Environmental Risk Assessment for a waste recovery operation at Whealdream Golf Club						
Harmful activities, and who or what is at risk of harm?			**Managing risk**	**Risk Assessment**		
Hazard / Source of harm	**Receptor – who or what is at risk?**	**Pathway – how will the hazard reach the receptor?**	Risk Management – what measures will be put in place to reduce risk?	Probability of Exposure – how likely is exposure to the hazard?	**Consequence – what is the potential harm that could be caused?**	**Overall risk – what is the remaining risk? The balance of probability and consequence**
Increase in release of particulate matter (dusts) and micro-organisms (bioaerosols) due to increase in annual throughput.	Local population	Air transport then inhalation and / or deposition.	Dust will be managed in the following principle ways: Control of transportation: Use of sheeted / covered waste delivery vehicles where required. Speed limit enforced on access road. Modification and / or cessation of operations in extreme conditions. A DMP has been included.	Normal industry dust management techniques are in place.	Harm to human health - respiratory irritation and illness. Nuisance - dust on cars, clothing etc.	Not significant due to the nature of the waste types and the management techniques employed..
Increase in litter	Local population, livestock, and wildlife	Air transport then deposition.	The following mitigation measures will be employed on site: Visual assessment maintained throughout the working day. Any windblown material will be cleared immediately.	Negligible - due waste types being accepted and measures in place.	Nuisance, loss of amenity and harm to animal health	Not significant due to nature of waste received and management techniques employed.
Increase in waste, litter, and mud on local roads	Local human population	Vehicles entering and leaving site.	The operator will ensure the entrance to the site remains free of mud and other debris. Drivers will be instructed to ensure that before leaving the Site the wheels and chassis of their vehicle are clean and, if necessary, to remove all mud or detritus from the wheels and chassis before joining any public highway. The waste types are typically not liable to spillage and should be contained within the vehicles transporting waste. Daily inspections of the public highway will take place. If a specific problem is identified at any time with mud or debris on the public highway action will be taken to remove it.	Low due to mitigation measures in place.	Nuisance, loss of amenity, road traffic accidents.	Not significant due to management techniques employed.

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			Further details of management and mitigation of these emissions is included in the Environmental Management System.			
Increase in odour	Local human population	Air transport then inhalation.	Only inert materials will be imported to site, with no putrescible wastes permitted on site. Therefore, odour generation is unlikely. Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted. All site operatives will be vigilant in identifying non-compliant wastes.	Unlikely due to permitted waste types.	Nuisance, loss of amenity	Not significant due to management techniques employed.
Increase in noise and vibration	Local human population	Noise through the air and vibration through the ground.	Temporary construction activities will only take place during permitted hours. All plant and machinery will be switched off when not in use. All mobile plant will be fitted with non-beep reversing alarms. Preventive maintenance will be carried out on all plant and equipment to ensure minimal noise and vibration is generated by its operation. All mobile plant will be subject to regular maintenance and inspections in accordance with manufacturer's specifications to ensure minimal noise and vibration is generated by its operation.	Additionally no noise assessment under BS4142 confirmed by EA as necessary for this site because of the distance to receptors. Intermittent during operating hours	Nuisance, loss of amenity, loss of sleep.	Not significant

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			The Site Manager will be responsible for ensuring the above measures are implemented. All noise generating activities will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.			
Increase in scavenging animals and scavenging birds	Local human population	Air transport and over land	Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted. The permitted waste types are unlikely to attract significant numbers of scavengers. Regular site inspections will be carried out. Should any evidence of scavenging animals or birds be found, steps will be taken immediately to eradicate them.	Unlikely due to mitigation measures in place.	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Not significant due to waste types and management techniques employed.
Increase in pests (e.g. flies)	Local human population	Air transport and over land	Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted. The permitted waste types are unlikely to attract significant numbers of pests. Regular site inspections will be carried out. Should any evidence of pests be found, steps will be taken immediately to eradicate them.	Unlikely due to mitigation measures in place.	Harm to human health, nuisance, loss of amenity.	Not significant due to waste types and management techniques employed.
Flooding of site	Local human population and local environment	Flood waters	The EA flood map for (river and sea) shows that the existing site and its immediate surroundings are wholly located within EA Flood Zone 1. In the unlikely event of flood	Unlikely due to mitigation measures in place.	If waste is washed off site it may contaminate buildings / gardens /	Not significant due to management techniques employed.

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			that carries materials, the permitted waste types are inert so any waste washed off site will add to the volume of the local post-flood clean-up workload, rather than the hazard.		natural habitats downstream.	
All on-site hazards: wastes; machinery and vehicles.	Local human population and / or livestock after gaining unauthorised access to the waste operation.	Direct physical contact	Site security measures to prevent unauthorised access. Operations will also accord with current Health & Safety legislation.	Unlikely due to mitigation measures in place.	Bodily injury	Not significant due to measures deployed to protect the site.
Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Local human population and local environment.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	The risk of fire is restricted to a breakout of fire on site plant or vehicles, either inadvertently or deliberately. The Environmental Management System identifies potential accidents, incidents, and actions to avoid potential accidents include Maintenance and inspection regime for all site plant and vehicles; and	Unlikely due to waste types and mitigation measures in place. Management techniques should prevent contaminated fire water causing pollution to water courses.	Respiratory irritation, illness, and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Not significant.
Accidental fire causing the release of polluting materials to air (smoke or	Local human population and local environment	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via	The risk of fire is restricted to a breakout of fire on site plant or vehicles, either inadvertently or deliberately. The Environmental Management System identifies potential accidents, incidents, and actions to avoid potential accidents include Maintenance and	Unlikely due to waste types and mitigation measures in place. Management techniques should prevent contaminated fire water causing pollution to water courses.	Respiratory irritation, illness, and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Not significant.

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fumes), water or land.		surface water drains and ditches.	inspection regime for all site plant and vehicles; and			
Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g., containing suspended solids.	All surface waters close to and downstream of site.	Direct run-off from site across ground surface, via surface water drains, ditches etc. Indirect run-off via the soil layer.	The Environmental Management System provides for secondary containment of non-wastes such as fuels, where present. The Waste Acceptance Procedures ensure that no liquid, contaminated or non-inert wastes will be accepted.	Unlikely due to mitigation measures in place.	Acute effects: oxygen depletion, fish kill and algal blooms. Chronic effects: deterioration of water quality	Not significant due to management and mitigation techniques employed.
Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g., containing suspended solids.	Abstraction from watercourse downstream of facility (for agricultural or potable use).	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	As above. Strict Waste Acceptance Procedures are in place to minimise the risk of non-compliant wastes being accepted. No liquid wastes at site will be permitted and the Management System provides for secondary containment of non-wastes such as fuels, where present.	Unlikely due to mitigation measures in place.	Acute effects, closure of abstraction intakes.	Not significant due to management and mitigation techniques employed.
Spillage of liquids, leachate from waste, contaminated rainwater run-	Groundwater	Transport through soil/groundwater then extraction at borehole.	The permitted waste types will not contaminate groundwater. The HRA considers the risks to groundwater, including rogue loads and provides mitigation. The Management System provides for strict waste	Unlikely due to mitigation measures in place.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Not significant due to management and mitigation techniques employed.

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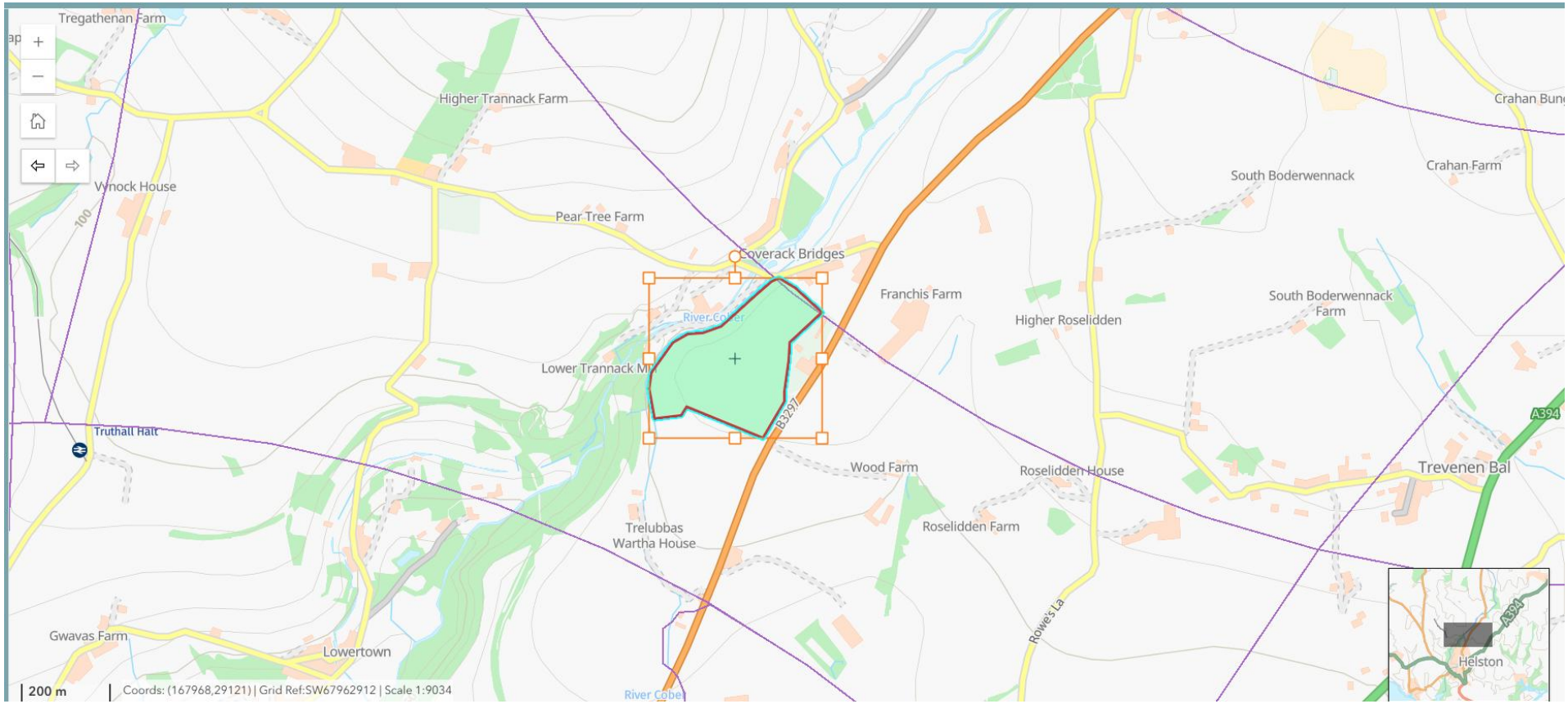
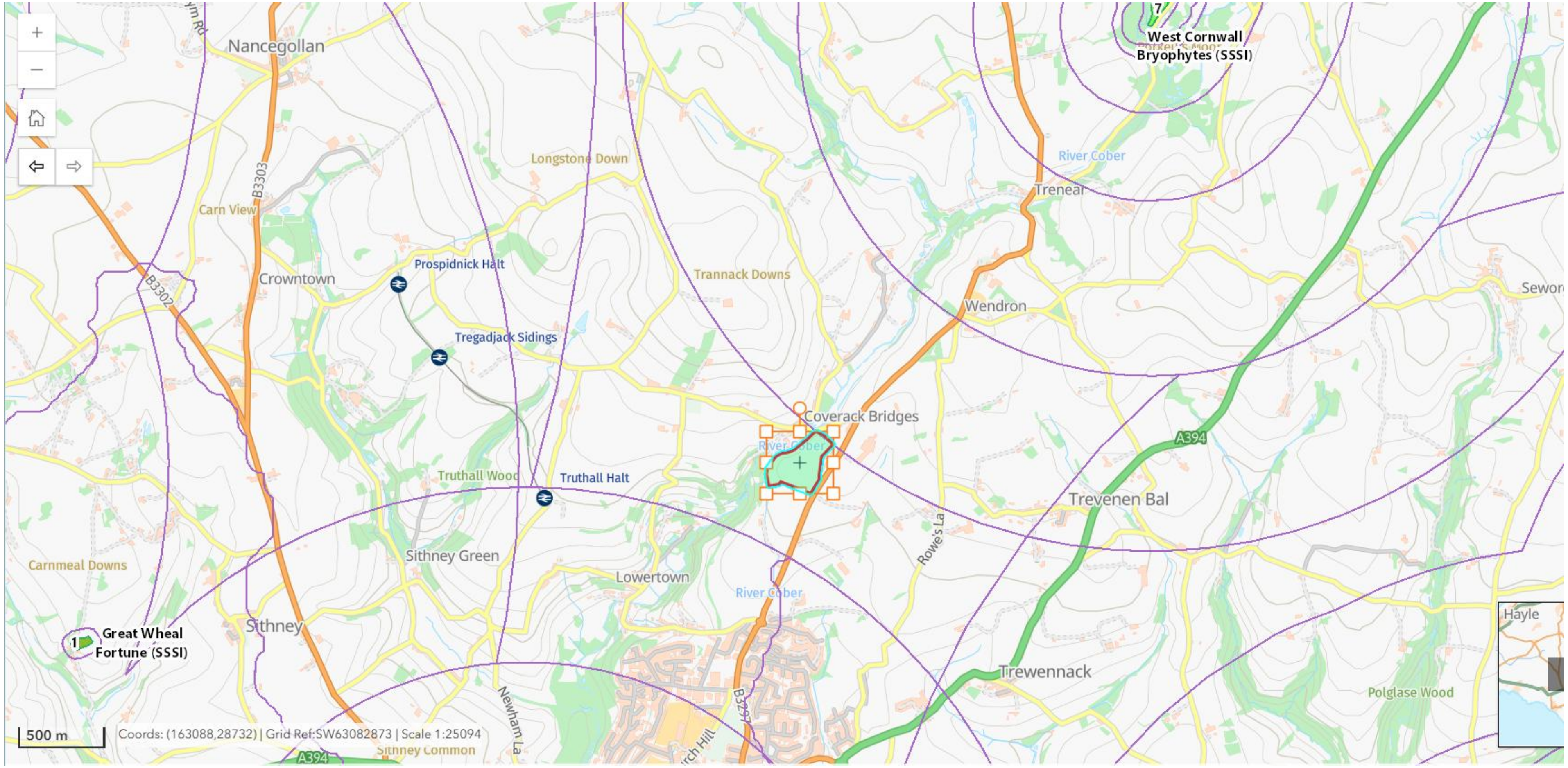
off from waste e.g., containing suspended solids.			acceptance procedures to ensure only inert wastes are received on site, including a rejection procedure for non-permitted waste.			
Contaminated waters used for recreational purposes	Local human population	Direct contact or ingestion.	The permitted waste types are unlikely to contaminate groundwater. The Management System provides for strict waste acceptance procedures to ensure only inert wastes are received on site, including a rejection procedure for non-permitted waste.	Unlikely to occur as no recreational use proposed on- site, or nearby.	Harm to human health - skin damage or gastro-intestinal illness.	Not significant due to management and mitigation techniques employed.
Protected sites - European sites and SSSIs; Priority habitats	Dust, noise, contaminated run-off etc.	Any	There is a SSSI West Cornwall Bryophytes sites just over 3km to the north east. There are Priority Habitats woodland to the west of the site, see images below. .	Unlikely due to mitigation measures in place. Habitats Risk Assessment has been confirmed by the EA as not being required.	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Not significant due to management and operating techniques employed, and waste types accepted on site.
Impacts arising from climate change	Local human population, water resources	Any	The operation is only two years, so any climate changes in terms of increased dry weather or prolonged wet weather are unlikely to be notably different from the normal fluctuations that sites are used to dealing with in British conditions.	Unlikely due to the length of the operation.	Additional dust or water management issue.	Not significant due to timescales of operations and change timescales.

Extracts of Magic Map showing the site boundary on the very edge of the SSSI Impact Risk Zone for one of the seven West Cornwall Bryophytes sites to the north east.

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Longstone Down
Carn View
Crowntown
Prospidnick Halt
Tregadjack Sidings
Trannack Downs
Wendron
Trenear
River Cober
West Cornwall
Bryophytes (SSSI)
Coverack Bridges
Truthall Wood
Truthall Halt
Trevenen Bal
Sithney Green
Lowertown
Carnmeal Downs
Great Wheal
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Sithney
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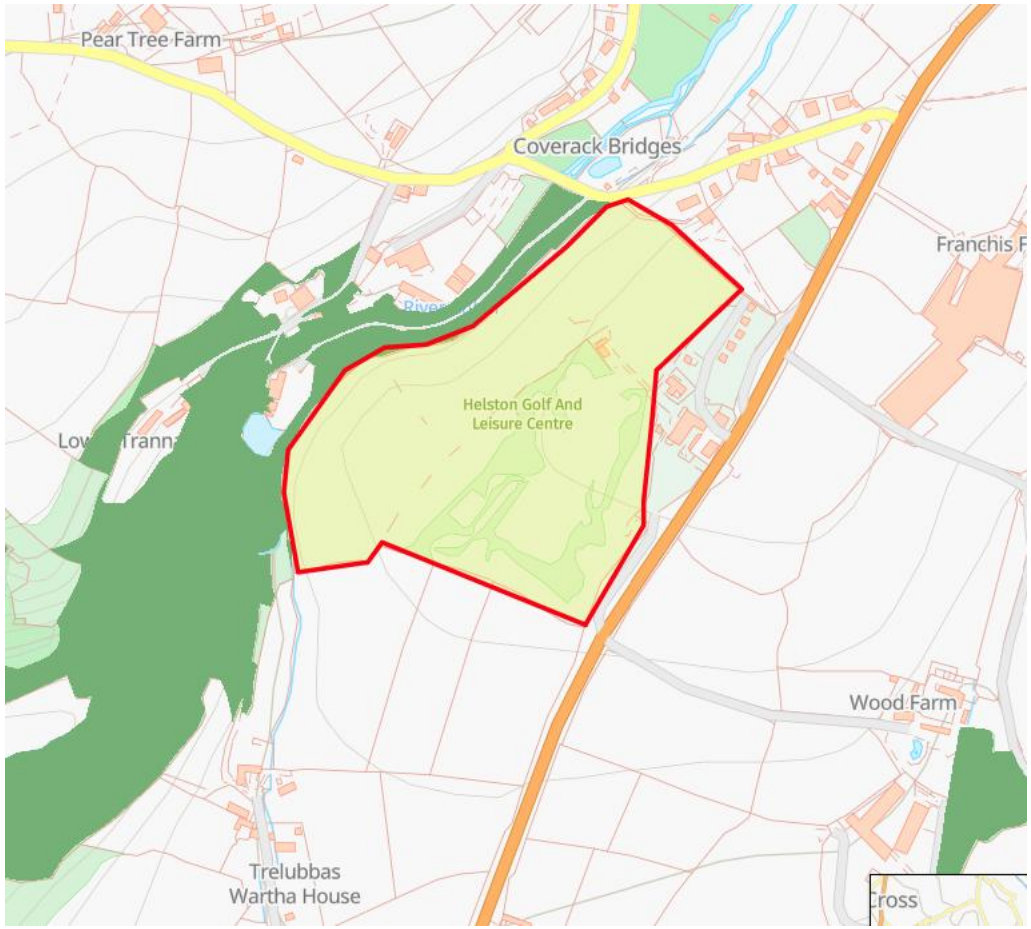

Extract of Magic Map showing Priority Habitat woodland.