1 Introduction

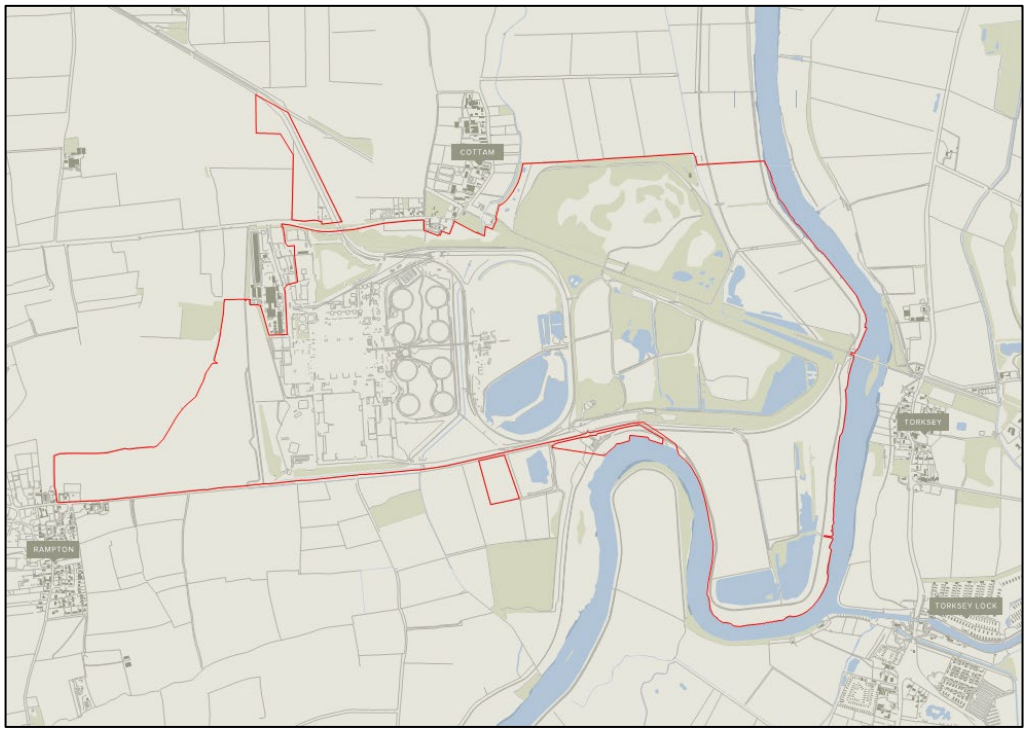
1.1 PREAMBLE

1.1.1 Bassetlaw District Council (BDC) has commissioned WYG to undertake a preliminary review of the likely transport implications of the redevelopment of the former Cottam Power Station site for a development comprising:

- 1,600 residential dwellings
- 15 Hectares of B1/B2/B8 employment
- Local Centre
- 2-Form Entry Primary School

1.1.2 The broad extent of the site is shown edged in red below in Image 1.

Image 1 – Site Location Plan



1.1.3 The site is located within the administrative boundary of BDC, who act as the local planning authority for the area. The local highway authority for the area is Nottinghamshire County Council (NCC), with the highway authority to the east of the site being Lincolnshire County Council (LCC).

1.1.4 This note provides a brief summary of the headline findings from the review.

2 Headline Issues

2.1 POLICY

2.1.1 Paragraph 103 of the NPPF states:

> *"Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health."*

2.2 LOCATION

2.2.1 The former Cottam Power Station site is situated on the eastern edge of the district in a rural area. To the east the site is bounded by the River Trent which acts as a barrier for movement to/from the east.

2.3 ACCESSIBILITY

2.3.1 The site is accessed via Outgang Lane/Cottam Road with the closest 'A' road being the A57 approximately 5 miles to the south. The signposted route between the site and the A57 uses Cottam Road/Rampton Road/Laneham Road and joins the A57 to the west of Dunham village. There is also a network of alternative routes that pass through local villages, which are covered by area-wide 18t vehicle weight restrictions.

2.3.2 The closest villages to the site are small and offer limited facilities. There is only one school near to the site, Rampton Primary School, which caters for 70 children.

2.3.3 The closest town to the site is Retford, approximately 9 miles to the west by car and therefore beyond the reasonable range of walking and cycling trips to access education, healthcare, retail and leisure uses. Census 2011 data confirms that only 2% of journeys to work were made by cycle and 0% of journeys to school were made by cycle within the Lower Super Output Area that the site is situated within.

2.3.4 The nearest railway station is also situated within Retford, circa 9 miles to the west by car.

2.3.5 The site is served by a rail spur off the Sheffield to Lincoln line which was used for coal deliveries when the power station was operational. However, the rail spur is no longer in use.

2.3.6 Preliminary discussions between BDC and Network Rail have ruled out the possibility of utilising the rail spur to provide a rail connection to the site for passenger services for the following reasons:

- The rail spur serving the site is a dead end, so it isn't possible to just add an extra stop for a passing service or make a minor diversion to an existing passing service. Accessing the site by rail would require a bespoke service that would be very inefficient to operate.

- The configuration of the junction of the rail spur with the Sheffield to Lincoln line only permits movement between the site and the west. Travel to Lincoln would require travelling into Retford first which would be very inefficient and would reduce its attractiveness to potential users.

- Adding a bespoke rail service to serve the site would have timetable implications for existing rail services on the Sheffield to Lincoln line.

- The volume of rail trips that would be generated by redevelopment of the site would be too small to justify provision of a bespoke rail service.

2.3.7 It can therefore be concluded that rail is not a viable mode of travel to serve future redevelopment of the site.

2.3.8 The nearest bus stop is on Town Street in Cottam which is served by the P190 bus service between Tuxford and Retford. This is operated by Gem Mini Travel and operates a service between 1015-1825 hrs Monday to Saturday. This operates on a phone-a-bus basis with limited stops in Cottam. There are four buses a day to Retford and three buses a day to Tuxford, with services to/from Cottam needing to be pre-booked.

2.3.9 The site is therefore very poorly served by existing bus services and providing an improved bus connection is likely to require the site promoter/developer to subsidise a bespoke service in perpetuity.

2.3.10 Any development on the site is therefore likely to be heavily reliant on car based trips and would be contrary to national and local transport policies with regards to focussing significant development in locations that are, or can be made to be sustainable, by reducing the need to travel by car by providing a genuine choice of sustainable transport modes.

2.4 TRIP GENERATION

2.4.1 The likely total trip generation of the planning land uses summarised in the introduction has been estimated using a 'first principles' methodology that considers the level of internalisation of trips that could occur, and therefore what the associated external trips could be on the wider highway network.

2.4.2 The resultant external vehicle trip generation is summarised in the table below:

Table 1 – External Trip Generation

	AM Peak Hour			PM Peak Hour		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Totals	304	534	838	304	268	572

2.5 TRIP ASSIGNMENT

2.5.1 Vehicle trips have been assigned using a basic VISUM model representation of the highway network within the district. The model uses an 'all or nothing' assignment process based on the shortest/quickest routes, with link speeds being coded based on mandatory speed limits.

2.5.2 The resultant trip distribution is shown on the attached figures for the AM and PM peak periods.

2.6 LIKELY IMPACTS

2.6.1 The attached figures demonstrate that there is a high demand for trips to/from the south and west to access the A1(T) south and north, and towards Retford and Worksop, with a much smaller proportion to/from the north and east.

2.6.2 Estimated two-way development traffic impacts on key local links are shown in the table below.

Table 2 – Two-Way Development Traffic Impacts on Local Links

Ref	Road Link	Location	2020 Base Flows		Development Flows		% Increase	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
1	Cottam Road, East of Rampton Road	Treswell	419	331	419	331	200%	172%
2	Rampton Road	Treswell	193	177	193	177	313%	232%
3	Cottam Lane East of Townside Lane	Treswell	169	139	234	161	139%	116%
4	Station Road	South Leverton	326	327	326	327	72%	49%
5	Sturton Road	North Leverton	379	415	379	415	25%	16%
6	A620 Gainsborough Road	Saundby	629	680	96	66	15%	10%
7	Retford Road	Woodbeck	234	187	234	187	80%	70%
8	North Green	East Drayton	125	131	125	131	232%	148%
9	Top Street	East Drayton	138	145	138	145	210%	133%
10	Laneham Road	Dunham on Trent	266	225	266	225	48%	39%

2.6.3 As can be seen from **Table 2** traffic flows on key local links and through local villages are forecast to increase significantly due to the development traffic. With peak period traffic flows increasing by two to three times existing levels in some locations.

2.6.4 Some of the large percentage increases will be partly due to existing traffic flows being low. However, this doesn't change the fact that village residents would experience a step change in the volume of passing traffic.

2.6.5 Traffic flow data wasn't available at all locations on the local network so the absence of a location from **Table 2** doesn't imply that impacts would be negligible. In particular, significant impacts could also be expected at Stokeham and Darlton.

2.6.6 Traffic flow increases through the villages of Treswell, South Leverton, North Leverton, Woodbeck and East Drayton are all identified as significant. These villages are small rural settlements comprising predominantly narrow streets with numerous direct frontage accesses to properties, on-street parking and numerous side road junctions. Village highway layouts are typically based on historic layouts that often do not comply with modern standards. Junctions are typically simple-priority T-junctions, often with sub-standard visibility and little scope for improvement due to constraints imposed by adjacent development. Traffic flow increases of the magnitude forecast are therefore likely to raise concerns regarding road safety, traffic capacity, vehicle emissions, air quality, noise, and local amenity in these locations.

2.7 SUMMARY

2.7.1 The Cottam Power Station site is situated on the eastern edge of the district in a rural area. To the east the site is bounded by the River Trent which acts as a barrier to movement to/from the east.

2.7.2 The site currently has very poor accessibility by sustainable modes of transport. Whilst opportunities exist to provide improved connections to local villages for walking and cycling these villages offer very few facilities. The nearest settlement providing key services is Retford, approximately 9 miles to the west and this distance effectively rules out walking and cycling to access these services or the nearest railway station which is also in Retford.

2.7.3 The site is served by a rail spur off the Sheffield to Lincoln line which was used for coal deliveries when the power station was operational. However, the spur is no longer in use.

2.7.4 Preliminary discussions between BDC and Network Rail have ruled out the possibility of using the existing rail spur to serve the site with a passenger rail service.

2.7.5 The site is very poorly served by existing bus services and providing an improved bus connection is likely to require the site promoter/developer to subsidise a bespoke service in perpetuity.

2.7.6 Any development on the site is therefore likely to be heavily reliant on car based trips and would be contrary to national and local transport policies with regards to focussing significant development in locations that are, or can be made to be sustainable, by reducing the need to travel by car by providing a genuine choice of sustainable transport modes.

2.7.7 The Cottam Power Station site does not benefit from a genuine choice of sustainable transport modes and it is difficult to see how this situation could be improved.

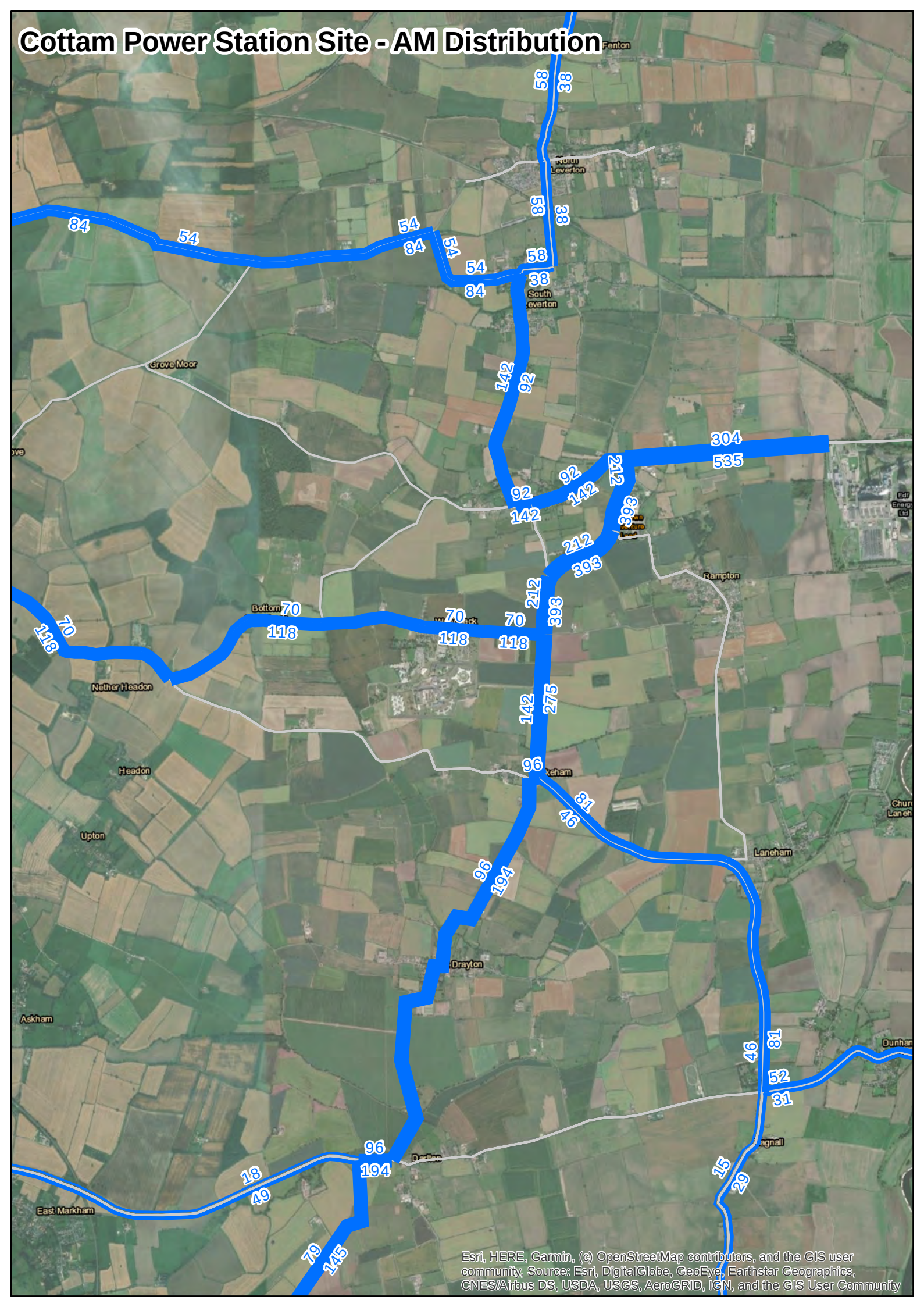
2.7.8 A preliminary assessment has been undertaken to establish the likely traffic impacts that could occur if the power station were to be redeveloped for a residential led mixed-use development. The findings form this assessment demonstrate that traffic flows on key local links and through local villages are forecast to increase significantly due to the development. With peak period traffic flows increasing by two to three times existing levels in some locations.

2.7.9 Some of the large percentage increases will be partly due to existing traffic flows being low. However, this doesn't change the fact that village residents would experience a step change in the volume of passing traffic.

2.7.10 Traffic flow increases forecast through the villages of Treswell, South Leverton, North Leverton, Woodbeck and East Drayton are all significant. Although traffic flow data wasn't available at all locations on the local network significant impacts could also be expected at the villages of Stokeham and Darlton, due to the routing of development traffic.

2.7.11 These villages are all small rural settlements comprising predominantly narrow streets with numerous direct frontage accesses to properties, on-street parking and numerous side road junctions. Village highway layouts are typically based on historic layouts that often do not comply with modern standards. Junctions are typically simple-priority T-junctions, often with sub-standard visibility and little scope for improvement due to constraints imposed by adjacent development. Traffic flow increases of the magnitude forecast are therefore likely to raise concerns regarding road safety, traffic capacity, vehicle emissions, air quality, noise, and local amenity in these locations.

Figures


Cottam Power Station Site - AM Distribution
Fenton
58
38
North Leverton
58
38
84
54
54
84
54
58
38
84
South Leverton
Grove Moor
142
92
304
535
92
142
212
92
142
393
212
393
Rampton
Bottom
70
118
70
118
70
118
212
393
Nether Headon
142
275
Headon
96
81
46
Upton
Laneham
96
194
Drayton
Askham
81
46
52
31
96
194
18
49
East Markham
15
29
79
145
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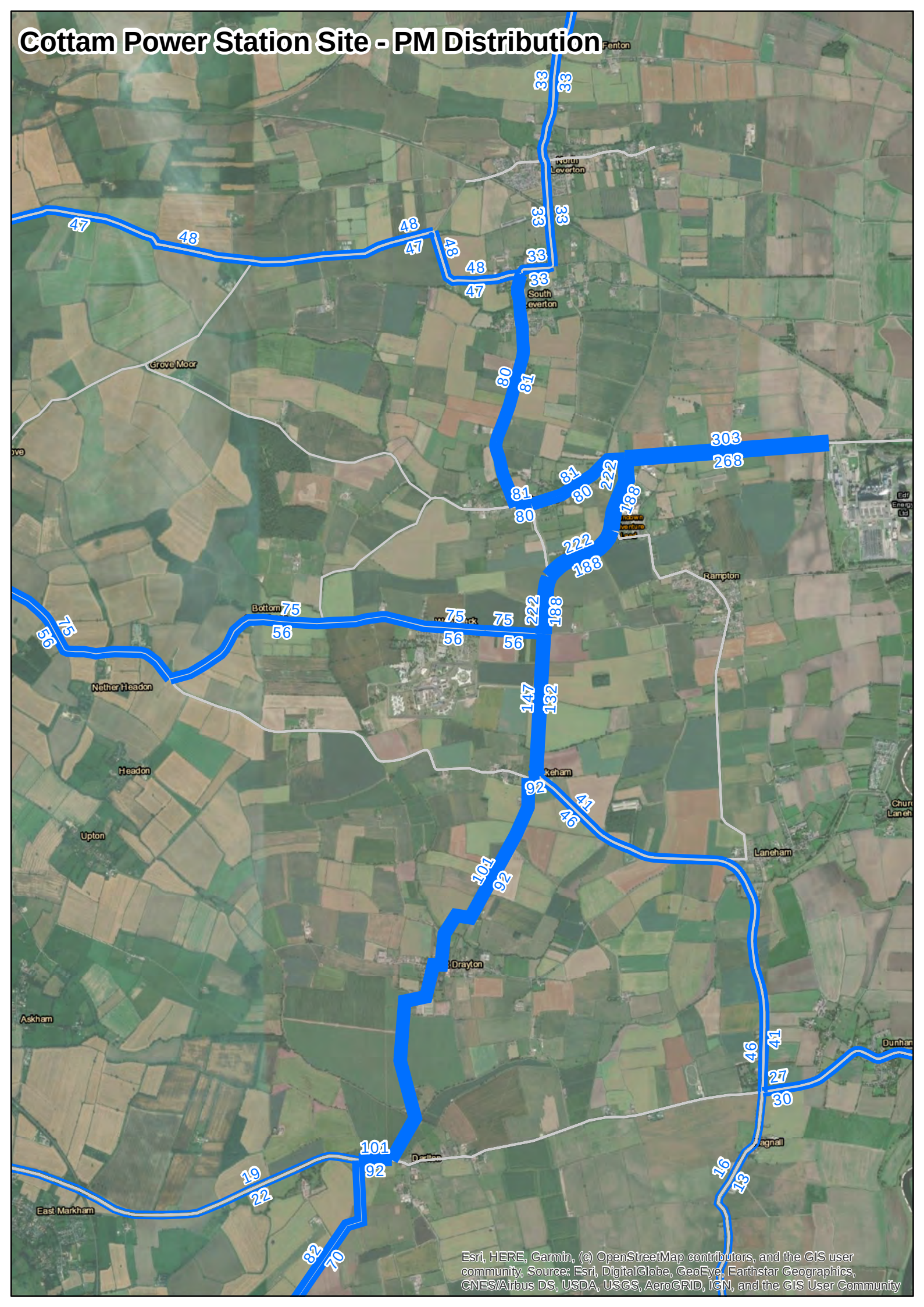
Cottam Power Station Site - PM Distribution
Fenton
North Leverton
South Leverton
Grove Moor
Bottom
Nether Headon
Headon
Upton
Rampton
Laneham
Drayton
Askham
East Markham
Dunham
33
47
48
80
81
303
268
222
188
75
56
147
132
92
46
41
101
27
30
19
22
16
13
82
70
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