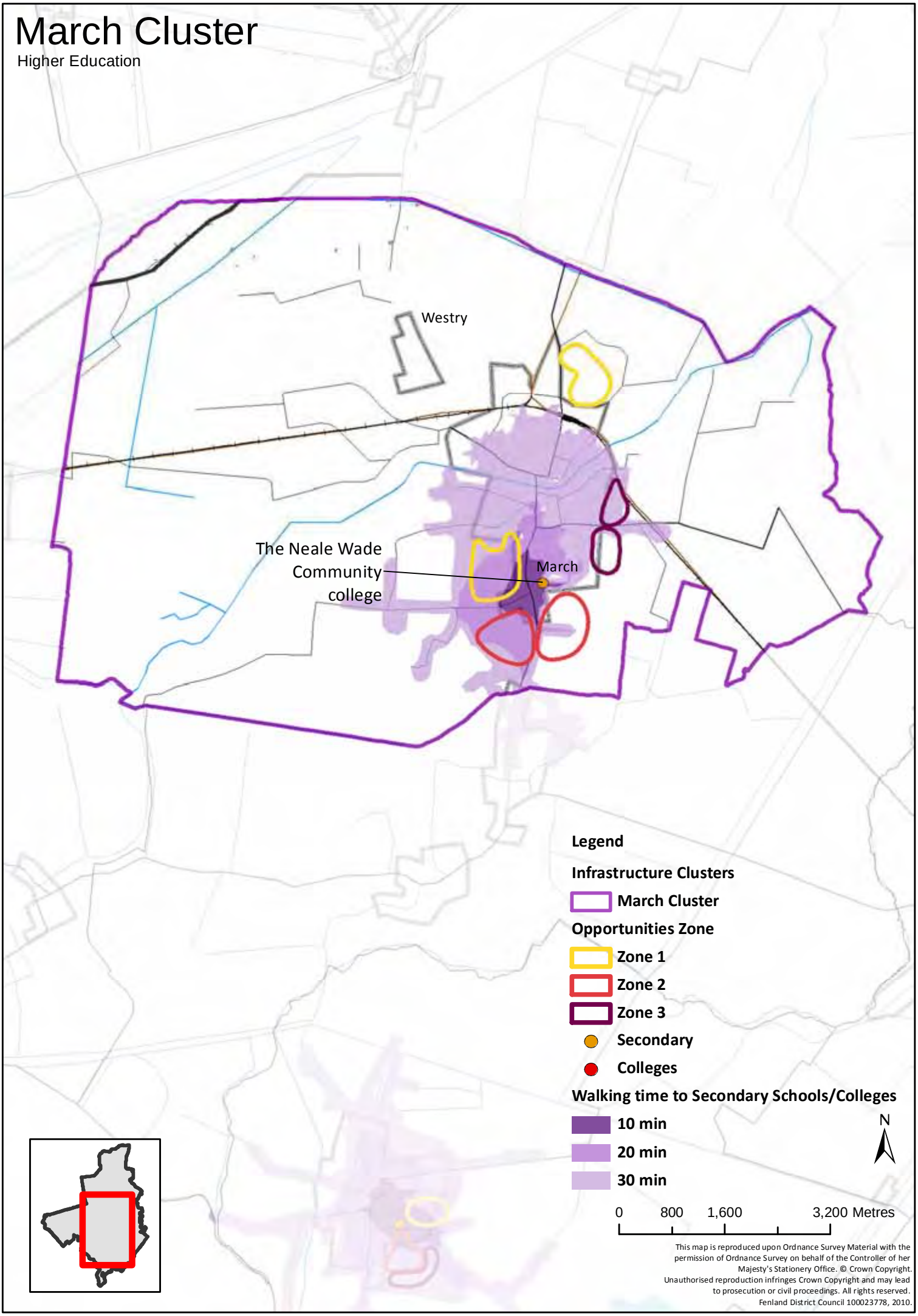
March Cluster

Primary Education



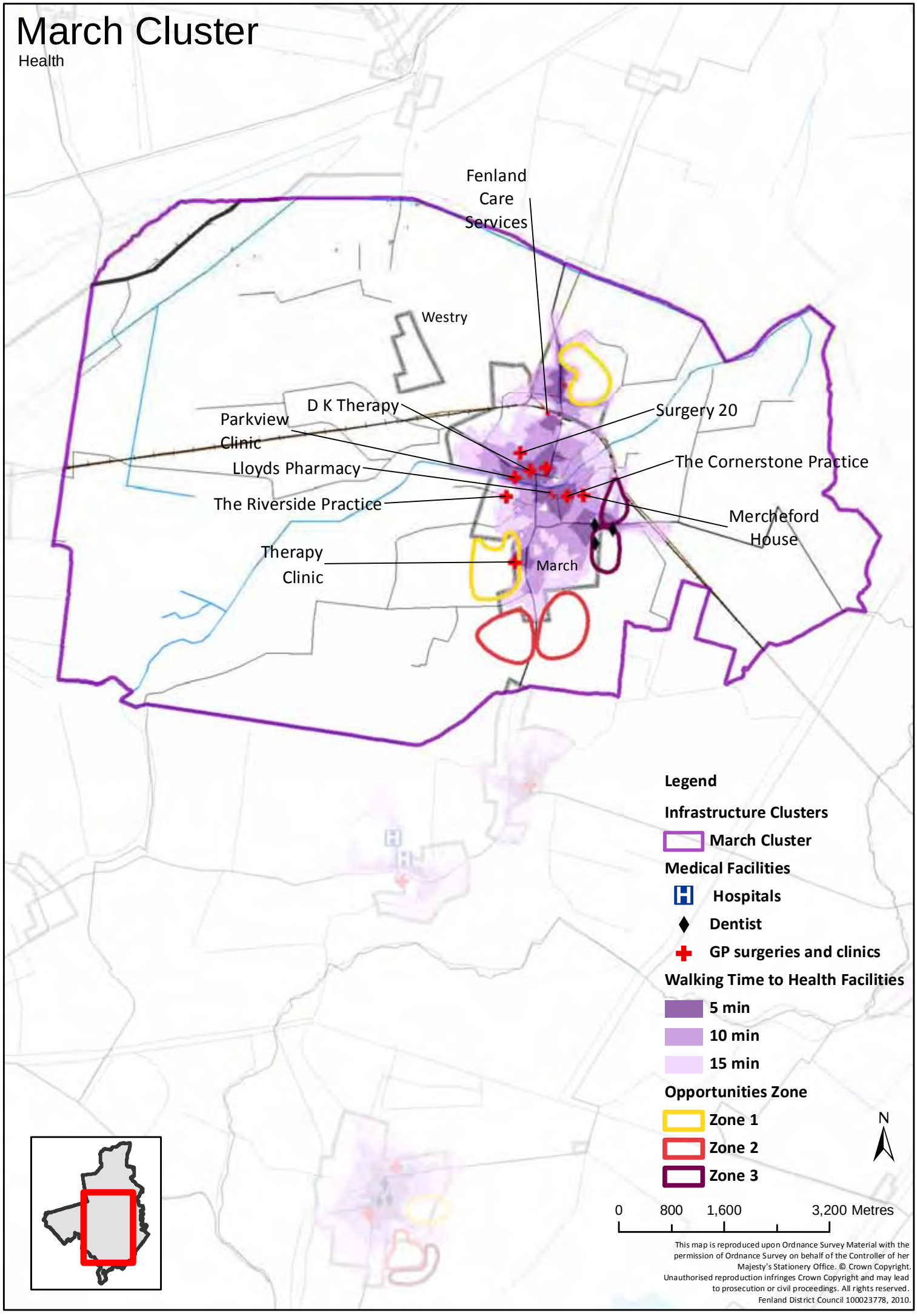
March Cluster

Higher Education



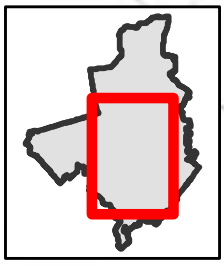
March Cluster

Health



March Cluster

Leisure & Community Facilities



Mobile Gym
Fenland
District

GER Sports Ground

March Bears
Rugby Union
Football Club

Tennyson Lodge

Westry

St Marys Church Hall

Alpine
Health Club

Krazy Karts
Creek Fen

St Johns
Church Hall

Libraries Department

Our Lady And
St Peters Hall

George Campbell
Leisure Centre

The Hall West End

Cambridgeshire
County Council
Libraries

St Peters
Church Hall

March Library

March Town Cricket Club

Sports Ground

March

Squash
Club

March Rifle Club

March Town Bowling Club

St Wendredas
Church Hall

March
Golf
Club

Legend

Infrastructure Clusters

March Cluster

Leisure & Community Facilities

Church halls

Libraries

Public and village halls

Sporting activities

Opportunities Zone

Zone 1

Zone 2

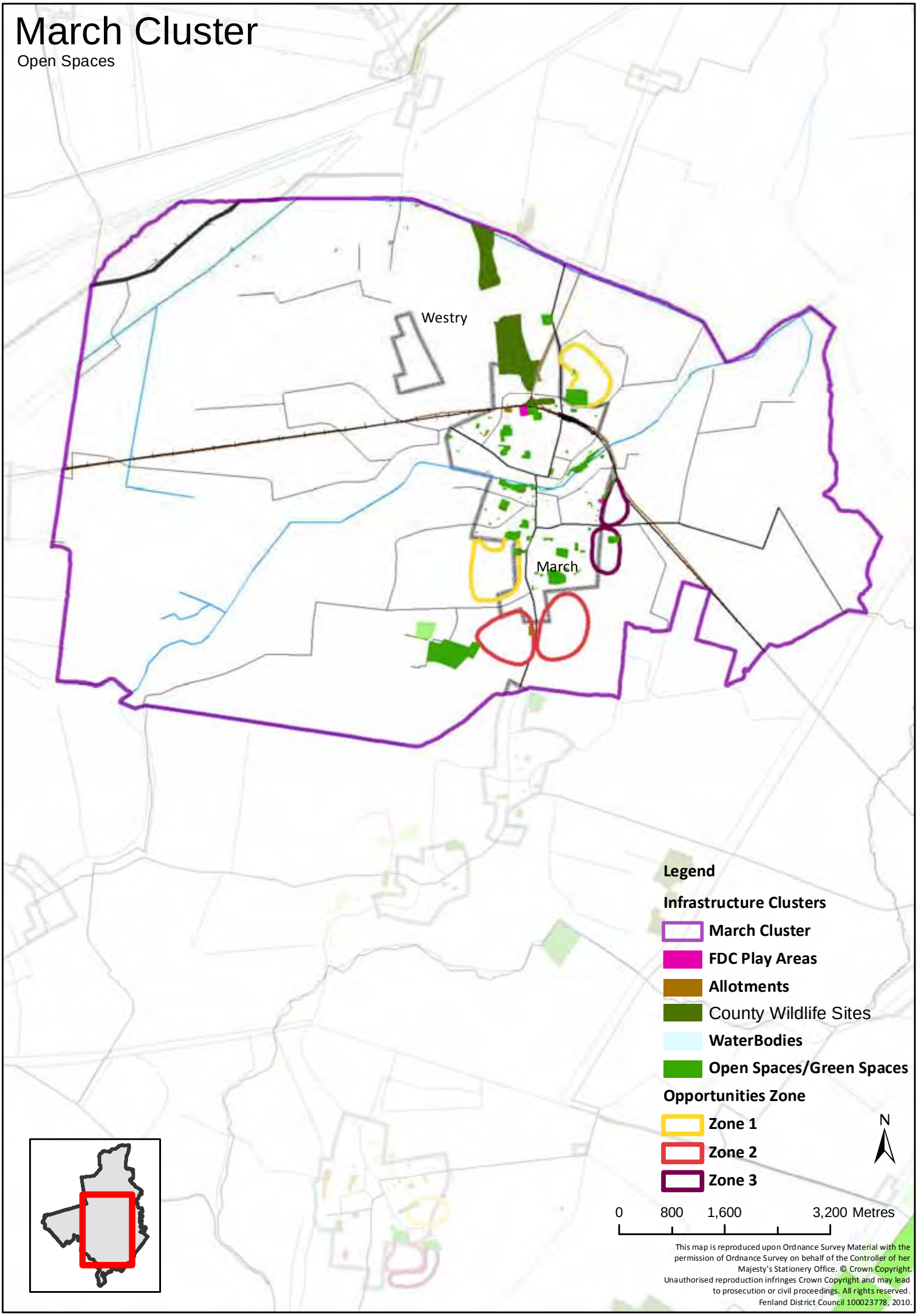
Zone 3

N

0 800 1,600 3,200 Metres

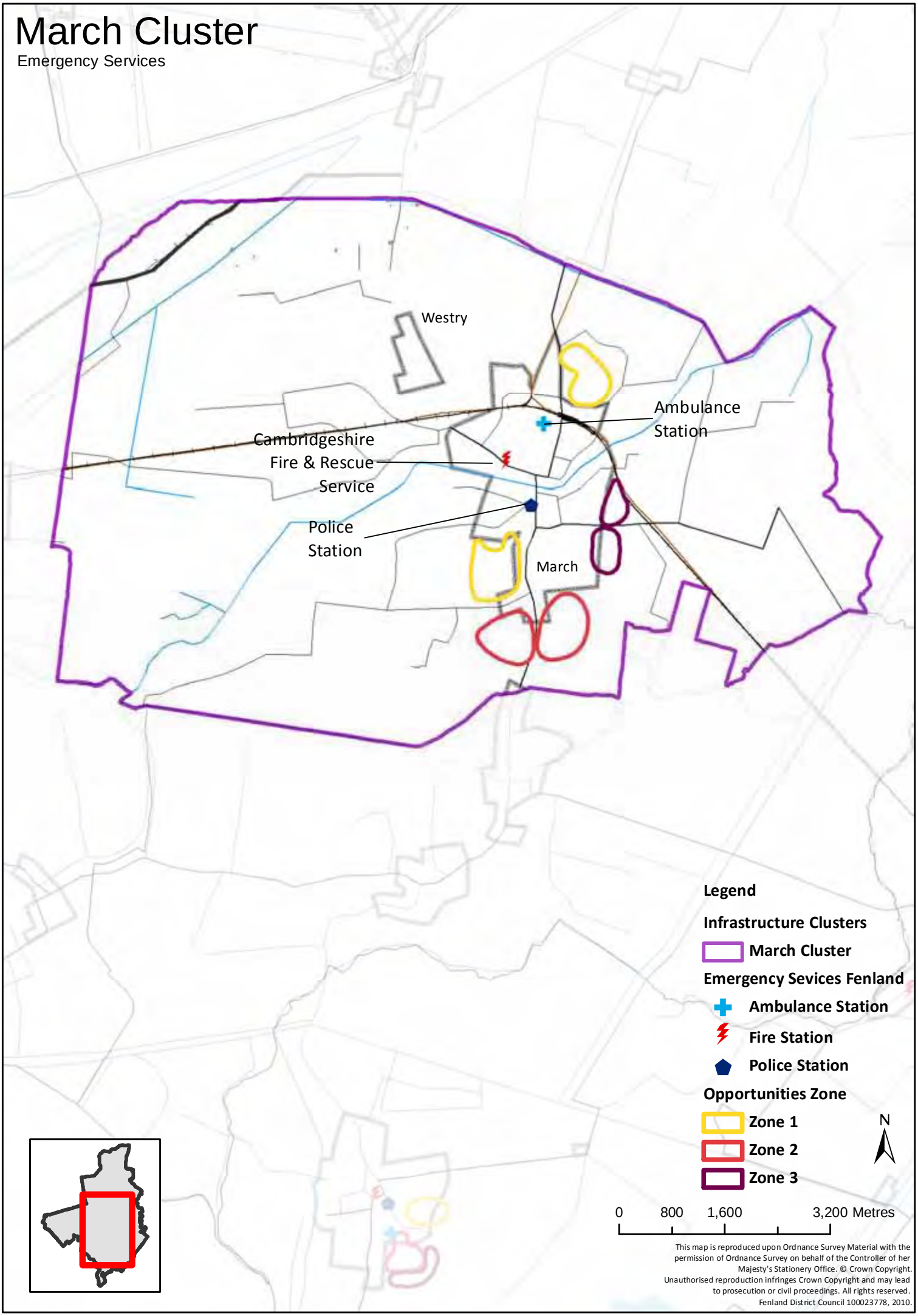
March Cluster

Open Spaces



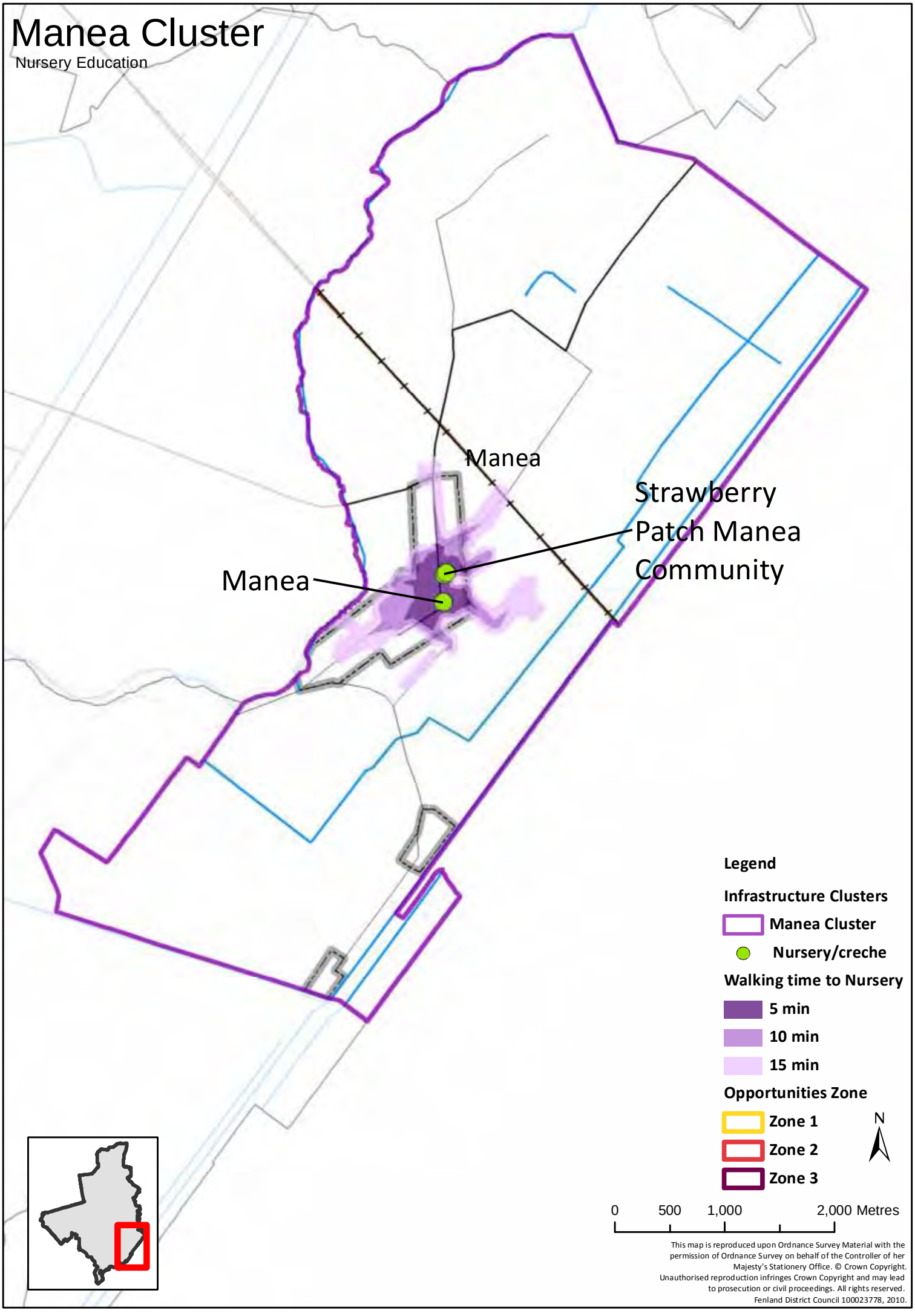
March Cluster

Emergency Services



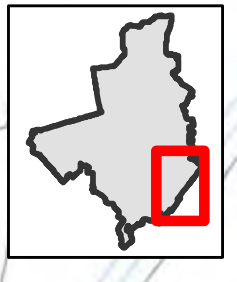
Manea Cluster

Nursery Education



Manea Cluster

Health



Manea

Legend

Infrastructure Clusters

Manea Cluster

Medical Facilities

Hospitals

Dentist

GP surgeries and clinics

Walking Time to Health Facilities

5 min

10 min

15 min

Opportunities Zone

Zone 1

Zone 2

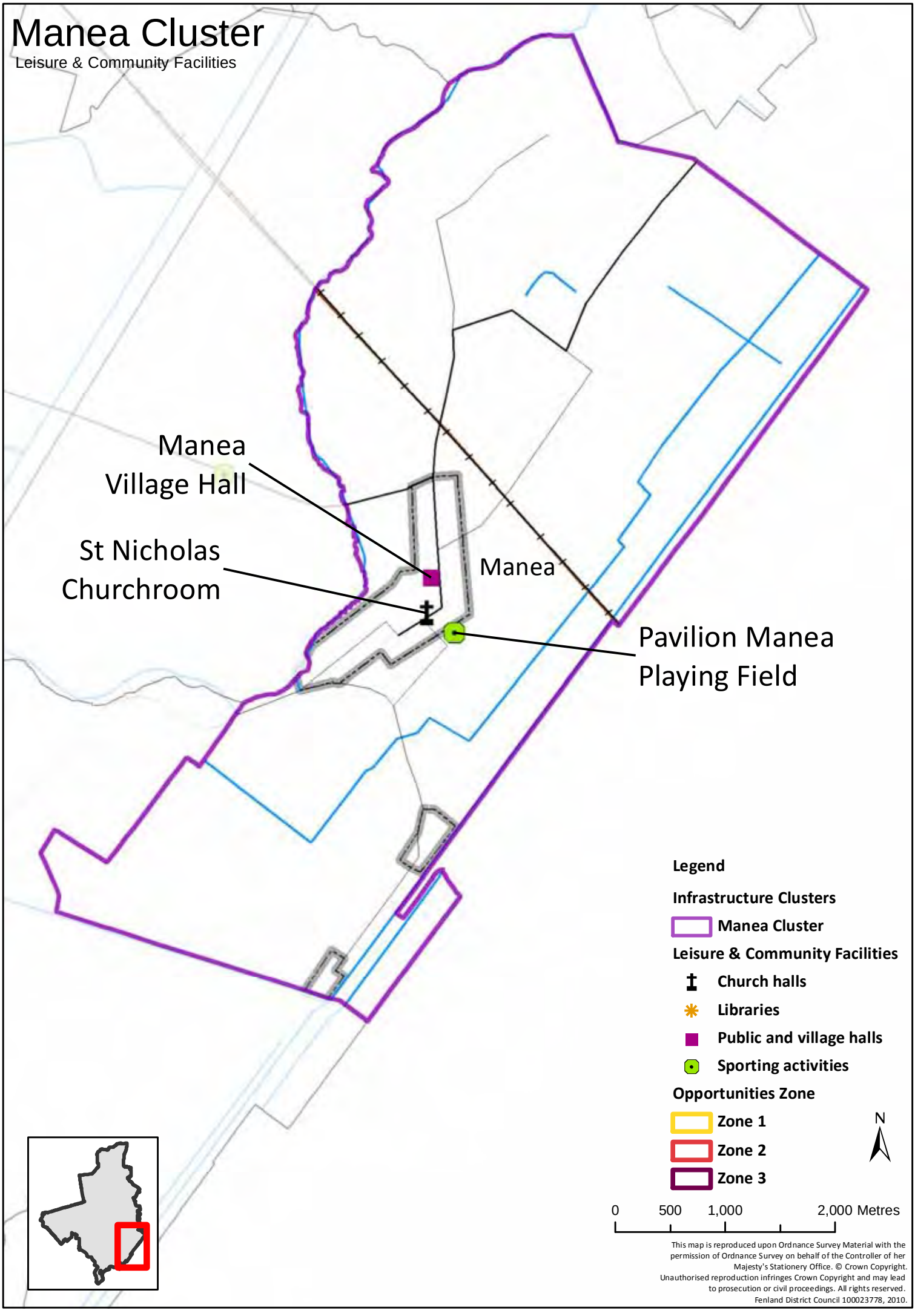
Zone 3

N

0 500 1,000 2,000 Metres

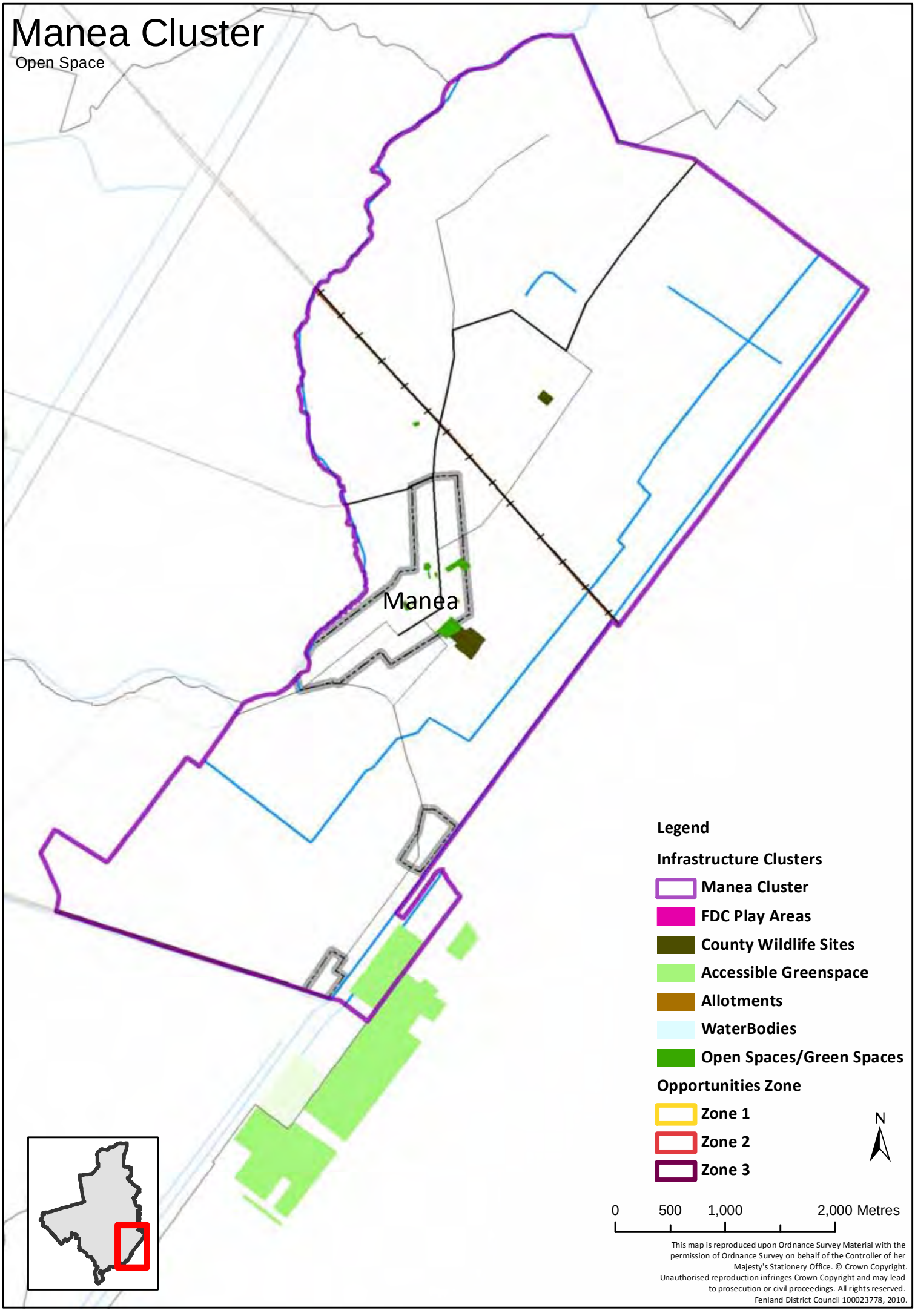
Manea Cluster

Leisure & Community Facilities



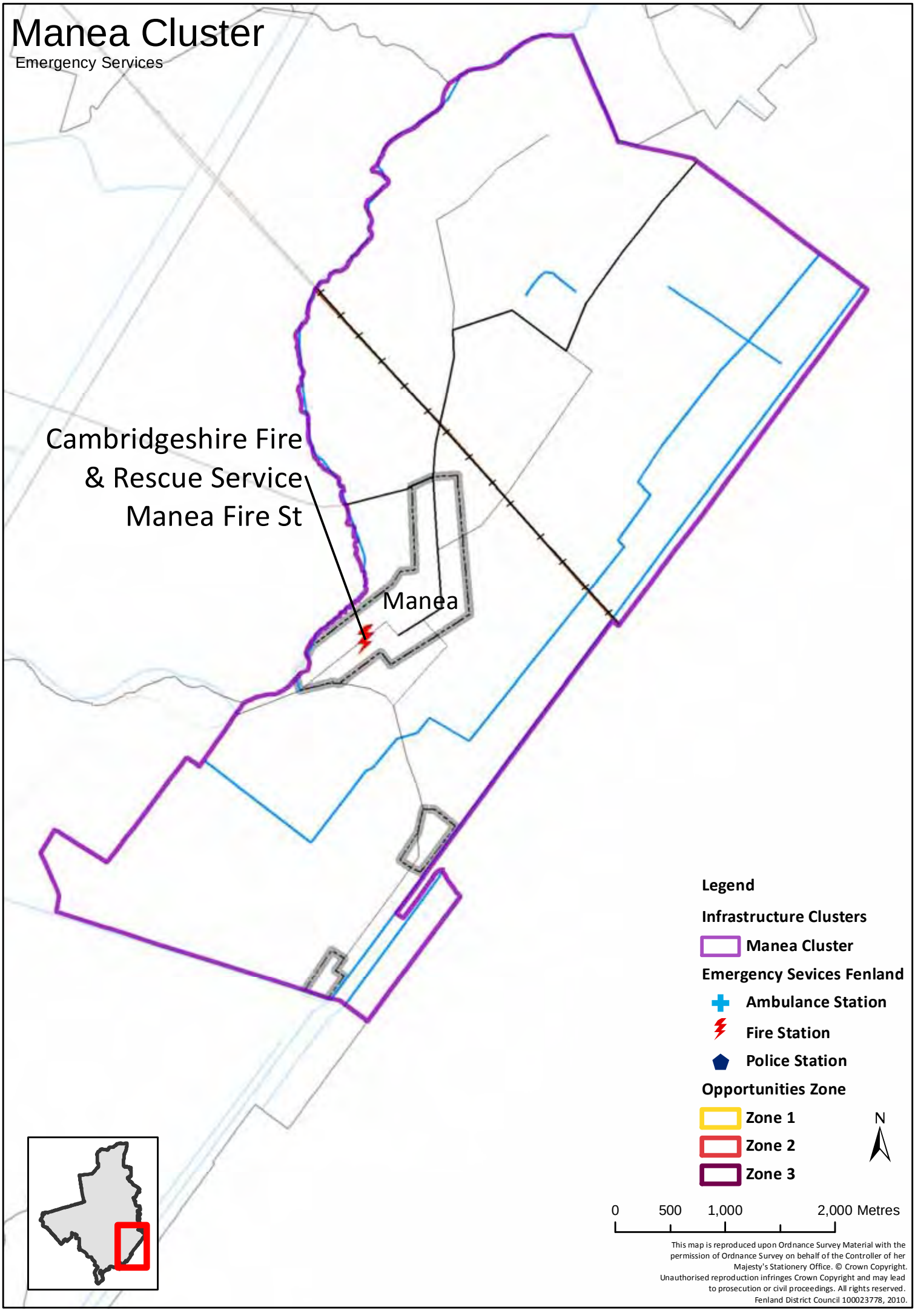
Manea Cluster

Open Space



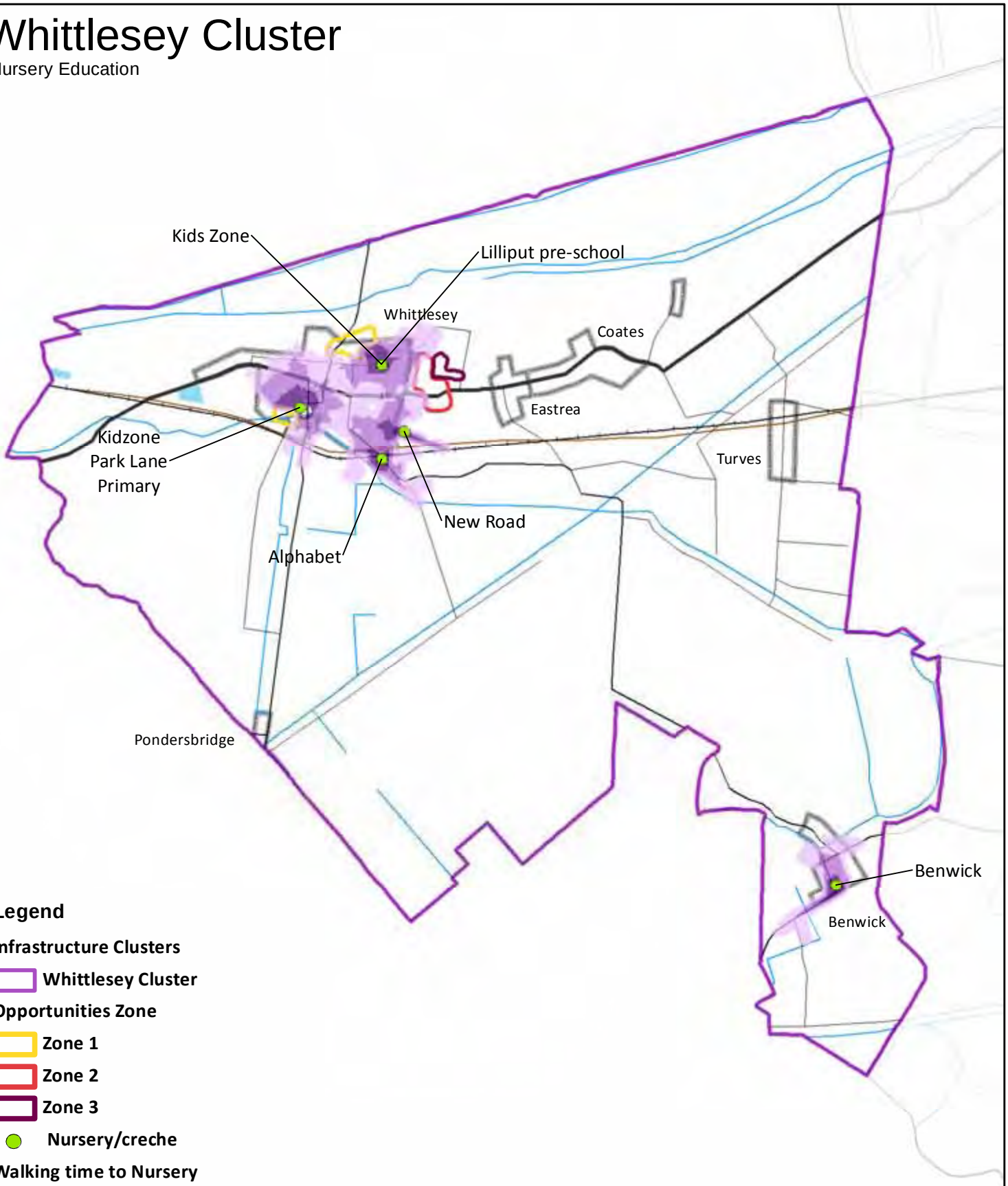
Manea Cluster

Emergency Services



Whittlesey Cluster

Nursery Education



Legend

Infrastructure Clusters

Whittlesey Cluster

Opportunities Zone

Zone 1

Zone 2

Zone 3

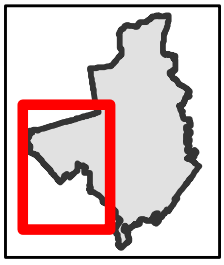
Nursery/creche

Walking time to Nursery

5 min

10 min

15 min

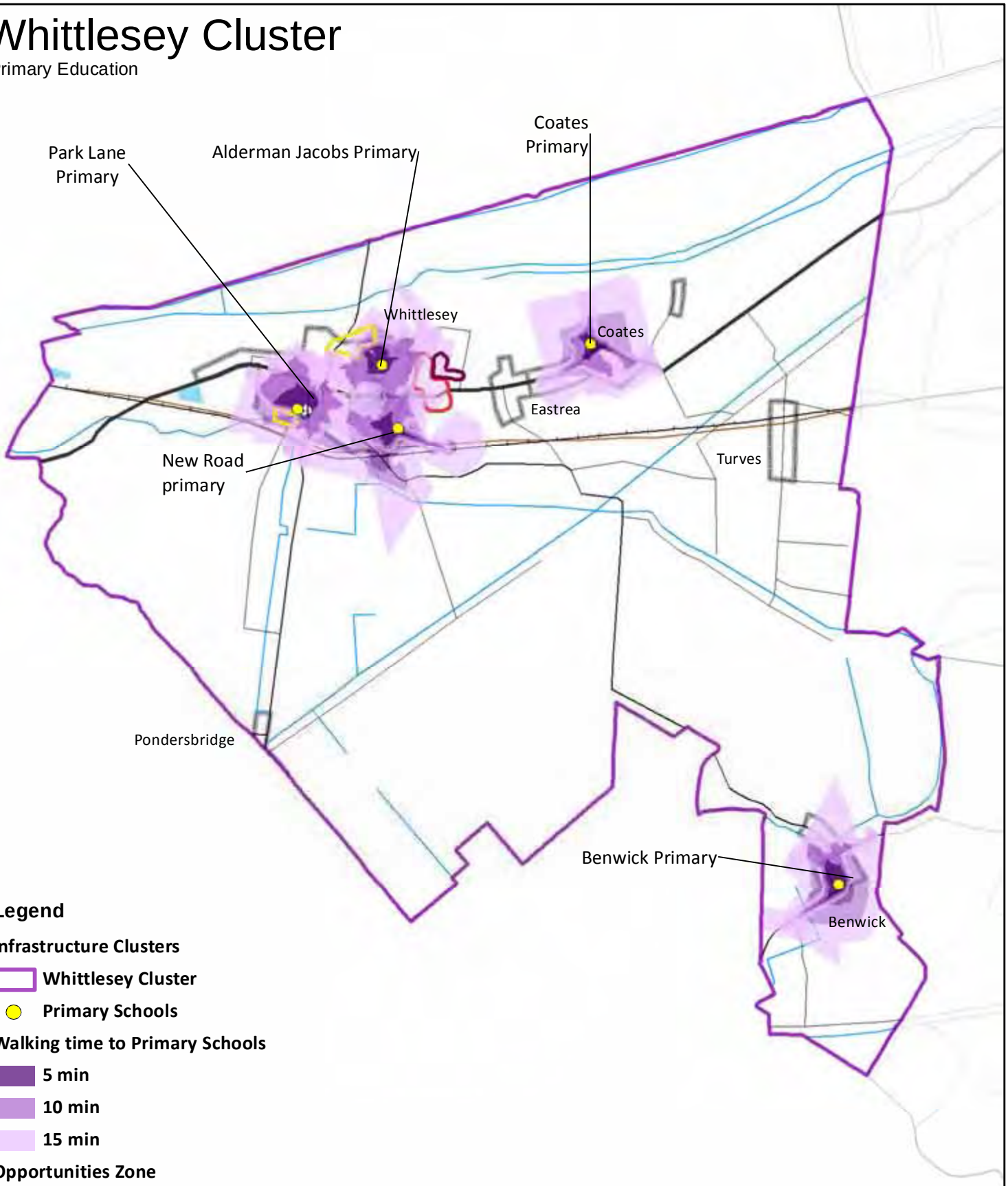


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Primary Education



Legend

Infrastructure Clusters

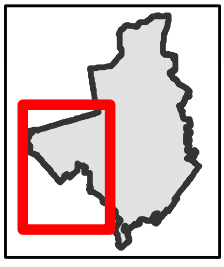
- Whittlesey Cluster
- Primary Schools

Walking time to Primary Schools

- 5 min
- 10 min
- 15 min

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

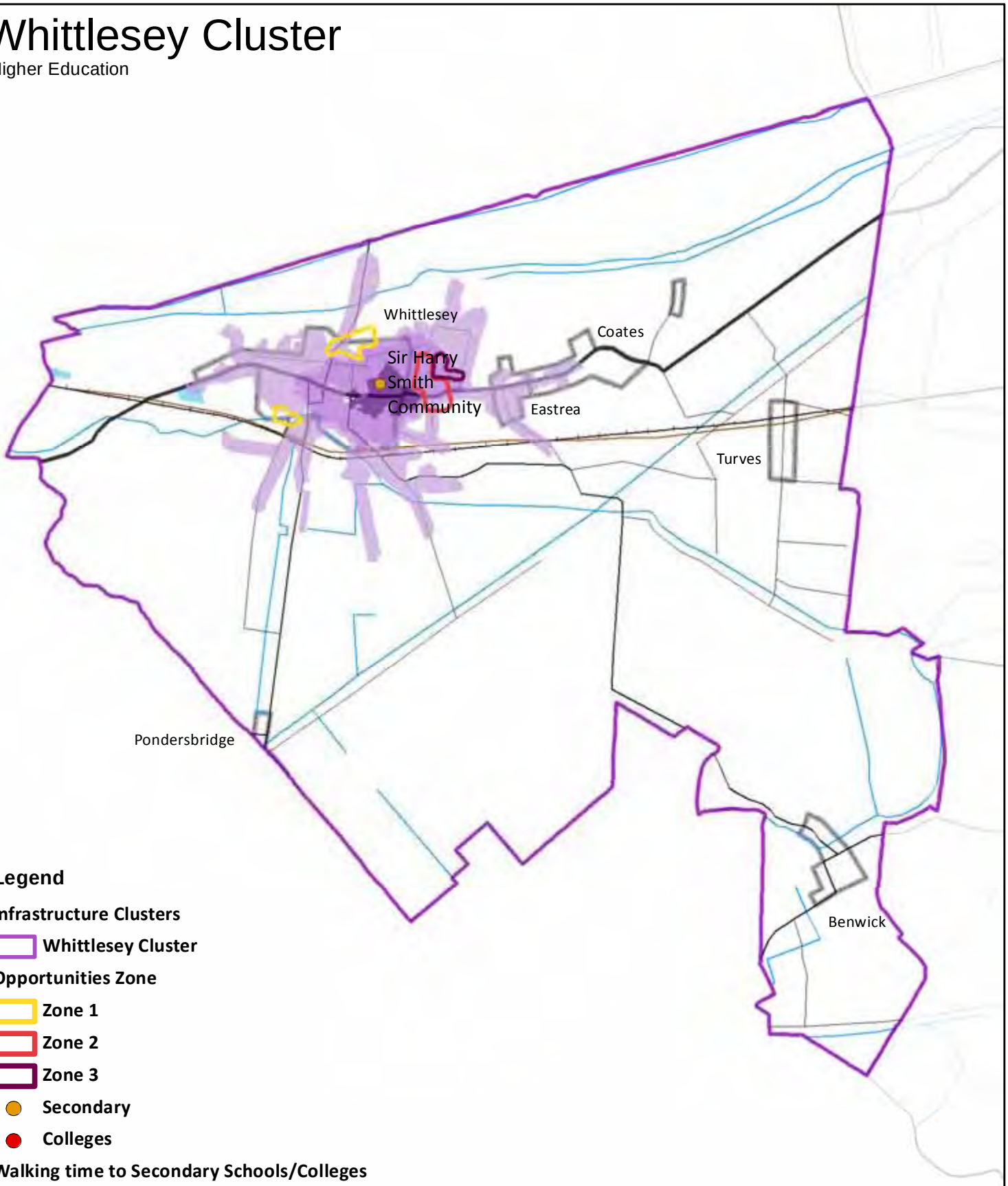


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Higher Education



Legend

Infrastructure Clusters

Whittlesey Cluster

Opportunities Zone

Zone 1

Zone 2

Zone 3

Secondary

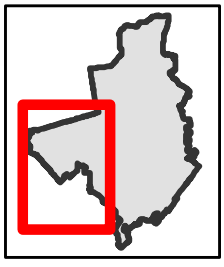
Colleges

Walking time to Secondary Schools/Colleges

10 min

20 min

30 min

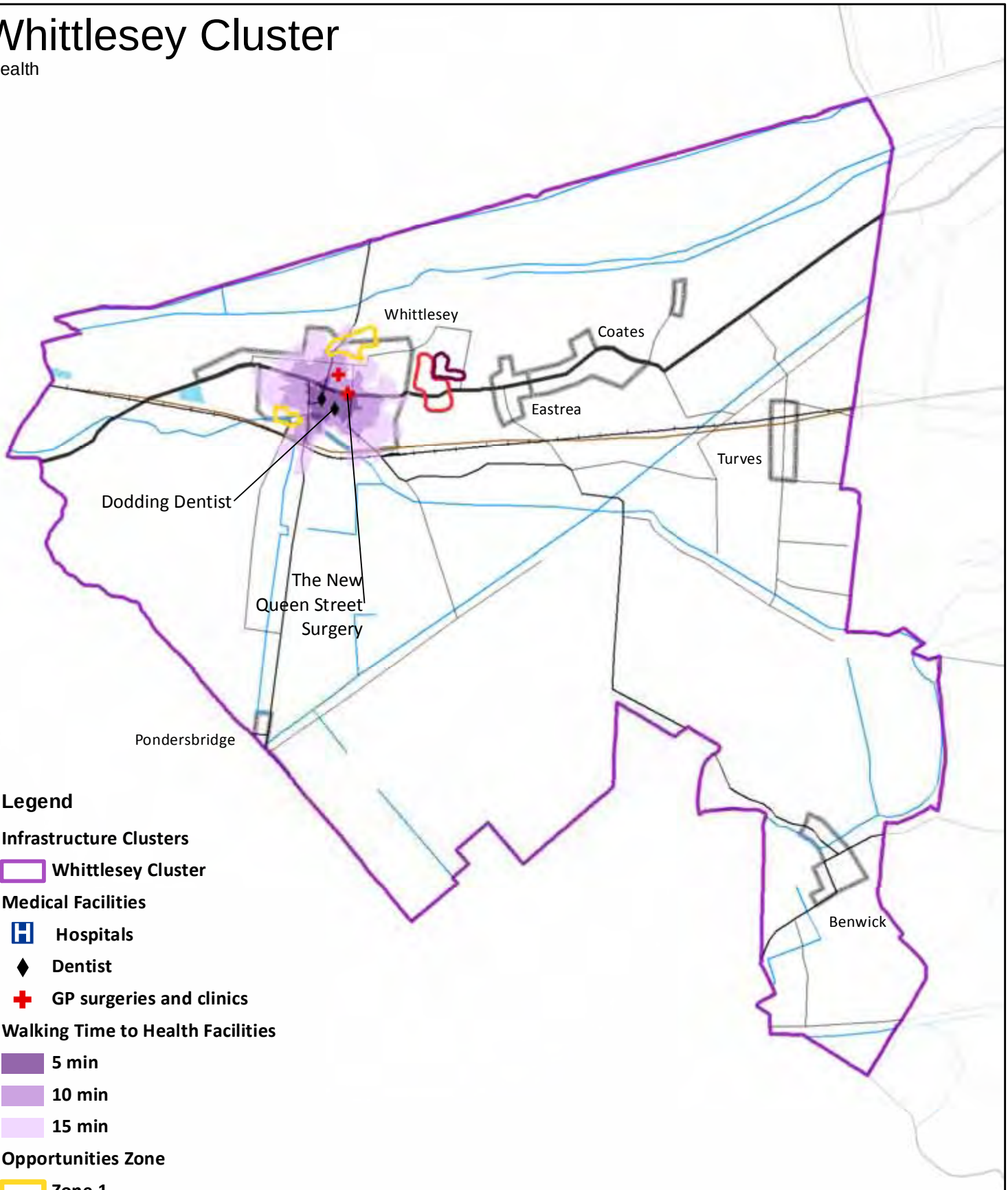


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Health



Legend

Infrastructure Clusters

- **Whittlesey Cluster**

Medical Facilities

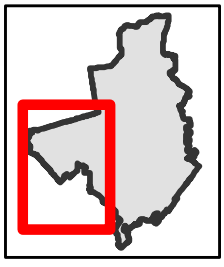
- **Hospitals**
- **Dentist**
- **GP surgeries and clinics**

Walking Time to Health Facilities

- **5 min**
- **10 min**
- **15 min**

Opportunities Zone

- **Zone 1**
- **Zone 2**
- **Zone 3**

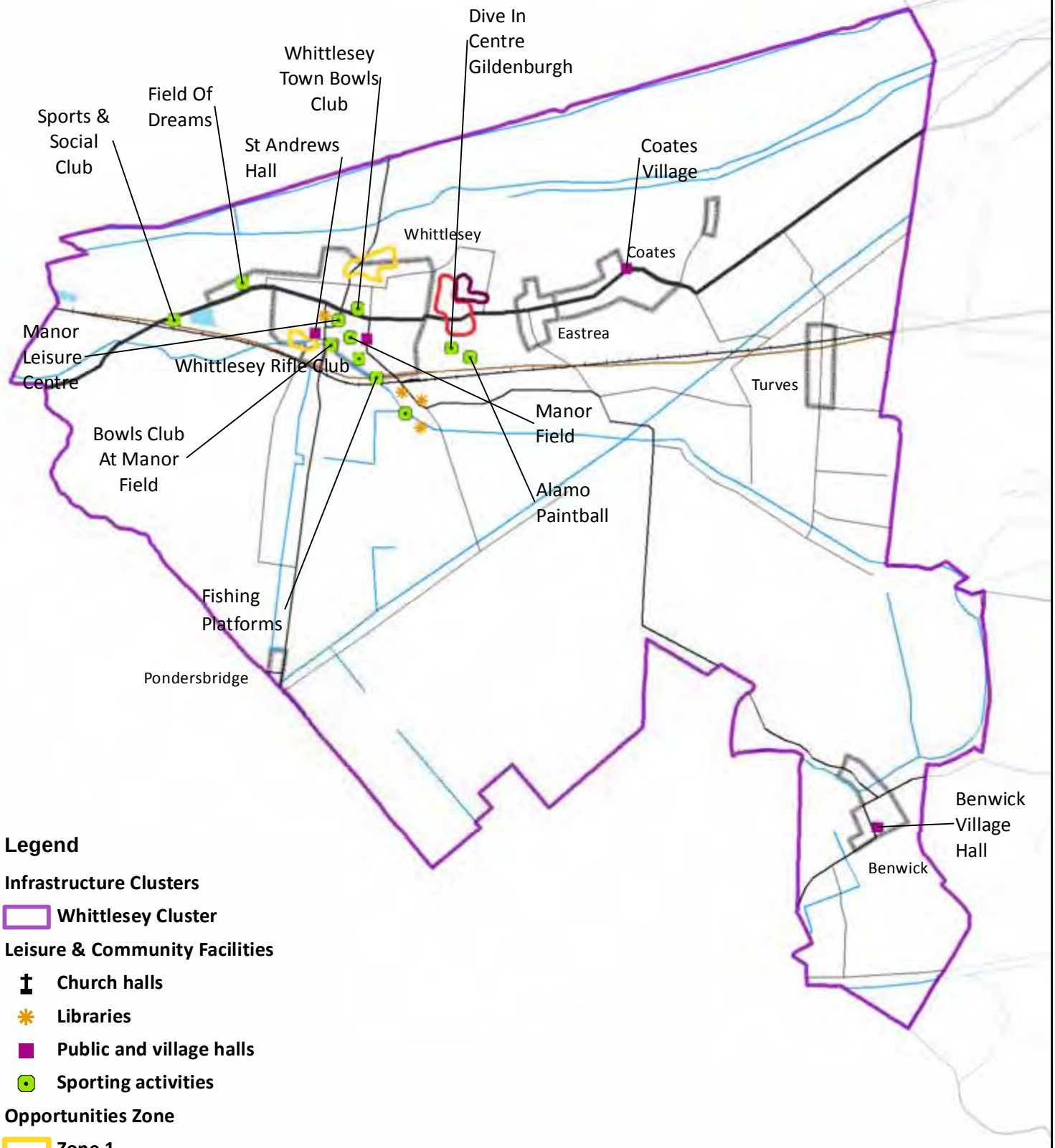


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Leisure & Community Facilities



Legend

Infrastructure Clusters

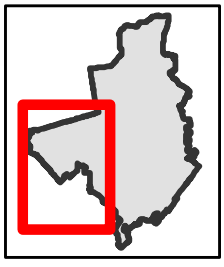
- **Whittlesey Cluster**

Leisure & Community Facilities

- **Church halls**
- **Libraries**
- **Public and village halls**
- **Sporting activities**

Opportunities Zone

- **Zone 1**
- **Zone 2**
- **Zone 3**

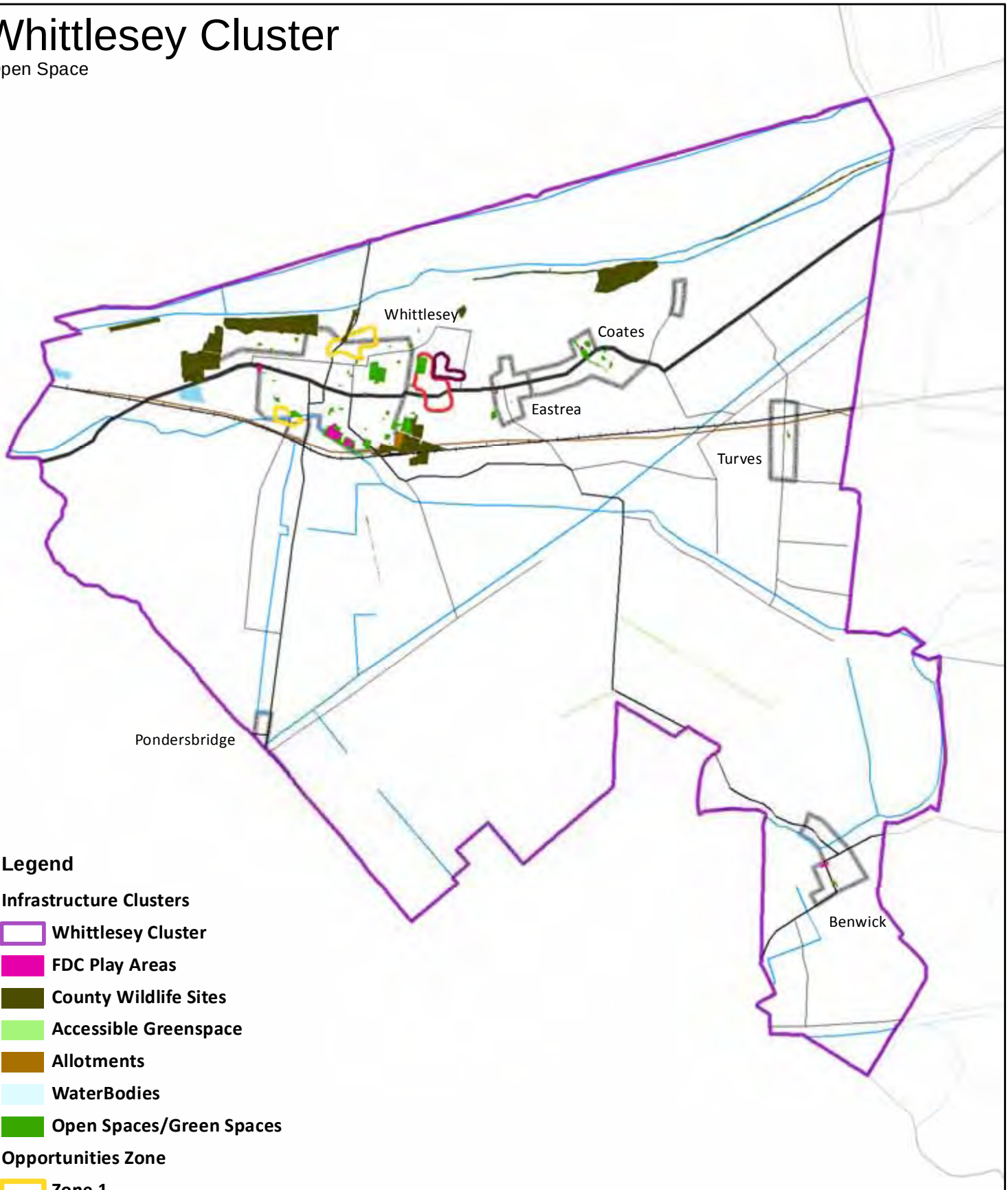


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Open Space



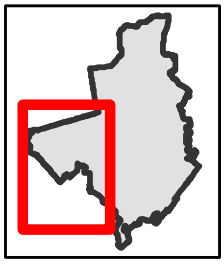
Legend

Infrastructure Clusters

- **Whittlesey Cluster**
- **FDC Play Areas**
- **County Wildlife Sites**
- **Accessible Greenspace**
- **Allotments**
- **WaterBodies**
- **Open Spaces/Green Spaces**

Opportunities Zone

- **Zone 1**
- **Zone 2**
- **Zone 3**

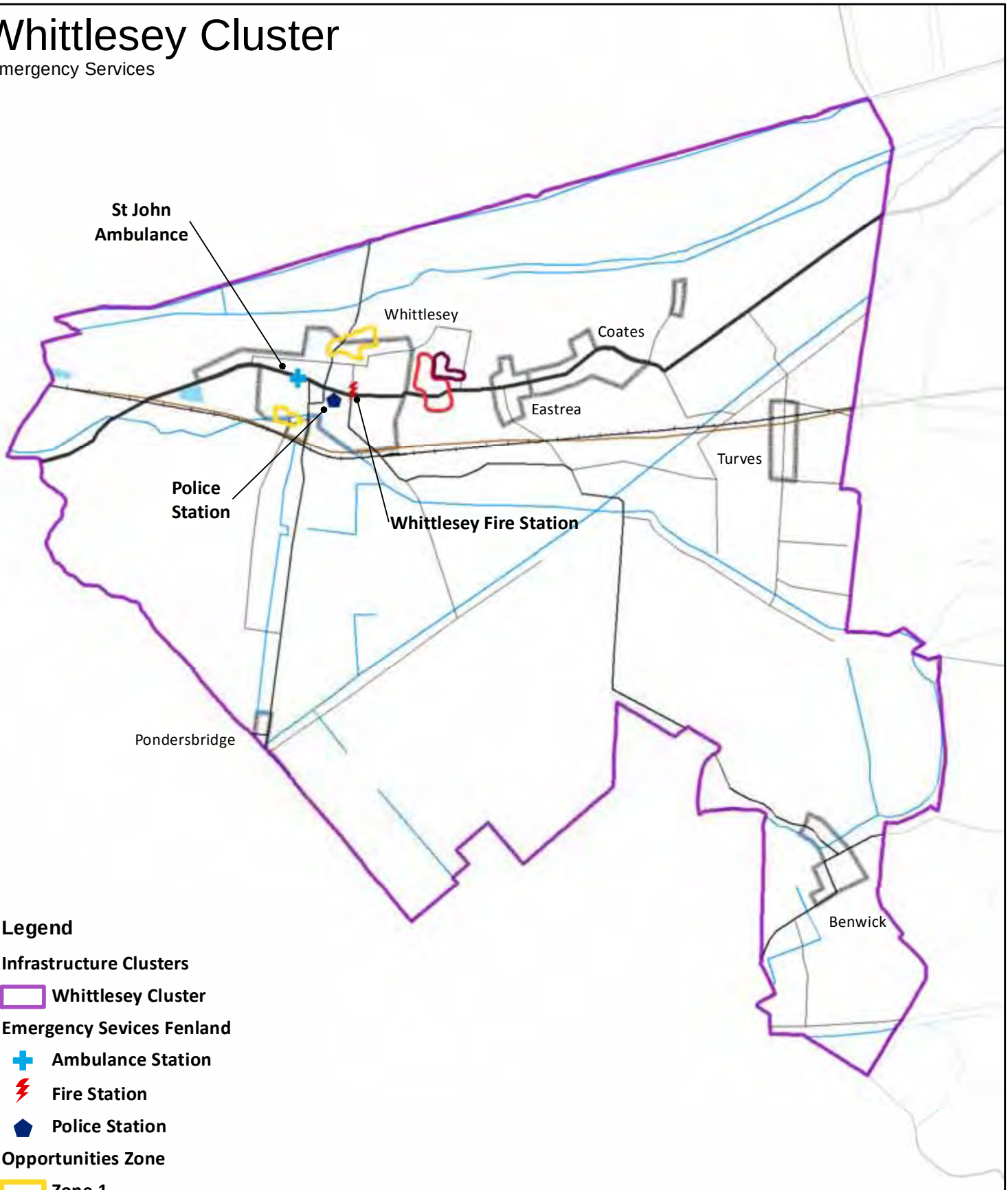


0 900 1,800 3,600 Metres

N

Whittlesey Cluster

Emergency Services



Legend

Infrastructure Clusters

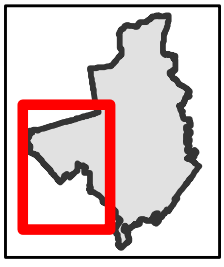
- Whittlesey Cluster

Emergency Sevices Fenland

- Ambulance Station
- Fire Station
- Police Station

Opportunities Zone

- Zone 1
- Zone 2
- Zone 3

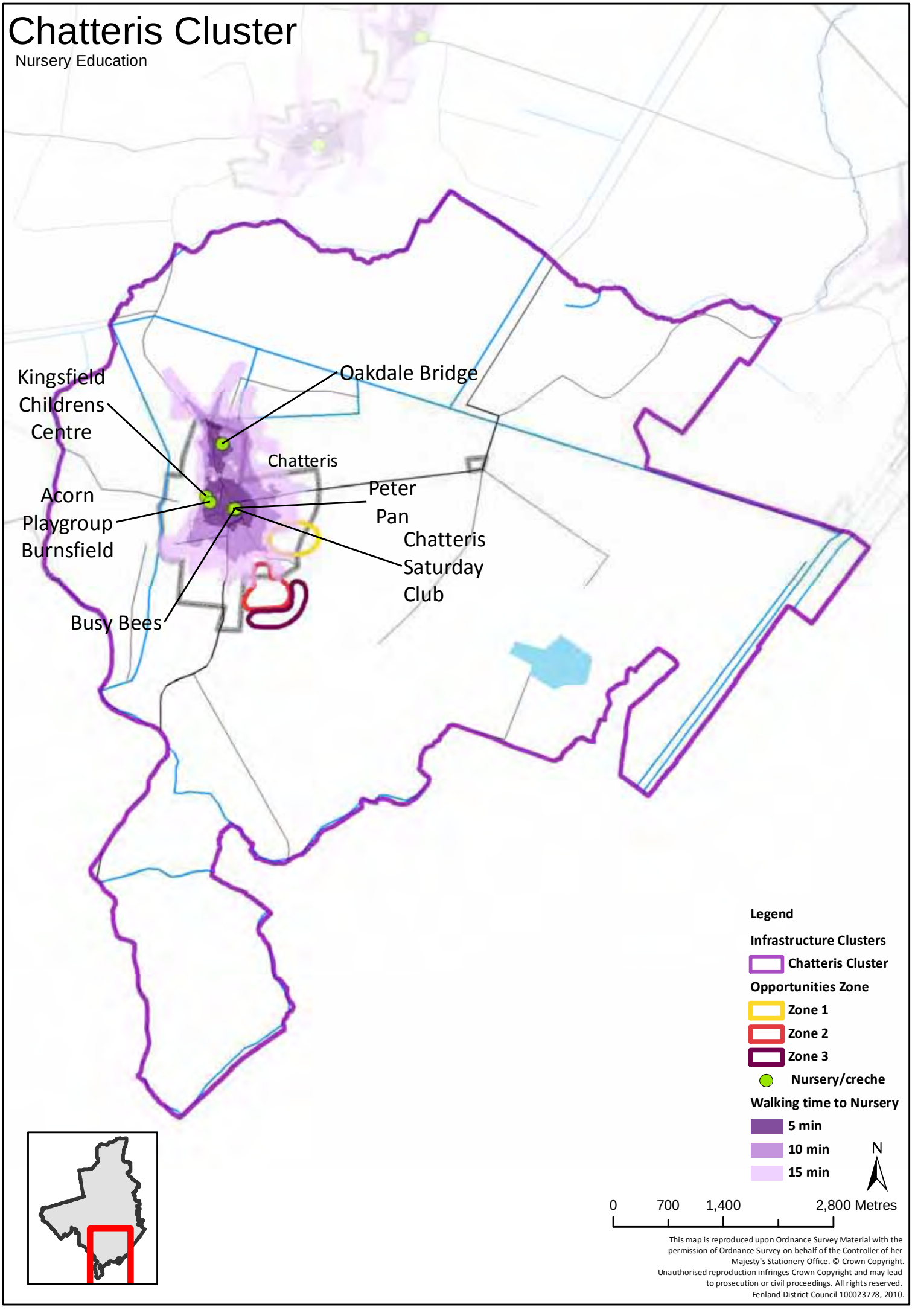


0 900 1,800 3,600 Metres

N

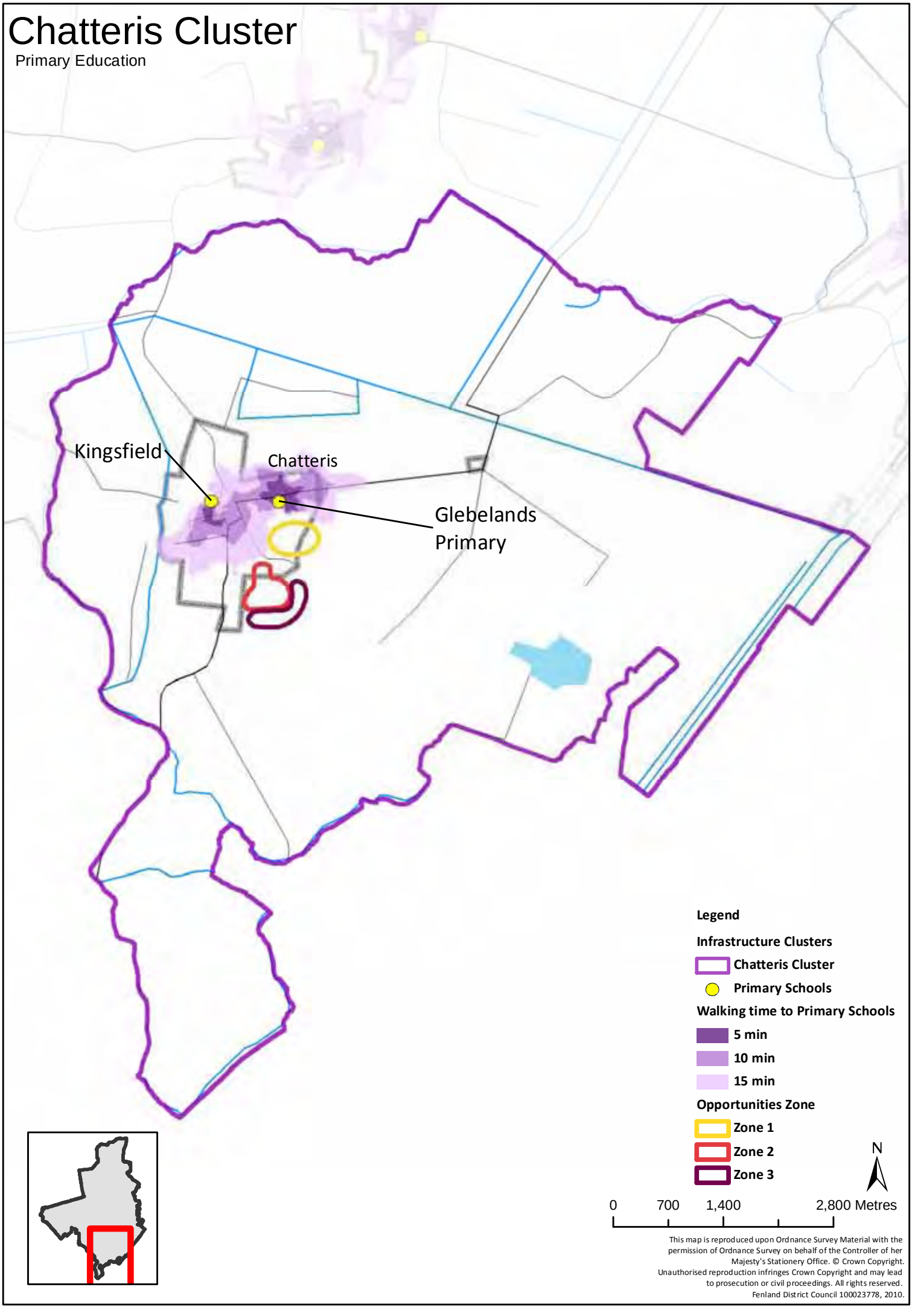
Chatteris Cluster

Nursery Education



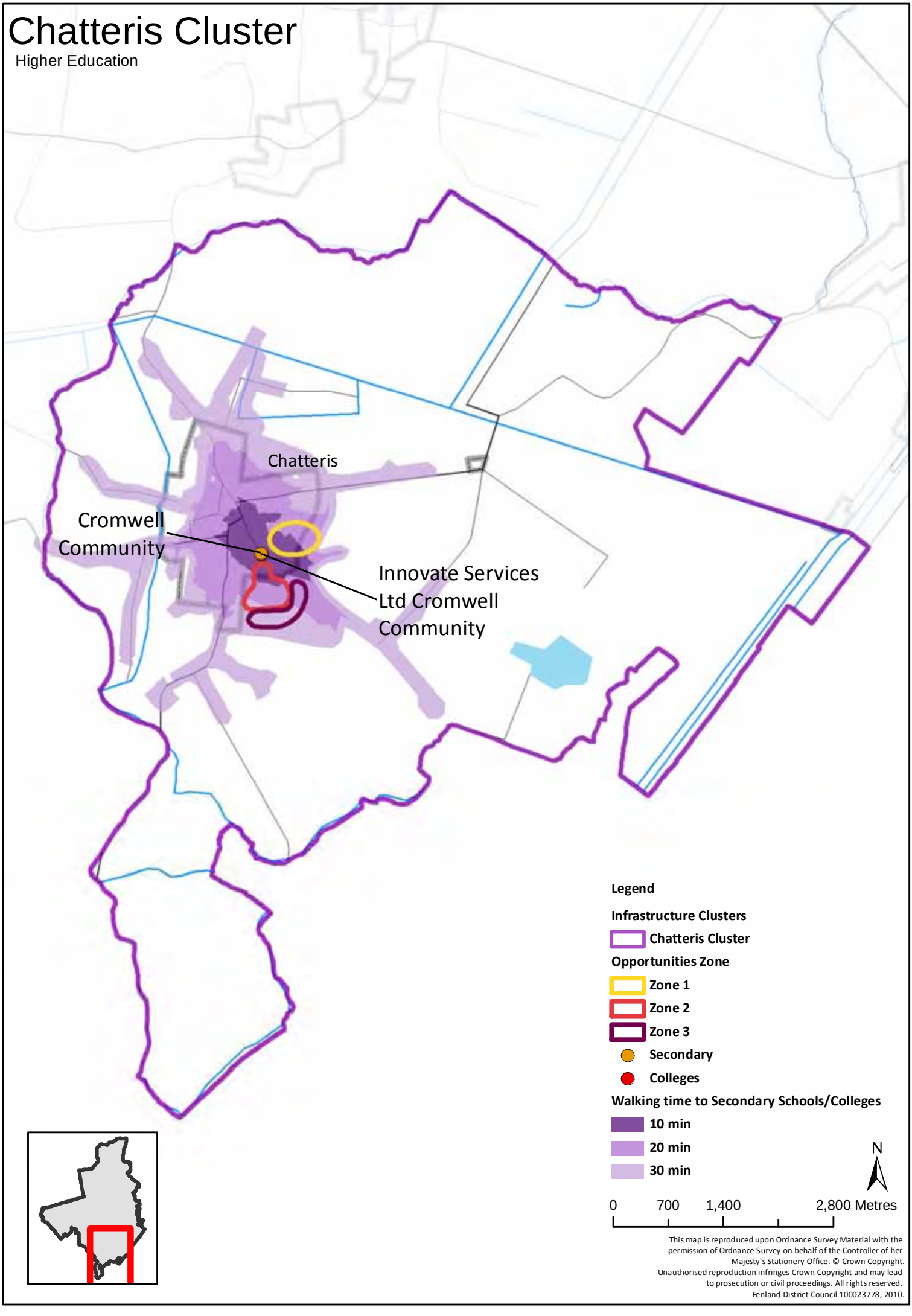
Chatteris Cluster

Primary Education



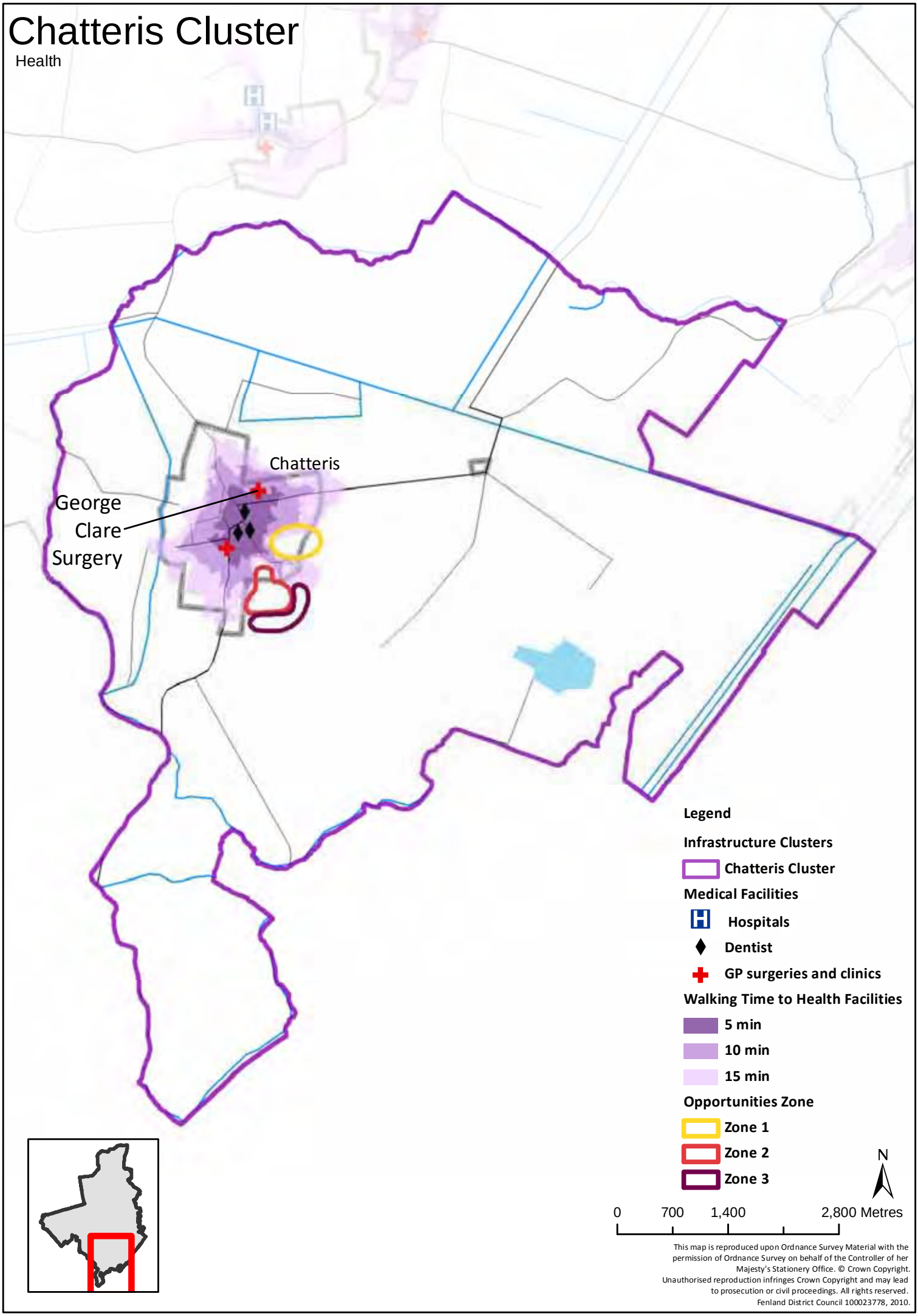
Chatteris Cluster

Higher Education



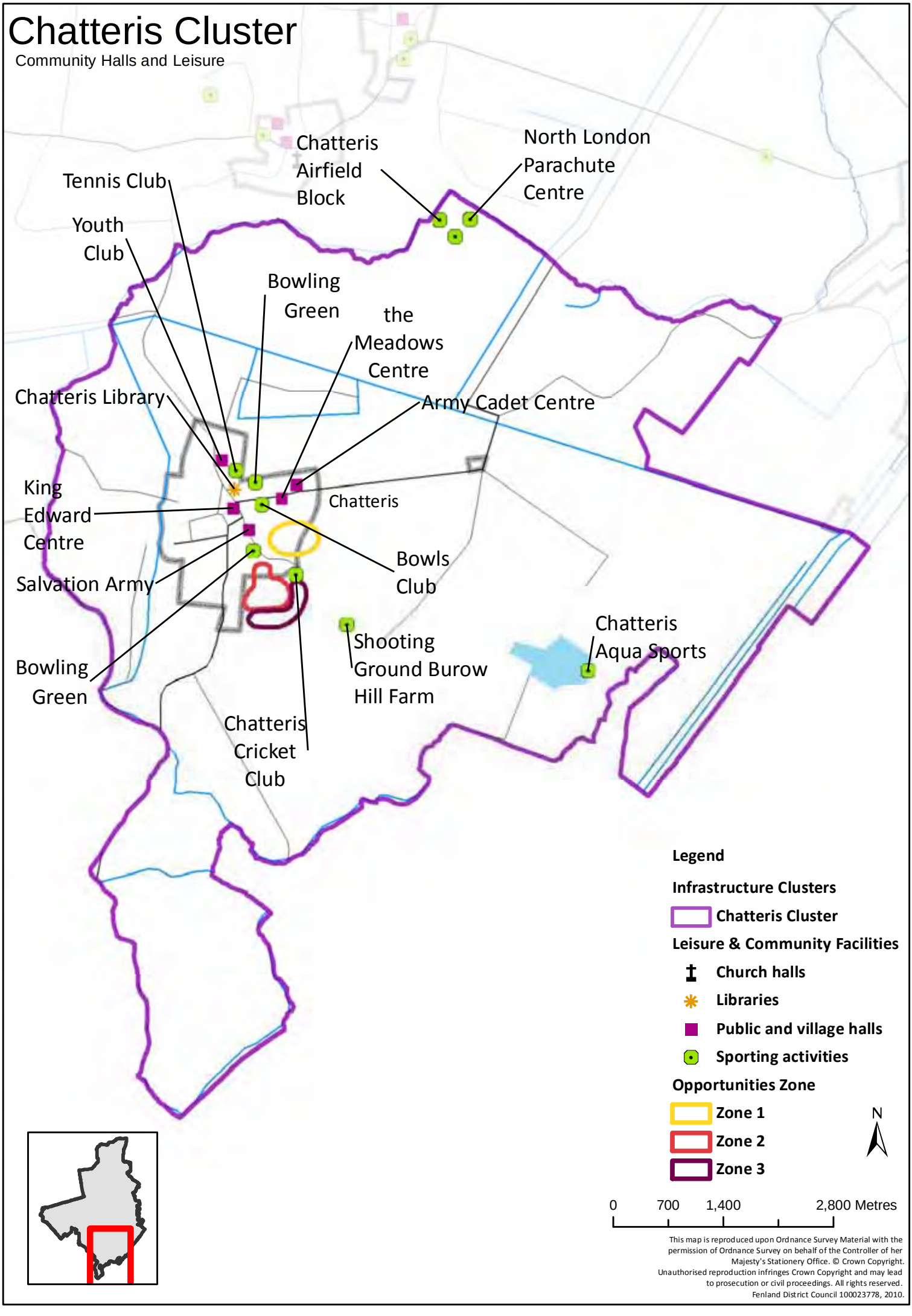
Chatteris Cluster

Health



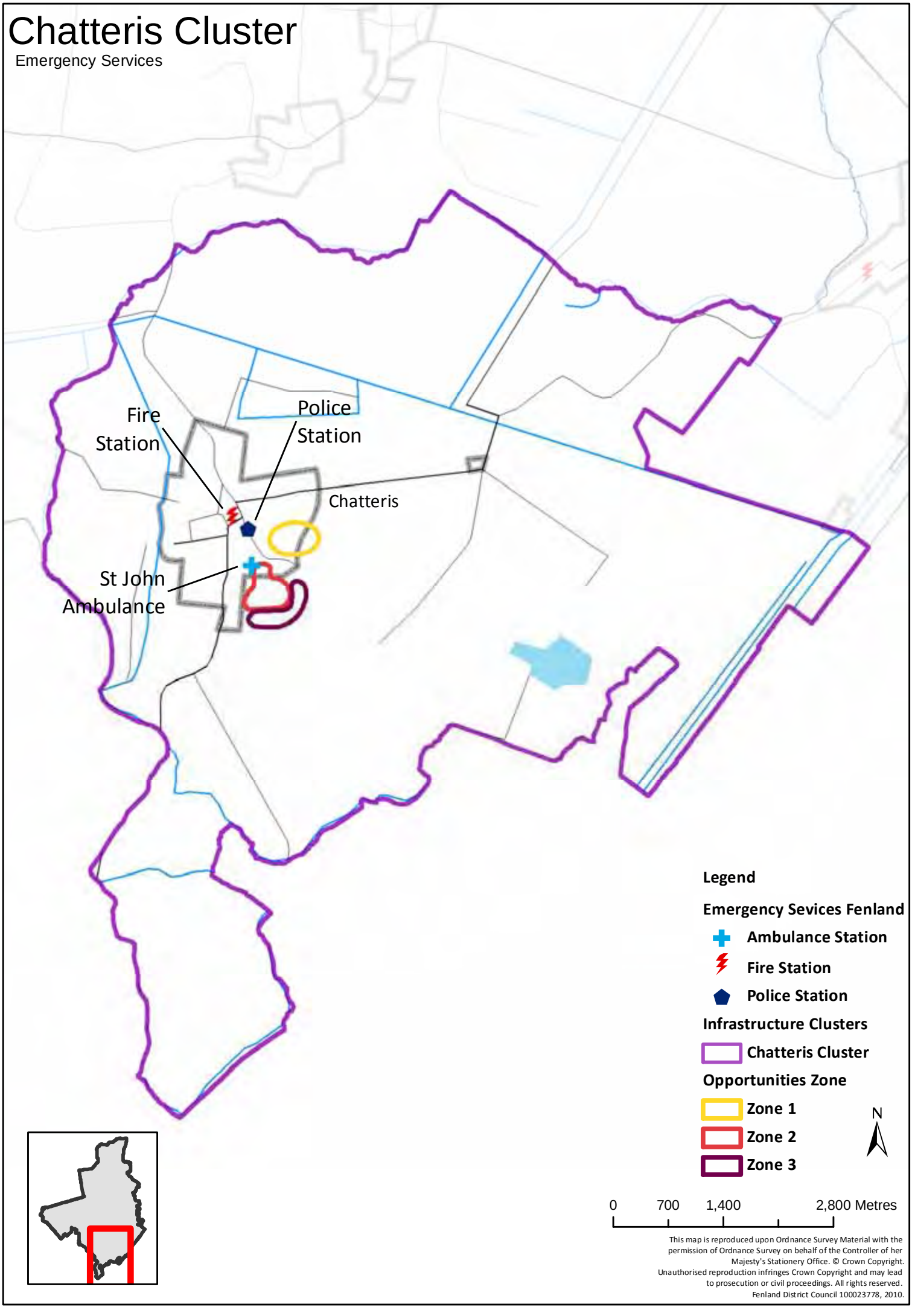
Chatteris Cluster

Community Halls and Leisure



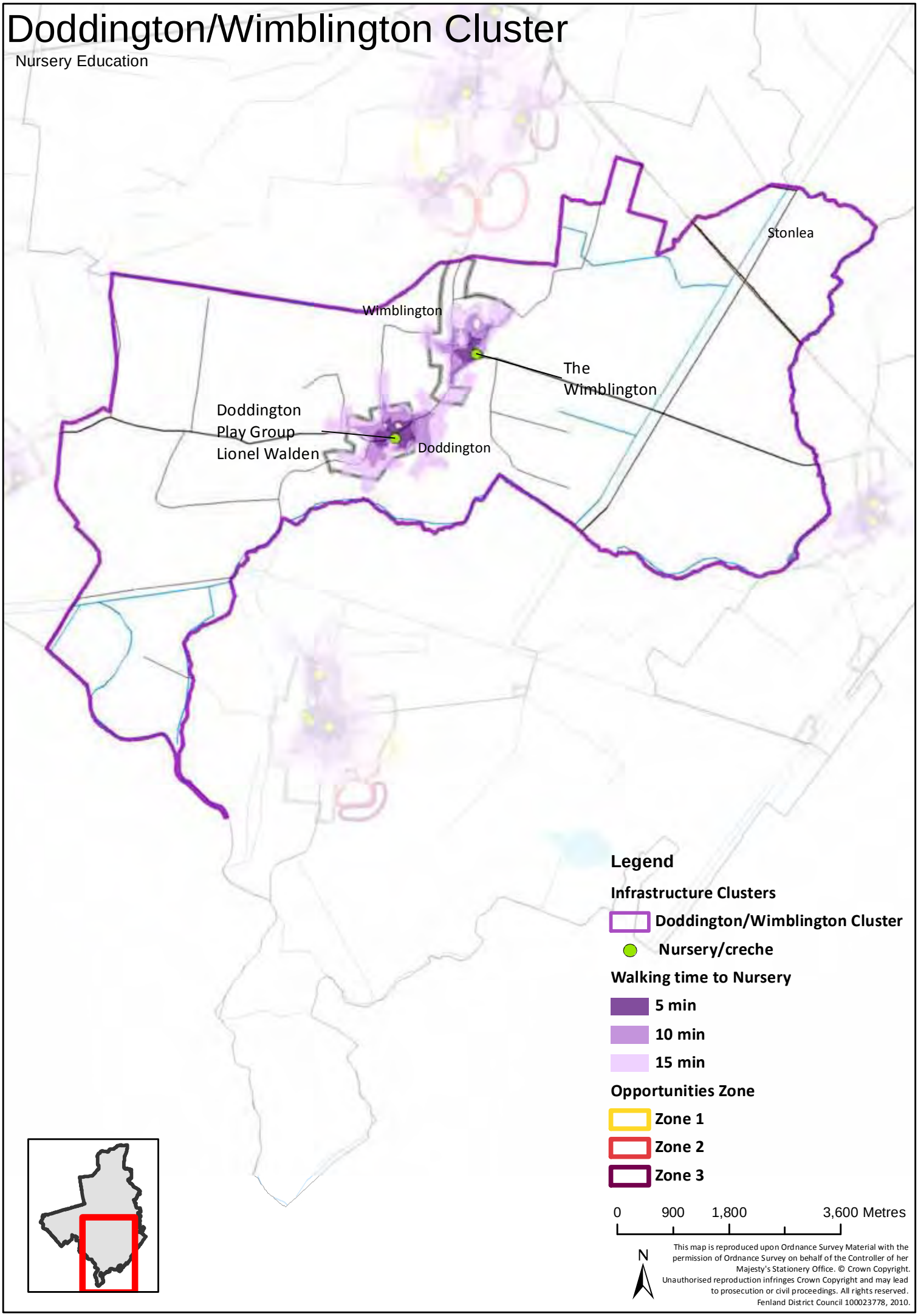
Chatteris Cluster

Emergency Services



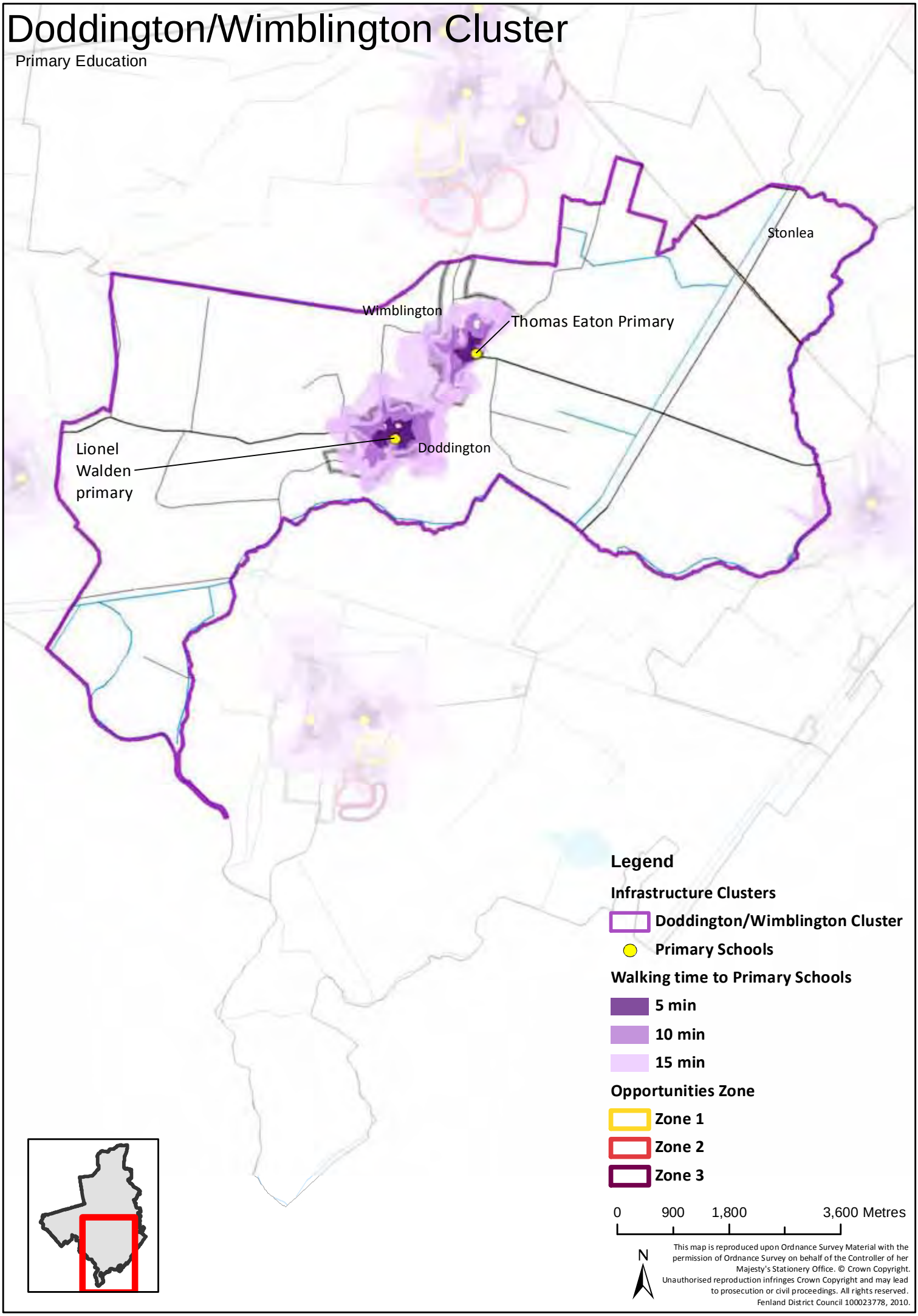
Doddington/Wimblington Cluster

Nursery Education



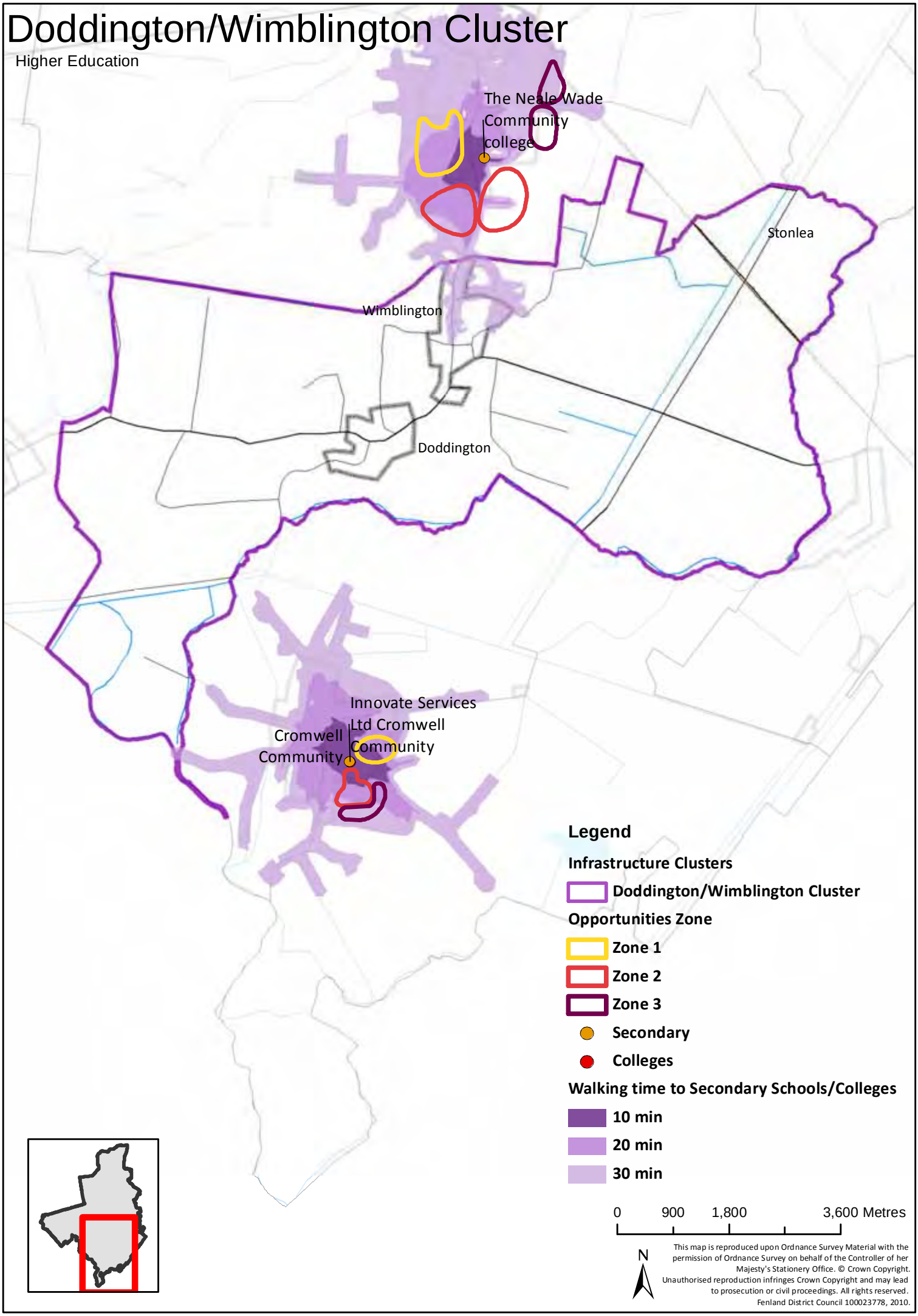
Doddington/Wimblington Cluster

Primary Education



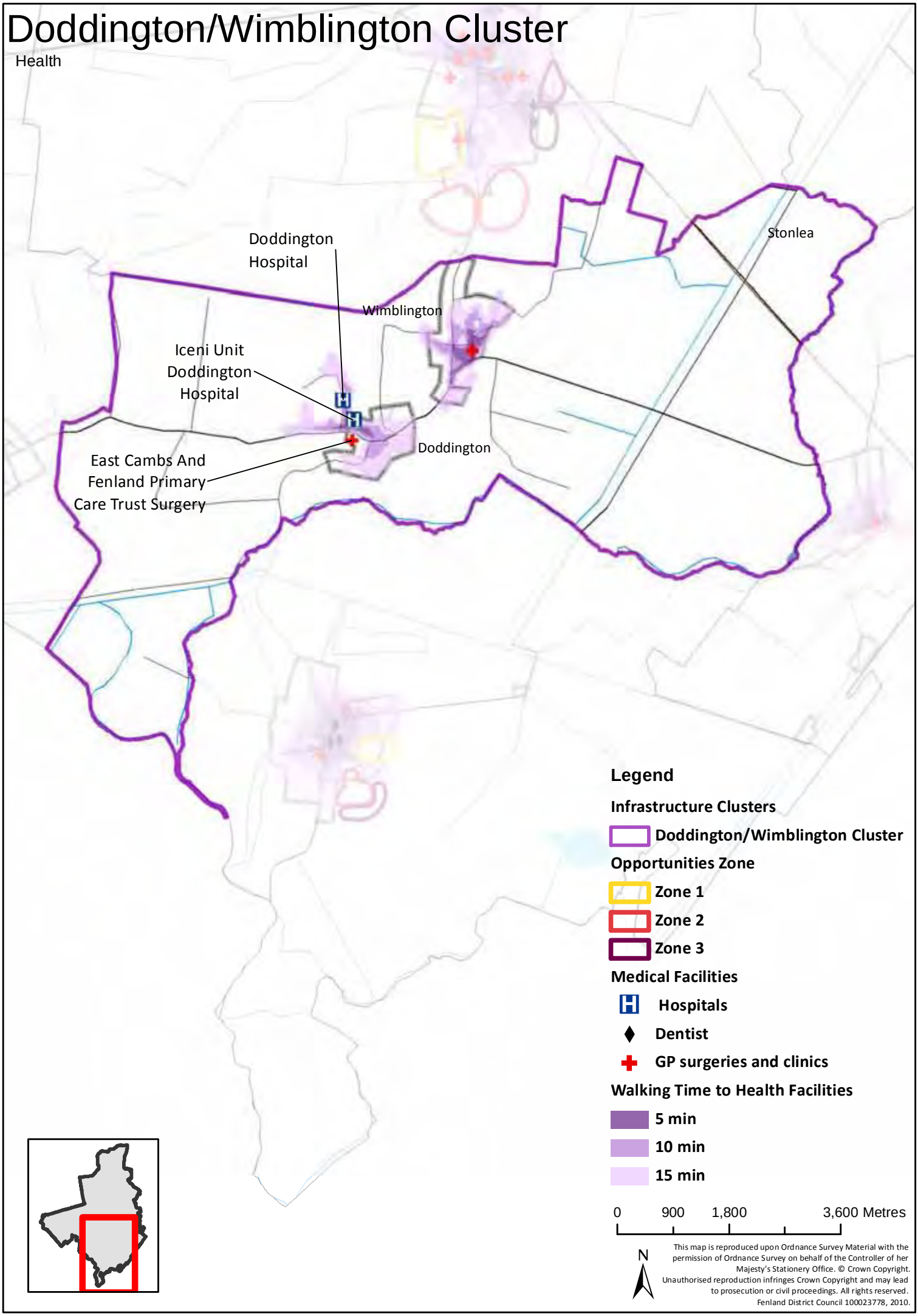
Doddington/Wimblington Cluster

Higher Education



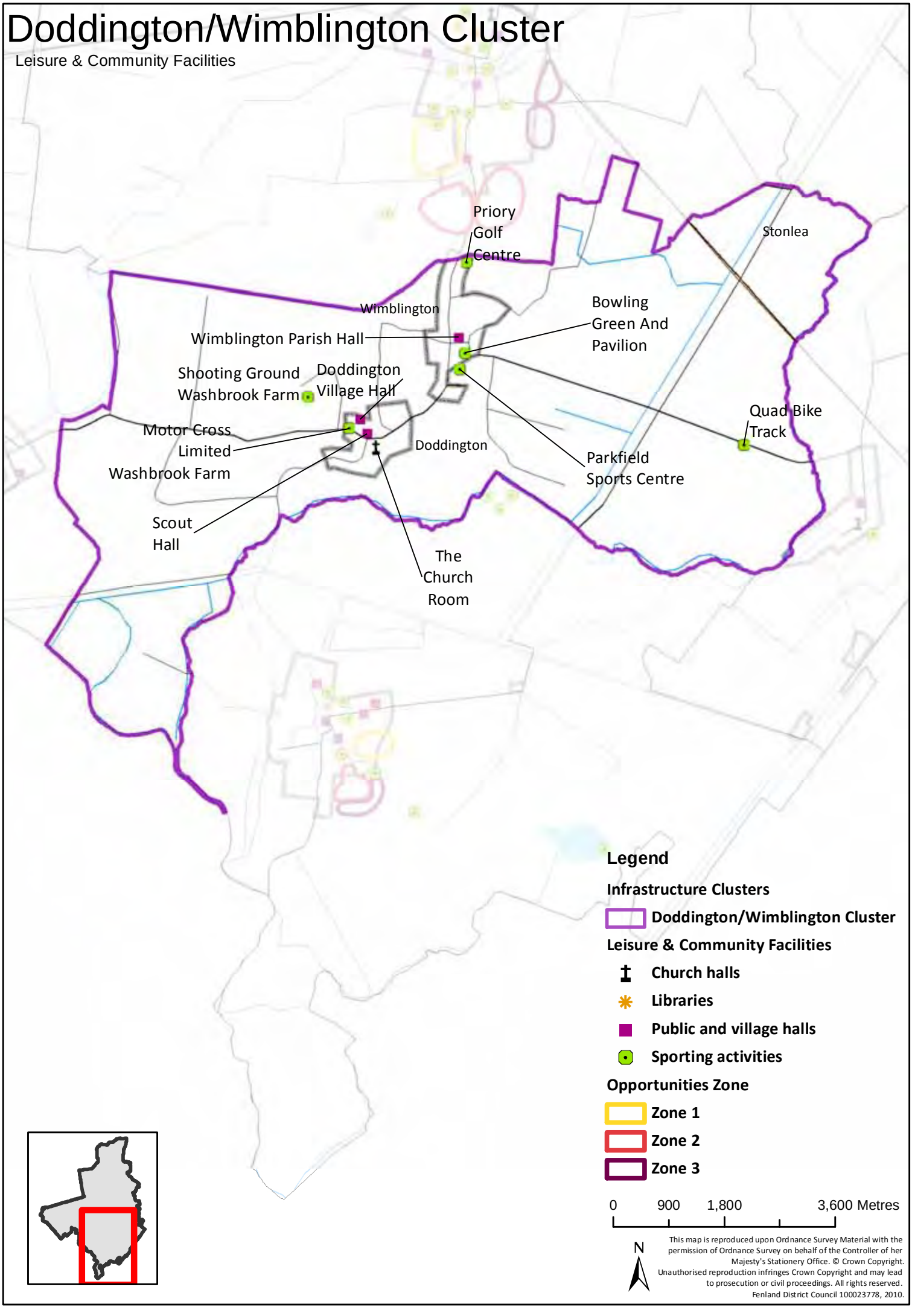
Doddington/Wimblington Cluster

Health



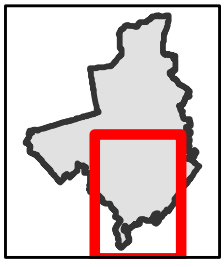
Doddington/Wimblington Cluster

Leisure & Community Facilities



Doddington/Wimblington Cluster

Open Space



Benwick

Legend

Infrastructure Clusters

- Doddington/Wimblington Cluster
- FDC Play Areas
- County Wildlife Sites
- Accessible Greenspace
- Allotments
- WaterBodies
- Open Spaces/Green Spaces

Opportunities Zone

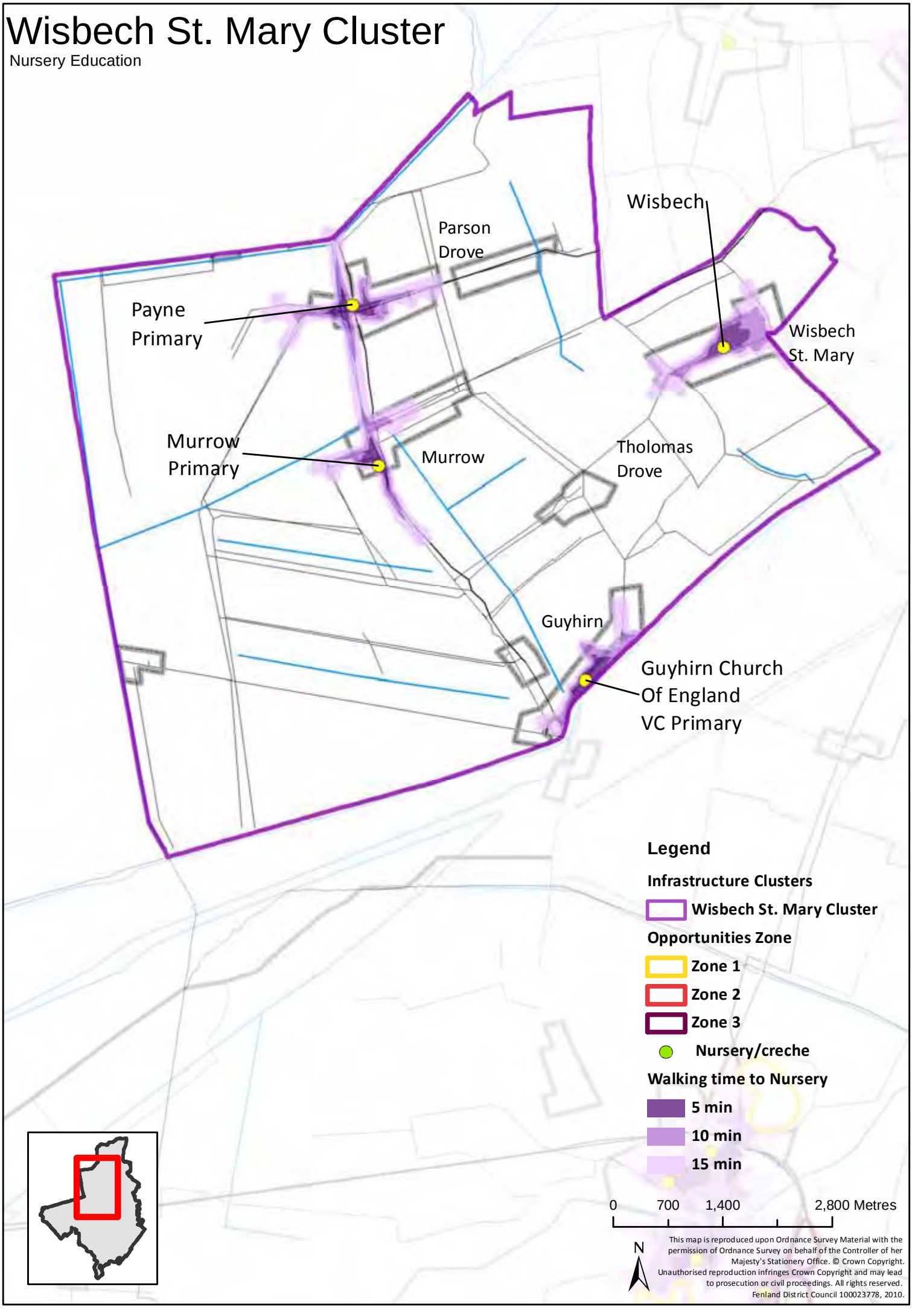
- Zone 1
- Zone 2
- Zone 3

0 900 1,800 3,600 Metres

N

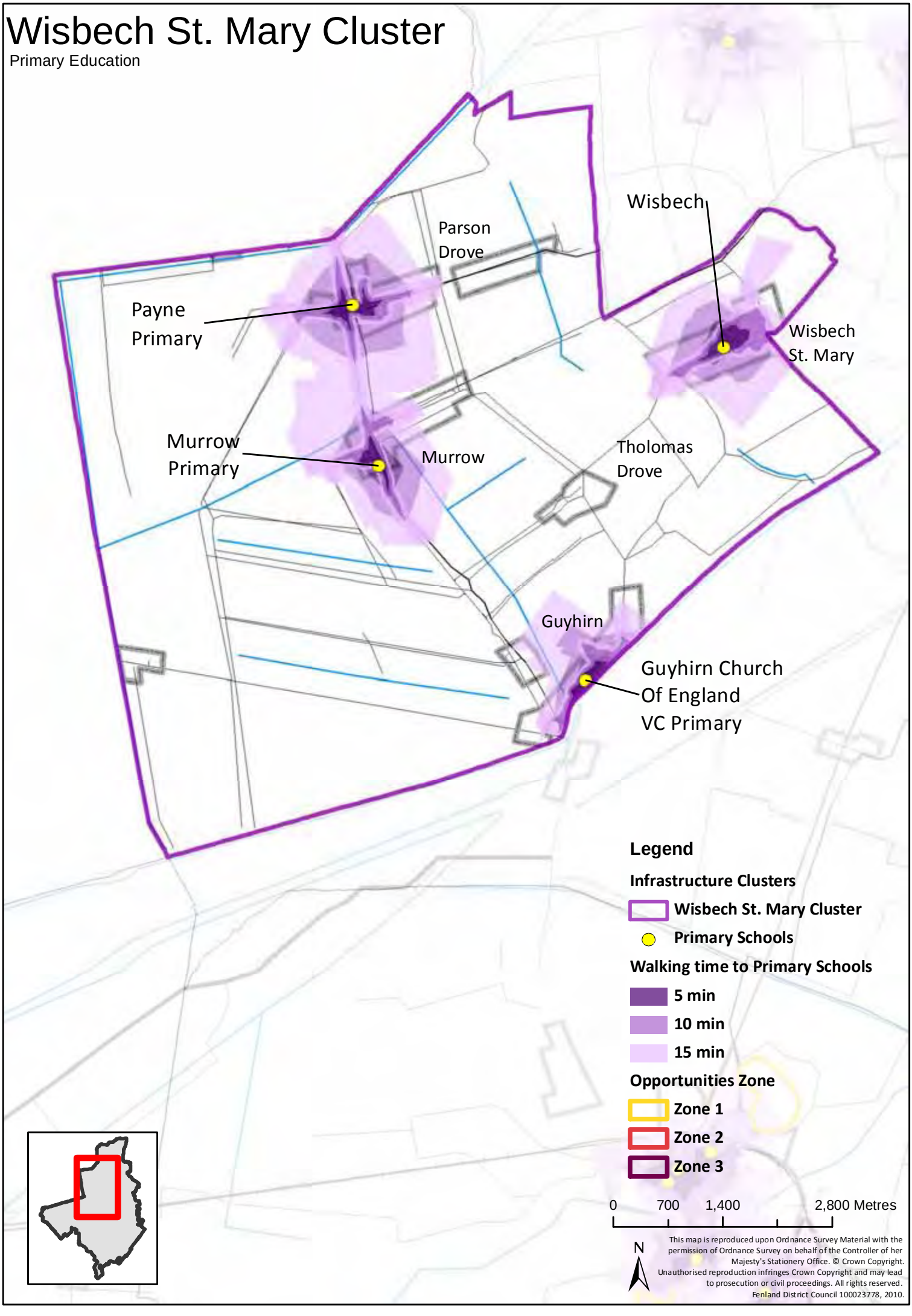
Wisbech St. Mary Cluster

Nursery Education



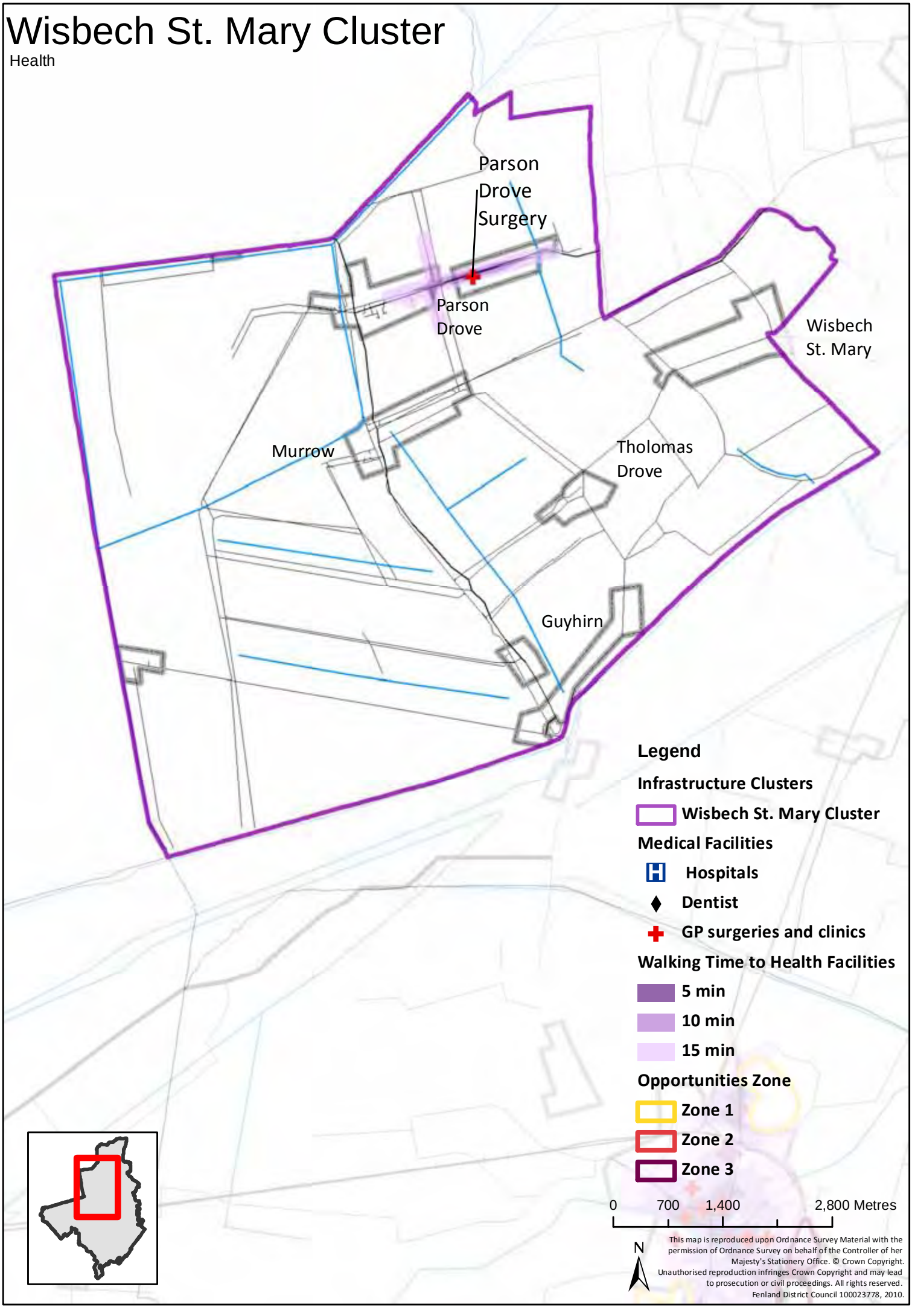
Wisbech St. Mary Cluster

Primary Education



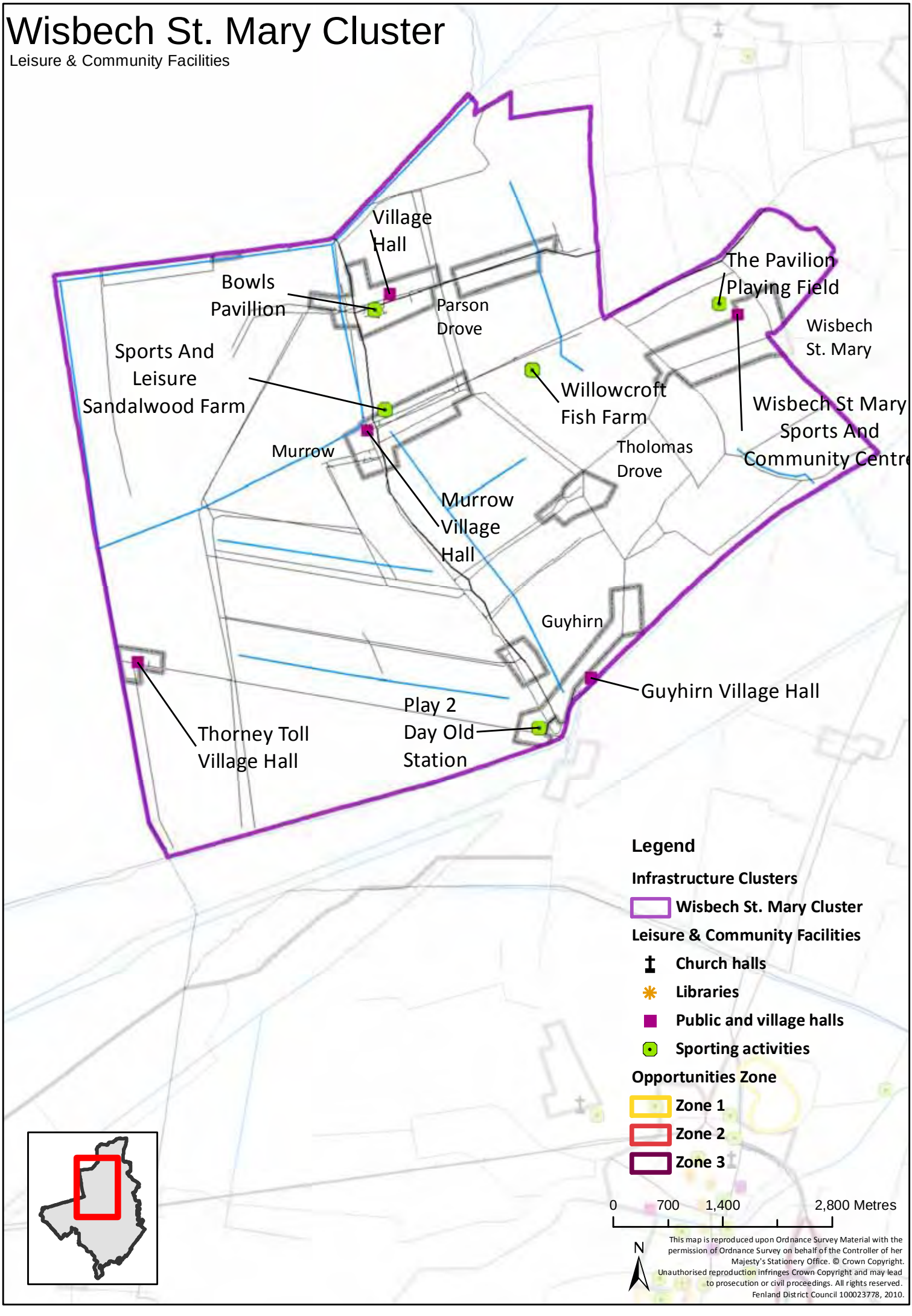
Wisbech St. Mary Cluster

Health



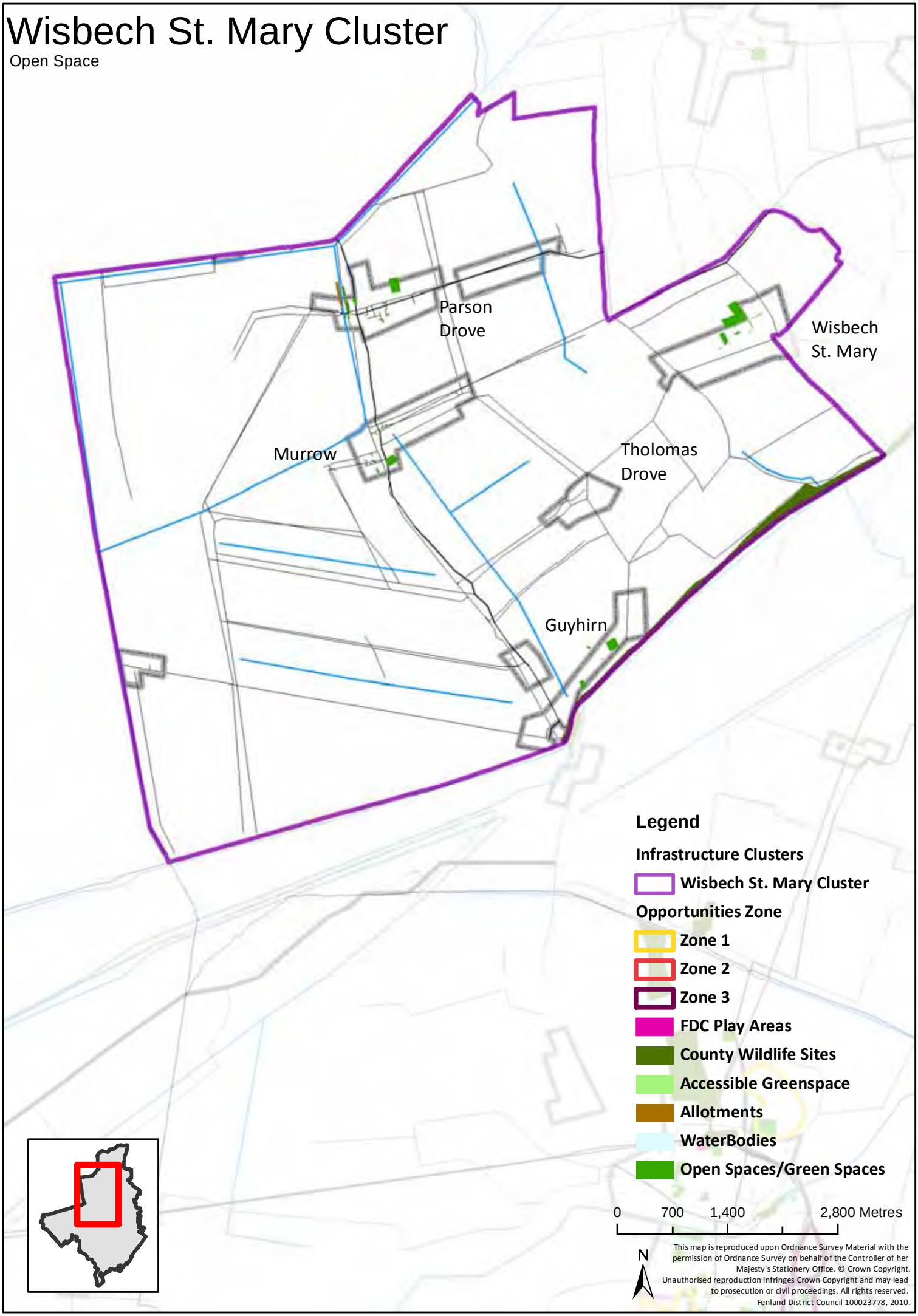
Wisbech St. Mary Cluster

Leisure & Community Facilities



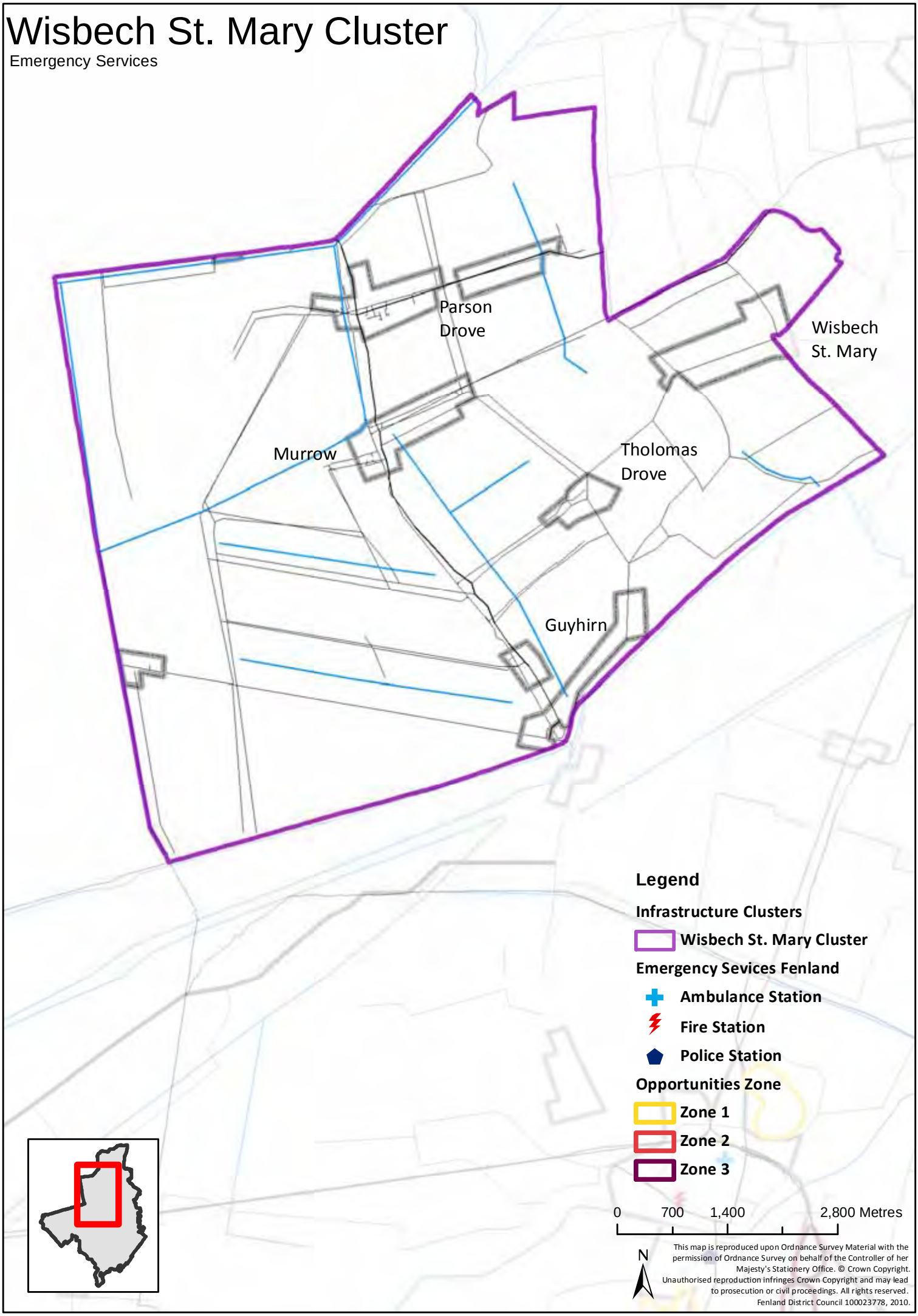
Wisbech St. Mary Cluster

Open Space



Wisbech St. Mary Cluster

Emergency Services



Appendix E

Social infrastructure assumptions and projected demand

Infrastructure requirements

Education

Early Years

Table E.1: Places per facility

Facility Type	Places per Facility
Pre-School	24
Nursery	>36

Source: Cambridgeshire County Council

E.1 Although the County Council do not have a 'policy' on early years and nursery provision, it is recommended that a pre-school be registered for 24 places and a day nursery to be registered for a minimum of 36. Although successful examples of smaller scale facilities exist, providers are advised that nursery or pre-school facilities with less than 16 places are likely to prove difficult to sustain.

E.2 The infrastructure model generates estimated child population trajectory and in order understand early years requirements associated with these numbers, it is assumed that 35.66% of children will require early years provision.

Table E.2: Percentage of Children Requiring Childcare Places:

	Cambridge City	South Cambridgeshire	Hunts	East Cambridgeshire	**Fenland**
% of population (0 - 4 years) requiring childcare	53.15%	51.46%	52.02%	45.01%	**35.66%**

Source: Cambridgeshire County Council

Of this provision, the County Council assumes the following childcare type split:

Table E.3: Childcare Type Split

	Cambridge City	South Cambridgeshire	Hunts	East Cambridgeshire	**Fenland**
Day Nursery (Full day care)	52.9%	40.82%	45.07%	31.76%	**20.35%**
Pre-school (inc Maintained Nursery Places)	38.71%	46.58%	44.3%	50.86%	**62.63%**
Childminder	8.39%	12.61%	10.62%	17.38%	**17.02%**

Source: Cambridgeshire County Council

Table E.4: Predicted demand by cluster and growth scenario: Nurseries

Clusters	Nurseries (36 places per facility)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.2	0.3	0.7
No housing growth	-0.2	-0.2	-0.2	-0.2
Minus spare places	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.8**	**-0.3**	**-0.3**	**0.1**
March cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.2	0.4	0.5
No housing growth	-0.1	-0.1	-0.1	-0.1
Minus spare places	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.5**	**-0.2**	**0.0**	**0.1**
Whittlesey cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2
Minus spare places	-0.3	-0.3	-0.3	-0.3
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.4**	**-0.3**	**-0.2**	**-0.1**
Chatteris cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
Minus spare places	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.5**	**-0.4**	**-0.3**	**-0.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				
SUB-TOTAL	**-0.0**	**-0.0**		**-0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**-0.0**		**-0.0**
TOTAL				
Capacities & windfalls		0.6	0.5	0.6
Opportunity Zones		0.5	1.0	1.6
No housing growth	-1.0	-1.0	-0.9	-0.6
Infrastructure led growth				0.0
Minus spare places	-1.6	-1.6	-1.6	-1.6
TOTAL	**-2.6**	**-1.5**	**-1.1**	**-0.1**

Table E.5: Predicted demand by cluster and growth scenario: Pre-school playgroups

Clusters	Pre-school playgroups (24 places per facility)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.1	1.1	1.1
Opportunity Zones		1.0	1.3	3.0
No housing growth	-1.1	-1.1	-1.1	-1.1
Minus spare places	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-1.3**	**0.8**	**1.2**	**2.9**
March cluster				
Capacities & windfalls		0.6	0.6	0.6
Opportunity Zones		1.1	2.1	2.5
No housing growth	-0.7	-0.7	-0.7	-0.7
Minus spare places	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.9**	**0.8**	**1.8**	**2.2**
Whittlesey cluster				
Capacities & windfalls		0.4	0.4	0.4
Opportunity Zones		0.2	0.6	0.8
Minus spare places	-0.4	-0.4	-0.4	-0.4
No housing growth	-0.5	-0.5	-0.5	-0.5
SUB-TOTAL	**-0.9**	**-0.3**	**0.0**	**0.3**
Chatteris cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.2	0.5	0.8
No housing growth	-0.3	-0.3	-0.3	-0.3
Minus spare places	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.5**	**0.0**	**0.3**	**0.6**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.1
SUB-TOTAL	**-0.2**	**-0.0**		**0.1**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.1
SUB-TOTAL	**-0.0**	**0.0**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**-0.0**		**0.1**
TOTAL				
Capacities & windfalls		2.7	2.4	2.7
Opportunity Zones		2.5	4.4	7.2
No housing growth	-2.6	-2.6	-2.2	-2.9
Minus spare places	-1.0	-1.0	-1.0	-1.0
Infrastructure led growth				0.3
TOTAL	-1.0	-1.0	-1.0	6.2

Table E.6: Predicted demand by cluster and growth scenario: Childminders

Clusters	Childminders (average of 4 places per childminder)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.8	1.8	1.8
Opportunity Zones		1.6	2.1	4.9
No housing growth	-1.7	-1.7	-1.7	-1.7
SUB-TOTAL	**-1.7**	**1.7**	**2.2**	**5.0**
March cluster				
Capacities & windfalls		0.9	0.9	0.9
Opportunity Zones		1.7	3.4	4.1
No housing growth	-1.1	-1.1	-1.1	-1.1
SUB-TOTAL	**-1.1**	**1.6**	**3.2**	**4.0**
Whittlesey cluster				
Capacities & windfalls		0.6	0.6	0.6
Opportunity Zones		0.4	0.9	1.3
No housing growth	-0.8	-0.8	-0.8	-0.8
SUB-TOTAL	**-0.8**	**0.1**	**0.7**	**1.1**
Chatteris cluster				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones		0.4	0.8	1.4
No housing growth	-0.5	-0.5	-0.5	-0.5
SUB-TOTAL	**-0.5**	**0.4**	**0.8**	**1.3**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.2
SUB-TOTAL	**-0.3**	**-0.1**		**0.1**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.1**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.2
SUB-TOTAL	**-0.2**	**-0.0**		**0.2**
TOTAL				
Capacities & windfalls		4.4	3.9	4.4
Opportunity Zones		4.1	7.2	11.7
No housing growth	-4.2	-4.2	-3.6	-4.7
Infrastructure led growth				0.5
TOTAL	**-4.2**	**4.3**	**7.5**	**11.9**

Table E.7: Direct predicted demand of opportunity zones: Nurseries

Opportunity Zones	Nurseries (36 places per facility)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.2	0.1	0.4	0.7
March cluster	0.2	0.2	0.1	0.5
Whittlesey cluster	0.1	0.1	0.1	0.2
Chatteris cluster	0.1	0.1	0.1	0.2
TOTAL	**0.5**	**0.4**	**0.6**	**1.6**

Table E.8: Direct predicted demand of opportunity zones: Pre-school playgroups

Opportunity Zones	Pre-school playgroups (24 places per facility)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	1.0	0.3	1.7	3.0
March cluster	1.1	1.0	0.4	2.5
Whittlesey cluster	0.2	0.3	0.2	0.8
Chatteris cluster	0.2	0.2	0.4	0.8
TOTAL	**2.5**	**1.9**	**2.7**	**7.2**

Table E.9: Direct predicted demand of opportunity zones: Childminders

Opportunity Zones	Childminders (average of 4 places per childminder)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	1.6	0.6	2.8	4.9
March cluster	1.7	1.6	0.7	4.1
Whittlesey cluster	0.4	0.6	0.4	1.3
Chatteris cluster	0.4	0.4	0.6	1.4
TOTAL	**4.1**	**3.1**	**4.5**	**11.7**

Primary schools

E.3 CCC's preference is for 'all-through' primary schools serving the 4–11 yrs range. Cambridgeshire's policy is to establish new primary schools between 1FE and 3FE in size. CCC would also consider the viability of smaller primary schools should they be needed. It has recently opened a primary school for 120 pupils, built in response to a new housing development, but with room to expand to eventually become a 210 place primary school.

E.4 Not all students will make use of local authority education services, some will be home tutored, some in private education and some may head into different authority areas to be schooled. However, CCC Education, Buildings, Capital & Infrastructure team have advised that for the purposes of this study, this kind of leakage should be considered to be 0%.

Table E.10: Direct predicted demand of opportunity zones: Primary Schools

Opportunity Zones	**Primary School - Forms of Entry (210 places per FE)**			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	2.4	0.8	4.2	7.5
March cluster	2.7	2.5	1.1	6.2
Whittlesey cluster	0.6	0.8	0.6	2.1
Chatteris cluster	0.6	0.6	0.9	2.1
TOTAL	**6.3**	**4.8**	**6.8**	**17.9**

Table E.11: Predicted demand by cluster and growth scenario: Primary Schools

Clusters	**Primary School - Forms of Entry (210 places per FE)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		2.8	2.8	2.8
Opportunity Zones		2.4	3.3	7.5
No housing growth	-4.0	-4.0	-4.0	-4.0
SUB-TOTAL	**-4.0**	**1.2**	**2.0**	**6.3**
March cluster				
Capacities & windfalls		1.4	1.4	1.4
Opportunity Zones		2.7	5.2	6.2
No housing growth	-2.5	-2.5	-2.5	-2.5
SUB-TOTAL	**-2.5**	**1.6**	**4.1**	**5.2**
Whittlesey cluster				
Capacities & windfalls		0.9	0.9	0.9
Opportunity Zones		0.6	1.5	2.1
No housing growth	-2.0	-2.0	-2.0	-2.0
SUB-TOTAL	**-2.0**	**-0.6**	**0.3**	**0.9**
Chatteris cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity Zones		0.6	1.2	2.1
No housing growth	-1.2	-1.2	-1.2	-1.2
SUB-TOTAL	**-1.2**	**0.2**	**0.8**	**1.7**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.4		0.4
No housing growth	-0.7	-0.7		-0.7
Infrastructure led growth				0.3

SUB-TOTAL	**-0.7**	**-0.3**		**0.0**
Manea cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.1
SUB-TOTAL	**-0.3**	**-0.1**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.6	-0.6		-0.6
Infrastructure led growth				0.4
SUB-TOTAL	**-0.6**	**-0.4**		**0.0**
TOTAL				
Capacities & windfalls		6.7	5.9	6.7
Opportunity Zones		6.3	11.1	17.9
No housing growth	-11.3	-11.3	-9.7	-11.3
Infrastructure led growth				0.8
TOTAL	**-11.3**	**1.7**	**7.3**	**14.1**

Secondary schools

E.5 CCC has a preference for secondary schools providing for the 11 -16 age range to be between 4 forms of entry (600 places) and 11 forms of entry (1650 places). The site area required would be approximately 1 hectare for each form of entry.

E.6 Not all students will make use of local authority education services, some will be home tutored, some in private education and some may head into different authority areas to be schooled. However, CCC Education, Buildings, Capital & Infrastructure team have advised that for the purposes of this study, this kind of leakage should be considered to be 0%.

Table E.12: Direct predicted demand of opportunity zones: Secondary Schools

Opportunity Zones	**Secondary School - Forms of Entry (150 places per FE)**			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	2.2	0.8	3.9	6.9
March cluster	2.4	2.3	1.0	5.7
Whittlesey cluster	0.6	0.8	0.6	1.9
Chatteris cluster	0.6	0.6	0.8	1.9
TOTAL	**5.8**	**4.4**	**6.3**	**16.4**

Table E.13: Predicted demand by cluster and growth scenario: Secondary Schools

Clusters	**Secondary School - Forms of Entry (150 places per FE)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech and Wisbech St Mary's Clusters				
Capacities & windfalls		2.9	2.6	2.9
Opportunity zones & infrastructure led growth		2.2	3.0	7.2
No housing growth	-7.5	-7.5	-6.5	-7.5
SUB-TOTAL	**-7.5**	**-2.4**	**-0.9**	**2.6**
March cluster				
Capacities & windfalls		1.3	1.3	1.3
Opportunity zones		2.4	4.7	5.7
No housing growth	-4.1	-4.1	-4.1	-4.1

SUB-TOTAL	**-4.1**	**-0.4**	**1.9**	**2.9**
Whittlesey cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity zones		0.6	1.3	1.9
No housing growth	-3.5	-3.5	-3.5	-3.5
SUB-TOTAL	**-3.5**	**-2.2**	**-1.4**	**-0.8**
Chatteris, Manea and Doddington / Wimblington cluster				
Capacities & windfalls		1.1	0.7	1.1
Opportunity zones & infrastructure led growth		0.6	1.1	2.4
No housing growth	-3.4	-3.4	-2.2	-3.4
SUB-TOTAL	**-3.4**	**-1.8**	**-0.4**	**0.1**
TOTAL				
Capacities & windfalls		6.1	5.4	6.1
Opportunity zones & infrastructure led growth		5.8	10.2	17.2
No housing growth	-18.6	-18.6	-16.4	-18.6
TOTAL	**-18.6**	**-6.7**	**-0.8**	**4.7**

Healthcare

Table E.14: Predicted demand by cluster and growth scenario: Primary Care (GPs)

Clusters	**General Practitioners (GPs)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		2.8	2.8	2.8
Opportunity Zones		2.4	3.3	7.5
No housing growth	-1.9	-1.9	-1.9	-1.9
SUB-TOTAL	**-1.9**	**3.3**	**4.2**	**8.4**
March cluster				
Capacities & windfalls		1.5	1.5	1.5
Opportunity Zones		2.7	5.2	6.3
No housing growth	-0.9	-0.9	-0.9	-0.9
SUB-TOTAL	**-0.9**	**3.2**	**5.7**	**6.8**
Whittlesey cluster				
Capacities & windfalls		0.9	0.9	0.9
Opportunity Zones		0.6	1.5	2.1
No housing growth	-1.1	-1.1	-1.1	-1.1
SUB-TOTAL	**-1.1**	**0.4**	**1.3**	**1.9**
Chatteris cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity Zones		0.6	1.2	2.1
No housing growth	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.6**	**0.7**	**1.3**	**2.3**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.4		0.4
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.3
SUB-TOTAL	**-0.3**	**0.1**		**0.4**
Manea cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.1

SUB-TOTAL	**-0.2**	**0.0**		**0.2**
Wimblington / Doddington cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.4
SUB-TOTAL	**-0.3**	**-0.0**		**0.3**
TOTAL				
Capacities & windfalls		6.7	5.9	6.7
Opportunity Zones		6.3	11.1	18.0
No housing growth	-5.2	-5.2	-4.5	-5.2
Infrastructure led growth				0.8
TOTAL	**-5.2**	**7.8**	**12.5**	**20.3**

Table E.15: Predicted demand by cluster and growth scenario: Dentists

Clusters	**Dentists**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		2.6	2.6	2.6
Opportunity Zones		2.3	3.0	7.0
No housing growth	-1.8	-1.8	-1.8	-1.8
SUB-TOTAL	**-1.8**	**3.1**	**3.9**	**7.8**
March cluster				
Capacities & windfalls		1.3	1.3	1.3
Opportunity Zones		2.5	4.8	5.8
No housing growth	-0.8	-0.8	-0.8	-0.8
SUB-TOTAL	**-0.8**	**3.0**	**5.3**	**6.3**
Whittlesey cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity Zones		0.6	1.4	1.9
No housing growth	-1.0	-1.0	-1.0	-1.0
SUB-TOTAL	**-1.0**	**0.4**	**1.2**	**1.7**
Chatteris cluster				
Capacities & windfalls		0.7	0.7	0.7
Opportunity Zones		0.6	1.1	2.0
No housing growth	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.6**	**0.7**	**1.2**	**2.1**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.3		0.3
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.3
SUB-TOTAL	**-0.3**	**0.1**		**0.3**
Manea cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.1
SUB-TOTAL	**-0.2**	**0.0**		**0.2**
Wimblington / Doddington cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.3
SUB-TOTAL	**-0.2**	**-0.0**		**0.3**
TOTAL				
Capacities & windfalls		6.2	5.5	6.2
Opportunity Zones		5.9	10.3	16.7

No housing growth	-4.9	-4.9	-4.2	-4.9
Infrastructure led growth				0.7
TOTAL	**-4.9**	**7.2**	**11.6**	**18.7**

Table E.16: Predicted demand by cluster and growth scenario: Pharmacies

Clusters	**Pharmacies**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.0	1.0	1.0
Opportunity Zones		0.9	1.2	2.8
No housing growth	-0.7	-0.7	-0.7	-0.7
SUB-TOTAL	**-0.7**	**1.2**	**1.5**	**3.1**
March cluster				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones		1.0	1.9	2.3
No housing growth	-0.3	-0.3	-0.3	-0.3
SUB-TOTAL	**-0.3**	**1.2**	**2.1**	**2.5**
Whittlesey cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.2	0.5	0.8
No housing growth	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.4**	**0.2**	**0.5**	**0.7**
Chatteris cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.2	0.5	0.8
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.3**	**0.5**	**0.8**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**-0.0**		**0.1**
TOTAL				
Capacities & windfalls		2.5	2.2	2.5
Opportunity Zones		2.3	4.1	6.7
No housing growth	-1.9	-1.9	-1.7	-1.9
Infrastructure led growth				0.3
TOTAL	**-1.9**	**2.9**	**4.6**	**7.5**

Table E.17: Direct predicted demand of opportunity zones: Primary Care (GPs)

Opportunity Zones	General Practitioners (GPs)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	2.4	0.9	4.3	7.5
March cluster	2.7	2.5	1.1	6.3
Whittlesey cluster	0.6	0.9	0.6	2.1
Chatteris cluster	0.6	0.6	0.9	2.1
TOTAL	**6.3**	**4.8**	**6.9**	**18.0**

Table E.18: Direct predicted demand of opportunity zones: Dentists

Opportunity Zones	Dentists			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	2.3	0.8	3.9	7.0
March cluster	2.5	2.3	1.0	5.8
Whittlesey cluster	0.6	0.8	0.6	1.9
Chatteris cluster	0.6	0.6	0.8	2.0
TOTAL	**5.9**	**4.4**	**6.4**	**16.7**

Table E.19: Direct predicted demand of opportunity zones: Pharmacies

Opportunity Zones	Pharmacies			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.9	0.3	1.6	2.8
March cluster	1.0	0.9	0.4	2.3
Whittlesey cluster	0.2	0.3	0.2	0.8
Chatteris cluster	0.2	0.2	0.3	0.8
TOTAL	**2.3**	**1.8**	**2.5**	**6.7**

Sports space and facilities

E.7 Standards from the Fenland Sports Facilities; Current and Future Demand Analysis has been used to determine what level of sports facilities are required to ensure that housing growth scenarios does not place additional pressure on existing facilities.

Table E.20: Sports Facilities Quantity Standards

Facility	Standard	Minimum Unit Size Assumption
Sports halls	one 4 court sports hall per 14,000 (or 43.7m2 per 1000 people / 0.0437 m2 per person).	Minimum unit size is one court per 3,500 people
Swimming pools	one 4 lane, 25m pool per 22,500 people (or 9.4 m2 per 1000 people / 0.0094 m2 per person)	Minimum unit size is a 4 lane pool per 22,500 people

Health and Fitness	one 50 station centre per 9,000 people (or 5.5 stations per 1000 people).	Minimum unit site is 50 centre sports facility per 9000 people
Indoor Bowls	one 6 rink centre per 42,000 people (or 0.14 rinks per 1000 people)	Minimum unit size is 1 rink per 7000 people
Synthetic Turf Pitches	1 full size pitch per 23,000 people (or 0.04 pitches per 1000 people)	Minimum unit size is 1 pitch per 23,000 people
Indoor tennis	one 4 court centre per 100,000 people (or 0.04 courts per 1000 people)	Minimum unit size is 1 court per 25,000 people
Athletics	one 4 lane track per 80,000 people (or 0.05 lanes per 1000 people)	Minimum unit size is a 4 lane track per 80,000 people

Source: Fenland Sports Facilities; Current and Future Demand Analysis

E.8 All facilities should be built to conform to the design and layout requirements of Sport England or the relevant National Governing Body of Sport.

E.9 Research conducted by Sport England (in connection with data gathering for its FPM and other tools) suggests that users of sports halls and swimming pools are prepared to travel up to 20 minutes (mainly by car) to use these facilities on a regular basis, although the majority of trips will take significantly less. The accessibility criterion should therefore be that all residents of Fenland should live within 20 minutes of each type of facility, but with encouragement for use of non-motorised trips and public transport as much as possible.

E.10 Tables E.21 – E.26 set out the infrastructure requirements for the following types of facility:

- Swimming pools
- Sports Courts
- Health and fitness centre
- Synthetic Turf Pitches
- Indoor tennis
- Athletics

Table E.21: Predicted demand by cluster and growth scenario: Swimming pools

Clusters	**Swimming pools (4-lane 25-metre pool)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.2	0.3	0.6
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.3**	**0.3**	**0.7**
March cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.2	0.4	0.5
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.3**	**0.5**	**0.6**
Whittlesey cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2

No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.0**	**0.1**	**0.2**
Chatteris cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.1**	**0.1**	**0.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**-0.0**		**0.0**
TOTAL				
Capacities & windfalls		0.6	0.5	0.6
Opportunity Zones		0.5	0.9	1.5
No housing growth	-0.4	-0.4	-0.4	-0.4
Infrastructure led growth				0.1
TOTAL	**-0.4**	**0.6**	**1.0**	**1.7**

Table E.22: Predicted demand by cluster and growth scenario: Sports Courts

Clusters	**Sport Courts**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.5	1.5	1.5
Opportunity Zones		1.3	1.7	4.0
No housing growth	-1.0	-1.0	-1.0	-1.0
SUB-TOTAL	**-1.0**	**1.8**	**2.2**	**4.5**
March cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity Zones		1.4	2.7	3.3
No housing growth	-0.5	-0.5	-0.5	-0.5
SUB-TOTAL	**-0.5**	**1.7**	**3.0**	**3.6**
Whittlesey cluster				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones		0.3	0.8	1.1
No housing growth	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.6**	**0.2**	**0.7**	**1.0**
Chatteris cluster				
Capacities & windfalls		0.4	0.4	0.4
Opportunity Zones		0.3	0.6	1.1
No housing growth	-0.3	-0.3	-0.3	-0.3
SUB-TOTAL	**-0.3**	**0.4**	**0.7**	**1.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.2

SUB-TOTAL	**-0.2**	**0.0**		**0.2**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.2
SUB-TOTAL	**-0.1**	**-0.0**		**0.2**
TOTAL				
Capacities & windfalls		3.5	3.1	3.5
Opportunity Zones		3.3	5.9	9.5
No housing growth	-2.8	-2.8	-2.4	-2.8
Infrastructure led growth				0.4
TOTAL	**-2.8**	**4.1**	**6.6**	**10.7**

Table E.23: Predicted demand by cluster and growth scenario: Health and fitness centre

Clusters	**Health and Fitness Centre (1 centre = 50 fitness stations)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.6	0.6	0.6
Opportunity Zones		0.5	0.7	1.6
No housing growth	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.4**	**0.7**	**0.9**	**1.7**
March cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.6	1.1	1.3
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.7**	**1.2**	**1.4**
Whittlesey cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.1	0.3	0.4
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.1**	**0.3**	**0.4**
Chatteris cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.1	0.3	0.4
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.2**	**0.3**	**0.5**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**-0.0**		**0.1**

TOTAL				
Capacities & windfalls		1.4	1.2	1.4
Opportunity Zones		1.3	2.3	3.7
No housing growth	-1.1	-1.1	-0.9	-1.1
Infrastructure led growth				0.2
TOTAL	**-1.1**	**1.6**	**2.6**	**4.2**

Table E.24: Predicted demand by cluster and growth scenario: Synthetic Turf Pitch

Clusters	**Synthetic Turf Pitch**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.2	0.3	0.6
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.3**	**0.3**	**0.7**
March cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.2	0.4	0.5
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.3**	**0.5**	**0.5**
Whittlesey cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.0	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.0**	**0.1**	**0.2**
Chatteris cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.0	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.1**	**0.1**	**0.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**-0.0**		**0.0**
TOTAL				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones		0.5	0.9	1.4
No housing growth	-0.4	-0.4	-0.4	-0.4
Infrastructure led growth				0.1
TOTAL	**-0.4**	**0.6**	**1.0**	**1.6**

Table E.25: Predicted demand by cluster and growth scenario: Indoor Tennis

Clusters	Indoor Tennis (1 court)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.2	0.2	0.6
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.2**	**0.3**	**0.6**
March cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.2	0.4	0.5
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.2**	**0.4**	**0.5**
Whittlesey cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.0	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.0**	**0.1**	**0.1**
Chatteris cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.0	0.1	0.2
No housing growth	-0.0	-0.0	-0.0	-0.0
SUB-TOTAL	**-0.0**	**0.1**	**0.1**	**0.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**-0.0**		**0.0**
TOTAL				
Capacities & windfalls		0.5	0.4	0.5
Opportunity Zones		0.5	0.8	1.3
No housing growth	-0.4	-0.4	-0.3	-0.4
Infrastructure led growth				0.1
TOTAL	**-0.4**	**0.6**	**0.9**	**1.5**

Table E.26: Predicted demand by cluster and growth scenario: Athletics

Clusters	Athletics (4-lane athletics track)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2
No housing growth	-0.0	-0.0	-0.0	-0.0
SUB-TOTAL	**-0.0**	**0.1**	**0.1**	**0.2**
March cluster				
Capacities & windfalls		0.0	0.0	0.0
Opportunity Zones		0.1	0.1	0.1
No housing growth	-0.0	-0.0	-0.0	-0.0
SUB-TOTAL	**-0.0**	**0.1**	**0.1**	**0.2**
Whittlesey cluster				
Capacities & windfalls		0.0	0.0	0.0
Opportunity Zones		0.0	0.0	0.0
No housing growth	-0.0	-0.0	-0.0	-0.0
SUB-TOTAL	**-0.0**	**0.0**	**0.0**	**0.0**
Chatteris cluster				
Capacities & windfalls		0.0	0.0	0.0
Opportunity Zones		0.0	0.0	0.0
No housing growth	-0.0	-0.0	-0.0	-0.0
SUB-TOTAL	**-0.0**	**0.0**	**0.0**	**0.1**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	0.0	0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**0.0**	**0.0**		**0.0**
TOTAL				
Capacities & windfalls		0.2	0.1	0.2
Opportunity Zones		0.1	0.3	0.4
No housing growth	-0.1	-0.1	-0.1	-0.1
Infrastructure led growth				0.0
TOTAL	**-0.1**	**0.2**	**0.3**	**0.5**

Direct predicted demand of opportunity zones

E.11 Tables E.27 – E.32 set out the direct infrastructure requirements of the opportunity zones, for the following types of facility:

- Swimming pools
- Sports Courts
- Health and fitness centre
- Synthetic Turf Pitches
- Indoor tennis

- Athletics

Table E.27: Direct predicted demand of opportunity zones: Swimming pools

Opportunity Zones	Swimming pools (4-lane 25-metre pool)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.2	0.1	0.4	0.6
March cluster	0.2	0.2	0.1	0.5
Whittlesey cluster	0.1	0.1	0.1	0.2
Chatteris cluster	0.1	0.1	0.1	0.2
TOTAL	**0.5**	**0.4**	**0.6**	**1.5**

Table E.28: Direct predicted demand of opportunity zones: Sports Courts

Opportunity Zones	Sport Courts			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	1.3	0.5	2.3	4.0
March cluster	1.4	1.3	0.6	3.3
Whittlesey cluster	0.3	0.5	0.3	1.1
Chatteris cluster	0.3	0.3	0.5	1.1
TOTAL	**3.3**	**2.5**	**3.6**	**9.5**

Table E.29: Direct predicted demand of opportunity zones: Indoor Bowls Rinks

Opportunity Zones	Indoor Bowls Rinks (6 rinks per facility)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.6	0.2	1.1	2.0
March cluster	0.7	0.7	0.3	1.7
Whittlesey cluster	0.2	0.2	0.2	0.5
Chatteris cluster	0.2	0.2	0.2	0.6
TOTAL	**1.7**	**1.3**	**1.8**	**4.8**

Table E.30: Direct predicted demand of opportunity zones: Health and Fitness Centres

Opportunity Zones	Health and Fitness Centre (1 centre = 50 fitness stations)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.5	0.2	0.9	1.6
March cluster	0.6	0.5	0.2	1.3
Whittlesey cluster	0.1	0.2	0.1	0.4
Chatteris cluster	0.1	0.1	0.2	0.4
TOTAL	**1.3**	**1.0**	**1.4**	**3.7**

Table E.31: Direct predicted demand of opportunity zones: Synthetic Turf Pitches

Opportunity Zones	Synthetic Turf Pitch			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.2	0.1	0.3	0.6
March cluster	0.2	0.2	0.1	0.5
Whittlesey cluster	0.0	0.1	0.0	0.2
Chatteris cluster	0.0	0.0	0.1	0.2
TOTAL	**0.5**	**0.4**	**0.6**	**1.4**

Table E.32: Direct predicted demand of opportunity zones: Indoor Tennis Courts

Opportunity Zones	Indoor Tennis (1 court)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.2	0.1	0.3	0.6
March cluster	0.2	0.2	0.1	0.5
Whittlesey cluster	0.0	0.1	0.0	0.2
Chatteris cluster	0.0	0.0	0.1	0.2
TOTAL	**0.5**	**0.4**	**0.5**	**1.3**

Table E.33: Direct predicted demand of opportunity zones: Athletics

Opportunity Zones	Athletics (4-lane athletics track)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.1	0.0	0.1	0.2
March cluster	0.1	0.1	0.0	0.1
Whittlesey cluster	0.0	0.0	0.0	0.0
Chatteris cluster	0.0	0.0	0.0	0.0
TOTAL	**0.1**	**0.1**	**0.2**	**0.4**

Open space and green infrastructure

The Fenland Public Open Space Study (2009) recommended the following Public Open Space standards for future provision:

Public Open Space Category	ha / 1000 Population	Applicable area
Park & Garden	0.4	Market Towns
Outdoor Sport	2.0	Whole District
Formal Playspace	0.2	Whole District
Natural Playspace	0.5	Whole District
Allotments	0.35	Whole District

Source: Draft Fenland Public Open Space Study and Strategy (2009)

E.12 It is important to note that these standards may be revised in light of this above ongoing studies from the Council.

Infrastructure requirements

E.13 Tables E.34 – E.38 set out the infrastructure requirements for the following types of open space:

- Parks and Garden space (ha.)
- Outdoor Sport space (ha.)
- Formal playspace
- Natural playspace (ha.)
- Allotment space (ha.)

Table E.34: Predicted demand by cluster and growth scenario: Parks and Garden space (ha.)

Clusters	Parks and Garden space (ha.)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		2.1	2.1	2.1
Opportunity Zones		1.8	2.4	5.6
No housing growth	-1.4	-1.4	-1.4	-1.4
SUB-TOTAL	**-1.4**	**2.5**	**3.1**	**6.2**
March cluster				
Capacities & windfalls		1.1	1.1	1.1
Opportunity Zones		2.0	3.8	4.6
No housing growth	-0.7	-0.7	-0.7	-0.7
SUB-TOTAL	**-0.7**	**2.4**	**4.2**	**5.1**
Whittlesey cluster				
Capacities & windfalls		0.7	0.7	0.7
Opportunity Zones		0.5	1.1	1.5
No housing growth	-0.8	-0.8	-0.8	-0.8
SUB-TOTAL	**-0.8**	**0.3**	**0.9**	**1.4**
Chatteris cluster				
Capacities & windfalls		0.6	0.6	0.6
Opportunity Zones		0.5	0.9	1.6
No housing growth	-0.5	-0.5	-0.5	-0.5
SUB-TOTAL	**-0.5**	**0.5**	**1.0**	**1.7**
Parsons Drove / Wisbech St Mary cluster				

Capacities & windfalls				
No housing growth				
Infrastructure led growth				
SUB-TOTAL				
Manea cluster				
Capacities & windfalls				
No housing growth				
Infrastructure led growth				
SUB-TOTAL				
Wimblington / Doddington cluster				
Capacities & windfalls				
No housing growth				
Infrastructure led growth				
SUB-TOTAL				
TOTAL				
Capacities & windfalls		4.4	4.4	4.4
Opportunity Zones		4.7	8.2	13.3
No housing growth	-3.3	-3.3	-3.3	-3.3
Infrastructure led growth				0.0
TOTAL	**-3.3**	**5.7**	**9.3**	**14.4**

Table E.35: Predicted demand by cluster and growth scenario: Outdoor sport space (ha.)

Clusters	**Outdoor Sport space (ha.)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		10.5	10.5	10.5
Opportunity Zones		9.0	12.2	27.9
No housing growth	-7.2	-7.2	-7.2	-7.2
SUB-TOTAL	**-7.2**	**12.3**	**15.5**	**31.2**
March cluster				
Capacities & windfalls		5.4	5.4	5.4
Opportunity Zones		9.9	19.1	23.2
No housing growth	-3.3	-3.3	-3.3	-3.3
SUB-TOTAL	**-3.3**	**12.0**	**21.2**	**25.3**
Whittlesey cluster				
Capacities & windfalls		3.3	3.3	3.3
Opportunity Zones		2.3	5.4	7.7
No housing growth	-3.9	-3.9	-3.9	-3.9
SUB-TOTAL	**-3.9**	**1.6**	**4.7**	**7.0**
Chatteris cluster				
Capacities & windfalls		2.8	2.8	2.8
Opportunity Zones		2.3	4.5	7.9
No housing growth	-2.3	-2.3	-2.3	-2.3
SUB-TOTAL	**-2.3**	**2.7**	**5.0**	**8.3**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		1.4		1.4
No housing growth	-1.1	-1.1		-1.1
Infrastructure led growth				1.1
SUB-TOTAL	**-1.1**	**0.3**		**1.3**
Manea cluster				
Capacities & windfalls		0.7		0.7
No housing growth	-0.6	-0.6		-0.6
Infrastructure led growth				0.5
SUB-TOTAL	**-0.6**	**0.1**		**0.6**

Wimblington / Doddington cluster				
Capacities & windfalls		0.8		0.8
No housing growth	-0.9	-0.9		-0.9
Infrastructure led growth				1.3
SUB-TOTAL	**-0.9**	**-0.2**		**1.1**
TOTAL				
Capacities & windfalls		24.8	21.9	24.8
Opportunity Zones		23.4	41.2	66.6
No housing growth	-19.4	-19.4	-16.7	-19.4
Infrastructure led growth				2.9
TOTAL	**-19.4**	**28.8**	**46.4**	**74.9**

Table E.36: Predicted demand by cluster and growth scenario: Formal playspace (ha.)

Clusters	**Formal playspace (ha.)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.0	1.0	1.0
Opportunity Zones		0.9	1.2	2.8
No housing growth	-0.7	-0.7	-0.7	-0.7
SUB-TOTAL	**-0.7**	**1.2**	**1.5**	**3.1**
March cluster				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones	0.0	1.0	1.9	2.3
No housing growth	-0.3	-0.3	-0.3	-0.3
SUB-TOTAL	**-0.3**	**1.2**	**2.1**	**2.5**
Whittlesey cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.2	0.5	0.8
No housing growth	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.4**	**0.2**	**0.5**	**0.7**
Chatteris cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones	0.0	0.2	0.5	0.8
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.3**	**0.5**	**0.8**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**-0.0**		**0.1**
TOTAL				
Capacities & windfalls		2.5	2.2	2.5
Opportunity Zones		2.3	4.1	6.7
No housing growth	-1.9	-1.9	-1.7	-1.9

Infrastructure led growth				0.3
TOTAL	**-1.9**	**2.9**	**4.6**	**7.5**

Table E.37: Predicted demand by cluster and growth scenario: Natural playspace (ha.)

Clusters	**Natural playspace (ha.)**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		2.6	2.6	2.6
Opportunity Zones		2.3	3.0	7.0
No housing growth	-1.8	-1.8	-1.8	-1.8
SUB-TOTAL	**-1.8**	**3.1**	**3.9**	**7.8**
March cluster				
Capacities & windfalls		1.3	1.3	1.3
Opportunity Zones		2.5	4.8	5.8
No housing growth	-0.8	-0.8	-0.8	-0.8
SUB-TOTAL	**-0.8**	**3.0**	**5.3**	**6.3**
Whittlesey cluster				
Capacities & windfalls		0.8	0.8	0.8
Opportunity Zones		0.6	1.4	1.9
No housing growth	-1.0	-1.0	-1.0	-1.0
SUB-TOTAL	**-1.0**	**0.4**	**1.2**	**1.7**
Chatteris cluster				
Capacities & windfalls		0.7	0.7	0.7
Opportunity Zones		0.6	1.1	2.0
No housing growth	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.6**	**0.7**	**1.2**	**2.1**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.3		0.3
No housing growth	-0.3	-0.3		-0.3
Infrastructure led growth				0.3
SUB-TOTAL	**-0.3**	**0.1**		**0.3**
Manea cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.1
SUB-TOTAL	**-0.2**	**0.0**		**0.2**
Wimblington / Doddington cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.3
SUB-TOTAL	**-0.2**	**-0.0**		**0.3**
TOTAL				
Capacities & windfalls		6.2	5.5	6.2
Opportunity Zones		5.9	10.3	16.7
No housing growth	-4.9	-4.9	-4.2	-4.9
Infrastructure led growth				0.7
TOTAL	**-4.9**	**7.2**	**11.6**	**18.7**

Table E.38: Predicted demand by cluster and growth scenario: Allotment space (ha.)

Clusters	Allotment space (ha.)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		1.8	1.8	1.8
Opportunity Zones		1.6	2.1	4.9
No housing growth	-1.3	-1.3	-1.3	-1.3
SUB-TOTAL	**-1.3**	**2.2**	**2.7**	**5.5**
March cluster				
Capacities & windfalls		0.9	0.9	0.9
Opportunity Zones		1.7	3.3	4.1
No housing growth	-0.6	-0.6	-0.6	-0.6
SUB-TOTAL	**-0.6**	**2.1**	**3.7**	**4.4**
Whittlesey cluster				
Capacities & windfalls		0.6	0.6	0.6
Opportunity Zones		0.4	0.9	1.3
No housing growth	-0.7	-0.7	-0.7	-0.7
SUB-TOTAL	**-0.7**	**0.3**	**0.8**	**1.2**
Chatteris cluster				
Capacities & windfalls		0.5	0.5	0.5
Opportunity Zones		0.4	0.8	1.4
No housing growth	-0.4	-0.4	-0.4	-0.4
SUB-TOTAL	**-0.4**	**0.5**	**0.9**	**1.5**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.2		0.2
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.2
SUB-TOTAL	**-0.2**	**0.0**		**0.2**
Manea cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.1	-0.1		-0.1
Infrastructure led growth				0.1
SUB-TOTAL	**-0.1**	**0.0**		**0.1**
Wimblington / Doddington cluster				
Capacities & windfalls		0.1		0.1
No housing growth	-0.2	-0.2		-0.2
Infrastructure led growth				0.2
SUB-TOTAL	**-0.2**	**-0.0**		**0.2**
TOTAL				
Capacities & windfalls		4.3	3.8	4.3
Opportunity Zones		4.1	7.2	11.7
No housing growth	-3.4	-3.4	-2.9	-3.4
Infrastructure led growth				0.5
TOTAL	**-3.4**	**5.0**	**8.1**	**13.1**

Direct predicted demand of opportunity zones

E.14 Tables E.39 – E.43 set out the direct infrastructure requirements of the opportunity zones, for the following types of facility:

- Parks and Garden space (ha.)
- Outdoor Sport space (ha.)
- Formal playspace
- Natural playspace (ha.)
- Allotment space (ha.)

Table E.39: Direct predicted demand of opportunity zones: Parks and Garden space (ha.)

Opportunity Zones	Parks and Garden space (ha.)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	1.8	0.6	3.2	5.6
March cluster	2.0	1.8	0.8	4.6
Whittlesey cluster	0.5	0.6	0.5	1.5
Chatteris cluster	0.5	0.5	0.7	1.6
TOTAL	**4.7**	**3.6**	**5.1**	**13.3**

Table E.40: Direct predicted demand of opportunity zones: Outdoor Sport space (ha.)

Opportunity Zones	Outdoor Sport space (ha.)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	9.0	3.2	15.8	27.9
March cluster	9.9	9.2	4.1	23.2
Whittlesey cluster	2.3	3.2	2.3	7.7
Chatteris cluster	2.3	2.3	3.4	7.9
TOTAL	**23.4**	**17.8**	**25.4**	**66.6**

Table E.41: Direct predicted demand of opportunity zones: Formal playspace (ha.)

Opportunity Zones	Formal playspace (ha.)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.9	0.3	1.6	2.8
March cluster	1.0	0.9	0.4	2.3
Whittlesey cluster	0.2	0.3	0.2	0.8
Chatteris cluster	0.2	0.2	0.3	0.8
TOTAL	**2.3**	**1.8**	**2.5**	**6.7**

Table E.42: Direct predicted demand of opportunity zones: Natural playspace (ha.)

Opportunity Zones	Natural playspace (ha.)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	2.3	0.8	3.9	7.0
March cluster	2.5	2.3	1.0	5.8
Whittlesey cluster	0.6	0.8	0.6	1.9
Chatteris cluster	0.6	0.6	0.8	2.0
TOTAL	**5.9**	**4.4**	**6.4**	**16.7**

Table E.43: Direct predicted demand of opportunity zones: Allotment space (ha.)

Opportunity Zones	Allotment space (ha.)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	1.6	0.6	2.8	4.9
March cluster	1.7	1.6	0.7	4.1
Whittlesey cluster	0.4	0.6	0.4	1.3
Chatteris cluster	0.4	0.4	0.6	1.4
TOTAL	**4.1**	**3.1**	**4.5**	**11.7**

Community facilities

E.15 A Library Service Level Policy has been developed by Cambridgeshire County Council to specify the appropriate service provision across the county. Currently, a library's service level is determined based on:

- the catchment population it serves
- the number of items (books, videos, etc) it issues
- the number of visitors it receives

E.16 Library Service Levels range Level 1 (Community Libraries) to Level 4 (Central Libraries). Population increase may result in a requirement for a corresponding increase in Library Service Level in certain locations or the provision of new community libraries.

Table E.44: Static Library Service Level Standards

	1 Community Libraries	2 Key Libraries	3 Hub Libraries	4 Central Library
Catchment population	>4,000	>7,000	>14,000	>50,000
Library size	180 sq m (150sq m of operational space)	350 sq m (270 sq m of operational space + additional community meeting / activity space)	1,400 sq m (1,000 sq m of operational space + additional community meeting / activity space)	4,000 sq m

Source: CCC Service Level Specifications

E.17 For this study we will assume space requirements for a key library or 50sqm per 1000 people. Once options have been tested, we will use this as a basis for a discussion as to whether this is the most appropriate scale of provision, with the view to refining the preferred option.

Mobile Facilities

1. Mobile library services provided to the general public through stops, which meet the following criteria:

a) A minimum of four individual users is required for each stop
b) A stop will not normally be provided within 2 miles, by road, of a static library.
c) A community will normally have one stop, rather than a number of scattered short stops. The position of the stop should be as centrally located as possible. It should be chosen in consultation with the community and should be kept under review.
d) Stops will not normally be sited within half a mile of one another, by footpath or road.
e) The frequency and length of stop will normally be determined by the amount of regular use made of the stop.

2. If levels of usage do not meet the above criteria, provision will be reviewed and adjusted according to the following process:

- where there is only one library user at a stop, and he/she is housebound or has limited mobility, he/she should be transferred to the Doorstep Service
- where there are less than 4 regular individual users and the stop also fails on one of the other criteria (e.g. within 0.5 miles of another stop) this should be deleted and the Doorstep Service used for those unable to reach the alternative stop.
- where there are less than 4 regular users, but the stop meets the other criteria, it should be retained and the community should be encouraged to promote the service if they wish to see it continue. If it dwindles to just 1 user the process above will be followed.

3. Communities where libraries closed in 2003:

- the time allowed at these stops will be in line with that applying to other public stops.
- in communities where there is a Library Access Point, if use falls below 4 regular users, the stop will be discontinued and the Doorstep Service used for those unable to reach the Library Access Point.

4. Sheltered Housing and Residential Homes

- Sheltered housing will receive monthly stops
- In rural areas sheltered housing more than 0.5 miles from another stop will be treated as a full public stop and served fortnightly
- All sheltered housing stops will be available for all members of the community to use
- Individuals in residential homes, who wish to use the library service, will be served through the Doorstep Service, or by regular delivery via the library delivery vans, or by the Postal Tape Service, if appropriate.
- It is not the Council's policy to provide deposit collections of books as a service to a home per se. However, we will provide books to support organised activities within a home if requested to do so – delivered by the library delivery vans rather than by the mobile libraries.

5. It is recognised that the flexibility and approachability of mobile libraries makes them an important means of reaching people who do not currently use library services. Where resources allow, therefore, and where it meets the objectives of the County Council, the service may operate beyond the standard level of service set out above. For example:

- to serve disadvantaged communities within 2 miles of a static library
- to provide enhanced levels of service to large communities which for historical reasons do not have a static library

- to enable pilot projects to take place which will explore different forms of service, reach different groups of people, and/or be on a short term basis
- to target communities where the level of library use per head of population is significantly low

Source: CCC Service Level Specification

Table E.45: Predicted demand by cluster and growth scenario: Community space

Clusters	Community floorspace (sq.m)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		366.8	366.8	366.8
Opportunity Zones		315.1	425.4	976.8
No housing growth	-250.6	-250.6	-250.6	-250.6
SUB-TOTAL	**-250.6**	**431.3**	**541.5**	**1092.9**
March cluster				
Capacities & windfalls		188.3	188.3	188.3
Opportunity Zones		346.6	669.6	811.4
No housing growth	-114.8	-114.8	-114.8	-114.8
SUB-TOTAL	**-114.8**	**420.1**	**743.0**	**884.8**
Whittlesey cluster				
Capacities & windfalls		115.0	115.0	115.0
Opportunity Zones		78.8	189.1	267.8
No housing growth	-137.9	-137.9	-137.9	-137.9
SUB-TOTAL	**-137.9**	**55.9**	**166.2**	**244.9**
Chatteris cluster				
Capacities & windfalls		97.8	97.8	97.8
Opportunity Zones		78.8	157.5	275.7
No housing growth	-81.9	-81.9	-81.9	-81.9
SUB-TOTAL	**-81.9**	**94.7**	**173.5**	**291.6**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		48.7		48.7
No housing growth	-39.9	-39.9		-39.9
Infrastructure led growth				38.0
SUB-TOTAL	**-39.9**	**8.8**		**46.7**
Manea cluster				
Capacities & windfalls		25.5		25.5
No housing growth	-21.7	-21.7		-21.7
Infrastructure led growth				17.8
SUB-TOTAL	**-21.7**	**3.8**		**21.6**
Wimblington / Doddington cluster				
Capacities & windfalls		26.8		26.8
No housing growth	-32.9	-32.9		-32.9
Infrastructure led growth				45.8
SUB-TOTAL	**-32.9**	**-6.1**		**39.7**
TOTAL				
Capacities & windfalls		868.9	767.9	868.9
Opportunity Zones		819.2	1,441.5	2,331.7
No housing growth	-679.7	-679.7	-585.2	-679.7
Infrastructure led growth				101.6
TOTAL	**-679.7**	**1,008.4**	**1,624.2**	**2,622.4**

Table E.46: Predicted demand by cluster and growth scenario: Library space

Clusters	Library floorspace (sq.m)			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		262.0	262.0	262.0
Opportunity Zones		225.1	303.8	697.7
No housing growth	-179.0	-179.0	-179.0	-179.0
SUB-TOTAL	**-179.0**	**308.0**	**386.8**	**780.7**
March cluster				
Capacities & windfalls		134.5	134.5	134.5
Opportunity Zones		247.6	478.3	579.5
No housing growth	-82.0	-82.0	-82.0	-82.0
SUB-TOTAL	**-82.0**	**300.0**	**530.7**	**632.0**
Whittlesey cluster				
Capacities & windfalls		82.1	82.1	82.1
Opportunity Zones		56.3	135.0	191.3
No housing growth	-98.5	-98.5	-98.5	-98.5
SUB-TOTAL	**-98.5**	**39.9**	**118.7**	**175.0**
Chatteris cluster				
Capacities & windfalls		69.9	69.9	69.9
Opportunity Zones		56.3	112.5	196.9
No housing growth	-58.5	-58.5	-58.5	-58.5
SUB-TOTAL	**-58.5**	**67.6**	**123.9**	**208.3**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		34.8		34.8
No housing growth	-28.5	-28.5		-28.5
Infrastructure led growth				27.1
SUB-TOTAL	**-28.5**	**6.3**		**33.4**
Manea cluster				
Capacities & windfalls		18.2		18.2
No housing growth	-15.5	-15.5		-15.5
Infrastructure led growth				12.7
SUB-TOTAL	**-15.5**	**2.7**		**15.4**
Wimblington / Doddington cluster				
Capacities & windfalls		19.1		19.1
No housing growth	-23.5	-23.5		-23.5
Infrastructure led growth				32.7
SUB-TOTAL	**-23.5**	**-4.4**		**28.4**
TOTAL				
Capacities & windfalls		620.6	548.5	620.6
Opportunity Zones		585.2	1,029.7	1,665.5
No housing growth	-485.5	-485.5	-418.0	-485.5
Infrastructure led growth				72.6
TOTAL	**-485.5**	**720.3**	**1,160.1**	**1,873.2**

Table E.47: Direct predicted demand of opportunity zones: Community space

Opportunity Zones	Community floorspace (sq.m)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	315.1	110.3	551.4	976.8
March cluster	346.6	323.0	141.8	811.4
Whittlesey cluster	78.8	110.3	78.8	267.8
Chatteris cluster	78.8	78.8	118.2	275.7
TOTAL	**819**	**622**	**890**	**2331.7**

Table E.48: Direct predicted demand of opportunity zones: Library space

Opportunity Zones	Library floorspace (sq.m)			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	225.1	78.8	393.9	697.7
March cluster	247.6	230.7	101.3	579.5
Whittlesey cluster	56.3	78.8	56.3	191.3
Chatteris cluster	56.3	56.3	84.4	196.9
TOTAL	**585**	**445**	**636**	**1665.5**

Emergency services

E.18 There are unlikely to be existing standards concerning the appropriate level of emergency services as the requirement for policing will be largely driven by local crime indicators, whereas the minimum provision of ambulance and fire services concerns the requirement to meet statutory response times to all developments.

E.19 However, the following police and ambulance services parameters are based on the current per capita level of provision and maintaining these levels of provision would ensure that the proposed growth does not adversely impact on emergency services provision.

E.20 The ambulance parameter is based on the increase in demand that may be associated with the proposed level of housing growth and provides an indication of the potential impact on the ambulance service.

Table E.49: Police Provision Necessary to Maintain the District Average

	Existing population per officer
Police officers	538 (Northern Cambridgeshire)
Police community support officers (PCSO)	3,723 (Cambridgeshire)

Source: ONS, Police Service Strength England and Wales, 31 March 2010
http://data.gov.uk/dataset/police-strength-data-2010-basic-command-unit

E.21 Police provision may be delivered through the expansion of existing police facilities or the creation of strategically positioned police stations or facilities for Safer Neighbourhood Teams.

Table E.50: Fire and Rescue Provision Necessary to Maintain the County Average

	Existing population per unit
Appliances (front line and reserve pumps) required to maintain County Average	17,686

Source: CLG, Appendices to the Fire and Rescue Service Operational Statistics Bulletin for England 2008/09; ONS, Mid-Year Population Estimates 2009

Table E.51: Ambulance Service Assumption

	Population per unit
Persons per additional call	8

Source: East of England Ambulance Services NHS Trust

E.22 The above assumption has been taken from AECOM's work with East Cambridgeshire District Council. We have requested information from the East of England Ambulance Service in relation to their Estates Strategy.

E.23 In reality, except for areas of significant population growth, the requirement for fire stations and ambulance facilities will depend on whether the services could meet their statutory response times to new development sites from its existing premises. This is not part of the AECOM infrastructure model.

Table E.52: Predicted demand by cluster and growth scenario: Police Officers

Clusters	**Police Officers**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		9.7	9.7	9.7
Opportunity Zones		8.4	11.3	25.9
No housing growth	-6.7	-6.7	-6.7	-6.7
SUB-TOTAL	**-6.7**	**11.5**	**14.4**	**29.0**
March cluster				
Capacities & windfalls		5.0	5.0	5.0
Opportunity Zones		9.2	17.8	21.5
No housing growth	-3.0	-3.0	-3.0	-3.0
SUB-TOTAL	**-3.0**	**11.2**	**19.7**	**23.5**
Whittlesey cluster				
Capacities & windfalls		3.1	3.1	3.1
Opportunity Zones		2.1	5.0	7.1
No housing growth	-3.7	-3.7	-3.7	-3.7
SUB-TOTAL	**-3.7**	**1.5**	**4.4**	**6.5**
Chatteris cluster				
Capacities & windfalls		2.6	2.6	2.6
Opportunity Zones		2.1	4.2	7.3
No housing growth	-2.2	-2.2	-2.2	-2.2
SUB-TOTAL	**-2.2**	**2.5**	**4.6**	**7.7**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		1.3		1.3
No housing growth	-1.1	-1.1		-1.1
Infrastructure led growth				1.0
SUB-TOTAL	**-1.1**	**0.2**		**1.2**
Manea cluster				
Capacities & windfalls		0.7		0.7
No housing growth	-0.6	-0.6		-0.6
Infrastructure led growth				0.5
SUB-TOTAL	**-0.6**	**0.1**		**0.6**

Wimblington / Doddington cluster				
Capacities & windfalls		0.7		0.7
No housing growth	-0.9	-0.9		-0.9
Infrastructure led growth				1.2
SUB-TOTAL	**-0.9**	**-0.2**		**1.1**
TOTAL				
Capacities & windfalls		23.1	20.4	23.1
Opportunity Zones		21.8	38.3	61.9
No housing growth	-18.0	-18.0	-15.5	-18.0
Infrastructure led growth				2.7
TOTAL	**-18.0**	**26.8**	**43.1**	**69.6**

Table E.53: Predicted demand by cluster and growth scenario: Fire appliances

Clusters	**Fire appliances**			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		0.3	0.3	0.3
Opportunity Zones		0.3	0.3	0.8
No housing growth	-0.2	-0.2	-0.2	-0.2
SUB-TOTAL	**-0.2**	**0.3**	**0.4**	**0.9**
March cluster				
Capacities & windfalls		0.2	0.2	0.2
Opportunity Zones		0.3	0.5	0.7
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.3**	**0.6**	**0.7**
Whittlesey cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.2	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.0**	**0.1**	**0.2**
Chatteris cluster				
Capacities & windfalls		0.1	0.1	0.1
Opportunity Zones		0.1	0.1	0.2
No housing growth	-0.1	-0.1	-0.1	-0.1
SUB-TOTAL	**-0.1**	**0.1**	**0.1**	**0.2**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Manea cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**0.0**		**0.0**
Wimblington / Doddington cluster				
Capacities & windfalls		0.0		0.0
No housing growth	-0.0	-0.0		-0.0
Infrastructure led growth				0.0
SUB-TOTAL	**-0.0**	**-0.0**		**0.0**
TOTAL				
Capacities & windfalls		0.7	0.6	0.7
Opportunity Zones		0.7	1.2	1.9
No housing growth	-0.5	-0.5	-0.5	-0.5
Infrastructure led growth				0.1
TOTAL	**-0.5**	**0.8**	**1.3**	**2.1**

Table E.54: Predicted demand by cluster and growth scenario: Additional ambulance calls

Clusters	Additional ambulance calls			
	No housing growth	Low growth	Medium growth	High growth
Wisbech cluster				
Capacities & windfalls		654.9	654.9	654.9
Opportunity Zones		562.7	759.6	1744.2
No housing growth	-447.5	-447.5	-447.5	-447.5
SUB-TOTAL	**-447.5**	**770.1**	**967.0**	**1951.7**
March cluster				
Capacities & windfalls		336.2	336.2	336.2
Opportunity Zones		618.9	1195.7	1448.8
No housing growth	-205.0	-205.0	-205.0	-205.0
SUB-TOTAL	**-205.0**	**750.1**	**1326.8**	**1580.0**
Whittlesey cluster				
Capacities & windfalls		205.4	205.4	205.4
Opportunity Zones		140.7	337.6	478.3
No housing growth	-246.3	-246.3	-246.3	-246.3
SUB-TOTAL	**-246.3**	**99.8**	**296.7**	**437.4**
Chatteris cluster				
Capacities & windfalls		174.7	174.7	174.7
Opportunity Zones		140.7	281.3	492.3
No housing growth	-146.3	-146.3	-146.3	-146.3
SUB-TOTAL	**-146.3**	**169.1**	**309.8**	**520.8**
Parsons Drove / Wisbech St Mary cluster				
Capacities & windfalls		86.9		86.9
No housing growth	-71.3	-71.3		-71.3
Infrastructure led growth				67.8
SUB-TOTAL	**-71.3**	**15.7**		**83.5**
Manea cluster				
Capacities & windfalls		45.6		45.6
No housing growth	-38.8	-38.8		-38.8
Infrastructure led growth				31.8
SUB-TOTAL	**-38.8**	**6.8**		**38.6**
Wimblington / Doddington cluster				
Capacities & windfalls		47.8		47.8
No housing growth	-58.8	-58.8		-58.8
Infrastructure led growth				81.9
SUB-TOTAL	**-58.8**	**-10.9**		**70.9**
TOTAL				
Capacities & windfalls		1,551.5	1,371.2	1,551.5
Opportunity Zones		1,462.9	2,574.2	4,163.7
No housing growth	-1,213.8	-1,213.8	-1,045.0	-1,213.8
Infrastructure led growth				181.5
TOTAL	**-1,213.8**	**1,800.7**	**2,900.4**	**4,682.9**

Table E.55: Direct predicted demand of opportunity zones: Police Officers

Opportunity Zones	Police Officers			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	8.4	2.9	14.6	25.9
March cluster	9.2	8.6	3.8	21.5
Whittlesey cluster	2.1	2.9	2.1	7.1
Chatteris cluster	2.1	2.1	3.1	7.3
TOTAL	**21.8**	**16.5**	**23.6**	**61.9**

Table E.56: Direct predicted demand of opportunity zones: Fire appliances

Opportunity Zones	*Fire appliances*			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	0.3	0.1	0.4	0.8
March cluster	0.3	0.3	0.1	0.7
Whittlesey cluster	0.1	0.1	0.1	0.2
Chatteris cluster	0.1	0.1	0.1	0.2
TOTAL	**0.7**	**0.5**	**0.7**	**1.9**

Table E.57: Direct predicted demand of opportunity zones: Additional ambulance calls

Opportunity Zones	**Additional ambulance calls**			
	Low growth	Medium growth	High growth	**Total growth**
Wisbech cluster	562.7	196.9	984.7	1744.2
March cluster	618.9	576.7	253.2	1448.8
Whittlesey cluster	140.7	196.9	140.7	478.3
Chatteris cluster	140.7	140.7	211.0	492.3
TOTAL	**1,462.9**	**1,111.3**	**1,589.5**	**4163.7**

Appendix F

Projected gas and electricity loading estimates

Fenland Utilities Assessment
Electricity Loading Estimates
December 2010

		Up to 2011			2011 - 2016			2016 - 2021			2021 - 2026			2026 - 2031			Total		
Area	Option	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)	Number of dwellings	Peak Hourly Demand (kW)	Peak Hourly Demand (kVA)
Wisbech	Option 1	298	447	497	1,360	2,040	2,267	1,330	1,995	2,217	1,046	1,569	1,743	294	441	490	**4,328**	**6,492**	**7,213**
	Option 2	298	447	497	1,360	2,040	2,267	1,305	1,958	2,176	1,121	1,682	1,869	944	1,416	1,573	**5,028**	**7,543**	**8,381**
	Option 3	298	447	497	1,360	2,040	2,267	1,580	2,370	2,633	2,496	3,744	4,160	2,794	4,191	4,657	**8,528**	**12,792**	**14,213**
March	Option 1	148	222	247	930	1,395	1,550	1,135	1,703	1,892	688	1,032	1,147	494	741	823	**3,395**	**5,093**	**5,659**
	Option 2	148	222	247	930	1,395	1,550	1,135	1,703	1,892	1,638	2,457	2,730	1,594	2,391	2,657	**5,445**	**8,168**	**9,076**
	Option 3	148	222	247	930	1,395	1,550	1,285	1,928	2,142	2,063	3,095	3,439	1,919	2,879	3,199	**6,345**	**9,519**	**10,577**
Whittlesey	Option 1	161	242	269	484	726	807	400	600	667	98	147	163	87	131	146	**1,230**	**1,846**	**2,051**
	Option 2	161	242	269	684	1,026	1,140	550	825	917	448	672	747	87	131	146	**1,930**	**2,896**	**3,218**
	Option 3	161	242	269	684	1,026	1,140	625	938	1,042	648	972	1,080	312	468	520	**2,430**	**3,646**	**4,051**
Chatteris	Option 1	134	201	223	495	743	826	390	585	650	53	80	89	49	74	82	**1,121**	**1,683**	**1,870**
	Option 2	134	201	223	695	1,043	1,159	290	435	483	453	680	756	49	74	82	**1,621**	**2,433**	**2,703**
	Option 3	134	201	223	695	1,043	1,159	340	510	567	953	1,430	1,589	249	374	416	**2,371**	**3,558**	**3,953**
Wisbech St Mary		75	113	126	114	171	190	56	84	93	36	54	60	28	42	47	**309**	**464**	**516**
Manea		39	59	66	72	108	120	31	47	52	14	21	23	6	9	10	**162**	**244**	**271**
Doddington/ Wimblington		33	50	56	35	53	59	44	66	73	34	51	57	24	36	40	**170**	**256**	**284**

AECOM
14 Queen Victoria Road, Coventry, CV1 3PJ
www.aecom.com

Fenland Utilities Assessment
Gas Loading Estimates
December 2010

		Up to 2011			2011 - 2016			2016 - 2021			2021 - 2026			2026 - 2031			Total		
Area	Option	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)	Number of dwellings	Peak Hourly Demand (kWh)	Annual Demand (MWh)
Wisbech	Option 1	298	8,940	7,228	1,360	40,800	32,987	1,330	39,900	32,259	1,046	31,380	25,371	294	8,820	7,131	**4,328**	**129,840**	**104,976**
	Option 2	298	8,940	7,228	1,360	40,800	32,987	1,305	39,150	31,653	1,121	33,630	27,190	944	28,320	22,897	**5,028**	**150,840**	**121,955**
	Option 3	298	8,940	7,228	1,360	40,800	32,987	1,580	47,400	38,323	2,496	74,880	60,540	2,794	83,820	67,768	**8,528**	**255,840**	**206,846**
March	Option 1	148	4,440	3,590	930	27,900	22,557	1,135	34,050	27,529	688	20,640	16,687	494	14,820	11,982	**3,395**	**101,850**	**82,345**
	Option 2	148	4,440	3,590	930	27,900	22,557	1,135	34,050	27,529	1,638	49,140	39,730	1,594	47,820	38,662	**5,445**	**163,350**	**132,068**
	Option 3	148	4,440	3,590	930	27,900	22,557	1,285	38,550	31,168	2,063	61,890	50,038	1,919	57,570	46,545	**6,345**	**190,350**	**153,898**
Whittlesey	Option 1	161	4,830	3,905	484	14,520	11,739	400	12,000	9,702	98	2,940	2,377	87	2,610	2,110	**1,230**	**36,900**	**29,833**
	Option 2	161	4,830	3,905	684	20,520	16,590	550	16,500	13,340	448	13,440	10,866	87	2,610	2,110	**1,930**	**57,900**	**46,811**
	Option 3	161	4,830	3,905	684	20,520	16,590	625	18,750	15,159	648	19,440	15,717	312	9,360	7,568	**2,430**	**72,900**	**58,939**
Chatteris	Option 1	134	4,020	3,250	495	14,850	12,006	390	11,700	9,459	53	1,590	1,286	49	1,470	1,188	**1,121**	**33,630**	**27,189**
	Option 2	134	4,020	3,250	695	20,850	16,857	290	8,700	7,034	453	13,590	10,988	49	1,470	1,188	**1,621**	**48,630**	**39,317**
	Option 3	134	4,020	3,250	695	20,850	16,857	340	10,200	8,247	953	28,590	23,115	249	7,470	6,039	**2,371**	**71,130**	**57,508**
Wisbech St Mary		75	2,250	1,819	114	3,420	2,765	56	1,680	1,358	36	1,080	873	28	840	679	**309**	**9,270**	**7,494**
Manea		39	1,170	946	72	2,160	1,746	31	930	752	14	420	340	6	180	146	**162**	**4,860**	**3,930**
Doddington/ Wimblington		33	990	800	35	1,050	849	44	1,320	1,067	34	1,020	825	24	720	582	**170**	**5,100**	**4,123**

AECOM
14 Queen Victoria Road, Coventry, CV1 3PJ
www.aecom.com

Appendix G

Fenland Market Report

Drivers Jonas Deloitte.

Fenland Market Report
December 2010

Contents

Introduction

Since 2007/08 the UK has undergone a major global recession and this has particularly affected the property market.

We examined the property market across the Fenland District, covering residential new build development values; the employment market, including offices and industrial; as well as the retail market. We outline our findings in respect of values, rents and yields as well as the cost of development land for all of these uses, all against the back-drop of the wider UK economy.

It should be noted that this research was undertaken in the Autumn of 2010.

The Economy

The UK economy expanded by a stronger than expected rate of 1.1% in the second quarter of 2010. Yet despite this performance doubts about the pace of the recovery have mounted in recent months. In August the Bank of England cuts its forecast for UK GDP growth in 2011 from 3.4% to 2.5% and the Federal Reserve warned that the pace of the US recovery had slowed.

The mood of greater caution about the recovery reflects a number of factors. Banks have reported generally strong second quarter results but uncertainties remain about their ability to refinance their own debts and their willingness to extend credit. The UK coalition government's Emergency Budget contained plans for the most severe retrenchment in public expenditure since the 1930s.

Recent UK data have been mixed. GDP growth accelerated in the second quarter and the unemployment rate fell to a one year low of 7.8% in the three months to June. However, the Office for Budget responsibility, estimates that the fiscal squeeze will see almost half a million job losses in the public sector and this will put renewed upward pressure on unemployment. Consumer data remain weak. Figures from the Bank of England show that mortgage approvals, a good leading indicator of activity in the housing market, fell 2.4% in June to the weakest level since February. This coincided with a sharp fall in consumer confidence, which dropped to a 13 month low in July. Consumers face a combination of tight lending conditions and weak growth in earnings which is likely to dampen demand for secured lending over the rest of this year.

UK inflation has been unexpectedly high for well over a year and in its August Inflation Report the Bank of England forecast that inflation would remain above target well into 2012. Nonetheless, with the Bank predicting a slow recovery, interest rates are likely to stay low for a prolonged period. The base rate has remained at 0.5% since March 2009 and financial market participants do not expect policy makers to

tighten until a sustainable recovery takes hold. Market expectations are for three-month interbank interest rates to remain below 1.5% until the end of 2011.

The Bank of England's Credit Conditions Survey shows that corporate credit availability is improving, albeit more slowly than a year ago. The latest Deloitte CFO Survey also pointed to an increase in credit availability in 2010 Q2 for larger businesses. However, credit conditions are far more normal. Credit growth remains weak and many corporations and households face significantly more demanding terms in order to access credit.

One of the striking features of the current cycle has been the resilience of the corporate sector, especially of larger companies. Profits have fallen less than in previous downturns and now, as revenues start to recover and companies continue to bear down on costs, profits have picked up sharply. Earnings estimates for FTSE 350 firms have risen by more than two-thirds in the last year.

Cash flow has receded as a concern for larger UK corporates. Large corporates are increasingly focused on growth strategies, such as expanding into new markets, bringing in new products or services, growing by acquisition and raising capital spending. Nonetheless, the top priority for UK CFOs remains, as it was during the recession, controlling costs.

It looks like a two tier recovery, with the corporate sector bearing down on costs and growing profits – and with consumer incomes and spending lagging behind. With government spending set to shrink, the implication is that the UK is on course for a slow-moving and erratic recovery.

Residential Market

UK Residential Overview

Since the start of the credit crunch in 2007 residential properties have been thrown into almost uncharted territory and to date remain the biggest casualty of all property types.

Almost all indices have recorded sharper falls than those experienced in the early 1990s housing downturn, which was initially caused by the severe tightening in liquidity over the last two years. On the whole banks have significantly reduced their net lending to the market and the reduction in mortgage approvals has caused a severe downturn in values.

It is important to note that our research as reported below was undertaken between September and October 2010 and, although it is representative of the market at this time, the market remains volatile and changes have been occurring quickly.

The recovery of the UK residential market has been fragile; the leading house price indicators have been reporting conflicting results, with some recording price increases whilst others are reporting a fall in prices. Whilst the market remains volatile we expect these month on month fluctuations to continue.

According to Nationwide data, in July, the average price of a property in the UK was £169,347. Values on this index fell -0.5% month on month. On an annual basis prices are up 6.6%. Halifax reports the average house price increased by 0.6% in July to £167,425. This monthly increase follows three consecutive months of declining values.

The view on the outlook for house prices has taken a negative turn recently as new fears about the health of the economy emerge. Despite earlier price recovery, values remain a long way from their peak, with values on the Nationwide index down by 9%. The outlook for UK house prices will be determined by several conflicting issues. We examine each of these in turn below:

The economy

The UK economy expanded by a stronger than expected rate of 1.1% in the second quarter. Despite this strong performance doubts about the pace of the recovery have mounted in recent months. In August the Bank of England cut its forecast for UK GDP growth in 2011 from 3.4% to 2.5% and the Federal Reserve warned that the pace of the US recovery had slowed.

UK unemployment remains high with the total unemployed now standing at 2.46 million. Recent figures published show unemployment actually fell by 49,000 in the three months to June. This rise in the number of those employed was largely the result of an increase in the number of part-time workers.

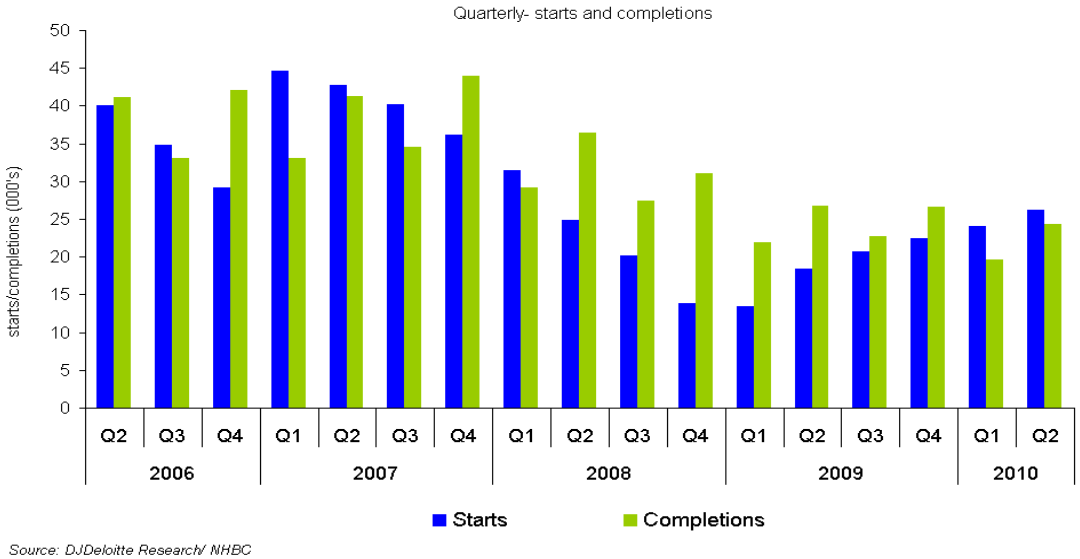
Demand/ supply

The level of transaction activity has declined after showing an improvement in late 2009. In fact December 2009 saw the highest level of transaction in 24 months with 77,700 properties being sold. This pick up in activity was a consequence of buyers pushing to complete their sales before the stamp duty threshold reverted. The latest data from the Land Registry (April 2010) recorded 49,300 transactions, up 26% on a year earlier, despite this transactions are still 60% below the level recorded at peak (August 2007). New buyer enquiries in June fell for the first time since the beginning of the year.

Estate agents have continued to see a gradual increase of stock on their books, with June recording the thirteenth rise in new instructions. The RICS produces a monthly Housing Market Survey of which the average number of unsold properties currently stands at 66 per surveyor according to respondents. This paints a very different picture to the early 1990s downturn where unsold properties peaked at 196 per surveyor. This time round conditions have been very different. We have not experienced very high interest rates and as such the number of distressed sellers has been lower.

Construction

A total of 24,300 new homes completed in the second quarter of the year, a 24% increase on the 19,600 new homes completed in Q1. Despite signs of improvement completions are down 42% from their peak in Q4 2006 where 42,100 new homes were built. The level of new completions going forward is expected to remain low as the fall in new starts recorded takes its toll. Construction starts have begun to regain momentum, with Q2 2010 recording the fourth consecutive quarter of growth. Indeed Q2 saw 26,200 new starts, a steep increase on the 18,400 starts recoded a year ago. Despite this new starts remain 41% below the volume seen at the peak in construction activity (Q1 2007).



Source: DJDeloitte Research/ NHBC

The graph shows that historically in the peak of 2007 new starts exceeded completions. In Q4 2008 new residential starts were at a record low. A significant drop in completions from the end of 2008 to Q1 2009 is also shown. However, from Q1 2009 to Q2 2009 both the number of starts and completions rose showing an increase in market confidence. Starts continued to increase, if at a modest rate, showing that developers believe the market is turning. However, completions have been more unsteady indicating that there is still uncertainty in the market and also this is a knock-on-effect from the lack of starts in previous months.

Mortgage lending

Figures on monthly mortgage lending from the Bank of England show a rise in both lending for house purchase and remortgaging during June. The value of new mortgage lending for house purchases rose 10% to £8.6bn, and was 6% higher than levels seen in the previous year. The value of remortgaging activity rose 13.5% during the month to £3.9bn, although this remains 15% below the levels seen a year ago. Mortgage companies are continuing to apply strict lending criteria with a significant amount of equity needed for most transactions. The average first time buyer deposit in June was 25%, up from 10% in October 2007.

The Outlook

The UK housing market has continued to be driven by unique circumstances which have caused price increases over the last 12 months. Historically low interest rates have resulted in fewer than expected distressed sellers and this combined with the slow down in construction activity has led to a lack of available supply. However, the outlook for the UK housing market is less clear and market indicators such as sale to stock ratios, consumer confidence and job forecasts are expected to put downward pressure on house prices going forward. The availability of mortgage finance is also a barrier to the recovery of the residential market, and until we see a return to more 'normal' levels of lending we are not expecting to see a significant recovery in values.

Land Registry

Land registry data reports the peak of the market at November 2007. Average UK residential values for different unit types and the percentage difference from November 2007 to August 2010 are set out in the table below:

	Average Price		
Year	**2007**	**2010**	**% Change**
Terraced	£143,398	£127,608	-11.01%
Semi-Detached	£172,476	£157,691	-8.57%
Detached	£277,311	£264,389	-4.66%
Flat & Mais.	£173,764	£155,907	-10.28%
All Properties	£183,382	£167,423	-8.70%

Average House Prices UK **Source: Land Registry**

As can be seen from the table, UK average house prices for all properties have dropped by 8.70% since the peak of the market.

Cambridgeshire Residential Market

As with the rest of the UK, Cambridgeshire has experienced a weakening in the market since the peak, and as indicated above, the recovery is considered unstable in the current times.

Land registry data reports the peak of the market at November 2007. Average residential values in Cambridgeshire for different unit types and the percentage difference from November 2007 to August 2010 are set out in the table below:

	Average Price		
Year	**2007**	**2010**	**% Change**
Terraced	£159,694	£147,375	-7.7%
Semi-Detached	£181,989	£167,950	-7.7%
Detached	£293,793	£271,129	-7.7%
Flat & Mais.	£125,779	£116,076	-7.71%
All Properties	£199,171	£183,807	-7.7%

Average House Prices UK **Source: Land Registry**

The table below provides a comparison of how average residential property values sit in the rest of Cambridgeshire.

Comparison of Local Authorities in Cambridgeshire:

Apr 10 - June 10	Flats	Terraced	Semi-Detached	Detached	All
Cambridge	£220,739	£313,969	£319,985	£529,742	£304,487
South Cambridgeshire	£154,469	£191,297	£227,948	£369,338	£269,841
Huntingdonshire	£133,248	£173,664	£176,778	£288,486	£215,245
East Cambridgeshire	£109,830	£155,626	£173,982	£281,142	£212,808
Fenland	£62,070	£105,098	£131,514	£192,734	£151,255

*These figures are from the Land Registry data and show averages for all house sales and reflect both new and second hand stock.

The concentration of deprivation and Fenland's position relative to the rest of Cambridgeshire and the region makes its disadvantage strongly apparent. Current Government statistical measures show that 8% of Fenland's population live in one of the most deprived areas of the country.

The average house price for Fenland (across all unit types) between Jan-Mar 2010 was on average £151,255, evidencing the lowest average house price in Cambridgeshire.

Fenland Residential Market

Fenland is a local government district in Cambridgeshire, England. It is a rural district covering approximately 54,500 hectares and lies east of Peterborough and north of Cambridge, and is one of five districts in the County of Cambridgeshire, in the East of England.

Its council is based in March, and covers the neighbouring market towns of Chatteris, Whittlesey, and Wisbech. The district consists primarily of agricultural land which is suited to the areas notoriously flat land (this is discussed in more detail later in the report); Fenland is the least densely populated district in Cambridgeshire with an overall population density of 1.7 people per hectare.

There are approximately 850 Listed Buildings (buildings designated as being of special architectural or historic interest) in Fenland as well as 10 defined conservation areas (areas in which the local authority has extra controls over demolition, minor development, and protection of trees). This makes it harder to develop in these areas and for residential growth to occur.

Average house price by property type (Fenland)	Apr-June 2010	Sales
Detached	**£175,954**	**121**
Semi-detached	**£114,691**	**87**
Terraced	**£112,952**	**58**
Flat/Maisonette	**£60,338**	**7**
ALL	**£136,350**	**273**

(Source: BBC UK House prices)

The number of sales recorded in Fenland is below that of the other Local Authorities in Cambridgeshire. The table shows that the most popular property type in Fenland is the detached home which suggests that it is an area that attracts families with the intention to locate on a more permanent basis as opposed to first time buyers and young couples with flat sales showing the poorest sales volume.

There is still a lack of available credit for potential buyers and consumers are still concerned that the market has further to fall and also more recently, there are rising concerns over job losses which are contributing to a slump in demand for homes.

Within Fenland there are four main market towns, March, Wisbech, Chatteris and Whittlesey. The average house prices for different unit types within the period Jul-Sep 2010 are set out in the table below.

Jul 10-Sep 10	Flats	Terraced	Semi-Detached	Detached	All (Jul 10)
March	Too few sales	£133,333	£125,577	£178,572	£138,974
Chatteris	Too few sales	£109,700	£137,000	£198,500	£141,211
Whittlesey	£98,199	£127,159	£131,217	£210,508	£136,176

Wisbech	£57,825	£98,374	£119,300	£188,948	£137,491

*These figures are from the Land Registry data and show averages for all house sales and reflect both new and second hand stock.

The table indicates that Whittlesey has consistently higher values across all unit types, however, the overall average indicates that it has the lowest average values in the district. However, this is misleading as the average final figures are based upon the number of sales which weights the average, it should therefore only be treated as a guide.

Across the market towns, the values are extremely close and there is little to distinguish them; Chatteris and March are considered very comparable locations with Chatteris commanding marginally higher values due to the good road links and buses to commute to Cambridge and Ely, however, March offers the benefit of the train station.

The values in the two smaller market towns of Whittlesey and Chatteris are similar to the larger destinations, this is partly attributable to the towns serving as overflow destinations; Whittlesey is the closest in proximity to Peterborough and Chatteris is the first 'cheaper' area to be reached out of Cambridge. The area attracts new families that cannot afford Peterborough and Cambridge's higher prices.

Research and conversations with agents indicates that within the district, residential sales values, and consequently residential land values, are greater in the southern part of the district towards the towns March, Chatteris and Whittlesey, evidencing a south-north gradient of values in line with the districts deprivation. Away from these towns and further north in the district, towards Wisbech, both land values and sales values fall away as you enter into the most deprived areas of Fenland (Wisbech and its surrounding rural areas).

Detached houses are the most common type of dwelling in Fenland followed by semi-detached properties. Following discussions with both agents and employees of the marketing suites at the new developments, we are aware that the strongest market demand at present is for 2-4 bed houses. This appears to have been the case in recent years and new schemes evidence this trend by catering primarily for that demand. This is also attributable to first time buyers, who tend to purchase flats, being especially hard hit by the current economic climate and also houses being cheaper so buyers can achieve more for their money.

Fenland has an aging population and statistics suggest that the highest growth will occur in the 65+ age group, from 16% in 2001 to nearly 24% in 2021; already Fenland has the highest population of 65+ year olds in the region. This supports the fact that bungalows are also a popular market in Fenland, catering for the more elderly/retirement generation; this is especially noticeable in Chatteris and March. Many agents have commented that the retirement market has sustained the Fenland market. This demographic are not concerned with commuting and the availability of jobs and therefore are not deterred by such issues in Fenland.

Agents at marketing suites of key new developments are reporting average sales across the district in the region of 2 units per month per development. Schemes continue to hold back on launch dates until schemes are complete, releasing units in phases into the market, reflecting the builders concerns regarding limiting their capital outgoings to the level of sales they can achieve.

Agents are reporting that they are receiving high levels of interest and that stock levels are equally high. However, purchasers are waiting for the right price whilst vendors have high, in some cases, unrealistic expectations of what they can achieve for their property resulting in the number of transactions still remaining slightly modest. Buyers are able to work vendors and in many cases sales prices are approximately 15% below the asking prices.

Cannon Kirk are the most active developers in the area with several new schemes either just completed, currently under construction or in the pipeline. Other developers, such as Rose Builders, have land banks that they are sitting on, waiting until the market picks up.

The following section sets out summaries of our research into the new developments currently being marketed in the Fenland district. Where unit sizes were unavailable we have assumed sizes (where stated) based upon other unit sizes common in the area and through conversations with local agents.

New Build Residential Developments

Whittlesey

Whittlesey is an ancient market town situated on the western edge of Peterborough. It demonstrates a range of architectural styles including some rare thatched cottages with mud walls and the town centre streets are a network of small isolated streets. Historically, Whittlesey was the main town in Fenland but March has since taken over.

Apart from Wetherspoons recently locating in the town, the facilities offered are limited. However, there is a train station in Whittlesey, which provides a direct service to Peterborough in approximately 13 minutes, which then provides direct services to London.

The local population is predominantly families and older residents, notably it serves as an overflow from Peterborough due to the close proximity, often purchasers can achieve more for their money by sacrificing a more central location. Whittlesey also offers good schools, attracting a number of families.

Whittlesey has been described by local agents as an area ‘saturated with bungalows’ as it hosts a high proportion of elderly residents that wish to downsize.

Fallowfields, Yarwells Headland, Whittlesey PE7 1FT

This is a current development by Cannon Kirk Homes on the edge of Whittlesey. The scheme consists of 55 dwellings and is marketed as a family location offering 2, 3, 4 and 5 bed homes, with the focus predominantly on both 3 and 4 bed homes. The development has not specifically been constructed on a phase by phase basis; further units are built only once other units have sold so as to ensure there is the units are not left vacant for an extended period of time and perhaps to assist with funding of the remaining parts of the development.

We are aware that the development has been incredibly popular and in some cases exceeding achievements in Peterborough. Approximately 2-3 units have been selling per month.

Despite the high demand, units still need to be priced reasonably and incentives include 5% deposit paid, 5% discount, part exchange and some shared ownership units.

The following sales have been reported by Land Registry:

Unit Type	Area Sq ft	Date of Sale	Sold Price	Sales Value (£ per sq ft)
Plot 51, 119 Yarwells Headland, 5 bed detached	1,705	15 Jun 2010	£275,000	£161.29
Plot 48, 113 Yarwells Headland, 3 bed terraced	997	26 Mar 2010	£144,995	£145.43
Plot 46, 109 Yarwells Headland, 3 bed terraced	997	01 Dec 2009	£140,000	£140.42
Plot 44, 105 Yarwells Headland, 3 bed semi-detached	1,015	09 Sep 2009	£137,500	£135.47
			Average	**£145.65**

The table below shows the most recent asking prices of units currently available, we are aware that nine units are currently available. It must be noted that these are asking prices only and one must assume that there is a chance that these would be lowered after incentives.

Unit type	Area Sq ft	Asking Price	Sales Value (£ per sq ft)
Plot 8, 5 bed detached	1,705	£249,995	£146.62
Plot 11, 4 bed detached	1,499	£225,995	£150.76
Plots 9 & 10, 4 bed detached	1,192	£199,995	£167.78
Plot 15, 4 bed end terrace	1,218	£179,995	£147.78
Plot 12, 3 bed end terrace	1,015	£155,995	£153.69
Plot 13, 3 bed mid terrace	997	£149,995	£150.45
Plot 14, 3 bed mid terrace	1,015	£152,995	£150.73
Plot 26, 3 bed mid terrace	997	£146,995	£147.44
		Average	**£151.91**

Cardea, Ramsey Road, Stanground, Whittlesey PE7 2LR

Cardea is a new development under construction by Charles Church and Persimmon Homes comprising 37 homes consisting of three, four and five bedroom units. The scheme is located south of Whittlesey, off the A605, set in the centre of the

Stanground project which is to consist of 1,525 homes covering 120 acres and Cardea is being marketed as part of the new neighbourhood.

Cardea is just 2 miles from Peterborough and therefore has the benefit of the amenities that it offers attracting purchasers to the development.

The table below shows the three remaining Charles Church units:

Unit type	Area Sq ft	Asking Price	Sales Value (£ per sq ft)
Plot 113, 4 bed detached	1,232	£229,995	£147.44
Plot 104, 4 bed detached	1,464	£249,995	£170.76
Plot 108, 4 bed detached	1,464	£249,995	£170.76
		Average	**£162.99**

Pipeline: Larkfleet Homes, Whittlesey

Larkfleet Homes submitted plans for a new development at Whittlesey East between Eastrea Road and Drybread Road with the intention of offering high quality sustainable homes.

The original planning application (F/YR10/0206/O) included around 460 homes as well as comprising new shops, public open space and other amenities. A 70 bed nursing home, a 50-bed 'extra care facility and 15 close care bungalows was also planned to be located on the development.

Proposals were revised following a public exhibition in Whittlesey in July 2009 and subsequently submitted to the council. Following conversations with the duty planning officer we are aware that this application was refused in June 2010 due to the Council's primary concern being the infrastructure in the area.

No further application has yet been submitted but a variation is expected in due course.

Chatteris

Chatteris is a quaint little market town with a beautiful 14th century church in the town centre. The outskirts of the town consist predominantly of farmland; the town has become a centre of agriculture and related industry.

Due to Chatteris's proximity to Cambridge and Huntingdon, the town has emerged as a commuter town and offers good road communications and bus links, although it does lack a train station which March offers. Chatteris is the first 'cheaper' residential area that is reached out of Cambridge as Huntingdonshire and East Cambridgeshire still evidence an expensive price bracket.

Harrison Murray reported a high supply of residential units on their books, noting that combined with March, their portfolio consists of approximately 300 available

properties. The stock consists mainly of second hand units with little new build evidenced in the area, only smaller developments come onto the market. Agents are reporting sales (both new build and second hand) of approximately **10 per month** but claim that the market is very unpredictable.

We are also aware that there does not look to be a premium attached to new build properties in the area as the character of the older buildings is part of the attraction to a number of buyers that come to the area. In addition, new build units tend to be to a high standard but often have smaller gardens and built footprint.

There is a strong rental market in Chatteris; the demand is incredibly high and units are not on the market for long. This is partly due to the current economic climate in which you can get a higher return letting your property than you can if the equity was in the bank.

Manea has been described as a similar, slightly cheaper location to Chatteris, located to the north east of the town. Sales values in Manea for 2-3 bed semi-detached properties are in the region of £120,000-£130,000 following an asking price of approximately £145,000.

Windmill Mews, Station Road, Chatteris

This is a small Halfstead Homes development a short distance from the town centre in a cul-de-sac characterised by individual period properties and Victorian terraced houses. The scheme comprises 5 x four bed detached houses which were all on the market at **£179,995.**

The following sales have been reported by the sales agents:

Unit Type	Area Sq ft (assume)	Date Sold	Sold Price	Sales Value (£ per sq ft)
Plot 9 - 4 bed detached, show home (furnished)	Larger (1,450)	June ‘10	£205,000	£141.38
Plot 10 – 4 bed detached	Larger (1,450)	June ‘10	£195,000	£134.48
Plot 12 and 15 – 4 bed detached	Smaller (1,250)	Jul ‘10	£179,995	£144
Plot 14 – 4 bed detached	Smaller (1,250)	Sep ’10 (still waiting to complete)	£179,995	£144
			Average	**£141**

Fairbairn Way, London Road, Chatteris

This is a Persimmon Homes development which completed this year and comprises of 63 properties with 10 different styles ranging from 1 bed apartments to 5 bed detached houses. Values have been reduced due to the economic climate with some

five bed three storey townhouses now achieving approximately £230,000, a £45,000 reduction. Resale's are yet to come onto the market.

The following sales have been reported by the land registry:

Unit Type	Area Sq ft (estimated)	Date Sold	Sold Price	Sales Value (£ per sq ft)
Plot 33, 62 Fairbairn Way – 2 bed apt	710	29/06/2010	£120,000	£169.01
Plot 63, 41 Fairbairn Way – 5 bed detached	1,783	28/05/2010	£230,000	£129.00
Plot 57, 53 Fairbairn Way – 4 bed detached	1,272	18/03/2010	£197,000	£154.87
Plot 47, 75 Fairbairn Way – 3 bed semi detached	830	18/12/2009	£134,995	£162.64
			Average	**£153.88**

York Road, Chatteris

This is a small Rose Homes development comprising of 7x four bed homes which are currently under construction. Agents reported that there has been a good deal of interest. The asking prices include the following:

Unit type	Area Sq ft (assume)	Asking Price	Sales Value (£ per sq ft)
Plot 1, 4 bed detached house	1,800	£274,950	£152.75
4 bed detached house	1,800	£249,995	£138.89
Plot 2, 3 bed detached bungalow	1,250	£264,950	£211.96 (??)
		Average	**£145.82**

Ellingham Gardens, Weney Road, Chatteris PE16 6WB

This development is located in close proximity to the college and is still partially under construction although some owners have now moved in. The scheme offers

approximately 15 units comprising of two and three bedroom semi-detached properties.

Through conversations with the agents Ellis Winters, we are aware that the units have been achieveing a net sales price of between **£135,000 - £145,000**.

Buyers have ranged from overseas cash investors to one unit selling to a first time buyer.

Other sales include:

Unit Type	Area Sq ft (assume)	Date Sold	Sold Price	Sales Value (£ per sq ft)
48a London Road, Chatteris PE16 6LW – 4 bed detached house	1,550	Sep '10	Approximately £165,000	£106.45
63 Farriers Gate, Chatteris PE16 6AY – 4 bed detached house	1,550	Sep '10	Approximately £175,000	£112.90
			Average	**£109.68**

Pipeline: Tithe Farm, nr Weney Road/London Road

This development is still at the planning stages and as of yet has no developer on board. The scheme proposes 1,000 homes and will be promoted through the LDF.

March

March is now the administrative centre of Fenland District Council, the town is approximately double the size of Chatteris and in turn displays a more varied mix of properties and has some larger estates. However, the general environment does not seem as intimate as Chatteris and the portfolio of properties is generally comprised of larger units.

The town quotes similar values to Chatteris, although Chatteris historically is known to achieve slightly higher values often attributed to the good road connections and proximity to Cambridge; March has only one crossing over the River Nene which restricts traffic flow. However, March offers the train station which provides a service to London Kings Cross in approximately 1 hr 30 minutes changing at Peterborough. There is also a good selection of pubs in March and more shops than Chatteris and Whittlesey can offer.

We understand that approximately six out of ten of purchasers are from out of the area, in particular, March evidences an older demographic that move here to retire and are looking to downsize. There are also a number of residents that stay in the area looking to upsize. Flats are not popular, larger houses are very reasonably priced so purchasers can obtain more for their money.

Wimblington is a town that lies just south of March and is home to two past Canon Kirk developments; The Paddocks and Eastwood Green.

Agents are reporting that there is a high supply of stock in March but in many cases vendors are too optimistic about values and therefore units are still slow to sell despite high levels of demand; purchasers are not willing to buy unless at the right price.

Agents are reporting approximately 20 sales per month, however, this is primarily second hand units.

Millfield Close, Burrowmoor Road, March

This small scheme is located in close proximity to the town centre. The agents William H Brown have been marketing the scheme for approximately 8 weeks in which time 2 units have been sold; both four bed properties asking £224,995 and achieveing £215,000 as listed below.

Unit Type	Area Sq ft (assume)	Date Sold	Sold Price	Sales Value (£ per sq ft)
2 x four bed detached houses	1,550	Since Aug '10	£215,000	£138.71
			Average	**£138.71**

Willow Green, Gaul Road, March

This is a Cannon Kirk development of 135 units comprising 34 x two bed units, 48 x three bed units and 53 x four bed units. Construction work began in July 2010.

No further information is currently available on this development.

Eaton Mews, Wimblington

This is a Rose Homes development . We have been informed by marketing agents that prices have come down substantially and now 3 bed townhouses range from £152,950 - £154,950 whereas previously they were on average £170,000.

Current asking prices include:

Unit type	Area Sq ft	Asking Price	Sales Value (£ per sq ft)
Plots 1 and 4	972	£154,950	£159.41
Plots 2 and 3	972	£152,950	£157.35
		Average	**£158.38**

Wisbech

Wisbech, capital of the Fens, is the most densely populated of the market towns and is a market town of great character and historical importance, well know for its examples of Georgian architecture. The tidal River Nene runs through the centre of the town and is spanned by two bridges. Places of interest include the Port and Yacht Harbour, St Peter's and St Paul's Church, Peckover House, Elgood's Brewery and Garden, the Angles Theatre and the Thomas Clarkson Memorial.

Rail services to London Kings Cross available in approximately 1 hour 55 minutes. Road communications are good with access to the A47, A1 (M) and the A52.

Values achieved in Wisbech are evidenced to be slightly lower than is being achieved in March but there is interest in the area. Maxey & Sons informed us that they made 16 sales in September in comparison to a poor sales rate in August, reporting only 2 transactions. This evidences the inconsistency in the current market although the summer months are often poorer in activity. In the nearby town of Kings Lyn, agents at Maxey & Sons reported that no sales have occurred since early July.

Applicant numbers have increased in the area, as has the number of transactions. We are of the opinion that sales values will stay fairly constant during the first quarter of 2011.

The more upmarket area of Wisbech is located around the following areas: Tavistock Toad, Townsend Road, Calrkson Avenue and North Brink. We understand that a 5 bed detached house has recently been marketed at an asking price of £349,000 and achieved £335,000.

There is an active rental market in Wisbech, notably due to the large Easter European population that work on the lands in the locality. People often buy the properties as an investment to then rent. The nearby village of Kings Lyn is overrun by flats and they are having to be rented out as they cannot sell them.

Cromwell Gardens, Cromwell Road, Wisbech

This is a Reason Homes development currently under construction with the first units due for completion between January - April 2011. The development consists of two and three bedroom cottages, three bedroom houses and a two bedroom coach house.

Maxey & Son are joint agents with William H Brown on marketing the scheme. We have been advised that the units were initially marketed considerably over what agents advised and therefore, due to a lack of interest, prices were reduced in October by approximately £20,000 from an average of £159 per sq ft to the prices listed below. Sales figures are assumed to need to be reduced further still, significantly lower that values quoted below.

Unit type	Area Sq ft	Asking Price	Sales Value (£ per sq ft)
Plot 2 & 3 – 2 bed semi-detached cottage and garage	1,017	£145,000	£142.58

Plot 4 – 3 bed detached cottage and garage	1,195	£155,000	£129.71
Plot 5 – 3 bed detached cottage and garage	1,087	£155,000	£142.59
Plot 6 – 3 bed detached cottage and garage	1,195	£155,000	£129.71
Plot 7 – 2 bed detached cottage and garage	1,017	£145,000	£142.58
		Average	**£138.29**

Newton, PE13 5HW

A small development of just two x 3 bed semi-detached units. The units are due to complete in April 2011 but have already been sold at the following values:

Unit Type	Area Sq ft	Date Sold	Sold Price	Sales Value (£ per sq ft)
3 bed semi-detached	925	Oct '10 (exchanged)	£129,500	£140
3 bed semi-detached	925	Nov '10 (current, due to exchange)	£129,500	£140
			Average	**£140**

Summary

As evidenced above and following conversations with agents active across the district, it is apparent that the most popular units are the 2-4 bed houses and bungalows, as evidenced also by the unit mix of schemes coming forward. Developers see a better return on their investment by building slightly smaller houses (2-3 bed houses) as they are popular but have a higher rate per sq ft than the larger houses; on a single plot, you will get a better return if you build two smaller houses as opposed to one larger.

Properties that are usually popular with first time buyers, such as terraces and flats, aren't selling due to the continued high conditions on lending criteria and because prices of houses have reduced considerably so buyers can get more for their money and therefore prefer to purchase a house. Wages in Fenland range on average between £20,000-£25,000 and this reflects where the demand is. People cannot always afford the largest units but can afford a small house as opposed to a flat. Once house prices are above £125,000 people may start looking at flats, but currently, values have reduced to a level where there is no interest in purchasing flats when buyers can afford a house.

We have been informed that you would expect in the region of £75,000 for a two bedroom flat, then £100,000 - £105,000 for a two bed semi-detached property (approx 650 sq ft). Retirement bungalows have historically sold for approximately £149,905.

A mentioned above, there is a south north gradient evidenced in the values across Fenland although the differential is slight with an over range of approximately **£130 per sq ft** for the largest units and **£150 per sq ft** for the smaller properties.

Opinion of new build values:

Area	Approximate Average Values (£ per sq ft)	Base (Approximate %)
Wisbech	£135	0
March	£140	+5%
Whittlesey	£145	+5-10%
Chatteris	£150	+10%

Supply Pipeline

A number of schemes in the pipeline are stated above including the Stanground project which is to consist of 1,525 homes covering 120 acres, Tithe Farm which is still at the planning stages and Larkfleet Homes development in Whittlesey if a revised scheme gains planning permission.

In addition, James Homes have just agreed to purchase a site in March, Asbeach Road but further details are not yet known.

Nene Waterfront – We are aware that this scheme is in the pipeline but has been put on hold. Notably the front section of the development is along the waterfront and the density and design is intended to suit a flatted scheme. It is widely recognised that flats have been the hardest hit and that there is no market for these units at present. Until this position changes the scheme cannot progress as the development is not viable. The rear of the scheme, away from the river, may begin sooner as this is intended to be larger single units but there is currently a great deal of uncertainty surrounding the scheme.

Residential Land Values

Given the stagnation of the development land market and that evidence of these deals are difficult to find as they are often confidentially sensitive, we have relied heavily upon sentiment from local agents and house builders to provide us with a steer on residential development land values. It is difficult to come to any conclusions as even local sources are reluctant to comment on values with no large land sales to form an educated judgment upon.

We are aware that there has been no release of any new large parcels of land for some time. Any site that is allocated is already in developers hands and they are sitting on these sites for the time being.

We have been advised that a 2-3 acre site with residential planning permission in the current market, with 30% allocated to affordable housing, will achieve approximately £250,000 which equates to between **£83,500 - £125,000 per acre**. This is assuming approximately 12 plots to an acre (approximately 10 plots to an acre if larger properties intended).

We have been informed that prices for individual building plots, which are more common in Fenland, range between approximately **£30,000 - £40,000.**

Examples of smaller residential sites are listed below:

- A site is currently being marketed at 43-47 The Causeway, March PE15 9NU comprising of a development site with full planning for eight dwellings including 6 three bedroom houses and two one bedroom apartments. Offers have been asked in the region of £250,000 equating to on average **£31,250 per plot.**

- A plot of land with planning permission for five bungalows has been put out to tender at a guide price of £250,000. We are aware that one offer was made at £170,000 which equates to **£34,000 per plot** however this was not accepted.

- A site in March on the riverside had planning permission for a low density scheme of eight large units which is current and waiting to exchange at £438,000 which equates to **£54,750 per plot.**

- Another plot in March to the rear of 36 High Street PE15 9JR has planning permission for eight two bedroom houses in two blocks with offers invited from £195,000 equating **to £24,375 per plot.**

Employment

General Commentary

The Valuation Office Agency (VOA) July data reflected a rise in commercial activity, following a modest reduction in June, but the rate of expansion was only marginal. Refurbishment and industrial and warehouse activity led the overall increase in commercial development during July.

The RICS Commercial Market Survey Q2 2010 reported that tenant demand has fallen for the first time in four quarters as sentiment amongst surveyors wanes, this is most notable in London. Rental expectations also show a decline across all sector with biggest declines expected in the retail market, this is after a positive first quarter. In addition, enquiries for occupation decline across each sector and across all regions, outside the North.

According to IPD, UK commercial property values reflected another month of capital growth in September 2010 with an increase of just 0.2%. The industrial sector delivered its second-successive month of capital depreciation posting a 0.1% fall The retail and office sectors were equal with growth of 0.2%.

There is currently limited supply of development funding and caution in the funding markets has led to a stop on speculative development (i.e. development of buildings without a tenant having been secured). Also the impact of the change to empty rates has resulted in landlords being forced to accept lower rents on existing second hand space to limit their liability through ensuring the property remains occupied. This has had a direct impact on the assessment of market value in the area.

Fenland

During the economic downturn, activity in the business sector in Fenland appears to have slowed more than in the housing sector. The amount of employment floorspace completed has fallen in almost every use class, compared with last year.

Fenland average earnings evidence one of the lowest in the County. A mentioned previously, Fenland is a rural district covering approximately 54,500 hectares of mostly agricultural land. Systematic drainage of the Fens began in the 17th century, this gave the area some of the most productive soil in Britain so that now, Fenland is in the heart of a rich lowland farming belt that extends around the Wash, a square mouthed estuary on England's east coast. Most of the district therefore comprises high grade agricultural land.

The Fenland economy has for years been built upon farming and food related industry. The food industry is now well established, and related processing, storage, packaging and distribution has become more sophisticated.

The predominantly rural economy of the area has also included a strong industrial tradition, including brick making, printing and engineering, but many Fenland residents already travel outside the area to work.

It is expected that as growth of the local economy from Cambridge continues, the pressure for outsourcing of industry, housing and jobs is expected to move northwards.

Migrant workers have traditionally formed an important sector of the seasonal labour force; recently, migrant communities are becoming more established and less 'seasonal'; the majority being Polish and Lithuanian.

The challenge Fenland faces in the future is to encourage further economic growth in the district, creating more and better skilled jobs.

Offices

Fenland is not an established office location and the four main market towns of Whittlesey, Chatteris, March and Wisbech do not have individual offices markets either in the town centres or out of town business parks. In March, workers tend to commute. The focus town report for Wisbech comments that no office data is available, indicating that there is not an established office market in Wisbech.

Agents commented that Fenland does not have a large service sector and as such there are no requirements for office units, subsequently there is no reason to build new stock. Empty rates are now a primary concern and the lack of demand has meant that values are lower than costs. As a result few sales and lettings are occurring, the only transactions appear to occur when current occupiers wish to reduce costs by relocating as asking rents are so low on available units.

Poor infrastructure has meant that Fenland has not been a popular office destination. Neighbouring Peterborough is supported by the A1 which links to the M1 and is therefore much better connected. In addition there is an oversupply of accommodation in Peterborough and therefore there has been no demand to start building in cheaper locations outside of Peterborough.

Of the limited demand that there is for office accommodation, we are aware that the majority comes from occupiers with small requirements; local solicitors and accountants.

Rental Values

According to PROMIS, at mid 2010 top rents in Peterborough stood at £13.00 per sq ft, although significant rental decline has been seen across the country and in the peak of the market top rental values in Peterborough were at £15.50 per sq ft.

Speaking with local agents we are aware that Whittlesey accommodates a few local businesses but does not attract larger firms. We are aware of one available unit in Whittlesey listed below:

- First Floor, Bank Chambers, Eastgate, Whittlesey, Peterborough PE7 1AB – This is a self contained first floor office suite comprising six individual offices. Free parking is also close by. The suite is 1,084 sq ft (100.8 sq m) and is asking £7,500 per annum which equates to £6.92 per sq ft (£74.40 per sq m). The

office suite has been on the market since may 2008 and in this time has received one viewing evidencing the lack of demand in the area for this type of space.

Local agents commented that rents for second hand stock in Whittlesey would be expected to be in the region of **£5 - £6 per sq ft (£53.82 - £64.58 per sq ft).**

In Wisbech, four of the main firms merged and therefore consolidated in a single on location freeing up a large amount of office stock around the town centre. This space has now all been taken at lease terms with a stepped rent, resulting in an average over the term of **£4.00 per sq ft.** The last office unit agreed on these terms we have been informed was in May 2010.

The Boathouse is a new managed office development in Wisbech which completed in Sep 2008. It was not built to cater for a demand more to supply the market with stock that was unavailable elsewhere in Fenland. It is situated within the riverside quarter and was intended to be a landmark building designed to exceed modern business demands and attract local, national and internal businesses to the area. It offers sustainable office accommodation predominantly aiming at small and start-up businesses. The centre comprises of 38 office units over 2 floors, meeting and conference suites, full reception facilities and a café. Accommodation is offered with no long term lease tie-ins, providing flexibility to businesses. Generally the terms are 3 years with no penalties for an early break.

Speaking to the administrator at the business centre we are aware that currently the occupancy level is at 45%. We were informed that over the past couple of months the market has picked up and 5 suites have gone under offer since the beginning of September 2010 at **£17.95 per sq ft (£193.21 per sq m).** Units are predominantly occupied by small local businesses although we are aware that Centrica plc occupy one of the suites. However, this rent includes rates etc and therefore would break back to approximately **£8.00 per sq ft.**

Yields

In addition, at mid-2010, prime yields in Peterborough were reported to be at 7.75%; this reflects a higher covenant strength than would be expected in Fenland and lower risk.

If yields are at this level in Peterborough then the covenants are likely to be poorer in Fenland and more risky which would increase the yield, although there is little evidence from which to set a rate we are of the opinion office yields would range between approximately **9-11%.**

Industrial

The choice of distribution location is driven by an interaction of factors such as access to markets, suppliers, and ports and the quality and size of the local workforce.

The property stock around Fenland is predominantly industrial, typically factories, however, we are aware that Fenland is reported to ‘lag’ behind Peterborough which is why considering the market in Peterborough provides a good indication of the market conditions in Fenland. It has been reported that since mid 2010 the level of industrial market activity has reduced and therefore Fenland has little activity to

report. We are aware that Fenland only really sees a good level of activity in a booming market which supports the overflow from Peterborough. As noted above, occupiers will always look for the better quality stock first, with good access and a good labour force. The stock in Fenland is considered poor and not viewed to be in a good location.

As a result there is very little spec development in Fenland and newer units tend to be built by the occupiers themselves to ensure a product that caters to their individual requirements.

Historically, in the boom, the industrial market in Fenland was not buoyant but remained active, as low rental levels and a good labour force encouraged interest. However, Peterborough's population now offers more available labour, notably with 10% of the population being Polish, and rental levels have come down considerably on new stock. Therefore, Fenland now does not have the advantages over Peterborough that it previously offered, and with the added burden of distribution costs to travel to the market towns in Fenland, the industrial market has corresponding diminished and developers have little interest in building units where demand is so limited and existing stock is available on the market.

Although the areas evidence different sized industrial markets with a range of stock, it is hard to distinguish between the four main towns in Fenland in terms of rental levels however, March appears to be the main industrial location in Fenland, with a large industrial area to the north of the town. In addition, demand will always be greater for higher quality stock and March evidences some new units.

Below are listed the four main market towns and the main industrial areas in each. Industrial rental transactions in Fenland have been limited recently, therefore alongside some transactions we have relied upon quoted rents from units that are currently on the market as well as general sentiment from local agents. The following information provides a summary of the range of space available and recent rental values in the area.

Whittlesey:

The smaller markets of Whittlesey and Chatteris comprise mainly of secondary industrial units. All towns except Whittlesey have the benefit of a bypass where access to industrial estates is through a residential area, therefore Whittlesey requires infrastructure improvements to become a more attractive destination. The principal concentration of industrial and warehousing space is found around Station Road. The main Industrial sites in Whittlesey are outlined below:

- **Fenland District Industrial Estate**, (Station Road Industrial Estate), Whittlesey, PE7 2HA – located south of Whittlesey on the B1093 and occupies a 3.17 acre site

- Lattersey Hill Trading Estate, built in 2005 and is part of the above estate.

- Aaron Road Industrial Estate, Station Road, Whittlesey – this smaller estate is part of the Fenland District Industrial Estate and consists of second hand units.

In Whittlesey the principal concentration of industrial and warehousing space is found along Station Road where there are a number of larger industrial estates and also

some individual units. Main occupiers in the area include Smurfit Corrugated, Harveys Furnishings Group, RGE Engineering and Blythewood Plant Hire.

Stock levels in the area have increased as second hand units have come onto the market. In Aril 2009, 60,000 sq ft of space at Lattersey Hill Industrial Estate came on the market, in September 2009, 40,000 sq ft at 200 Station Road also came on the market and there are rumours that 40,000 sq ft more will be coming on soon. There are no new build industrial units in Whittlesey.

As indicated above, industrial rental transactions in Whittlesey have been limited recently, therefore alongside some transactions we have relied upon quoted rents from units that are currently on the market as well as general sentiment from local agents. The following information provides a summary of the range of space available and recent rental values in the area:

- **DEAL: Units A2, Lattersey Hill Trading Estate** – A 10,229 sq ft (950 sq m) warehouse unit was let in July 2010 to Finnveden Powertrain Ltd on a ten year lease subject to a rent review in year five and a tenant option to break in years two and five. Six months rent free was also agreed which equates to £2.85 per sq ft (£30.68 per sq m).

- **Unit B Aaron Road Industrial Estate, Station Road** – a 2,889 sq ft (268.38 sq m) self-contained modern industrial unit is available in a fenced and gated area. The unit included integral offices. The asking rent is £15,000 per annum which equates to £5.19 per sq ft (£55.89 per sq m).

- **Lattersey Hill Trading Estate** – a variety of sizes are available ranging between 9,475 – 41,846 sq ft (880 – 3,888 sq m). The estate is fenced and gated and offer a storage yard area. Asking rental values are at £3.00 per sq ft (£32.29 per sq m).

- **Lattersey Hill Trading Estate –** Semi-detached single bay warehouse units available ranging in size from 23,778 – 65,624 sq ft. Asking rental values are at £3.00 per sq ft (£32.29 per sq m). Built in 2005, the estate is fenced and gated with storage yard.

- **Unit B1, Lattersey Hill Trading Estate** – 23,773 sq ft (2,209 sq m) of second hand warehouse space is available at £60,000 per annum which equates to £2.52 per sq ft. The unit is described as offering adequate loading, circulation space and parking areas.

- **Units A1- A3, Lattersey Hill Trading Estate** – 13,930 – 41,846 sq ft of second hand warehouse space is available at £34,825 - £104,615 per annum which equates to £2.50 per sq ft. The unit is described as offering adequate loading, circulation space and parking areas.

Considering the current market conditions in Whittlesey and following conversations with agents active in the local area, we are aware that rents in Whittlesey for second-hand units but in fairly good condition range between **£2.50 - £3.00 per sq ft (£26.91 - £32.29 per sq m)**. In addition terms expected are 10 years with an option to break in year 5 and a 1 year rent free period. It should be noted that smaller unit sizes cause rents to inflate.

Chatteris:

The town's local economy is largely based on agriculture, Albert Bartlett Ltd has a large facility in the town centre, Rustler Produce Ltd are also based in Chatteris with a number of other smaller vegetable producers and processors also operating in the Chatteris area. Another major employer in the town is Metalcraft Ltd.

March and Chatteris both attract a local market, evidencing a predominantly owner occupiers market with occupiers that have been located there for many years. It is not an area that attracts new interest with the exception of in a stronger market there may be a bit of migration from nearby larger industrial areas, however, in the current market things are slow with only a small amount of interest.

The main Industrial site in Chatteris is outlined below:

- **The Honeysome Industrial Estate** – large units on the outskirts of Chatteris offering a mixed quality of units.

Units currently available include the following:

- 11, Honeysome Industrial Estate - this unit is in poor condition and has been on the market for over a year now. The unit is a warehouse of steel portal frame construction covering 8,472 sq ft. It is being offered to the market at £3.00 per sq ft but agents are expecting closer to £2.00 per sq ft.

Chatteris has been described as a factory town, with few jobs in the area apart from factory jobs such as Rustlers onion factory, the metal factory on the Honeysome Industrial Estate and Bartlets; these jobs indicate a fruit and vegetable employment culture which attracts immigrants to the area.

March:

The industrial market in March is larger than that of Chatteris and rental values are expected to be marginally greater as the road links assist in distribution. However, there is an oversupply of units in March which is keeping rental values low.

March's industrial market is predominantly local companies, owner occupiers, which are attracted to basic 2,000 – 3,000 sq ft light industrial warehouse units. In addition, a lot of the stock is old council schemes with some very small units which are not in demand and do not attract people to start up a business or relocate to the area. Lease terms offered tend to be flexible but show no consistency.

There are four Industrial/Trading Estates in March located in the north of the town:

- The March Trading Park, Hostmoor Avenue, PE15 0AX
- Commercial Road
- Marwick Road
- The Longhill Industrial Estate, Longhill Road

The newest development is within the March Trading Park and is outlined below:

- Thornby Business Park

- Charbel Business Park, Thornby Avenue

The Thornby Business Park is located within the March Trading Park situated in the A141 Huntingdon to Kings Lynn road. The Business Park is nearing completion having begun in 2006 but a number of units are completed and have been sitting vacant according to agents marketing the scheme. Rents are quoted at between £5.00 - £5.50 per sq ft (£53.82 - £59.20 per sq m) depending on the size of the units, the higher end of the range is for the smaller new build units. All the units are high quality but very basic.

The Units at Thornby Business Park comprise of the following:

- Block A – Terrace of 5 industrial units of 914 sq ft and 1,087 sq ft;
- Block B – A terrace of 6 industrial units of 1,700 sq ft and 2,066 sq ft; and
- Block C – The property comprises a terrace of 10 industrial units which are currently under construction. The building will be of steel portal frame construction with brick and block main walls under a pitched roof. Various units will have allocated parking. 732, 882 and 1,205 sq ft units.

Charbel Business Park, Thornby Avenue – units predominantly 1,249 sq ft. 12 industrial units of steel portal frame construction with brick and profile steel cladding under a pitched roof. Within March Trading Park. Units available at a guide price of £85,000 and are selling at this price. However, agents have reported that the new build units in this area are struggling to sell as there is a high supply that is not met with the demand.

Other industrial areas in March and the nearby area of Wimblington include:

- Hill View Industrial Estate, Wimblington, March

  Available - a 11,986 sq ft (1,114 sq m) unit investment opportunity which is currently producing a rental income of £22,749.36 per annum (which equates to £1.90 per sq ft).

- 5 Century Way, March – North of March, located in established business location. This second hand unit is 750 sq ft (70 sq m) and is asking £3 per sq ft (£32.29 per sq m)

- Creek Fen, March PE15 0BU – located north east of March, small, second hand Industrial Estate.

  Unit C was let in December 2009 after 657 days on the market. An undisclosed tenant took 3,906 sq ft (362 sq m) of a detached industrial building positioned upon a self-contained site fronting Creek fen Road. The terms are confidential but we are aware that the quoting rent was £8,007 per annum, which equates to **£2.05 per sq ft (£22.07 per sq m).**

- MBM Produce Ltd occupied 200,000 sq ft of industrial space in March but recently went bust. The space was then let at **£1.43 per sq ft** fixed rent on a 15 year lease with tenants option to buy.

Following conversations with agents active in the local area, we are aware that for prime stock in March rental values are approximately £5 per sq ft (£53.82 per sq m).

For poorer stock, values range considerably but on average, units in March are approximately £3 per sq ft (£32.29 per sq m).

Wisbech:

Wisbech has a large industrial market, although rental values are slightly below that of March as the area itself is much more isolated. Larger companies tend to locate here because of the large amount of available labour, it is predominantly an eastern European population that work on the land and therefore the areas employment is predominantly agriculture and food processing work.

Due to the operations located here and the relative amount of available space rents are low and rarely achieve much over £2.50 per sq ft for smaller units and very large units not over £1.50 per sq ft.

Industrial Rents

Agents are reporting a range from **£1.50 per sq ft - £5.00 per sq ft (£16.15 - £53.82 per sq m)** across industrial rents accounting for the range of stock that is on offer. It should be noted that smaller unit sizes cause rents to inflate.

Whilst headline rents have held up fairly well, significant increases in incentives and reduced lease terms mean that effective rents have fallen in many centres. Lease lengths are continuing to fall but at a slower pace across all regions.

Industrial Investment Market

On speaking to investment agents and researching evidence of recent industrial transactions in Fenland, we were able to form an opinion as to where industrial yields in Fenland currently sit. It must be noted though that there has been a lack of transactional evidence and this is therefore an opinion and cannot be taken as actual evidence of local market yields.

Agents noted that investors want new stock of which there is very little in Fenland, and also need the accessibility of sites and as a result Fenland does not attract many investors and therefore yields are reported by agents at approximately **10 -12%.** Due to the lack of transactional evidence there is no clear/conclusive view.

It must be noted that there are a large number of factors that affect the yield on a property, particularly lease length and covenant strength, and that generalising about yields can be misleading.

There are a limited number of comparable transactions, as mentioned above, however, widening our search towards the following sales, which consist of secondary warehouse and distribution units let to various covenants, gives an indication of where the market currently sits:

- **Travis Perkins, Trading Co Ltd, Oldfield Lane, Wisbech PE13 2HH** – An Industrial Warehouse unit sold as sale and leaseback on 14/07/2009. The unit was sold to a private investor for £917,000 reflecting a NIY of 7%.
- **Unit 1, America House, Newark Road, Peterborough, Cambridge** – A freehold detached industrial unit covering 4,408 sq ft (0.56 acres) sold in November 2008 at auction for £315,000. The unit is subject to a lease to Nationwide Access Limited at a rent of £34,075 which equated to a NIY of 10.33%.
- **Newark Road, Peterborough, PE1 5TF –** Freehold under offer with full vacant possession. 17,500 sq ft (1,626 sq m) of warehousing, ancillary offices and additional buildings with a total site area of 1.4 acres went under offer in September 2010 for close to the asking price at £650,000 which equates to a capital rate of approximately £37.14 per sq ft (£399.77 per sq m).

Pipeline

Most industrial space is owner built and subsequently owner occupied, there is very little spec development as this presents far too great a risk to the developer. As such there are currently no industrial developments in the pipeline.

Employment Land Values

Savills are advertising employment land for sale on Cromwell Road, Wisbech in close proximity to industrial stock. In total 10 acres were available, 8.5 acres went under offer subject to planning mid 2010. The agents were unable to disclose the details but commented that employment land in the area achieves between **£100,000 - £120,000 per acre.** We were informed that there was limited interest in the land due to a combination of the poor quality land, the current economic climate and the need for improved infrastructure in the area.

Agents in Whittlesey have reported no employment land transactions recently but are of the opinion that values would range between **£50,000 - £100,000 per acre**.

Due to the lack of transactional evidence we have relied heavily on local opinion. The general consensus is that without consent, employment land in a Fenland in a good location will achieve approximately £100,000 per acre. However, this value will increase for land with consent, but also decrease for land in more rural locations away from town centres, away from strong transport links. It should be noted that developers would struggle to build anything at a profit with higher land values in the area. In addition, for un-serviced land a discount is applied to take account of the costs associated with servicing a site.

Retail

According to research, the retail market in the UK was looking relatively positive at the start of 2010, however, as the year has progressed the market has been experiencing a slowdown with some sectors experiencing negative growth.

There is a growing concern about tax rises and job cuts as the new coalition government attempts to reduce the public sector deficit meaning consumers are likely to become more cautious about their spending habits. This is coupled with the upcoming VAT increase taking effect in January 2011 and a weakening housing market.

Over the 12 months to June 2010, the average prime rent in Great Britain has fallen by 1.4% from £115 per sq ft to £114 per sq ft. Although growth remains negative, this is a marked improvement on last year's -11.5% fall in rental

The market towns in Fenland tend to operate towards the lower end of the retail spectrum and they cannot compete with the nearby retail centres of Cambridge and Peterborough; both with a far greater retail offer and therefore much of the retail spend of the residents of Fenland is leaked into these two larger retail centres.

Cambridgeshire Retail Study (2001) looked at the retail needs of Fenland District which analysed demand for convenience and comparison goods floorspace in the market towns up to the year 2011. It stated that in Wisbech, future capacity is likely to be focused on enhancing the turnover of existing retailers. It was identified that Whittlesey had a forecast demand of approximately 900 sq m, whereas March and Chatteris had a negative figure indicating an over supply of floorspace. The report stated that there is no forecast need for additional comparison good floorspace in Whittlesy, Chatteris or March and also that the surplus capacity in Wisbech is unlikely to support any significant new development in the town.

Fenland District Retail Study (2006) looked at the retail needs of Fenland up to 2021. the study concluded that there is a need for additional floorspace in both convenience and comparison shopping, with a higher need for comparison (non-food). A need has been identified for a range of quality food and drink outlets, focused in Wisbech and also in March.

The study suggests that Chatteris and Whittlesey both function as local service centres as opposed to main retail destinations. Whittlesey is located near to Peterborough and therefore falls within the catchment area and Chatteris is more centred around tourism and leisure with more hotels, bars and restaurants as evidenced by Wetherspoons which has recently located there.

Wisbech is more constrained due to the conservation status and topography and therefore, as the report suggests, focus should be on the re-use of the vacant

properties in the town centre and extensive development should take place in locations outside the town centre. There is room for improvement in the town centre by filling voids and bolstering the centre's fashion sector representation.

March is more able to accommodate new comparison (non-food) retail and related town centre uses. The vacant units are considered small and do not meet the modern floorspace requirements for today's retailers and therefore new sites, or redevelopment will be required.

There is a need for convenience stores, both larger units and smaller 'express' units.

Rents are reported below on the basis of an average per square foot basis rather than ITZA. This approach is commonly found in the weaker retail market locations.

There are a high level of vacancies in March and Wisbech and an increasing level in Whittlesey raising concerns about the long-term strength of these centres. However, the vacant units in both Wisbech and March do not meet the modern floorspace requirements for today's retailers. Wisbech town centre is also further constrained due to the Conservation Area status and presence of listed buildings.

Retail rental transactions in Fenland have been limited recently, therefore alongside some transactions we have relied upon quoted rents from units that are currently on the market as well as general sentiment from local agents. The following information provides a summary of the range of space available and recent rental values in the area by considering each of the main market towns:

Whittlesey:

Co-op is the main supermarket in area, however, Tesco had been looking to assemble a site near the town centre although we are aware that this has been put aside due to planning and highway issues. Tesco are continuing to look at sites on the outskirts of Whittlesey.

The retail market in Whittlesey has suffered considerably evidencing very little demand. Rental values are assessed on an overall sq ft (sq m) basis as opposed to applying Zone A rental levels.

Speaking with agents active in the local area we are aware of a few units available, however, these units have been on the market for a considerable amount of time and have received no interest. Some of the units available are listed below:

- **Angel House, Eastgate, Whittlesey** – A 335 sq ft (31 sq m) ground floor mid terrace retail premises with A2 use and parking at the rear. The unit is available to let at £5,250 per annum which equates to an overall rate of £15.76 per sq ft (£169.35 per sq m).

- **Unit 5, Market Street, Whittlesey** – Two shop units totalling 612 sq ft (57 sq m) are available to let as a whole or individually. There are on a High Street location with two suites of offices above. The units are available at a rent of £8,000 per annum which equates to an overall rate of £13.07 per sq ft (£140.35 per sq m).

- **Units 1-2, The Causeway Centre, Whittlesey** – A 23,339 sq ft (217 sq m) double fronted shop on the prime retail strip of Whittlesey is available on a new

lease. The units is located in close proximity to The Original Factory Shop and Boots Pharmacy. The unit is available to let at £15,000 per annum which equates to £6.41 per sq ft (£47.02 per sq m). this lower rental value reflects the refurbishment needs of the property.

We are not aware of any recent rental transactions in the area but agents suggest that if there was demand in the area, second hand stock would look to achieve between **£7 - £8 per sq ft (£75.35 - £86.11 per sq m)** and higher quality stock in the region of **£15 per sq ft (£161.46 per sq m).**

March:

As noted above, March has a larger retail market than that of Chatteris and Whittlesey but there is still no evidence of high street stores locating in the area, Boots, Holland and Barrett and WH Smith are the main brand retailers on the high street.

March is the largest retail centre in Fenland and, although it does not stand up to the competition of nearby retail centres such as Peterborough. March town centre does have scope for improvement which could potentially attract new retailers albeit these are likely to be on a local rather than regional scale.

We are aware of the low levels of requirement for the area and the lack of high street retailers as indicated earlier. As a result the units are predominantly occupied by, and interest is from, local businesses.

In March 2010 Heron Food located on Broad Street, taking the unit formerly occupied by Woolworths. We were informed that Heron Food are now looking to locate in other areas in Fenland.

Deals include:

- **3-5 Dartford Road, March PE15 8LA** - A second hand 497 sq ft (46 sq m) ground floor double fronted retail unit with A1 use and with storage space and a cloakroom to the rear. The unit was provisionally let in Oct 2010 to a local business at £4,500 per annum which equates to an overall rate of **£9.05 per sq ft (£97.46 per sq m).**

Available units include:

- **7 Dartford Road, March PE15 8LA** – A second hand 329 sq ft (31 sq m) ground floor single fronted high street retail unit with a rear store and A1 use. The unit is available to let at £3,500 per annum which equates to an overall rate of **£10.64 per sq ft (£112.90 per sq m).** The unit is small which inflates rental values but it is also based in a good location. The agent reported that they expected the unit to let for approximately £9 per sq ft (£96.88 per sq m).

- **25A Broad Street, March PE15 8TP** – A second hand retail unit with ground floor sales area and first and second floor adaptable space. The unit has A1 use and coves 1,967 sq ft (183 sq m), it is available to let at £22,000 per annum which equates to an overall rate of £11.18 per sq ft (£120.22 per sq m).

- **52 High Street, March PE15 –** A second hand high street retail unit with A2 (Financial and Professional Services). The available space comprises a ground

floor retail unit of 727 sq ft (68 sq m) and is asking £11,000 per annum which equates to **£15.13 per sq ft (£161.76 per sq m).**

There is no new stock in the town centre but 'Fen Retail' is a Retail Park on the outskirts advertised by Savills which is due to include a large Tesco as an anchor store.

Chatteris:

There are a few vacant units here but the area has a smaller amount of retail units than March. We have not been able to source any detail as to these units and understand the market is very inactive.

Wisbech:

Cromwell Retail and Leisure Park is located on the south side of Wisbech and directly fronts the B193 Cromwell Road. The Site is opposite Tesco and the new Belgrave Retail Park mentioned below. The site was granted planning permission in 2006 and is soon to be constructed although no works have begun on site yet. The site is to comprise a mixed use development providing over 151,000 sq ft of open A1 retail and leisure uses with lettings already secured with Next, Wickes, Pets at Home and Curzons cinema.

The retail warehouse terrace will total 105,000 sq ft which will be in flexible unit sizes. An element of trading mezzanines will be available in these units. The leisure element will include a 10 pin bowling unit and a first floor, 6 screen cinema together with ancillary restaurant units. The development will have a total of 573 free car parking spaces.

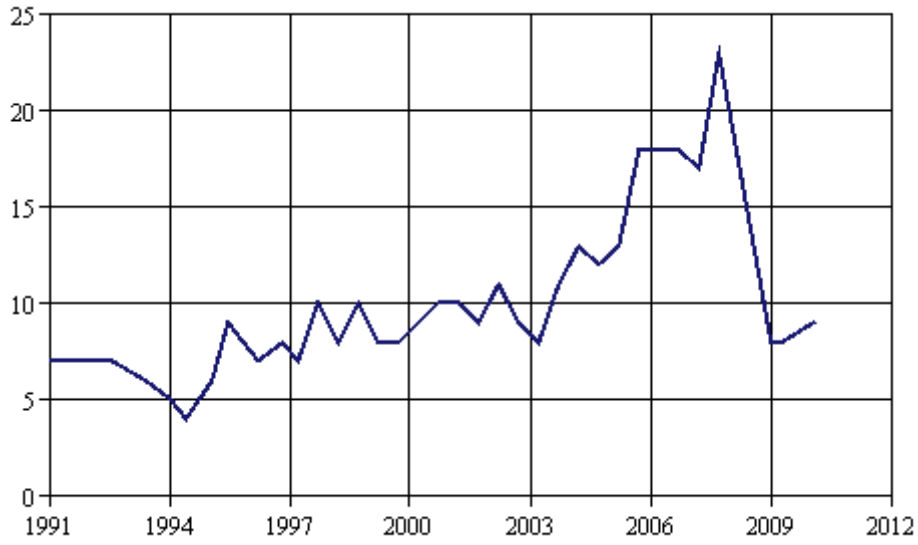
Other retail parks in Wisbech include:

- Belgrave Retail Park - 50,413 sq ft (4,907 sq m) with anchor tenants Carpet Right, Currys, Dunelm Millshop and Halfords
- The Peel Centre - 96,196 sq ft (8,940 sq m) with anchor tenants including Co-Op Superstore and B&Q.

According to the Focus Town report for Wisbech, the prime retail rents in Wisbech were in the region of £45 per sq ft ITZA (In Terms of Zone A) in June 2008. This appears to be supported by discussions with local agents who are reporting prime retail rents in Wisbech in the current market as being on average in the region of £40 - £50 per sq ft ITZA.

The most recent FOCUS Town Report for Wisbech shows that the number of retailer requirements fell from 23 in October 2007 to 8 in Jan 2009. Since then, requirement levels have remained constant, increasing to 9 in Jan 2010. However, it should be noted that similar proportional declines are notable in surrounding towns and cities following the financial crisis and economic downturn.

Chart: Number of Retail Requirements Published for Wisbech by FOCUS, October 2010:



Summary

Apart from the retail parks mentioned there does not appear any immediate attempt to address the retail deficiency in Fenland, notably in the town centres providing more high street retailers.

Rents are generally reported to be higher in Wisbech, with March slightly behind however it is hard to differentiate the individual towns rents a great deal from each other. However, retail rental levels are currently noted to be varied and unpredictable according agents, with no clear trend emerging to suggest an appropriate range to confidentially apply to the Fenland District market.

Alongside some transactions we have relied upon quoted rents from units that are currently on the market as well as general sentiment from local agents. We are of the opinion that rental values, on an overall rate per sq ft basis, range between **£9 - £15 per sq ft (£96.88 - £161.46 per sq m).**

Area	Approximate Average Rent (ITZA)
Wisbech (prime)	£40 - £50
March (prime)	£30 - £40
Whittlesey (no prime)	£20 -£25
Chatteris (no prime)	£20 - £25
Secondary areas	£10 - £12

Retail Parks

Some of the main retail parks, as noted above, include:

- Belgrave Retail Park;

- Fen Retail Park;
- Cromwells Retail Park; and
- Meadowlands Retail Park

Through research in the area we are aware that out of town retail units, across Fenland, would look to achieve a rental value of between **£10 - £12 per sq ft.**

Yields

Since the down turn in the market at the end of 2007 yields have moved out on all property. The limited number of transactions happening in the market means that more emphasis is based on the agents judgement and market sentiment in respect of where yields are now.

Retail agents have commented that yields are dependent on the covenant strength and lease length and that currently there is a low freehold supply in the area. Agents are of the opinion that the general market sentiment is that yields in more central locations range between **8-8.5%.**

Recent retail units offered and some transactions at auctions are listed below:

- **23 Broad Street, March PE15 8TG** – well located Town Centre freehold shop investment. The property is arranged on ground and two upper floors to provide a ground floor shop with self-contained maisonette on the two upper floors. The unit was unsold at auction on 06/07/2010 following a guide price of £360,000 and a last bid made at £355,000. The unit is let on a 25 year lease from 25/03/1993 to Birthdays Group ltd at a passing rent of £27,500. From the last bid, this would equate to a NIY of **7.75%.**
- **5-7 High Street, March PE15 9JA –** three storey property arranged as a ground floor retail shop with first and second floor ancillary accommodation. The freehold was sold at auction on 07/07/2010 for £330,000. the unit is let on a 25 year lease from 25/03/1991 at a passing rent of £26,000 which equates to a NIY of **7.88%.**

Design, text and photography by AECOM

The Johnson Building, 77 Hatton Garden
London EC1N 8JS United Kingdom

www.aecom.com