

Rampion 2 Wind Farm

Category 6: Environmental Statement

Volume 4, Appendix 8.1 Herring annual heatmaps

Date: August 2023

Revision A

Document Reference: 6.4.8.1

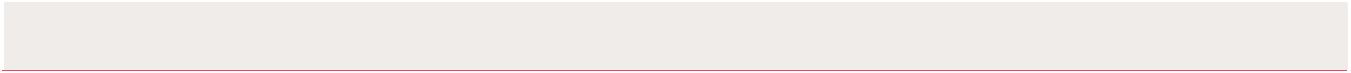
Pursuant to: APFP Regulation 5 (2) (a)

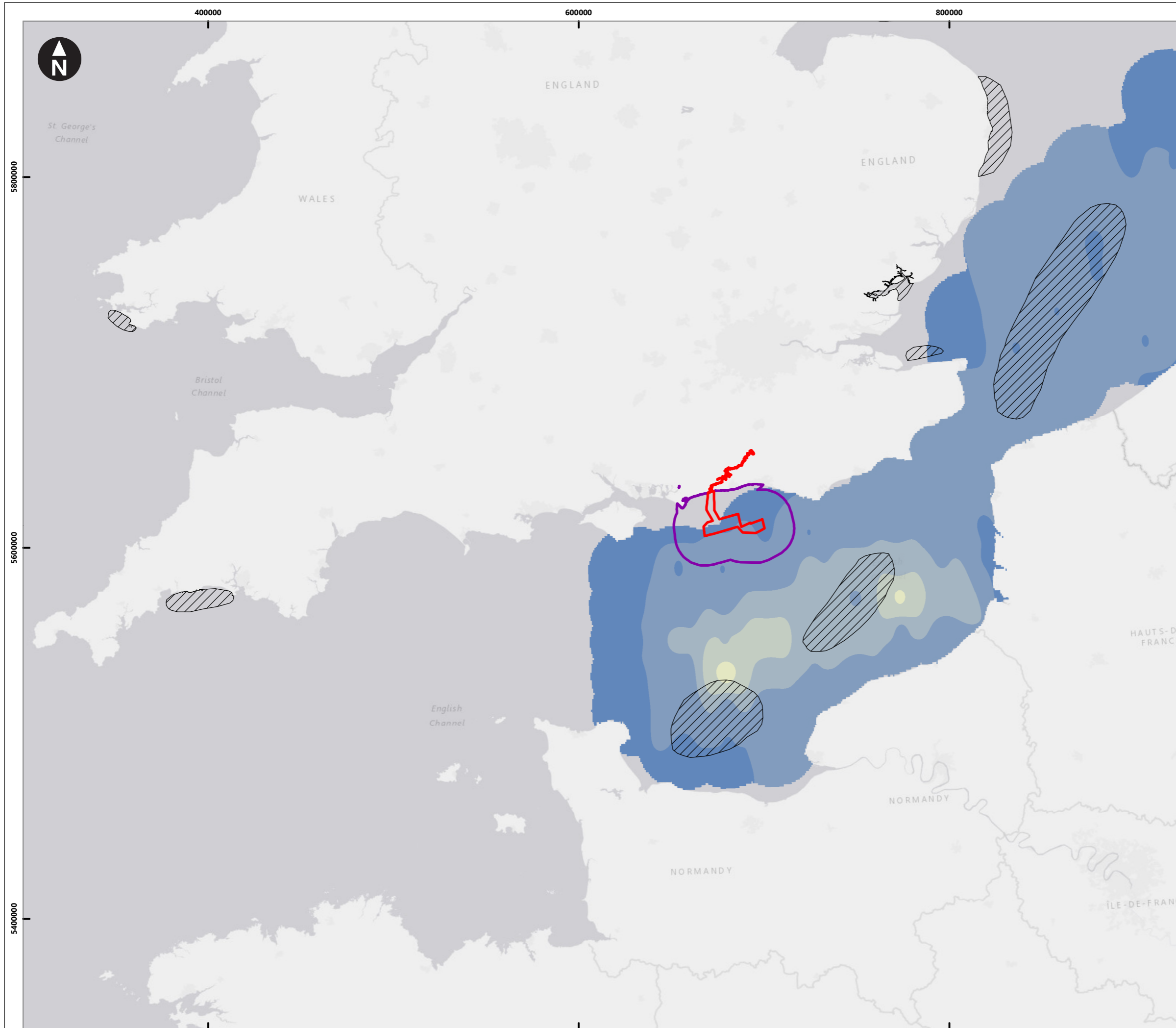
Ecodoc number: 004866468-01



Document revisions

Revision	Date	Status/reason for issue	Author	Checked by	Approved by
A	04/08/2023	Final for DCO Application	GoBe	RED	RED





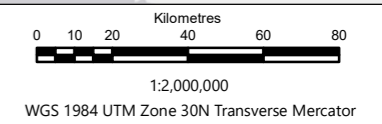
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2007/2008 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



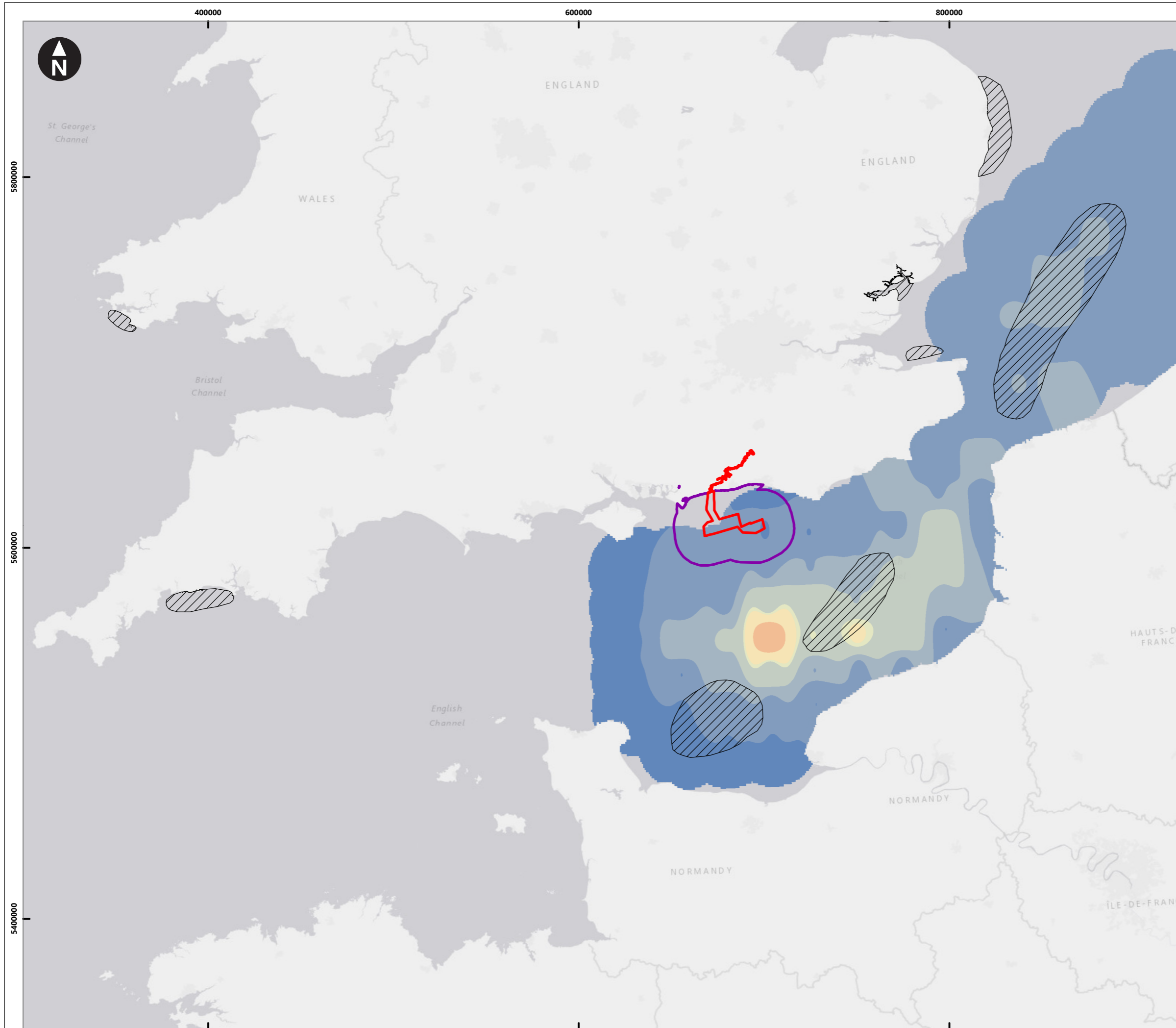
Rampion 2 Offshore Wind Farm

Figure 8.1.1 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2007/2008

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-1639	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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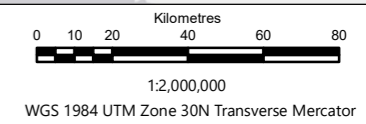
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2008/2009 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development

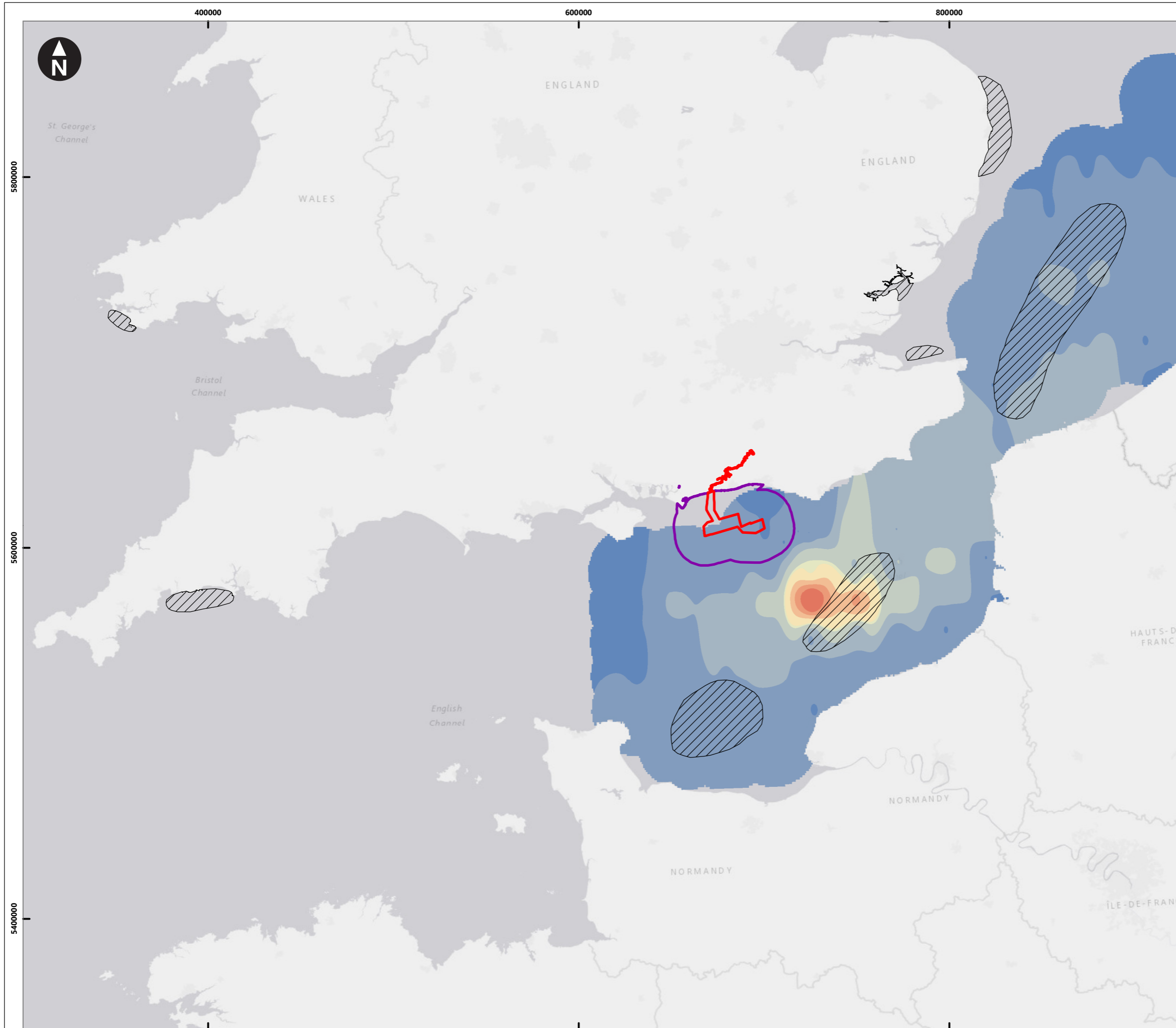
Rampion 2 Offshore Wind Farm

Figure 8.1.2 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2008/2009

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-5651	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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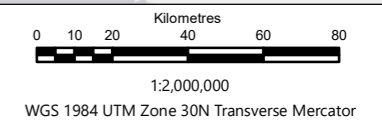
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2009/2010 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



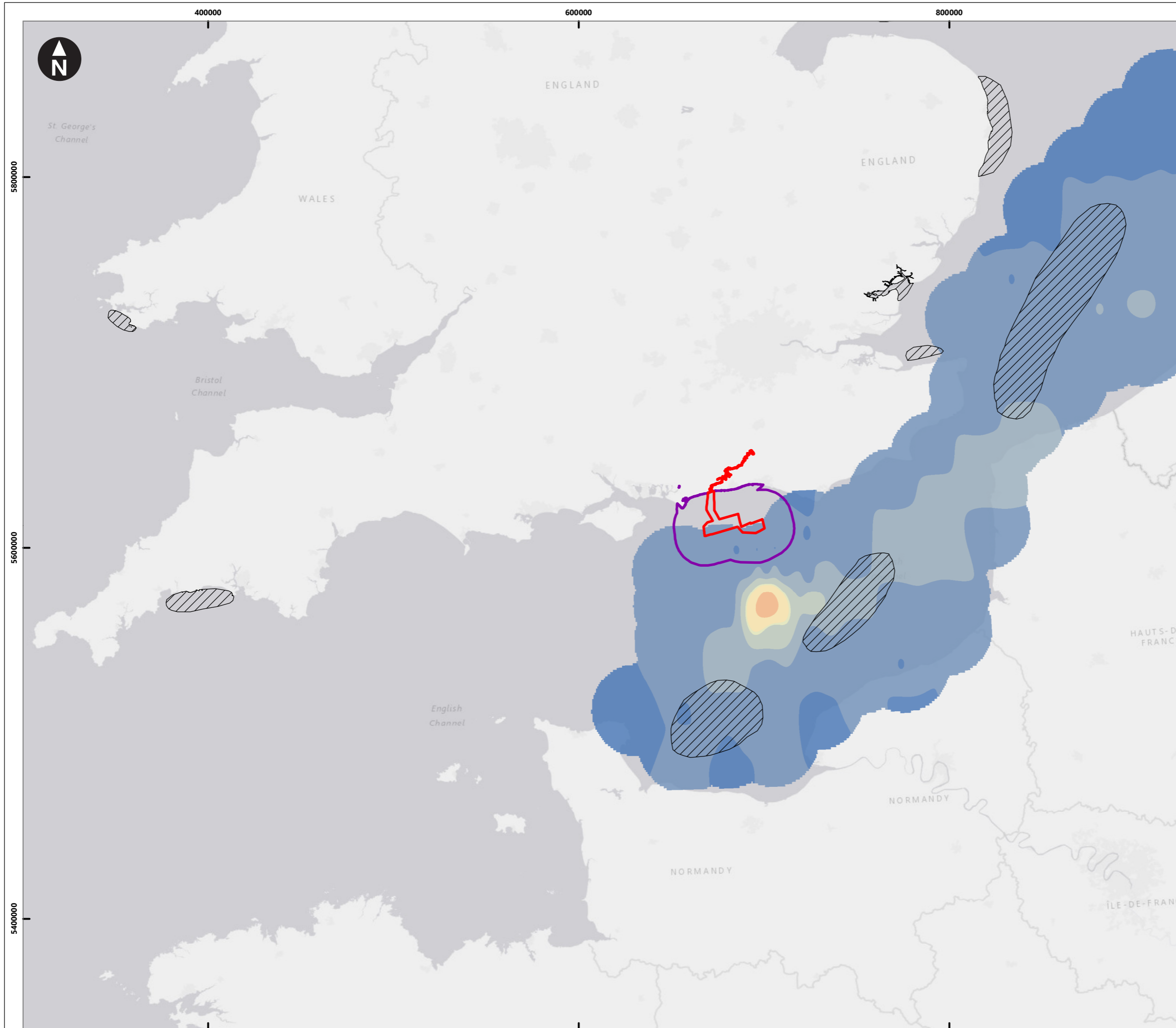
Rampion 2 Offshore Wind Farm

Figure 8.1.3 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2009/2010

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-9403	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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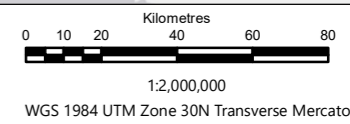
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2010/2011 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



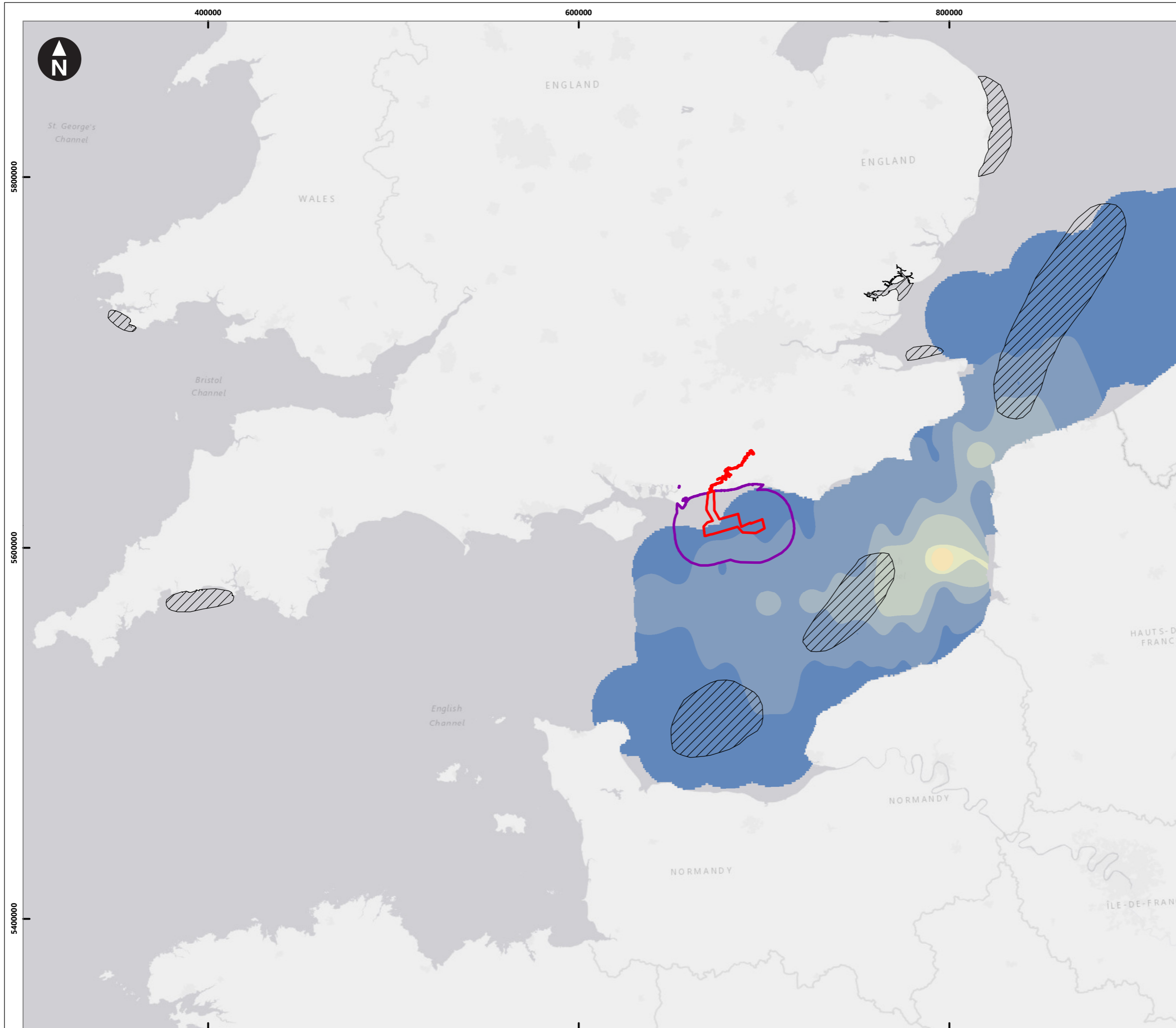
Rampion 2 Offshore Wind Farm

Figure 8.1.4 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2010/2011

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-3188	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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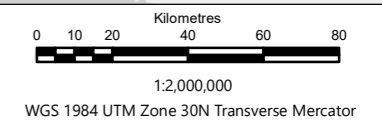
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2011/2012 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



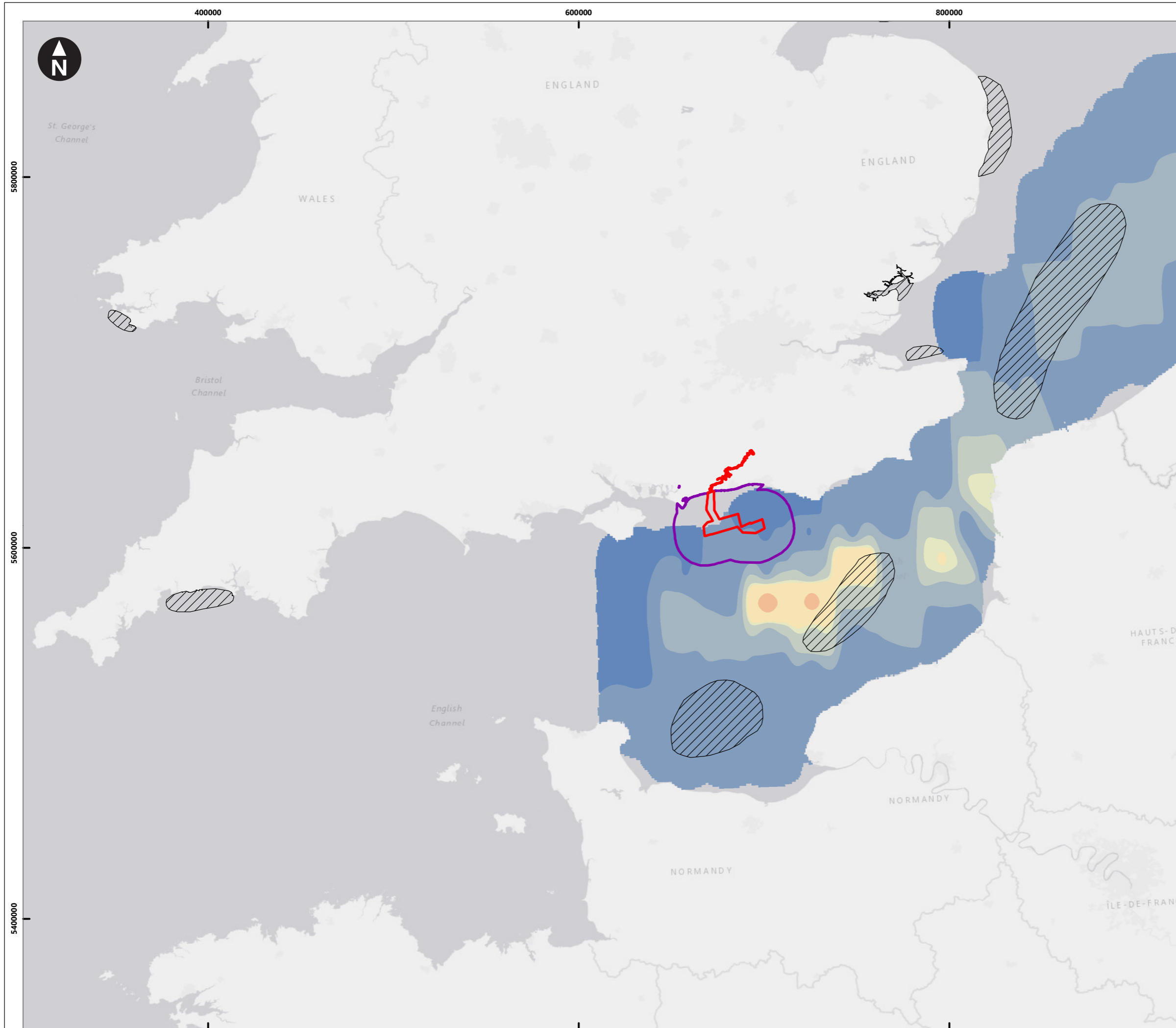
Rampion 2 Offshore Wind Farm

Figure 8.1.5 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2011/2012

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-1750	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2012/2013 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Kilometres
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 1:2,000,000
 WGS 1984 UTM Zone 30N Transverse Mercator

Rampion Extension Development

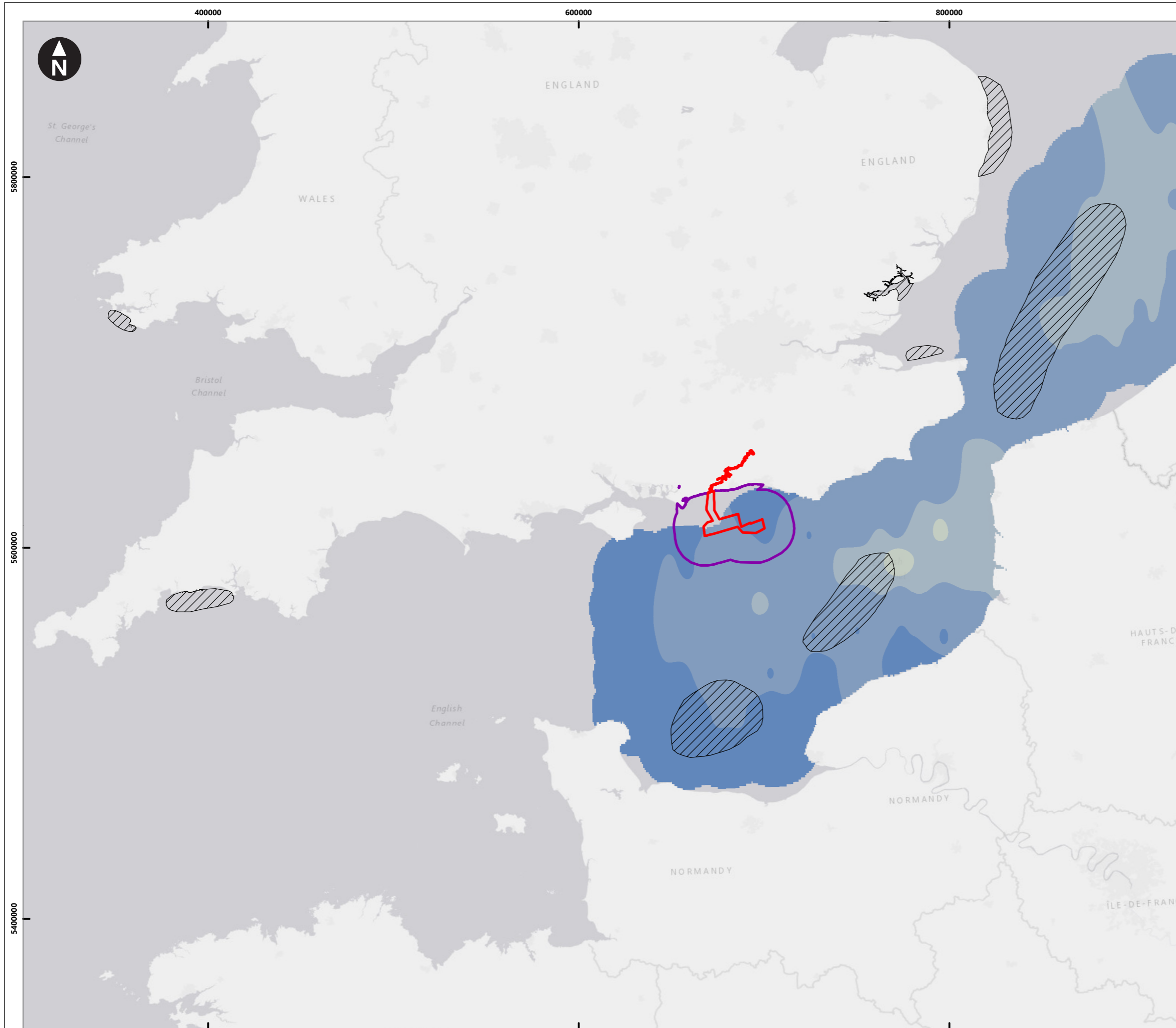


Rampion 2 Offshore Wind Farm

Figure 8.1.6 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2012/2013

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-1467				Version: 1.1
Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL



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 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2013/2014 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Kilometres
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 WGS 1984 UTM Zone 30N Transverse Mercator

Rampion Extension Development

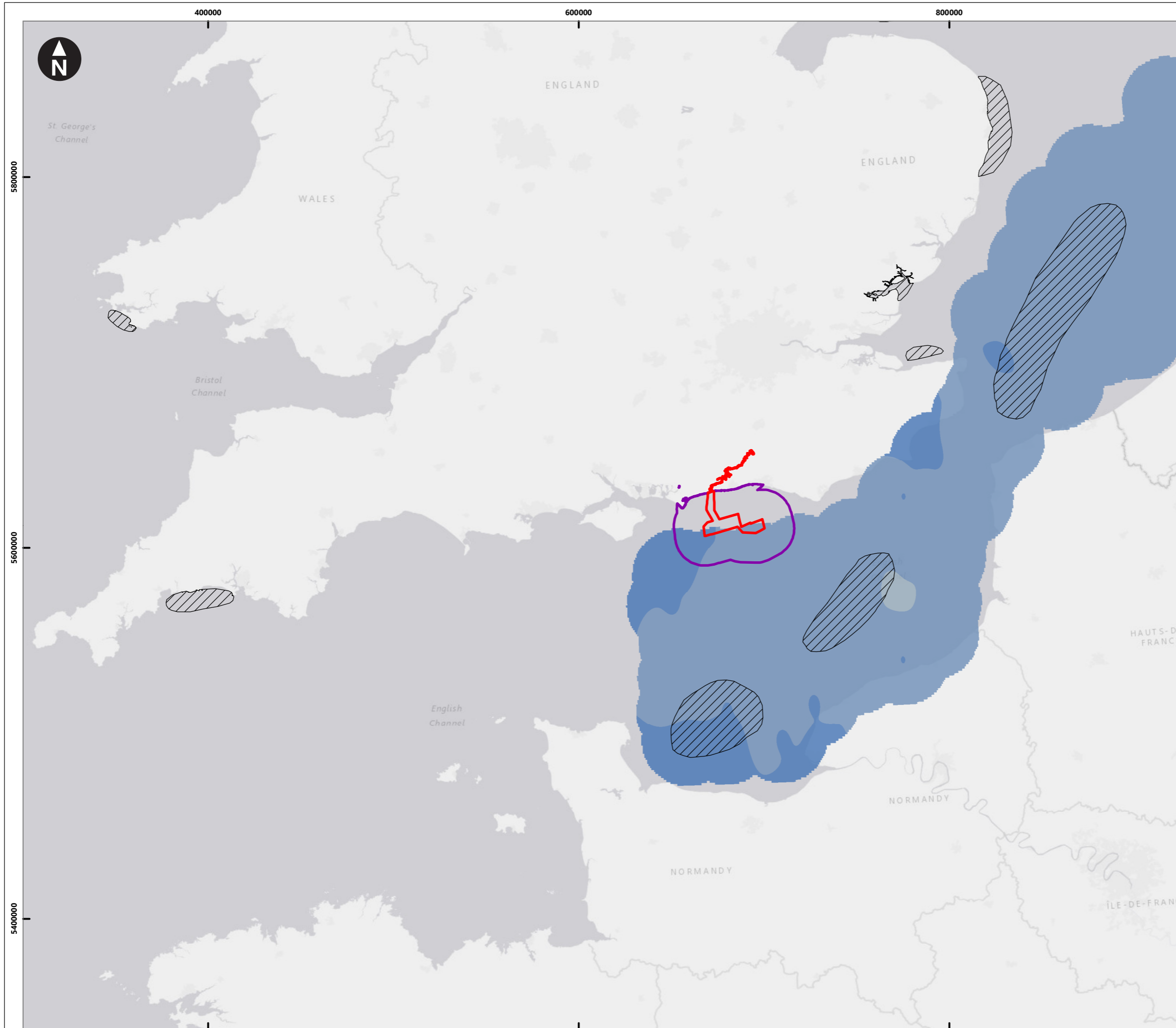
Rampion 2 Offshore Wind Farm

Figure 8.1.7 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2013/2014

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-9157	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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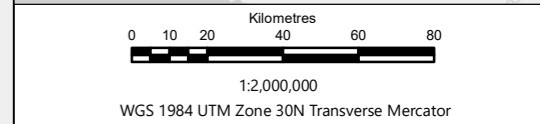
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2014/2015 Downs Data Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



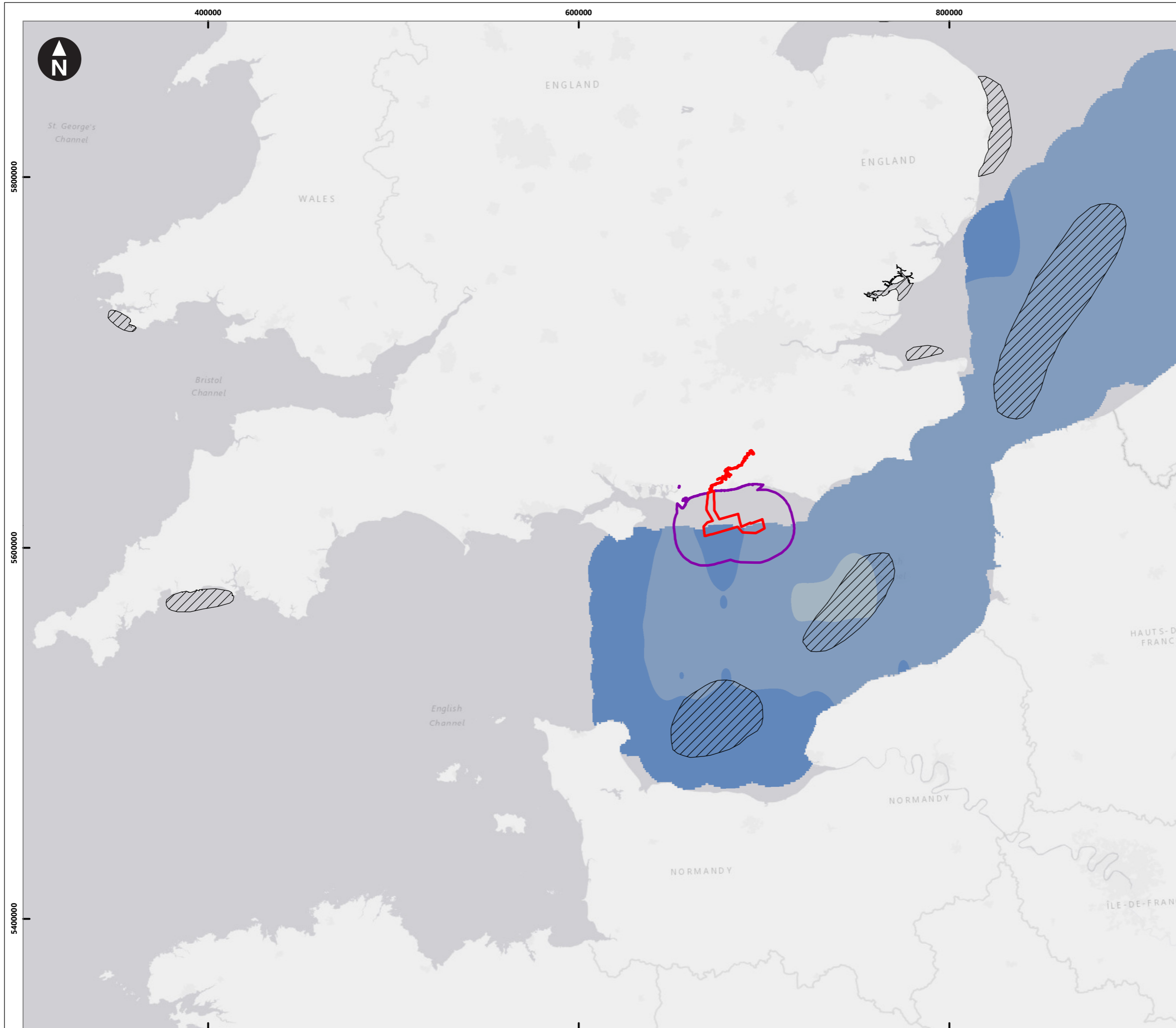
Rampion 2 Offshore Wind Farm

Figure 8.1.8 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2014/2015

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-5987	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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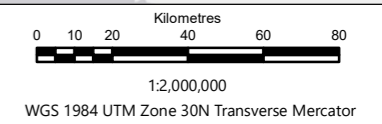
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2015/2016 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development

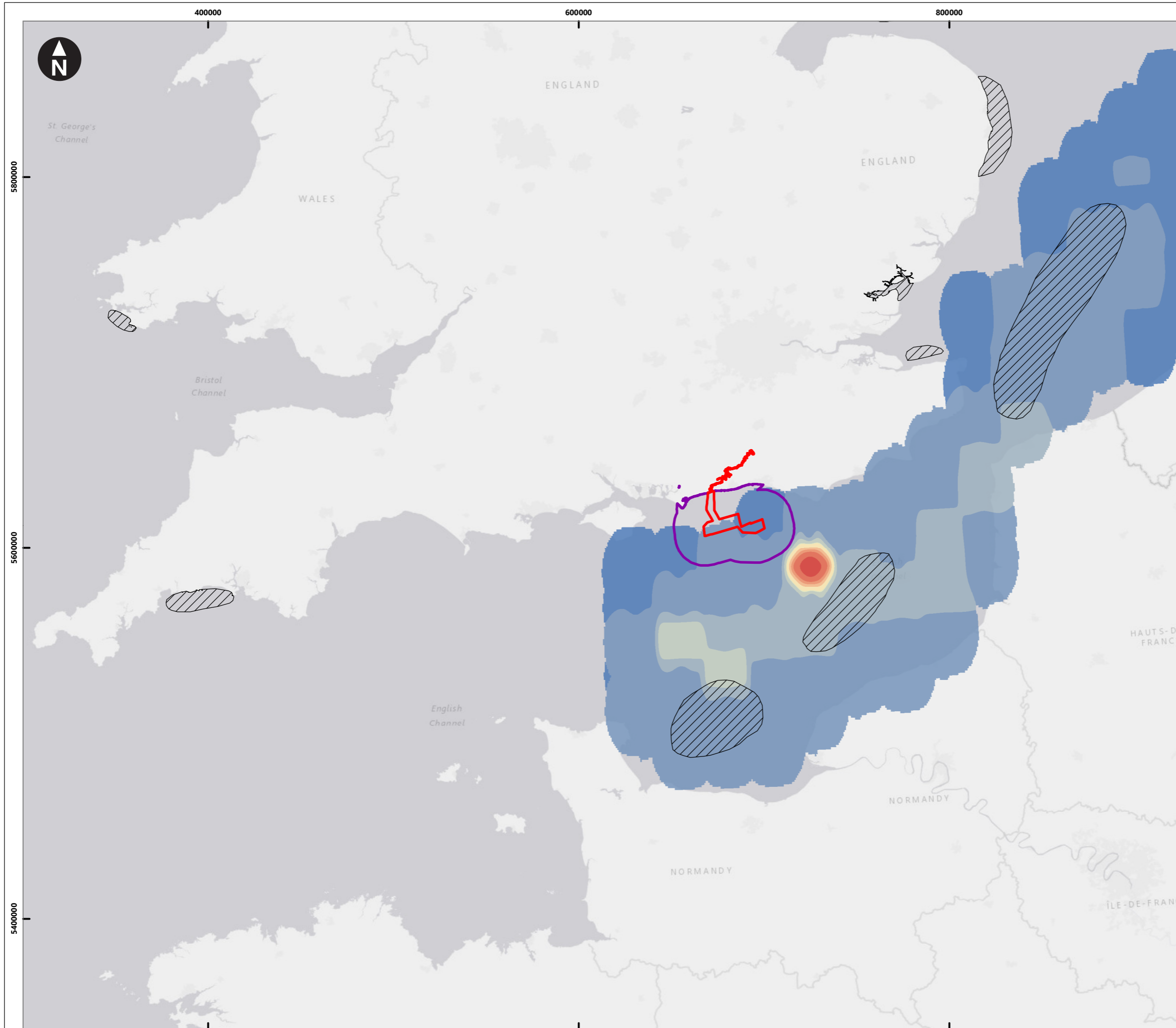
Rampion 2 Offshore Wind Farm

Figure 8.1.9 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2015/2016

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-4830	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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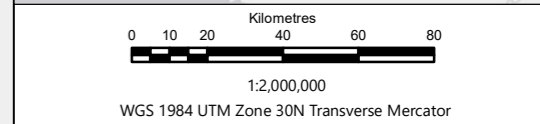
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2016/2017 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



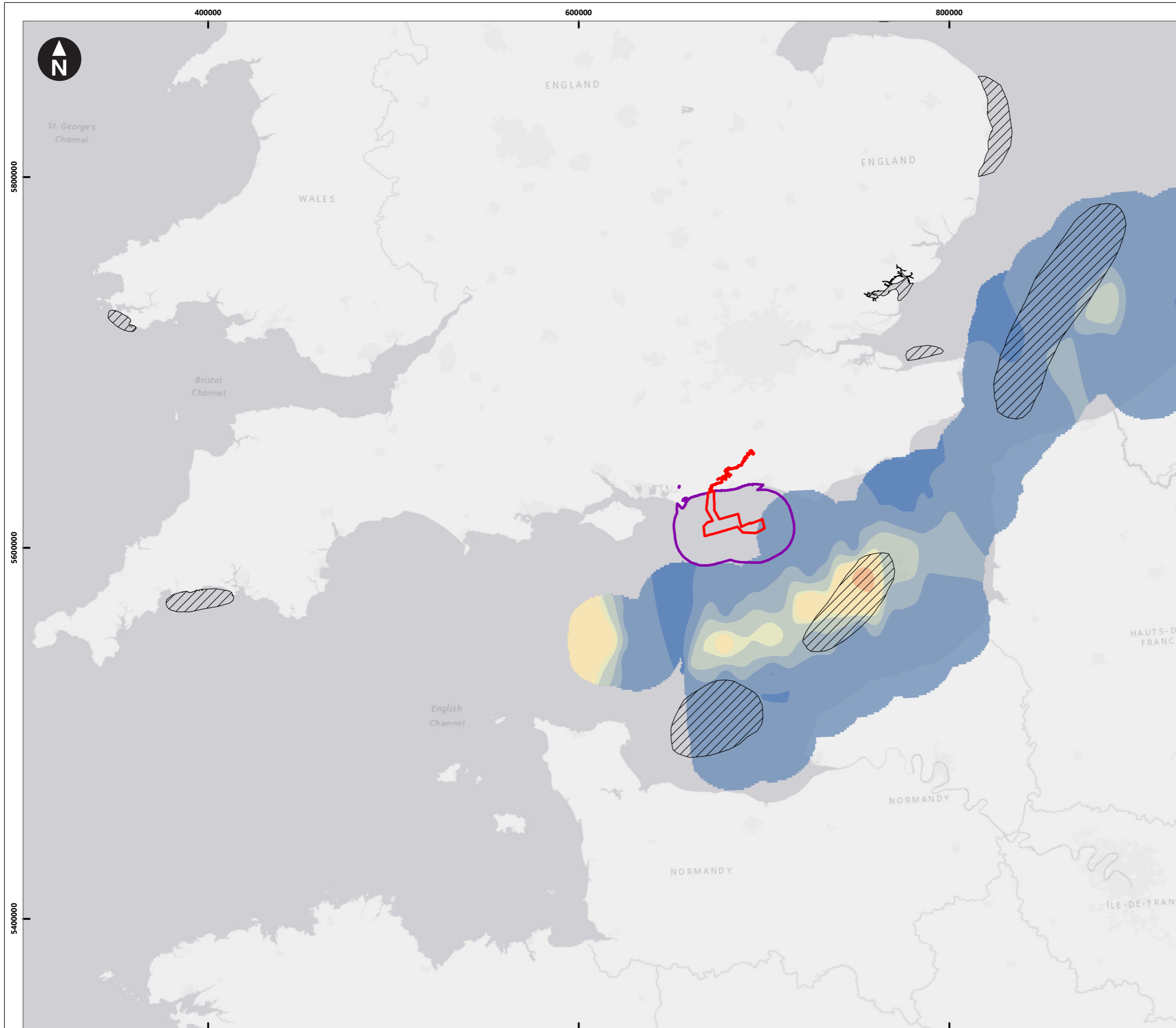
Rampion 2 Offshore Wind Farm

Figure 8.1.10 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2016/2017

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-5642	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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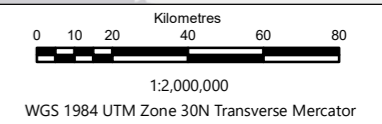
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
 Contains data sourced from Coull et al. 1998; and data derived from ICES 2021

Key

- Proposed DCO Order Limits
- Fish and Shellfish Study Area
- Herring spawning (Coul et al. 1998)

IHLS 2019/2020 Downs Data
 Larval Abundance Per m²

	0
	0.1 - 750
	750 - 3,000
	3,000 - 7,500
	7,500 - 9,000
	9,000 - 19,000
	19,000 - 29,000
	29,000 - 39,000
	39,000 - 53,500
	53,500 - 59,250



Rampion Extension Development



Rampion 2 Offshore Wind Farm

Figure 8.1.11 Location of herring spawning grounds - International Herring Larvae Survey (IHLS) comparison 2019/2020

Environmental Statement

System Identifier: 42285-GOBE-PE-OF-FG-07-2399	Version: 1.1
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Company: GOBE	Drawn By: BPHB	Chk/Aprvd: NH	Drawn Date: 04/08/2023	Status: FINAL
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