APPENDIX 7

BIODIVERSITY OFFSETTING AS COMPENSATION FOR LOSS OF INTERTIDAL HABITAT

York Potash Project Harbour Facilities

Biodiversity offsetting as compensation for loss of intertidal habitat

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Table of Contents

1	INTRODUCTION	1
1.1	Aim of this report	1
1.2	Predicted impact of the Harbour facilities on intertidal habitat	1
2	APPLICATION OF THE BIODIVERSITY OFFSETTING	
	METHODOLOGY	2
2.1	Introduction	2
2.2	Habitat type	2
2.3	Habitat condition	3
2.4	Calculation of biodiversity units impacted by the proposed scheme	3
2.5	Risk	4
	2.5.1 Background	4
	2.5.2 Multipliers	5
2.6	Calculation of biodiversity units with inclusion of multipliers to address risks	6
2.7	Using the metric to measure compensation (offset) to be provided	7
3	SUMMARY AND CONCLUSIONS	9
4	REFERENCES	11





1 INTRODUCTION

1.1 Aim of this report

The aim of this report is to analyse the potential requirement for compensatory measures to offset the predicted impact of the construction of the York Potash Project (YPP) Harbour facilities (the proposed scheme) on intertidal habitat in the Tees estuary. It has been prepared in response to discussions held with the Environment Agency at a meeting on 22 May 2015, and builds on the work undertaken as part of the Environmental Impact Assessment (EIA) process for the Harbour facilities.

At the meeting on 22 May 2015 the Environment Agency suggested that it would be beneficial if potential compensatory measures could be assessed according to the methodology set out in Defra's *Technical Paper: the metric for the biodiversity offsetting pilot in England* (Defra, 2012).

This report sets out the approach taken to the application of the guidance contained in Defra (2012), documents the findings of the study and draws conclusions regarding the adequacy (in the context of biodiversity offsetting) of the habitat improvement and creation proposals described in the Environmental Statement (ES) (Royal HaskoningDHV, 2015a).

1.2 Predicted impact of the Harbour facilities on intertidal habitat

The predicted impact of the proposed Harbour facilities on intertidal habitat in the Tees estuary is described in the ES (Royal HaskoningDHV, 2015a). The ES concluded that the proposed scheme would result in the direct loss of intertidal habitat due to either reclamation (for the solid quay structure) or revetment installation (for the open quay structure). The area of intertidal loss would differ depending on the preferred option selected for the quay construction; the maximum area of intertidal loss would be associated with the solid quay (that is, 3.6ha). Of this area, approximately 1.85ha comprises mud, with the remainder (1.75ha) consisting of hard substrata of various types (e.g. gabions, bricks, boulders and road planings).

The ES assesses the intertidal area to be of low value and poor quality, but recognises that the intertidal area represents available habitat for waterbirds and fish. The ES concludes that there would be an unavoidable impact on biodiversity, but that this would not represent 'significant harm' under the terms of the National Planning Policy Framework (NPPF).

The Environment Agency disagrees with the conclusions drawn in the ES in terms of the status of the intertidal habitat and considers that the intertidal area represents UK Biodiversity Action Plan (BAP) priority habitat (intertidal mudflat). In addition, at the meeting on 22 May 2015, the Environment Agency suggested that the hard substrata present could (to a certain extent) represent 'intertidal under boulder communities', which is also classified as a UK BAP priority habitat. Notwithstanding the above, the Environment Agency stated that the current status (habitat condition) of the intertidal area is considered to be 'low value, recovering'.

The Environment Agency's current position is that the impact of the proposed scheme on the intertidal habitat constitutes 'significant harm' and, therefore, following the NPPF, the Environment Agency consider that it is necessary to follow the hierarchy of 'avoid' and, if this is not possible, 'mitigate' the impact as far as possible, with 'compensation' to be provided for any shortfall. Based on this stance, and assuming that the solid quay structure is progressed, it is not possible to avoid or fully mitigate the potential impact (the extent of the footprint of the quay has been reduced as far as possible) and compensatory measures need to be investigated.



2 APPLICATION OF THE BIODIVERSITY OFFSETTING METHODOLOGY

2.1 Introduction

This section documents the approach taken to the application of the methodology set out in Defra (2012) to assess the potential compensation (biodiversity offsetting) requirement in light of the loss of intertidal area due to the proposed scheme.

Defra (2012) defines biodiversity offsets as conservation activities designed to deliver biodiversity benefits in compensation for losses, in a measurable way. Defra (2012) notes that the losses due to impact, and gains achievable through the offset, should be measured in the same way, using a metric, even if the habitats concerned are different. A metric is a surrogate/substitute, or a combination of measurements, used to represent, and provide a measure of, overall biodiversity (both biodiversity losses and gains through compensation actions). Metrics allow an impact on one habitat type to be offset with conservation action elsewhere, or involving a different habitat type and/or quality of habitat.

2.2 Habitat type

The biodiversity offsetting pilot pre-assigns habitats to a habitat type band on the basis of their distinctiveness (that is, 'High', 'Medium' or 'Low' distinctiveness). Habitat types denoted as being of High distinctiveness are priority habitats, as defined in Section 41 of the Natural Environment and Rural Communities Act 2006 (this includes UK BAP priority habitats). Section 41(1) of the Act defines such habitats (and species) as:

"living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity".

The list of UK BAP priority habitats includes intertidal mudflat and, therefore, in the Environment Agency's opinion, the intertidal area affected by the proposed Harbour facilities should be assigned a High distinctiveness.

It is noted that Defra (2012) states that the Medium distinctiveness habitat type band comprises seminatural habitat, but does not define this term. Although some UK BAP priority habitats are considered semi-natural, the fact that Defra (2012) draws this distinction in the habitat type bands infers that Medium distinctiveness habitat types are considered to be influenced by anthropogenic activity, and High distinctiveness habitats can be interpreted as being near-natural or pristine habitats.

The intertidal area affected by the proposed Harbour facilities – and the hard substrata in particular – cannot be considered a near-natural or pristine habitat. The intertidal area is retained by a training wall and its hard substrata are present as a result of historic land claim and construction activities. While this point is not necessarily important when considering the ecological function that the intertidal may provide (in terms of a feeding area for waterbirds and fish, for example), it is important when assigning the habitat to a habitat type band for the purposes of applying the methodology defined in the biodiversity offsetting pilot.

Given the above, a distinction has been made between the two main components of the intertidal area (mud and hard substrata), with the mud being assigned to the High distinctiveness habitat band (this is considered to be precautionary given it is heavily influenced by anthropogenic activity) and the hard substrata assigned to the Medium distinctiveness habitat band.



Each band of habitat distinctiveness has a number associated with it, and this is the starting point for calculating the number of 'units' of biodiversity per hectare a particular habitat provides (Table 2.1).

Table 2.1Habitat distinctiveness (Defra, 2012)

Habitat distinctiveness	Biodiversity units per hectare
High	6
Medium	4
Low	2

Defra (2012) notes that one of the guiding principles for developing the approach to offsetting is that it should result in an improvement in the extent or condition of the ecological network. Offsetting actions should therefore result in an expansion or restoration of habitats in a higher distinctiveness band to that of the impacted habitat. High distinctiveness habitats generally would be expected to be offset with 'like for like' habitat (i.e. the compensation should involve the same habitat as was lost).

2.3 Habitat condition

The metric used in biodiversity offsetting takes account of habitat condition as well as habitat distinctiveness. Defra (2012) identifies three categories for habitat condition, with an associated condition weighting (Table 2.2).

Table 2.2Condition weighting (Defra, 2012)

Habitat condition	Condition weighting
Good	3
Moderate	2
Poor	1

Based on the findings of the ES with respect to habitat condition, and discussions with the Environment Agency at the meeting on 22 May 2015, it is considered that the current condition of the intertidal habitat is Poor (condition weighting 1). However, acknowledging the Environment Agency's view of the value of the intertidal as being 'low value, recovering', the potential future status could be considered (in the best case) to be Moderate (condition weighting 2). It is not considered that the condition of this habitat would ever be good for a number of reasons, including its location adjacent to Bran Sands Lagoon, a low quality revetment and (potentially) a quay, the influence of the outflow from the lagoon, the influence of sea level rise and coastal squeeze at the mouth of the estuary (particularly given the infrequent exposure of this intertidal), and the presence of the training wall. Consequently, the biodiversity offset requirement under two scenarios (i.e. current and potential future habitat condition) has been calculated.

2.4 Calculation of biodiversity units impacted by the proposed scheme

Habitat distinctiveness and condition are combined to give a number of biodiversity units per hectare, according to the matrix in Table 2.3.



Table 2.3Matrix showing how condition and distinctiveness are combined to give the number
of biodiversity units per hectare (Defra, 2012)

			Habitat distinctiveness				
		Low (2)	Medium (4)	High (6)			
Condition	Good (3)	6	12	18			
	Moderate (2)	4	8	12			
	Poor (1)	2	4	6			

On the basis of Table 2.3, the number of biodiversity units impacted by the proposed scheme is calculated in Table 2.4; this informs the level of offset requirement that should be delivered. It can be seen from Table 2.4 that the number of biodiversity units impacted in this case is 18.1 (based on current intertidal habitat condition) and 36.2 (based on possible future, best case, habitat condition).

Table 2.4 Calculation of biodiversity units impacted by the proposed scheme

Habitat	bitat Area of habitat (ha) dis		Habitat distinctiveness Habitat condition		Biodiversity units for total hectares			
Scenario 1: based on current habitat condition (Poor)								
Intertidal mud	1.85	High (6)	Poor (1)	6	11.1			
Hard substrata	1.75	Medium (4)	Poor (1)	4	7			
Total (Scenario	18.1							
Scenario 2: bas	ed on possible	e future, best case	, habitat condition	(Moderate)				
Intertidal mud	1.85	High (6)	Moderate (2) ^a	12	22.2			
Hard substrata	1.75	Medium (4)	Moderate (2) ^a	8	14			
Total (Scenario	36.2							

^a 'Moderate' refers to potential future status, acknowledging the Environment Agency's view that the current status is 'low value, recovering' but recognising that the habitat condition is highly unlikely to ever be good.

2.5 Risk

2.5.1 Background

In terms of risk to provision of the number of biodiversity units that the offset provider has committed to provide, Defra (2012) identifies two types of risk:

- Delivery risk associated with the delivery of the offset due to, for example, uncertainty in the effectiveness of the restoration or habitat creation/management technique.
- Spatial risk reflecting ecological risks deriving from the change in location of the habitat or resource (e.g. recreating a type of habitat in a new location may reduce its biodiversity value).

Defra (2012) states that where risk cannot be mitigated, some form of insurance is likely to be needed, such as an increase in the area of habitat created / restoration provided for a given number of units. In such cases, a multiplier can be used to correct for a disparity or risk.



2.5.2 Multipliers

The restoration or expansion of habitats is likely to have risk associated with delivery, with the level of risk varying according the type of habitat involved. Defra (2012) assigns habitats to broad categories of risk according to a judgement of degree of difficulty of recreation or restoration. However, intertidal mudflat is not a habitat type identified in Defra (2012); the closest habitat type identified is coastal saltmarsh. This is considered to be a reasonable surrogate for intertidal mudflat given that both these habitats are found in a similar environment and are typically recreated by similar mechanisms (e.g. managed realignment and regulated tidal exchange).

The technical difficulty of recreating coastal saltmarsh is identified by Defra (2102) as having a Medium risk, which equates to a multiplier 1.5; this has been adopted as the multiplier to address the delivery risk for intertidal mudflat. For the hard substrata, a Low risk has been assumed, which equates to a multiplier of 1.

With regard to spatial risk, Defra (2012) notes that offsets are likely to deliver greatest benefits if they are positioned strategically (i.e. in line with strategies for offsetting developed by local planning authorities). If an offset is delivered in a location which does not contribute to the ecological network as identified in an offsetting strategy, Defra (2012) states that the local authority could choose to require offset providers to apply a multiplier to manage the risk of compensation failing to deliver the required level of compensation for biodiversity loss (Table 2.5).

Table 2.5Proposed multipliers to deal with spatial risk (Defra, 2012)

Location parameters	Multiplier
Offset is in a location identified in the offsetting strategy	No multiplier required
Offset is buffering, linking, restoring or exampling a habitat outside an area identified in the offsetting strategy	2
Offset is not making a contribution to the offsetting strategy	3

There is currently no formal offsetting strategy for the Tees estuary, therefore, a precautionary position has been taken to the application of a multiplier to address spatial risk and a multiplier of 2 has been applied. However, the fact that the locations of the habitat creation and improvement measures that are proposed in connection with the Harbour facilities (described in Royal HaskoningDHV, 2015a and b) were specifically identified by Natural England and the Environment Agency as being locations where measures that would result in biodiversity benefit could be implemented, is considered to be sufficient to warrant the inclusion of an alternative scenario in the assessment that does not require a spatial risk multiplier to be applied. Moreover, given the influence of climate change and sea level rise, flood defence strategy in the UK now advocates habitat creation in the upper (rather than the lower) reaches of estuaries, as a more sustainable solution for coastal squeeze.

Defra (2012) also advocates the application of a temporal multiplier in cases where there may be a mismatch between the timing of impact and delivery of the offset. This issue can be managed by encouraging the creation of offsets in advance of the impact occurring.

It is envisaged that the proposed offset measures at Portrack Marsh (discussed in Section 2.7) would be implemented prior to the construction of the proposed Harbour facilities and, therefore, before the loss of the existing intertidal area. It should also be noted that the Harbour facilities would be implemented in phases and, therefore, the full impact of the quay on the intertidal area would not be realised for several



years following the start of construction of the first phase of development. This would provide sufficient time for the proposed offset at Portrack Marsh to provide functional habitat (typically taken to be two years from breach).

The habitat enhancement proposals in Bran Sands lagoon would be implemented in parallel with the construction works for the proposed scheme due to the fact that capital dredged material to be generated as part of the construction phase is required to create the new habitat. The proposals, however, would be implemented several years in advance of the completion of the Harbour facilities.

Given the above, and the fact that a multiplier has been applied to address delivery risk and a scenario has been identified that takes a precautionary approach to address spatial risk, a temporal multiplier has not been applied.

2.6 Calculation of biodiversity units with inclusion of multipliers to address risks

Table 2.6 calculates the biodiversity units predicted to be impacted by the proposed scheme when multipliers are applied to address delivery and spatial risks (habitat distinctiveness and condition is the same as that applied in Table 2.4). In addition, the alternative position whereby no multiplier is required to address spatial risk (termed Scenario 1A and Scenario 2A) is also presented in Table 2.6. Defra (2012) does not specify how multipliers should be applied in the calculation in cases where multipliers are used to account for both delivery risk and spatial risk. In Table 2.6, a compound approach has been taken which magnifies the effect of the multipliers and may, therefore, result in an overestimate of the number of biodiversity units (i.e. a precautionary approach).

Table 2.6Calculation of biodiversity units impacted by the proposed scheme with the
inclusion of multipliers to address risk

Habitat	Area of habitat (ha)	Multiplier (delivery risk)	Multiplier (spatial risk)	Area of habitat (ha, with multipliers applied)	Biodiversity units per ha		rsity units I hectares
Scenario 1: based on current habitat condition (Poor)							
Intertidal mud	1.85	1.5	2	5.55	6	3	33.3
Hard substrata	1.75	1	2	3.5	4		14
Total (Scenario	o 1)					4	7.3
Scenario 1A: b	ased on c	urrent habitat	condition (Po	or), with no requirem	ent for multiplier for	or spatia	al risk
Intertidal mud	1.85	1.5	No	2.77	6	1	6.6
Hard substrata	1.75	1	No	1.75	4		7
Total (Scenario	o 1A)					2	3.6
Scenario 2: ba	sed on pos	ssible future,	best case, hat	oitat condition (Mode	rate)		
Intertidal mud	1.85	1.5	2	5.55	12	6	6.6
Hard substrata	1.75	1	2	3.5	8		28
Total (Scenario	o 2)					9	4.6



Scenario 2 <mark>A: based on possible future, best case, habitat condition (Moderate), with no requiremen</mark> multiplier for spatial risk								
Intertidal mud	1.85	1.5	0	2.77	12	33.2		
Hard substrata	1.75	1	0	1.75	8	14		
Total (Scenario	Total (Scenario 2A)							

2.7 Using the metric to measure compensation (offset) to be provided

The measurement of the biodiversity value of the impacted site (see Section 2.4 (without multiplier) and Section 2.6 (with multiplier)) determines the offsetting requirement. It is then necessary to measure the offsetting potential of the proposed compensatory measures in order to calculate how many biodiversity units would be delivered. Offset measures can either expand (establish habitat on land where it is not present) or restore (improve the condition of the existing habitat resource) habitats to deliver units of biodiversity.

Defra (2012) states that it is expected that the number of units of biodiversity that an offset can provide will be based on a future target value (i.e. action will be taken on a piece of land and the number of units available is the difference between the current condition and the target future condition).

The value of an offset provision is a function of:

- the size of the site;
- the habitat type band it is assigned to (distinctiveness); and,
- its quality (the condition of the habitat at the start of the offset project, and its condition at the end).

Although Bran Sands lagoon as a whole is a supporting habitat to the Teesmouth and Cleveland Coast Special Protection Area (SPA) and Ramsar site, in terms of habitat condition the area of the lagoon that is proposed to be improved is considered to be Poor. This conclusion is based on the analysis of the existing ecological interest of the lagoon, which is primarily use by diving waterbird species (see the Mitigation and Monitoring Strategy, included as Appendix 3.1 to the Harbour facilities Habitats Regulations Assessment, Royal HaskoningDHV, 2015b). In the lagoon, the offset is predicted to result in a change in habitat condition from Poor (1) to Good (3) (i.e. an improvement in condition of 2 units).

The habitat value of significant areas within Portrack Marsh was adversely impacted by the tidal flooding of the site that occurred in December 2013, when saline water inundated the site for several months. Discussions have been held with the Tees Valley Wildlife Trust to ascertain the current habitat condition (and the areas of habitat in different condition) across the Portrack Marsh site, and this has determined that approximately 4ha of the site can be classified as currently being in Poor condition and 3ha are currently in Moderate condition; the rest of the site is in Good condition With the agreement of the Wildlife Trust the areas of the site that are in Poor and Moderate condition have been targeted for the creation of intertidal and it is concluded that a total of 7ha of existing habitat could be improved to Good condition (resulting in an improvement of 2 biodiversity units for 4ha and 1 biodiversity unit for 3ha).

Table 2.7 calculates the biodiversity units that would be provided by the habitat creation and improvement measures that are proposed in connection with the Harbour facilities (as described in Royal HaskoningDHV, 2015a). Notes are provided below the table to explain the rationale behind the information presented in the table or to provide supporting comments.



Table 2.7	Calculation of biodiversity	/ units delivered by	the proposed	compensatory (offset))
					/

Habitat creation or improvement measure		Area of habitat (ha) created	Habitat distinctiveness	Change in habitat condition ^b	Biodiversity units per ha	Biodiversity units for total hectares	
Bran Sands	Shallow water / subtidal mudflat	54	Medium (4) ^a	Poor to Good (an increase of 2 units)	8	43.2	
lagoon	Islands	0.3	Medium (4) ^a	Poor to Good (an increase of 2 units)	8	2.4	
Portrack Marsh	Intertidal mudflat / saltmarsh	4 ^c	High (6)	Poor to Good (an increase of 2 units)	12	48	
Portrack Marsh	Intertidal mudflat / saltmarsh	3 °	High (6)	Moderate to Good (an increase of 1 unit)	6	18	
TOTAL							

^a The proposed measures in Bran Sands lagoon have been assigned a Medium distinctiveness habitat band given that the subtidal fine sediment or islands would not represent a UK BAP priority habitat. The measures are considered to represent semi-natural habitats.

^b Habitat condition is predicted to be Good for all habitats that are proposed to be improved or created in that they would provide biodiversity benefits for waterbirds and fish. The units quoted in this column relate to the change in condition that would occur (i.e. current versus predicted future condition). Although not an influence on the calculation of biodiversity units, the proposals for the quay and water flow through the embankment (via two larger pipes) would result in improved future connectivity (and control) between the lagoon and the Tees estuary, which would also encourage the development of a Good habitat condition.

^c Based on discussions with the Tees Valley Wildlife Trust.

It can be seen that a total of 111.6 biodiversity units are predicted to be delivered by the offset proposals.



3 SUMMARY AND CONCLUSIONS

The methodology set out in Defra's *Technical Paper: the metric for the biodiversity offsetting pilot in England* (March, 2012) has been applied to the YPP Harbour facilities proposals in order to calculate the number of biodiversity units that would be impacted as a result of the loss of the intertidal area due to the proposed scheme and the predicted gain in biodiversity units due to the implementation of the habitat improvement and creation proposals in Bran Sands lagoon and at Portrack Marsh. The following summarises the approach taken and the key conclusions of this study:

- Habitat distinctiveness. The intertidal area to be lost comprises areas of mud and hard substrata, with the mud being assigned to the High distinctiveness habitat band and the hard substrata assigned to the Medium distinctiveness habitat band. All habitats present are considered to semi-natural and, according to Defra (2012), it could be argued that they should be assigned to the Medium habitat band; however, a precautionary approach has been taken to acknowledge the Environment Agency's stance that the areas of mud constitute UK BAP priority habitat.
- **Habitat condition**. In addition to habitat distinctiveness, the metric used in biodiversity offsetting takes account of habitat condition. The current condition of the intertidal area is considered to be Poor. However, the Environment Agency considers that the area is of low value, but improving and, therefore, in recognition of the potential future status of the habitat, two scenarios for habitat condition have been assessed (current (Poor) condition and potential future (Moderate) condition).
- **Biodiversity units impacted by the proposed scheme**. Assuming current habitat condition, it is calculated that a total of 18.1 biodiversity units would be impacted. For the possible future condition, 36.2 units would be impacted. When multipliers are applied to account for delivery and spatial risk, the biodiversity units that would be impacted are calculated to be 47.3 (current habitat condition) (23.6 if no multiplier is applied for spatial risk) and 94.6 (possible future habitat condition) (47.2 if no multiplier is applied for spatial risk).
- **Biodiversity units provided by compensation (offset) measures**. It is calculated that a total of 111.6 biodiversity units would be provided by the measures proposed in Bran Sands lagoon and at Portrack Marsh.
- Adequacy of compensation (offset) measures. Based on the current habitat condition of the existing intertidal area, and including multipliers to address delivery and spatial risk, the proposed offset measures would deliver an (approximate) ratio of 2.4:1 in terms of total biodiversity units gained compared to those impacted. For High distinctiveness habitat (intertidal mudflat/saltmarsh), the offset proposals would deliver a ratio of 2:1, based on current habitat condition of the existing intertidal area. Based on possible future habitat condition, the offset measures would deliver an approximate ratio of 1.2:1 (total biodiversity units gained to those impacted). For High distinctiveness habitat (intertidal mudflat/saltmarsh), the offset proposals would deliver an approximate ratio of 1.2:1 (total biodiversity units gained to those impacted). For High distinctiveness habitat (intertidal mudflat/saltmarsh), the offset proposals would deliver a ratio of 1:1, based on possible future habitat condition of the existing intertidal area.



• **Conclusion**. Based on the current habitat value of the existing intertidal area, the proposed offset proposals would more than adequately compensate for the loss of intertidal area, including the impact on High distinctiveness habitat. This takes into account the application of multipliers to address risk.

It is considered unreasonable to base the calculation of compensation provision on a possible future habitat condition, when it is not possible to predict the future status of the habitat. If this approach is to be taken, the use of multipliers in calculating biodiversity units (as presented above) can be questioned. However, it should be noted that the offsetting proposals would adequately compensate for the future scenario.



4 **REFERENCES**

Defra (2012). Biodiversity Offsetting Pilots. Technical Paper: the metric for the biodiversity offsetting pilot in England. March 2012.

Royal HaskoningDHV (2015a). York Potash Harbour Facilities Order 201X – Environmental Statement. March 2015.

Royal HaskoningDHV (2015b). York Potash Harbour Facilities Order 201X – Habitats Regulations Assessment. March 2015.