



Overview of D&S IFCA's Work in Relation to Hinkley Point C

Full Authority Meeting

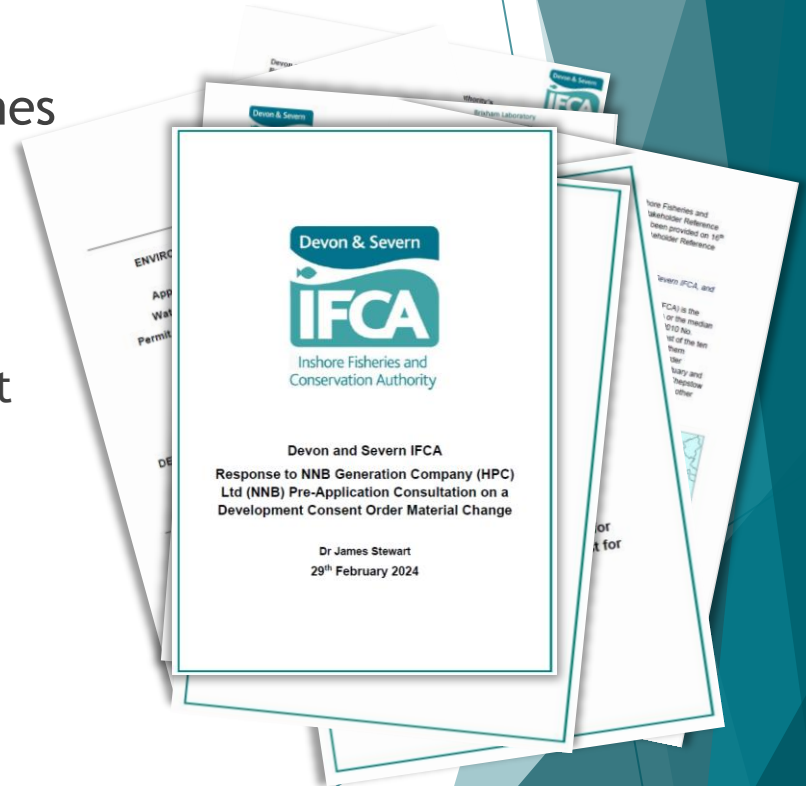
March 2025

Dr James Stewart

Devon & Severn IFCA

Hinkley Point C

- ▶ Scheme being delivered by NNB GenCo (EDF)
- ▶ Covered by multiple consenting regimes
 - Development Consent Order (DCO, Planning Inspectorate)
 - Marine Licence (MMO)
 - Water Discharge Activity (WDA) Permit
- ▶ Risks include:
 - ▶ Water abstraction
 - ▶ Dredging & disposal
 - ▶ UXO removal
 - ▶ Water discharge



Cooling water infrastructure design

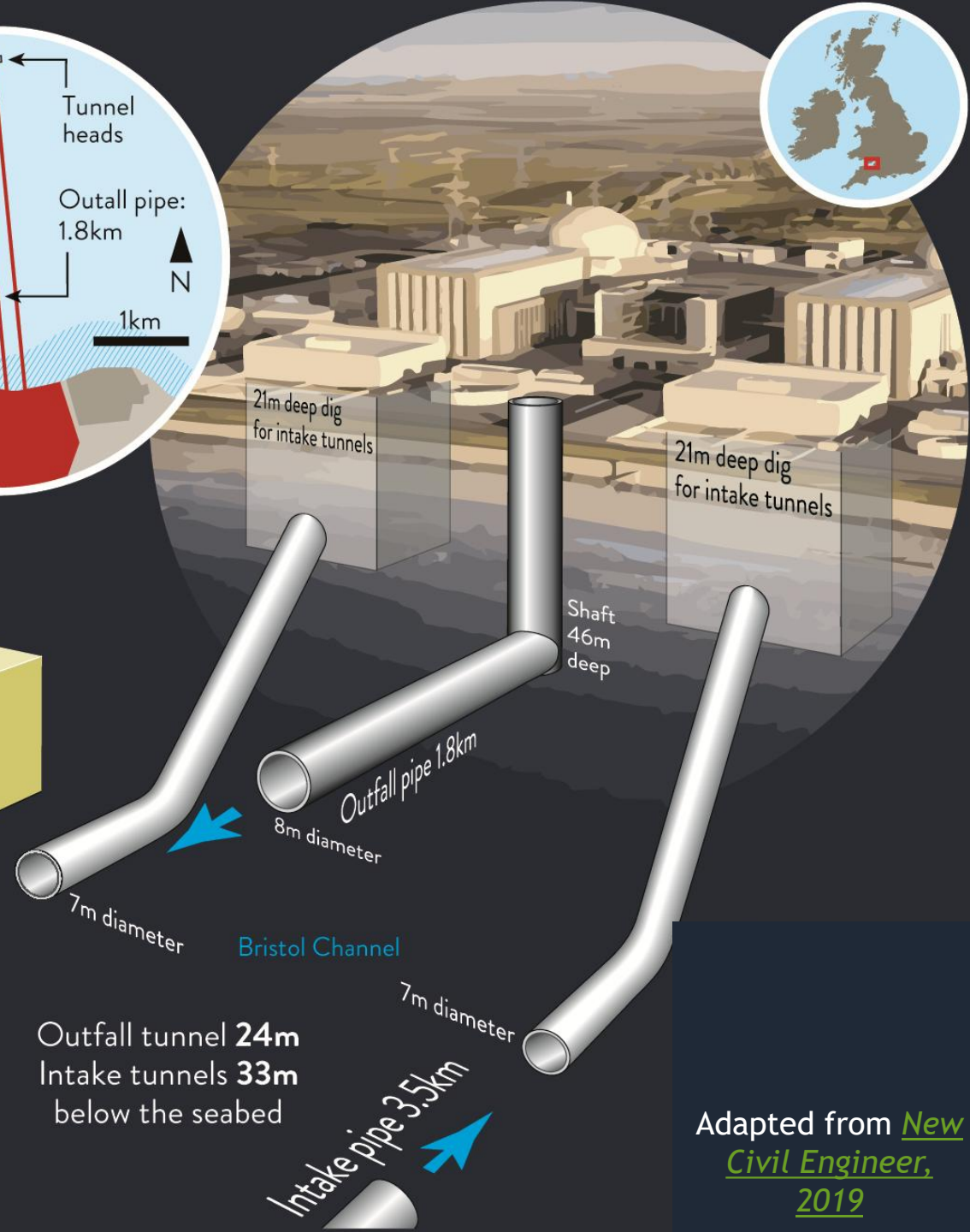
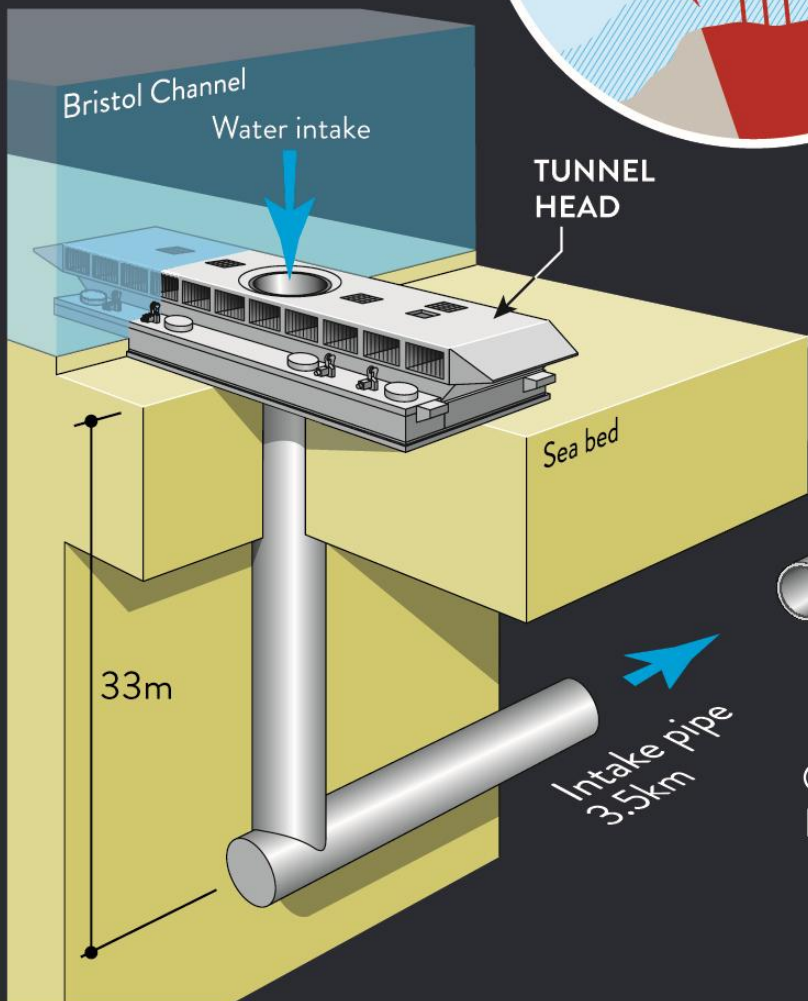
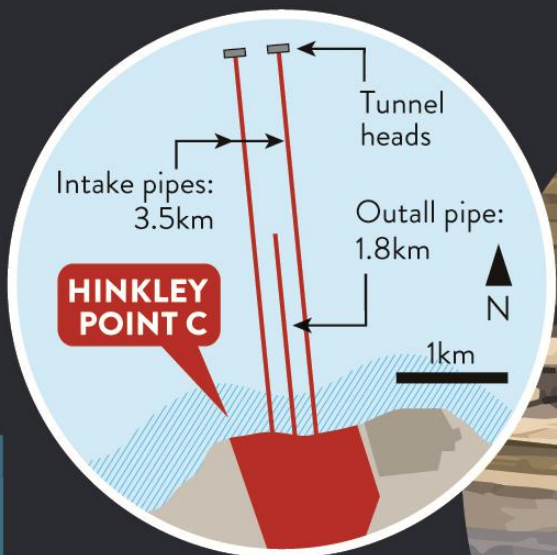
(1) No development shall commence until details of Work Nos. 2A to 2H have, following consultation with the Countryside Council for Wales, Natural England, English Heritage and the Environment Agency, been submitted to and approved by the Marine Management Organisation. The details shall include—

- (a) the location and design (size and shape) of the off-shore intake and outfall heads;
- (b) the alignment (horizontal and vertical) of the cooling water intake and outfall tunnels; and
- (c) the location and design of the fish recovery and return system and the low velocity side entry intakes, which shall be in accordance with the Environment Agency guidance referenced in the Environmental Statement (Volume 2, chapter 2, paragraph 2.6.21).

(2) The acoustic fish deterrent system shall not be installed until details of the location and design have, following consultation with the Countryside Council for Wales, Natural England and the Environment Agency, been submitted to and approved by the Marine Management Organisation.

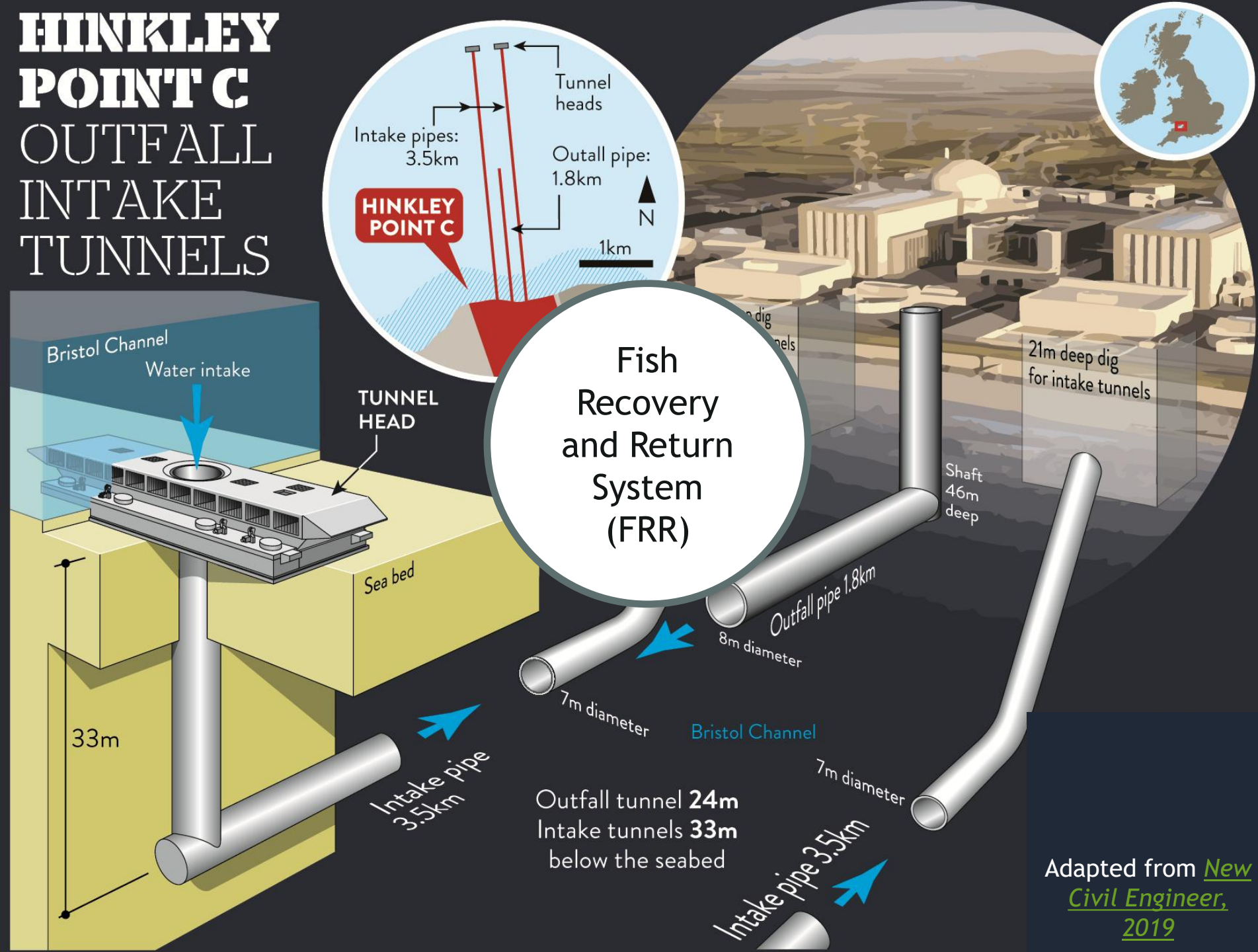
(3) No water abstraction shall commence until the off-shore intake and outfall heads, cooling water intake and outfall tunnels, the fish recovery and return system, the low velocity side entry intakes and the acoustic fish deterrent system have been installed in accordance with the approved details referred to in paragraphs (1) and (2).

HINKLEY POINT C OUTFALL INTAKE TUNNELS



Adapted from [*New Civil Engineer*, 2019](#)

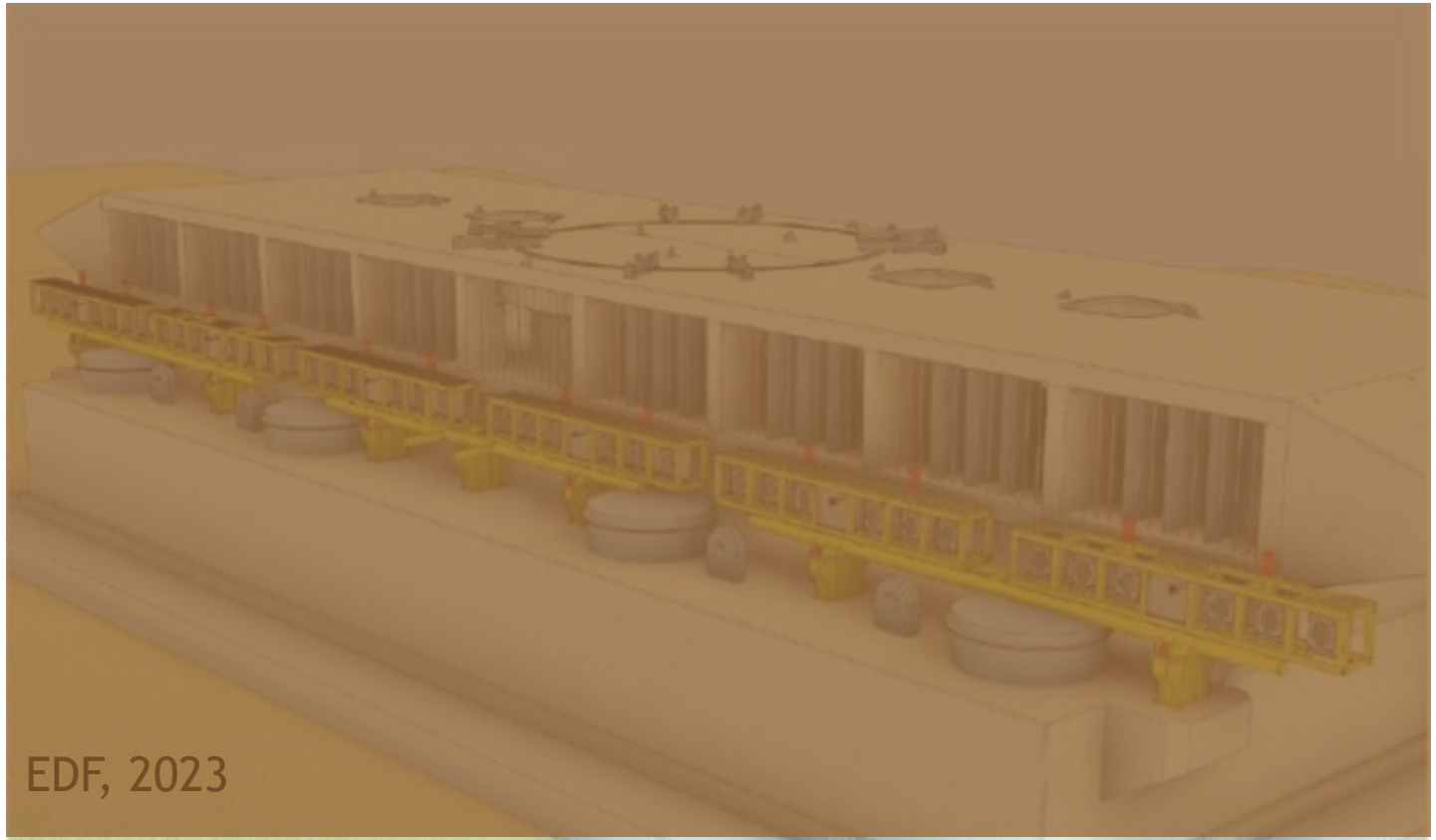
HINKLEY POINT C OUTFALL INTAKE TUNNELS



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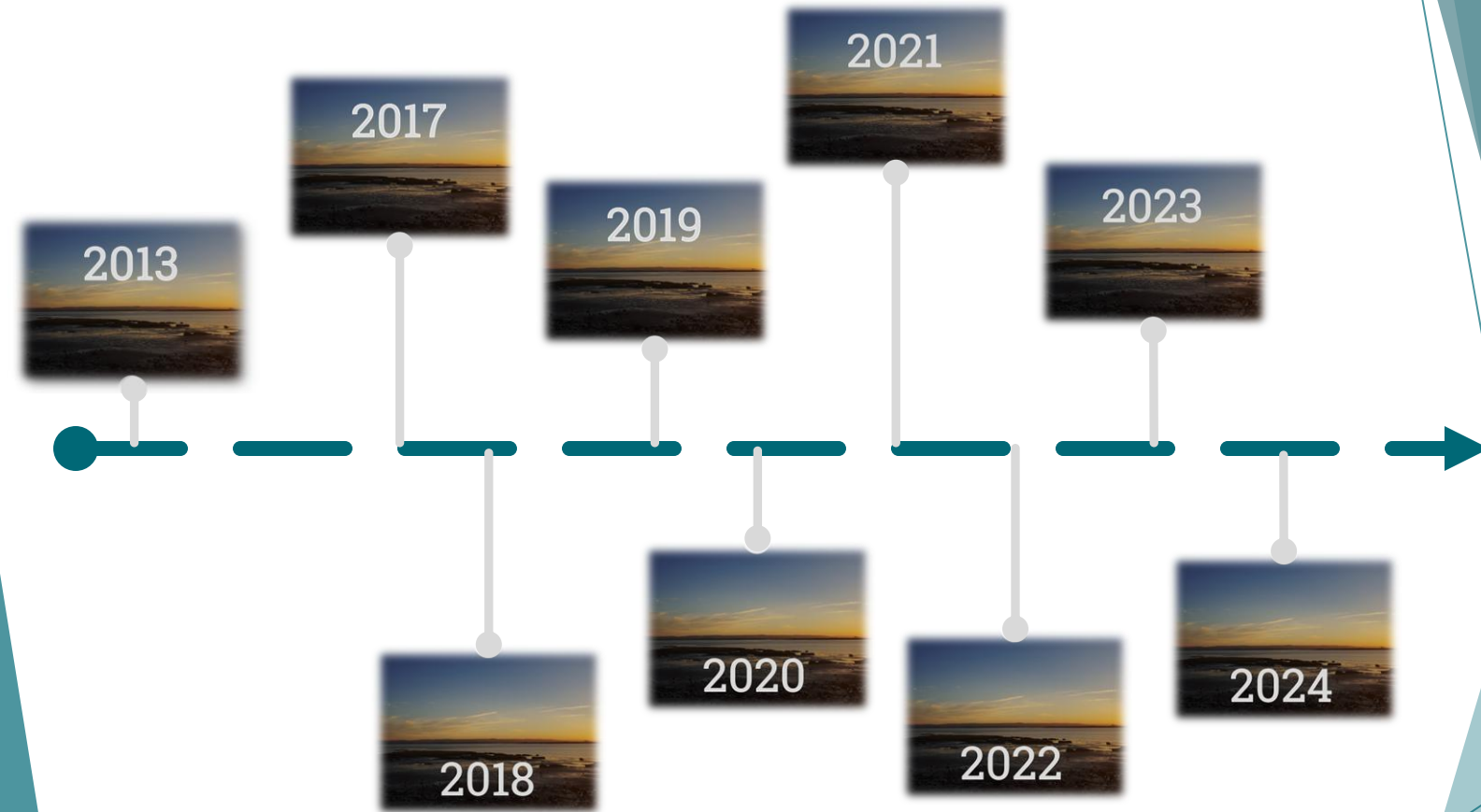


EDF, 2023



EDF, 2023

HPC Timeline



2017



2017

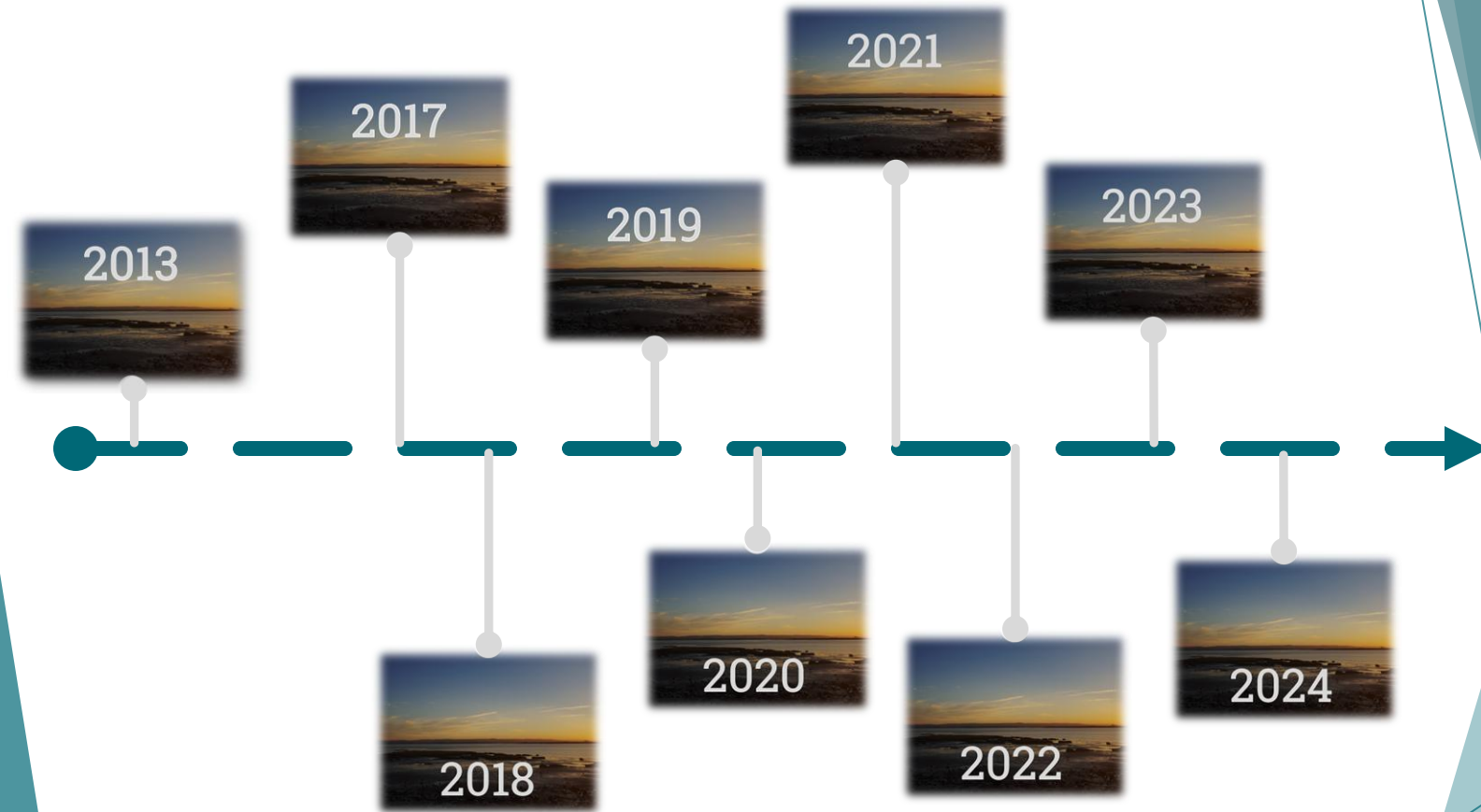
Construction begins

Company makes decision not to proceed with Acoustic Fish Deterrent system

Construction continues, AFD still part of requirements

Officers engaging with MTF, holding Nuclear Working Group with Members and discussion with full Authority

HPC Timeline



2019



2019

EDF applies to Environment Agency to vary WDA permit - requesting to remove requirement to install AFD

First major consultation response on AFD from D&S IFCA

Major issue: significant fish kill from cooling water intakes

Water abstraction & fish kill

- ▶ Total *weight* of fish impinged - EDF says around 45 tonnes
- ▶ BUT there are lots of very small juvenile fish in this total
- ▶ The Equivalent Adult Value - the number of fish that would be expected to be present if HPC wasn't there - is much higher
- ▶ Fish kill assessed independently by Environment Agency for Public Inquiry in 2021
- ▶ Looked at impingement, entrainment and Equivalent Adult Value of fish

Water abstraction & fish kill

Species	A No. of fish lost due to HPC Impingement	B No. of fish lost due to HPC Entrainment	C No. of equivalent adults lost due to HPC Impingement	D No. of equivalent adults lost due to HPC Entrainment	E Total No. of equivalent adults lost due to HPC Entrapment	F Total Tonnes of equivalent adults lost due to HPC Entrapment	G Relevant Population SSB (t)/ Fishery (t)	H Annual proportional loss from the relevant population due to HPC Entrapment				
								Predicted value results	Uncertainty range results			
									1 st %ile	5 th %ile	95 th %ile	99 th %ile
European sprat	1,322,637 (fish) 3,557,152 (larvae)	3,557,152 (larvae)	3,482,256	124,500	3,606,756	55.90	7,704	0.7%	0.47%	0.52%	0.98%	1.1%
Whiting	1,708,720 (fish)	-	662,984	-	662,984	197.57	2,179	9%	3.9%	5.4%	23%	31%
Dover sole	157,565 (fish) 324,176 (larvae)	1,106,693 (larvae) 991,212 (eggs)	170,362	0.02	170,362	60.14	809	7%	1.2%	1.8%	11%	15%
Atlantic cod	302,034 (fish)	-	51,648	-	51,648	245.12	1,118	22%	3.6%	5.4%	36%	52%
Atlantic herring	37,549 (fish) 221,128 (larvae)	193,487 (larvae)	114,464	267	114,731	7.46	157	5%	2.9%	3.2%	6.1%	7%
European seabass	23,626 (fish) 13,129,264 (larvae)	6,108,346 (larvae) 9,456,586 (eggs)	14,401	0.0001	14,401	16.17	565	3%	1.3%	1.6%	4.7%	5.4%
European plaice	1,446 (fish) 550,129 (larvae)	1,300,201 (larvae)	16,630	15	16,646	5.33	1,332	0.4%	0.02%	0.04%	0.3%	0.4%
Thornback ray	2,358 (fish)	-	1,457	-	1,457	4.78	122	4%	1.8%	2.1%	4.7%	5.5%
Blue whiting	7,375 (fish)	-	2,862	-	2,862	0.39	514,008	0.0001%	0.00002%	0.00003%	0.00015%	0.0002%

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2019

EDF applies to Environment Agency to vary WDA permit - requesting to remove requirement to install AFD

First major consultation response on AFD from D&S IFCA

Major issue: significant fish kill from cooling water intakes



2020

EDF appealed to Secretary of State (Defra) regarding the application

D&S IFCA submitted preliminary response in late 2020

- Supports EA position
- Raised issues re fish impacts, large uncertainties in assessments, need for adaptive management
- Built on a range of work including collaborative research with fishermen



2020

EDF appealed to Secretary of State (Defra) regarding the application

D&S IFCA submitted preliminary response in late 2020

Escalated to Planning Inspectorate Public Inquiry in 2021

(Officers responded to UXO & wharf consultations)

2021

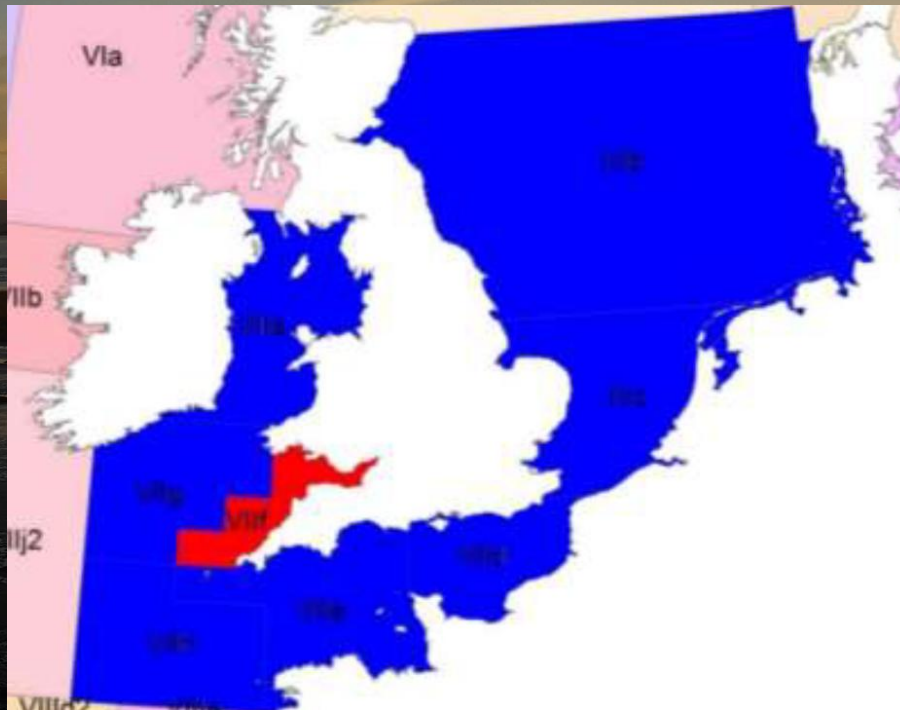
Officers submit written representation to PINS Public Inquiry

Officers speak at Public Inquiry and question EDF representatives, focusing on:

- Level of fish kill, fish ecology & impact assessment methods
- Multiple MPA designations including marine fish assemblage (100+ spp.)
- Adaptive management
- Scale of assessment of impacts

2021

Officers submit written representation to PINS Public Inquiry



2021

Officers submit written representation to PINS Public Inquiry

Officers speak at Public Inquiry and question EDF representatives, focusing on:

- Level of fish kill, fish ecology & impact assessment methods
- Multiple MPA designations including marine fish assemblage (100+ spp.)
- Adaptive management
- Scale of assessment of impacts

(Officers submit three consultation responses regarding dredging and disposal licence variation - continued in 2022)



2022

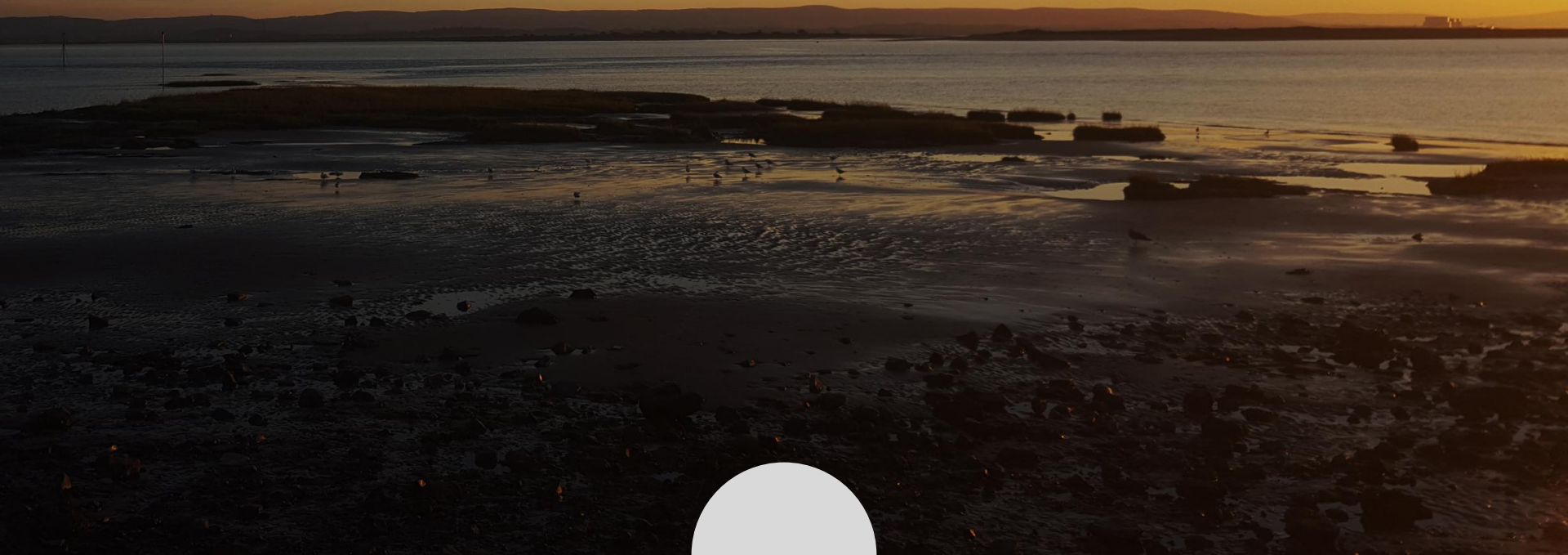
PINS & Secretary of State agree that EA have appropriately assessed impact of AFD removal and state that AFD is required

However, there was later deemed to be unacceptable duplication of requirements and that WDA Permit should focus on quality of discharged water, not the abstraction process

AFD requirement therefore dropped from WDA permit and retained in DCO & ML

EDF exploring possibility of removing AFD from DCO

2023/24



'IROPI' & 'Compensation'

- ▶ Proposed to continue without AFD *despite* causing harm to MPAs
- ▶ 'Imperative Reasons of Overriding Public Interest'
- ▶ EDF (not EA/NE) suggested compensating for harm caused to MPA by installing:
 - ▶ Compensatory habitats
 - ▶ Saltmarsh
 - ▶ Seagrass
 - ▶ Native oyster reef
 - ▶ Kelp forests
 - ▶ Fish passes

What's next?

- ▶ EDF have indicated that they are now exploring new options for the Acoustic Fish Deterrent
- ▶ No longer actively exploring saltmarsh as compensation
- ▶ Details not publicly available yet
- ▶ Public scrutiny will be key; MMO makes decision on whether AFD design is sufficient to satisfy consent condition, with SNCB advice
- ▶ Compensatory habitats may be required
- ▶ Adaptive Monitoring and Management Plan?

Any questions?