

**APPENDIX 6.9**  
**REPORT TO INFORM HRA SCREENING**



# Ebberston Moor South Well Site to Knapton Pipeline

Report to Inform Habitat  
Regulations Assessment  
Screening

Prepared for:  
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UNITED  
KINGDOM &  
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TABLE OF CONTENTS	1.	INTRODUCTION.....	5
	1.1	Background to Habitat Regulations Assessment.....	5
	2.	METHODOLOGY.....	7
	2.1	The Process of HRA .....	7
	2.2	Evidence gathering/Scoping .....	7
	2.3	HRA Task One: Likely Significant Effects (Screening) .....	7
	2.4	Assessment ‘in combination’.....	8
	2.5	HRA Task Two: Appropriate Assessment.....	8
	2.6	HRA Task Three: Mitigation.....	8
	3.	EVIDENCE GATHERING: RIVER DERWENT SAC .....	9
	3.1	Reason for Designation.....	9
	3.2	Consultation with Natural England.....	9
	3.3	Baseline Conditions .....	10
	3.3.1	Introduction .....	10
	3.3.2	Habitats at Pipeline Crossing Point.....	10
	3.3.3	Natural England Condition Assessment .....	10
	3.4	SAC Conservation Objectives.....	10
	3.5	Need for Screening .....	11
	4.	HRA TASK 1: LIKELY SIGNIFICANT EFFECTS/SCREENING .....	12
	4.1	Introduction .....	12
	4.2	Summary of works .....	12
	4.3	Timing of Works .....	13
	4.4	Damage to Habitat within Protected Sites .....	13
	4.5	Damage/ disturbance to habitats supporting river and sea lamprey and bullhead.....	14
	4.6	Damage/ disturbance to habitats supporting breeding otter .....	15
	4.7	Changes in Air Quality .....	15
	5.	CONSIDERATION OF ‘IN COMBINATION’ EFFECTS...	16
	5.1	Ryedale Gas Project .....	<b>Error! Bookmark not defined.</b>
	5.2	Ebberston Moor EDS .....	16
	5.3	Conclusions.....	16
	6.	CONCLUSIONS.....	17
		APPENDIX A RIVER DERWENT SAC NATURA 2000 SHEET	
		APPENDIX B RIVER DERWENT SAC CONSERVATION OBJECTIVES	
		APPENDIX C RIVER DERWENT SAC LOCATION PLAN	
		APPENDIX D INDICATIVE RIVER DERWENT CROSSING PLAN	



## 1. INTRODUCTION

### 1.1 Background to Habitat Regulations Assessment

URS has been commissioned to complete a report to inform a Habitat Regulations Assessment (HRA) Screening on behalf of Third Energy & Moorland Energy Ltd, to assist the competent authority North Yorkshire County Council with its statutory duties under the Conservation of Habitats and Species Regulations 2010 (as amended). The scope of this report to inform HRA Screening is to identify and assess the potential impacts of the proposed Ebberston Moor South (EMS) Well site to Knapton Gas Pipeline (“the Pipeline”) on the nearby River Derwent Special Area of Conservation (SAC). The Pipeline crosses the River Derwent approximately 6 km upstream of the designated section of the river.

An Environmental Impact Assessment (EIA) for the Pipeline has been undertaken and an Ecology Chapter prepared as part of the Environmental Statement, to which this document forms Appendix 6.9 to the Ecology Chapter. The Environmental Statement has concluded that the Pipeline would not result in any direct or indirect impacts on the River Derwent SAC and subsequently no significant effects were predicted. However, a precautionary approach has been taken in respect of the potential for likely significant effects on the interest features for which the River Derwent SAC has been classified to occur. It is assumed that the competent authority will undertake Habitats Regulations Assessment screening because the project is not directly connect with, or necessary to, the management of the Natura 2000 site.

It is a requirement of the EC Habitats Directive 1992 and the Conservation of Habitats and Species Regulations 2010 (as amended) (Box 1) that plans and projects are subject to an ‘Appropriate Assessment’ if it is likely that they will lead to significant adverse effects on a Natura 2000 site. It is the duty of the ‘competent authority’ to determine if significant adverse effects are likely, and if necessary, to then undertake the Appropriate Assessment, but the proponent of the scheme can be asked to supply data/reports to inform that decision.

In the past, the term ‘Appropriate Assessment’ has been used to describe both the overall process and a particular stage of that process (see below). The term Habitat Regulations Assessment (HRA) has come into use in order to refer to the process that leads to an “Appropriate Assessment”, thus avoiding confusion. Throughout this report, Habitat Regulations Assessment is used to refer to the overall procedure required by the Conservation of Habitats and Species Regulations 2010 (as amended) (the ‘Habitat Regulations’).

**Box 1 The legislative basis for determining Likely Significant Effect and for subsequent Appropriate Assessment, if required.**

Habitats Directive 1992

*“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.”*

Article 6 (3)

Conservation of Habitats and Species Regulations 2010

*“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site or a European Offshore Marine Site (either alone or in combination with other plans or projects) ... must make an appropriate assessment of the implications for the site in view of that sites conservation objectives ... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site ...”.*

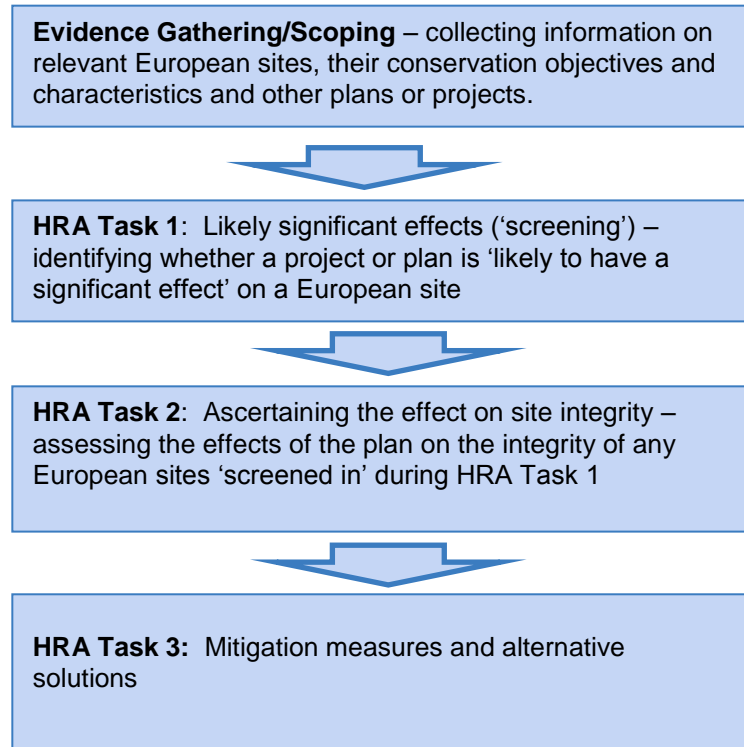
Regulation 21



**2. METHODOLOGY**

**2.1 The Process of HRA**

Figure 1 below outlines the stages of HRA.



**Figure 1: Four-Stage Approach to Habitat Regulations Assessment**

**2.2 Evidence gathering/Scoping**

Information on the River Derwent SAC has been gathered primarily from the Natura 2000 citation sheet submitted to the European Commission at the time of designation in 2004. In addition, the River Derwent is also designated as a Site of Special Scientific Interest (SSSI) and the nearest SSSI unit condition assessment (where the SAC and SSSI boundaries are contiguous) has been consulted.

The River Derwent SAC citation document is provided as Appendix A.

**2.3 HRA Task One: Likely Significant Effects (Screening)**

The first stage of any Habitat Regulations Assessment is a Likely Significant Effect (LSE) or screening test – essentially a high level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

*“Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon any European site?”*

If it can be demonstrated that significant effects are unlikely, no further assessment is required.

Data to inform the Screening stage of this HRA has been obtained from the Ecology Chapter of the Environmental Statement.

**2.4 Assessment ‘in combination’**

It is a requirement of the Habitat Regulations that the impacts and effects of any development are not considered in isolation but in combination with other plans and projects that may also affect the European site(s) in question.

**2.5 HRA Task Two: Appropriate Assessment**

The favourable conservation status of a Natura 2000 site is defined through the conservation objectives for the site, which are the responsibility of Natural England. An adverse effect on site integrity is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant features as it did at the time of its designation (English Nature, 1997).

**2.6 HRA Task Three: Mitigation**

In cases where it cannot be determined that a plan or project under consideration will not have an adverse effect on Natura 2000 sites, then alternative solutions which avoid harming site integrity must be sought, or mitigation measures undertaken such that the plan or project will not adversely affect the integrity of the site.

Mitigation measures aim to minimise or cancel out the negative impact of a plan or project before or after its completion. Examples of mitigation measures are as follows:

- Sensitive timing of operations e.g. not during the breeding season of a particular species
- Specific types of tools to be used e.g. to prevent damage to fragile habitats

In the absence of alternative solutions or suitable mitigation, where the consideration of approving a plan or project that would damage the integrity of a Natura 200 site is required, then the plan or project can only be undertaken where there is no suitable alternative, and for imperative reasons of over-riding public interest (IROPI). IROPI needs to be agreed by the Secretary of State, and compensatory measures secured to offset damage done by the plan or project. Compensatory measures must maintain the overall coherence of the Natura 2000 network.

### 3. EVIDENCE GATHERING: RIVER DERWENT SAC

#### 3.1 Reason for Designation

The River Derwent SAC was formally designated in 2005, having been proposed as a Site of Community Importance (SCI) in 2001. The River Derwent SAC is primarily designated for the following Annex II species:

- River lamprey (*Lampetra fluvialis*) – the Derwent is one example of river lamprey populations which inhabit the many rivers flowing into the Humber estuary in eastern England. Only the lower reaches of the Derwent are designated, reflecting the spawning distribution of the species in the Derwent system.

The following Annex II species are present as a qualifying feature but are not a primary reason for site selection:

- Sea lamprey (*Petromyzon marinus*);
- Bullhead (*Cottus gobio*); and
- Otter (*Lutra lutra*).

There are no Annex I habitats that are a primary reason for selection of the site. The following Annex I habitat is present as a qualifying feature but is not a primary reason for site selection:

- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche* – *Batrachion* vegetation (rivers with floating vegetation often dominated by water-crowfoot).

#### 3.2 Consultation with Natural England

Consultation on the EMS to Knapton Pipeline has not been undertaken. However, consultation was undertaken for the Eberston Moor 'A' Well site to Knapton Pipeline (Ref: NY/2013/0273/ENV), which was consented by North Yorkshire County Council in April 2014. The route that this consented pipeline takes across the River Derwent is identical to the EMS to Knapton Pipeline, and therefore it can be assumed that the comments received from consultees would be similarly applicable. These are summarised below:

North Yorkshire County Council consulted with Natural England on the ES for the Eberston Moor 'A' Well site to Knapton Pipeline. A response received from Natural England on 29 October 2013 stated that:

*“Natural England objects to this development on the grounds that the proposal, as submitted, does not condition sufficient information for your authority to determine if the application is likely to have a significant effect on the interest features for which the River Derwent Special Area of Conservation (SAC) has been classified.”*

Further information was requested by Natural England as follows:

*“The proposed pipeline is to run underneath the River Derwent, approximately 6km upstream from the River Derwent SAC. The drilling activities underneath the river during construction may result in increased sedimentation of the designated section of river and impact the fish populations for which the river is designated. Additional information on the details of the drilling to be undertaken under the river as to the depth of drilling, impacts on underlying geomorphology and distance from the river where trenching will stop and directional drilling*

*will begin is therefore required in order to assess any likely significant impacts on the River Derwent SAC as a result of the proposed pipeline.”*

### 3.3 Baseline Conditions

#### 3.3.1 Introduction

The Pipeline crosses the River Derwent 2km west of Yedingham, approximately 6 km upstream of the nearest designated stretch of the River Derwent SAC. There is therefore no potential for direct impacts on the Natura 2000 site, as the designated section of the river will not be affected by the works. However, the potential for indirect effects (e.g. as a result of pollution upstream of the designated section) has been considered in this report.

Figure 7.1 from the ES showing the location of the River Derwent in context with the EMS to Knapton Pipeline route is provided as Appendix C to this report.

#### 3.3.2 Habitats at Pipeline Crossing Point

At the River Derwent crossing point, the river is c. 5m in width with a fast flow and shallow banks c. 0.5 m in height. The river is open and unshaded at the crossing point, with a 2 m grassed raised flood defence embankment on both sides of the river, behind which lies marshy grazed pasture. Marginal species present at the river crossing point were limited to scattered stands of reed canary-grass (*Phalaris arundinacea*).

#### 3.3.3 Natural England Condition Assessment

The baseline condition of the River Derwent SAC has been obtained from the most recent condition assessment of the River Derwent SSSI units, for which Unit 1 lies in closest proximity to the Pipeline crossing point, and is contiguous with the SAC boundary.

Unit 1 of the River Derwent SSSI was assessed as ‘unfavourable recovering’ in September 2010 by Natural England. Comments on the condition assessment state that: “*Diffuse Water Pollution Plan and River Restoration Plan signed off Sept 2010 which aim to reduce outstanding reasons for unfavourable condition. CSFP [Catchment Sensitive Farming Plan] officer also in place working with land owners seeking to address issues of agricultural runoff and diffuse pollution.*”

### 3.4 SAC Conservation Objectives

The conservation objectives for the River Derwent SAC are as follows (also provided as Appendix B):

*“With regard to the natural habitats and/ or species for which the site has been designated (the Qualifying Features’ listed below):*

*“Avoid the deterioration of the qualifying natural habitats and habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.*

*“Subject to natural change, to maintain or restore:*

- *the extent and distribution of qualifying natural habitats and habitats of qualifying species;*

- *the structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;*
- *the supporting process on which qualifying natural habitats and habitats of qualifying species rely;*
- *the populations of qualifying species; and*
- *the distribution of qualifying species within the site.”*

### 3.5 Need for Screening

The project is not considered necessary to the management of the River Derwent SAC. Given the proximity of the Pipeline crossing to the SAC the potential for pollution of the river at the crossing point to result in downstream effects on the SAC has been identified. Paragraphs 6.176 and 6.177 of the Ecology Chapter of the Environmental Statement state that:

*“The Proposed Development will not result in any direct impacts on the River Derwent SAC, since the designated site boundary is c. 6 km from the proposed crossing point of the pipeline at Yedingham. As the crossing point is upstream of the SAC, there is the potential for indirect effects on the SAC due to the habitat connectivity. However, the River Derwent will be crossed using a non-open cut auger boring technique, and therefore it is assessed that there is no potential for indirect impacts on the River Derwent e.g. as a result of pollution/ siltation of the watercourse at the crossing point.”; and*

*“Furthermore, the legislative compliance measures required to be adopted during the construction phase will minimise the risk of a pollution event occurring as a result of works in close proximity to the watercourse. It is assessed that the Proposed Development will not result in any impacts on the River Derwent SAC.”*

However, a precautionary approach has been adopted in respect of this report to inform HRA screening following comments received from Natural England (in respect of the consented Ebberston Moor ‘A’ Well site to Knapton Pipeline, whose crossing of the River Derwent is identical to the proposed EMS to Knapton Pipeline) that stated further information on the river crossing methodology was required before an assessment of likely significant effects on the SAC could be made.

## 4. HRA TASK 1: LIKELY SIGNIFICANT EFFECTS/SCREENING

### 4.1 Introduction

The purpose of this section is to evaluate whether the proposed Pipeline is likely to have a significant effect on the interest features of the River Derwent SAC. The potential for indirect effects arising from upstream pollution of the watercourse have been identified.

Only effects for which a potential impact pathway has been identified are considered in this report to inform HRA screening.

### 4.2 Summary of works

The application to North Yorkshire County Council seeks permission for natural gas production and water re-injection at the existing borehole at Ebberston Moor 'South' Well Site; the construction of a 13.9 km underground gas pipeline from the Ebberston Moor 'South' Well Site to Knapton Generating Station and the construction of ancillary works at the Generating Station.

The pipeline route runs in a broadly north-south direction between the Ebberston Moor South (EMS) Well Site, located on the southern edge of Dalby Forest (SE 895 825) and the Knapton Generating Station (KGS) at Knapton, North Yorkshire (SE 887 770). After exiting the EMS Well Site, the pipeline route heads due west and crosses arable farmland south of Givendale Head Farm, bisecting Ebberston Common Lane and Oxmoor Dike. The pipeline route then heads in a south-westerly direction where it crosses forestry plantation within the North York Moors National Park predominantly following the course of existing forestry access tracks (and hence already cleared tracks) within the plantation. The pipeline route then heads in a southerly direction from the forestry plantation, crossing arable farmland to the north and east of Warren House, before crossing A170 between the villages of Wilton and Allerston. South of the A170, the pipeline route crosses predominantly flat arable farmland west of the villages of Yedingham and Allerston and crosses the River Derwent approximately 2 km west of Yedingham (SE 868 791). The pipeline route terminates at the existing (operational) KGS.

South of the A170, the land is predominantly flat agricultural fields under winter wheat crops in the floodplain of the River Derwent. The fields are typically large and are drained by numerous drainage ditches, with occasional mature hedgerows retained as field boundaries. A small section of permanent pasture (grazed by cattle at the time of the survey) is crossed in the vicinity of Wath House Farm.

The only section of the proposed Pipeline that could potentially affect the River Derwent SAC is the river crossing point. Non open-cut horizontal directional drilling (HDD) techniques will be used to construct the pipeline beneath the River Derwent to minimise effects on the watercourse. An indicative plan showing the location of the crossing point and the HDD drill entry/ exit points is provided as Appendix D.

A broad summary of the HDD crossing methodology is as follows:

- 1) A small diameter pilot hole is drilled from the land entry point approximately 100m from the bank of the river, crossing under the river to the land exit point approximately 100m from the opposite bank of the river.
- 2) A reaming tool is pulled back through the pilot hole to enlarge the hole. More than one pass may be required to achieve the necessary width for the pipe.

- 3) Prefabricated pipe is attached to a swivel behind the reamer and pulled into place beneath the river.
- 4) The pipeline will remain in-situ for the operational lifespan of the project.

A summary of the details of the crossing methodology is provided in Table 4.1 below, based on the specific queries raised by Natural England at the consultation stage for the consented Ebberston Moor 'A' Well Site to Knapton Pipeline.

**Table 4.1: Details of HDD Crossing Methodology**

Detail (requested by Natural England)	Comments
Location of drilling rig entry and exit points	<p>The drilling rig entry and exit points will be at least 100 m from the river bank to ensure that the HDD clears both the river and floodplain (see Appendix D):</p> <ul style="list-style-type: none"> <li>• North side of River Derwent – drilling pit on north side of Marishes Lane.</li> <li>• South side of River Derwent – drilling pit in field to south of woodland belt.</li> </ul>
Depth of drilling	<p>The depth of the installed pipeline will be between 10 and 20 m below ground level. This will depend upon sub-surface strata, which will not be known until borehole surveys have been completed.</p>
Effects on underlying geomorphology	<p>There will be no effects on the underlying geomorphology of the river bed because the pipeline will be constructed 10 – 20 m below ground level.</p>

### 4.3 Timing of Works

The construction timescale is not known at this stage. However the drilling works at the River Derwent to install the pipeline beneath the river are expected to take in the region of two to three weeks (including the set up and demobilisation of the equipment).

### 4.4 Damage to Habitat within Protected Sites

#### Direct Impacts

There will be no direct impacts on habitats within the boundary of the SAC due to the use of a non-open cut technique to cross the river, and there is therefore no potential for direct damage to the riparian and river habitats resulting in a reduction in habitat area within the SAC.

There is also no potential for habitat or species population fragmentation in the SAC because the Pipeline will not directly impact the designated site.

#### Indirect Impacts

Although the EclA concluded that there was no potential for indirect effects on the SAC at the river crossing point due to the use of non-open cut techniques, a precautionary approach has been adopted in this report to inform a HRA screening. Additional information has been provided in respect of the crossing methodology to assist the competent authority in fulfilling

their obligations under the Habitat Regulations. The potential for indirect impacts on the River Derwent SAC as a result of upstream impacts on the river e.g. through hydrological effects such as siltation and/ or pollution, have therefore been considered below.

The main potential risk to the hydrology of the river system would be as a result of seepage of bentonite from the underground pipe trench, which may result in increased siltation of the river. However, a risk assessment would be undertaken following the results of the ground investigations, and thixotropic gels (non-toxic or contaminate) would be used to 'stiffen' the bentonite and prevent 'break out' of drilling mud, if necessary, to address the risk. In any case, bentonite is a very cohesive clay, and can greatly reduce the erosion rates of other sediments and enhance their stability. The risk of significant suspension of bentonite in the water column resulting in increased sedimentation is therefore very low. In addition, the pipe trench will be 10 – 20 m below the river and the risk of a 'break out' is correspondingly very low. It is therefore concluded that there is a negligible risk of increased siltation of the watercourse due to sediment release as a result of the HDD.

Even if the worst-case scenario is considered and seepage were to occur resulting in a release of clay into the watercourse, the River Derwent SSSI citation (concurrent with the SAC site boundary) lists an aquatic flora typical of clay rivers, and therefore occasional releases of clay into the system are likely to be reflective of the baseline conditions e.g. as a result of bank slippages or when the river is in spate. It is therefore reasonable to assume that any minor releases of clay into the river would be tolerable by the aquatic flora and fauna both at the crossing point, and in the designated stretch. River lamprey, for which the site is designated as an SAC, requires silty river beds on which to spawn (Maitland, 2003), and therefore is tolerant of such conditions. Regardless of this, any sedimentation arising at the Pipeline crossing point would be substantially diluted by the time it reaches the designated stretch of the river because it is approximately 6 km downstream of the crossing point.

Potential impacts on the water quality of the River Derwent, and subsequent effects on downstream habitats supporting fish due to pollution and/ or increased siltation from surface run-off due to topsoil stripping will be minimised through the implementation of sensitive working practices throughout the construction phase (*via* a Construction Environmental Management Plan). Such measures are necessary to ensure compliance with environmental legislation. In addition, the nearest areas of topsoil stripping will be c. 100 m from the banks of the watercourse, and the risk of contaminated surface water run-off arising from the construction areas entering the River Derwent is therefore negligible. There is therefore no potential for direct effects on the watercourse, and subsequently there is no potential for indirect effects on the habitats within the designated sites.

There is no potential for adverse effects on the geomorphology of the River Derwent SAC, or its undesignated upstream sections because the pipe will be buried beneath the river.

**Conclusion:** The proposed works will not result in direct or indirect impacts on habitats within the River Derwent SAC. No likely significant effects are predicted.

#### 4.5 **Damage/ disturbance to habitats supporting river and sea lamprey and bullhead**

There is no potential for the proposed works to result in damage or disturbance to habitat supporting river and sea lamprey and bullhead, since the proposed Pipeline will not result in direct impacts on aquatic habitats associated with the River Derwent SAC.

The potential for upstream siltation and/ or pollution to result in adverse effects on habitats within the River Derwent SAC, and subsequently on river and sea lamprey and bullhead populations within the SAC has been discussed in Section 4.3, and impacts have been scoped out.



**Conclusion:** The proposed works will not in any impacts on habitats supporting river lamprey, for which the River Derwent SAC was designated, or any of the qualifying species of fish (sea lamprey and bullhead). No likely significant effects are predicted.

#### 4.6 **Damage/ disturbance to habitats supporting breeding otter**

Desk study data obtained from North and East Yorkshire Ecological Data Centre (NEYEDC) to support the baseline for the Ecological Impact Assessment (EclA) confirmed the presence of otter within the study area (incorporating a 1 km radius from the Pipeline centreline), including records of the species from the River Derwent at Yedingham i.e. in close proximity to the Pipeline crossing point.

The banks of the River Derwent at the Pipeline crossing point are open and unshaded, and do not support any bankside vegetation that could provide otters with cover for potential holt or couch sites. No such evidence of holt or couch (otter resting places) sites was identified during the Phase 1 habitat survey. It is concluded that otters, although undoubtedly present on the Derwent, are not resident in the section to be crossed by the proposed pipeline, and are present on an occasional transitory basis only whilst foraging or on passage.

All construction works will be undertaken in daylight hours, and therefore there is no potential for noise or visual disturbance to foraging otters because otter is a nocturnal mammal and will not be active when works are being undertaken. The HDD trenches will start and finish c. 100 m from the river bank, and there will be no above-ground works to the river or the riparian habitat along which otters may forage, and therefore there will be no disruption to foraging corridors used by otter during the construction phase.

There is no potential for operational effects on otter because the pipeline will be buried below the river.

**Conclusion:** The proposed works will result in no likely significant effects on otter, which is a qualifying feature of the River Derwent SAC.

#### 4.7 **Changes in Air Quality**

The air quality impact assessment presented in the air quality chapter of the ES considered the impacts of changes in air quality through particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>) and oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), hydrogen sulphide (H<sub>2</sub>S) and mercaptans (or thiols). Of these, only PM, NO<sub>2</sub> and NO<sub>x</sub> may potentially result in adverse effects on habitats because the other compounds are considered only in respect of potential impacts on public health.

The air quality chapter of the ES assessed impacts on sensitive ecological receptors within 4 km of the Pipeline route, and therefore the River Derwent SAC was not scoped into the assessment because it is 6 km from the route. Regardless of this, the air quality assessment enables potential impacts on the SAC habitats to be scoped out, since no likely significant effects on any of the sensitive ecological receptors within 4 km, including three Sites of Special Scientific Interest (SSSI), were predicted. It is therefore reasonable to conclude that the habitats within the SAC will therefore be similarly unaffected, given that the site is further from the impact than the three SSSIs.

**Conclusion:** The proposed works will result in no changes in air quality within the designated site, and therefore there is no potential for likely significant effects on habitats within the River Derwent SAC.

## 5. CONSIDERATION OF 'IN COMBINATION' EFFECTS

The Conservation of Habitats and Species Regulations 2010 (as amended) require projects not only to consider their potential impacts in isolation, but also whether there would be an adverse impact on European sites when the project is considered 'in combination' with other plans or projects that may also affect the site. The Environmental Statement scoped two projects into the cumulative assessment for EIA, which have been considered in the in combination effects section of this report to inform HRA screening; the Ebberston Moor EDS (ref: NYM/2013/0477/EIA) and the York Potash Project (no application submitted to date).

As discussed in the Environmental Statement, the potential for cumulative effects with the Ryedale Gas Project (ref: NY/2010/0159/ENV) and the consented Ebberston Moor 'A' Well Site to Knapton Gas Pipeline (ref: NY/2013/0273/ENV) has been scoped out. These projects have therefore been similarly scoped out of this in combination effects section.

No other plans or projects that could have potential in combination effects with the Pipeline have been identified. The River Derwent SAC habitats are most susceptible to adverse effects as a result of diffuse pollution from surrounding agricultural land. The Derwent is within the Environment Agency's Catchment Sensitive Farming Priority Catchment Area, which is working with farmers to reduce the sources of diffuse pollution throughout the catchment. There are no known other plans or projects in the wider local area that may directly or indirectly affect the River Derwent SAC e.g. flood defence works, new bridges and in-channel engineering works.

### 5.1 Ebberston Moor EDS

The Ebberston Moor EDS comprises the exploitation of conventional hydrocarbon resources for an operational period of five years including gas production from the existing Ebberston Moor 'A' Well Site and transfer of gas into the network.

The Ebberston Moor EDS Project does not cross the River Derwent SAC or affect any habitats (directly or indirectly) adjacent to the SAC that could result in impacts on habitats or qualifying features. There is therefore no potential for likely significant effects in combination with the EMS to Knapton Pipeline.

### 5.2 York Potash Project

The York Potash Project is a nationally important proposal to develop a new potash mine in the area between Whitby and Scarborough. In addition to the construction of a new mine, the Project includes the construction of a c. 37 km underground Mineral Transport System (MTS), which is an underground conveyor belt system constructed in a tunnel with a depth of approximately 250 m. A Materials Handling Facility is also proposed at Teesside to process and export the extracted material from a new harbour facility at Redcar on the south bank of the River Tees. Separate planning applications will be submitted for the potash mine, MTS pipeline and harbour facility.

The York Potash Project does not cross the River Derwent SAC or affect any habitats (directly or indirectly) adjacent to the SAC that could result in impacts on habitats or qualifying features. There is therefore no potential for likely significant effects in combination with the EMS to Knapton Pipeline.

### 5.3 Conclusions

No other plans or projects that have the potential for likely significant in-combination effects with the proposed Pipeline on the River Derwent SAC have been identified.

**6. CONCLUSIONS**

The proposed EMS Well Site to Knapton Gas Pipeline has been screened for likely significant effects on the River Derwent SAC.

The screening has confirmed that there is no potential for likely significant effects on the River Derwent SAC either alone or in combination with other plans or projects.

Since no likely significant effects have been identified on the Natura 2000 site, it is concluded that the next stage of the HRA (Task 2 - Appropriate Assessment) does not need to be undertaken.

**REFERENCES**

English Nature (1997). *Habitats Regulations Guidance Note 1*. English Nature, Peterborough.

European Commission (2001) *Assessment of plans and project significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Impact Assessment Unit, Oxford Brooks University.

European Communities (2000). *Managing Natura 2000 Sites – The provisions of Article 6 of the 'Habitats Directive' 92/43/CEE*. European Communities, Luxembourg.

**APPENDIX A**

**RIVER DERWENT SAC  
NATURA 2000 SHEET**

# NATURA 2000

## STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)  
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)  
AND  
FOR SPECIAL AREAS OF CONSERVATION (SAC)

### 1. Site identification:

1.1 Type  1.2 Site code

1.3 Compilation date  1.4 Update

#### 1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

#### 1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200103
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200504

### 2. Site location:

#### 2.1 Site centre location

longitude	latitude
00 55 40 W	53 55 03 N

2.2 Site area (ha)  2.3 Site length (km)

#### 2.5 Administrative region

NUTS code	Region name	% cover
UK22	North Yorkshire	100.00%

#### 2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

### 3. Ecological information:

#### 3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	0.1	C	C	B	C

#### 3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Austropotamobius pallipes</i>	Present	-	-	-	D			
<i>Petromyzon marinus</i>	Rare	-	-	-	C	C	B	C
<i>Lampetra planeri</i>	Present	-	-	-	D			
<i>Lampetra fluviatilis</i>	Common	-	-	-	C	B	C	B
<i>Salmo salar</i>	Present	-	-	-	D			
<i>Cottus gobio</i>	Common	-	-	-	C	B	C	C
<i>Lutra lutra</i>	Common	-	-	-	C	B	C	C

### 4. Site description

#### 4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	95.0
Bogs. Marshes. Water fringed vegetation. Fens	2.0
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	3.0
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
<b>Total habitat cover</b>	<b>100%</b>

## 4.1 Other site characteristics

### Soil & geology:

Alluvium, Clay, Mud, Neutral

### Geomorphology & landscape:

Floodplain, Lowland, Valley

## 4.2 Quality and importance

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation

- for which the area is considered to support a significant presence.

*Petromyzon marinus*

- for which the area is considered to support a significant presence.

*Lampetra fluviatilis*

- for which this is considered to be one of the best areas in the United Kingdom.

*Cottus gobio*

- for which the area is considered to support a significant presence.

*Lutra lutra*

- for which the area is considered to support a significant presence.

## 4.3 Vulnerability

Water levels and flooding are an issue with the River Derwent. Concern has been expressed about both the level of flooding of adjacent agricultural land and also recent flooding of urban areas. This has resulted in public pressure both for new flood defences and different water-level control regimes. Issues relating to water control levels are being addressed through a collaborative project between English Nature, Environment Agency and the water company, Yorkshire Water. English Nature is also fully consulted over any new proposals relating to new or improved flood defences. Water quality is also a potential issue on the river. Improvements are currently proposed under the AMP3 programme.

## 5. Site protection status and relation with CORINE biotopes:

### 5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	0.7
UK04 (SSSI/ASSI)	100.0



## **APPENDIX B**

### **RIVER DERWENT SAC CONSERVATION OBJECTIVES**

## European Site Conservation Objectives for River Derwent Special Area of Conservation Site code: UK0030253

With regard to the natural habitats and/or species for which the site has been designated ('the Qualifying Features' listed below);

**Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.**

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

### Qualifying Features:

H3260. Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot

S1095. *Petromyzon marinus*; Sea lamprey

S1099. *Lampetra fluviatilis*; River lamprey

S1163. *Cottus gobio*; Bullhead

S1355. *Lutra lutra*; Otter

## Explanatory Notes: European Site Conservation Objectives

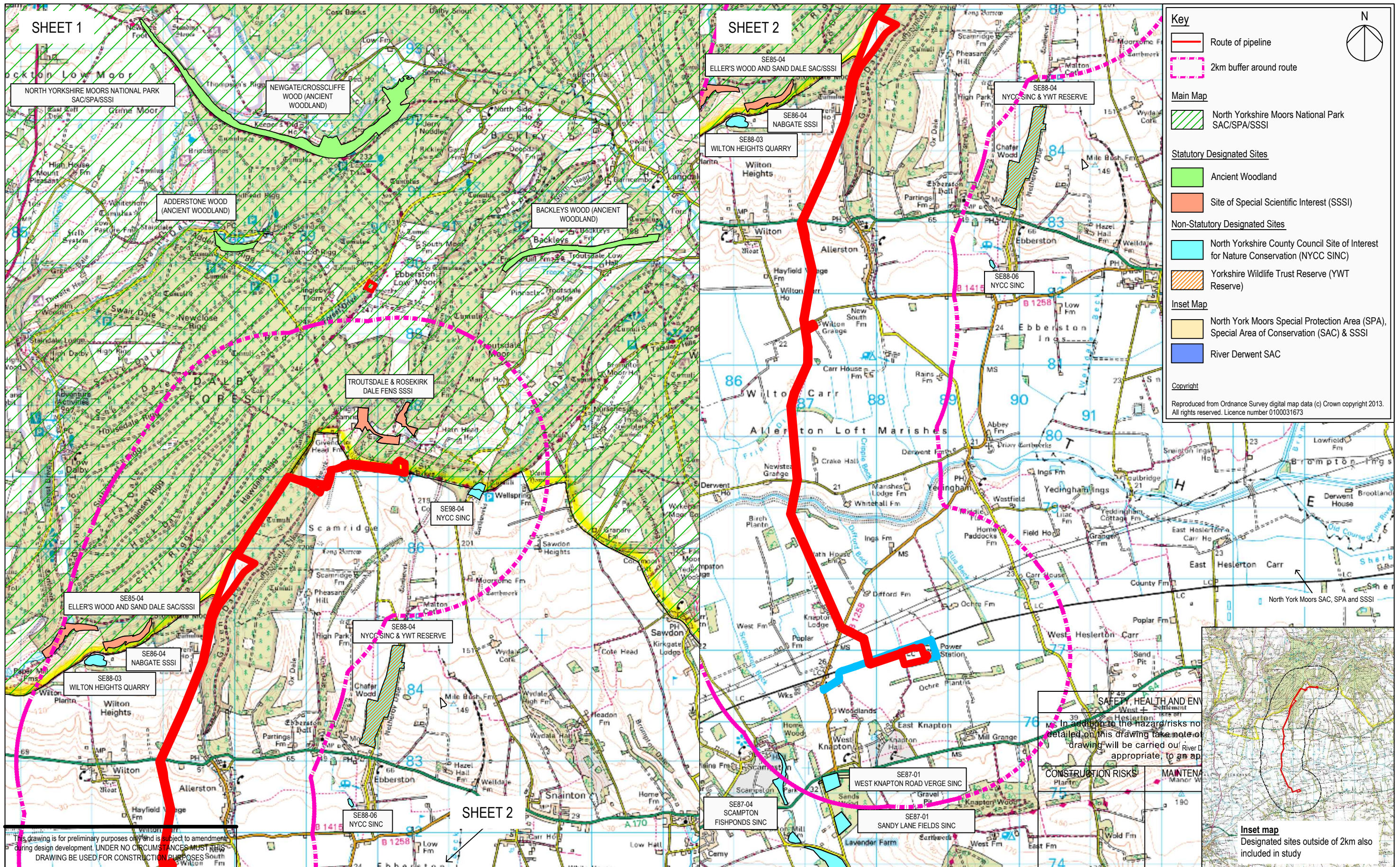
European Site Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the “Habitats Regulations”) and Article 6(3) of the Habitats Directive 1992. They are for use when either the appropriate nature conservation body or competent authority is required to make an Appropriate Assessment under the relevant parts of the respective legislation.

These conservation objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site can be said to demonstrate a high degree of integrity and the site itself makes a full contribution to achieving favourable conservation status for those features.

This document is also intended for those who are preparing information to be used for an appropriate assessment by either the appropriate nature conservation body or a competent authority. As such this document cannot be definitive in how the impacts of a project can be determined. Links to selected sources of information, data and guidance which may be helpful can be found on Natural England’s website. This list is far from exhaustive.

## APPENDIX C

### RIVER DERWENT SAC LOCATION PLAN



**Key**

- Route of pipeline
- 2km buffer around route

**Main Map**

- North Yorkshire Moors National Park SAC/SPA/SSSI

**Statutory Designated Sites**

- Ancient Woodland
- Site of Special Scientific Interest (SSSI)

**Non-Statutory Designated Sites**

- North Yorkshire County Council Site of Interest for Nature Conservation (NYCC SINC)
- Yorkshire Wildlife Trust Reserve (YWT Reserve)

**Inset Map**

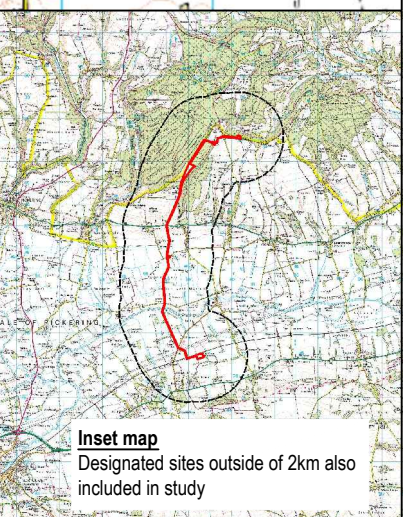
- North York Moors Special Protection Area (SPA), Special Area of Conservation (SAC) & SSSI
- River Derwent SAC

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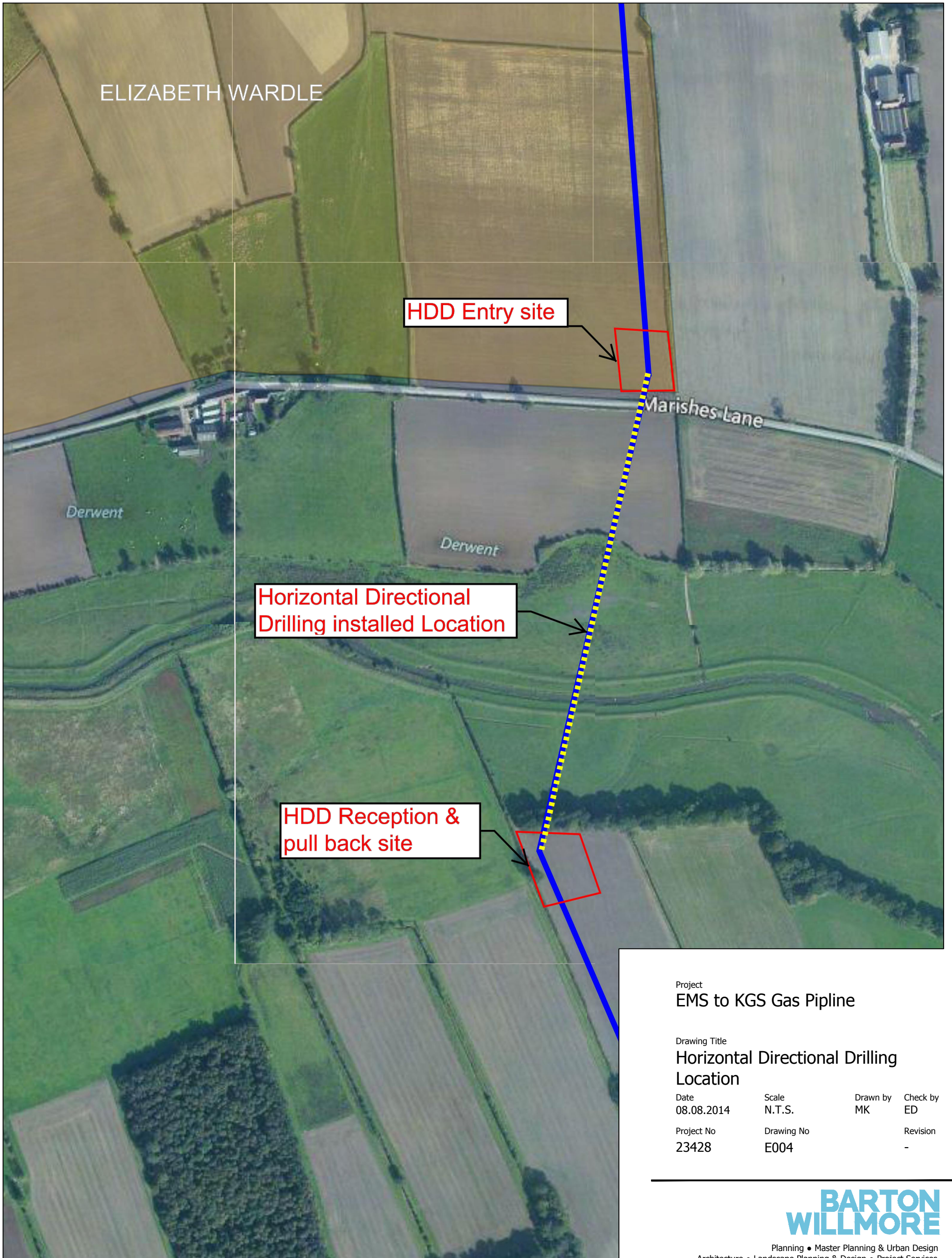
SAFETY, HEALTH AND ENVIRONMENTAL RISKS  
 In addition to the hazards/risks not detailed on this drawing take note of any other risks that may be identified during the course of the project. A risk assessment drawing will be carried out where appropriate, to an appropriate standard.



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								KNAPTON PIPELINE	FIGURE 6.1 STATUTORY AND NON-STATUTORY DESIGNATED SITES WITHIN 2KM	FINAL	<table border="1"> <tr> <th>Designed</th> <th>Drawn</th> <th>Checked</th> <th>Approved</th> <th>Date</th> </tr> <tr> <td>JA</td> <td>PB</td> <td>JA</td> <td>JA</td> <td>23.07.14</td> </tr> </table>			Designed	Drawn	Checked	Approved	Date	JA	PB	JA	JA
Designed	Drawn	Checked	Approved	Date																		
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				Client				BARTON WILLMORE		URS Internal Project No.	Drawing Number		Rev									
										47071069	47071069/EC/7.1											
										Scale @ A3	Zone / Mileage											
										1:50,000 (MAIN), NTS (INSET)												

## APPENDIX D

### INDICATIVE RIVER DERWENT CROSSING PLAN



Project  
**EMS to KGS Gas Pipeline**

Drawing Title  
**Horizontal Directional Drilling Location**

Date 08.08.2014	Scale N.T.S.	Drawn by MK	Check by ED
Project No 23428	Drawing No E004	Revision -	

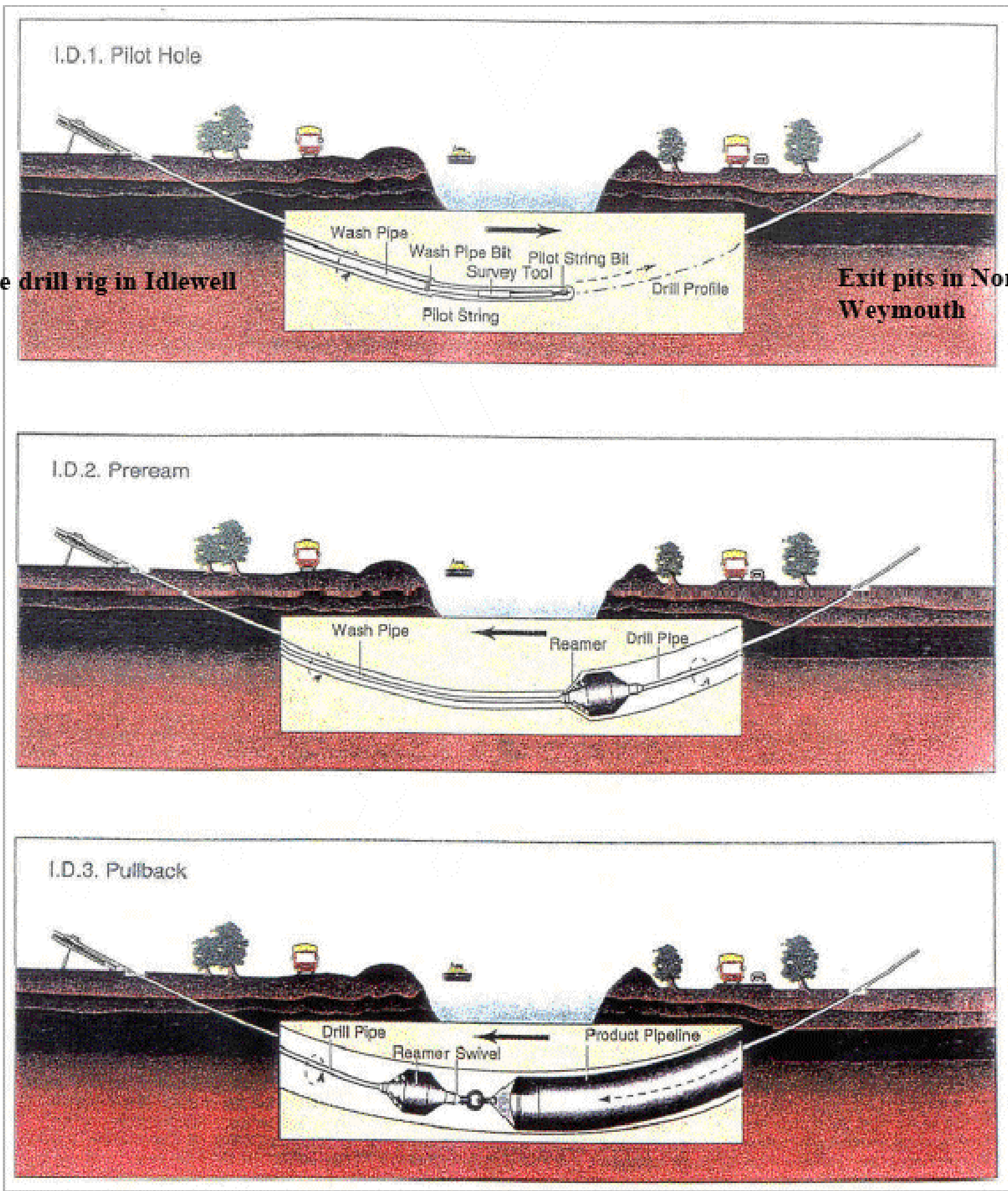
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The drill rig in Idlewell

Exit pits in North Weymouth

Project  
 EMS to KGS Gas Pipeline

Drawing Title  
 Horizontal Directional Drilling  
 Location

Date	Scale	Drawn by	Check by
08.08.2014	N.T.S.	MK	ED
Project No	Drawing No	Revision	
23428	E005	-	

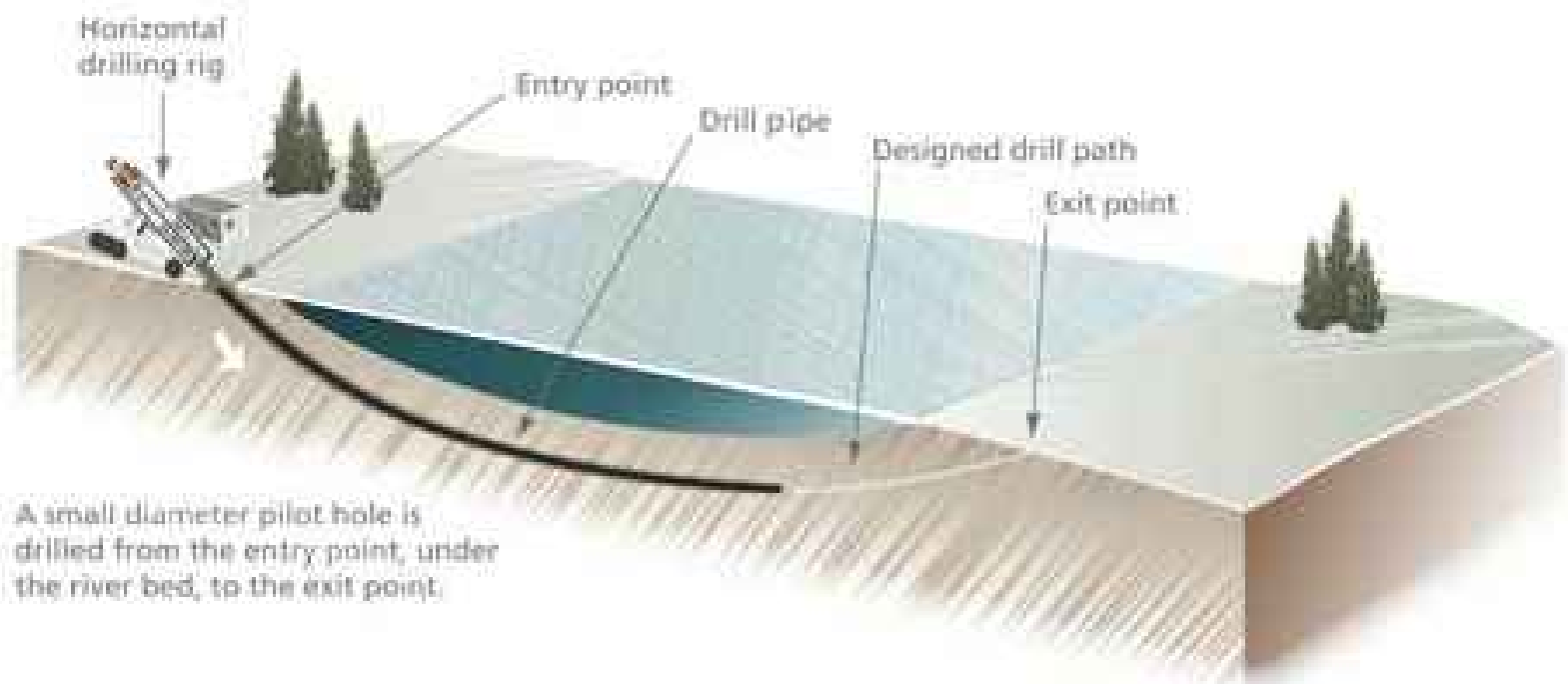
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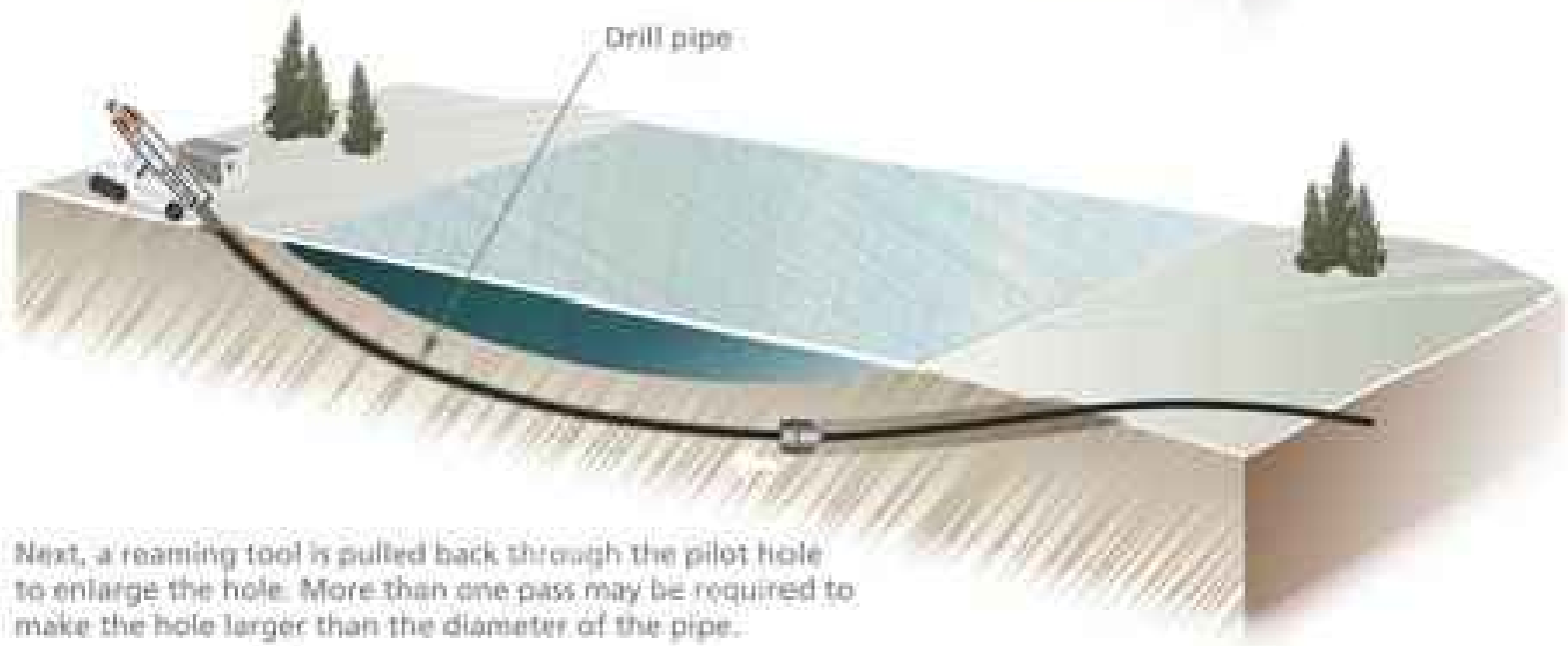
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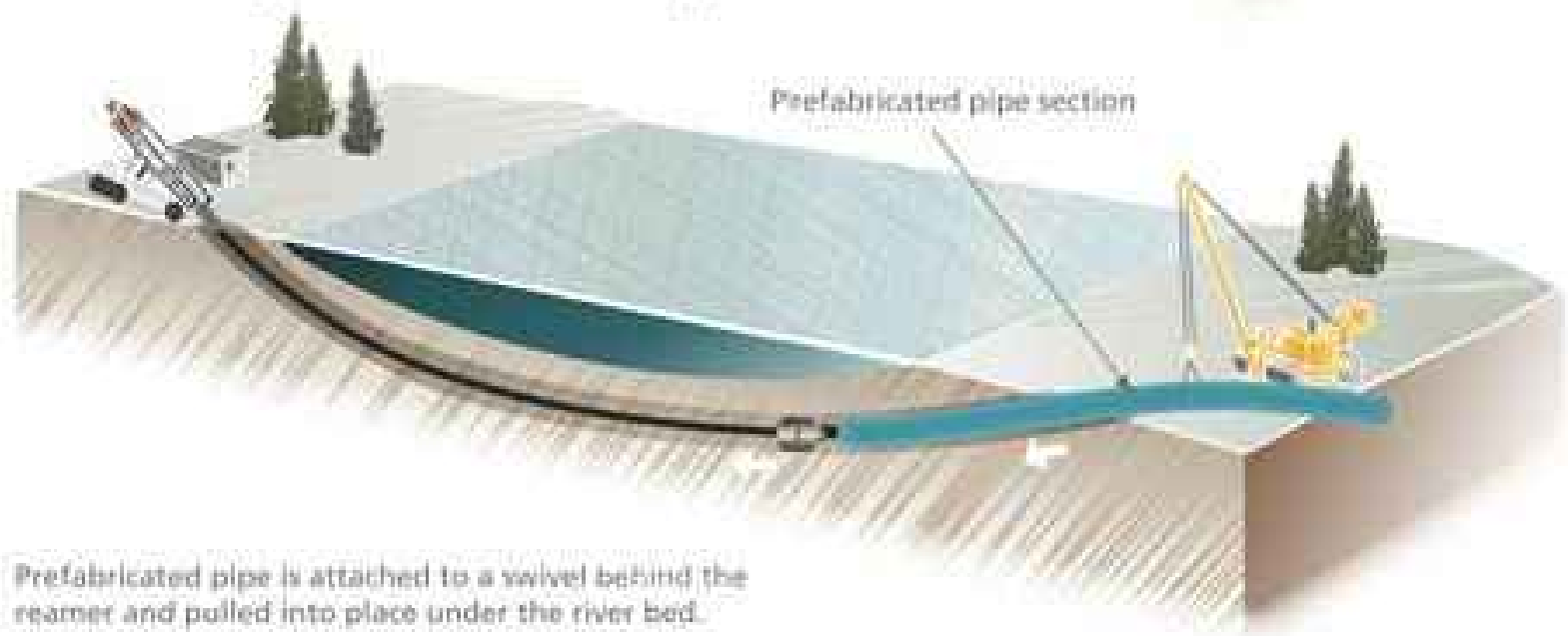




A small diameter pilot hole is drilled from the entry point, under the river bed, to the exit point.



Next, a reaming tool is pulled back through the pilot hole to enlarge the hole. More than one pass may be required to make the hole larger than the diameter of the pipe.



Prefabricated pipe is attached to a swivel behind the reamer and pulled into place under the river bed.

Project  
**EMS to KGS Gas Pipeline**

Drawing Title  
**Horizontal Directional Drilling Location**

Date	Scale	Drawn by	Check by
08.08.2014	N.T.S.	MK	ED
Project No	Drawing No	Revision	
23428	E006	-	



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