

**HyNet North West
Hydrogen Pipeline**

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Cadent
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HyNet North West Hydrogen Pipeline Project

Cadent Ltd

Design Evolution Report 2024: Addendum

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Glossary

Term	Description
Blending	The blending of hydrogen with the existing natural gas supply for use by customers
DCO	Development Consent Order. The consent required for Nationally Significant Infrastructure Projects, of which this Project is one.
EIA	Environmental Impact Assessment. A formal assessment of the environment significance of a proposed development.
HyNet North West	A wider programme of projects to assist with the decarbonisation of the region through the replacement of natural gas with hydrogen, of which this project forms a part.
HAGI	Hydrogen Above Ground Installation. Infrastructure required in places along the pipeline to control the flow and pressure of hydrogen, facilitate connection and/or provide maintenance points.
Hydrogen Production Plant (HPP)	A production plant at Stanlow which will produce hydrogen to be transported by the pipeline to the Hydrogen Storage Facility and to customers.
Hydrogen Storage Facility (HSF)	A storage facility for hydrogen at Inovyn's underground caverns to the south of Northwich. Hydrogen stored in these caverns will be transported by the pipeline to customers.
Targeted Consultation	A consultation exercise being under in early 2025 to consult on a small number of changes to the route provided in the Stage 3 Statutory Consultation.
The Project	The HyNet North West Hydrogen Pipeline Project. The 100km pipeline and supporting HAGIs which are the subject of this Design Evolution Report.
Stage 3 Statutory Consultation	The third public consultation exercise for the Project, undertaken in 2024. This exercise followed the Stage 1 Non-Statutory Consultation and Stage 2 Statutory Consultation, both held in 2022.

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1. Introduction

1.1 Overview

- 1.1.1. The HyNet North West Hydrogen Pipeline Project (hereafter referred to as ‘the Project’) is a proposal to construct and operate the UK’s first 100 percent hydrogen pipeline network at scale. It will deliver hydrogen meeting the Government’s low carbon hydrogen standard to multiple industrial users and power generators, plus potential blending points to accommodate the addition of hydrogen into the existing natural gas network.
- 1.1.2. The Project is part of the wider ‘HyNet North West’ programme that will produce, store and distribute hydrogen as well as capture and store carbon from industry in the North West of England and North Wales. This concept has the potential to reduce carbon dioxide emissions by millions of tonnes every year by 2030 – the equivalent of taking millions of cars off the road. By enabling a fuel transition to hydrogen, HyNet North West will create and maintain thousands of local jobs, enabling long-term sustainability for businesses and supporting financial security for communities across the region.
- 1.1.3. The Project includes the construction, operation and maintenance of approximately 100km of new pipeline to distribute hydrogen to industry and for blending with the gas network in the North West, and a number of Hydrogen Above Ground Installations (HAGIs), including Block Valve Installations (BVIs) are required to control the flow and pressure of hydrogen at key points along the proposed pipeline.
- 1.1.4. The Project would connect to the Hydrogen Production Plant at the Stanlow site as the source of hydrogen for onward distribution to the network. The pipeline would continue to the Central Hub at the centre of the network, which serves as the connection and onward distribution point to the North, East and South corridors, which would extend to locations near St. Helens, Partington and southeast of Northwich respectively and provide low carbon hydrogen to multiple offtakers and power generators along these corridors. The Project will also link to the Hydrogen Storage Facility, an underground hydrogen storage location in Cheshire which will be used to balance supply and demand through the network.
- 1.1.5. The Project is being designed with foreseeable future phases and usage in mind and the potential to accommodate hydrogen from other sources in the area including sources of blue and green hydrogen. Discussions are ongoing with green hydrogen producers looking to connect into the Project at HAGI sites.

1.2. Purpose of This Addendum

- 1.2.1. Following Stage 3 Statutory Consultation in Autumn 2024, a number of amendments to the project design have been identified from the representations received. Where amendments include land that was shown as being outside the Draft Order Limits at Stage 3 Statutory Consultation then these are considered to require further, Targeted Consultation. This Addendum to the Design Evolution

Report 2024 provides information on how these design changes have been developed in response to the consultation responses received and the ongoing design work on the Project. The Stage 3 Statutory Consultation design can be found at [Knowledge hub - HyNet North West Hydrogen Pipeline](#) under the “Documents relating to our third, statutory consultation” section.

- 1.2.2. Other, amendments to the project design will also result from the review of the Stage 3 Statutory Consultation representations, however these do not involve land previously outside the Draft Order Limits (DOL) and as such do not warrant Targeted Consultation. These design changes will be identified and justified in the Design Evolution Report submitted with the DCO application in 2025.

1.3. Structure of the Addendum

- 1.3.1. This addendum focuses on twelve design changes which merit Targeted Consultation, prior to the presentation of the final design which will be presented in the DCO Submission in 2025.

- Chapter 2: West Corridor: Frodsham Marshes
- Chapter 3: West Corridor: Sutton Weaver
- Chapter 4: Higher Walton HAGI
- Chapter 5: North Corridor: Moore Nature Reserve
- Chapter 6: North Corridor: Pendlebury Brook
- Chapter 7: North Corridor: Clock Face HAGI
- Chapter 8: East Corridor: Moss Lane
- Chapter 9: East Corridor: West of High Legh
- Chapter 10: East Corridor: Partington HAGI
- Chapter 11: South Corridor: Acton Bridge
- Chapter 12: South Corridor: Vale Royal
- Chapter 13: Central Hub
- Chapter 14: Next Steps.

- 1.3.2. The changes described within this document represent amendments to the pipeline route, above ground infrastructure and Draft Order Limits consulted upon at the Stage 3 Statutory Consultation. The changes have been made as a result of:

- Consultation comments received from landowners, statutory consultees and / or members of the public;
- The findings and recommendations made following continuing environmental survey;
- Additional information concerning construction methods; and

- The review of future development proposals (from planning application submissions or from local planning authority policy allocations).

1.4. Environmental Mitigation Areas

- 1.4.1. The underground elements of the Project will largely see land restored to its current state following construction. This means that most plants or habitats can be reinstated, however if features such as trees have to be removed, which can't be replanted on top of the pipeline, the working corridor in that location will provide sufficient space to plant replacements. There are a number of locations where alternative habitat could not be provided within the DOL for species being displaced by the works. In other locations it is not possible to replace the area of landscape that will be permanently lost within the space available (especially in relation to the mitigation needed for the above ground elements such as the HAGIs). Five locations have therefore been identified where minor additions to the DOL are required to provide suitable land for the mitigation necessary. Due to the nature of the proposals in these areas (planting and habitat creation), no adverse environmental impacts are expected from the works. The purpose of these areas is identified in the following chapters as being "environmental mitigation".

2. West Corridor: Frodsham Marshes

- 2.1.1. A number of changes are proposed within the Frodsham Marshes, these include two locations where additional land is required for environmental mitigation and one location where further land is necessary to avoid disturbance to an existing telecommunications tower.

2.2. Environmental mitigation

- 2.2.1. Environmental mitigation areas are proposed near Elton (**Figure 2.1**), where the West pipeline crosses the Helsby to Hooton rail line, and at Frodsham (**Figure 2.2**), between Moorditch Lane and the M56.
- 2.2.2. In both locations, extensions to the DOL have been added to provide mitigation habitat for water voles. Water vole burrows have been found where the West pipeline crosses field ditches. If the burrows in these ditches are active at the time of construction, additional land will be needed to provide alternative habitat for the water voles.

2.3. Marsh Lane telecommunications tower

- 2.3.1. Marsh Lane (also named as Brook Furlong on some maps) runs from Frodsham, across the M56 and into Frodsham Marshes (**Figure 2.3**). The West pipeline route crosses Marsh Lane adjacent to its junction with Moorditch Lane. Due to constraints on both sides of this junction, the DOL here are narrow and a telecommunications mast exists within the centre of the DOL. If the DOL remain as shown at the Stage 3 Statutory Consultation, the telecommunications would likely need to be removed to facilitate construction of the pipeline. A temporary mast would need to be provided for the duration of the construction works to avoid a gap in telecommunications coverage, and if the tower was then reinstated in the same location, the reinstatement works bring a risk of pipeline damage.
- 2.3.2. It is therefore proposed to widen the DOL in this location to the south east to maximise the land available in which to place the pipeline. The corridor here would still be narrow (only increasing from around 20m wide to around 23m wide) and it will be a constrained construction location as a result. However, it is considered to be sufficient to allow the pipeline to be constructed whilst avoiding any issues from the reinstatement of the mast or the requirement to find another location, which is suitable to both the mast operator and the Local Planning Authority.
- 2.3.3. Although the proposed change would bring the construction works closer to a watercourse which runs along the field boundary here (and an Ordinary Watercourse Consent may be needed for this work), there is not expected to be any significant environmental impacts from the proposal and construction work will be able to be managed to avoid any impacts on the water environment here.

3. West Corridor: Sutton Weaver

- 3.1.1. Following the Stage 3 Statutory Consultation a route change is proposed South of Sutton Weaver and Aston Lane.
- 3.1.2. At the previous consultation South of Sutton Weaver and Aston Lane, the West Corridor pipeline route passes between the properties at Sutton Hall and Aston Lane, before crossing Aston Lane and continuing east towards the Central Hub (**Figure 3.1**). Representations have been made requesting that the pipeline is moved away from this land between Sutton Hall and Aston Lane (noting that representations have also been made that the pipeline be retained in the alignment proposed at Stage 3 Statutory Consultation). The pipeline route presented at Stage 3 Statutory Consultation passes through a gap of land around 130m wide between the road and properties. Some representations made during the Stage 3 Statutory Consultations and separate discussions which are ongoing with landowners have raised a number of points in regard to this gap:
- that a number of utility services for the properties at Sutton Hall are located in this area and would be disturbed by the pipeline development;
 - some of the land has been planted and established as a biodiversity area; and
 - the route runs too close to the properties at Sutton Hall with the potential for amenity disturbance during the construction works.
- 3.1.3. The representations made requests that a route is considered which passes to the south of Sutton Hall, across land which was previously Sutton Hall Golf Course. The Golf Course is now closed and land has been reinstated to agricultural use.
- 3.1.4. The proposed change in this location would therefore see the current pipeline route crossing the A56/Chester Road in the same location, before continuing east to pass between Lowes Wood to the south and the properties at Sutton Hall to the north. The route would therefore avoid Lowes Wood, which is an ancient woodland and the Local Wildlife Site (LWS) and provide a greater set back distance from the Sutton Hall properties. The route would run alongside existing pipelines in this area, thereby minimising land that needs to be added to existing easements. The proposed route would then run in a north eastern direction, to the eastern side of the Sutton Hall buildings, rejoining the current route to the south of Aston Lane. This area contains a number of historic environment records, however these would be relevant for both the current and proposed routes so there are no new effects resulting from the proposed change, whilst those effects previously identified would reduce (see below).
- 3.1.5. The land to the south of Sutton Hall was included within the Stage 1 Non-Statutory Consultation and partly within the Stage 2 Statutory Consultation materials (both published in 2022) and there were no substantial issues raised in regard to this land from either consultation.
- 3.1.6. From the conclusions of significance reported in the Draft ES, no change would result on Biodiversity, Water Environment, Air Quality, Traffic and Transport, Ground Conditions, Land Use, Major Accidents and Disasters and Climate

Change. Landscape effects would also stay the same but there would be reduction in visual effects, with significant adverse visual effects reducing from 11 properties to five properties and significant adverse effects on cycle route NCR reducing from a 4km stretch to a 3.1km stretch.

- 3.1.7. Effects on the setting of the Grade I listed Sutton Hall are expected to reduce from moderate to minor and from significant to not significant. No changes would result on physical effects on archaeological remains. Slightly more agricultural land may now be affected than in relation to the route consulted upon previously, however this would not affect the significance conclusions made for Agriculture and Soils. No significant effects were identified in the Draft ES from noise and vibration for this location, and whilst this conclusion remains the same, the positioning of the West Corridor pipeline further away from the properties at Sutton Hall is likely to reduce any effects which would occur.

4. North Corridor: Higher Walton HAGI

- 4.1.1. The Stage 3 Statutory Consultation proposals had two options presented for the Higher Walton HAGI: HWH2 located on the north bank of the Manchester Ship Canal at Port Warrington and HWH8 on the south bank, north of Mill Lane (**Figure 4.1**). However, HWH2 is subject to an extant planning permission for the extension of the neighbouring rail facility and associated storage for port activities, creating a risk it would not be available for development. HWH8 was introduced as an alternative HAGI option at the Stage 3 Statutory Consultation.
- 4.1.2. Ongoing discussions with landowners in the Higher Walton area have identified that land within the Solvay industrial complex is potentially available to accommodate the Higher Walton HAGI. The land was previously discounted as it was not understood to be available, but a HAGI development in this area (to be known as HWH9) would provide several benefits to the Project:
- If HWH9 were to be chosen, then the two HAGI options identified at the Stage 3 Statutory Consultation would be removed (HWH2 and HWH8) from the Project:
 - ▶ The Solvay location would remove the Higher Walton HAGI (options HWH2 and HWH8) from the Green Belt.
 - ▶ The removal of the HWH2 option would reduce the conflict with the extant planning permission on the site and the landowner's development plans.
 - ▶ The removal of the HWH8 option would also remove objections which have been received during the Stage 3 Statutory Consultation from the landowner and nearby residents based around potential amenity disturbance to occupiers of properties nearby and to development within a currently open, green space.
- 4.1.3. HWH9 would also allow the removal of the Warrington Spur option running via Birchwood Road and then under the West Coast Main Line to reach Morley Common. This would remove land from within Moore Nature Reserve and avoid conflict with the proposed Warrington Western Link Road proposals.
- 4.1.4. The land required within the Solvay complex for the HAGI itself (to be referenced as HWH9) is already part of the DOL presented at Stage 3 Statutory Consultation. A small section of additional land, running through the Solvay complex and into Morley Common, is required within the DOL to facilitate the change. The route through Morley Common was already an option and contained within the Draft ES, with temporary impacts identified on the football pitch provision located here. The existing industrial nature of the land means that any environmental impacts from the proposed change will be minimal.
- 4.1.5. The selection of HWH9 would see the land proposed for HWH8 used to facilitate the crossing of the Manchester Ship Canal to the HWH9 location, although all works here would be temporary and the land would be reinstated following construction. Two small increases to the DOL in this area would be required to accommodate these works.

- 4.1.6. From the significance conclusions reported in the Draft ES, no change would result from any of the topics considered. However, the not significant effects previously recorded would in many cases reduce further. For example, the HWH9 site is located at a greater distance from residential properties than HWH8, such that the effects of noise (construction and operation) upon such sensitive receptors would be lower. Similarly visual effects on properties and effects upon the landscape would lessen. On the matter of traffic and transportation, the number of construction vehicles along Bellhouse Lane would be reduced with an increase along Baronet Road.
- 4.1.7. Engineering studies are still ongoing to confirm that HWH9 would be feasible, so HWH9 has therefore been introduced as an option (alongside HWH2 and HWH8), at this point in time.

5. North Corridor: Moore Nature Reserve

- 5.1.1. The North pipeline route passes through the Moore Nature Reserve and Local Wildlife Site to the north of Birchwood Pool. The Stage 3 Statutory consultation route runs close to the Reserve's current northern boundary, avoiding the more important trees found during the arboricultural survey works and the adjacent Arpley landfill boundary before heading north west towards the River Mersey (**Figure 5.1**).
- 5.1.2. To the north west of Birchwood Pool, additional survey work has identified three black poplar trees. To avoid these native, Category A graded trees, additional land has therefore been added to the DOL to the south, so the pipeline can be routed further away from them. This additional land also provides the potential for the pipeline to avoid most or all of a waterbody which, classified as a pond, forms one of the designated features of the Local Wildlife Site.
- 5.1.3. Although the additional land proposed would still run through a Category A woodland, along with additional Category B woodland, the tree species within these areas are considered to be of lower importance than the black poplar.
- 5.1.4. From the significance conclusions reported in the Draft ES, no change would result on Historic Environment, Water Environment, Landscape and Visual, Air Quality, Noise and Vibration, Traffic and Transport, Ground Conditions, Agriculture and Soils, Land Use, People and Communities, Major Accidents and Disasters and Climate Change.
- 5.1.5. Taken alongside the opportunity to avoid most of the designated pond feature, the overall Biodiversity conclusions (not significant) will not change as result of the proposed route change, but the effect on Moore Nature Reserve as a Local Wildlife Site designation will be minimised.
- 5.1.6. In addition, from the significance conclusions reported in the Draft ES, no change would result on Historic Environment, Water Environment, Landscape and Visual, Air Quality, Noise and Vibration, Traffic and Transport, Ground Conditions, Agriculture and Soils, Land Use, People and Communities, Major Accidents and Disasters and Climate Change.

6. North Corridor: Pendlebury Brook

- 6.1.1. Following further environmental analysis, an increase to the DOL for environmental mitigation reasons is proposed at Pendlebury Brook (**Figure 6.1**). The Brook runs in an east-west direction across the North Corridor from the A570 James Roby Way to the residential area of Rainhill. Pendlebury Brook is a Local Wildlife Site (LWS). Whilst survey work in this location has not found water vole on land within or adjoining the DOL, the LWS designation refers to habitat which supports a population of water voles. As a precautionary measure therefore, land has been included to allow for habitat management for water vole.
- 6.1.2. The proposed change would not alter the conclusions provided within the Draft ES but would offer the opportunity to mitigate and reduce potential negative effects on biodiversity.

7. North Corridor: Clockface HAGI

- 7.1.1. Following further environmental analysis an increase to the DOL for environmental mitigation reasons is proposed at the Clock Face HAGI (**Figure 7.1**). To the south of the HAGI, additional land has been added to the DOL to provide replacement land for an arable field margin, which is currently in place for nature conservation purposes and would be lost due to the construction works. This additional land would measure less than 1 hectare and would be with the same field as the proposed HAGI works, so no other landowners would be involved.
- 7.1.2. The proposed change would not alter the conclusions provided within the Draft ES but would offer the opportunity to mitigate potential negative effects on biodiversity.

8. East Corridor: Moss Lane

- 8.1.1. Between the M6 and Moss Lane there is a trenchless crossing compound required to facilitate the trenchless crossing of the M6 and of Moss Lane (**Figure 8.1**). Running alongside Moss Lane is a drainage ditch and embankment which performs a flood defence role. On reviewing the Stage 3 Statutory Consultation DOL in this location, it was identified that access to the field for the trenchless crossing compound was not possible without affecting this flood defence. The DOL have therefore been extended by around 13m to provide an access point, which avoids this flood defence. No change in the environmental effects reported within the Draft ES are anticipated as a result of this change.

9. East Corridor: West of High Legh

- 9.1.1. To the west of High Legh, where the East Corridor approaches the A50 from the south, the DOL at Stage 3 Statutory Consultation passed to the south of a building which was understood to be a barn (**Figure 9.1**). Representations made at Stage 3 Statutory Consultation identified that this building now has consent to be used as a holiday let, and that it has a southern facing aspect. As such, the East Corridor construction works would take place in direct view of the front of the holiday accommodation (yet to be converted). The landowner has also identified a number of springs within the landholding that the Stage 2 Statutory Consultation route would have affected and were concerned about flooding of land from impacts on these springs.
- 9.1.2. The proposed change would therefore ensure that there is no direct impact on the holiday accommodation from the DOL and that the construction would now take place to the north of the building, out of direct view of the main, south-facing aspect. It would also remove the pipeline route from the location of the springs identified
- 9.1.3. From the significance conclusions reported in the Draft ES, no change would result on Biodiversity, Historic Environment, Water Environment, Landscape and Visual, Air Quality, Noise and Vibration, Traffic and Transport, Ground Conditions, Agriculture and Soils, Land Use, People and Communities, Major Accidents and Disasters and Climate Change conclusions.
- 9.1.4. The proposed change includes an additional landowner however it would avoid sensitive ecology receptors, category A trees and overhead power lines, previously identified in the area as being potential constraints to the route.

10. East Corridor: Partington HAGI

- 10.1.1. The Stage 3 Statutory Consultation proposals at Partington saw the East Corridor pipeline enter the Partington area via Sinderland Road and then two HAGI options were presented: PH1 located on the site of a former gas holder and PH2 located to the east of Sinderland Lane on open land (**Figure 10.1**). Two permanent access options were also included, which are dependent upon how and when other development proposals in the area occurred: both would access the A6144 Manchester Road, one to the north via the Carrington Gateway and one via a currently un-constructed road which is proposed as part of the Voltage Park development). A temporary access for construction purposes (also accessing the A6144 Manchester Road, but to the south of the two permanent access options) was also included. In addition, a pigging facility was included adjacent to the access running via Common Lane and the former internal roads of the now disused Shell facility.
- 10.1.2. The Partington area of the Project forms part of New Carrington, a major regeneration area proposed within the Places for Everyone Joint Development Plan. The development works proposed within the New Carrington area would include substantial residential and employment developments. Some of these developments have successfully obtained planning permission already, others are allocated within the Joint Development Plan but are not yet the subject of planning applications. Both PH1 and PH2 have been sited to avoid any of developments which current have planning permission.
- 10.1.3. The proposed changes which are the subject of Targeted Consultation involve a change in the access options to the PH2 HAGI location. It is now proposed that the northern permanent access option is via Common Lane to the A6144 Manchester Road (rather than the Carrington Gateway option). This change is provided in relation to a consultation response, which explained that the route, as previously proposed, would cross an existing hydrocarbon pipeline and use site roads which are key to the operation of the facility. The pigging facility remains on this access route. If the northern option is chosen as the permanent access, the proposed change would result in the diversion of vehicles to the new Common Lane access.
- 10.1.4. A second change proposed is a widening of the DOL north of the PH2 HAGI to intersect with an existing Electricity North West overhead line running east-west along the northern boundary of the land within which PH2 would sit. This change is proposed to enable an electrical connection to be made to the HAGI should it be located at PH2.
- 10.1.5. The proposed change would not alter the conclusions provided within the Draft ES but would provide minor benefits to the Project.

11. South Corridor: Acton Bridge

- 11.1.1. An increase to the DOL for environmental mitigation reasons is proposed at Acton Bridge (**Figure 11.1**). Where the South Corridor pipeline crosses the Trent and Mersey Canal, land above and either side of the underground canal crossing contains broadleaved woodland. This has been recently managed by the landowner to control Ash Die Back disease. The Applicant has identified an opportunity to improve the habitats within this area of land for ecological purposes.
- 11.1.2. The proposed change would not alter the conclusions provided within the Draft ES but would support the Applicant's commitment to compensate for the loss of important habitats.

12. South Corridor: Vale Royal

- 12.1.1. The Stage 3 Statutory Consultation demonstrated that the South Corridor pipeline crosses the River Weaver/Weaver Navigation and the West Coast mainline in the Vale Royal area, south of the A556. The topography, land uses, historic features and the waterway/rail infrastructure mean that any crossing option proposed has raised some concerns during the various consultation events held (**Figure 12.1**) and with regard to engineering complexity.
- 12.1.2. Four different options were presented at the Stage 2 Statutory Consultation, however a revised crossing was proposed at Stage 3 Statutory Consultation which was different to those initial four options. The Stage 3 proposal was for a single trenchless crossing (utilising HDD) to be made underneath the location where the River Weaver/Weaver Navigation and the WCML cross, thereby reducing the number of trenchless crossings required (of ancient woodland, the watercourse and the rail line), minimising the distance of the single crossing needed and avoiding land with heritage and leisure value around Vale Royal Golf Club.
- 12.1.3. The single HDD crossing option remains as the preferred choice, due to the lower expense and reduced disruption, however further engineering review of the HDD crossing proposed has demonstrated the need for additional engineering design and construction flexibility, due to the ground conditions and the steep topography either side of the River Weaver. This flexibility would come from micro-tunnels which can be used in ground conditions which are not suitable for HDD. Options for the use of micro-tunnels have therefore been considered further, including an option which would utilise two trenchless crossings in this area – one of the rail line and then one of the River Weaver/Weaver Navigation.
- 12.1.4. The proposed micro tunnel option would therefore run from where the current route approaches the River Weaver/Weaver Navigation, with a trenchless crossing then be made running north, passing underneath Hey's Wood and the West Coast Mainline (WCML). This crossing would run to the eastern side of the WCML, within land between the rail line and Vale Royal Woods. A second trenchless crossing would then run southeast, lying parallel to the WCML and crossing underneath Vale Royal Woods and the River Weaver/Weaver Navigation and finishing in land to the west of Eaton Hall Farm.
- 12.1.5. Two access options are included to the A556 to the north, either running through Model Farm to make use of an existing access, or around the Model Farm's field boundaries to the west. The pipeline route would then rejoin the current pipeline route to the north of Elton Hall and to the west of Moulton. The trenchless crossings would avoid the woodland, which are covered by ancient woodland and/or Local Wildlife Site designations, as well as the watercourse and rail line.
- 12.1.6. The option is similar to the previously discounted option SP1 at Vale Royal (presented at Stage 2 Statutory Consultation) in that it involves separate trenchless crossings of the rail line and the River Weaver/Weaver Navigation. However, the currently proposed option avoids a third trenchless crossing included with SP1 of ancient woodland within Heys Wood further to the west.

- 12.1.7. From the other significance conclusions reported in the Draft ES, no change is likely to result on Historic Environment, Water Environment, Visual impacts, Noise and Vibration, Air Quality, Traffic and Transport, Ground Conditions, Agriculture and Soils, Land Use, Major Accidents and Disasters and Climate Change.
- 12.1.8. The proposed changes would extend the Zone of Influence for Biodiversity consideration so that the Vale Royal Woodlands Local Wildlife Site is now included. However, there would be no direct effects on the Woodland and any indirect impacts would therefore be very low. The proposed works would increase the magnitude of adverse effect on the Landscape Character Area (LCA) 15b: Mid Weaver Valley. This change would be from Moderate and Not Significant, to Major to Major/Moderate and Significant for a temporary period during the construction phase.

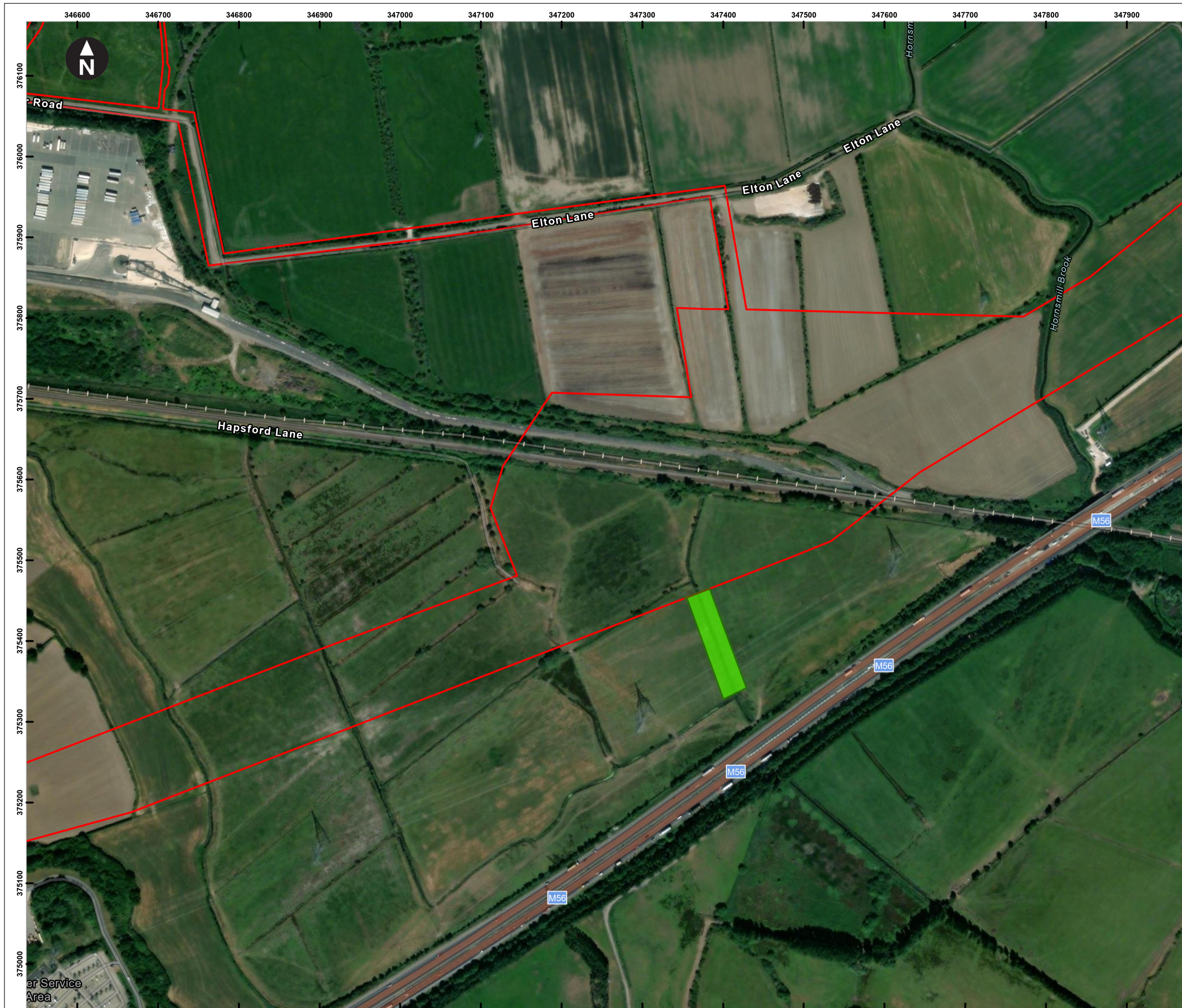
13. Central Hub

- 13.1.1. At Stage 3 Statutory Consultation the proposals presented showed the Central Hub HAGI located on land south of Newholme Farm, north east of Field Farm and west of Meadow Farm. The West Corridor pipeline would reach the Central Hub via a crossing of the A533 adjacent to Field Farm, the North Corridor would run from the Central Hub to the north, past the western side of Seven Acre Wood, the East Corridor heading off to the north east to cross A49 Tarporley Road and the South Corridor crossing the A533 Northwich Road between the properties at Dane Manor and Dones View Farm (**Figure 13.1**).
- 13.1.2. A number of representations and landowner discussions have influenced a number of minor changes to the DOL in this location:
- Following a landowner request, the West Corridor was straightened after it passed Field Farm to avoid land which the landowner has future development interest in and to avoid a pond in the fields north of Field Farm. This has led to a change to the DOL.
 - Following landowner discussions, the proposed access from A533 Northwich Road has been amended to follow an existing access track, which has resulted in a change to the DOL. A second access track has also been added from Marsh Lane although this is within the DOL boundaries previously consulted on. Traffic numbers which would have used the original access track have been split between the two new accesses.
 - Within the additional land added to the DOL for the A533 access track, environmental mitigation measures are now proposed, which will include undertaking general planting to mitigate ecological and landscape impacts occurring both at Central Hub and elsewhere on the Project.
- 13.1.3. The resulting proposed changes would see the West Corridor take a narrower route between Field Farm and the Central Hub. It would also see the DOL widened in land between the Central Hub and the A533 to the south to accommodate the previously proposed material storage area, the alternative A533 access road and the environmental mitigation area. The additional access from Marsh Lane would support construction vehicles use of Marsh Lane, but would accommodate some of the construction trips that would otherwise have been made via the A533 access, reducing vehicle numbers here. Changes on the local highway network resulting from the amended proposals would therefore be minimal, with no change to the Traffic and Transport conclusion of not significant.
- 13.1.4. No change would result from the other significance conclusions reported in the Draft ES. The proposed environmental mitigation area would however offer the opportunity to mitigate potential negative effects on biodiversity.

14. Next Steps

14.1. Proposed Route Alignment and DCO submission

- 14.1.1. Following the Targeted Consultation exercise in January 2025, the representations received from consultees will be reviewed alongside the representations received at the Stage 3 Statutory Consultation and the ongoing landowner discussions, engineering work and environmental work. The resulting Proposed/Draft Order Limits will be included within the DCO application.



Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation



0 50 100 150 200 Meters

Scale at A3: 1:4,500

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Client

Cadent

HyNet North West Hydrogen Pipeline Project
Design Evolution Report 2024 Addendum

Figure 2.1
Elton





Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation



0 50 100 150 200 Meters

Scale at A3: 1:4,000

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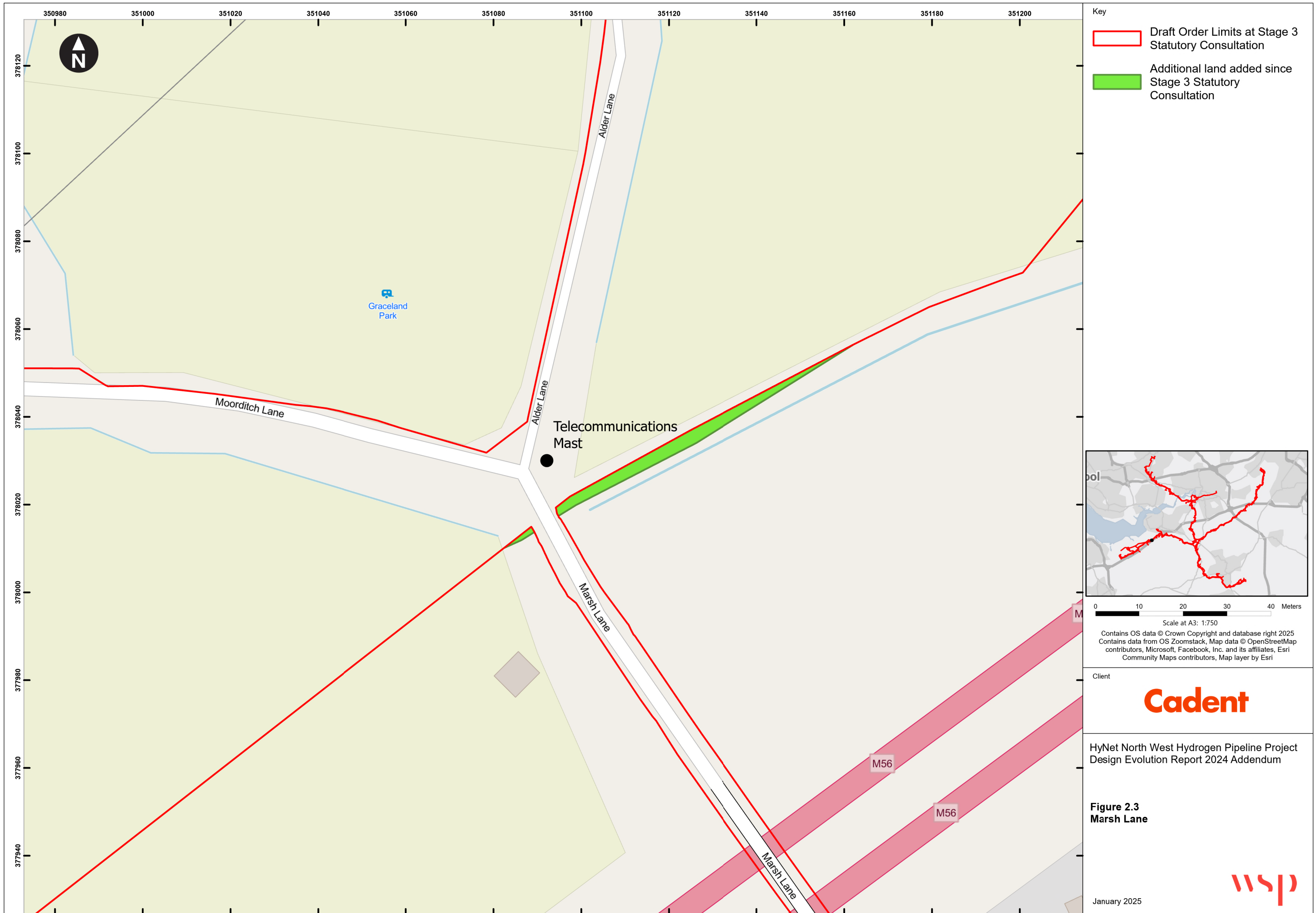
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Figure 2.2
Frodsham







- Key
- Draft Order Limits at Stage 3 Statutory Consultation
 - Additional land added since Stage 3 Statutory Consultation
 - Ancient Woodland



0 50 100 150 200 Meters
Scale at A3: 1:4,000

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Figure 3.1
Sutton Weaver





- Key
- Draft Order Limits at Stage 3 Statutory Consultation
 - Additional land added since Stage 3 Statutory Consultation
 - Hydrogen Above Ground Installation Options



0 50 100 150 200 250 300 Meters

Scale at A3: 1:7,000

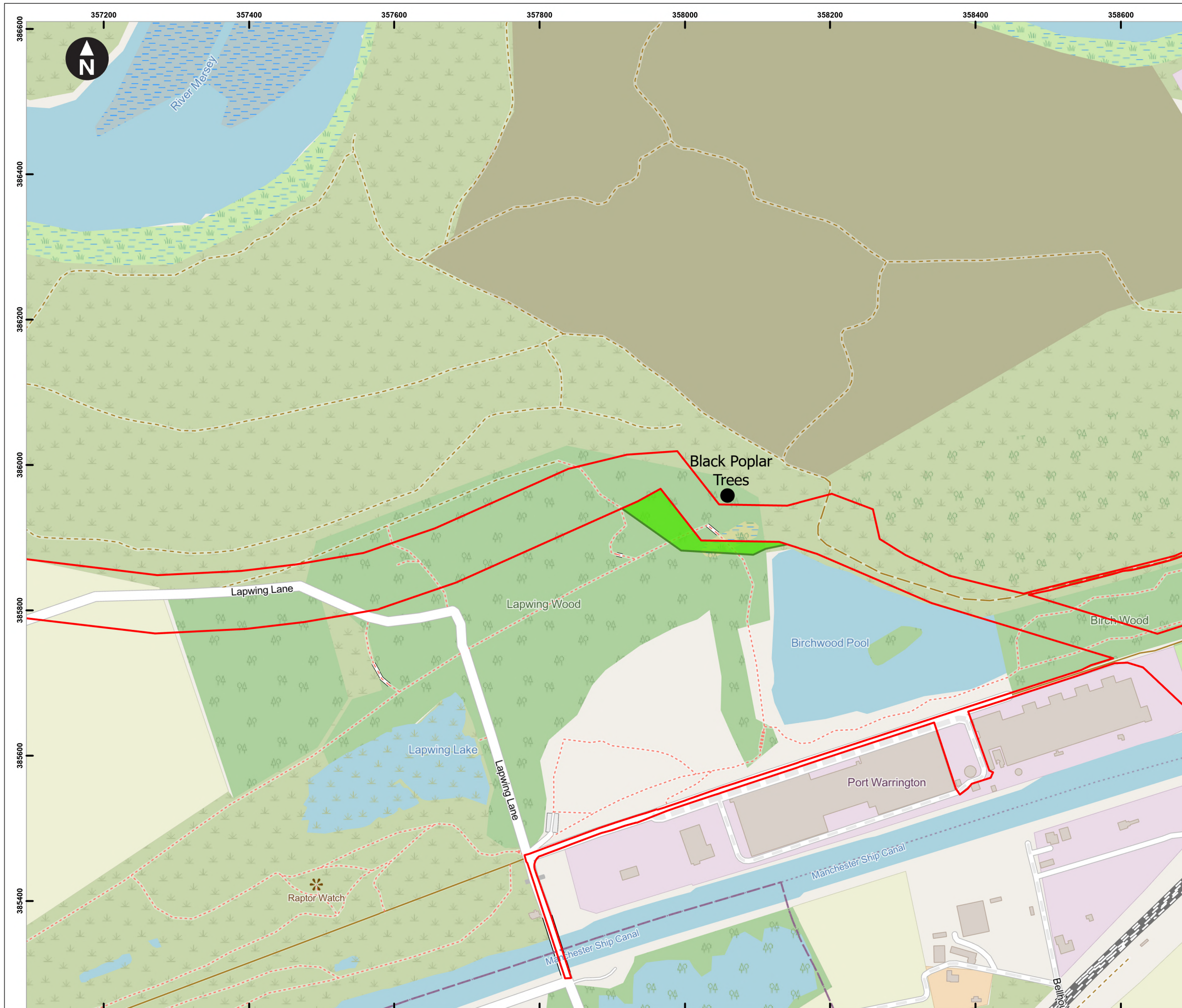
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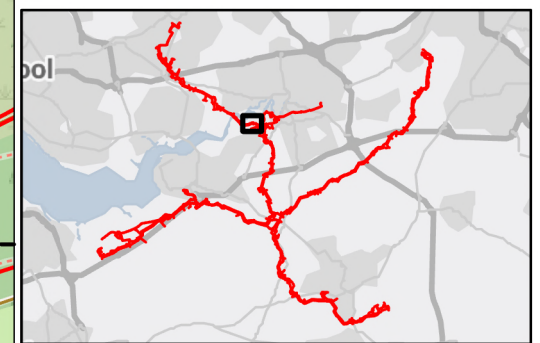
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Figure 4.1
 Higher Walton HAGI



Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation



0 50 100 150 200 250 Meters
Scale at A3: 1:5,000

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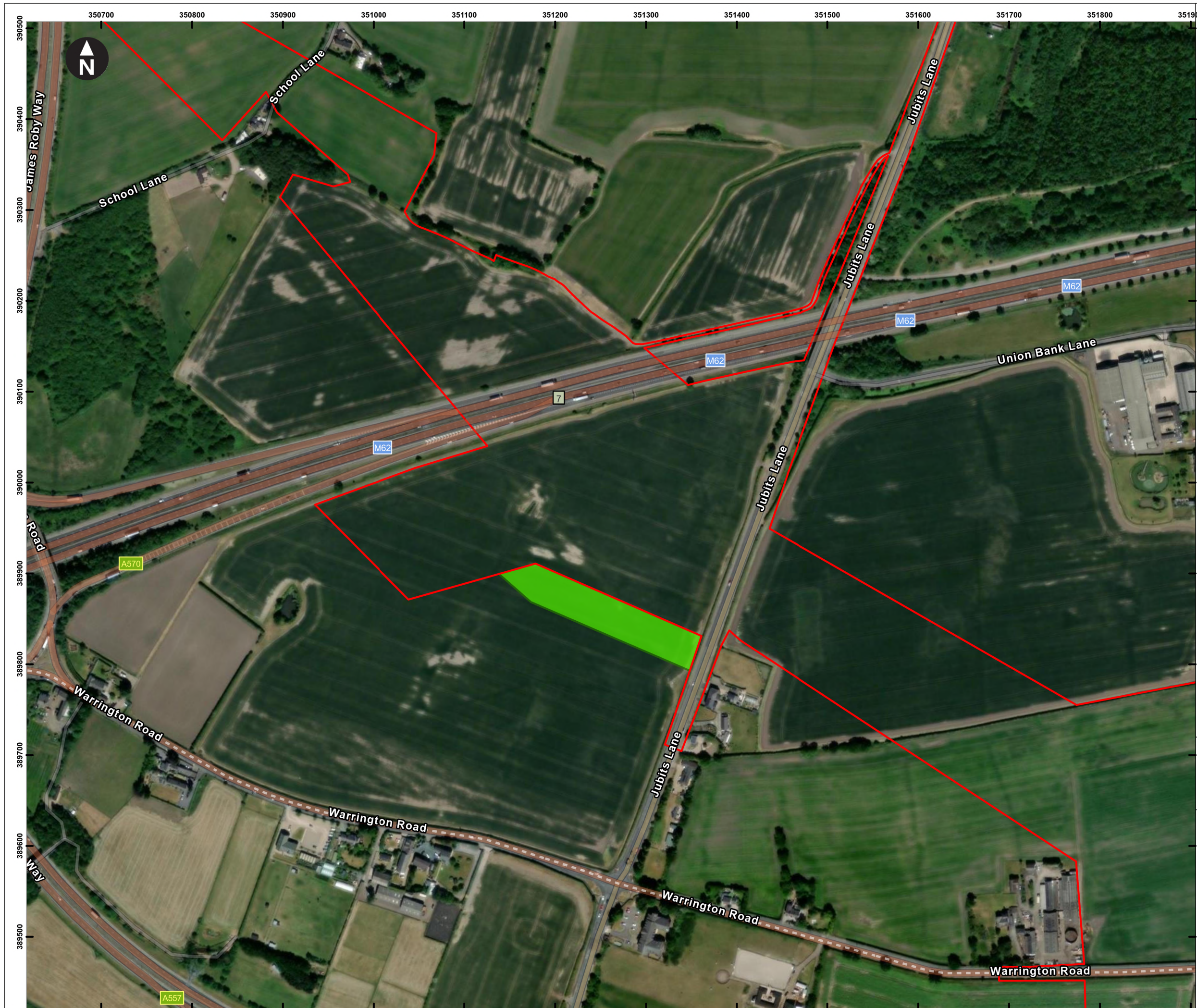
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Figure 5.1
Moore Nature Reserve

January 2025







- Key
- Draft Order Limits at Stage 3 Statutory Consultation
 - Additional land added since Stage 3 Statutory Consultation



0 50 100 150 200 Meters

Scale at A3: 1:4,000

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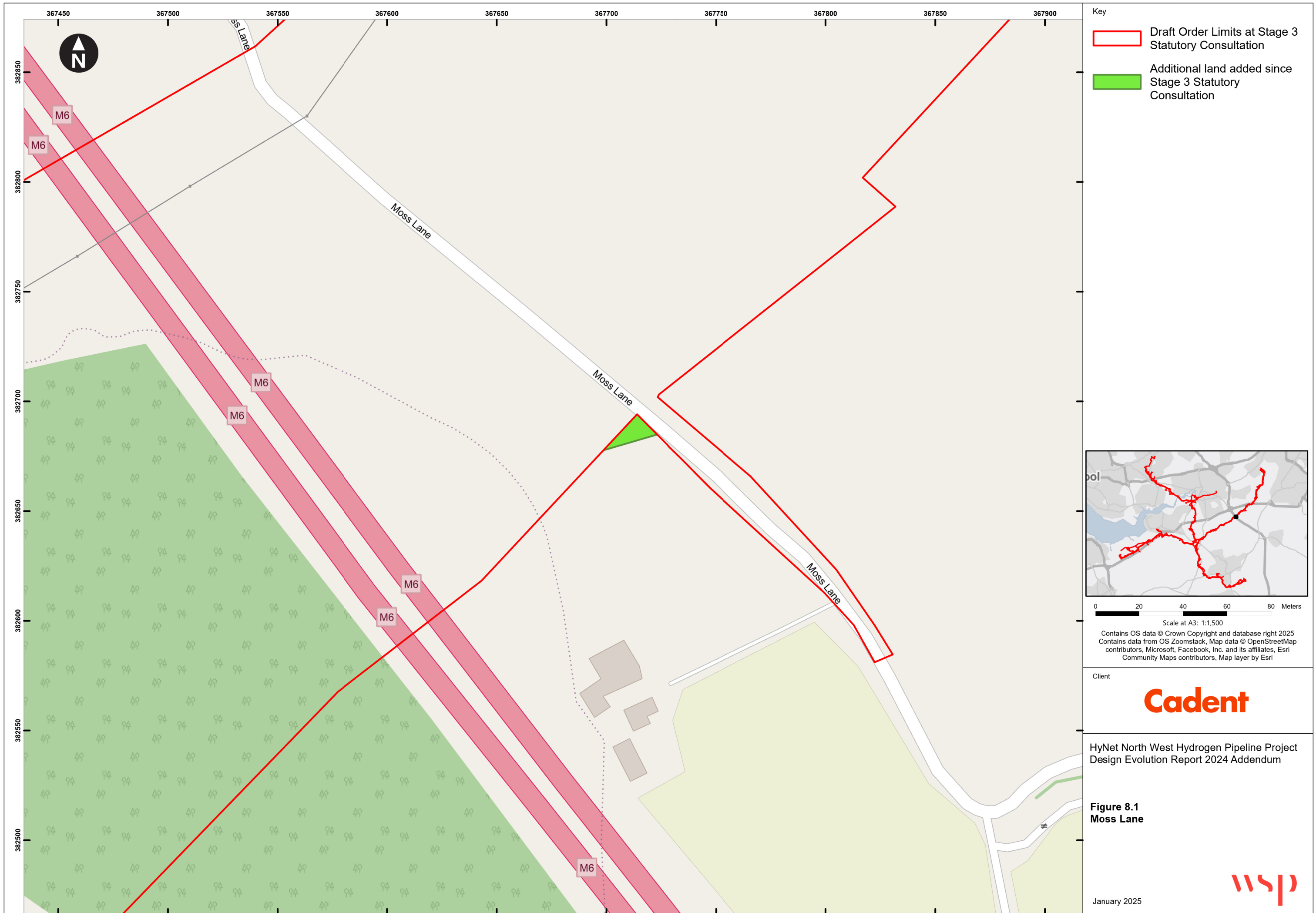
Client

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Figure 7.1
Clockface HAGI





Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation



0 20 40 60 80 Meters

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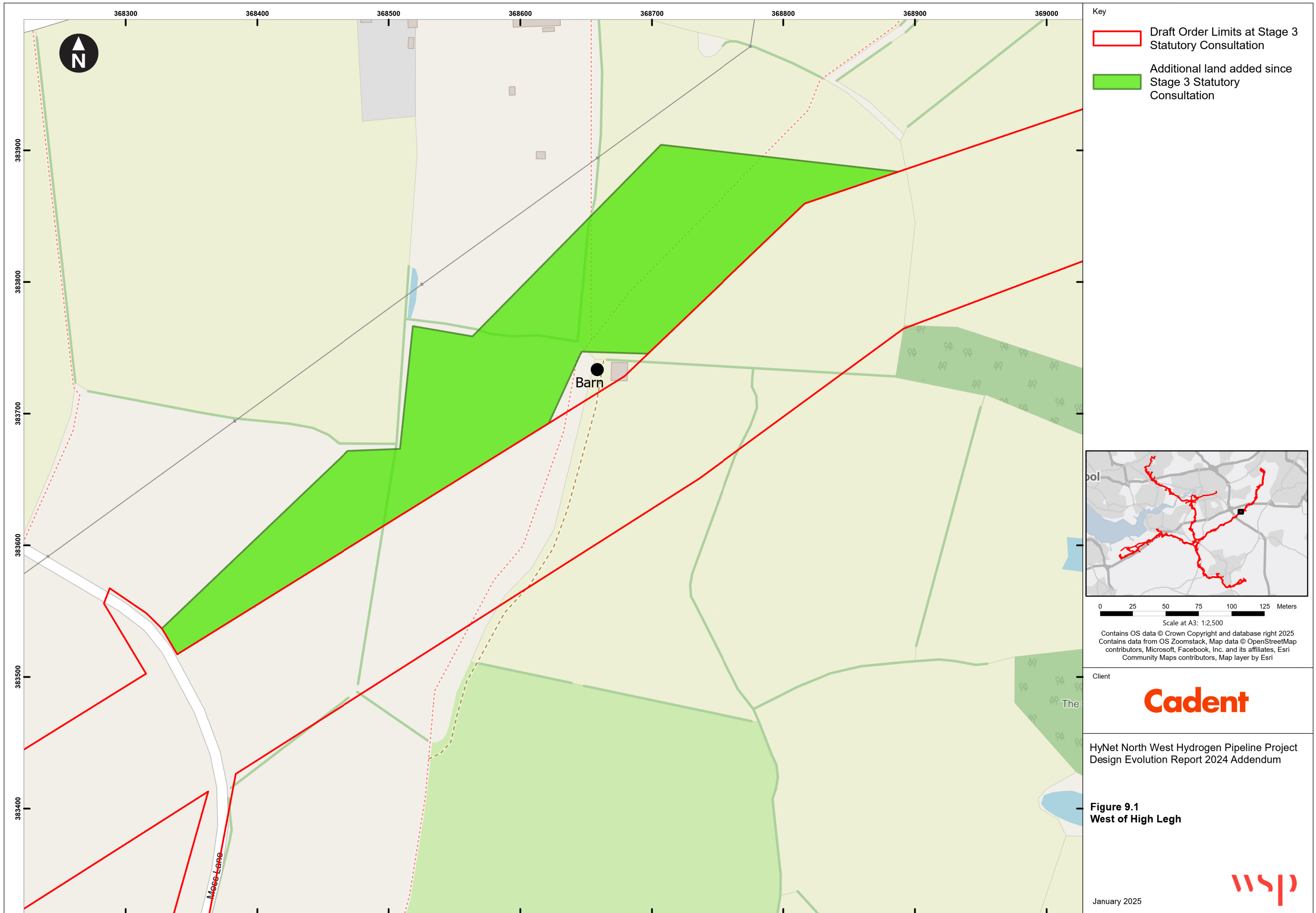
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Figure 8.1
Moss Lane

January 2025





Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation



0 25 50 75 100 125 Meters

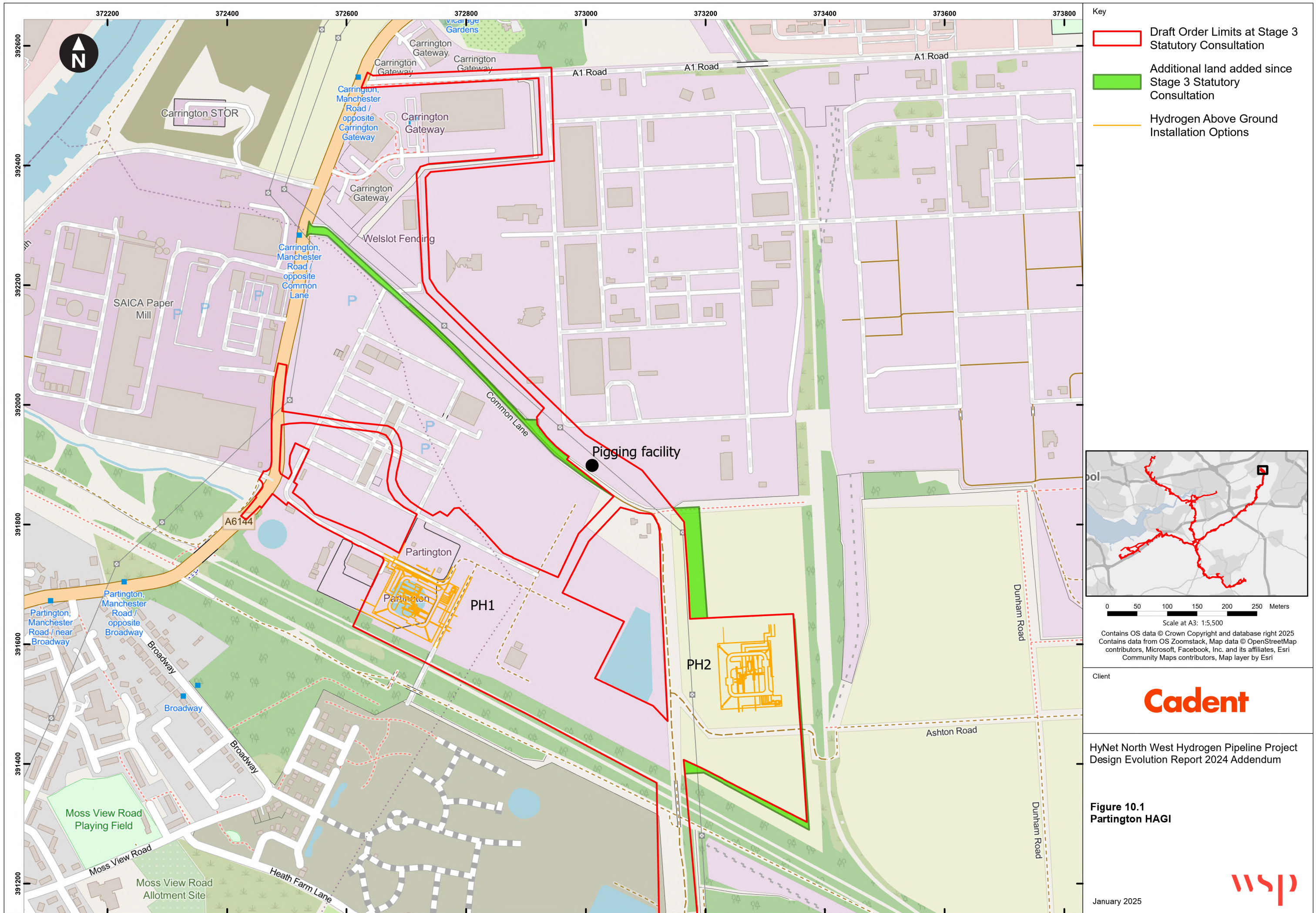
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Figure 9.1
 West of High Legh



- Key
- Draft Order Limits at Stage 3 Statutory Consultation
 - Additional land added since Stage 3 Statutory Consultation
 - Hydrogen Above Ground Installation Options

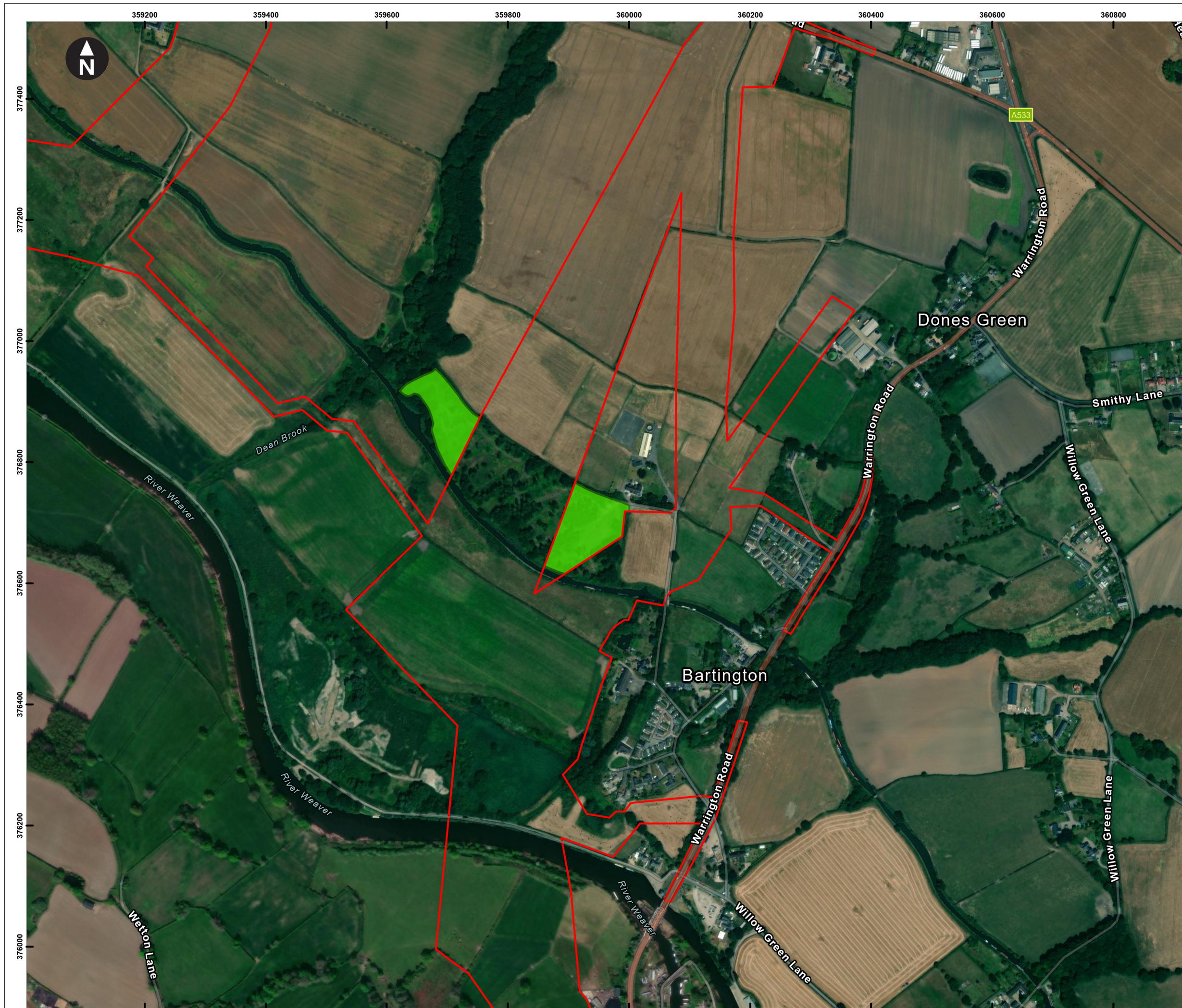


0 50 100 150 200 250 Meters
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Figure 10.1
Partington HAGI



Key

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0 50 100 150 200 250 Meters

Scale at A3: 1:6,000

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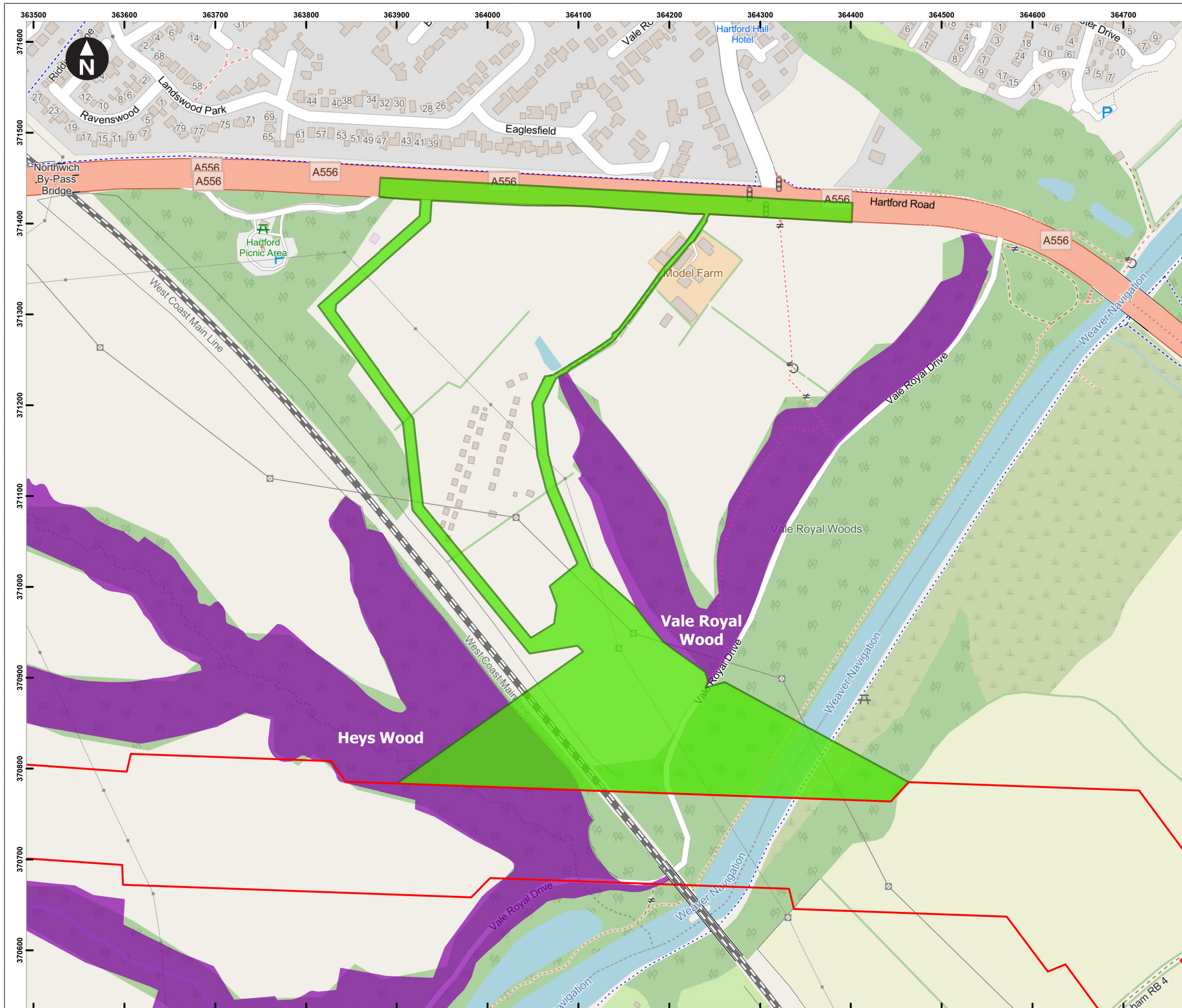
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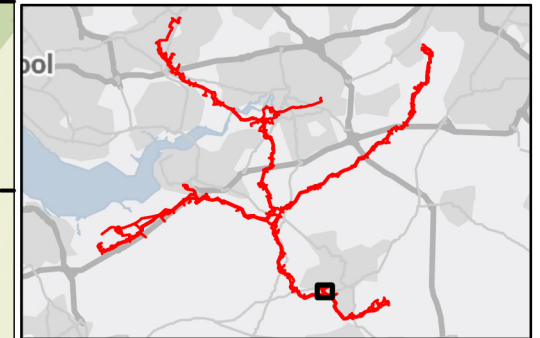
Figure 11.1
Acton Bridge





Key

- Draft Order Limits at Stage 3 Statutory Consultation
- Additional land added since Stage 3 Statutory Consultation
- Ancient Woodland



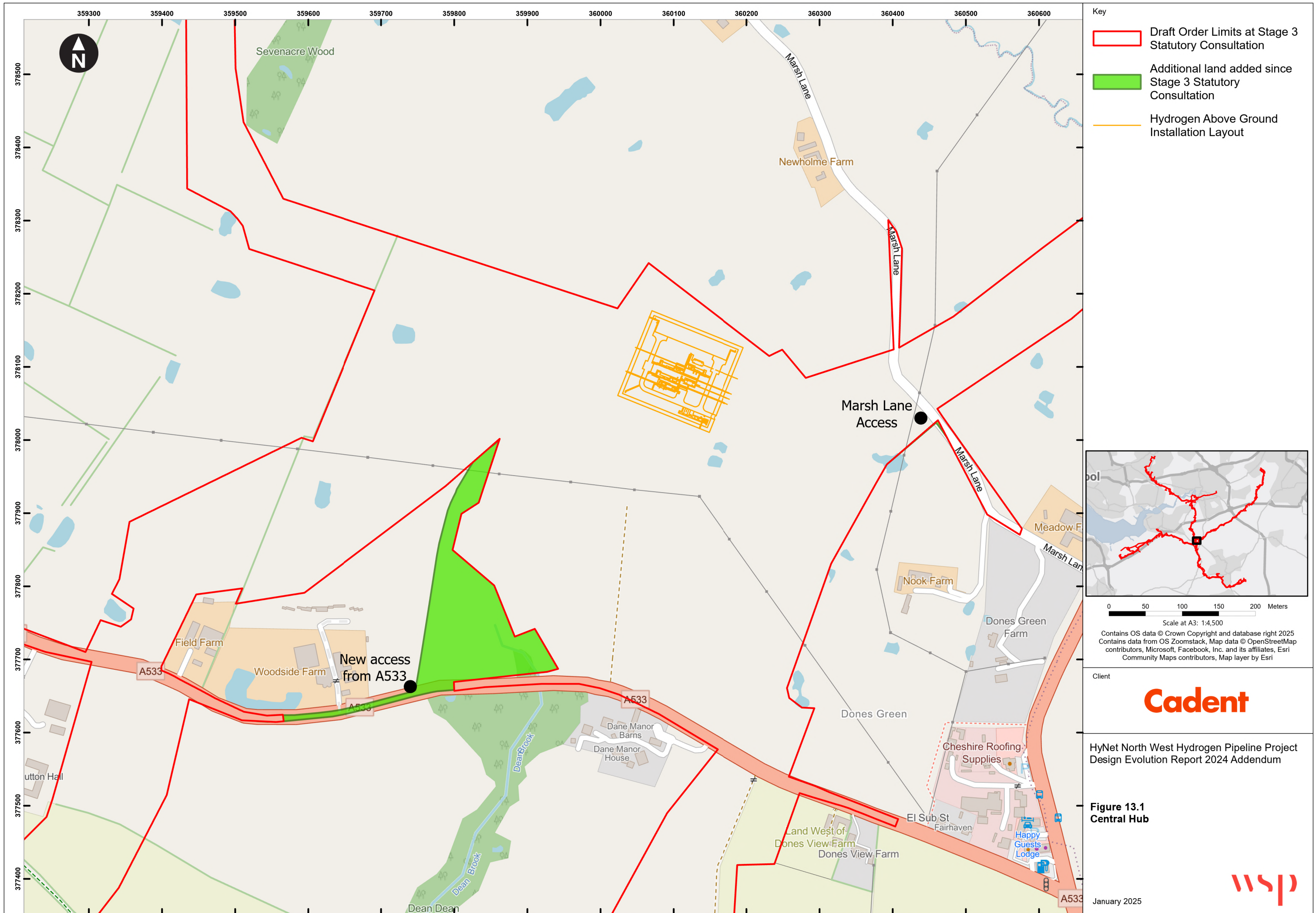
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Figure 12.1
Vale Royal





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