

Monmouthshire and Brecon Canals

Visitor Destination

Discovery Project



Proposed Waterway Park – Ty Coch



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1 Introduction

This report has been commissioned by the Monmouthshire, Brecon and Abergavenny Canal Trust (MB&ACT) to advise on the feasibility and viability of creating a waterway park on land south of Hollybush Way, Ty Coch, Cwmbran. The aim of the project is to create a balancing pond cum marina on the Monmouth Canal, that will serve to supplement water supply for the newly restored locks and to moor boats in a secure environment. Around this, facilities will be created which will serve as a visitor attraction generating employment and economic benefits for the area.

The Monmouthshire and Brecon Canal was originally built as two separate entities: the Monmouthshire Canal and the Brecknock and Abergavenny Canal. However, for the greater part of their trading lives these two waterways were under joint ownership, first when the companies merged in 1865 and then under the Great Western Railway from 1880. The canals were nationalised together under the 1948 Transport Act but by this time carried virtually no trade and were abandoned. The Brecon and Abergavenny survived to become a cruising waterway mainly by virtue of its location in the Beacons National Park, which meant there was no pressure to fill in the line for development. Its largely lock free course meant that some navigation was possible even when the canal was seriously neglected. The Monmouthshire Canal fared less well as casual use was virtually impossible due to it being heavily locked, this was compounded by its urban setting resulting in lengths being closed and filled in. The development site lies on the Monmouth Canal just south of one of these infilled lengths through Cwmbran New Town.

This report examines the proposals the MB&ACT have put forward, assesses the condition of the site, the community view on the future of the proposals and the financial benefits and revenue streams.

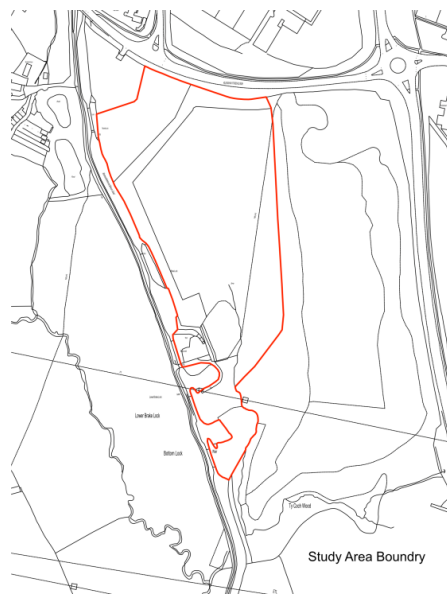


Figure 1: Proposed location and boundary of the Waterway Park



Figure 2: Map of the Monmouthshire, Brecon and Abergavenny Canal Network

2 Vision and Context

'Ty Coch Waterway Park' is a proposed canal side Community and Tourism Hub Development on the Monmouthshire & Brecon Canal in Llantarnam Ward Cwmbran.

The development would provide a prime visitor destination on the canal in Cwmbran complementing sites such as Goytre Wharf - Llanover, Fourteen Locks – Newport and Blaenavon and would be part of a 'String of Pearls' linking heritage and cultural sites throughout the Welsh Valleys.

Development opportunities exist for canal and landscape based leisure, heritage and education activities.

Examples

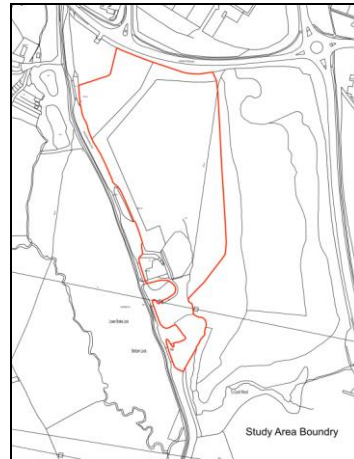
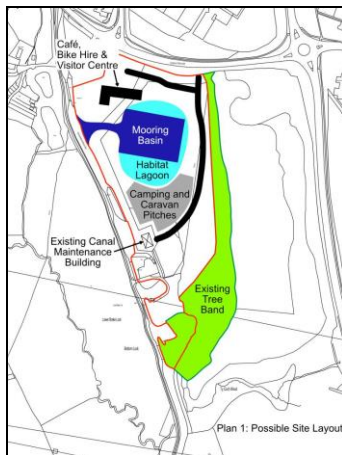
- Visitor cultural centre
- Iconic Restaurant and Taste of Torfaen local food outlet based on the M5 Gloucester services experience
- Outdoor camping & floating holiday accommodation
- Water-based recreational activities
- Education & training, health and wellbeing facilities
- Develop the story of Llantarnam dating back to pre-Roman and the Cistercian Monks periods

These are only a few ideas put forward by engaging with the Community and Trust volunteers. The project has the real potential to engage with and provide employment for residents in an area of Torfaen with high unemployment and developing social needs.

Protection of the natural environment is a key priority as the site has both water and land based ecological/environmental areas.

The medieval orchard and marsh areas would be extended with access to all footpaths created around the site.

The site is situated close to the centre of Cwmbran at Ty Coch off Hollybush Way. The canal towing path forms part of the National Cycle Route 48 connecting Newport and Cwmbran to the heart of the Brecon Beacons National Park at Brecon Basin. Voted recently as the most visited tourism resource in South Wales. This has been achieved with just two thirds of the canal navigable. The canals full restoration and the establishment of visitor hub sites such as the Ty Coch Waterway Park development, a future Crindau Marina Newport, linking canal to the River Usk and beyond, presents a major strategic opportunity for South East Wales and the Cardiff Capital Region.



Shop Lock, Lock Cottage and Monmouthshire Canal Company Workshop

Social Inclusion

It is acknowledged that the canal corridor through the wards of Two Locks & Llantarnam have connections with some of the most deprived communities in Wales. The 'HLF Waterworks' project team were aware of the unemployment issues and were able to engage with 275 members of these communities transforming 1,5 km of the abandoned section of canal adjacent to the Ty Coch site restoring 8 locks and create a landscaped picnic area to bring back into navigable use this section of waterway whilst learning new skills. Many of the participants gained awards in Health & Safety, First Aid, Manual Handling and Lifting. A few achieved awards in Level 1 & Level 2 Environmental Management, 4 achieved a certificate to operate an excavator up to 10 tons.

This skills training experience will be again recognised as part of the new development working with Torfaen Training, ITEC, Job Centre Plus and the National Education Careers Service who provide information advice and guidance to help groups such as the Trust make decisions on learning, training and work experiences.

This new community based enterprise will give individuals the chance of a healthier outdoor lifestyle, improve communication skills by having direct contact with visitors and reduce the feeling of being isolated by supporting each other and working as a team member. The project will recognise that by engaging local people in relevant

communication activities “Ambassador Skills” will reconnect the residents with their developing landscape area and heritage,



The restoration team

Economic Value

In respect of the additional new housing sites close to and within a 2km radius of the Ty Coch site, the following properties would bring more people to the area.

Location	Number of dwellings
Llantarnam ‘The Maltings’	102
Redrow Llantarnam Neighbourhood Centre	22*
Llantarnam Malthouse Lane	200
Former Llantarnam Comprehensive Site	226
Former Llantarnam Primary School Site	78
Former Police College Site	315**
Former Belle Vue Nursery Site	21

**Current unapproved planning application for 22 dwellings*

*** 226 dwellings approved and underway. Further application for an additional 108 dwellings to be considered by Planning Committee in May 2018.*

Additional large housing development is planned at Mamhilad adjacent to the canal 4 mile from the Ty Coch site and the Taylor Wimpey South Sebastopol development now in progress creating a further 1200 new properties in 2 phases.

Cwmbran Town Centre attracts c. 15M visitors annually and is just over 1 mile from the Ty Coch Site. The proposal for the Ty Coch Waterway Park seeks to increase tourist numbers, increase tourism generated income, create employment and training opportunities and build on the heritage and retail offer Cwmbran has to offer.

The Ty Coch site is in close proximity to the Llantarnam Business Park which accommodates a large number of businesses. Gwent Police have also purchased a site on the Park where the building alone has circa 400 desks. Businesses would be beneficial as customers of the facilities on the canal site and as users of the recreational facilities. The Business Park could also market the canal and its proposals to their wider audience.

Solar Farm Energy

The wider site is allocated for employment, an allocation that dates back to a proposal to host a livestock market here. The whole of the employment site is being considered for a solar farm although in practice there are a number of constraints on the site for this: most notable of these is the limited capacity for a local connection which means the entire allocated site may not be needed, and the concerns regarding the slope facing the canal in terms of the impact on the setting of the canal conservation area and the views of the site from the west. Thus there is an opportunity to locate the solar farm on the less visible eastern part of the site, the former tip, and release the area proposed for the waterway park for a use that is visually more in keeping with the canal and the countryside beyond.

However the synergy between the two uses does not stop at this: the solar farm will need space for habitat mitigation, whilst habitat creation is a key component of the waterway park, with at least one third of the site area (and possibly more) given over to this, and habitat “fingers” spreading across the park. The Waterway Park will also be developed to be as green in energy terms as possible, and may benefit from a direct feed (as in not via the national grid) from its neighbour. The Waterway Park can also function as the visitor and education facility for the solar farm, given that the solar farm will be one of the most accessible in south Wales from an urban area.

Commercial and Financial Viability

The Peter Brett Report (2015) identified the benefits of restoration of the canal and the advantages of creating a perceptual link between Cwmbran, Newport and the National Park. At a local level the proposed Waterway Park is a key opportunity to create that link and for Cwmbran to capitalise on the perception. Visitors to the area will (often unwittingly) follow a corridor guided by the availability and awareness of facilities and the perception that the canal will provide a pleasing and attractive ambience and environment. Further, to encourage exploration of the canal on foot and by bike regular refreshment stops are needed as is the availability of cycle hire – not all visitors have bikes and even those that do not necessarily want to load them in the car to bring them.

This site is located approximately 6 miles (by canal) from 14 locks and a similar distance from Pontymoile Junction, and is thus well placed a destination for those exploring shorter lengths of canal and an intermediate stop for those

making longer trips. The rural aspect from the site also encourages leisure and tourism activity. Overall use of the canal has the potential to generate over

£2 million of visitor spend in the local economy IF there are facilities there to capture that spend. The prime focus of regenerating the communities is to be achieved through economic, environmental and social outcomes expected to accrue from the canal restoration project. Economic benefits are expected to include:

- Increased visitor numbers.
- New jobs.
- Increase the local skills base.

A key element of the project is its part it will play in supporting the sustainable redevelopment and regeneration of the Cwmbran Town Centre (Lock Gate Retail Park and adjacent light industrial / retail support facilities).

At Newport the development of the Crindau Pil with a Northern Gate Way into the City including a marina for inland and sea going vessels with supporting visitor facilities.

Environmental benefits are expected to include:

- Enhancing the natural environment (preserve native species, protect biodiversity etc.).

Social benefits are expected to include:

- Maximise public access for all (although avoiding conflicts of interest and damage).
- Increase understanding and enjoyment of the area including use of community education resource.
- Improve access to informal recreation facilities (walking, cycling and water – based activities with consequent significant improvements in peoples health.
- Community engagement in new visitor facilities at the proposed Ty Coch Waterway Park and Crindau Marina.
- New Canal Quarter facilities including mooring basin at Cwmbran Shopping Centre.

Based on a paper prepared by Richard Dommatt MBE – MB&ACT

The note summarises the position on restoration following a number of Technical and Financial Feasibility Studies into reopening the Monmouthshire Canal between Newport and Cwmbran: the first in 1992 by MRM, followed by Hall Aitkin Associates in 1998, and more recently a review of previous studies incorporated into the Big Lottery Application by Locum Consulting during 2007 and economic assessment by Peter Brett Associates in 2014.

The restoration of the Monmouth canal is dependent the continued navigability of the Brecon and Abergavenny Canal, to secure both the works identified in the above studies have been separated into a number of projects. These projects included: the restoration of key structures along the existing waterway from Pontymoile to Brecon; restoration and reopening to navigation from Five Locks to Newport and Cwmcarn on the Crumlin Arm. The purpose has been to demonstrate that in technical terms the project is capable of being implemented and would be financially viable.

The following is a brief review of the canal corridor between Cwmbran and the Crindau Area at Newport, which would connect the National Park with the River Usk.

The technical solutions including:

- Reinstating an abandoned section of the canal at Greenforge Way with a proposed aqueduct.
- Developing a major marina on the Crindau Pill, including a new navigable channel from the Canal to the River Usk, and provide a new type of sea lock into the Usk.

The project comprises of the restoration, construction and development of:

- restoration of 11 locks
- reconstruction of 4 locks
- reconstruction of a canal bridge at Pentre Lane
- construction of a double lock from canal to Malpas Brook at Barrack Hill
- construction of Marina and supporting facilities on the Crindau Pill
- construction of new sea lock into the River Usk
- design construction of new canal link “Aqueduct” over Greenforge Way Cwmbran
- expand the Lock Gate retail park to incorporate Cwmbran Town centre and New Canal Quarter.
- Develop new Community and Tourism Centre including Marina at Ty Coch, Llantarnam, Cwmbran.
- Develop Marina facilities at Bettws Lakes.

The main focus of the project is to link and support community regeneration within those communities abutting the canal, and to increase the critical mass of tourism product within the area and to provide an alternative sustainable communication link between existing tourism facilities, thereby enhancing the economic viability of tourism in South Wales.

3 Site Description & Context

The site lies to the south of Hollybush Way, Ty Coch and to the east of the Monmouthshire Canal. The only road adjoining the site is Hollybush Way, where there is already access for the restoration works compound on the southern part of the site. The canal frontage is around 400metres long and features six locks, five below the proposed balancing pond and one above. North of the site there are a further two unrestored locks at Ty Coch and two unrestored locks at Two Locks before the canal is piped and infilled through Cwmbran.

On the east side the site is bounded by fields on a former tip whilst to the south it is bounded by woodland.

The northern part of the site is arable grassland with a shallow V form to a former watercourse piped under tipped material. In the southern central part of the site are the MB&ACT workshops, and below these to the south are side ponds for the canal locks which are surrounded by woodland and an area where wildlife habitat is promoted.

In the central area of the site there are several features of heritage interest, including the foundations of the former lock keepers cottage and workshop, a saw pit and, predating the canal by some margin, the former Llantarnam Abbey Orchard site.

The canal alongside the site is part of a section that is unobstructed (apart from road crossings) between Bellevue Road, approximately 800m north of the site, and Barrack Hill approximately 6km to the south, and is linked to the Crumlin Branch to Cwmcarn. The locks on the canal past the site have recently been restored using volunteer and trainee labour, benefiting from Heritage Lottery Funding amongst other sources. Given the complexities of getting the canal back through Cwmbran north of Bellevue Road it is likely that the canal restoration will be extended southwards by means of resolving the road crossings at Pentre Lane before it is extended northwards, and thus the proposed water park will bring life to, and a destination for, the canal coming out of Newport.



Figure 3 – before and after: canal restoration at Ty Coch

The site is also the location of a proposed solar farm, which at it's largest would fill the whole of the site proposed for the waterway park as well as all the land on the former tip – the solar farm would effectively fill the area between the canal and Cwmbran Drive with Solar Panels. However there are issues with the Solar Farm being located on the west facing slopes of the site as these are visually prominent and affect the setting of the Canal

Conservation Area. In addition, it appears that the connection for the Solar Farm to the national grid is limited to about 3.2MW without substantial improvement to the grid beyond the connection, and this limits the size of the solar farm.

The promoters of the solar farm have expressed a desire to work with the Waterway Park to mutual benefit: the most obvious benefit for the Solar Farm being that environmental mitigation can be accommodated within the area of the Waterway Park. The Waterway Park in turn can benefit through the provision of access from the highway needed for the Solar Farm, and from direct connection for power.

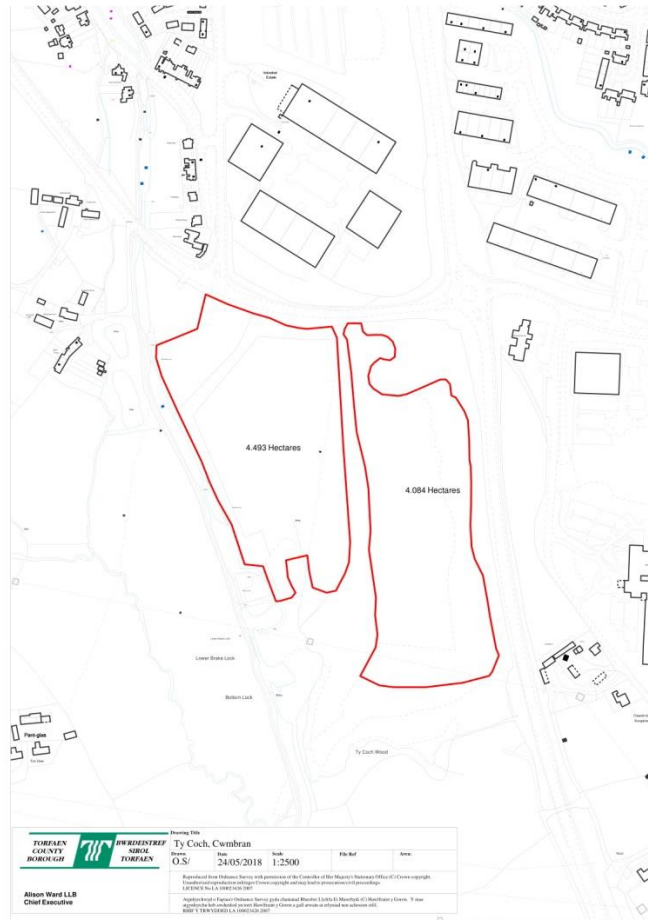


Figure 4: Possible site separation between waterway park and solar farm.

4 Policy Context and Review

A comprehensive report on planning policy relevant to the site is included in Appendix 2. Below is a summary of the policy position.

Planning policy is determined at a National Level by the Welsh Government and laid out in the Planning Policy Wales document issues by the Welsh Government and supported by several Technical Advisory Notes. Underneath this is the Torfaen Local Development Plan which sets policies within the borough of Torfaen and acts as the development plan within the meaning of the 1990 Town and Country Planning Act, the 1991 Planning and Compensation Act and subsequent relevant acts of parliament.

The Wellbeing of Future Generations (Wales) Act 2015 has a major impact on planning policies within Wales and where any contradiction between policy and the Wellbeing Act is found the 2015 Act has primacy, as it requires any activity promoted or consented by the Welsh Government or local authorities within Wales to have regard to its provisions.

Broadly the policies are supportive of developments that promote local tourism and leisure, however the Canal is a conservation area and any development must make reference to the setting of this. Further the site is currently allocated for employment, and whilst employment will occur as part of the Waterway Park this is not the primary purpose of the park. The proposed Solar Farm is also contrary to this policy, as there is virtually no on site employment resulting from this.

The proposed Waterway Park will need to be sold as an allowable exception to the employment policy, based on offering a more favourable visual aspect to the canal conservation area, the beneficial impact of the proposals in socio-economic terms for the local area, that the proposals support other local authority aspirations such as restoration of the canal, that funds raised by the project will go towards canal maintenance (the canal belongs to Torfaen) and that some employment will occur on site.

5 Ecology and Habitat

Introduction and Methodology

A site visit and walkover was carried out to provide information on the current habitats. This was supplemented by desk study investigating the presence of species in the proposed area using previous Ecological Survey reports made available by Torfaen County Borough Council. The National Biodiversity Network (<https://nbn.org.uk/>) and Record Pool (<https://www.recordpool.org.uk/index.php>) websites were reviewed for information on species recorded at the site and within 1km of the boundary.

The walk-over survey was carried out in January and has not tried to compile a list of species present at the site as they would be limited by the time of year, migration patterns and behaviours. However, the purpose of the site walk-over was to assess: current habitats, the ecological value of the site, the opportunities to enhance existing habitats, the potential to create new habitats and the potential for negative impacts from the proposed development.

Desk Study Results

The area has extensive marginal vegetation with good connectivity to other habitats and waterways. There is a mosaic of habitats including ancient woodland, mature trees, semi-natural broad-leaved woodlands, hedgerows and pools. It is an important wildlife corridor and many species use it both to commute up and down the canal and for foraging opportunities.

Birds

Moorhens and mallard ducks have been recorded breeding at several locations along the canal in the emergent and marginal vegetation.

Kingfishers have been seen along the canal but no nest has been located and they maybe nesting in the banks of a nearby stream.

Bats

The canal is thought to be an important commuting and foraging route for several species of bat with structures and trees providing suitable roosting sites but no emergence was noted from trees within the survey area. The only roost found close to the site is a Daubenton's bat roost in the road bridge at Hollybush Way.

Otters

Previous studies have identified evidence of otters using the canal waterways in the area and the surrounding woodland and scrub areas have potential to be suitable habitats for otters although no holt has been identified.

Dormouse

Wild Bees Identified nesting on site

No evidence has been found of dormice being present, however the area is suitable and work to restore the area has the potential to reconnect habitats.

Water Vole

No evidence was found for the presence of water vole, there is a lack of suitable habitat with high levels of disturbance from dog walkers.

Amphibians and Reptiles

No evidence of any amphibians or reptiles was found during the desk study although parts of the waterway could provide suitable breeding habitats with the woodland and scrub providing suitable hibernation sites.

Invasive Species

Japanese knotweed and Himalayan Balsam have been recorded in the area although outside the immediate planning area for this project, both species are listed in Schedule 9 Part II of the Wildlife and Countryside Act 1981 (as amended) as invasive species.

Himalayan Balsam is present as a dominant species in large areas of the woodland and scrub to the south of the plan area and is spreading along the canal corridor with Japanese Knotweed recorded in land adjacent to the canal at Top Lock. Both plant species are classified as controlled waste and if not treated on site must be disposed of at an appropriately licensed landfill site. Although outside the planning area care should be taken not to spread these species further.

Ecological Opportunities

The canal is an important wildlife corridor with a good connectivity to a mosaic of surrounding habitats including woodland, scrub, grassland and mature trees. There is the potential to develop these habitats alongside the development of the canal side water park improving and creating a wide variety and mosaic of habitats.

Development of a wetland a nature reserve during the building of the mooring lagoon could provide valuable habitats and important breeding sites for a wide variety of species including invertebrates and amphibians.

The grassland area is over grazed with much of its value removed; there is the chance to greatly improve this habitat with the development.

The woodland area has ancient origins noted by the presence of wood anemone and yellow archangel, restoration of this would increase its value as part of the diversity of habitats available.

Across the site, an educational nature walk could be developed alongside the water park to engage visitors to engage with the local nature and wildlife.

There is the opportunity to increase the value of the site for roosting bats through careful management of the woodlands and mature trees lining the canal.

Potential Impacts of the Development

De-watering sections of the canal may cause temporary impacts on marginal vegetation and associated invertebrate life but it is likely that these populations will recover if this disruption is short term.

Fish populations may be adversely affected by disturbance in the water column which can cause increased turbidity, changes in temperature and chemistry.

If any dredging is to take place it may temporarily affect aquatic plant and invertebrate life, but careful timing can minimise disturbance. In the long-term dredging may provide ecological benefits if it removes polluted sediments and reduces the turbidity of the water facilitating a colonisation of the area by a greater diversity of plant species. Increases in soil nutrient level can be caused by dredged materials which in turn can lead to a few highly competitive species dominating and an associated loss of biodiversity.

Removal of mature trees may lead to loss of habitat and breaks in the wildlife corridor. Previous studies have found no bats or birds of concern to be nesting in the trees so it does not represent a significant ecological impact.

Increased boat traffic will lead to changes in water chemistry and boat wash will affect both the marginal vegetation and bank stability.

Increased human pressures may lead to increased disturbances to wildlife and levels of litter.

Invasive species may be spread into the area through increased boat traffic.

Recommendations

Previous studies have reported proven breeding territories of barn owl and kingfisher although no nest sites have been confirmed. Both species are Schedule 1 birds and as such are protected at all times. Further surveys may be required prior to any work starting.

Presence of a Daubenton's bat roost in the road bridge at Hollybush Way has been recorded and trees lining the canal provide suitable roosting opportunities for numerous bat species, further dedicated bat surveys would be advised to confirm their presence especially in any trees that may need to be removed to create the entrance to the mooring lagoon and to assess if a license is required for any work that would cause disturbance to roosts.

Further studies should be undertaken to investigate both the bees nesting under the trees adjacent to the canal and whether or not there are amphibians and reptiles present on the site as both the ponds along the canal and woodland are suitable habitats.

Any vegetation removal should be carried out outside the bird breeding season (1st February - 30th September), with nests and associated vegetation left intact until the young have fledged and the nest is no longer in use.

6 Engineering Issues

The client has requested a report that indicates the difficulties and expenses to be expected from the establishment balancing pond that can function as a marina for approximately 50 boats adjacent to the Monmouthshire and Brecon Canal at Ty Coch in Cwmbran, south Wales. This pond will serve to balance the water supply for the locks immediately downstream and make operation of the restored canal more practical.

Whilst there are technical requirements for the balancing pond, if it is to serve as a marina for fifty boats it has to be large enough to do so. The parameters selected for the design were boats up to 20 metres long and 2.7 metres wide. This conforms to the lock size on this canal. An allowance of 300mm has been provided around each boat. The pontoons are generally 600mm wide and connect to a soft bank to save expense and provide habitat potential however, two pontoons at the far end of the marina are 1.2m wide and full length to facilitate wheelchair access. This results in the need for a basin approximately 85m in length by 60 metres in breadth. The basin can be enlarged beyond these limits to create a more natural appearance, facilitate habitat creation, and if desired to allow non-mooring waterspace for alternative uses such as houseboats or rowing boats

As shown in section 7 there is ample space for the required marina. This has been produced for discussion only and is not intended to be the final design. With any marina development it is only possible to achieve moorings on 66% of the water area due to the requirement that boats be able to arrive and depart without having to move boats already moored. This can be achieved with perpendicular moorings parallel moorings or any angle between. We have assumed perpendicular moorings, the principal reasons being that space to turn a boat is required and this is most easily achieved with perpendicular moorings, it also keeps the site as compact as possible. Conversely this reduces the extent of bank side habitat provision but this can be extended relatively easily by further engineering works as discussed above.

A bell mouth is provided so boats entering and leaving can arrive and depart from any direction. It is angled at 60 degrees from the line of the canal to give space all-round the marina within the land ownership of the client: if the marina were at 90 degrees to the canal it would be considerably closer to Hollybush Way at the eastern extremity of the basin. Space could be saved by having a wider entrance however this would mean that any bridge over the entrance would be longer, never a good idea as cost rises exponentially with span. It would also make any measures to isolate the marina from the canal in order to drain one for maintenance without affecting the other, or in the event that leaks occur, more expensive and difficult.

In this case a bridge may be avoided by directing the access road to the east of the marina, and we have worked on the basis that this is a more sensible (and more cost effective) approach. It would also be an option to have a high-level footbridge over the marina entrance and a vehicular road to the east, such that reaching one side of the marina from the other on foot was facilitated.

Prior to construction a full topographical survey would be required to determine the extent of cut and fill required to create the basin as well as a ground investigation, however this could be achieved with a back hoe excavator capable of excavating a trial pit to 600mm below the finished base of the marina. We could, if required, supervise such surveys and report to the client. With these tasks completed it would be possible to produce a detailed design that

should give costs within a 20% level of confidence. If volunteers were used for the construction costs would be reduced; however, it would be difficult to calculate accurately how much could be saved. Costs would reduce but confidence in the costs would also reduce.



Figure 5: View of the main part of the site, showing a shallow valley where the marina basin will be

Costs

Costs are provided to give an order of magnitude and are unlikely to be more accurate than +/- 40%. Civil engineering projects deserve their reputation for always coming in over cost and late and in an endeavour to avoid this trap we have, where much doubt exists, tried to err on the side of pessimism so the client can assemble the money required with a fair level of confidence that these will be sufficient for the task ahead.

	£
Topographic Survey	2,000
Ground investigation	2,000
Ground works	500,000
Pontoons	160,000
Pedestrian fixed Bridge	24,000
TOTAL	688,000

It should be noted that this is the basic cost of providing a hole in the ground that can be filled with water and that boats can be moored in.

Assumptions

Ground investigation: this cost assumes supervision by MNY who would produce a report, the survey will take one day and be conducted by contracted excavator.

Ground works: assuming professional labour, all ground is stiff clay and the existing ground level is *on average* 2m above finished bank level/canal water level

Pontoons: this assumes 14m pontoons with a precast concrete pile at the free end to restrain it plus two pontoons 20m long for wheelchair access.

We note at the outset that the client had concerns regarding the tip to the east and south of the site. We have not been given any information that the area for the basin impacts on the area of former landfill, nor that leachate from the landfill penetrates the area proposed to be occupied by the basin. Thus, as far as we are aware there is no realistic prospect of leachate reaching the canal as a result of this development. In the event that further investigations do reveal such a risk, the solution would be to line either the basin or the tip with bentonite matting, a material commonly used not only to line watercourses but to line landfill sites.

Land side development of the site

We have assumed that a building two storeys high with a footprint 40m by 10m would accommodate all functions related to the marina, including for example the marina office, the café/restaurant, bike hire etc. There is scope for some facilities to be based in a replacement canalside building at shop lock, replicating the original canal company premises, but our working assumption is that the main retail and visitor functions would be located in a new building adjacent to the marina

The various facilities would require access roads: at this stage we have assumed that once clear of the public road these would be crushed gravel surfaces 5m wide, this is wide enough to allow two cars to pass with care and larger vehicles access on a one-way/shuttle working basis. We have allowed for a total length of 500m of such roads

We have allowed in our costings for 100 parking spaces, which would require 2500 square metres of surfacing: at this stage we have again assumed crushed gravel but alternative reinforced grass surfaces are available that would offer better drainage characteristics in terms of reflecting greenfield drainage and would also be less visually intrusive

Finally we have allowed for electricity, water and sewerage connections for the site to enable servicing of buildings, marina pontoons and camping pitches.

Item	Amount	Cost (£)
Marina operational space (excluding lagoon)	5000 sqm	125,000.00
Main building	400sqm	420,000.00
Road ways	500m x 5m width	62,500.00
Carparks	100 x 25sqm	62,500.00
Habitat creation	10,000sqm	50,000.00
Event space	2,500sqm	50,000.00
Camping space	1000sqm	20,000.00
Services	500m run	50,000.00
Total		840,000.00

Highway Access

The existing site access is from Hollybush Way approximately 100m from the junction with Cwmbran Drive and 160m from the junction with Ty Coch Way. Hollybush way at this point is national speed limit.

Whilst we have not established any traffic generation forecasts our experience of similar sites elsewhere indicates that whilst there may be a perception of high traffic generation this is more the result of the popularity of such sites on warm summer weekends when in practice the number of people, and the number of cars is bolstered by the length of dwell time at the site. It is highly unlikely that peak hour traffic generation would exceed 100 vehicles an hour two way, and whilst 100 cars on the site at once would seem crowded the flow resulting from their arrival and departure is low by the standards of urban traffic generation.

Levels close to the site boundary make any access point other than the present one rather difficult and thus more expensive. The flows do not justify a junction type beyond a conventional priority/give way arrangement, and this is borne out by experience elsewhere. The only difficulty here is the speed limit on Hollybush Way, which at 60mph

implies that visibility of 215m in each direction should be provided. The present access is less than this from the Cwmbran Drive roundabout and in any event traffic leaving the roundabout won't be travelling at 60mph, thus visibility as far as the roundabout is all that is required. Visibility to the left is impeded by trees on the far side of Hollybush Way and thus is limited to about 190m. It should be noted that this restricted visibility also affects existing westbound traffic on Hollybush Way, as they should also have forward visibility of 215m.

In practice the way forward is to establish what the actual speeds are at this location and, if the 85thile is greater than about 50mph (which it may not be given the proximity to the roundabout) to seek to reduce the speed limit to 50mph or even 40mph. This would also benefit traffic using the Ty Coch Way junction to the west.

The proposed solar farm will also need an access for initial construction and for maintenance once operational: it would make sense for this access to be shared with the Waterway Park, both are relatively low generators and the most demanding specification is likely to be construction traffic for each as this will require larger goods vehicles to enter and leave the site.

At the time of writing the matter has been raised with Torfaen Highways but no conclusion has been reached, a supplementary report is expected to follow.

7 Consultation Exercise

Part of the Canal Trusts vision for the site is for many of the facilities to be community ventures: this is in keeping with the philosophy of the work to date, for example providing employment training as part of the lock restoration programme. In order to test the views of the local community a consultation event was organised by the trust.

The Process

Community Consultations are an important part of the development process allowing local residents an opportunity to assist the Trust and the Consultant to assess residents priorities and establish attitudes towards the future of the canal.

Following discussions with Richard Dommett, Chair of the Trust, and Patrick Moss from Moss Naylor Young Ltd, Shirley Hughes was engaged to facilitate a community engagement activity.

The event was held in the Foyer of the Congress Theatre in Cwmbran on Friday 16th February 2018 between 10am and 3pm, it was advertised on the Trust website and in the local press.



Figure 6: Congress Theatre, Cwmbran

Illustrations of initial ideas were on display, and volunteers from the Monmouthshire, Brecon and Abergavenny Canals Trust were on hand to answer any queries that visitors may have, along with representatives from Moss Naylor Young Ltd and Torfaen County Borough Council.

This enabled all interested people to drop in at any time and literally “flag-up” any of their thoughts and ideas on a large map of the Ty Coch



Figure 7: The flags used in the consultation exercise

Waterway Park, using topic-headed flags on such themes as: Leisure, Tourism, Culture and Heritage and Environment & Sustainability, plus 'Your Own Ideas'.

It proved to be a very successful, enjoyable and inter-active event, with people of all ages voicing their views for the area. In total, **216** flags were inserted into the map during the Consultation, when the map got too congested, flags were removed and the topic and position of the flag were recorded as seen in the Summary of Comments. Flags which covered the whole of the site were placed around the white border of the map and were recorded as such. Some attendees did not place any flags into the map, and the reasons given were that 'their comments had already been made' or that they had 'no comments to make'.



Figure 8: Nick Thomas-Symonds MP for Torfaen attended to put his ideas forward

Summary of Comments

CULTURE & HERITAGE	Where	How Many
Better links needed between Trust & local Schools		3
Canal Art Workshop		2
Horse Drawn Boat Trips	Navigable stretch of canal	3
No more new Houses		2
Planned visits to see restoration works		3
Re-build 200yr old Saw Pit		2
Re-build Lock Keepers Cottage		6
Restore the Canal & Locks		11
Support for Conference Centre		4
Support for Educational/Training Facility		4
Talks on the History of the Canal		6
LEISURE	Where	How many
Bike Hire Here	By proposed Visitors Centre	5
Build Slipway		1
Canoe Hire Here		4
Fishing	Ponds	5
Fishing Platform built Here	Middle & bottom of site	5
Nature Trail to be developed		11
Provide Holiday Floating Pods		9
Provide Seating	Every 50mts along Canal	5
Toilets and Showers		4
Ty Coch Waterway Park Friends Group		5

ENVIRONMENT AND SUSTAINABILITY	Where	How many
Clean up Here	Whole Cwmbran stretch of Canal	2
Construct Balance Pond		1
Construct Marina		5
Create Wetland and Wild life area Here	By lower ponds	2
Environmental Activities - woodland crafts, hedge laying etc.		3
Flowering shrubs to be planted	Picnic area	5
Improve Public Footpath Access		1
Improve Wildlife Habitat	Whole of the site	7
Keep grass Here	Picnic area	1
Orchard to be re-planted	On site where other trees are	5
Picnic/BBQ area to be created	Bottom of site	4
Planting to encourage wildlife	Whole site	11
Provide Bird Boxes Here	Orchard/Picnic/Pond	3
Provide Dog Fouling Bins Here	On site	2
Provide Rubbish Bins Here	By Rachel's Lock (2) Generally (4)	6
Solar Panel Energy	Use for on-site energy	1
Training site for Rural Crafts		2
Trees to be planted	Fill in along mature hedge line	7
TOURISM	Where	How Many
Craft Shop	By Carpentry Unit	2
Farmers Market	At proposed Café	4
Provide Floating Temporary Accommodation		1

Provide Parking		8	Additional Comments Attendees also had the opportunity to make additional comments
Signposts to Facilities and Attractions	At site entrance & around site generally	6	
Solar CCTV	On proposed structures & Picnic Area	2	
Support for Community Run Café/Restaurant		11	
Support for Visitor Centre		3	

on blank ‘Your Views’ flags, these were as follows:

- Bicycle parking racks
- Canal needs dredging throughout
- Disabled facilities
- Improve Angling facilities
- Integration with Public Transport
- Link up all areas of the canal
- Pub somewhere on route
- Recycling facilities on-site
- Safe route for wheelchairs **NOT** arriving by car i.e. dropped curbs etc.
- Stock canal with fish
- Wheelchair access throughout including tow path

Conclusion

It was obvious from the positive comments made during the Community Consultation that people who live and walk along the Canal, were passionate about its natural beauty and enthusiastic about proposals to enhance and preserve the site at Ty Coch, turning it into a visitor attraction.

Positive responses to the environmental elements of the proposals were prevalent, planting to encourage wildlife and the creation of a Nature Trail were popular.

More signage around the area was ‘flagged up’ as being a good idea, as several people were not aware of the present facilities available.

It seems that the main reason people access the site via the Tow Path, is to walk their dogs, cycle or to go running. Two ladies stated that they walk from Malpas to Top Lock and back three times a week. They have been watching the progress of the renovation work with great interest.

8 Facilities Surrounding the Waterspace

We have taken note of the client's aspirations and gathered examples and ideas from other locations already in operation. In principle the concept of a small marina with associated facilities is quite common, what is unusual here is that the canal, whilst navigable, is isolated and heavily locked. That said most of the visitors to similar facilities do not arrive by boat but by land-based transport, drawn by the appeal of the canal.

Café

The canalside café is almost a British institution, with examples too numerous to mention in locations varying from rural outposts to city centres. One notable example is the Angelfish at Limpley Stoke, on the Somerset Coal Canal. Indeed, this site has many characteristics in common with Ty Coch, including the canal itself not being a public navigation but more akin to a marina, although it connects to the Kennet and Avon Canal which is navigable and connected to the main system.



Figure 9: The Angel Fish, Limpley Stoke

The Angelfish takes the western end of a building that overall is 34m long by 10m wide and has two floors. The restaurant operates over two floors with 20 tables inside and space for 30 outside – on a summer weekend these can all be taken. The restaurant serves coffee, snacks and meals alongside a take away service for ice creams, canned drinks and pastries. Being just off a national cycle route it is immensely popular. The restaurant opens 364 days a year.

Similar outlets exist, either as a single facility or as a result of businesses grouping in the same location, at; Exeter Quays, Devon (“Saddles and Paddles”); Devizes Wharf, Wiltshire;

Manifold Trail, Staffordshire, Bradford-on-Avon, Wiltshire and many other locations with direct access to cycle and walking routes.

Bike Hire

Ty Coch has direct access to national cycle route 49, and other local cycle routes, thus not only can cyclists readily reach the centre but it makes an obvious place to rent bicycles for visitors to the area. In addition bicycle repairs can be offered.

Many canalside outfits offer canoe hire and day boat hire as well, however the presence of four locks in the only realistic direction of travel inhibits the potential for this. A day hire boat would have to operate a total of 8 locks in a half day trip, and a canoeist faces 8 portages split between the start and end of the trip.

Visitor Centre

A building such as that suggested for the Café would have ample room for other functions such as a visitor centre: this term means all manner of things but in essence a room where the history of the canal and of the site can be interpreted, where information about other attractions and events nearby is available and, if it is possible to incorporate some kind of reception facility, for example related to the café or a shop on site, where enquiries can be made.

There was significant interest in the community workshops in a craft centre and this would work well with a visitor centre in the same area of the building.

Across the site, an educational nature walk should be developed alongside the water park to engage visitors to engage with the local nature and wildlife.

Trip Boat

A trip boat for short trips may well be appealing as the journey could be through one lock and return or through two or more locks as a one way trip with a walk back. There is of course no need for the boat to start from the marina, although arranging disabled access will be much easier there, and it would be sensible for the trip boat to be stored there. There is a 400m long pound immediately below the four locks mentioned above, enough for an approximately ten minute boat trip: by starting below shop lock and negotiating two locks, this could become a half hour trip. If the boat came back up the two locks this would be closer to a three quarter hour trip.

Experience elsewhere suggests that boat trips can easily be either too short or too long, and that somewhere in the 30 to 60 minute range is about right. The Wey and Arun Canal Trust run very successful trips from Loxwood that last about 45 minutes and pass through one lock twice – they also add periodic “canal basher specials” which go a greater distance over about three hours. As the available canal has got longer these specials have become more varied and are often very popular.

In the discussion that follows, it should be noted that there is a threshold where boats carrying more than 12 passengers (and 3 crew) are subject to considerably tighter regulation than boats carrying 12 passengers or fewer. This often favours smaller boats and certainly means that once a capacity of 12 is exceeded it is worth being able to carry 30 or more passengers to justify the extra cost of regulation.

One problem at this site is that there is nowhere to turn a longer boat round at the outward end, and significant expenditure would be needed to create such a space. This could be resolved by having a short trip boat (probably no more than 25 feet long) or by having a double ended boat – the MB&ACT are developing such a craft as we go to press.

The shorter boat has appeal if a new craft is needed as suitable craft are readily available second hand both reducing the capital outlay and the risk in the event that the project is a failure or is so successful a bigger boat is needed and the original must be sold. In addition, a shorter boat could still easily carry 12 passengers. We seldom advise new start-ups to have innovative craft, or even new craft due to the financial risk inherent in this.

One innovative project that has been suggested is to build a replica MB&AC boat – these boats were not like the narrow boats of the English midlands and as far as we are aware none survive. To be authentic, such a boat would need to be built of wood: we have made extensive enquiries and can find no record of a new wooden boat getting MCA approval to carry more than 12 passengers. The most recent replica we are aware of, the *Dawn Rose*, a Chesterfield Canal Cuckoo, does not carry passengers at all and thus does not need MCA certification. However, we have been advised of other groups who have sought to undertake innovative projects, for example a replica Thames Sailing Barge that will carry cargo but has no auxiliary engine, and these groups report that the MCA are open to discussion if proposals to address safety concerns are forthcoming.



Figure 10: The Dawn Rose – a wooden replica “cuckoo” on the Chesterfield canal

Camping/Caravan

Camping and caravanning is popular in this area, partly because of the very large centres of population not that far away in England that can reach the area via the M4 and the A449. Although the area is on the edge of Cwmbran it is very rural in outlook and within easy reach of several notable tourist attractions as well as good walking country in the national park. An area wrapping around part of the lagoon would prove attractive pitches for caravans and camping – the minimum size pitch is 6m by 6m but many modern caravans won’t actually fit on such a pitch, we have therefore assumed ten generously proportioned pitches of around 10m by 10m could be provided

Holiday Lets

With the balancing pond in place there is limited room around the site for land based holiday accommodation, although a reconstructed lock keepers cottage and workshop at Shop Lock could certainly function as such. However, the proposals being considered put forward a marina capable of holding up to 50 boats and for some years yet there is unlikely to be anywhere near this level of demand. It would be unwise to render the entire marina unusable as moorings as there is some prospect that people may wish to base a boat here, even if only as a floating

retreat, and one of the concepts is to promote boating so providing a slipway and moorings for visiting boaters is an important part of the promotional package. However at least half the marina will not be needed for some time, and the moorings are designed for boats up to 20m length by 2.7m beam, leaving over 5 metres between piers: thus a floating holiday home up to 20m long by 5m wide could be accommodated so long as there was no expectation it could leave the marina. A typical Norfolk Broads holiday houseboat might be 10m by 3m and sleep up to six people. Several such houseboats could therefore be accommodated



Figure 11: Dundas basin – interpretation of old canal structures at the towpath entrance to the Somerset Coal Canal

Heritage Interpretation

Heritage interpretation provides a good reason for people to dwell in the area and therefore increases the incentive to spend money in the café and other facilities – indeed the original relationship in this model was that facilities were provided to support the heritage interpretation not the other way around. Figure shows Dundas Wharf on the Kennet and Avon Canal which is a few hundred yards from the Angelfish restaurant and is also at the canal and footpath entrance to the small marina which the Angelfish serves. As a result those arriving by car have something to walk to and those arriving by canal have a gateway into the site: a very similar arrangement could be made with interpretation at Shop Lock and an attractive walk through the site to the café and other facilities.

Habitat

There are two strands to the role of habitat within the site:

1. the creation of habitat to encourage biodiversity and ensure that the impact of development is beneficial to the natural environment
2. to provide part of the offer of the site, both passively in making the site visually attractive, and actively by encouraging exploration and learning.

Within the main part of the developed site at least 1/3 of the land area should remain unoccupied by facilities or infrastructure, this is good practice anyway as it encourages a feeling of space and light within the site, leaving gaps between any roadway and parking spaces, buildings or water space. Often such space is used for landscaping but in this case we would suggest that this should be actively managed to create habitats through the use of marginal wetlands, wildflower beds etc. Bug hotels could also feature throughout.

South of the main development there is already a natural area that is being maintained as both a reserve and an amenity and this should play an enhanced role within the site.

Events

The location clearly lends itself to events that would align with the core functions and ethos of the site: two obvious examples would be a small boat rally and a farmers market (possibly at the same time!). The hosting of events needs to be managed carefully so as to not overly intrude on the core functions of the site by too frequent disruption. There are also issues of compatibility with certain event types – this isn't simply an issue of noise, traffic or even taste but rather the aims that the site promotes may not be entirely compatible with proposed events or it may be wise to steer clear of certain events. It is generally necessary for canal societies, for example, to remain politically neutral and not align themselves with causes that are not canal related or that may needlessly divide opinion and distract from key objectives. The key elements being promoted by the site are the canal and the local community. Within this, natural habitat is also promoted and it is likely that environmental sustainability will be a soft selling point for the site.

We have identified that there is over 2000 square metres of room for event spaces or other activities, and this assumes 100 car parking spaces on the site. 2000 square metres equates to an area 45 metres square, or half a rugby pitch. This is ample room for an event with around 100 stalls, or a number of marquees.

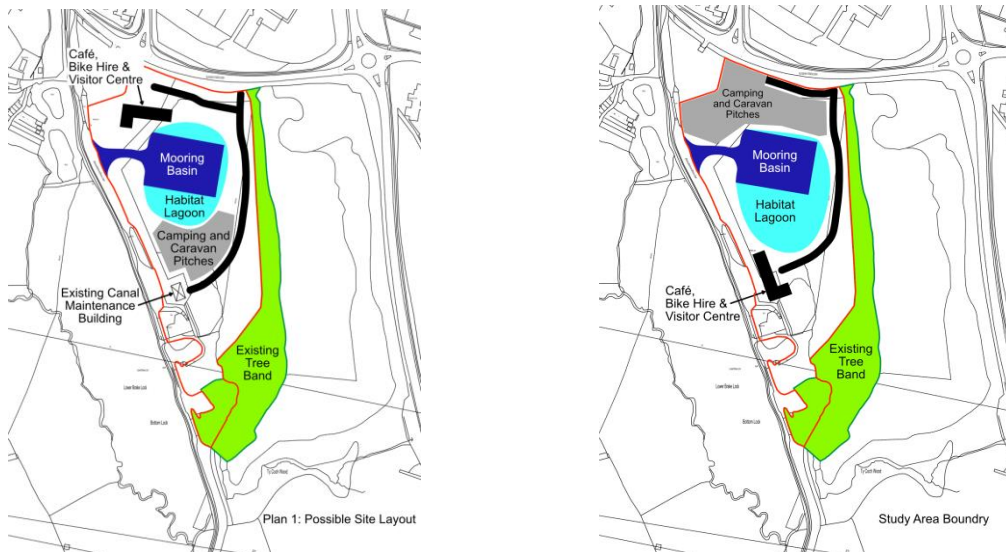


Figure 12: Possible site layouts

The illustrative layouts above (Figure 10) focuses most of the activity, excluding any activity around shop lock and the existing woodland, in an area of approximately 40,000 square metres (several further layouts are included in appendix 3). The uses can be moved around within the site but this figure provides a useful measure of the site occupancy and availability for each use. As a starting point we have assumed that one-third of this developable area will be space not occupied by buildings or infrastructure (car parks, roads, operational water space) and thus available for habitat creation and landscaping. This will not only assist in habitat provision but will also ensure a natural and open feel to the site as green fingers reach through the various uses.

The mooring basin element of the balancing pond will require approximately 5,000 square metres: as a rule of thumb, for a marina to operate effectively only one third of the area can be operational waterspace – the rest is required for service roads, car parking, access channel to the canal, service berths (sewerage, fuel etc.) and offices. This takes the area required for the marina element to 15,000 square metres although there is an assumption that at least 50 car parking spaces (one per mooring) would be provided in this. Also, the area around a marina includes habitat and landscaping so there is an element of double counting with the initial habitat allocation above. This can be reconciled as the project develops, and other than any effect on constraining activity space there is no reason why the total area dedicated to habitat and landscaping cannot exceed one third of the site area

Overall this leaves around 5000 square metres for other functions: the proposed building footprint is 400 square metres, we have suggested 1000 square metres for camping/caravan pitches, and a car park for an additional 50 visitors would require a further 1250 square metres. This totals 2,650 square metres leaving room for event spaces, overflow car parks etc. These totals do not include the areas by the current canal workshop, shop lock or the existing wooded areas around the lower locks or on the eastern boundary.

Table of areas (all figures in square metres)

Description	Area (sqm)
Lagoon	5000
Marina operational space	5000
Main building	400
Roadways and car parks	5000
Habitat	10000
Event space	2500
Camping space	5000
Total	32,900

Thus the identified uses occupy about 80% of the available site area leaving room for growth and flexibility.

9 Revenue Streams

Judging revenue streams to the site operator in the absence of fully detailed proposals for the development is always difficult, and in any event the operator of the site may actually be two or three different entities. However, conventional cost benefit analysis in effect identifies revenue streams that are available for capture locally, and the objective on site is to capture as much of that spend as possible within the site.

Visitor Type	Category	Expenditure/unit	Units	Total
Private Moored boats:	Running costs (excluding mooring fees/licence)	£1000	5	£5,000
	Mooring fees per annum	TBD	5	
	Spend whilst aboard per visit	£25(a)	5 boats / 20 visits per boat	£2,500
Visiting boats	Average per day	£46	50 days	£2,300
Trip boats	Passenger/trip	£5	15,000	£75,000
Angling/walking/ Cycling	Spend per visit (b)	£8 (average)	250,000 (c)	£2,000,000
Holiday lets	Rental	£400 (d) per week per unit	5 units, 12 weeks each	£24,000
Holiday Lets	Spend per visit	£280 per week per unit	60 weeks total	£16,800
Camping and caravans	Pitch fees	£12 per pitch per night	1000 nights	£12,000
Camping and caravans	Spend per visit	£10 per pitch per night	1000 nights	£10,000
Health Benefits etc.	Savings to NHS etc.	£7 per £1 spent on towpath	@£40pm	TBD
			Total	£2,147,600 Per annum

- (a) Based on spend by boaters whilst aboard but not cruising
- (b) This is basically revenue available to the café etc. it includes bicycle hire at this stage
- (c) Assumed visitor levels for a well-run canal-based attraction
- (d) Typical self-catering mid-season price for accommodation sleeping 4 people

One factor immediately apparent is how heavily dependent the scheme is upon the benefits from Anglers, Walkers and Cyclists. Generically known as “bankside visitors” this is the core visitor base for the café / iconic restaurant and Taste of Torfaen food outlets also for any other spending opportunities on site. The figure equates to 2,500 visitors on the busiest days of the season, a significant portion of these will use a café or restaurant on site although not all will. However, nearly all these visitors will spend money on site *given the opportunity* and thus provision for meeting peak demand should be considered: this could be in the form of an extra ice cream and coffee outlet elsewhere on the site, the sale of gifts from the visitor centre and similar. Also the core outlet, the café, can benefit from being so close to an urban area by opening on likely winter peak days such as weekends (especially Sundays) and holidays for example Boxing Day and New Year’s Day, when locals are often looking for “something to do”.

We have pitched holiday lets as mid-range self-catering and have conservatively assumed five units. We have not attempted to distinguish between floating and non-floating, although in practice if a rebuilt lock cottage were available it could attract a considerable premium. The proposed marina could be built with many fewer pontoons than we propose in our engineering report as demand is unlikely to merit the full supply for many years, and not having the pontoons would create a sense of open water for the house boats to be set in. Making this concept work will involve much attention to detail that is beyond the scope of this report.

10 Ownership and Management, Delivery and Funding

It is difficult at this stage to assess the quantitative impact of different Ownership and Management options, nor is it really practical to map out entirely what the options might be (the site and the canal are currently in the ownership of Torfaen Borough Council). However, assessing the qualitative impacts is much easier, and these will feed back into the success of the site (and thus the quantitative effect on revenue streams) and in terms of extra input into the local economy and community.

The MB&CAT have an aspiration for the café / iconic restaurant and taste of Torfaen food outlet element of the proposals to be community led and locally sourced, citing the nearby Two Locks Café as a model for this. To deliver this aspiration the first step is to ensure that the management and regulatory regime for the project favours such an approach, or at least doesn't discriminate against it. At the highest level Tebay Services on the M6 and Gloucester Services on the M5 are often quoted as the ultimate in co-operative delivery that benefits the local community and local suppliers as well as the customer. There is little doubt that these provide a high quality and well-priced service on a national platform, but the most remarkable feature is perhaps that they were awarded the contract at all: motorway service station contracts are onerous in many ways, including the responsibilities and liabilities placed on the operator as well as the financial provisions, hence the tendency for large corporations who have the financial support to withstand losses and can operate on tight margins to dominate. The model at Ty Coch needs to be structured to favour community involvement and interest rather than simply encouraging larger businesses whose model is based solely on profit and turn-over.

For a cooperative to thrive at this location the premises themselves must not be seen merely as a revenue generator, whereby the highest yield wins. Given another objective of this scheme is to help raise revenue to maintain the canal, this may seem counter intuitive, but the long-term gains will outweigh the apparent lower revenue. What is particularly important is that site management do not seek the easy option of a franchise nor do they seek an arrangement that "transfers the risk to the private sector" – not only do such arrangements tend to favour larger operators less interested in the welfare of the site and the community, there is plenty of anecdotal evidence that this risk transfer is not all that effective and comes at a high price. If the operation is to be let out by franchise or tender then it is critical that local sourcing and local employment/training conditions are incorporated, however, it may be more desirable to establish a CIC for the operation and work with that.

The Café is a microcosm of everything else on the site – it needs to generate revenue but it also has the more fundamental role of encouraging visitors not only to the café itself, but to the site and the canal. As such it needs to appeal to a market that will find the canal environment attractive to explore as well as to look at whilst drinking coffee: much of this will be achieved in detail that is beyond the scope of this report, such as the provision of cycle racks, flooring that is hard wearing and easy to clean, furniture suited to outdoor clothing that may be wet and muddy – all this before menu and suppliers are considered. Again, these are difficult factors to put in a franchise contract and thus the CIC route working with the MB&ACT and the site operators may be a better way forward.

Having stated that the café is a microcosm of everything else, it follows that all other aspects of the site must follow the same ethos. There is generally much less of a sourcing issue and many other possible uses e.g. craft outlet, arts area, visitor centre, will struggle to employ anyone at all and will be dependent upon volunteers. However, the ethos

of connection to the canal and the local area remains, and is again mainly dictated not by the principle but by the detail – these activities must interact with the canalside location rather than simply regard the site as convenient accommodation.

Our expectation at this stage is that a CIC under the auspices of the MB&ACT would lease the site from Torfaen, and that this CIC would then have subsidiaries operating the various elements, e.g. a café CIC, a single CIC for moorings, camping, caravans and holiday lets, etc. It is not clear what the management structure of the canal would be in the future – although the Canal and River Trust own the Canal north of Sebastopol, their current status and difficulties taking over even those waterways that were originally envisaged as part of their remit (the EA Rivers) suggest it may be many years before CRT would wish to take the canal, even if that were a desirable solution in the eyes of others. Our working assumption therefore is that the canal will be managed by a suitable body such as a charitable trust with clearly defined objectives, and that the CIC for this site will have a working relationship with that body and thus be able to contribute resources including funds.

Delivery

This section briefly considers planning, construction and funding of the development, taking the proposal from the present land use to being operational. Subsequent operation is briefly considered as this ties in with the chosen delivery mechanism.

Planning Consent

Several consents will be needed for the development of the waterway park, but the most pertinent is planning consent. Consent will also be needed from other bodies with regards to building standards, public safety, drainage etc but these consents are generally a matter of compliance, they will not bring the principle of development into question, whereas the need for planning permission does affect the principle of whether the proposals can be delivered.

The key point here is that the site is currently allocated for employment use, generally regarded as one of B1,B2 or B8 in the use class order. The proposed development would fall under a mixture of retail (A1), food and drink (A3) and sui generis. It will thus be necessary to make the case for the site to be granted permission contrary to planning policy. There are two routes to this, one is to apply for consent making the case, the other is to seek to get the policy changed. In view of timescales for the development we have assumed the first.

The principle argument for allowing this development to proceed is that it is generally beneficial to the canal corridor and to the locality, it will promote leisure use of the canal and provide an amenity and facility to canal users and the local population: for this to be achieved the location for the development is fundamentally constrained – it must be next to the canal. There is considerable extra benefit for the canal in placing this development as close to the northern end of the Newport-Cwmbran section as practical, so helping to create a four mile length of canal with an activity pole at each end (the MB&ACT are looking to promote a marina scheme at the Newport end) and there are advantages in the development being on as close to the built up area of Cwmbran as possible without actually being in it, as the site can then be a gateway to the countryside and green spaces surrounding the urban area.

The marina will also act as a balancing pond which is an operational necessity at the upstream end of the restored Newport/Cwmbran length. *On average* water supply will cope with lock usage but on occasion the locks will be used more frequently than the supply can cope with and additional storage will be required otherwise lock operation will have to stop, possibly overnight, whilst levels make up again. This situation arises as locks upstream of Cwmbran are not operating at all and thus operation on this length of canal is dependent upon the flow along the canal only whereas on a normal canal the locks upstream would also be operating and supplementing the water supply. The balancing pond/marina will allow boating to continue as the level is drawn down and then levels to recover overnight for further operation the next day.

It should also be noted that whilst the development would not be classified as employment under the use class order it will feature employment, there will be circa 10 FTE jobs on site to manage and run the café, the moorings and the campsite/holiday lets. Unlike say a housing development there will be long term job and training opportunities arising from this development.

Regard should also be had to the fact this site is not ready for occupation for employment use – there is no access, no servicing and there are no plots laid out. Nor, as far as we are aware are there any employers making enquiries about the site. The proposed waterway park is not seeking to occupy an “over ready” employment site that is being actively marketed or about to be occupied.

Finally, this development occupies the part of the site sloping down to the canal that can be observed from open countryside. It isn't necessarily the case the employment sites are unattractive but the proposed waterway park certainly has more potential to fit in with the rural aspect than an office or an industrial unit would.

Construction

This is related to the funding considerations which follow: if the proposals were on a busy waterway in a rural setting such as the Brecon and Abergavenny canal within the national park then the development would be largely or entirely delivered using private funding as the site would be serving an existing market. However the proposals are intended to promote the use of the waterway and thus develop the market for the canal, and are too speculative to attract private investment involving a return on capital: this has an impact on how the site will be constructed as costs will need to be kept down and non-market funding sought.

To date much of the restoration work on the canal has been delivered as training for the young unemployed. There is no reason why this can't also be adopted for the delivery of the main elements of the site. The earthworks for the basin, the construction of access roads and the building of the café/shop/bike hire centre are all projects that, given suitable resources can be built as training exercises resulting in skills and qualifications for those involved. There will be limitations to such an approach – public utilities will insist on using their own contractors for example, and the point of access to the highway and any works on the highway will also need to be undertaken by approved contractors.

Skills Training

It is acknowledged that the canal corridor through the wards of Two Locks & Llantarnam have connections with some of the most deprived communities in Wales. The 'HLF Waterworks' project team were aware of the unemployment issues and were able to engage with 275 members of these communities transforming 1.5km of the abandoned section of canal adjacent to the Ty Coch site restoring 8 locks and create a landscaped picnic area to bring back into navigable use this section of waterway whilst learning new skills. Many of the participants gained awards in Health & Safety, First Aid, Manual Handling and Lifting. A few achieved awards in Level 1 & Level 2 Environmental Management, 4 achieved a certificate to operate an excavator up to 10 tonnes.

This skills training experience will be again recognised as part of the new development working with Torfaen Training, ITEC, Job Centre Plus and the National Education Careers Service who provide information advice and guidance to help groups such as the Trust make decisions on learning, training and work experiences.

This new community based enterprise will give individuals the chance of a healthier outdoor lifestyle, improve communication skills by having direct contact with visitors and reduce the feeling of being isolated by supporting each other and working as a team member. The project will recognise that by engaging local people in relevant communication activities "Ambassador Skills" will reconnect the residents with their developing landscape area and heritage.

Funding

Fundraising for the initial development of this project would be best focussed in the following areas.

1. Foundations, Trusts and Grant giving bodies (75%)
2. Pledges from the local Community (Individual giving) (10%)
3. Local Authority grants (5%)
4. Pledges from the local Community (Corporate/businesses giving) (10%)

We have also indicated roughly how much of the funding mix you can expect from each area, this is also an indication of how much time you should spend on trying to secure each type of funding.

Based on the project breakdown we have identified the key areas and themes which might appeal to the various funders and in the list of Foundations, Trusts and Grant giving bodies we have separated the funders under each category according to their relevance. (List appended to this report). These are as follows:

1. Training (especially young people)
2. Community Development (providing quality activities and economic benefit to the community)
3. Environmental regeneration and Renewable Energy
4. Sport and being active

We would suggest the least strong area for funding i.e. the project wouldn't deliver enough of the requirements of the funding bodies would be #4 Sport and being active but if there is thought to be potential for this funding the

development could be adapted to provide greater benefits in this area. A short discussion of the key points to consider when preparing your funding case for each of the above themes is provided below.

Preparing the Case for Funding

When preparing the case for funding it is vital to stress the following key things;

- How the project is relevant to the aims of that particular organisation e.g. If it's a local business how will sponsoring your project benefit them or their customers, If a local person how will it improve their quality of life, if a charitable trust how does it deliver their agenda?
- Why now? What's the urgency?
- Why is this project different? Spend some time articulating what's special or exciting about the project.
- Who will benefit? Try to match up the audience to suit the target audience of the particular organisation being applied to.

Identifying Who to Apply To

We have run a reasonably detailed search on the types of funding bodies based on your geographic location and the areas of the project we feel would appeal to funders. However we **would strongly recommend** looking at each funder individually and spend about 15 – 20 minutes per funder really interrogating the funding and eligibility criteria.

With the Landfill Disposal Fund it is necessary to establish the catchments for these. We would recommend contacting the Welsh Council for Community Action (WCVA) who administer this fund in Wales . WCVA assists in identifying which LDF catchment areas a project is eligible for. Biffa play a large part, others are WREN and VEOLIA. The other key thing to note about LDFs is that there is an upfront administrative fee called 'Third Party Contribution' which can only come from certain sources (notably not Local Authority). It is typically 10% of the amount you applied for.

Local Authority and Welsh Government Grants

We haven't been able to identify any specific pots of funding at this stage but we would strongly advise talking to officers within the local authority at Parish, Unitary and National level as they always have more information about grant schemes than can be found online. Identify the relevant officers and bringing them to site to them how much passion and commitment is involved in this project focussing on how the project is relevant to their specific aims is likely to unlock funding that is not specifically advertised as being relevant to the Waterway Park proposal.

Pledges

Pledges can be collected in two ways, you can launch your own campaign locally holding a community event, launching it in the local press and on the trust website; Alternatively, you can use a crowd source funding online platform. The best ones for this type of project are:

- **Crowdfunder**
- **Kickstarter**
- **Gofundme**

Both approaches can be very effective but require intense planning and are time consuming to deliver. The benefit of either (apart from the cash of course) is the human support they generate.

It is arguable that these actually deliver more in terms of getting people interested in the project which in turn will bring support for the business plan for the future.

If a crowd source funding campaign is planned we would advise you seek support from local voluntary organisation support groups which can be independent bodies or run by the local authority. E.g. Community Volunteer Services

Training (Especially Young People)

If bidding for support with this element it is important to consider any partnerships that you have already established or look at potential partnerships with local colleges, community volunteering services and jobs clubs. They will be able to provide you with a supply of young people to train and work on your project and will lend credibility to funding bids as the organization will see you have the infrastructure in place to support your aim to train and provide volunteering opportunities for young people or those seeking employment.

Community Development

Any bids which focus on this theme will be strengthened if you can show you are able to provide activities and enrich the lives of those in areas of deprivation. The Welsh government has developed a scale to assess this called the Welsh Indicator of Multiple Deprivation (WIMD) and they have analysed all areas of the country against a number of measures which gives each area a WIMD score.

As you are best placed to know which communities you most benefit I would suggest you identify if you are close to any area with a low WIMD score indicating high levels of deprivation as the community resources you're planning will be of benefit to those people in terms of employment and opportunities to access nature for free.

Environment and Renewable Energy

With any bid to a fund which supports projects which enhance nature you will need some kind of Environmental Assessment of your facility and how you intend to enhance Biodiversity and then manage it so it's sustainable. I recommend looking at the Gov't strategy 'Biodiversity 2020' for ideas around this.

Most grants for renewable energy projects are pretty straightforward as they focus predominantly on equipment and installation, but I would consider fundraising for this with crowd funder or pledge scheme as it possible to join Feed In Tariff schemes (solar) or the Commercial Renewable Heat Incentive (Heat Pumps) which can only be paid if you **haven't** purchased the equipment using a grant.

Sport and Being Active

There is a huge agenda for canals around wellbeing and promoting active lifestyles but simply providing a beautiful outdoor space that people could potentially walk, jog, cycle, or ride in isn't going to be enough to engage the attention of a sport based funding stream. Engaging with private clubs such as Anglers, Canoe/Kayaks, local cycle and running clubs could provide a way forward as with the **Training** theme however the more you can provide opportunities yourselves i.e. a monthly 5km run, guided nature walks or holding your own kayaking equipment for the use of youth groups will be much more appealing.

11 Summary and Conclusions

The development of the proposed Ty Coch Waterway Park would provide a prime visitor destination on the canal in Cwmbran complementing sites such as Goytre Wharf - Llanover, Fourteen Locks – Newport and Blaenavon and would be part of a ‘String of Pearls’ linking heritage and cultural sites throughout the Welsh Valleys. Development opportunities exist for canal and landscape based leisure, heritage and education activities. This report has looked at:

- Café/ Iconic Restaurant
- Farmer Shop ‘Taste of Torfaen’
- Bike Hire
- Caravan and Camping
- Holiday Lets
- Visitor centre
- Water-based recreational activities
- Education & training, health and wellbeing facilities

Protection of the natural environment is a key priority as the site has both water and land based ecological/environmental areas.

The medieval orchard and marsh areas would be extended with access to all footpaths created around the site.

The site is situated close to the centre of Cwmbran at Ty Coch off Hollybush Way. The canal towing path forms part of the National Cycle Route 48 connecting Newport and Cwmbran to the heart of the Brecon Beacons National Park at Brecon Basin. Voted recently as the most visited tourism resource in South Wales. This has been achieved with just two thirds of the canal navigable. The canal's full restoration and the establishment of visitor hub sites such as the Ty Coch Waterway Park development, a future Crindau Marina Newport, linking canal to the River Usk and beyond, presents a major strategic opportunity for South East Wales and the Cardiff Capital Region.

The cost, based on contractors rates and estimated from the latest edition of SPONS, are of the order of £1.5 million, with a potential annual market of the order of £2 million. If the development manages to capture even a quarter of the potential market (i.e £0.5 million), the returns into the venture are beneficial and justify raising the capital through various funders. The venture will make a valuable contribution to the upkeep of the canal

The costs can be brought down by the use of volunteer labour and by the construction phase being developed as a training scheme in partnership with local contractors. This mirrors the model used for restoring the canal to date and not only brings the costs of the scheme down but enhances the community benefits of the construction phase.

The scheme will also help promote the use of the canal and will provide a “northern pole” for the Newport to Cwmbran restoration pending the reopening of the canal through Cwmbran itself