Welcome to this exhibition about **The Moors at Arne Project**

**Purpose of this exhibition**

- Share our progress since the first exhibition in October last year
- Share our suggested layout for the project
- Ask for your views
- Outline the next steps of the project

**Background**

We are looking to adapt approximately 150 hectares of The Moors at Arne into a diverse wetland habitat. This will involve the construction of new tidal embankments further inland than the existing ones. Once in place, the land in front of the new embankments will be open to the action of the tides, which will create new intertidal habitats.

**Coastal Squeeze**

1. **Before Sea Level Rise**
   - HW
   - LW
   - Intertidal Habitat
   - Sea wall

2. **Sea Level Rise & No Sea Wall**
   - HW
   - LW
   - Intertidal Habitat
   - Land Lost, Not Habitat

3. **Sea Level Rise & Sea Wall**
   - HW
   - LW
   - Squeezed Intertidal Habitat
   - Sea wall
   - Habitat Lost, Not Land

**Why is the project needed?**

This project will compensate for intertidal habitats lost in Poole Harbour due to “coastal squeeze”. Intertidal habitat is saltmarsh and mudflat that exists between the high–water and low–water marks of the tides.

1. Around Poole Harbour and Poole Bay there are man–made coastal defences which have intertidal habitat on their seaward side. As sea levels rise, the high and low–water marks of the tides will also rise.
2. If there were no coastal defences, the intertidal habitat would naturally move inland with the high water and low–water marks.
3. Where there is a blocking coastal defence, the habitat becomes squeezed and some of it is lost.

**Why this location?**

In 2015 the Environment Agency assessed several sites in Poole Harbour that may be suitable for creating intertidal habitat. Three sites were shortlisted, but in 2016 two of these sites were deemed no longer feasible. This left The Moors at Arne as the only remaining feasible option.

The Moors at Arne is low-lying, low grade agricultural land, which would be naturally intertidal if it were not for the existing historic artificial embankments built along the shoreline.
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The partners for this project

Project progress over the past year

Assessing the options
At the previous exhibition in October 2017, we showed you some of the options we had short-listed for the project:

1a Lagoons in the West;  1b Lagoons in the East;  1c Eastern Breaches

Since then...
We have undertaken further data collection, modelling and analysis to determine the best approach to the project.

We have listened to you... taking on board your feedback and concerns after the last exhibition, to refine the suggested layout.

You... had concerns about surface water in Ridge.
We... carried out a drainage survey, desilting around Ridge and held a public meeting.

You... had concerns about groundwater.
We... added extra groundwater monitoring sites in specific areas of concern and held a public meeting.

You... had concerns about flooding from the Furzebrook stream.
We... have been collecting data to support more detailed flood modelling.

We are still investigating topics such as...

• Siltation in the River Frome
• Construction traffic
• Public access

For more details on these investigations, please speak to a member of the project team.
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The suggested layout

Our investigations, and our discussions with stakeholders and local experts so far, have led to a suggested layout for the site...

These shallow saline lagoons will provide feeding and high tide roost sites for important bird species.

When constructing these new embankments, we will be using as much soil dug from The Moors as possible, to minimise trucking of material along nearby minor roads.

A new outlet will maintain the existing drainage alignment.

This curve in the embankment:
- storage for the Furzebrook
- allows space to create new freshwater channels for species displaced from the intertidal area
- maximises use of high ground
- reduces the height and cost of the new embankments
- reduces the visual impact

Outlets in the new embankments will allow any excess freshwater to flow out into the intertidal area. The exact position of these outlets are yet to be confirmed.

This ‘dog–leg’ in the embankment creates opportunities for improving conditions for the important plant species located here.

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What about the existing wildlife?

The Moors at Arne is covered by several environmental designations. We have undertaken surveys to better understand the plants and animals that live there.

Our ecology surveys found evidence of...

- Water voles
- Small red damselfly
- Fen meadows

What will we do to reduce the project’s impact on these species?

Landward of the new banks at The Moors at Arne, we will enhance the freshwater habitat by creating new features that are designed especially to help these protected species, like the ditch below.

East Stoke

We are also planning to make enhancements to the existing freshwater habitats at East Stoke (upstream along the River Frome), to compensate for the project’s impact on the grassland on The Moors.

We are still in the early stages of developing our plans for East Stoke.

Your views

Do you live in or near East Stoke? Do you have any suggestions for the environment enhancements here?

Please complete a feedback form or speak to one of our staff.
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What next?

Finalise the layout
The project will continue to progress over the next year towards more detailed designs for the embankments and lagoons. Further investigations will be undertaken to better understand aspects like:

- Siltation in the River Frome
- Construction traffic
- Public access

Project timeline

<table>
<thead>
<tr>
<th>Long list options</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td>Short list options</td>
<td>2017–2018</td>
</tr>
<tr>
<td>Outline Design</td>
<td>2018–2019</td>
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<tr>
<td>Detailed Design</td>
<td>2019–2021</td>
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<tr>
<td>Planning Application Submission</td>
<td>2020/2021</td>
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<tr>
<td>Construction</td>
<td>2021–2023</td>
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</tbody>
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Your feedback
We would like your feedback on a wide variety of issues to help guide the project as it develops further. To comment on the information you’ve seen today:

- Speak to one of our team and complete a feedback form
- Complete a feedback form and hand it to the team
- Take away a feedback form
- email us at: TheMoorsAtArne@environment-agency.gov.uk

We will start to analyse the feedback in early January. Please aim to send us your forms by 11 January. However, we are always happy to receive feedback from you on our proposals at any time, via our email.

Continuing public involvement
We will continue to inform you of the project details as they progress. We will work with specific stakeholders on aspects like protected species, drainage, and the location of the new banks, including Stakeholder Liaison Group meetings.

Another public exhibition will be held when we have detailed designs to share (expected in 12-18 months time).

More information
If you would like more information on this scheme visit our website:
https://www.dorsetcoast.com/groups/the-moors-at-arde-coastal-change-project/