

Catch My Drift: East Chevington

Public Consultation: Infrastructure Improvements



Northumberland
Wildlife Trust

biotope
UK

Contents

01. Project Brief Summary
02. Site Analysis
03. SWOT Analysis
04. Materials
05. Concepts
06. Designs

1.0 Project Brief Summary

East Chevington Nature Reserve is managed by the **Northumberland Wildlife Trust**.

The **Northumberland Wildlife Trust** have secured funding to deliver biodiversity & infrastructure improvements to the reserve, for the benefit of both wildlife & people.

This is the **Catch My Drift Project**; the 1st phase of this project is to prepare the necessary surveys, studies, concepts & consultations.

Biotope UK are delighted to be able to work with the **Northumberland Wildlife Trust** plus other stakeholders in the East Chevington Reserve in preparing initial design concepts for consideration with specific regard to the built infrastructure on site.

The reserve currently has existing wildlife/bird watching structures that are robust & vandal proof, but that also are unfriendly, inhospitable & intimidating; thereby not providing a visitor experience of sufficient quality to inspire people to engage with nature.

Biotope UK are to look at the existing infrastructure with a view to making changes, whilst also potentially adding new structures to the site, all of which will inspire, increase dwell time within nature, provide shelter & remain robust & durable.



1.0 Project Brief Summary

With specific reference to any proposed alterations or renovations to existing hides, or the provision of new visitor infrastructure, it is important that Biotope UK attempt to address the following aims;

- **Increase visitor numbers**
- **Provide excellent locations for viewing wildlife whilst minimising disturbance**
- **Be accessible for all**
- **Withstand major acts of vandalism**
- **Demonstrate best practice in eco-build principles**

Further to this Biotope UK will attempt to establish a distinctive design aesthetic that will establish a clear 'destination' for the reserve, supporting the Northumberland Wildlife Trust brand & identity.

Biotope UK will also look to use their own experience as birders, wildlife watchers & outdoor enthusiasts to inform the proposed designs, ensuring small but key details enhance the experience of the users.



2.0 Site Analysis

East Chevington Nature Reserve is located on the Northumberland Coast, directly south from Druridge Bay Country Park & a short distance south of the small fishing town of Amble. The **Northumberland Wildlife Trust** Hauxley Visitor Centre is only a short distance north & is of innovative design.

The site is a former industrial site, operating as an open-cast drift mine from 1882 until 1962 as well as then an open cast coal site from 1982 until 1994. There remains a strong social connection to the site & its industrial past with a memorial stone a key part of the reserve.

The land was transformed into a nature reserve as part of the restoration works before being passed to the **Northumberland Wildlife Trust** in 2003.

East Chevington Nature Reserve is 185 hectares in size, consisting of two pools; North (larger) and South (smaller). The reserve has significant varied habitat included fringe reedbed, grassland & meadows plus planted woodland.

As a result there are many bird species on site using the pool edges & islands as well as reedbeds including Marsh Harriers, Bearded Tits, Stone Chats, Skylarks, Pink Footed Geese, Reed Warblers, Greylag & Short Eared Owls.





carlisle

newcastle upon tyne

amble

east chevington
nature reserve

north sea



druridge bay country park

east chevington
nature reserve

coastal route; alnwick north,
newcastle south

north sea







2.0 Site Analysis

As is typical of this coastline the topography is mostly flat with only slight variations in height across the site. As a result any height that is achieved is rewarded with extensive landscape views towards the horizon.

The reserve is open access with only minimal interpretation at present & no 'gateway' statements or structures of any note.

Highways & pathways surround & cross the reserve, often as a legacy from the industrial past, with the highway to the western edge of the North Pool still able to be accessed by vehicle. The route running parallel to the coast on the eastern edge of the North Pool is a part of a wider cycle route & used extensively by walkers & cyclists.

The only facilities on site are 4 wildlife/bird watching hides all open to the public at all times, plus 1 'outdoor' classroom (locked). These hides are heavy duty steel container conversions & whilst they suffer occasional minor vandalism they are able to withstand major acts of destruction - a necessity after the original timber hides were burnt down.

The hides are uncomfortable, noisy, intimidating & lack any aesthetic quality. They only offer limited slot views but are positioned well around the North Pool & thereby have potential.

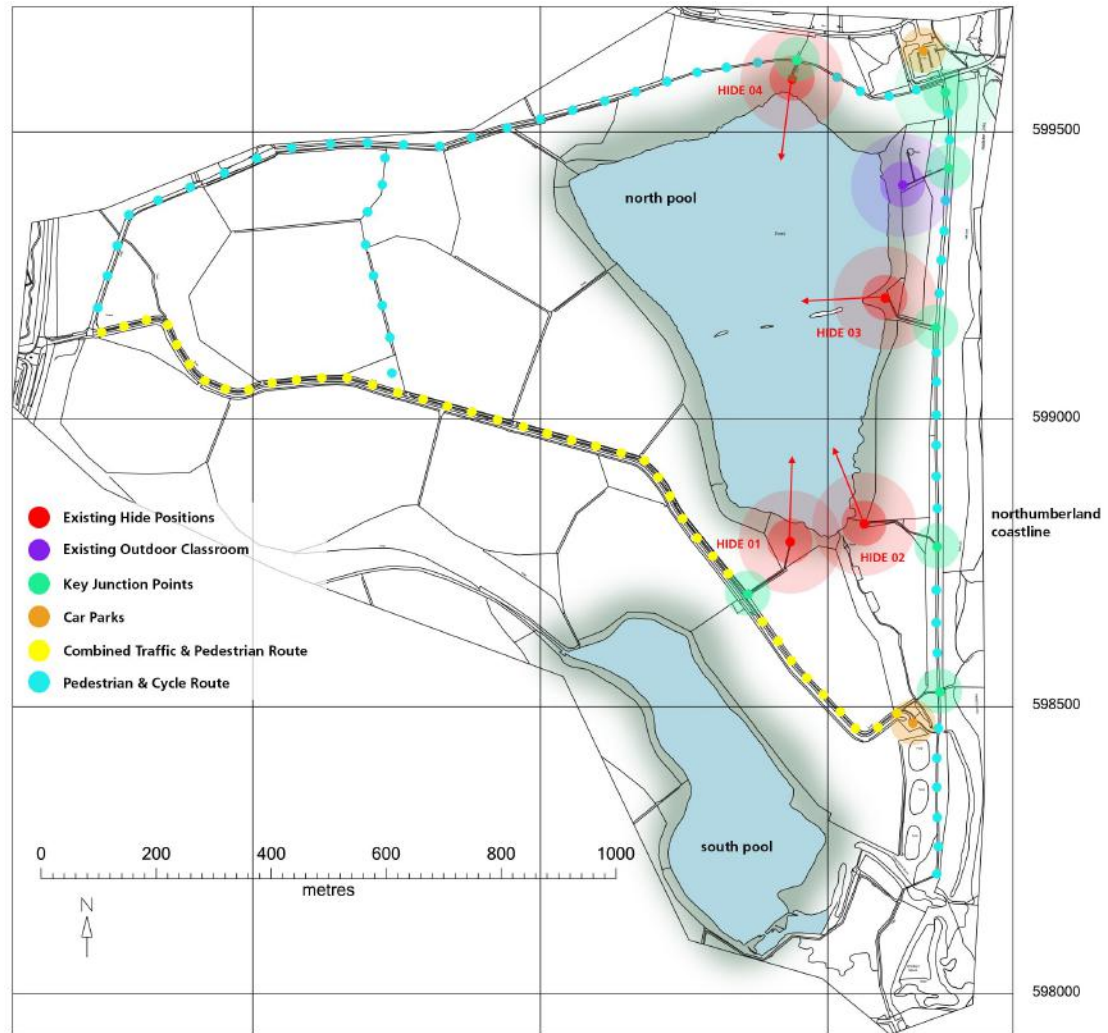


Current Site Plan

north pool (from south looking north)



south pool (from east looking west)



Hide Analysis: 01 South Hide

Approach view



Front view



Side elevation; illustrating reed bed edge



HIDE ANALYSIS:

- No signage, branding or interpretation
- Lack of ownership
- Lack of welcome
- Uninspiring
- Birders often stand in front - use as screen
- Too hot in summer, too cold in winter
- Unvaried viewing experience
- Narrow slots prohibit panoramic views
- Extremely durable - steel container
- Ideally positioned facing north

Hide Analysis: 02 South-East Hide

Approach view



Entrance with screens



Interior view

HIDE ANALYSIS:

- No signage, branding or interpretation
- Lack of ownership
- Signs of weathering
- Intimidating
- Long distance from main routes through site
- Too hot in summer, too cold in winter
- Unvaried viewing experience
- Heavy steel window flaps - noisy
- Single fixed seating option
- Poor acoustics
- Low public profile & usage

Hide Analysis: 03 L-Shape Hide



Approach from main east route



Front entrance view



Interior view

HIDE ANALYSIS:

Hidden from main route

No signage/information

Non varied seating or viewing

Minor graffiti vandalism

Uncomfortable & noisy

Interesting L shape form

Larger hide can hold groups

Excellent views west for morning views

Close to islands

Significant potential to become key asset

Hide Analysis: 04 North Hide



HIDE ANALYSIS:

- Another of the same hide type
- Same seating & viewing options
- Poorly oriented facing south into sun
- Suffers majority of anti-social behaviour
- Closest hide to Druridge Bay Country Park & associated car parks
- Longer distance from spectacle
- Extremely robust
- Site better suited for outdoor resting & viewing
- Garden bird feeding stations well stocked

Hide Analysis: 05 Outdoor Classroom

Approach view



Front view



HIDE ANALYSIS:

Most visible structure on reserve

Located close to busiest junction point

Locked at all times & unused

No signage or interpretation

Excellent views across North Pool & horizon

Military aesthetic

Indestructible

Additional space available in immediate context

Good condition internally

3.0 SWOT Analysis

STRENGTHS:

Established Nature Reserve

Committed Stewardship

Varied Habitat & Wildlife Species

Active Nature Community

Active Outdoor Community

Existing Infrastructure in Place

Innovative Visitor Centre Close By



3.0 SWOT Analysis

WEAKNESSES:

Anti-Social Behaviour & Vandalism

Inhospitable hides

Lack of experience variety; all the same hide typology

Limited budget (selective renovation)

Current lack of identity/ownership/interpretation

Remote location; complex build, difficult maintenance

Lack of comfort infrastructure; no WCs or refreshments



3.0 SWOT Analysis

OPPORTUNITIES:

NWT Stewardship - Catch My Drift Project, management, volunteers, tourism

Existing infrastructure allows accessibility for all

Existing hides offer opportunity for renovation in great locations

South Pool has no current viewing infrastructure; BUT has Marsh Harriers

Potential for varied viewing experiences; horizon & landscape, middle distance, close & low

All combine to offer potential to create an excellent destination



3.0 SWOT Analysis

THREATS:

Disconnected communities lack buy-in

Anti-social behaviour & vandalism

Statutory regulations

Budgets & tenders

Design lacks required impact

Lack of stakeholder buy-in; NWT, birding clubs, local communities, public



4.0 Materials

CONSIDERATIONS:

Environmental sustainability; embodied energy, carbon footprint, recyclable

Vandalism; tough, durable, robust, hard to break, hard to burn

Natural; connect with nature, minimally processed

Aesthetic; warm, textures, human scale

Budget; initial costs, maintenance costs

Colours; strong palette of consistent colours



Treated timbers:

- Human Scale
- Natural Material
- Textured
- Sustainable
- Improved aesthetics
- Improved acoustics
- Improved comfort

Masonry & Metal:

- Heavy duty
- Links to nearby visitor centre
- Gabions use local materials
- Durable & robust
- Improve thermal performance
- Adds 'weight'





Contemporary Style:

- Strong lines
- Include graphics
- Create 'micro-destinations' within the wider reserve
- Establish clear identity
- Connect with new audience
- Continue NWT brand
- Create strong sense of ownership



5.0 Concepts

RENOVATIONS:

After considering the brief & analysing the existing hides, it is clear the following issues require to be address in any renovation;

Improve interpretation & signage - increase awareness & understanding among new audience

Improve exterior aesthetic - create a high quality entrance to illustrate value & create a better & more open welcome

Improve comfort - increase thermal mass to even out temperature peaks in winter & summer, use softer internal materials to reduce reverberation

Improve user experience - vary viewing opportunities (panoramic options), vary seating offer

Limit vandalism - no large plain surfaces for graffiti, durable materials to prevent impact damage, fire proofing, establish ownership over structures to give value

Birding - understand wildlife watching & include key details to assist & limit disturbance

Varied Layers of Penetration

Aim to connect more people with nature - give enjoyable & longer lasting experiences outdoors

Major; new high profile hide

Mid; renovated pieces

Minor; niche structure

Micro; site wide identity

Different users require different physical infrastructure;

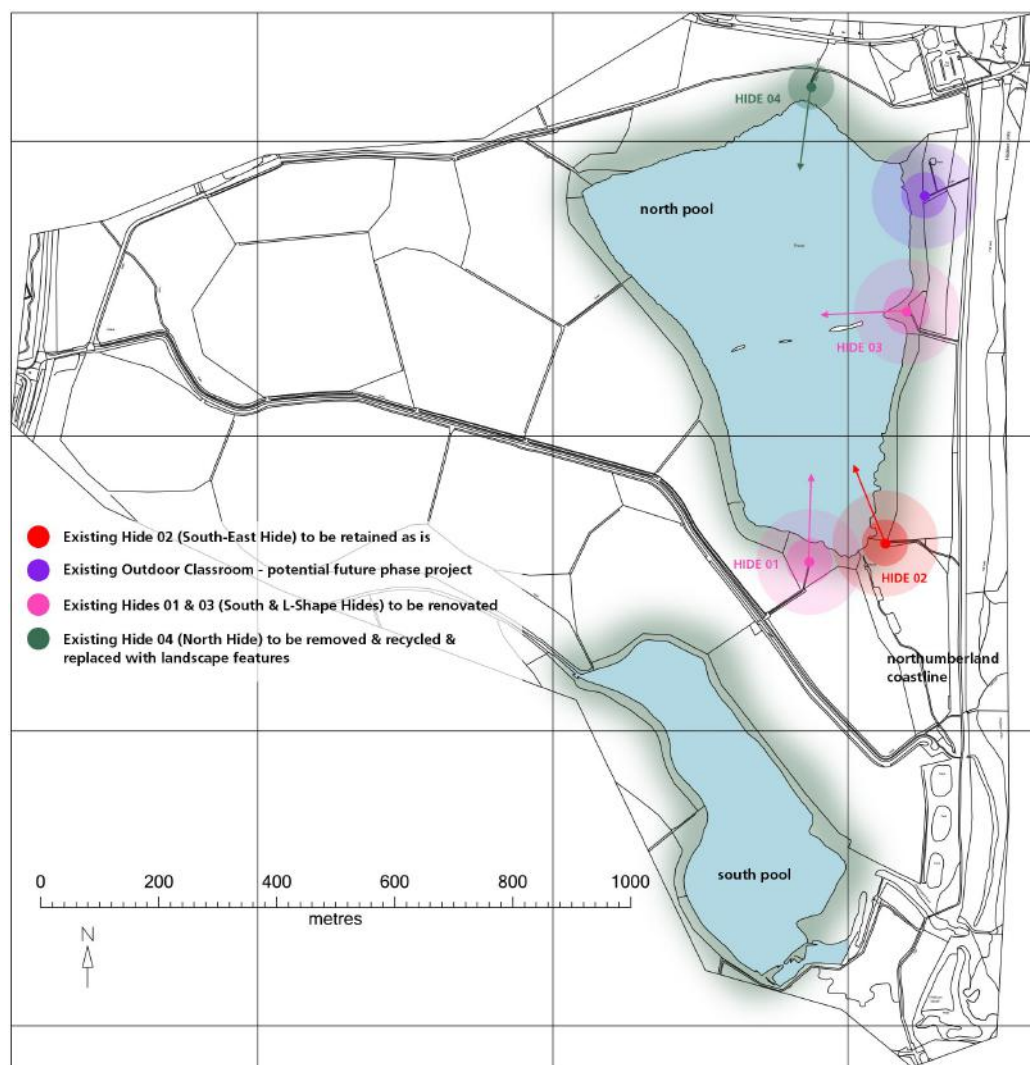
Passing public

Families

Wildlife Enthusiasts

Birders

5.0 Renovations Map



5.0 Concepts

ADDITIONS:

There is the potential to offer a more varied user experience across the site. This would enhance the user experience by creating different opportunities for nature interaction, increase dwell time within nature, & appeal to more varied audiences.

South Pool - currently very limited viewing opportunities of the South Pool & reed bed, even though contains ideal Marsh Harrier habitat

Views East - currently no visitor infrastructure to view the North Pool with the afternoon sun behind the hide

Alternative view types - renovated hides can vary the viewing experience, but so can new infrastructure, including low level close up views ideal for photographers, as well as open air landscape views for general outdoor enthusiasts & even possible stargazers

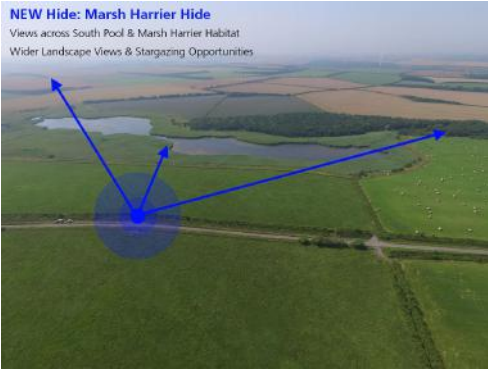
Reserve as Destination - micro installations & structures strategically positioned across the reserve can further support the sense of identity & create a sense of destination for the wider reserve, especially at key junction points

Outdoor Classroom - currently underused asset that could become a key mini-hub with vast benefits

5.0 Additions Map

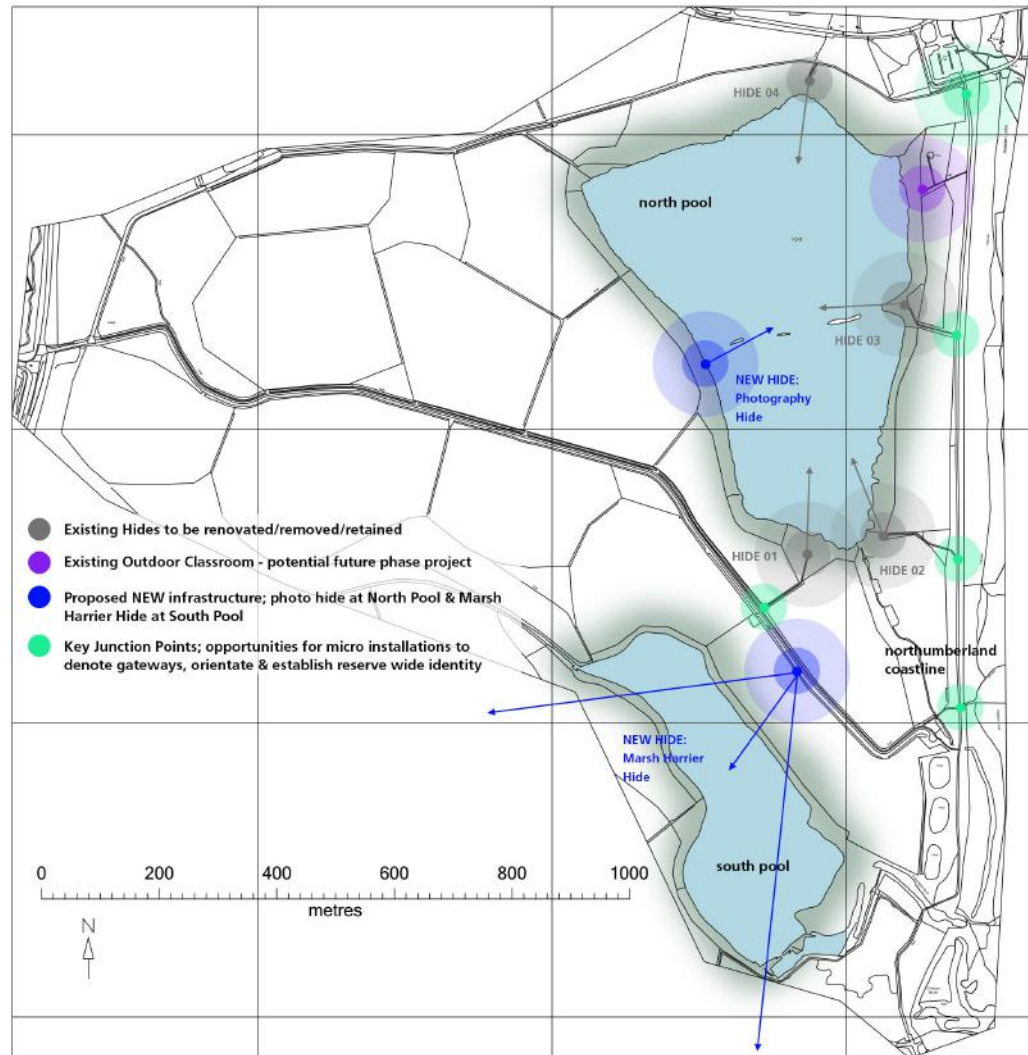
NEW Hide: Marsh Harrier Hide

Views across South Pool & Marsh Harrier Habitat
Wider Landscape Views & Stargazing Opportunities



NEW Hide: Photography Hide

West side of North Pool looking east - ideal for afternoon photography
Close range to island habitat



6.0 Designs

01 South Hide Renovation:

An intimidating enclosed metal box, too hot in summer & too cold in winter that birdwatchers avoid sitting in & instead stand in front.

Therefore, simply 'explode' the box to turn it into a sheltered screen to allow birdwatchers a better experience. The open nature helps even out the temperature whilst also giving a more welcome feel to all users.



The approach elevation is currently blank. Proposal is to use gabions & sedum roof to increase thermal mass & 'hit & miss' timber battens to soften the harsh metal.

Branding & interpretation give users explanation & encourage interaction.



The section shows how the canopy will shelter users from rain & sun & wind, whilst the low front wall also offers wind shelter but also concealment from wildlife. Deep shelves allow scope grips, whilst tiered seating allows for elevated views, whilst box seating gives people the chance to sit lower.

6.0 Designs

01 South Hide Renovation:



The steel box is cut apart & fully painted in dark grey. This then works as a background for fire treated pale timber battens in a 'hit & miss' arrangement.

This technique not only softens the harsh steel container, improves acoustics & adds to the thermal mass, but crucially acts to diffuse the human silhouette & create background 'noise' to prevent bird disturbance.

The remaining structure effectively becomes a canopy, with the cut away steel used to provide additional structural stability & also form wind shelter alcoves in which tiered seating can be placed to give longer views from elevation.

6.0 Designs

03 L-Shape Hide Renovation:

The largest hide on reserve, essentially 2 containers formed together in an L shape. This creates a semi-sheltered outdoor space - ideal for interpretation & increasing dwell time.

Gabions & sedum roof used to increase thermal mass, timber battens to soften the harsh metal inside & out, rubber matt floor to improve acoustics & larger openings cut out.



6.0 Designs

03 L-Shape Hide Renovation:

The L-Shape is to be retained as a 'traditional' bird hide; keeping the large enclosed spaces. However, it will be modernised, updated & improved in terms of comfort & experience.

As well as improving the entrance area as per previous slide, the interior will be fully renovated. The rear walls painted dark grey then clad with 'hit & miss' timber battens stained dark grey to reduce silhouettes through apertures as well as break up the form. The timber battens will soften the interior, improve the acoustics & also the thermal mass. Front walls be painted light grey to reduce contrast between walls & openings. A rubber matt will be fitted to the floor to once again improve reverberations.

Slot windows will be increased in size with the potential for combining several slots to create a panoramic views. The new openings will have extra deep window surrounds to limit rain ingress & also allow for scope clamps. The openings could have windows fitted or be left open.



Other features include box tiered seating to allow elevated views over the heads of those seated to the front.

Moveable box seats by the openings can be moved to any configuration. Could also include hidden lock to act as field storage.

Further opportunities for branding & interpretation should also be included within the interior.

6.0 Designs

NEW ADDITION: Photography Hide (Version A Compact)

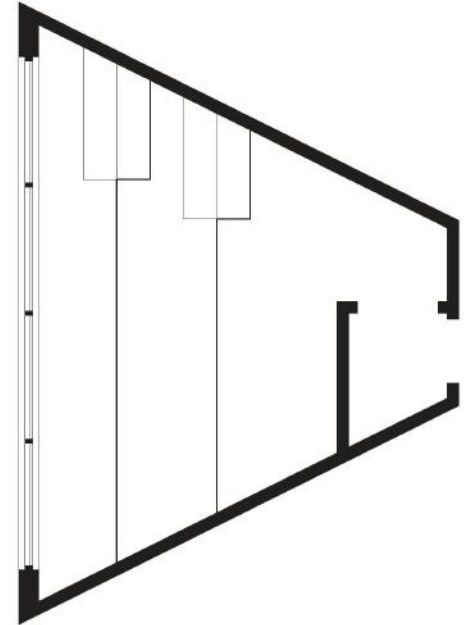
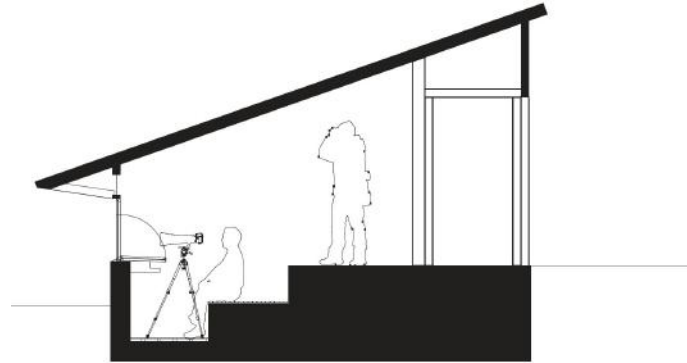
Wildlife photography is a hugely important facet of any nature reserve & its operation. The photography audience continues to grow & it is important reserve infrastructure caters for this key user group.

Biotope UK understand nature photography & are keen amateur photographers. The need for careful positioning of any hide, the ability to get close to the subject, but also low to the subject & the need for comfort whilst waiting & to keep disturbance minimal are all vital.

This particular design is for a small compact hide, suitable for approximately 4 persons at any one time. Hidden in the landscape, this tiny shelter can help achieve photographs like that illustrated on this page below.



Example of type of photography achieved from photography hides; eye level water shots



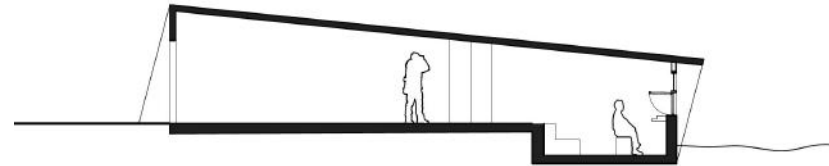
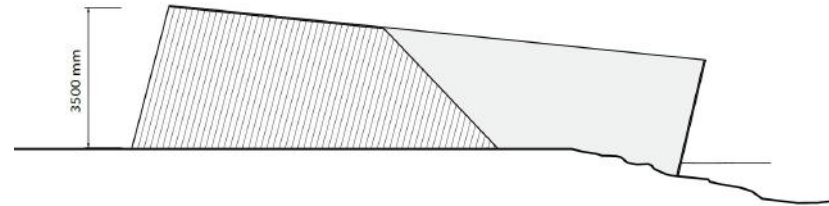
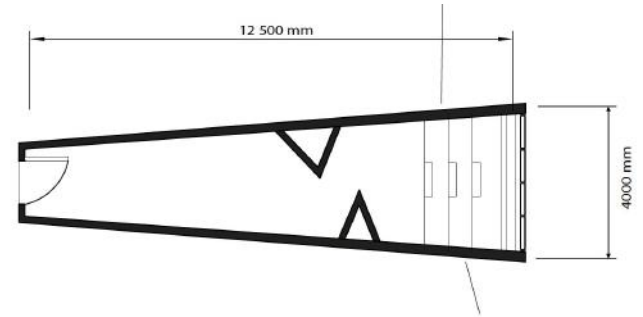
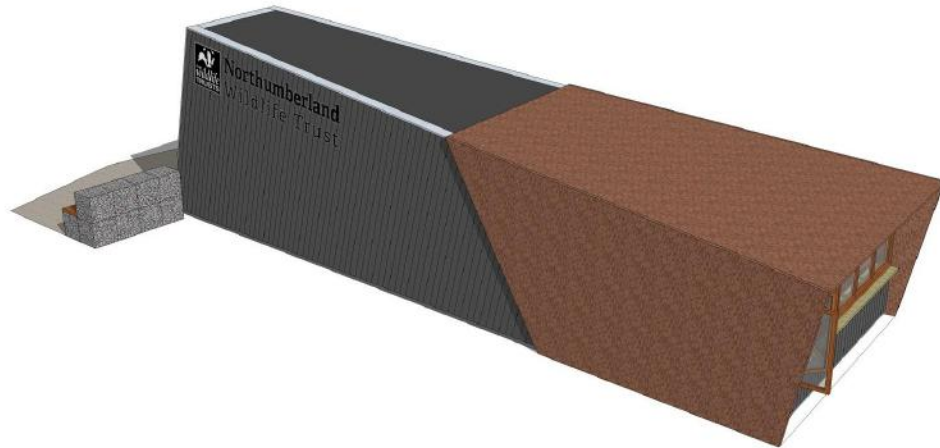
6.0 Designs

NEW ADDITION: Photography Hide (Version B Extended)

However, a 4 person hide may be too small for a nature reserve with the level of potential footfall expected at East Chevington Nature Reserve. Therefore, an alternative larger version is illustrated here.

This particular design takes a clear striking form to highlight it's position in the immediate landscape to users, whilst remaining low & sympathetic to the context.

The entrance chute has an integrated screen that can host interpretation but also prevent a 'flash' as persons enter as well as help break any silhouettes.



6.0 Designs

NEW ADDITION: Photography Hide (Version B Extended)

The structure can be timber framed or concrete with treated timber cladding & potential metal panelling to ensure robustness & durability. The timber is darker externally in the main & lighter internally, except behind windows to ensure no silhouetting.

Window options can be varied. The illustrations on this page show top hung smooth sliding windows that move noiselessly. Often window 'flaps' can cause disturbance if not counter balanced whilst traditional flaps can also partially obscure the view.

Seating can be incorporated into screening & interpretation at the entrance to cope with any potential queues, whilst the length of the hide assist with limiting noise disturbance.



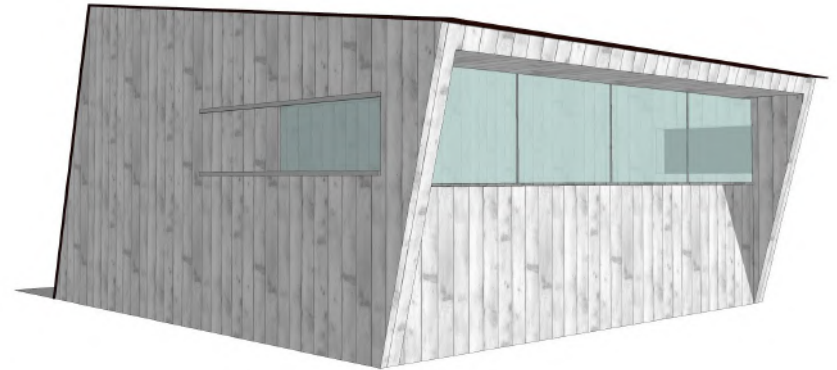
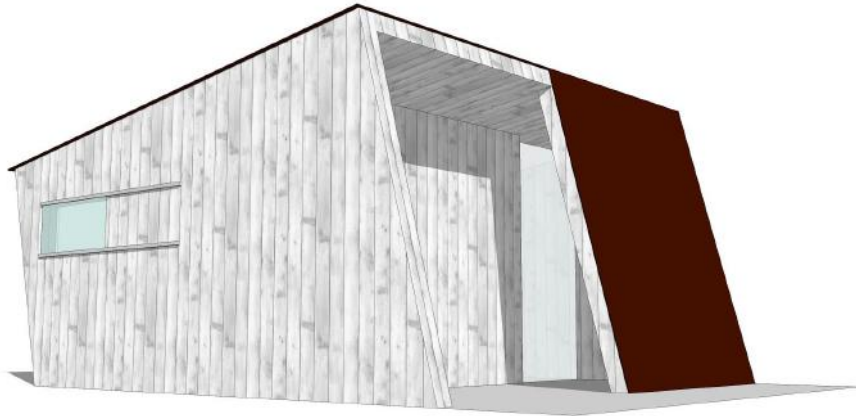
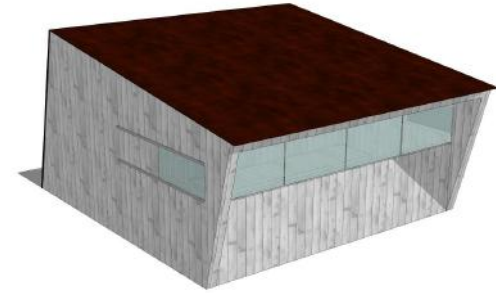
6.0 Designs

NEW ADDITION: Marsh Harrier Hide (Option A Birding Specific)

Currently with no viewing structure over the South Pool an addition here would open up a whole new area of the reserve for all users. This would be a significant addition to the layers of penetration to the site.

One potential option for a strategic placement of infrastructure from the western public route looking to the South Pool is a specialist birding hide to ensure best possible engagement with the Marsh Harrier habitat.

The proposal illustrated here shows a simple but striking & effective hide with panoramic sliding frameless windows, a sheltered canopy entrance for signage & interpretation, a sideways entrance to avoid creating flashes of light and tiered seating to cater for a range of audiences.



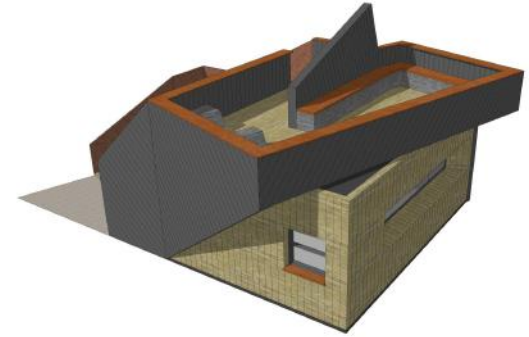
6.0 Designs

NEW ADDITION: Marsh Harrier Hide (Option B Multi-Purpose)

An alternative option for viewing infrastructure over the South Pool is to combine both the necessity for a 'traditional' hide to view the Marsh Harrier habitat with some more for general interest such as landscape views & stargazing.

To do this Biotope UK have taken their contemporary box hide model & included a stardeck with staircase for access for open air viewing of the reserve.

Key features of wildlife watching are retained with panoramic sliding windows, deep reveals, tiered seating, deep shelves & silhouette prevention. On the top deck their are also deep shelves for scope grips & seating & even star beds.

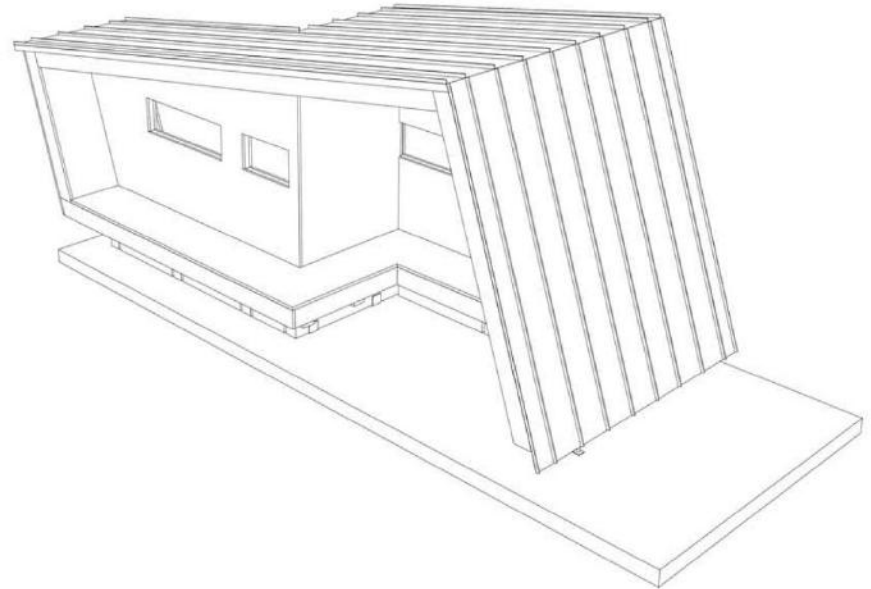
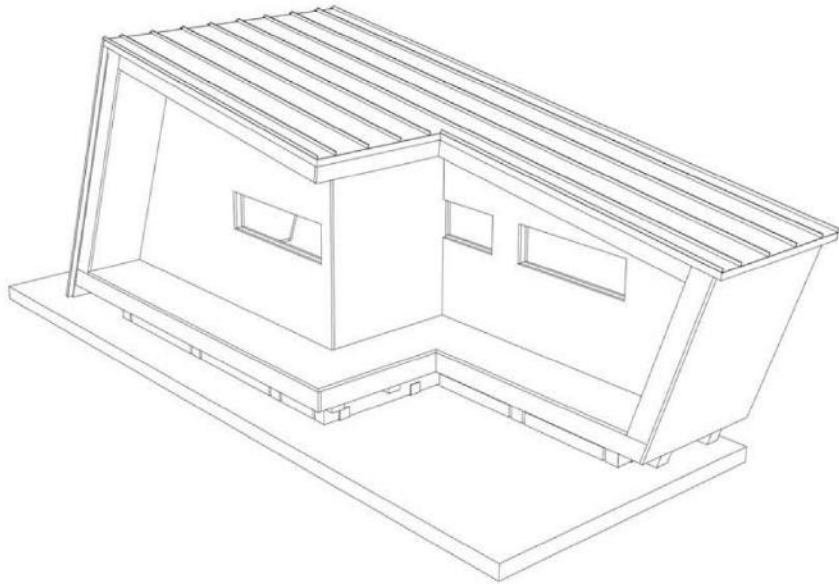
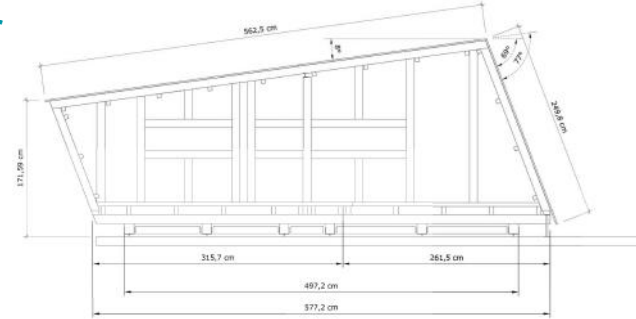


6.0 Designs

Nodal Junction Intervention (Major): Reception Shelter

Currently the main entry point to the reserve by the north as served by the car park & linked to Druridge Bay Country Park. However, there is no gateway celebration or interaction point as yet established by the Northumberland Wildlife Trust.

The installation of a small shelter at this point would announce the gateway & offer a key point of interaction from NWT staff & volunteers to visitors, allow an obvious point of orientation, allow a focus for interpretation & signify clear 'ownership' of the site.



6.0 Designs

Nodal Junction Intervention (Minor): Micro Shelter/Screen

At every single junction point linking infrastructure & hides on site from the main routes there is no interpretation, signage or ownership what-so-ever. Also, there are very few moments around the site that allow for significant dwell or rest time, or any shelter from the worst of any weather.

This proposed shelter is a very simple construction that can actually be assembled quickly on site & moved to which ever suitable location. The small canopy offers shelter from bad weather, whilst the in built seat and screen combination allows rest but also opportunities to view wildlife.

The form is striking & the deliberate high point acts as a visual locator. This shelter can be used at any junction & help build a consistent language across the reserve.



6.0 Designs

05 Outdoor Classroom & Comfort Infrastructure (Addition):

Highly visible, this is an ideal location to create an 'activity node' - a facility to host school groups, outdoor education, events & also supply welfare for volunteers to the site. The existing structure is locked permanently & represents an inefficient use of resources for the **Northumberland Wildlife Trust**.

The design shown here is for an outdoor amphitheater style classroom as designed by **Biotope UK** with exhibition space & an accessible roof terrace. Supplementing this could be composting toilets & additional landscape features to support the existing dipping pond.

