

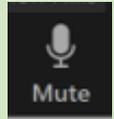
# The Moors at Arne



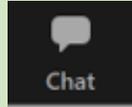
**Stakeholder Liaison Group Meeting: 21<sup>st</sup> April 2021**

# Welcome!

## Zoom Housekeeping.



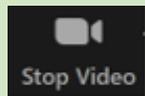
- Please mute your microphone to avoid background noise



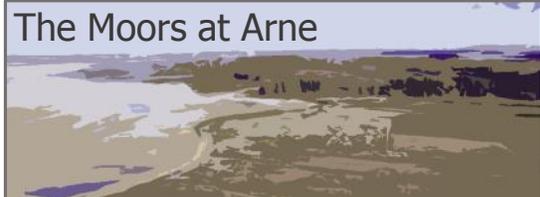
- During the presentation if you would like to ask a question please write it in the chat box

- At the end of the meeting if you would like to ask a question in the open forum, please raise your hand and we will unmute you individually so you can speak. (In  3 dots at the bottom of the panel and raise hand.)

- There are 3 view options: full screen, speaker or gallery view you can opt to choose during the meeting. (This may be altered as the presentation is being shared but can manually be altered by each participant)

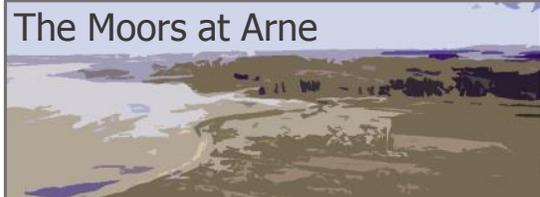


- It can be helpful to turn off your video as the presentation is shown to minimise any interruption with the internet



# Stakeholder Liaison Group Agenda

1	Introductions	5 mins
2	Review of notes from last meeting	5 mins
3	Project update with update on Heritage	10 mins
4	Traffic	15mins
5	Biting Insects (Mosquitoes)	15mins
6	Public Access	15mins
7	Open Forum	15 mins
8	Next steps and date of next meeting	5 mins



# The Moors at Arne



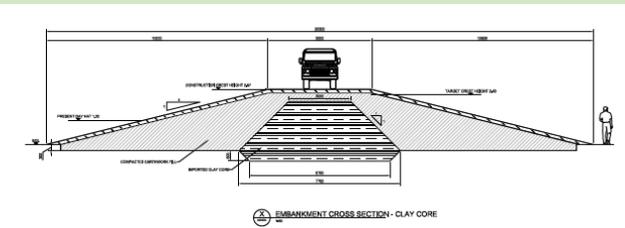
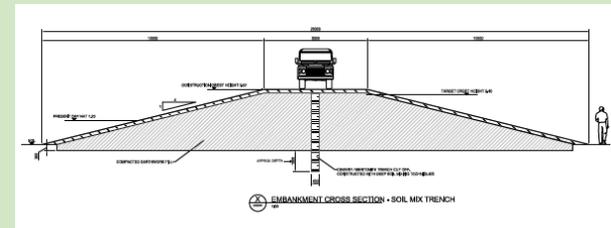
**Project Update including Heritage**

# Project Update



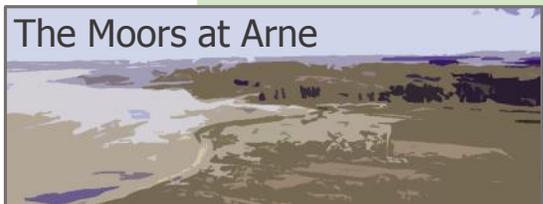
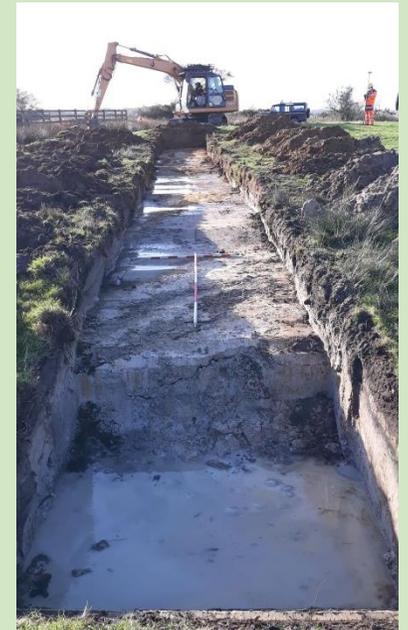
**KEYS:**

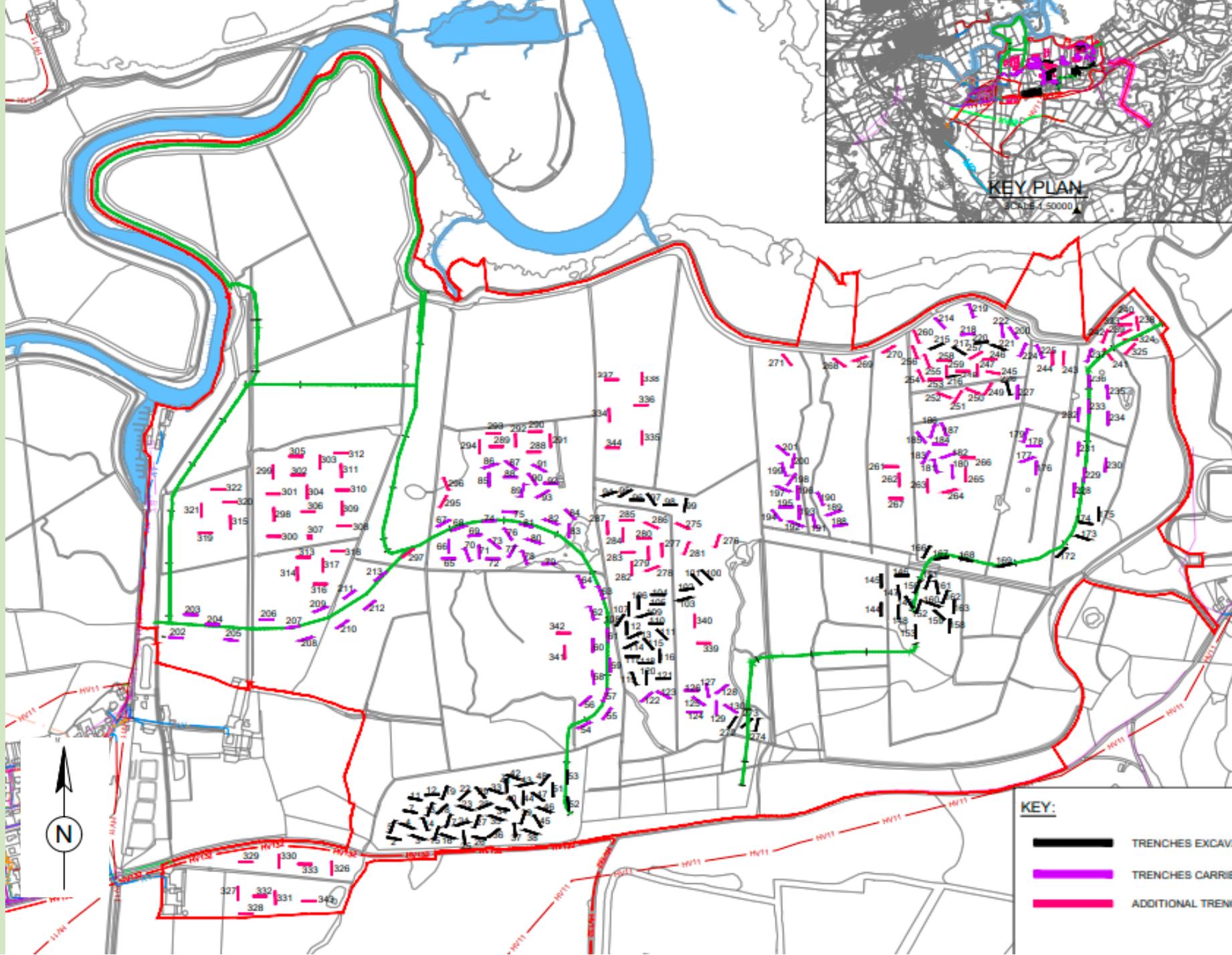
- SITE BOUNDARY
- TIDAL EMBANKMENT
- ▨ EXISTING EMBANKMENT "ELEPHANT'S EAR"
- TOE DITCH
- CREEK PROTO-CHANNEL
- EXISTING DITCH / WATERCOURSE
- 5m WIDE VEHICLE ACCESS TRACK ON EMBANKMENT CREST
- 5m WIDE VEHICLE ACCESS TRACK AT GROUND LEVEL
- EXISTING ACCESS TRACK
- 1.5m WIDE PERMISSIVE PATH (FOOT ACCESS ONLY) UNSURFACED
- 2.0m WIDE PERMISSIVE PATH (WHEELCHAIR ACCESSIBLE) HOGGIN SURFACED



# Progress Update

- Ecological surveys
- Archaeological trenching
- Benthic ecology
- Design construction sequence
- Public access
- Planning & Consents





**KEY:**

- TRENCHES EXCAVATED IN PHASE 2A
- TRENCHES CARRIED OVER FROM PHASE 2A
- ADDITIONAL TRENCHES FOR PHASE 2B

# The Moors at Arne



**Traffic Update**

# Construction Traffic

## Matt Phillips - Kier Project Manager



Image obtained by 3D Drilling



# Construction Traffic Route



# Headlines

- 1. HGV numbers reduced by 6000 through detailed design.
- 2. HGVs escorted during peak delivery periods.
- 3. Informal passing places improved.
- 4. Existing Passing places maintained.
- 5. Vegetation maintenance on the highway verges throughout the construction programme to maintain sight lines.
- 6. Traffic management cones and signs to control access.
- 7. Point of contact provided to resolve issues.



# Passing Place Construction & Traffic Control



# The Moors at Arne

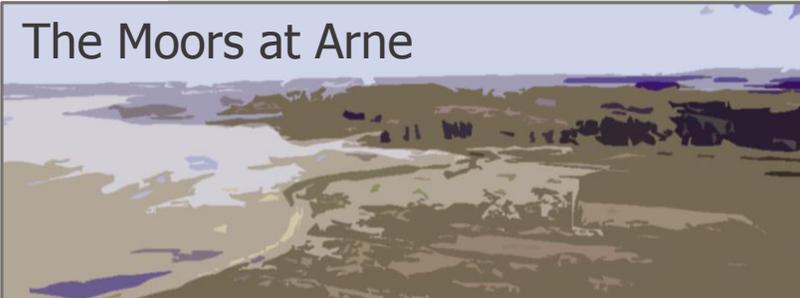


**Biting Insects (mosquitoes) Update**

# The Moors at Arne Coastal Change: Biting Insects

1. Introduction
2. Scope
3. Approach to the assessment
4. Effects of the Project on mosquito populations at the Moors
5. Effects of the Project on other biting insects at the Moors
6. Consideration of climate change

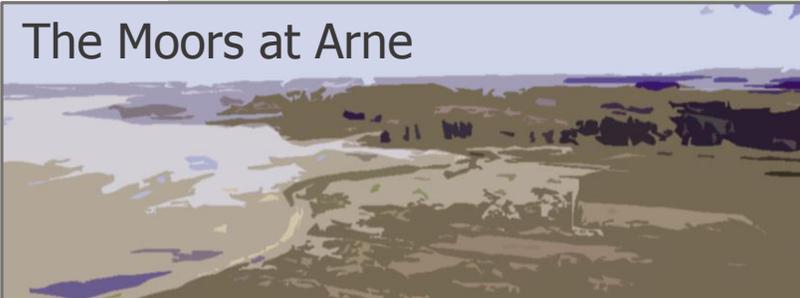
The Moors at Arne



# What you have told us previously:

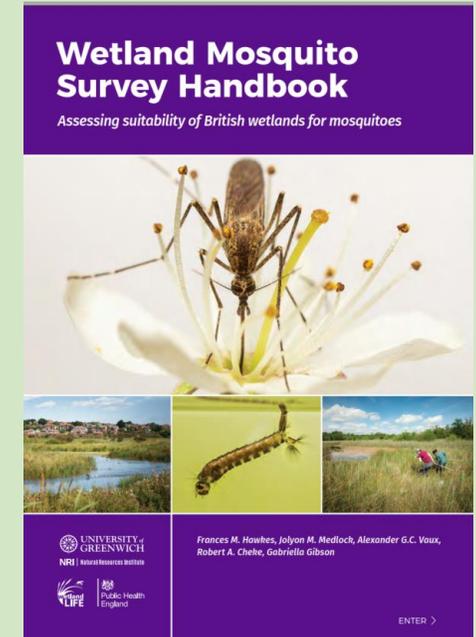
- Concerns around potential increases in populations of biting insects at the Moors
  - Mosquitoes, Blandford fly
- Concern around potential for increased risk of disease transmission associated with biting insects, with future climate change
  - “Vector-borne” disease

The Moors at Arne

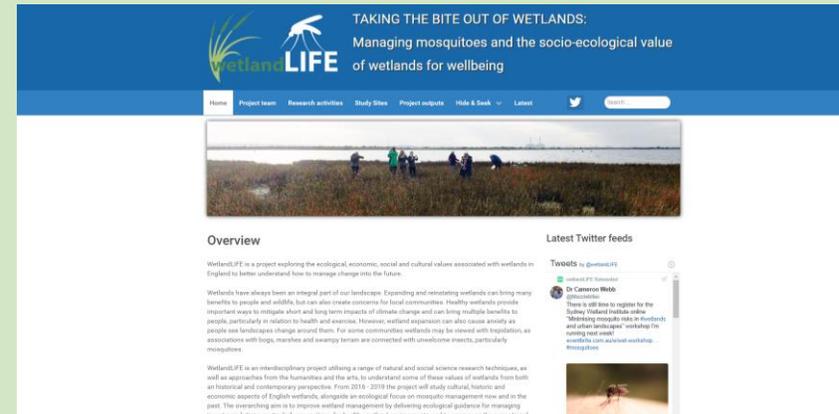


# How have we approached this?

- Baseline surveys of mosquitoes undertaken by researchers from Public Health England (PHE) in 2017 and 2019
- Review of the physical changes to the Moors associated with the Project predicted by the tidal modelling work
- Use of assessment guidance provided in the PHE Wetland Mosquito Survey Handbook (2020)
- Informal consultation with the PHE researchers to address queries



@Hawkes et al 2020



The WetlandLIFE project site: [www.wetlandlife.org](http://www.wetlandlife.org)

# A little bit about...(1)

- 34 native recorded species of mosquito in the UK, ~25 of these species will bite humans to some degree
- Currently no mosquito-borne diseases of humans are circulating in the UK
- There is awareness of the possibility of climate change allowing new (non-native) mosquito species (and diseases) to become established in the future
  - (Dengue, Chikungya virus, West Nile Virus)

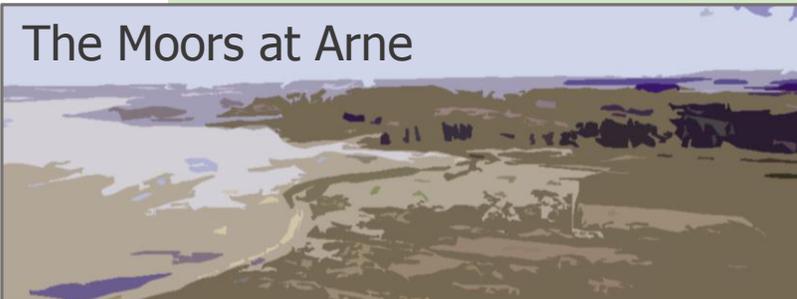


*Culex modestus*  
©Alchetron



*Asian tiger mosquito*  
©Defra 2009

The Moors at Arne



## A little bit about...(2)

- Mosquito species use a wide variety of aquatic and wetland habitats
- Relatively few species can tolerate any salinity
- Most species have evolved to utilise a specific type of habitat
- Habitat types can therefore be used as a ‘predictor’ of the mosquito species that will use it.



@microscopy UK



# Baseline survey findings

- PHE undertook:
  - Trapping surveys to capture adult mosquitoes (NB some species can fly long distances to feed)
  - Targeted larval surveys of typical ditch and wet grassland habitats at the Moors
- Adult mosquitoes captured were species typical of acidic pools, acidic bogs, brackish pools and ditches, summer-flooded grasslands and fens
- Larval surveys recorded typical species associated with those habitat types, but in relatively low numbers



©Mosquito Magnet

# Habitat change arising from the Project

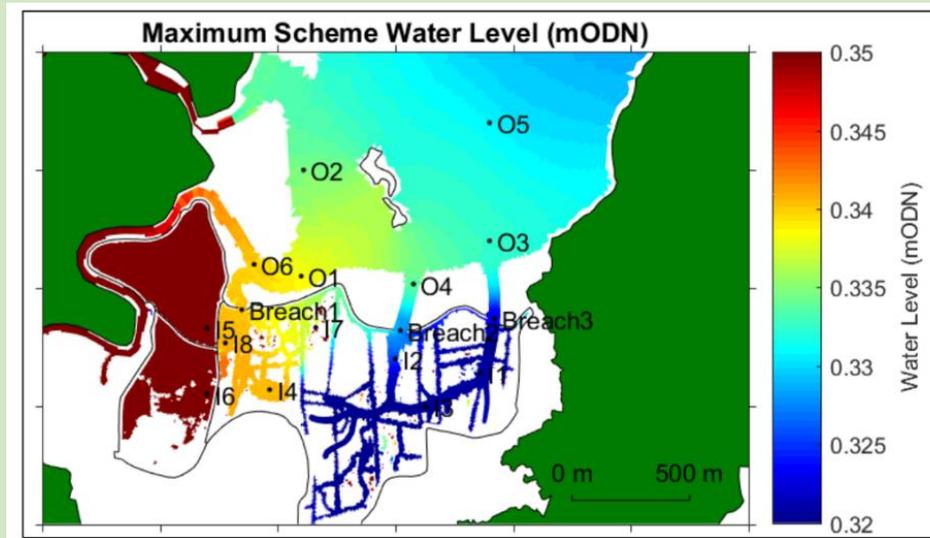
- Currently the Moors comprises coastal and floodplain grazing marsh (mostly freshwater)
- The Project will convert this existing habitat to intertidal mudflat/salt marsh, plus the two saline lagoons
- Some existing freshwater areas will be retained and enhanced
- The habitat change will also change and determine the mosquito species that can use it in the future

The Moors at Arne

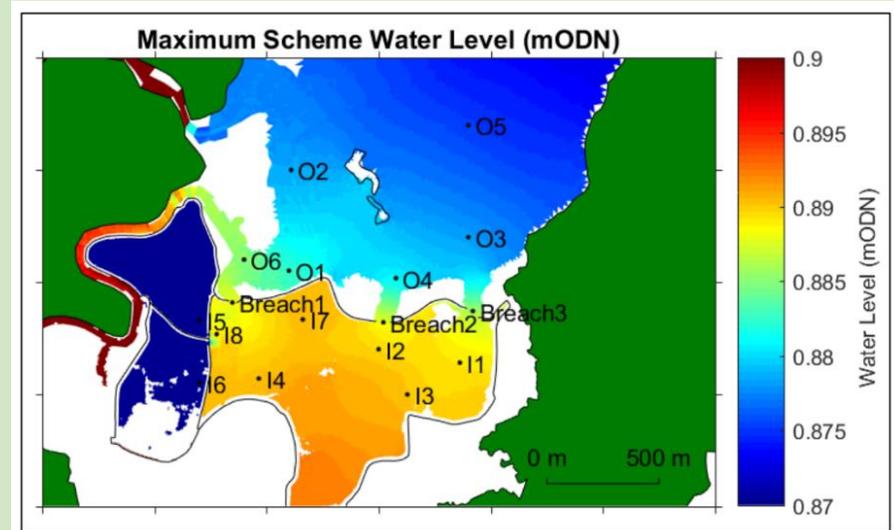




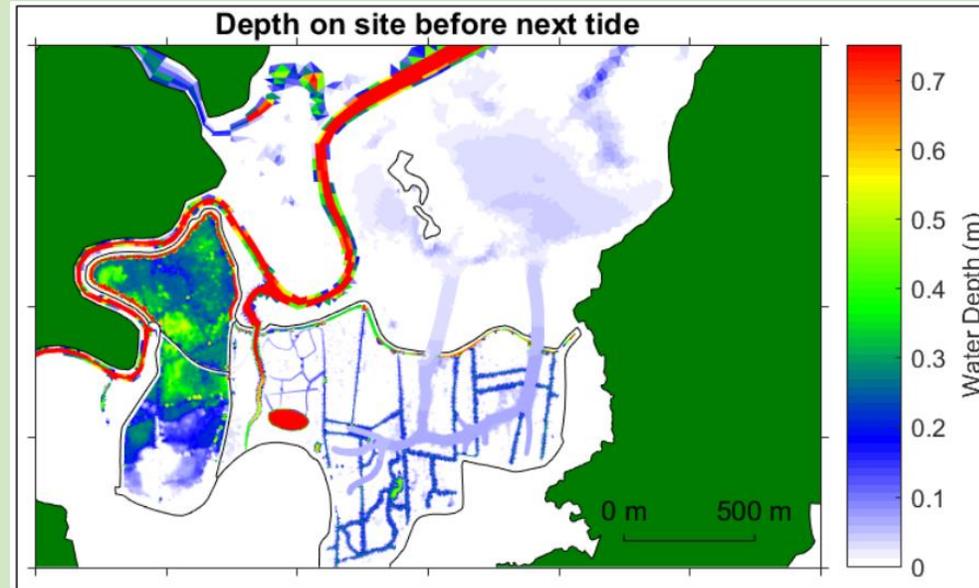
# Habitat function after the Project



*Maximum inundation: Mean High Neap Tide*



*Maximum inundation: Mean High Spring Tide*



# Project implications - mosquitoes

- Only 5 of the 34 species of UK mosquitoes can utilise brackish habitats
- No mosquito species can breed in a fully tidal environment
- Mosquitoes also cannot breed in large, open bodies of water
- It is therefore concluded that the new habitats created by the Project will be **unsuitable** for mosquitoes
- There is a **net reduction in potential habitat** for mosquitoes, but they will continue to be present in the surrounding wetland habitats (as they are currently, and can fly long distances to feed)

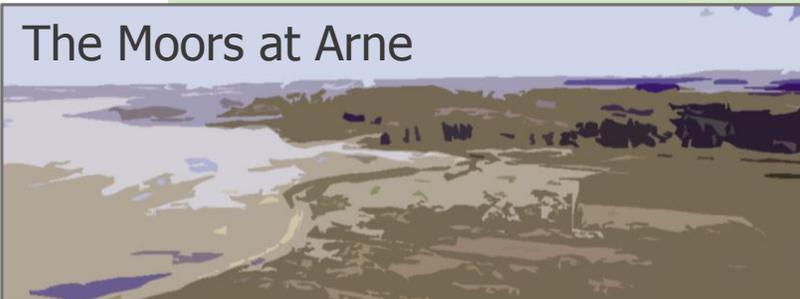


*Aedes detritus* – salt marsh mosquito  
©Anders Lindström



*Aedes caspius* – a coastal grassland mosquito  
©Anders Lindström

The Moors at Arne



# Project implications - Blandford fly

- A species of blackfly that does not transmit disease, but bites can cause a severe skin reaction
- Breeds in flowing rivers and streams with steep-sided banks
- These types of habitats are largely absent from the Moors, and the risk of this species being present is considered low
- Regardless, the creation of intertidal habitat at the Moors and truncation of the Furzebrook stream will result in a net reduction of stream habitat that could support this species
- There is therefore **no change** in health risk as a result of the Project

The Moors at Arne

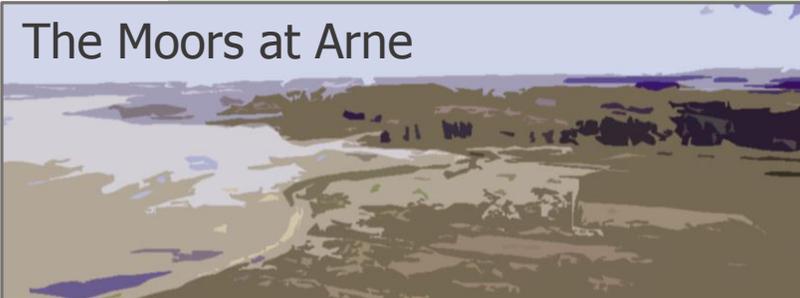


©Oxford Health NHS Foundation Trust

# Implications of climate change on disease vectors

- The mosquitoes that are known to transmit the Chikungya and dengue viruses are specialised to breed in 'container habitats' (e.g. tree holes)
- West Nile Virus is transmitted by a mosquito that has established on the coast in the east of England, but breeds specifically in brackish grazing marsh ditches
- These types of habitats are either absent from the Moors, or will be reduced in extent by conversion to intertidal habitat.
- There is therefore **no change** in the risk of emerging vector borne diseases as a result of the project.

The Moors at Arne



# The Moors at Arne

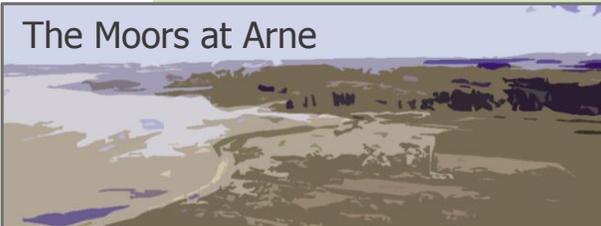


**Public Access Update**

# Arne Moors Proposed Public Access

Peter Robertson,  
RSPB Senior Sites Manager

The Moors at Arne





Existing Access Routes

Legend:

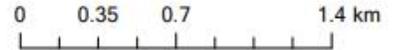
- NE Sunnyside Car Park
- RSPB Car Park
- NT Middlebere Car Park
- RSPB Access Routes
- NT Access Route
- Public Access routes

Acknowledgements & Notes:

Created by:  
 © Crown Copyright. All rights reserved. RSPB licence 100021767 © Crown Copyright, RSPB Permit Number: 60271.



Map scale = 1:22,437 Date printed 16/04/2021





# Arne Moors Proposed Access

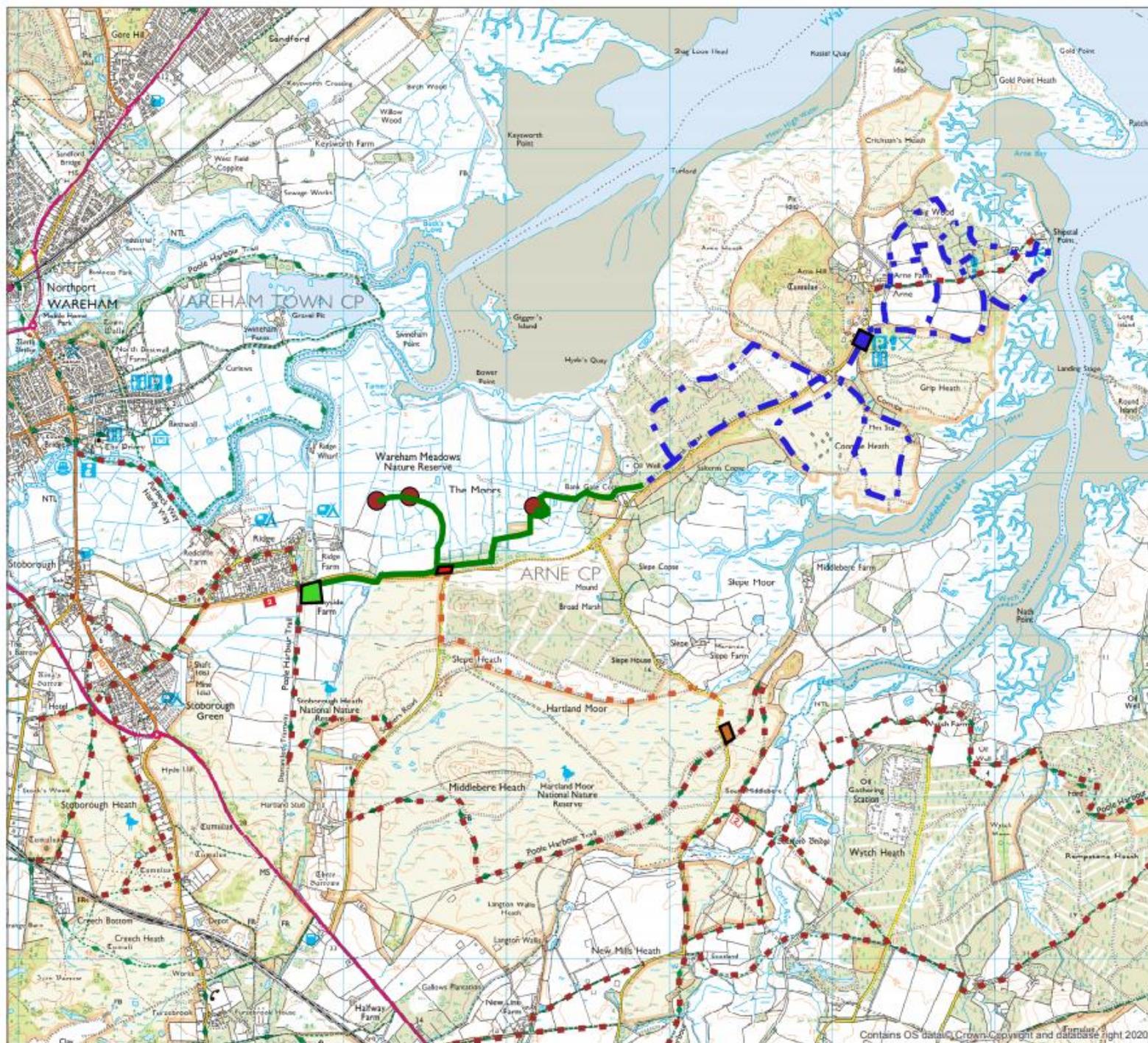
- Disabled access from disabled parking out to view points to east and west.
- No dogs to prevent disturbance to wildlife
- Access route behind the embankment to prevent disturbance to the intertidal area
- Two viewpoints with screens on the embankment and a third on higher ground behind the embankment
- Visual access from Hydes Heath on RSPB Arne
- Linking routes to NE Sunnyside car park and onto RSPB trails at Hydes Heath



Informational sign with a horse illustration and text.

Small informational sign on the wall.

Informational sign with a blue header.



**Access Routes Including Arne Moors  
Proposed Access**

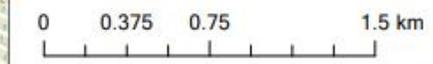
- Legend:**
- NE Sunnyside Car Park
  - RSPB Car Park
  - NT Middlebere Car Park
  - Disabled Parking
  - RSPB Access Routes
  - NT Access Routes
  - Public Access Routes
  - Arne Moors Access Routes
  - Viewpoint

**Acknowledgements & Notes:**

Created by:  
 © Crown Copyright. All rights reserved. RSPB licence 100021767 © Crown Copyright, RSPB Permit Number: 60271.



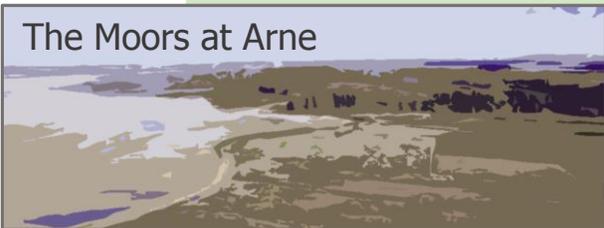
Map scale = 1:22,561      Date printed: 16/04/2021



# Parking at similar local wildlife sites

- RSPB Lytchett Fields – 6 parking spaces on the adjacent SANG
- National Trust Middlebere Hide – c.10 informal road side spaces
- Natural England Sunnyside – c. 16 spaces

The Moors at Arne



# NT Middlebere

Date	Middlebere Car Park	Hartland Road
28/10/19 (11.00)	2	2
29/10/19 (13.00)	1	2
30/10/19 (08.45)	2	2
31/10/19 (08.45)	2	5
01/11/19 (10.45)	1	4
02/11/19	No count	No count
03/11/19 (14.00)	11**	4



# Natural England Sunnyside Farm

Date	Time	
30/10	11.45	0
6/11	08.45	1
7/11	08.40 09.30 16.30	1 0 0
11/11	12.00	0
12/11	14.15	1
13/11	08.30 09.00	2 0
20/11	08.40	1
2/11	08.45	0
25/11	09.50	0 locked



# Access Options

## On foot

From Wareham

From Ridge

From Stoborough

## By car

From NE Sunnyside (0.5 km)

From RSPB Arne (2.0 km)

From NT Middlebere (2.5 km)

New Disabled Parking spaces (0 km)



# Next steps

**Next Meeting/ Future meetings:**

Pre Planning meeting

