

Trafod opsiynnau ar gyfer Niwbwrch

Exploring options for Newborough



Managing Newborough's changing environment. What do you think?

This is the presentation given at our public drop-in session in PJ Institute on Tuesday 6th December 2016. We have followed the same format – where the information was displayed on panels with explanatory notes – the simplest solution was to present this as a powerpoint presentation with accompanying notes. We are now circulating as widely as possible among Newborough stakeholders.

The presentation considers the long-term issues that may impact on the site and suggests possible actions. This is a key step towards creating long-term objectives for managing the site for the benefit of the environment, people and the local economy.

Send us your thoughts on this stage of our process. You can either email Niwbwrch@cyfoethnaturiolcymru.gov.uk or print out this presentation and mark up your comments before posting it to Sandra Parry, Natural Resources Wales, Maes y Ffynnon, Penrhosgarnedd, Bangor LL57 2DW.

However you decide to respond, we look forward to hearing from you.

Introduction



Natural Resources Wales has started a new conversation with people in Newborough about our way forward for managing the site.

It's great to have a dialogue going and hearing your views.

We want to share with you how far we've got and give you an opportunity to discuss this and share your views.

We will explain the many different things we are taking into account as we develop objectives for the site. This includes what NRW needs to do to meet its legal duties and other responsibilities.

2

For a site like Newborough, setting objectives is challenging. We need to combine conservation/ forest management/ timber production/ access and recreation/ culture and heritage/local economy/ legislative drivers - all in an integrated way and translate this into specific action on ground. This means that it is sensible to consider possible options at the same time as objectives.

Site objectives for Newborough will be wide ranging ensuring the widest possible benefits. Some aspects of the site are managed on quite a short timescale (such as site interpretation) while other aspects (such as the forest management) need planning over a much longer timescale (50-100 years). All this will be considered and reflected in our objectives for the site.

Getting the right management options in place is a key building block for the site's long-term future.

Coming up are some computer generated images to explore options for the site's long-term management. They are ideas, and doing one doesn't mean that we can't do some others, or that there are other ideas we haven't considered.

They have been created by using satellite data and aerial photography to create accurate computer generated models of the site. They give a good, realistic representation of what we see in Newborough today. Then, they can be manipulated to consider future potential options at the site.

These are actions that we want to explore so that the site is managed to become more resilient to future changes, including climate change, whilst ensuring that local people and visitors continue to enjoy the site. It's a new approach, underpinned by new legislation in Wales - the [Environment Act](#) and the [Well-being of Future Generations Act](#).

Remember when you are looking at the images that nothing is decided yet and we stress that we are exploring long-term options. Your views will help us hone in on the preferred options that will pave the way for more specific plans for the site.

Introduction (contd)



We have examples of possible options to make aspects of the site healthier - more resilient. Each of these have associated benefits and risks.

We want to explore the best options managing the site into the future. We would like your views. This will help lead us to options for management that are good for wildlife and people and the economy.

Doing nothing is not an option, because change will happen anyway.

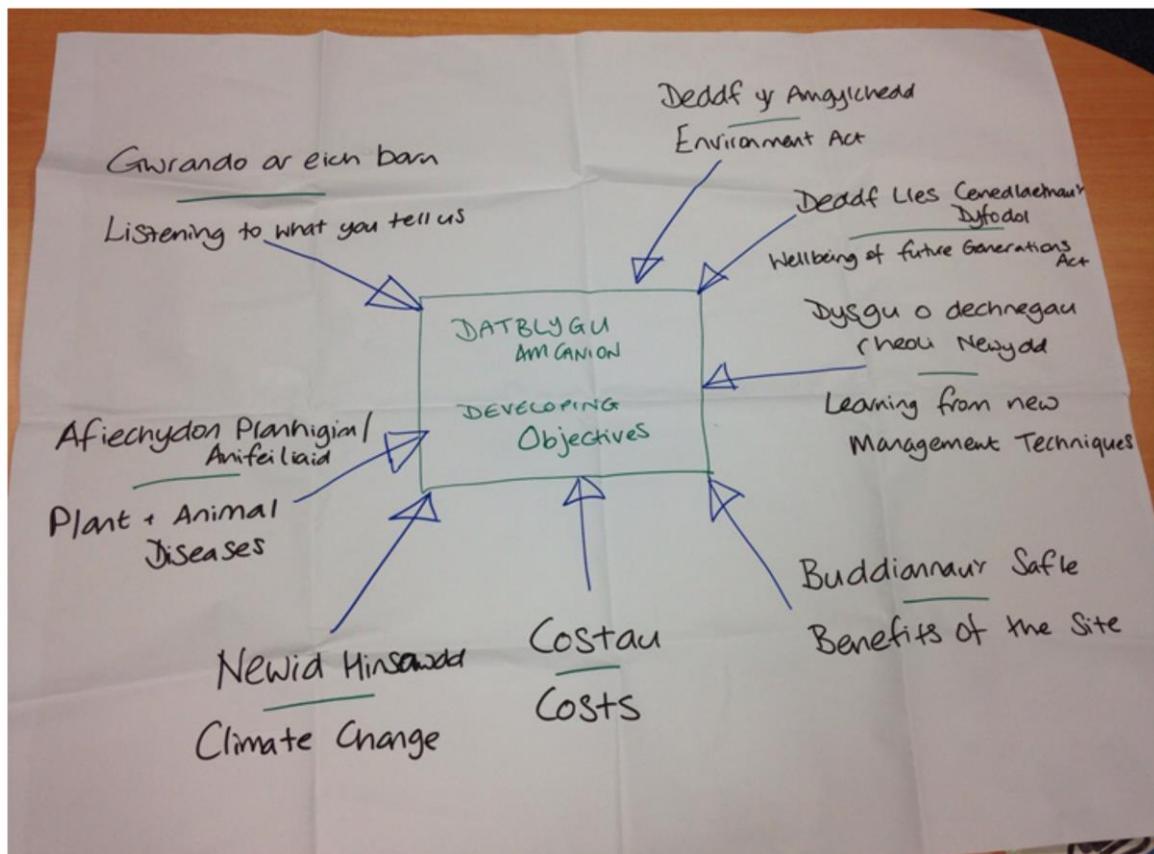
3

There is an exciting opportunity here, to work together to develop a natural resource plan for Newborough that reflects the social, economic, environmental and cultural aspects of the site and its surroundings.

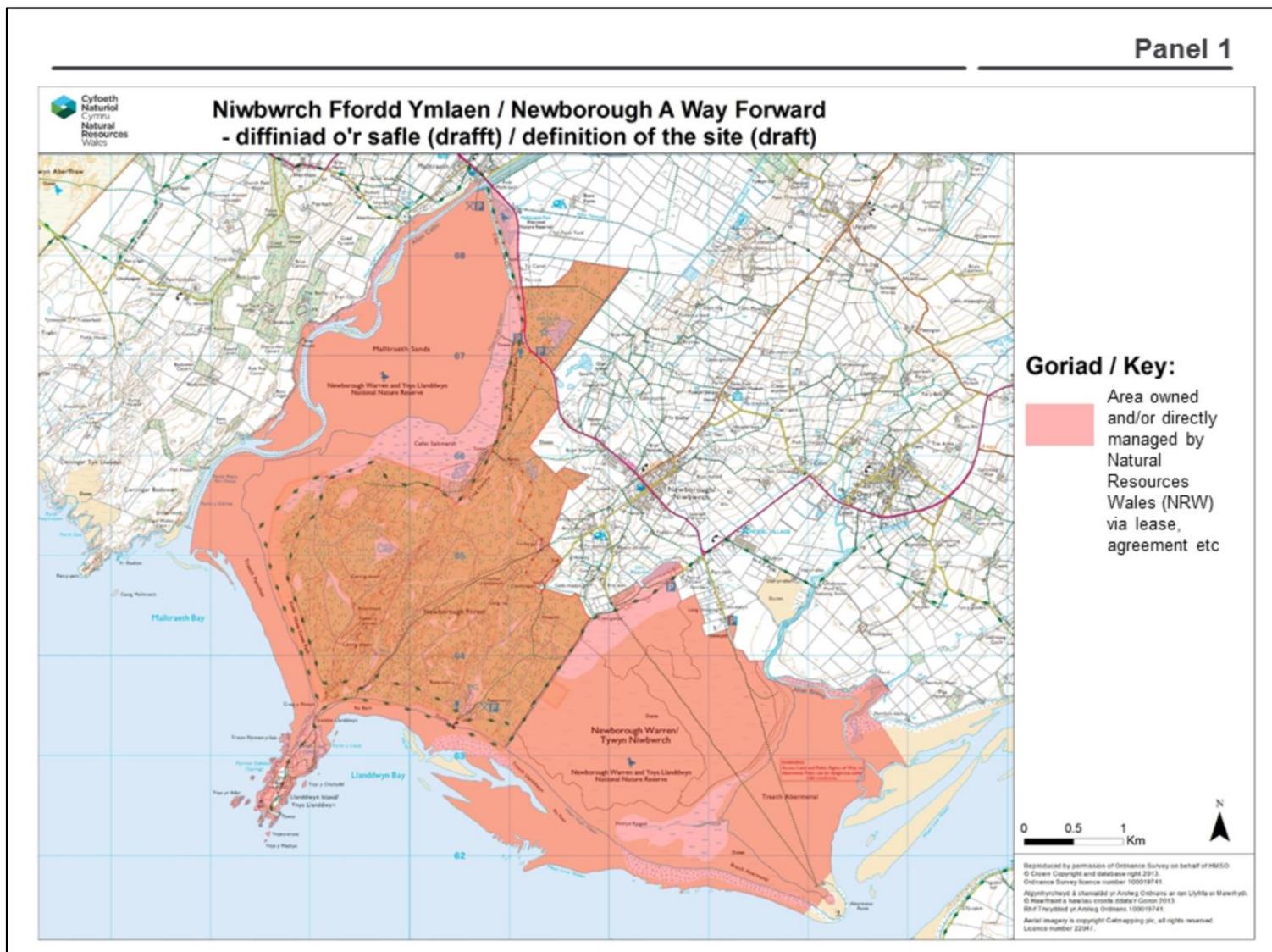
The most effective way to manage the changes coming is to work with them, and to manage them with our other requirements. It could be that the most resilient action for dunes or protecting Newborough from sea level rise would not suit access and recreation or timber management; or that the most resilient forest would not suit people or geomorphology – like everything in life competing demands need to compromise and its those compromises that will shape the future at this site.

Options presented here are ideas for discussion and to help us work together to get answers that make Newborough better for wildlife, people and the economy

Developing objectives..



This drawing highlights some of the important issues we must consider when creating site objectives for Newborough. The picture is not complete – there are other issues to be taken into account in the planning process - e.g. other legislation; some previous work done by partners, like Cynefin’s ecosystems mapping for this part of south-west Anglesey



This map defines the area directly owned and/or managed by NRW.

Newborough is a complicated site. It's hugely important for locals and visitors alike. It's one of the most important sand dune systems in Europe, and is an important productive timber resource.

People value Newborough for all sorts of reasons - it means different things to different people. A great place for a day out to enjoy the amazing wildlife and scenery with all the health and wellbeing benefits of spending time outdoors.

NRW manages Newborough as a whole site. We are responsible for Llanddwyn, the Cob, the forest, the warren, saltmarshes, sandflats and beaches - and the people and wildlife that use the different habitats.

The different areas and people that use them can't be managed in isolation - they rely on each other, and affect each other.

Although this area is our focus, it is part of a greater whole. We will ensure links and relationships with the wider areas and local communities. It's not about managing Newborough in isolation – interactions with the wider landscape is vital..

Our aim is to balance people's views and aspirations, taking in the site's many interests and features in an ever changing environment for everyone's benefit.



The viewing platform, after winter storms – shows how much sand can move and how much the site is constantly changing.



This computer generated image shows potential erosion - 70metres landwards by 2100.

As part of managing Newborough we need to make some changes. We want your thoughts about some of the ideas that are possible.

It's important to remember that if we don't make some changes then nature, the weather and climate change will make changes anyway.

Sea level rise is predicted to push the dunes and forest back. Sea level rise and associated storms are likely to change the front of the warren and forest by about 70 metres landwards by 2100. We've seen evidence of this in the last few years. The residents' car park is now literally on the beach and the viewing platform is constantly under sand.



Example of current windblow in forest

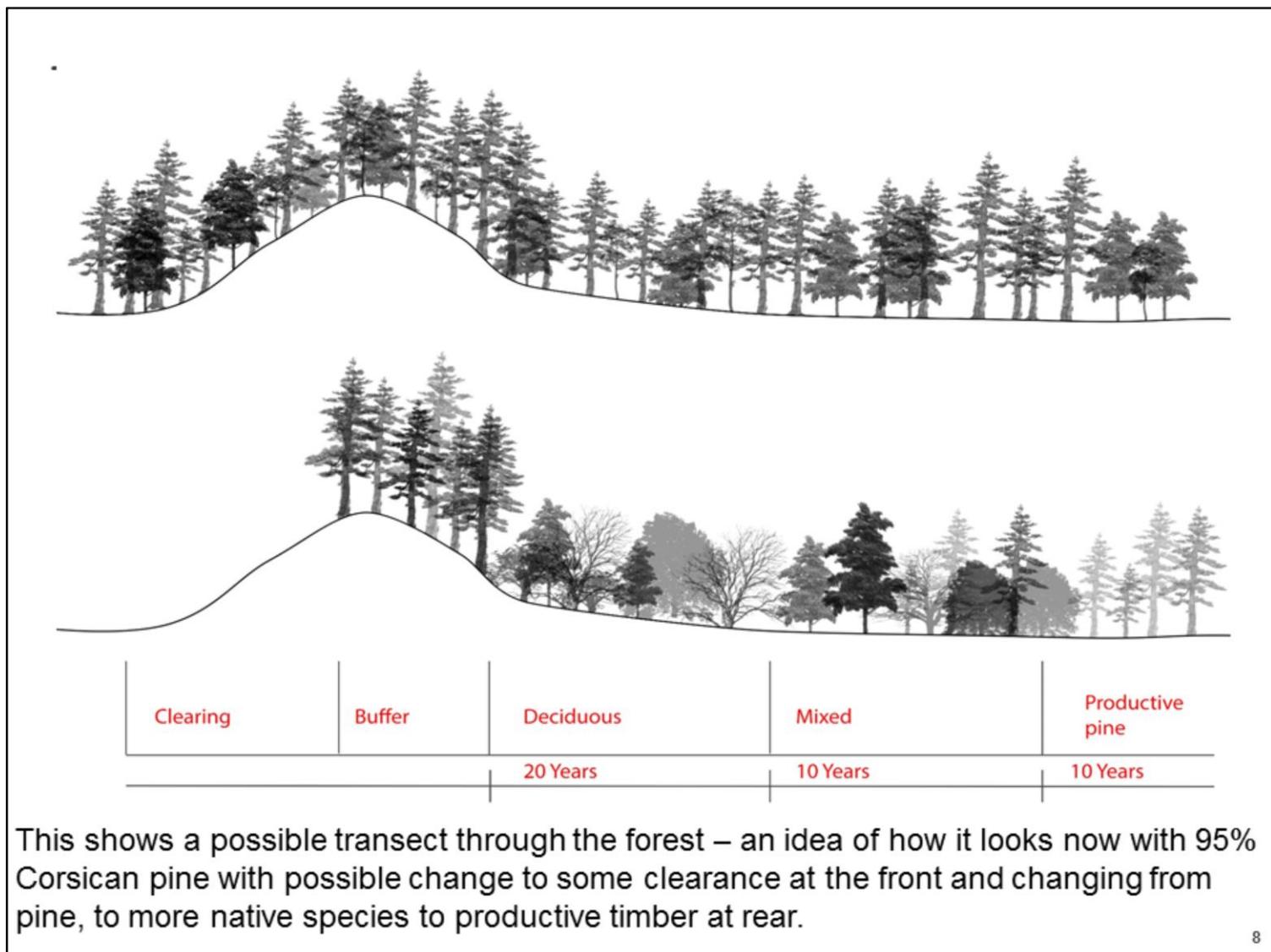
Computer generated images below show sea level rise and potential storm damage



before

after

The forest as it is, is about 95 percent one species, Corsican Pine. And it's all quite even aged, this means there is a big risk that a really big storm could have a huge impact by blowing lots of trees the same age down at the same time. A few years of storms could transform the landscape.

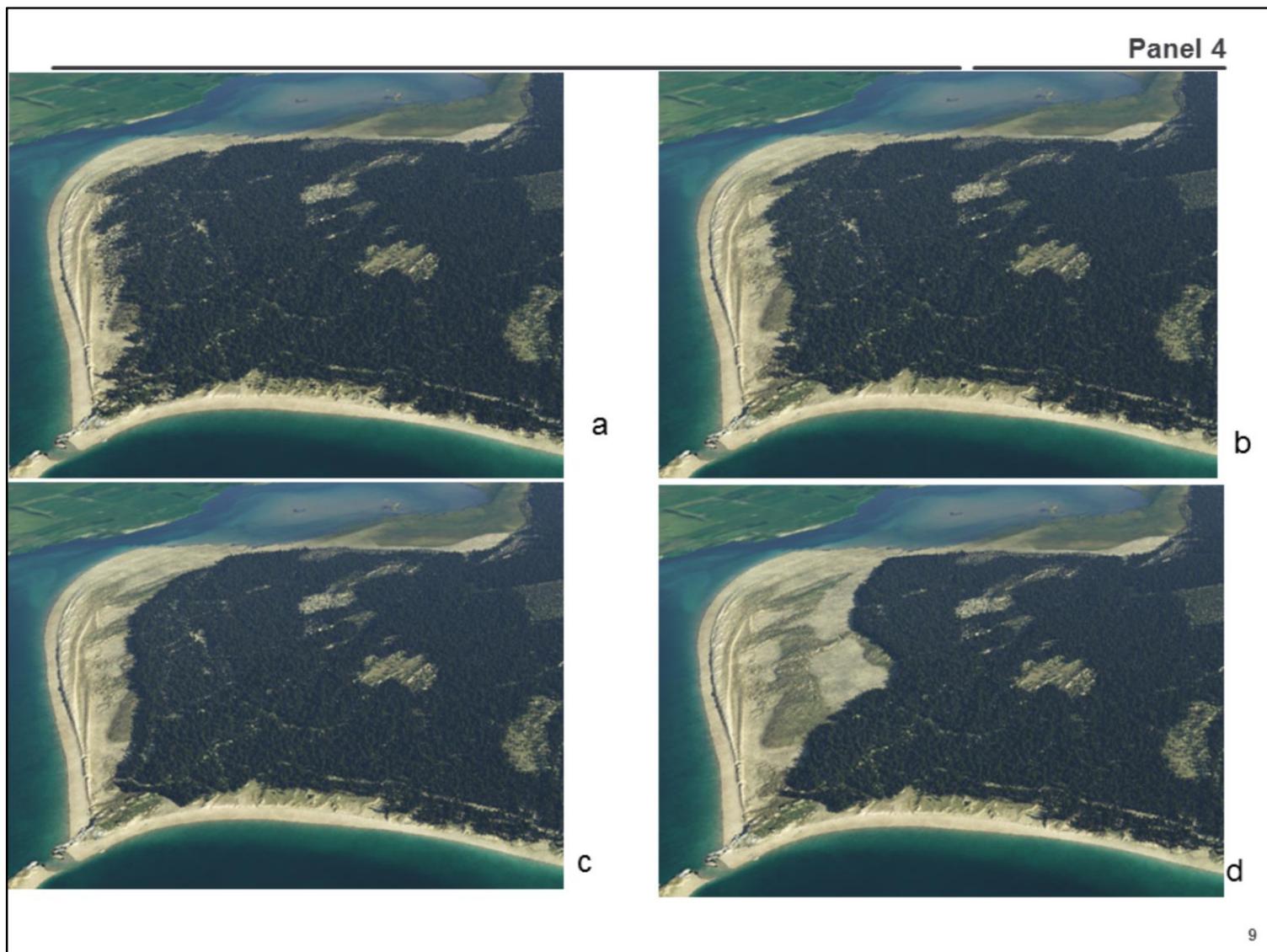


To cope with these pressures we need to make the forest and dunes more resilient. That means making them healthier. The forest needs to be more mixed in age and more mixed in species. The dunes need to be better connected and able to move back and forth in response to the weather.

All this needs to be planned so that it has minimal impact on how people use and enjoy the site.

Planning for, and then making changes to the forest and dunes, takes a long time. If we wanted to cut an area down we would need to make the area behind it able to cope with the new conditions – for example, the wind and salt. That could mean under-planting with suitable species. Planting trees and waiting for them to grow takes time. **Our long-term way forward for Newborough needs to be planned over decades, even 50 to 100 years.**

The picture has years on it, this is just to give an idea of how long things could take relative to each other – in this scenario it could take 20 years for deciduous tree cover to be planted (obviously growing to maturity would take much longer), and then a further 10 years for mixed woodland further back and 10 more years for planting up productive pine at the rear



These four computer generated images show

- a – Newborough forest as it is now
- b – How the forest would look after pushing the front back to the agreed line within the current forest design plan (zone 1 within the current Forest Plan)
- c – A Longer-term option of pushing forest back following topography ie as far as the first dune ridge underneath the forest
- d – Another long term option of pushing the forest further back to another dune ridge underneath the forest

But simply felling parts of the forest would mean the trees directly behind would be impacted, which could have knock on effects deeper into the saleable timber. This could mean making the woodland behind more resilient. It could mean working with the natural shape of the land to make other changes. We need everyone’s input to make sure we make the most of the opportunities here.

The forest in this area sits on the youngest part of the dune system, an area that has been designated a nationally important geological feature. NRW has to weigh up all the values in this patch.

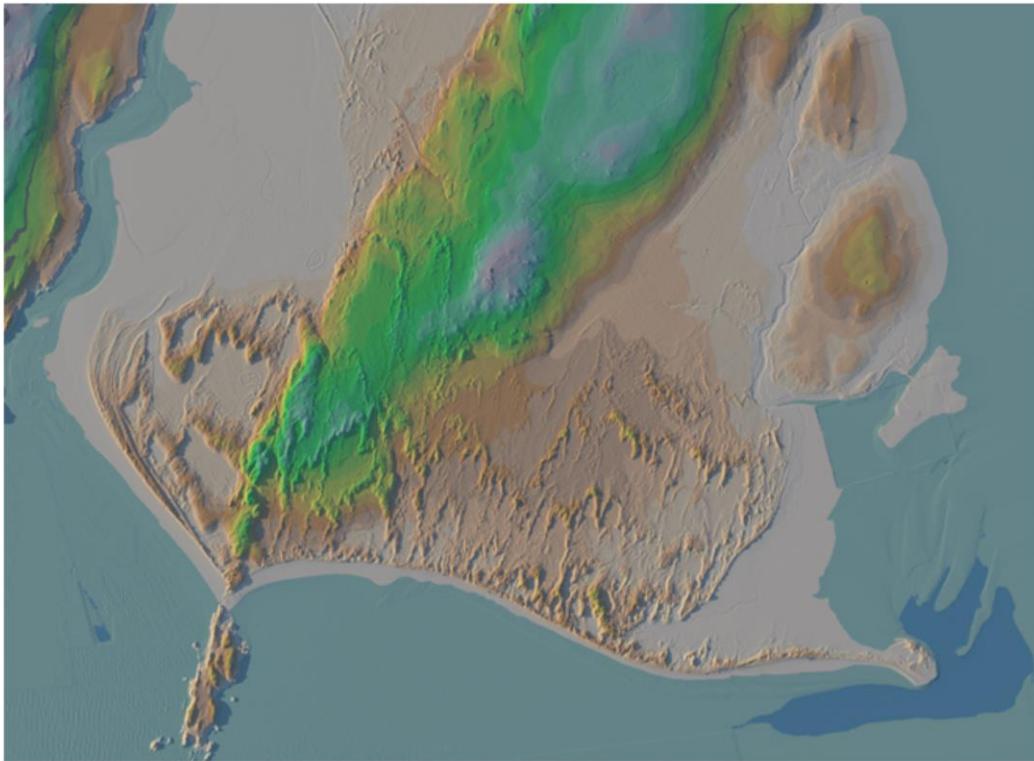


Image shows the shape of the land and dunes at Newborough (both warren and underneath the forest). Coloured areas show higher land for example the ridge of rock running through the forest and out into the sea forming Llanddwyn Island.

10

We could change the shape of the area to be felled using the natural shape of the dune ridges that are under the forest.

That could mean redrawing the edge of the area (zone 1) along the first dune ridge or drawing new lines somewhere further back. Whatever happens, it will mean making everything more resilient, with a more natural transition from the beach to open habitats, native trees, scrub and woodland, with good quality saleable pines further back.

Planning and doing something like this takes decades and decades.

Computer generated images that show possible changes from pine forest through to native deciduous species



These computer generated images show a potential walkthrough the forest demonstrating :

Top right hand side image – a very high % of single species, even aged Corsican pine

Middle left image - moving into a mixed area of pine and more native 'dune' woodland

Bottom right image – further into the forest an area with a very high % mixed species native woodland suitable for the dunes and wildlife. This would be before moving into an area of productive timber.

Computer generated image showing some options for south east corner of the forest



12

Keeping the dunes active might mean cutting the corner off the forest near the main car park – part of which has already been done.

This would allow more sand movement onto the warren and help enhance the recent notching work done on the dunes in front of the warren. This would mean discussion and careful evaluation of potential impacts on the forest behind and, if agreed, it would mean planning for more resilience behind any cut areas to avoid windblow.

A study is underway to help understand how climate change, water and vegetation management could affect the forest and the warren.

As part of this, we are planning to fell a small four hectare block alongside the warren.

This is in the current forest management plan.

Computer generated image giving an impression of recent work to create notches in frontal dunes, allow more wind movement and trial tree clearance in south east of site



13

Monitoring the dune conservation work is showing positive results in terms of recovering species and movement of sand.

For example, a number of rare invertebrate species have been discovered in the worked areas and 19 hectares of valuable bare shifting sand habitat has been created.

There is a bid for European funding for sand dune conservation work across Wales. It includes conservation management and signage works but does not include any tree felling at Newborough.



Computer generated image

Changing the shape of the forest could mean allowing woodland to develop at the rear of the warren.

That could mean looking for opportunities to work with neighbours and allowing some woodland to develop at the rear of the warren. This would involve a lot of discussion, agreement and legal issues.



Computer generated image – aerial view of Newborough with possible options mentioned in previous panels

15

Computer generated image with all options mentioned previously outlined as follows:

- Red dotted line shows – current zone 1 within agreed Forest Design plan for felling trees at the front
- Orange dotted line – possible extension to current zone 1 to push trees back to first dune ridge
- Yellow dotted line – possible extension to current zone 1 pushing trees back to second dune ridge within the forest
- Blue line – possible options in south east corner
- Green line – possible woodland development
- White dotted line – wales coastal path
- White line – forest road

Remember these are options, and nothing is decided, and options are not mutually exclusive.

Whatever we decide to do, we will continue to manage the site for people and wildlife.

We will continue to manage for timber and we will continue to manage the warren.

In terms of the forest we will plan for a change in species and age range that suits any long term change in climate.

In terms of the dunes we will continue to concentrate on making the warren more resilient.

And we will continue to engage with everyone involved with and interested in this special place.

How to comment



Send us your views – you could

Email: Newborough@cyfoethnaturiolcymru.gov.uk

Print this presentation, write on it and post it to:

Sandra Parry

NRW

Maes y Ffynnon

Penrhosgarnedd

Bangor.