

Lower Thames Crossing

6.3 Environmental Statement Appendices

Appendix 14.6 - Flood Risk Assessment - Part 9 Annex A

APFP Regulation 5(2)(a) and (5)(2)(e)

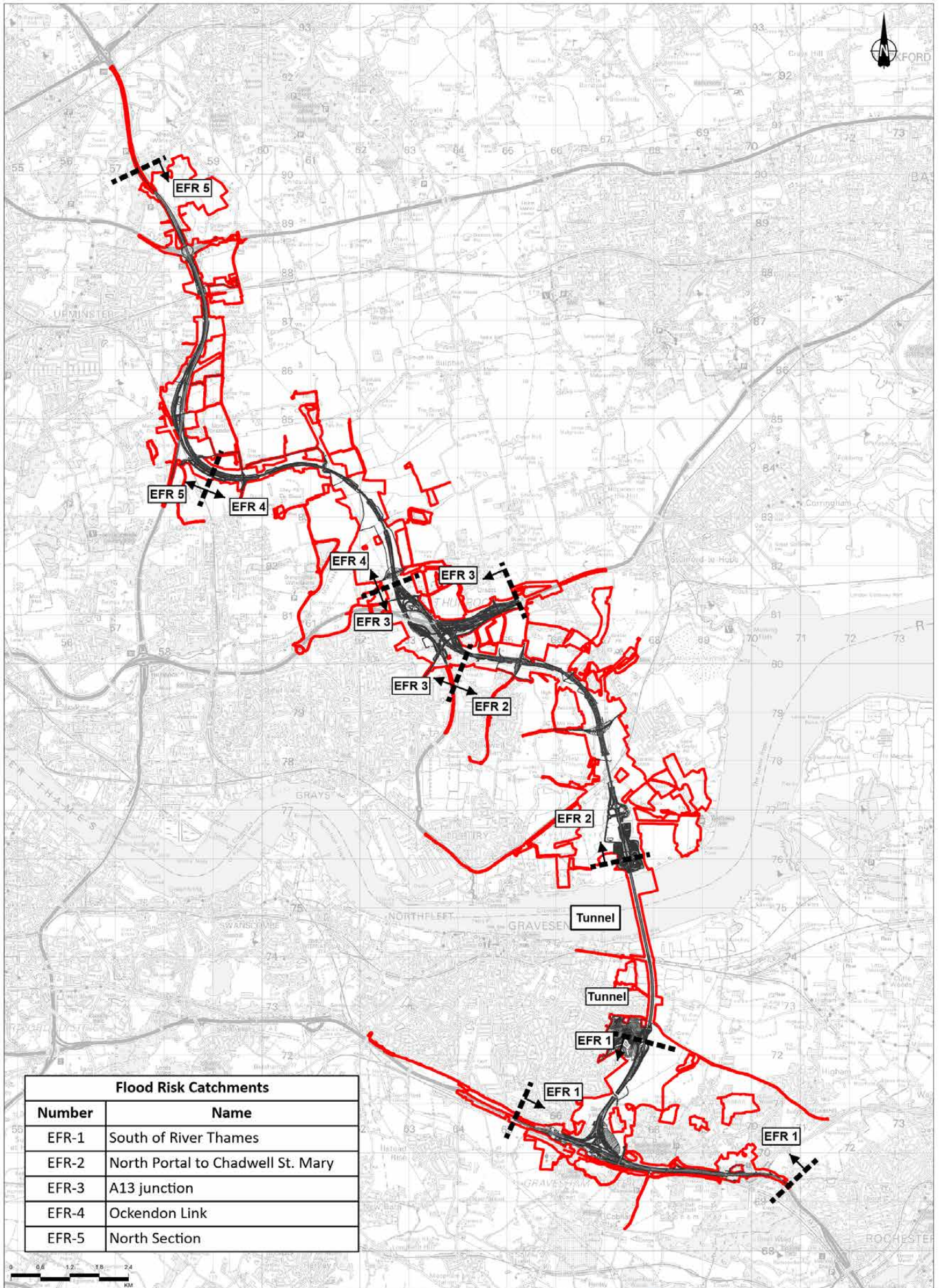
Infrastructure Planning (Applications:
Prescribed Forms and Procedure)
Regulations 2009

Volume 6

DATE: October 2022

Planning Inspectorate Scheme Ref: TR010032
Application Document Ref: TR010032/APP/6.3

VERSION: 1.0



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section



Legend

- Order Limits
- Flood risk catchment
- Route alignment and earthworks



national highways

Project: LOWER THAMES CROSSING

DCO APPLICATION

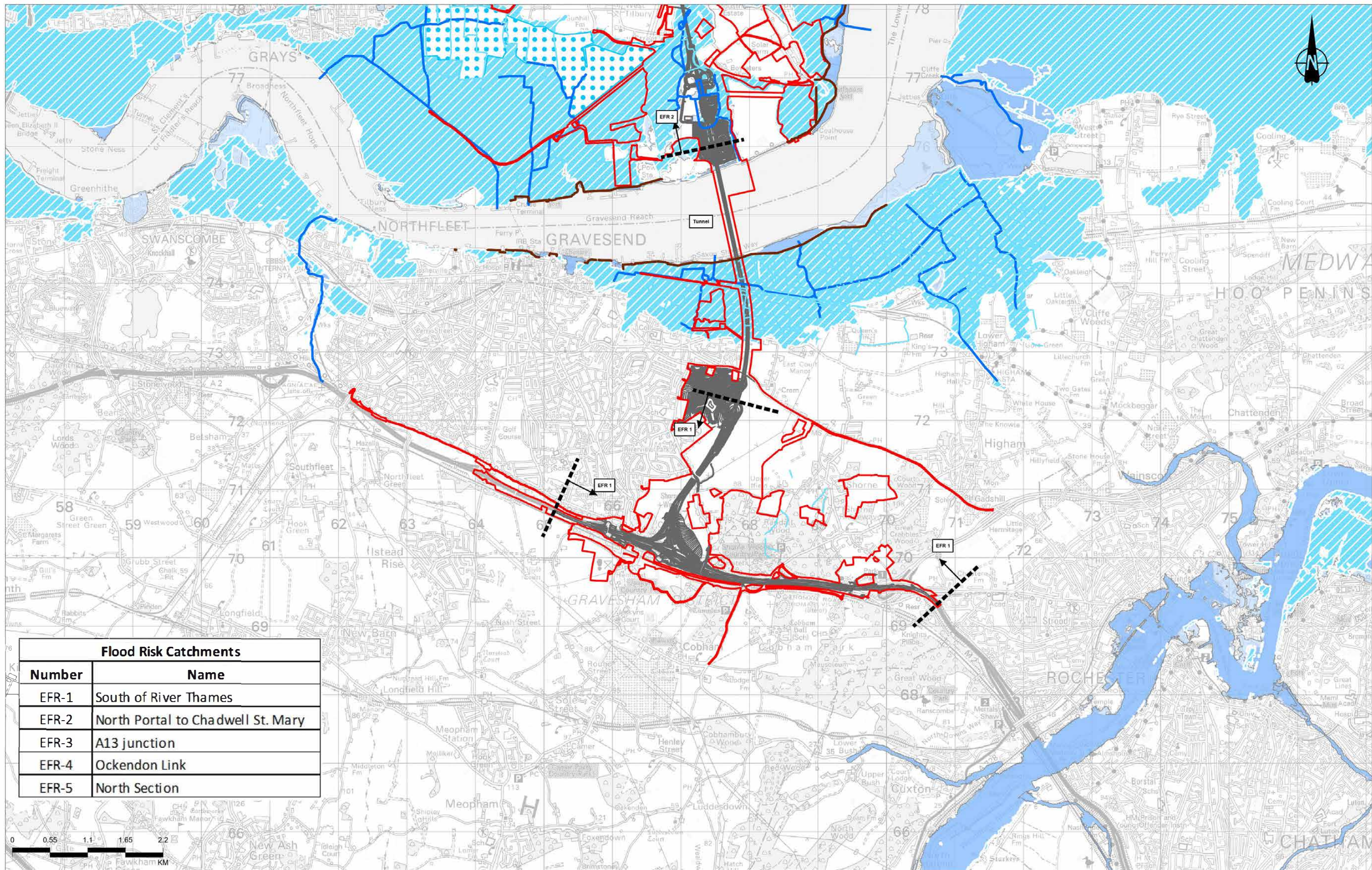
Application Document Number: TR010032/APP/6.3

Drawing Title: Flood Risk Assessment
Flood Risk Catchments

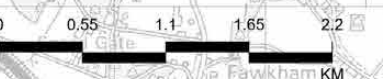
Scale: 1:100,000

Sheet: A3 of 2

Drawing Number: HE540039-CJV-EFR-SZP_GNZZZZZZZ-DR-LF-00100



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section



Legend					
—	Route alignment and earthworks	—	Ordinary watercourse	□	Flood zone 1
▭	Order Limits	—	Existing flood defence	□	Flood zone 2
▭	Flood risk catchment	□	Flood water storage areas	□	Flood zone 3
—	Main river	□	Area benefiting from flood defences		



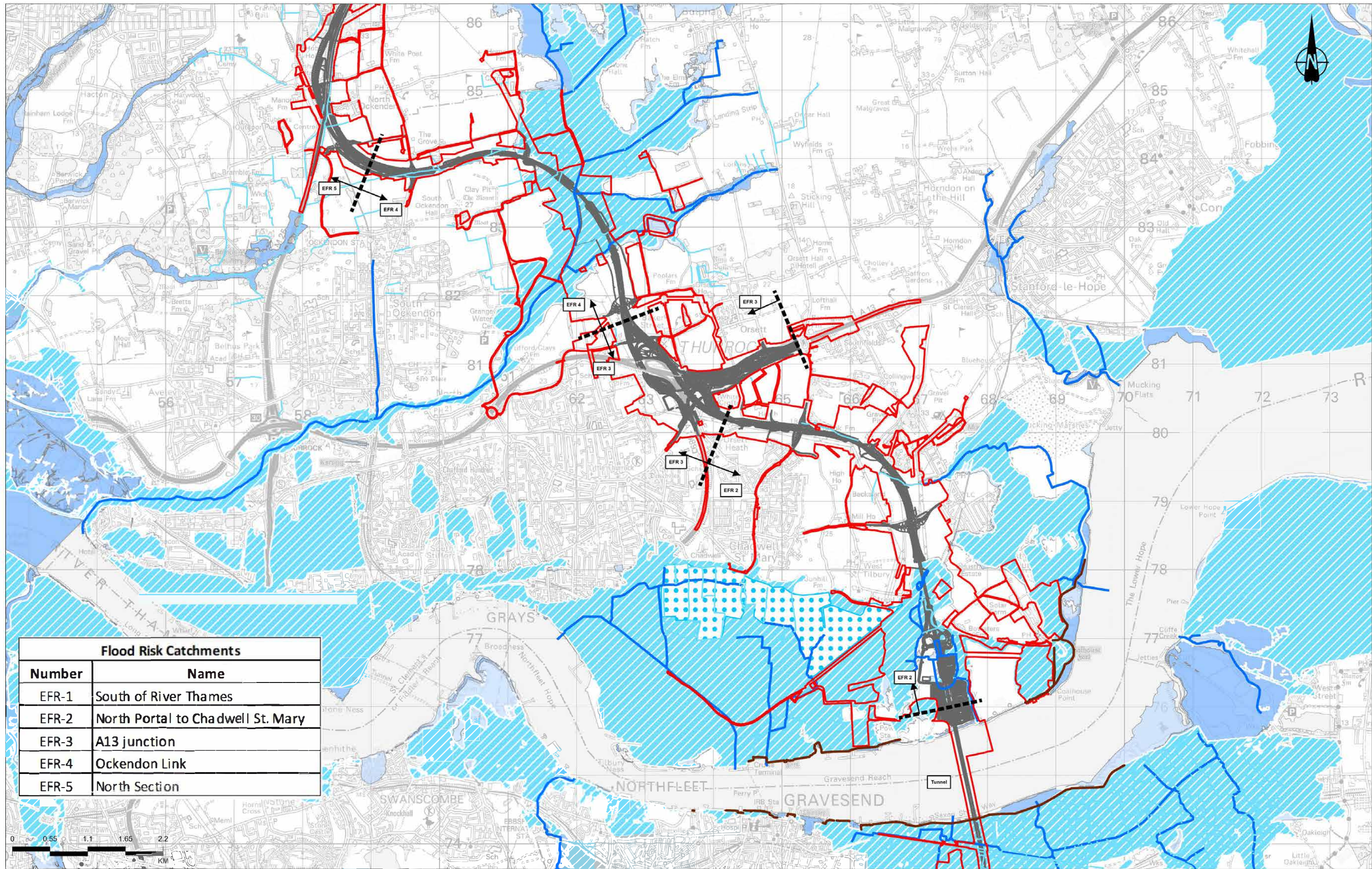
Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:50,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial and Tidal Flooding Sheet 1 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00110				

P01	S8	24/10/2022	DCO Application	SW	IF	BF
Rev	Status	Rev Date	Purpose of revision	Drawn	Check'd	Approved

Z:\Environment\Environmental Statement\Flood Risk Assessment Appendix\APRX\Extent of Fluvial and Tidal Flood Risk app



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section



Corona Ordnance Survey data © Crown copyright and database rights 2022. Ordnance Survey 100030643
 Corona Environment Agency information © Environment Agency and/or database right

- Legend**
- Route alignment and earthworks
 - Ordinary watercourse
 - Flood zone 1
 - ▭ Order Limits
 - Existing flood defence
 - Flood zone 2
 - ▣ Flood risk catchment
 - ▣ Flood water storage areas
 - Flood zone 3
 - Main river
 - ▣ Area benefiting from flood defences

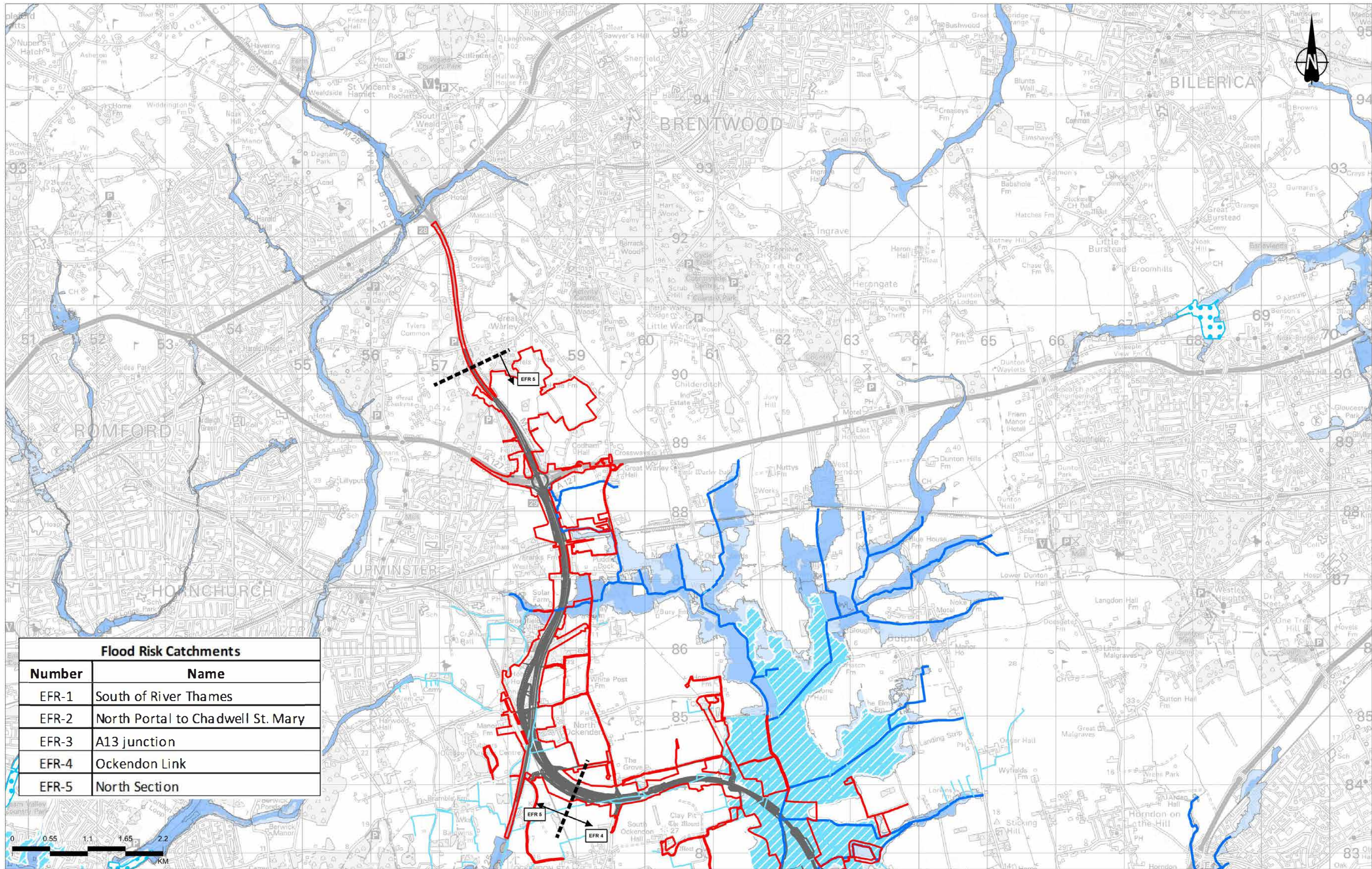


Client
 Project
LOWER THAMES CROSSING

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:50,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial and Tidal Flooding Sheet 2 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00111				

Rev	Status	Rev Date	Purpose of revision	Drawn	Checked	Approved
P01	SS	24/10/2022	DCO Application	SW	IF	BF

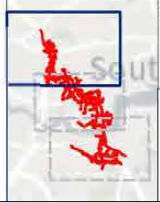
Z:\Environment\Environmental Statement\Flood Risk Assessment Appendix\APRX\Extent of Fluvial and Tidal Flood Risk apr



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section

Legend		
— Route alignment and earthworks	— Ordinary watercourse	□ Flood zone 1
▭ Order Limits	— Existing flood defence	□ Flood zone 2
▭ Flood risk catchment	▭ Flood water storage areas	□ Flood zone 3
— Main river	▭ Area benefiting from flood defences	

Contains Ordnance Survey data. © Crown copyright and database rights 2022. Ordnance Survey 100030649	
Contains Environment Agency information © Environment Agency and/or database right.	
P01	S8 24/10/2022 DCO Application SW IF BF
Rev	Status Rev Date Purpose of revision Drawn Checkd Apprvd

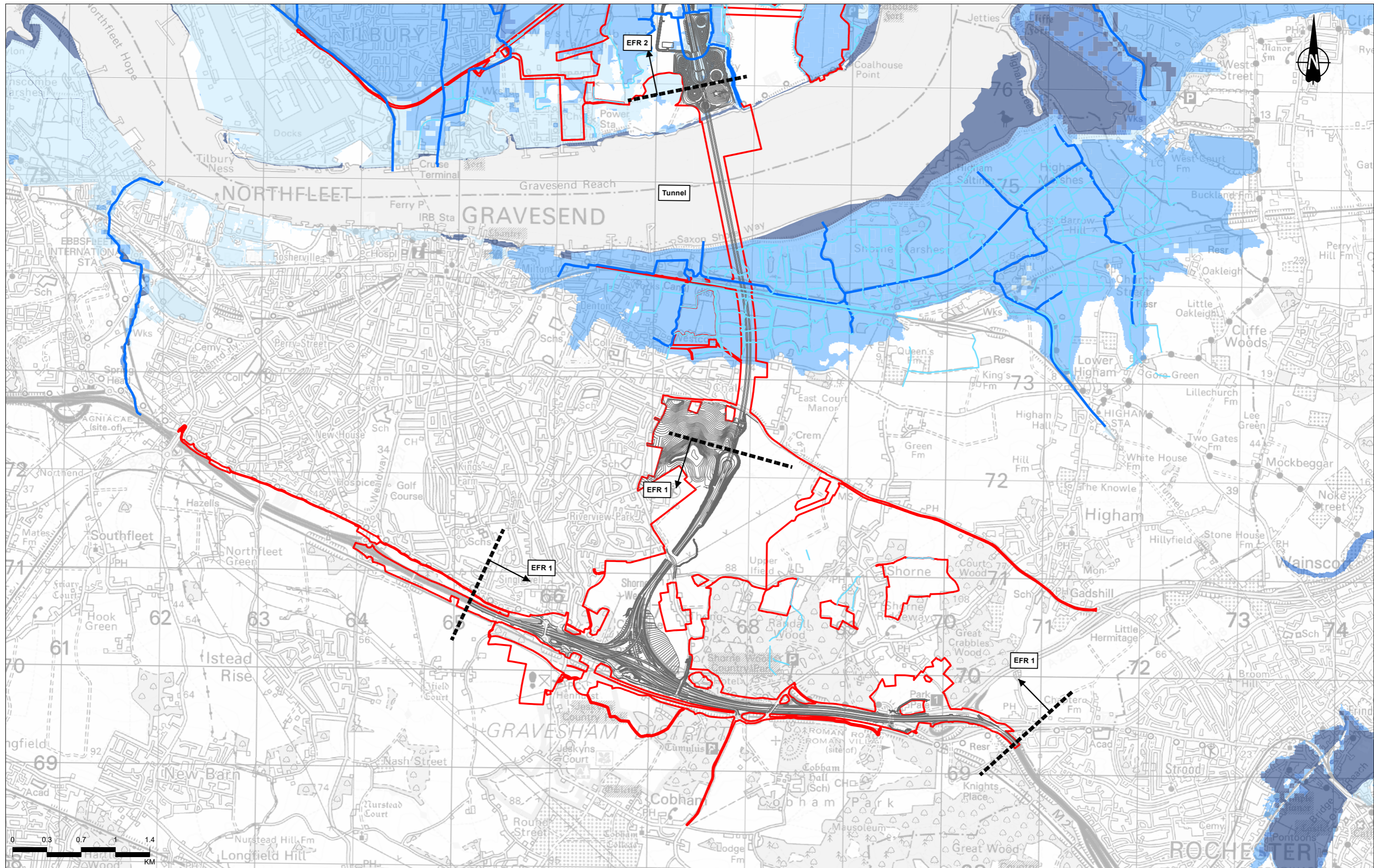


Client
 national highways

Project
LOWER THAMES CROSSING

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:50,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial and Tidal Flooding Sheet 3 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00112				

Z:\Environment\Environmental Statement\Flood Risk Assessment Appendix\APRX\Extent of Fluvial and Tidal Flood Risk apr



Contains Ordnance Survey data. © Crown copyright and database rights 2022. Ordnance Survey 100030649
Contains Environment Agency information © Environment Agency and/or database right

P01	S8	18/10/2022	DCO Application	SW	IF	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd

Legend

- Order Limits
- Route alignment and earthworks
- Flood risk catchment
- Main river
- Ordinary watercourse
- Risk of flooding from rivers and sea**
- High (AEP ≥ 3.3%)
- Medium (1% ≤ AEP < 3.3%)
- Low (0.1% ≤ AEP < 1%)
- Very low (AEP ≤ 0.1%)

Notes:

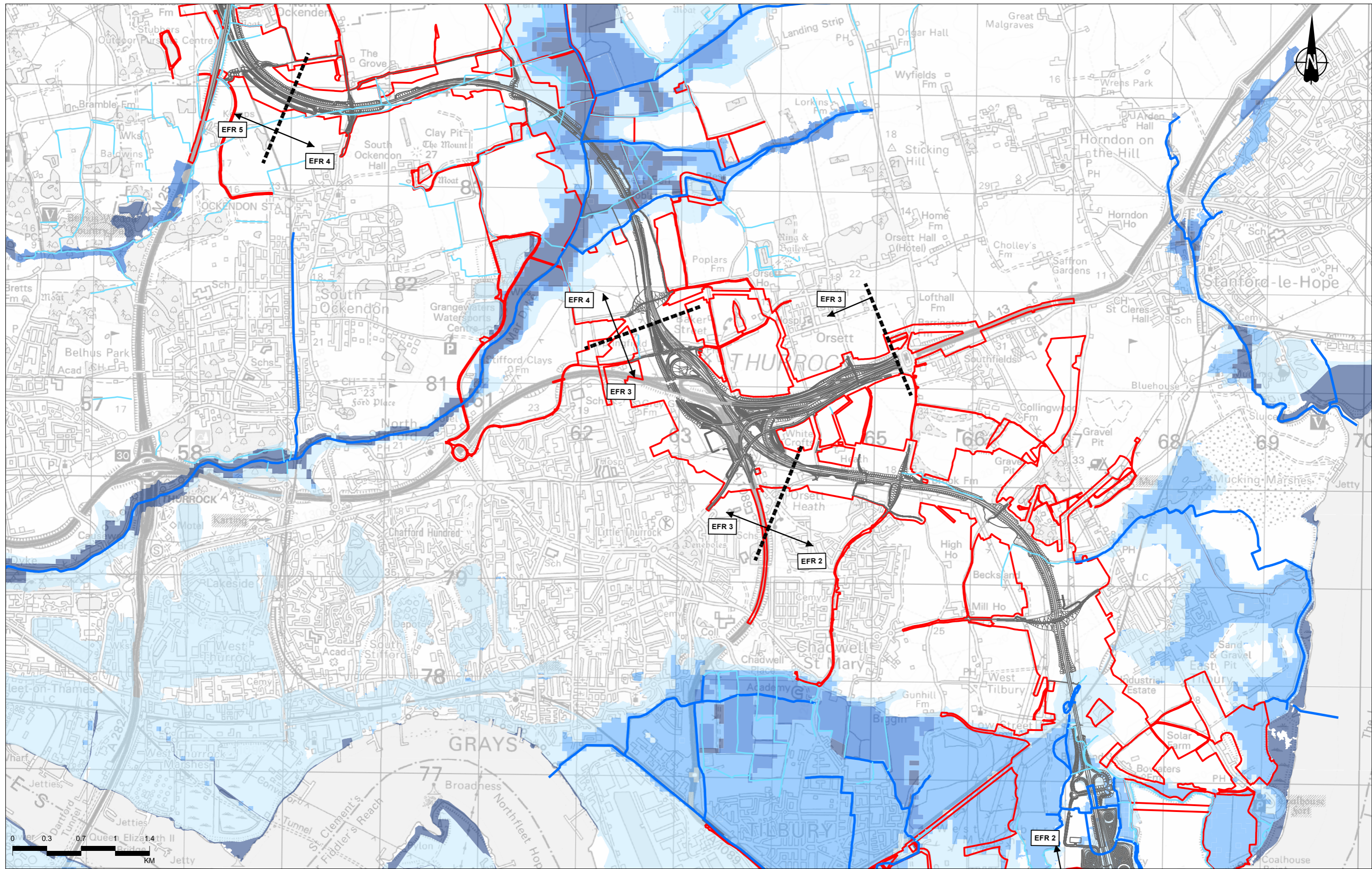
- The annual excedence probability (AEP) is the probability that a flood of a given magnitude will occur within a period of one year, expressed as a percentage.
- Flooding presented in this map takes account of any flood defences in the area.



Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:35,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial Flooding Sheet 1 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00113				



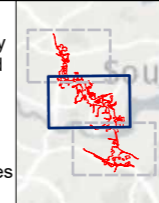
Contains Ordnance Survey data. © Crown copyright and database rights 2022. Ordnance Survey 100030649
Contains Environment Agency information © Environment Agency and/or database right

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	18/10/2022	DCO Application	SW	IF	BF

Legend

- Order Limits
- Route alignment and earthworks
- Flood risk catchment
- Main river
- Ordinary watercourse
- Low (0.1% ≤ AEP < 1%)
- Very low (AEP ≤ 0.1%)
- High (AEP ≥ 3.3%)
- Medium (1% ≤ AEP < 3.3%)

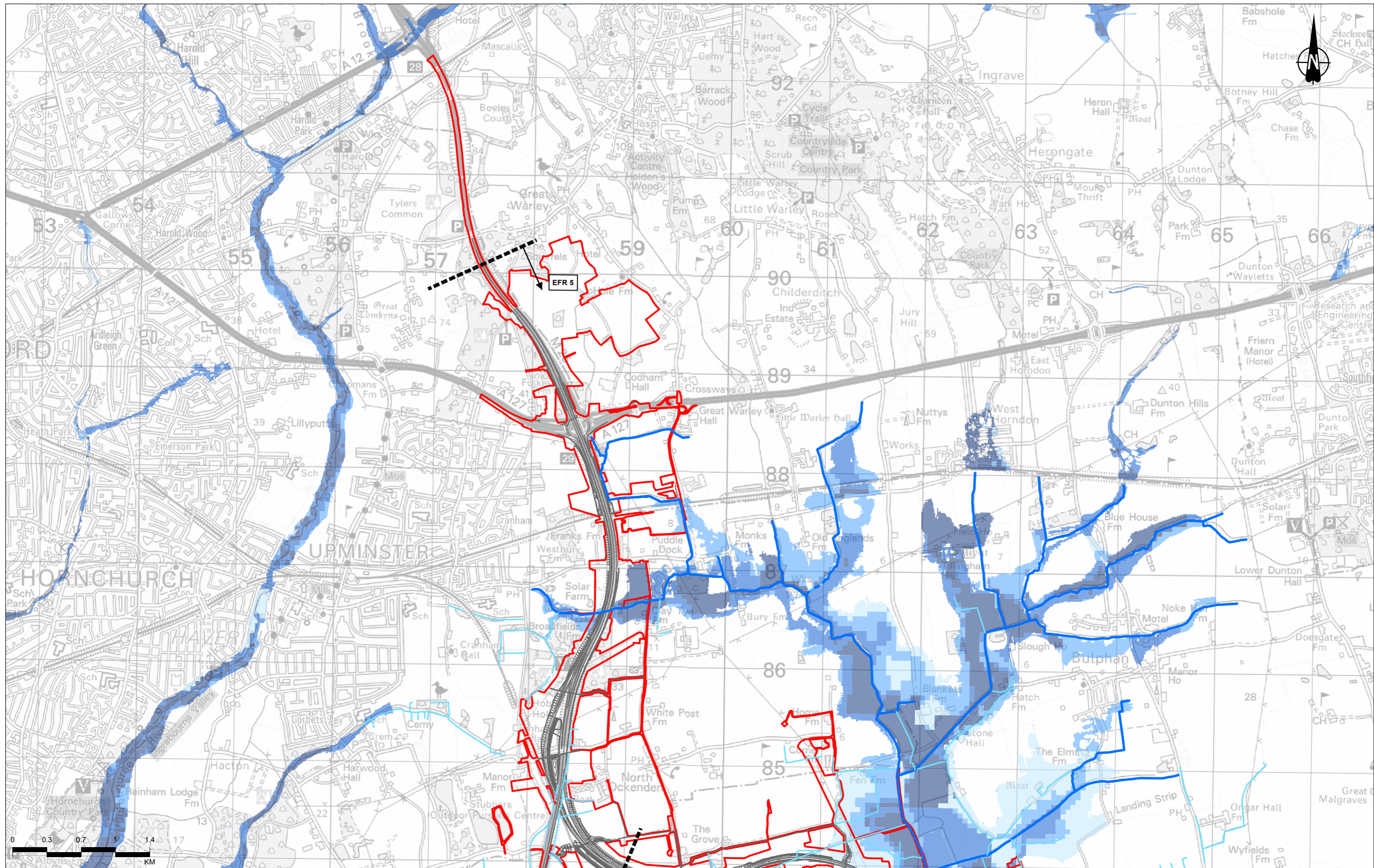
Notes:
 1. The annual excedence probability (AEP) is the probability that a flood of a given magnitude will occur within a period of one year, expressed as a percentage.
 2. Flooding presented in this map takes account of any flood defences in the area.



Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:35,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial Flooding Sheet 2 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00114				



Contains Ordnance Survey data. © Crown copyright and database rights 2022. Ordnance Survey 100030649
Contains Environment Agency information © Environment Agency and/or database right

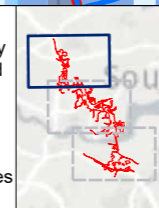
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	18/10/2022	DCO Application	SW	IF	BF

Legend

- Order Limits
- Route alignment and earthworks
- Flood risk catchment
- Main river
- Ordinary watercourse
- Low (0.1% ≤ AEP < 1%)
- Very low (AEP ≤ 0.1%)
- High (AEP ≥ 3.3%)
- Medium (1% ≤ AEP < 3.3%)

Notes:

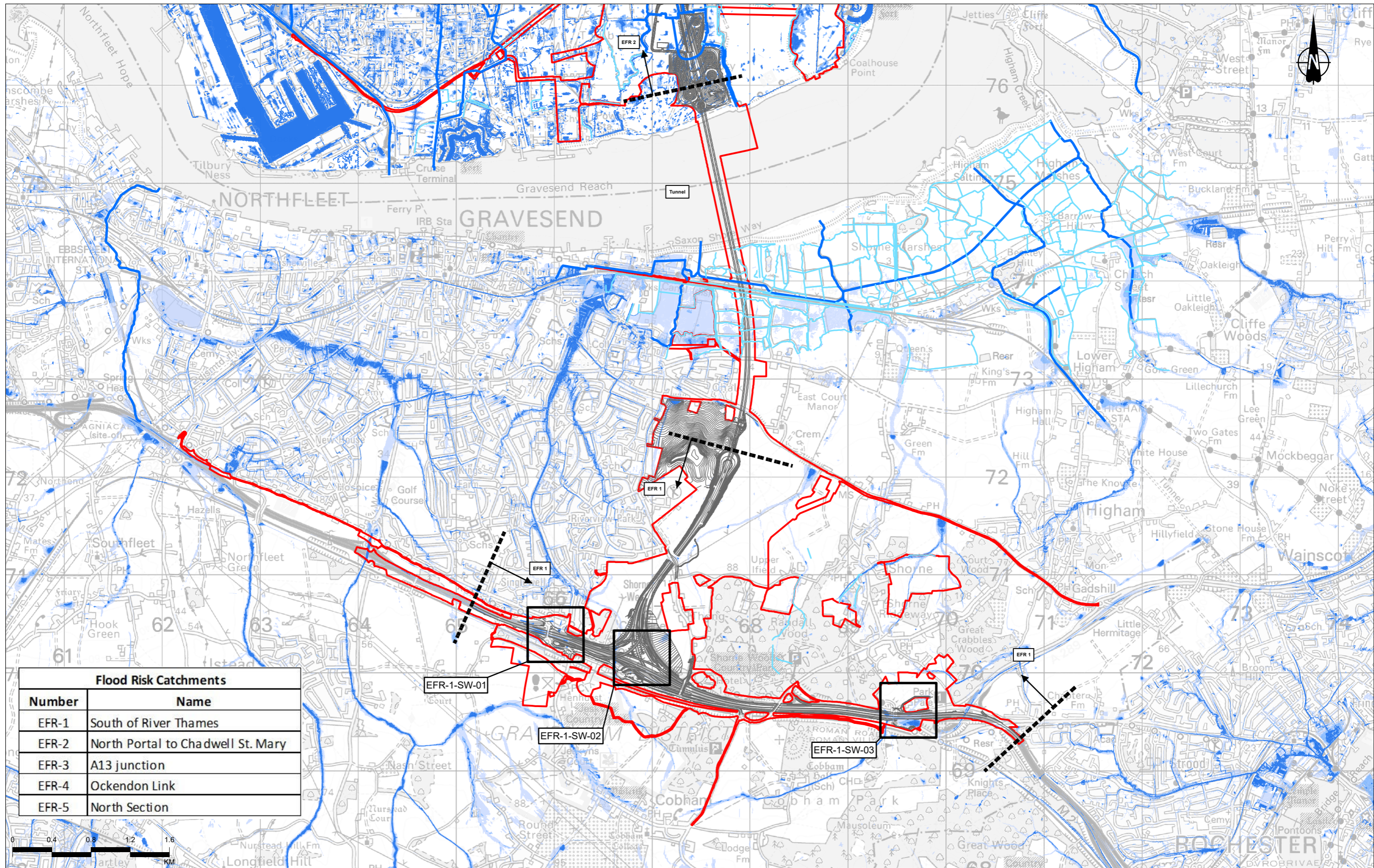
- The annual excedence probability (AEP) is the probability that a flood of a given magnitude will occur within a period of one year, expressed as a percentage.
- Flooding presented in this map takes account of any flood defences in the area.



Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:35,000		
Drawing Title	Flood Risk Assessment Extent of Fluvial Flooding Sheet 3 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00115				



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section



Legend	
	Route alignment and earthworks
	Order Limits
	Flood risk catchment
	Main river
	Ordinary watercourse
	High risk: Areas that have a chance of flooding of greater than 3.3% each year
	Medium risk: Areas that have a chance of flooding of between 1% and 3.3% each year
	Low risk: Areas that have a chance of flooding of between 0.1% and 1% each year
	Very low risk: Areas that have a chance of flooding of less than 0.1% each year

Notes:
 Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

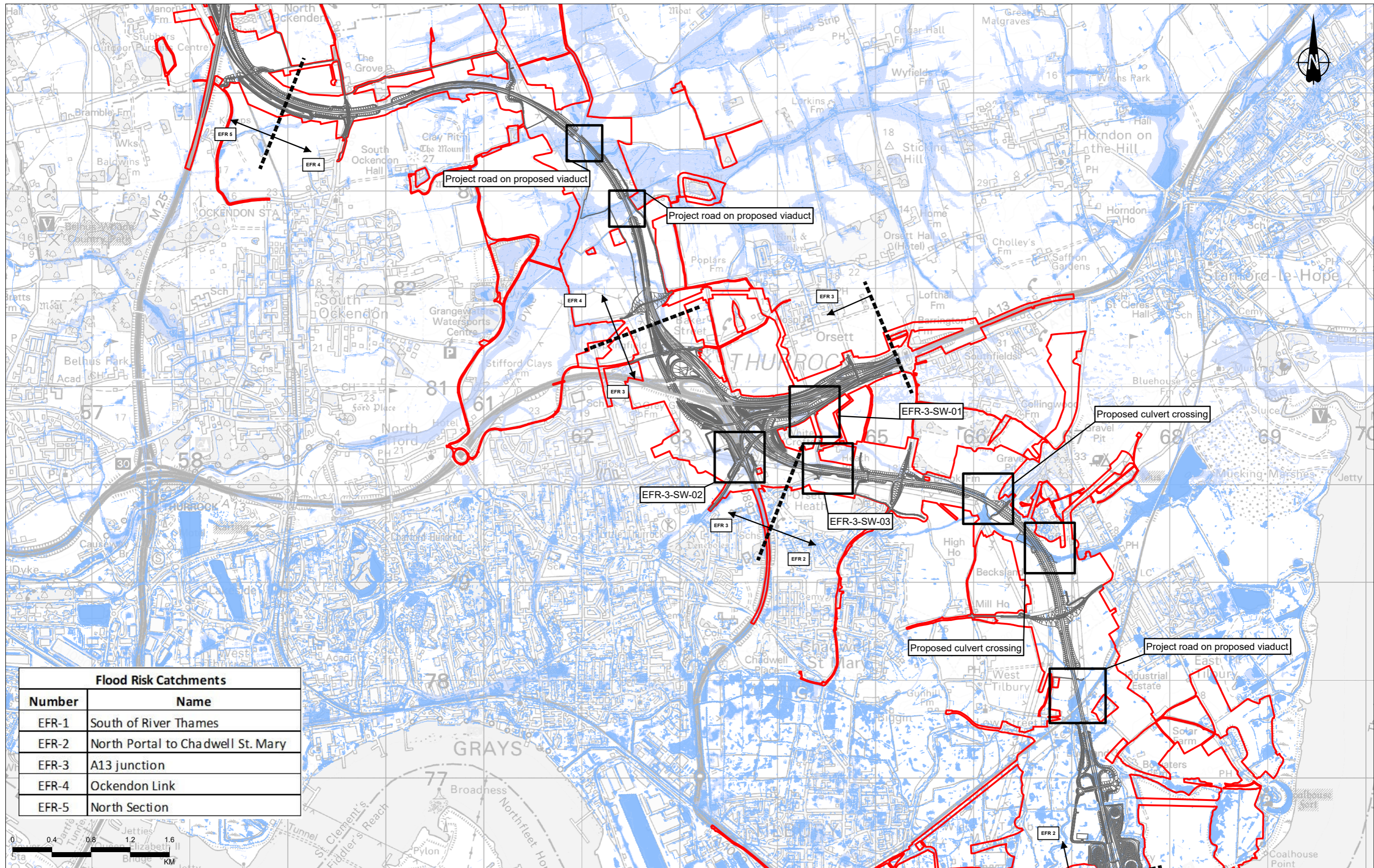


Client: national highways

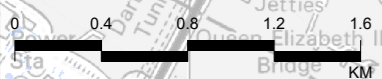
Project: LOWER THAMES CROSSING

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:35,000		
Drawing Title	Flood Risk Assessment Extent of Surface Water Flooding Sheet 1 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZZ-DR-LF-00130				

P01	S8	18/10/2022	DCO Application	SW	IF	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprv'd



Flood Risk Catchments	
Number	Name
EFR-1	South of River Thames
EFR-2	North Portal to Chadwell St. Mary
EFR-3	A13 junction
EFR-4	Ockendon Link
EFR-5	North Section



Legend	
	Route alignment and earthworks
	Order Limits
	Flood risk catchment
	Main river
	Ordinary watercourse
	High risk: Areas that have a chance of flooding of greater than 3.3% each year
	Medium risk: Areas that have a chance of flooding of between 1% and 3.3% each year
	Low risk: Areas that have a chance of flooding of between 0.1% and 1% each year
	Very low risk: Areas that have a chance of flooding of less than 0.1% each year

Notes:
 Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.



Client:

Project: LOWER THAMES CROSSING

Status	DCO APPLICATION	Original Size	A3	Revision	P01
Application Document Number	TR010032/APP/6.3	Scale	1:35,000		
Drawing Title	Flood Risk Assessment Extent of Surface Water Flooding Sheet 2 of 3				
Drawing Number	HE540039-CJV-EFR-SZP_GNZZZZZZ-DR-LF-00131				

P01	S8	18/10/2022	DCO Application	SW	IF	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd

If you need help accessing this or any other National Highways information, please call **0300 123 5000** and we will help you.

© Crown copyright 2022.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence:

visit www.nationalarchives.gov.uk/doc/open-government-licence/

write to the **Information Policy Team, The National Archives, Kew, London TW9 4DU**, or email psi@nationalarchives.gsi.gov.uk.

Mapping (where present): © Crown copyright and database rights 2022 OS 100030649. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

If you have any enquiries about this publication email info@nationalhighways.co.uk or call **0300 123 5000**.*

*Calls to 03 numbers cost no more than a national rate call to an 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls.

These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone. Calls may be recorded or monitored.

Printed on paper from well-managed forests and other controlled sources when issued directly by National Highways.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

National Highways Company Limited registered in England and Wales number 09346363