

Severn Estuary SAC, SPA, Ramsar

Purpose

This evidence paper has been developed to provide some context as to the Forest of Dean District Council Allocations Plan (AP) and the Severn Estuary SSSI, SPA, SAC and Ramsar (referred to as the Severn Estuary European Site (SEES) in this paper). It provides further background information in supporting the Allocations Plan (AP) Habitats Regulations Assessment (HRA) in regard to potential recreational/disturbance impacts in the Lydney Harbour area.

The Allocations Plan Habitats Regulations Assessment

With regard to disturbance effects in the majority of cases the mitigation provided for in the Core Strategy were considered sufficient to address concerns for any potential adverse impacts. However the HRA screening identified that the quantum of proposed development in the Lydney area had, on a precautionary basis, the potential for likely significant affect alone or in combination on the SEES. However the HRA also identified that the potential impacts from disturbance to the Severn Estuary have to be set in terms of the whole of the amenities in the district. The Forest of Dean and Wye Valley Area of Outstanding Natural Beauty are a significant tourist attraction with many formal and informal recreation sites attracting large number of visitors and locals.

The HRA found that a number of changes should be made to the Allocations Plan to ensure there were no potential significant adverse impacts of the SEES. These included avoidance and cancellation measures, including additional text in the section on Lydney and policy caveats, to demonstrate how adverse effects on site integrity will be avoided.

If these amendments were made and embedded in the Allocations Plan (the changes were all subsequently made) it would be able to demonstrate that foreseeable risks have been identified and the plan has established an enforceable framework with the aim of preventing the risks. It was therefore assessed that the AP would not have adverse effects on the integrity of the SEES through disturbance.

Section 1-3 of this report (below) provides additional context and needs to be read in conjunction with the AP and HRA. It should also be remembered the approach to the AP policies is on a precautionary basis. Section 3 specifically provides some additional context to specific sites and policies identified in the HRA where it was considered appropriate to include cancellation or avoidance requirements in the AP in regards to the SEES.

As part of this evidence paper a report has been commissioned from GCER (Gloucestershire Centre for Environmental Records) broadly covering an area around Lydney Harbour and the SSSI Impact Risk Zones (IRZ), the full report is included in Appendix 1. In addition a local bird recorder has been contacted and a meeting held to assist in providing additional local context. This evidence is presented below in the section on baseline ecological information.

Conclusions

No direct impacts on the SEES have been identified. On a precautionary basis where AP policies /allocations were identified as having some potential for disturbance to the Severn Estuary the local site context and development policy proposals have been considered. In all cases it has been considered that cancellation and avoidance measures can be easily incorporated to remove the potential for disturbance to the SAC; bearing in mind the local site /policy context. At strategic level the spatial distribution of all the housing and employment allocations was considered. This was undertaken in the light of the general development requirements of the NPPF and Core Strategy policy 1¹.

The conclusion of this assessment is that due to the cancellation and avoidance measures, local landscape context and the relatively small scale development proposals there would be no residual effects of the AP on the SEES.

¹ The Councils validation checklist requires all 'major' development proposals to have completed a Preliminary Ecological Appraisal (CIEEM) as an ecological minimum for an application to be validated.

1. Baseline Information

1.1 Background to Lydney Harbour

The following information is summarised from a number of web sources including: www.gov.uk/lydney-harbour (regarding docks), Lydney yacht club, Lydney Online and the Forest of Dean and Wye Valley Tourism Association.

From Roman times through the industrial revolution and well into the 20th century Lydney Harbour has been in active use. The Severn Estuary is of national and international importance recognised by its statutory designations. It has one of the world's greatest tidal ranges; the harbour has a significant history of exporting and as one of the UK's major sea links to the rest of the world.

The harbour was built to transport iron and later coal from the forest and was the last port on the Severn where sea-going boats could unload. The current canal and basin complex was built between 1810 and 1813. The new dock on the estuary was started in 1809 and opened in 1813. The outer harbour was completed in 1821. The final export of coal from the harbour was in 1960. The harbour carried on working up to the 1970s by importing logs for the manufacture of plywood at the factory at Pine End and was finally closed in 1977.

In 1985 the harbour from the swing bridge downstream was scheduled as an 'Ancient Monument', due to the historic importance as a transport link for the Forest of Dean to the Severn. The swing bridge was designated a Grade II Listed Building in 1988 due to it being 'a very good example of the direct and sturdy quality encountered in the functional tradition of quay-side design'.

In 1998 the Lydney Docks Partnership was established to create a sustainable future for this Scheduled Ancient Monument. In 2003 they secured from the Heritage Lottery Fund towards restoring the docks. This was supplemented by further funding from the Environment Agency, English Heritage, Gloucestershire County Council, Forest of Dean District Council and Lydney Town Council.

Since then the Environment Agency have undertaken extensive restoration and improvement works to the docks, these included:

- Restoring and enhancing flood defences running along the side of the dock.
- Automated metal-gates and associated mechanisms, in the outer dock and inner harbour.
- Dredging of the dock and harbour.
- Full refurbishment of dressed stonework on the walls and the floors of the docks.
- Improving access for all.
- Additional landscape works.

The docks were re-opened in 2005 after the two year project to restore and enhance the docks area. A Local Action Group hopes to continue improvements; to extend the Yacht Club and to provide a cafe and toilets. The area earmarked for this small scale development has been highlighted in the Lydney Neighbourhood Development Plan (examiners version 2 May 2015), and included here in the section below on AP42. This area forms part of the larger area covered by policy AP 42.

1.2 Description of Area

Lydney Harbour lies some distance to the east of Lydney and is separated from the town by the A48 and the main line railway. The area discussed within this evidence paper covers the area surrounding Lydney Harbour and Canal Basin, running from the sea gates to main line railway station and the A48.

One of the main areas discussed within this report in the sections below is New Grounds: an area of low lying pasture south of Lydney harbour between the estuary and the main line railway (and north of Alyburton Warth) there are no public rights of way across these fields. To the north of the harbour is an area of arable fields located between the estuary and Nass Court and Lydney Golf Course. This area is crossed by existing public rights of way: the land is higher than the harbour and estuary and is separated from the estuary by a woodland belt above Nass Cliff.

The older industrial areas of Lydney are on the relatively flat and generally low lying land closer to the Severn Estuary. These industrial areas and Lydney Harbour are accessed by the Harbour Road. The Harbour Road is the only access to Lydney's main line railway station as well as the Lydney Industrial Estate and various other business and properties, there is also access to Lydney Golf course. Two policy areas (AP45 and AP52) identified for recreational use are also located at the western end of the Harbour Road close to the railway station and the town of Lydney.

1.3 Green Infrastructure

Within Gloucestershire an evidence base has been used to produce a series of maps showing the key areas of existing and potential green infrastructure (GI). This has informed the development of a map showing a vision for the strategic green infrastructure (GI) of the county – both existing and where it needs to be created or enhanced.

The National Planning Policy Framework defines green infrastructure as: A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

The Strategic Nature Areas identified in Gloucestershire's Nature Map were a key element in determining Green Infrastructure blocks: the Strategic Nature Areas adjacent to Lydney are included within the GI blocks for the county.

The Strategic Nature Areas (SNAs) of the Gloucestershire Nature Map identify landscape-scale areas where there is opportunity for both the maintenance and, crucially, the restoration/expansion of Priority Habitat. As such, they collectively represent an extremely useful aid to targeting nature conservation action. The SNA of relevance to the HRA and this evidence paper is SNA62 Alyburton and the SNA profile is attached in Appendix 2. This area is part of one of the GI blocks identified in the county.

A specific GI policy within the Allocations Plan (AP8) aims to increase GI by ensuring it is considered as part of development proposals. The Policy aims to preserve and enhance existing GI networks as well as to use new development to provide and safeguard them.

1.4 Baseline Ecological Information from Desk Based Data Search Lydney Harbour

Baseline Information on the SEES is within the HRA for the AP and should be read in conjunction with this evidence paper. In addition the commissioned GCER report is appended in Appendix 1. The GCER report included GIS layers which have been interrogated as part of this evidence paper.

The Severn Estuary is a designated Site of Special Scientific Interest, a Special Protection Area (SPA), a Special Area of Conservation (SAC) and a RAMSAR site.

The Severn Estuary is located between Wales and England in south-west Britain. It is a large estuary with extensive intertidal mud-flats and sand-flats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with sub-tidal sandbanks. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second-highest tidal range in the world (after the Bay of Fundy in Canada). This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide-swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK. The site is of importance during the spring and autumn migration periods for waders moving up the west coast of Britain, as well as in winter for large numbers of waterbirds, especially swans, ducks and waders. (From JNCC SPA Data Spreadsheet).

Summary of GCER Report

Forest of Dean District Council commissioned a comprehensive data search centred on the Lydney Harbour area. GCER holds all relevant information including BTO records and WeBs counts and is considered the definitive centre for environmental records for Gloucestershire. The full report is in Appendix 1 to this document the GIS layer files are held by the Forest of Dean District Council, summary maps are included below in Figure 1.

Results

The Estuary is designated a Special Area of Conservation under the Habitats Directive, a Special Protection Area under the Birds Directive, a Ramsar Site under the Ramsar Convention, and is a Site of Special Scientific Interest. Important features include:

- Priority Habitats such as subtidal sandbanks, intertidal mudflats and sandflats, Atlantic salt meadows and reefs;
- Priority Species including migratory fish and birds;
- Adjacent saltmarsh, shingle and rocky shore habitats which support the large breeding and, in particular, wintering bird populations.

Other biodiversity interest in the area surrounding the allocation includes Local Sites (known locally as Key Wildlife Sites) and records of Priority Species including internationally protected bats.

The Harbour area falls within Natural England's Impact Risk Zone for a range of developments including residential developments of 10 units or more, new transport infrastructure and any new developments outside currently built-up areas or extending onto greenspace, farmland or other natural features and rural environs.

In addition to the statutory designations which cover the Severn Estuary itself, the whole of the study area falls within a Priority Landscape as identified by the Gloucestershire Nature Partnership. Within the Wye Valley and Forest of Dean Priority Landscape, part of the study area falls within two Strategic Nature Areas (SNAs) as defined by Gloucestershire Nature Map. The north end of SNA62, Aylburton, covers the fields to the south west of Harbour Road; the south edge of SNA35, Lydney Woods, also falls within the outer north edge of the study area.

The study area was used to carry out a search of species sightings from the last 25 years as reported to GCER, both for bird records and, specifically, for any rare or protected species.

Summary of species records in the study area

		No. records	No. species
Birds	ALL	10754	205
Rare/protected species	ALL	9119	223
	Vascular plants	3	3
	insect	16	14
	fish	1	1
	amphibians	12	4
	reptiles	15	3
	birds	8962	181
	mammals (terrestrial)	108	15
	mammals (marine)	2	2

In addition to the nationally-recognised protected area and the regional SNA target areas, several locally-important wildlife sites within the study area have been identified in their own right. These are:

Key Wildlife Sites		
Name	Interest	Area (ha)
Alvington and Aylburton Meadow	Improved grassland of high value for birds; currently awaiting re-assessment	3.05
Lydney Town Marsh & Sidings	Marshland with botanical interest – recently reduced in size	24.43
Nass Cliff (Lydney Cliff)	Ancient semi-natural woodland	7.25
Warren Grove	Ancient semi-natural woodland	20.16

Unconfirmed sites (not yet assessed but thought to be of KWS standard)

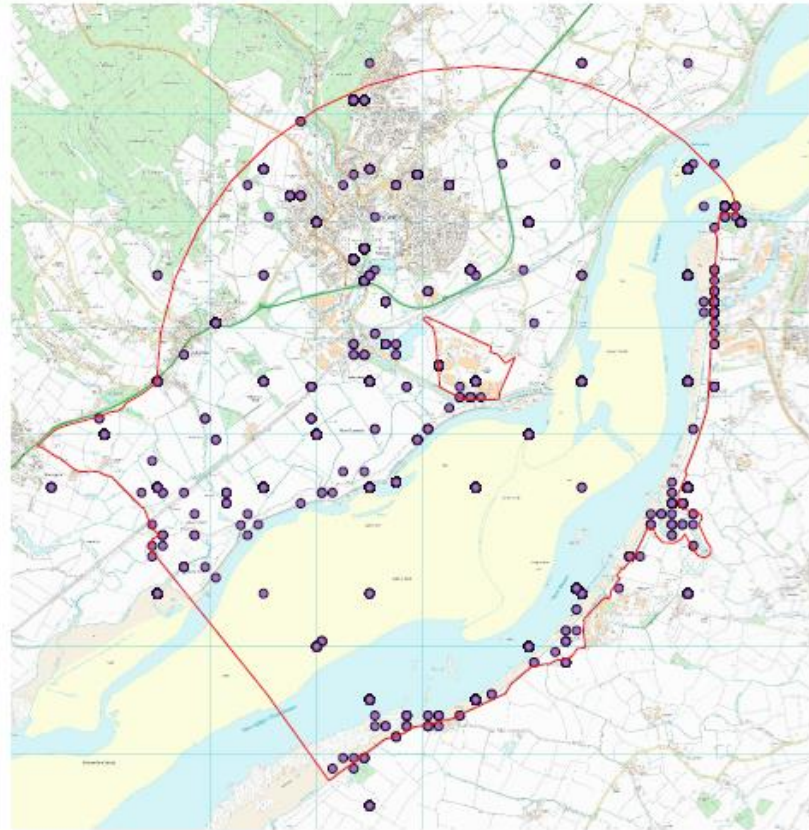
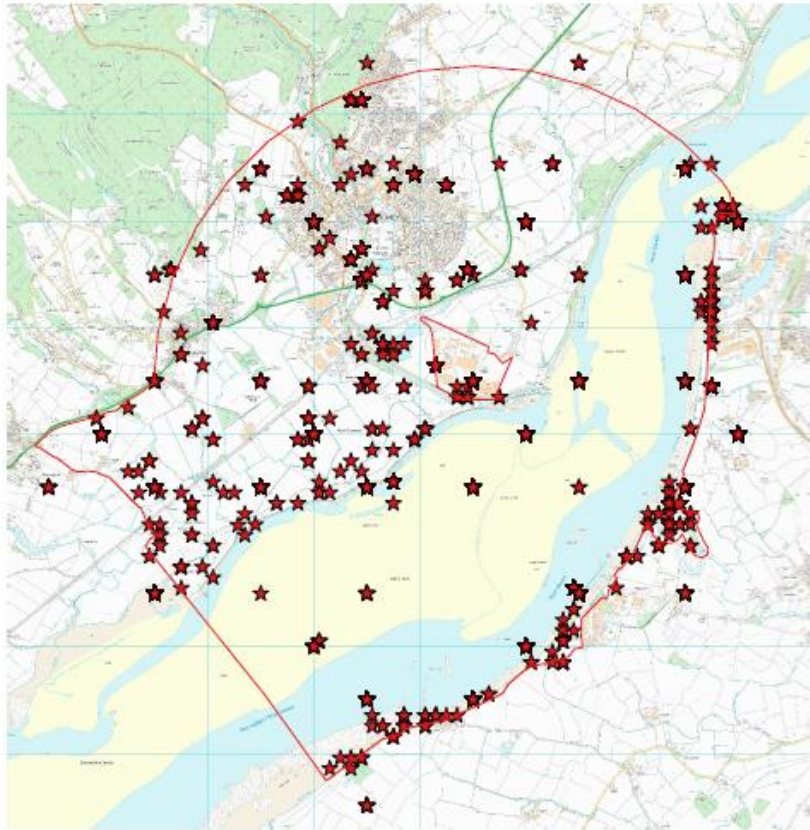
Lydney Harbour and Dock	Many older records of plants of interest including “dockside aliens”, marshy areas and grassland on banks.	4.1
Lydney Park	Small patches of semi-natural grassland with records of rare and nationally notable invertebrates. Some distance from the Harbour.	31.5 in total

The Priority Habitat Inventory map issued by Natural England indicates that over half the study area is covered by Priority Habitat, although it should be noted that some of the identification of categories is in a “low” confidence category (mostly due to lack of distinction between habitat types rather than doubt over whether any habitat is present). Figure 6 in the GCER report shows the distribution of Priority Habitat Inventory coverage within the study area and surrounds.

The GCER report included GIS layers of data for birds as well as rare and protected species. These maps are included below and in the Appendix 1.

Figure 1 Summary Maps

Lydney allocation map study area:
Distribution of species records for birds and rare/protected species



- Search area for Lydney allocation
- ★ Rare and protected species record locations
- Bird record locations



Produced by Gloucestershire Centre for Environmental Records
v1.0 July 2015

Water Birds at New Grounds

Analysis of records specific to New Grounds area has demonstrated the area is used throughout the year by estuary birds. The records do not generally indicate numbers, most relate to individual birds seen on the fields and the sand banks of the estuary. However one record is for up to 400 lapwing during the winter period. The full list of water birds recorded in this extensive area is highlighted in the table below: (bold indicates birds listed in the SPA interest features.)

Common sandpiper	Golden eye	Great black-backed gull	Great crested grebe
Spotted sandpiper	Dunlin	Mediterranean gull	Water rail
pintail	Knot	Yellow legged gull	Common tern
shoveler	Ruff	Bar-tailed godwit	Sandwich tern
teal	Black-headed gull	Jack snipe	Little grebe
wigeon	Whooper swan	Smew	Shelduck
mallard	Mute swan	Goosander	Green sandpiper
garganey	Little egret	Re-crested pochard	Redshank
gadwall	Coot	Curlew	Lapwing flock 400+
great white egret	Snipe	Whimbrel	
grey heron	Moorhen	Cormorant	
pochard	Oystercatcher	Golden plover	
tufted duck	Herring gull	Grey plover	
bittern	Common gull		
Canada goose	Lesser black-backed gull		
Cattle egret			

Local Context / Information from Local Bird Recorder

Lydney harbour is positioned at a narrowing of the estuary between two “basins” comprising Lydney Sands and Frampton Sands. Discussions with a local bird recorder and the report from GCER has identified that although this narrowing is an important flight way the main centre for wintering assemblages and passage migrants are within these two larger basins north and south of Lydney Harbour. The southern basin, and probably nearest basin to the harbour, includes significant numbers of curlew as well as breeding redshank. These populations use the fields south of Lydney at Aylburton Warth (circa 3km) and Guscar Rocks (5km).

There is an area of grazing fields “New Grounds” directly adjacent to the harbour which is owned by the Lydney Park estate. Very little recording effort would appear to have been undertaken on these fields partly due to lack of public access. Those records which do exist include numerous water birds relevant to the estuary including lapwing, curlew, wigeon, teal, pintail, pochard, tufted duck and various gull species.

The fields to the north of the harbour appear to hold only limited records. The area is above the cliffs to the north of the Lydney Yacht Club, the land use is currently arable and is considerable higher than the fields to the south. The fields are separated from the estuary edge by a woodland belt. Existing bird records include skylark, linnets and buzzard.

2. Potential Impact Pathways

2.1 Background

The HRA for the AP assessed potential impact pathways based this on the Severn estuary Regulation 33 advice on operations. The general advice provided here is within six broad categories of operation which may cause the deterioration of natural habitats or the habitats of species, or the disturbance of species. These broad categories are:

- Physical Loss (of habitats) from removal or smothering;
- Physical Damage (of habitats and species) from siltation, erosion or physical injury/death;
- Non-Physical (indirect) disturbance from noise or visual presence and reduced availability or displacement of species (including prey);
- Toxic Contamination from the introduction of synthetic compounds, introduction of non-synthetic contaminants;
- Non-Toxic Contamination from nutrient enrichment, organic enrichment, changes in suspended sediment and turbidity, changes in salinity or changes to the thermal regime;
- Biological Disturbance from introduction of microbial pathogens, the introduction of invasive non-native species and translocation, or from selective extraction of selected species.

The next stage in the analysis in the HRA was to review the individual activities that might affect designated sites and their interest features. The activities and the relevant environmental changes arising from them across each of the relevant allocations were reviewed in the HRA. The results were discussed in the HRA report and this should be read in conjunction with this evidence paper.

Generic impact categories were used to discuss relevant impacts and allocations in the HRA, these were presented in the HRA, and these are: Habitat (& species) fragmentation and loss, disturbance, changes to water levels, changes to water quality, changes in air quality.

The screening process identified for the Severn Estuary theoretical issues related to air quality and water level and quality that could not be ruled out. Further examination in the HRA was provided that identified no significant effects. An additional evidence papers have also been provided separate to this report covering the water and air quality issues.

The focus for this evidence paper is disturbance issues in the Lydney area. Relevant Policies and Allocations identified are: AP 42, AP43, AP44, AP46, and AP47.

The general area of concern identified in the HRA was from the effects of increased disturbance from public access/recreation on the qualifying species of birds on and adjacent to the designated SEES.

2.2 Current Recreational Activity/Public Access in the Lydney Harbour Area

The Severn Estuary is a very popular recreational destination there are a number of existing footpaths on the land adjacent to the docks connecting the docks to the town of Lydney. The harbour docks and inner basin of the harbour is owned and managed by the Environment Agency and is open to the public: there is a picnic site, circular walk and car park although there are

currently no other facilities such as toilets or café. A linking footpath runs from the docks to Lydney Railway Station, this runs on a raised disused railway line over-looking the New Grounds, the low lying area of pasture to the south of the harbour.

There are also utilities for moored or visiting yachts in the canal basin. The Lydney Yacht Club is based at the harbour and offers sailing opportunities on the river Severn. The club already offers a varied programme of races and events and there are occasional sailing regattas in the harbour. Existing facilities include a club house, boat storage and slip access to the Severn. The current capacity at the marina is for around 50 boats after a complete refurbishment of the docks which re-opened in 2005.

There is no public access to the sea wall at New Grounds or across New Grounds. The nearest footpaths, which cross the land next to the Estuary, include a public right of way (PROW) at Aylburton Warth the far southern end of New Grounds.

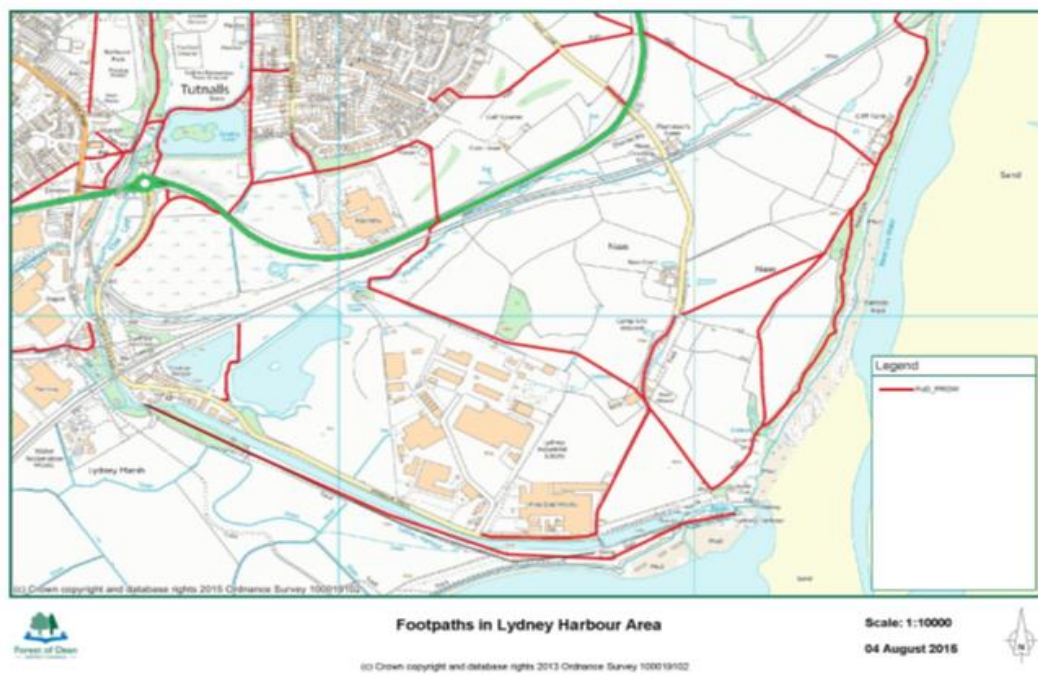
Public access is otherwise confined to the harbour itself, disused railway line running parallel to the main harbour road and footpaths to the north of the harbour, see Figure 2 below. The existing disused railway path is a well-used and sign-posted path that links the harbour area to just south of Lydney railway station.

The fields north of the harbour are on significantly higher ground and “removed” from the estuary by cliffs at Nass cliff. The land, at 11 – 34 m, is significantly higher than New Grounds (maximum of 8m) and separated by a wooded fringe. Visibility into and out of this area towards the estuary are extremely limited. Current land use is mainly arable crops.

Walking is encouraged in the area around the docks and a leaflet from the Wye Valley and Forest of Dean Tourism Association is available. The walk uses the Lydney docks car park and follows a ¾ mile loop around the marina. Lydney docks are owned by the Environment Agency and public access is encouraged. The car park at the harbour currently has an estimated (personal observation) capacity of 20-30 cars (additional cars often parking on the verges to the Harbour Road).

Views into and from the docks and railway line footpath are open and expansive in the immediate area of the harbour and marina. At the northern end of the marina the footpath enters a section of the disused railway with hedges on both sides and views are broken and occasional along the length of the path looking into New Grounds. Appendix 3 includes a selection of photographs from around the Lydney Harbour to assist in establishing context.

Figure 2 Map Showing existing footpaths and Public Rights of Way in Lydney Harbour Area



2.3 Cancellation and Avoidance Measures in the HRA

The HRA found that a number of changes should be made to the Allocations Plan to ensure there were no potential significant adverse impacts on the SEES; these were subsequently embedded in the AP. This included additional text in the section on Lydney, policy caveats and measures to ensure how adverse effects on site integrity will be avoided by mitigation measures at the project level. These measures would be confirmed in a more detailed project level HRA and may require additional information gathering and bespoke management plans or contributing to a large-scale mitigation strategy.

The HRA concluded if these amendments were made and embedded in the Allocations Plan (which they subsequently were) it would be able to demonstrate that foreseeable risks have been identified and the plan has established an enforceable framework with the aim of preventing the risks. It is therefore assessed that the AP will not have adverse effects on the integrity of the SEES through disturbance.

This paper details further evidence for those identified policies and allocations in the section below.

3. Policy Assessment

AP42 Lydney Harbour

Policy Context

Approximately 13ha of land including Lydney harbour is allocated for recreation and tourism based uses. These uses may include:

- Access for walking and cycling.
- Buildings/structures (café, toilets in keeping with site)
- Green infrastructure
- Any scheme necessary related to management of harbour.

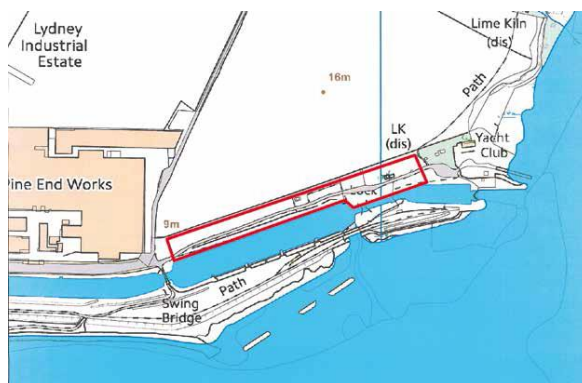
The policy intention is to permit an increase in the potential for recreation and tourism whilst retaining and safeguarding important features and sites. The policy area runs from the harbour sea gates to the termination of the wider canal section near the railway station together with the immediate surrounding area.

The allocation confirms and promotes the site as an existing and active harbour and visitor attraction. The policy promotes access for increased walking and cycling as well as the potential for new, low key, facilities café, toilets etc. There is an existing track and path to the south of the harbour and circular walk already exists produced by the Wye Valley and Forest of Dean Tourism Association.

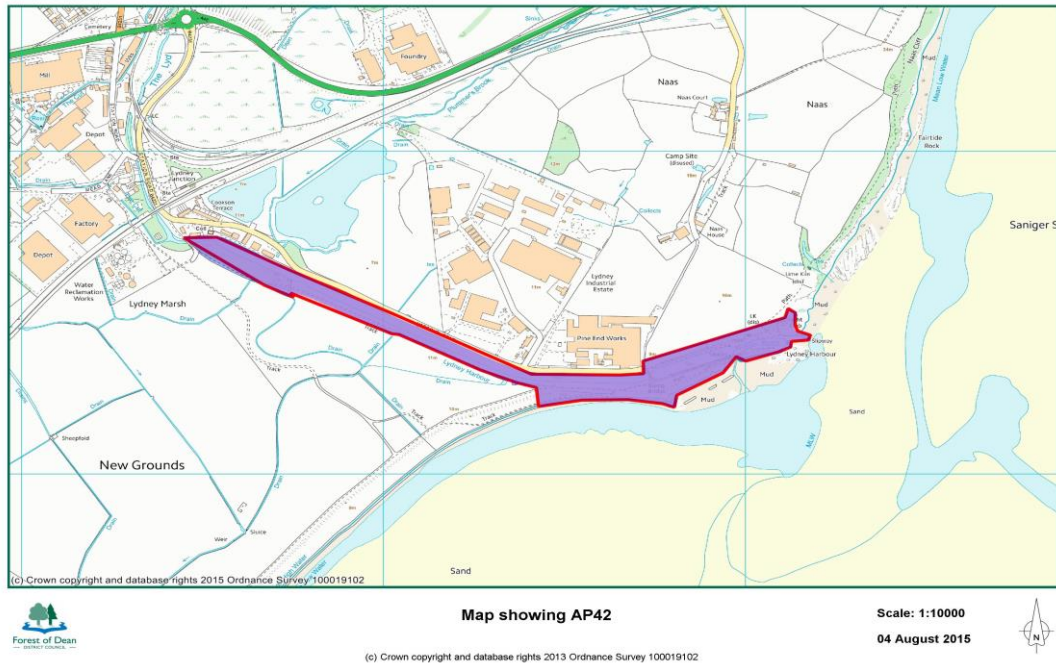
The site is within Environment Agency ownership and adjacent to SEES and has historic value with a designated Scheduled Ancient Monument. There is already significant and promoted formal and informal recreational access. There are existing footpath and road connections and open free car parking. The emerging Lydney Neighbourhood Development Plan also promotes small scale recreational development of the Harbour Area (LYD HAR 1) and this element is included in the AP.

Lydney Neighbourhood Development Plan - Lydney Harbour (LNDP)

LYD HAR 1 - Lydney Harbour Area



Map showing Lydney Harbour Area (taken from LNDP)



Map showing area covered by policy AP42

Potential Impact Pathways, Cancellation and Avoidance Measures

Lydney Harbour borders the SEES. As the site directly shares a boundary there is an identified theoretical potential for development to cause direct habitat loss, and fragmentation (loss of vegetation adjacent to river corridor), disturbance (noise, light and vibration) and changes to the water environment (reduced water quality through pollution/contamination impacts and changes to water regimes).

Due to the close proximity to the SEES the policy was “screened in” in the HRA for the AP for further assessment.

The HRA recommended policy changes to the Lydney chapter in order to ensure these issues were adequately dealt with at the plan level to provide confidence of achievable development at the project level.

This evidence paper seeks to provide additional baseline information on the Severn Estuary to provide further context for the findings of the HRA in relation to potential disturbance impacts from recreation. Water and air quality issues are dealt with in a separate evidence paper.

Given the scale and nature of the proposals promoted in the plan direct physical loss to the SEES is not predicted. It is not envisaged any new structures would be such close proximity to the designated site, the key areas where this element of the allocation is likely to occur is in the area covered by LYD HAR 1 policy in the LNDP. As made clear in the policy and the Lydney Neighbour development Plan development is low key.

In part visitor use of the site would be partly controlled due to the limited car parking on site. Additional car parking is not proposed in the plan (although it is possible that other policies AP43

may increase capacity). The existing harbour facilities are already in very close proximity to the designated site and works to the lock gates and dredging that has previously occurred would have been carried out by the Environment Agency under strict controls. It is not envisaged this framework will alter and is beyond the remit of the AP.

The policy promotes the use of the existing disused railway line as a footpath and cycleway. The track bed is already used as a footpath, linking the harbour to Lydney railway station. Existing significant use of the footpath is evident and in particular around the sensitive harbour area where recent (2005) re-development (see background to harbour above) established existing disabled access and interpretation boards.

The policy seeks to promote the use of the path to the north and potential provide links to the town of Lydney. However beyond the immediate vicinity of the harbour the path is screened from the estuary and adjacent agricultural fields of the New Grounds by hedges and trees. There are occasional breaks in the hedge/tree line which provide some views into the fields and the sea wall beyond.

There is no public access to the sea wall from the harbour to the area known as New Grounds.

The main impacts from any increased development would be at the harbour itself but this is already significantly used by the public and boating uses. Views into and out of the harbour area appear to be restricted to immediate zone around the harbour entrance and from the elevated railway trackbed/footpath between the harbour entrance and picnic site. There is potential for increased use by walkers and cyclists on the disused railway line which has theoretical potential to cause disturbance/displacement impacts to the birds on the adjacent New Grounds. However beyond the existing picnic site views into and from the existing path are only through occasional gaps in the trees/hedge, see Appendix 3.

Limited bird surveys have been undertaken in the area known as New Grounds, largely due to the lack of access. Whilst New Grounds is not part of the SEES surveys that have been undertaken show these fields are regularly used by estuary birds including those cited in the various national and international designations. Evidence from GCER and local bird recorder seems to indicate the area further south at Alyburton Warth and Guscar Rocks hold the significant numbers in this part of the estuary. Nevertheless New Grounds is an area used by estuary birds.

Appendix 3 includes photographs taken of the harbour and disused railway track and footpath.

The HRA for the AP concluded that although there was some potential for disturbance effects there was a high degree of confidence that the measures set out in the special requirements in “Lydney European Sites” at the project level makes adequate provision. For example simply measures such as management of the railway line footpath and additional landscaping and gapping up of hedgerow would ensure users of the path were not visible from New Grounds.

The HRA concluded there would be no likely significant effects: “All proposals will need to take full account of the conservation status of the estuary and be compatible with the Habitats Regulations. Special requirements as set out in “Lydney European Sites” are likely to be required.”

AP43 Pine End Works and Land to North

Policy Context

Approximately 10.6ha of land including Pine End Works and land to the rear is allocated for an employment led mixed use development. The land to the rear is currently arable (2015).

Pine End works was built in 1940 to manufacture technical aircraft and marine plywood for wartime requirements. There is no current employment use active on the site.

The allocation aims to generate an employment led mixed use development. It is envisaged in the AP that this could include a wide range of activities, in order to form a leisure and tourism focus. The site has the potential to provide both conventional employment space as well as a harbour frontage which maximises its potential as a leisure and tourist destination. These other uses could include retail, food and drink uses, education and tourist accommodation.

A mixed use is promoted and although this is expected to have its main focus on employment, part of the mix is an element of housing. The small element of residential use is expected to be integrated into the whole, possibly in the form of flats over business units. There may also be an element of holiday accommodation and live work units that have some affinity with the location.

Potential Impact Pathways Cancellation and Avoidance Measures

The HRA concluded there was theoretical potential for habitat fragmentation (loss of vegetation adjacent to river corridor), disturbance (noise, light and vibration) and changes to the water environment (reduced water quality through pollution/contamination impacts and changes to water regimes).

Re-development of the main site and development of the arable field to the north of the disused site was considered in the HRA for the AP to have a theoretical potential for some impacts. The site is separated from the estuary by the Lydney Harbour Road, the canal basin and disused railway line which is on an embankment several metres higher than the allocation site.

There are no direct views into the estuary from Pine End Works, displacement of birds due to physical presence or noise seems unlikely. The adjacent existing Lydney Industrial Estate is in current active use. It is envisaged that development may increase visitor numbers to the harbour and activity in the harbour area but the numbers of housing units here is low and a secondary element to the re-development and employment use, see policy AP42 above for further background information on potential increase disturbance impacts.

Construction impacts are also a theoretical possibility however any scheme must comply with relevant legislation and take full account of the conservation status of the estuary and be compatible with the Habitats Regulations. If necessary construction environment management plans could be required in relation to development proposals to ensure potential issues such as water quality, lighting, noise are avoided. Water quality issues are also covered in an additional evidence paper.



Photograph of Pine End Works looking south towards Harbour access road



View west from Pine End Works across River Lyd towards New Grounds and the hedge/tree bank of disused railway/footpath

AP44 Lydney Industrial Estate

Policy Context

The existing Lydney Industrial Estate (24ha approx.) is allocated for continued employment generating uses. The site is extensively developed but capable of some re-development. Due to the differing ages and nature of the existing buildings some may remain, others are suitable for refurbishment or replacement.

The policy intention is to support a continued range of employment uses on the site and expects a suitable range to be permitted that is compatible with the other policies of the Plan.

Potential Impact Pathways Cancellation and Avoidance Measures

Identified impact pathways are restricted to links to the water course which flows into the Severn Estuary. This is an existing site any re-development would have to comply with the strict requirements of works near water courses and any development at the site must ensure that water management is incorporated into any construction environment management plan. It was concluded in the HRA that significant effects were unlikely but with a theoretical possibility. Nevertheless following the precautionary principle any development would need to take full account of the special requirements of the European Sites. Water quality issues are also covered in an additional evidence paper.

Disturbance impacts were considered unlikely but the policy assessment is included here as re-development may fall within the “special requirements” added to the Lydney chapter of the AP.



Site Photograph of Lydney Industrial Estate

AP 45 Lakes South of the Mainline Railway

Policy Context

Approximately 18ha of land south of the mainline railway is allocated for informal recreation and open space compatible with its existing or enhanced nature conservation value.

There are two attractive lakes south of the mainline railway set in an area of open ground. They are largely the result of the extraction of material used to construct the tidal defences along the estuary and are quite recent in origin (post 2000). The area is already proving to be of importance for wildlife.

At present the site has limited access and is crossed by a single public footpath. Adjoining the site is a waste related activity which has resulted in the raising of levels over an area of open land.

Adjoining the site is a waste related activity which has resulted in the raising of levels over an area of open land. This defines the flood plain and the activity is likely to be limited by this. It has planning permission for further waste related development.

The allocation is expected to comprise a variety of open space and may include new footpaths no other development is considered in the allocation.

Potential Impact Pathways Cancellation and Avoidance Measures

This policy was not identified in the HRA as offering potential for disturbance effects with regard to the Severn Estuary. It is included in this paper to provide strategic context for the Lydney area and the range of recreational opportunities within much closer walking distance to the existing town and housing allocations.



AP45 Policy Area

Scale: 1:5000

04 August 2015



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AP 46 Lydney Harbour Area - Cycling and walking

Policy Context

This is not a site specific policy but promotes the use of walking and cycling in the general area, including in association with AP42 Lydney Harbour but in particular looks at linking the harbour to the town of Lydney.

New and improved cycling and walking routes will be identified and encouraged in the harbour area. All proposals will need to take full account of the conservation status of the estuary and be compatible with the Habitats Regulations. Special requirements as set out in the appendix “Lydney European Sites” are likely to apply.

There are already a number of cycling and walking routes in the area around the harbour. In addition the Plan seeks to reinforce the wider network around the town and makes linkages to longer distance routes within the district. This policy enables the identification of routes which will be able to be developed or used in connection with the other policies applicable in the harbour area. Its purpose is twofold, firstly to identify and protect routes and principles, and secondly to emphasise the importance of the network as part of the planned changes at the harbour area.

Potential Impact Pathways Cancellation and Avoidance Measures

This is not a site specific policy but a general promotional policy to support proposals. Expectation is that majority of routes will be using existing PROW or addressing ‘missing links’. See Figure 2 above which shows existing footpaths and public rights of way.

The general quantum of development in the Lydney area has the potential to increase activity in the footpaths (existing and possible) around the estuary. The main links promoted within this policy are envisaged as those associated within the new housing areas east of Lydney. The master plan for the main area east of Lydney has a green corridor embedded in the proposals. Indeed the overall strategy for Lydney promotes links for the development area east of Lydney into the areas around the boating lake and recreational areas on the town as well as other recreational areas promoted in the AP, policy AP45. These areas will be the main focus of activity as well as that covered by AP42.

There are existing footpath links from the new areas of development across the Lydney bypass to the area of the new golf course and Nass lane which leads to the harbour. The use of these footpaths are likely to be promoted, the Lydney Neighbourhood Development Plan (LYD TRAN 2) identifies these PROWs as part of a signposted network. However these paths are removed from the new housing areas by the A48 and the main focus is with linking the areas east of Lydney with the recreational areas closer to Lydney and the boating lake.

The paths to the north of the harbour area are also hidden from the estuary due to a tree belt from the harbour to the far end of Nass Cliff but are also elevated above the estuary.

The only existing footpath south of the harbour is that on the disused railway (promoted by AP42). There are no existing paths south of this and no paths are envisaged south of the harbour, the land is farmed and in the Lydney Estate ownership. See background information on AP42 for additional information.

All proposals will need to take full account of the conservation status of the estuary and be compatible with the Habitats Regulations. Special requirements as set out in “Lydney European Sites” may be required. It is concluded in the HRA there are no likely significant effects.



Looking north from footpath north of Harbour, estuary behind tree belt to right of shot.



Looking north from Harbour showing tree belt and higher ground.

AP 47 East of Lydney

Policy Context

East of Lydney land including the remainder of the planned new neighbourhood including employment sites and housing, a neighbourhood centre and public recreation space will be allocated for the following:

Approximately 1684 new dwellings, 25.8ha of employment generating uses (including associated landscaping), a neighbourhood centre, a public park and associated recreation space and land for an additional primary school.

Much of the site has existing permission and much of the area shown in the master plan has already been built. The majority of the site is 1.5 km from Severn however the employment element of the allocation is some 300m at its closest point. The master plan provides for linear green infrastructure following a central watercourse and open space provision. Planning permissions have been subject to previous HRA.

The intention of this policy is to retain the commitment to the partially completed major development east of Lydney.

The policy is expected to be implemented in phases and by different developers but should result in a single coherent mixed use neighbourhood. The allocation will deliver a major mixed development which may not be complete by the end of the plan period.

The allocation re affirms the large employment commitment immediately to the east of the bypass, Hurst Farm. Some 15ha of land will be provided here for a variety of uses within a gross area approaching 22ha.

Potential Impact Pathways Cancellation and Avoidance Measures

The HRA considered the potential for in-combination effects in relation to the quantum of development and potential for increased visitor numbers at Lydney Harbour or using the footpath network in the local area. Importantly the allocation provides significant open space within the scheme and promotes links to the areas north of the Lydney bypass towards the boating lake and town recreational areas. It is envisaged that these areas will be the main focus of recreational activity with the harbour approximately 1.5km distant on foot.

The AP also includes policies AP 52 Land North of Railway Line and AP 45 Lakes South of Mainline Railway which seek to promote recreation use of these two areas: these sites are much closer to the key residential areas of Lydney and form part of the overall strategy for development in and around Lydney. Additional background evidence relating to potential increased use of the Harbour Area is discussed in AP42 and AP46.

The HRA of the AP concludes there would be no likely significant effects and that all proposals will need to take full account of the conservation status of the estuary and be compatible with the

Habitats Regulations. Special requirements as set out in the appendix “Lydney European Sites” are likely to apply.



Area East of Lydney Master Plan

AP 52 Land north of the mainline railway

Policy Context

About 18.2ha of land formerly used as a tip but since restored is allocated for recreational use.

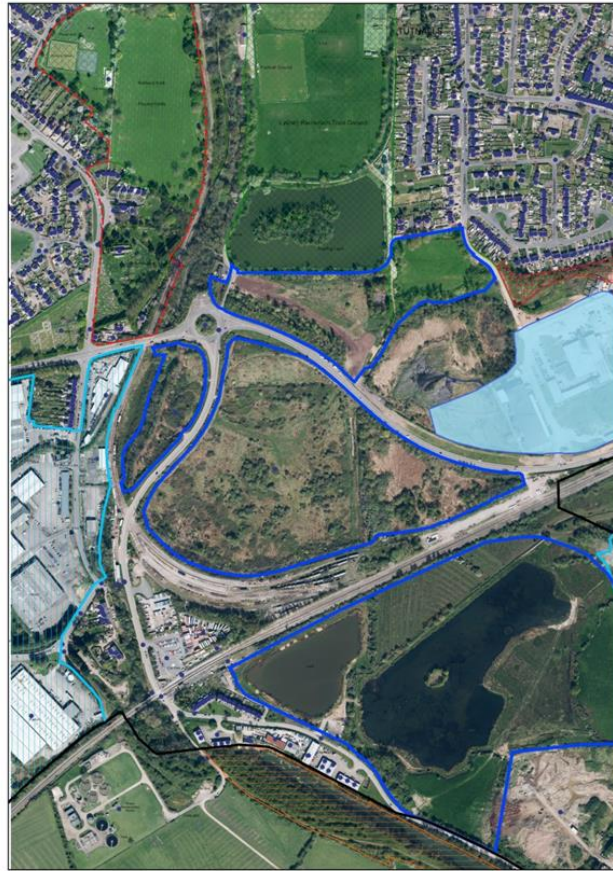
The site is split into three by the existing link road to the station and the bypass. It has potential to provide a number of routes for cycling and walking in addition to the approved cycle link between the town and the station. The site comprises a former tip site and is currently open with informal recreational access and is under the ownership of Lydney Recreational Trust. The site is a designated Key Wildlife Site.

New uses will need to demonstrate suitable management and protection of the site and the designated Key Wildlife Site and the general wildlife contribution of the area.

Potential Impact Pathways Cancellation and Avoidance Measures

This policy was not identified in the HRA as offering potential for disturbance effects with regard to the Severn Estuary. It is included in this paper to provide strategic context for the Lydney area and

the range of recreational opportunities within much closer walking distance to the existing town and housing allocations.



Aerial Photograph showing policy area

