

METHODOLOGY REPORT

ACCESS AUDITS



Background

This methodology report has been developed by British Waterways under the EQUAL project. EQUAL is a European Social Fund (ESF) funded community initiative that aims to test and promote new ways of combating discrimination and inequalities in relation to the labour market through regional, national and transnational co-operation. "Equal Shares for All" is a Development Partnership that is made up of ten partners, with British Waterways as one of them.

The project undertaken by British Waterways has two components-

1. To undertake access audits in order to identify the condition of the canals with regard access to work and services. The main objectives of this component were-
 - Access Audits- development of methodology for access audits and undertaking audits on the Welsh canal along with prioritising areas for improvement based on the outcomes of the audits.
 - Access promotions through website, leaflets and events.
 - Liaison with local disabled access groups for access promotion and consultations.
 - Undertaking disability awareness trainings for the waterways along with development of a tool kit for access audits and improvements.
2. To undertake background research regarding opportunities and employment creation to support the development of good practice guide.

The following methodology report is an outcome of the first component of the project and the methodology developed has been tested on approximately 73 miles of Welsh canals towpaths.

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1 Introduction

1.1 *Background to canals environment*

More than two centuries ago, the entrepreneurs of the industrial revolution saw the potential of inland waterways for transporting goods cheaply and efficiently throughout Britain. They developed an inland waterway network linking mines and quarries with factories, mills, markets and deepwater ports. The towpaths were designed with horse in mind as horse drawn boats were mainly used in those days.

By the mid 19th century railways started to dominate the transportation scene and canals faced a real threat for their existence. The canal network declined, narrow canals became unusable, filled with weeds, silt and rubbish, or converted to railways.

In the latter half of the 20th century, while the use of canals for transporting goods was dying out, there was a rise in interest in their history and potential use for leisure. The canals themselves provide open access by boat and now there are many boat hire companies who are offering fully accessible boats. Walking, cycling, fishing and boating have become an integral part of the canals today. With this diversification of use it is important that one understands the implication of one activity on the other. The space requirements of all the activities must be taken into consideration; things like placement of mooring areas, passing places, fishing platforms, resting places need to be carefully thought about along with access by boat. Apart from this canals also cater to regular users who walk/ cycle the towpath to commute to work.

Designed with a horse in mind, rather than a buggy or wheelchair, towpaths are not always easy places to reach or travel along. However, towpaths are usually wide and flat, so can be ideal places for people to exercise or explore the environment.

1.2 *Role of British Waterways*

It is British Waterways' policy to facilitate access for all sectors of society, and particularly for disabled people. Provision for disabled people is part of BW's Corporate Social Responsibility outlined in public documents such as *Our Plan for the Future* and the *Annual Report*. BW's Vision is to increase the number of visitors to the resource and disabled people form an important potential market. It is estimated that 1 in 5 of the population has some form of disability.

British Waterways' commitment to access for all is contained in its Disability Equality Scheme (DES), produced in 2006 in response to the Disability Discrimination Act 2005. The Scheme, and associated Action Plan, sets out how British Waterways will improve the service it provides to disabled people. Key elements of the Scheme are to:

- Undertake disability audits of waterways, so that information is available on current access conditions and to determine what needs to be done to improve access;

- Prioritise access improvements to bring visitor destinations and areas undergoing regeneration up to a good standard of access (while implementing improvements elsewhere as and when opportunities arise);
- Provide information about access and actively promote locations where access quality is good (using formats and media that are easily accessible by disabled people);
- Consult with and involve disabled people in improving and promoting the waterways.

The Code of Practice to the DDA says:

Where a “physical feature” makes it impossible or unreasonably difficult for disabled people to make use of any service which is offered to the public, a service provider must take reasonable steps to:

- remove the feature; or
- alter it so that it no longer has that effect; or
- provide a reasonable means of avoiding the feature; or
- provide a reasonable alternative method of making the service available to disabled people.

‘Reasonable’ is not defined in the Act or its Code of Practice and is likely to be determined over time by Case Law. However, factors that might be considered in determining reasonableness include practicality, cost, health and safety and environmental and heritage aspects.

1.3 Understanding Disability

DDA defines disability as ‘a physical or a mental impairment which has a substantial and long term adverse effect on a person’s ability to carry out normal day to day activity.’ This includes –

Wheelchair users and ambulant disabled people

People with poor manual coordination or little strength.

People with sensory impairments including impaired sight and hearing

People who lack memory, concentration or understanding.

In 2005 DDA extended this definition of disability to include people with progressive conditions such as multiple sclerosis, HIV or cancer.

If we look at the definition carefully we would realise that there are a lot more people who face similar kinds of difficulties as those faced by disabled people e.g. by age, temporary

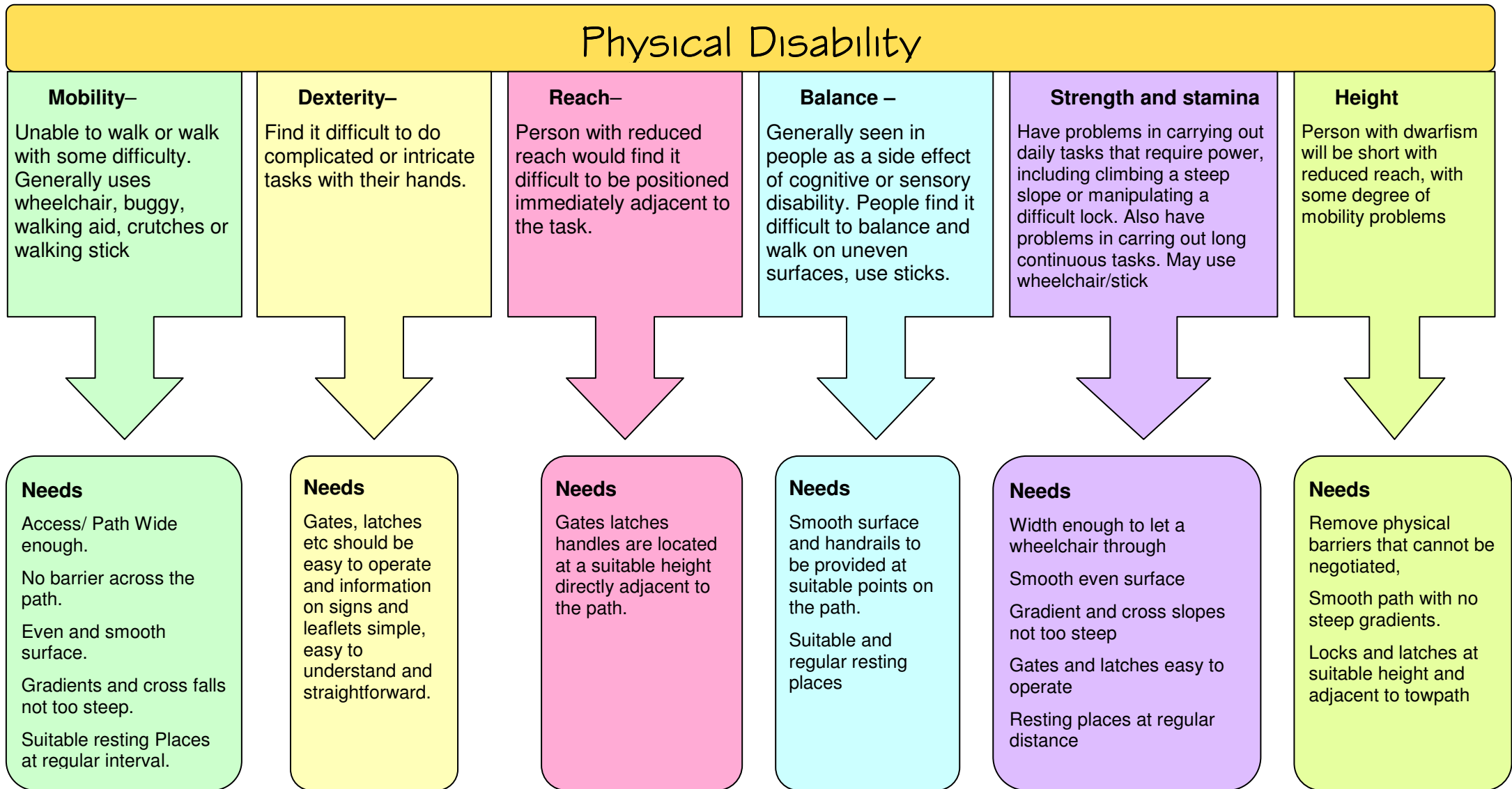
illness or even the circumstances. For example the difficulties that are faced by any person on a wheelchair in steering through barriers are similar to a parent steering a pushchair. Hence if we exclude one we are quite likely to exclude the other.

To overcome the challenges faced by disabled people the concept of inclusive design is particularly helpful as it acts as a catalyst in increasing the visitor numbers on to the site and hence benefits the organisation with more income. It creates a sense of confidence in the service provider and creates a positive image of the organisation.

If we look at the approaches to disability we come across two models; the medical model and the social model. The medical model arose after the first world war and it takes the view that what a person cannot do is due to his /her medical condition and that a disabled person can expect to have restrictions and experience difficulties. This approach was changed from 1970 onward when emphasis was turned around to the environment rather than the person. This is the social model, and it takes the view that the attributes of society disables an individual.

Lately the concept of TAD (Temporary able bodies) is being recognised where the emphasis is on inclusive design considering the fact that everyone is a temporary able body and hence it becomes our own responsibility to plan for our unforeseen future.

Figure I. Kinds of Disability



Sensory Disability

Vision

People who are blind or partially sighted have problems in tasks that require vision. A person may be totally blind, partially sighted, have general vision loss, peripheral vision, lesser areas of vision loss. May have a sensitivity to glare.

People may use long cane, symbol cane or guide dog, magnifying glasses etc

Hearing

Person with hearing loss may have a general hearing loss or loss of certain frequency. Type and amount of loss will determine if they can hear speech, birds or countryside sounds.

People with hearing loss use hearing aid, or a notepad for short messages

Vision and hearing

Degree of vision and hearing loss experienced by a person can vary considerably; person may have mild or extreme vision and hearing loss,

Person who is deaf and blind may wear a hearing aid with a long cane with red band on it.

Needs

Distinct colour contrasting surface (e.g. crushed stone or paved towpath can be distinguished from the edge by grass)

Clear walking surfaces and tunnels

Free from unexpected obstacles

Locks and gates simple and straightforward to use

Where possible information is available audibly and tactually

Clear colour contrast on steps nosing and tactile surface on the beginning and start of steps to indicate change.

Needs

Difficulty faced by these people in obtaining information from countryside staff and other users. Hence information needs to be available in visual and audio format.

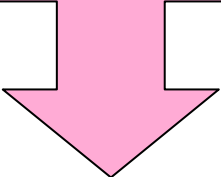
Needs signage along the canal to suggest if it is a cycling route.

Needs

Needs of such a person would be similar to visually impaired and hearing impaired person.

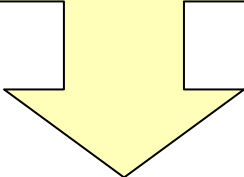
Other Disability

Learning
Person will have difficulty understanding complicated tasks or instructions



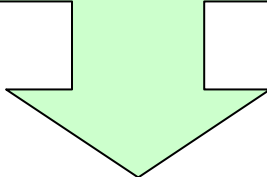
Needs
Information to be displayed in an easy to use way

Illiteracy
Person may have problems with written language because of learning disability or if the first language is not English



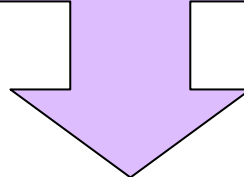
Needs
Written information clear and concise.
Written information to be accompanied with pictograms.

Speech
Person with speech impairment will either be unable or find it difficult to speak.
Electronic communication aid or notebook and pen can be used to communicate.



Needs
Staff should be trained in good customer service and willing to help as required

Multiple
Person may have complex needs and hence staff should be willing to communicate as required



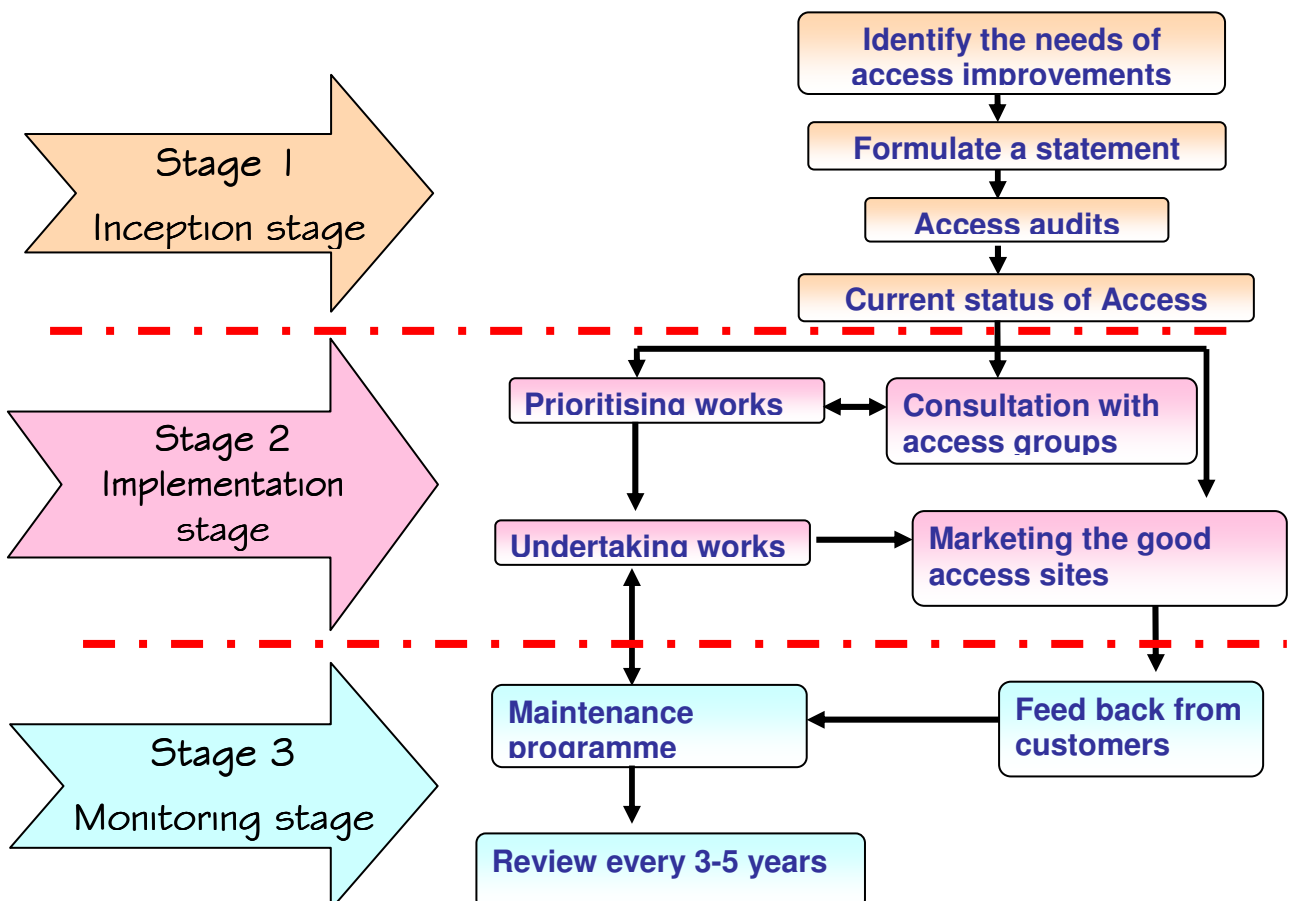
Needs
Since such a person would have complex needs, hence while assisting, the staff should keep in mind that meeting one need should not preclude the meeting of other needs.

2 Access Audits

Access audits for the open countryside are a fairly new approach to evaluate the outdoors. The pioneer work in the United Kingdom was undertaken by the Fieldfare Trust who supported the development of the National Advisory Group (now the National Access Forum), which includes organisations representing people with disabilities, countryside service providers, national agencies and countryside user groups. This group ensures that good practice and new initiatives are promoted and that the needs of users are central to all projects. The group supported the development of the BT countryside for all good practice guide in 1997 (updated 2005). The standards developed have been adopted as best practice guidelines for access improvement by many countryside organisations. Further guidance has since been developed in England through the Countryside Agency "By all Reasonable Means" guide to inclusive access to the outdoors.

The first step towards access improvements is to undertake an access audit. Access audits as the name suggests are audits or detailed surveys that are done on the site to determine the existing condition of the path or route based on the principle of least restrictive approach.

Figure II. Stages in Access Improvement



2.1 Role of audits for countryside service provider

- Audits provide a clear picture of accessibility of the facilities.
- They also provide good access information which is important for good customer service.
- They help to prioritise our resources in the most important places
- Service providers will have clear access improvement needs while looking for additional resources.

2.2 Role of Audits for disabled people

- Audit information lets disabled people make informed choices about where is accessible.
- It gives confidence to disabled users that they will find the level of access they expect.
- It lets them express a view as to where and how access might be improved.

2.3 Methodology adopted

The methodology is based on the use of Geographical Information System or GIS as a tool for access audits. GIS can be used a spatial database management system. The process of access audits results in collection of a vast amount of information which needs to be stored in some kind of database system which will facilitate its use. Since the information is spatial in character it is logical to use GIS. GIS has the ability to translate information in a map form which may be very helpful in understanding the current scenario and planning for the future. It becomes even more helpful as the information can be displayed and analysed in different ways.

Advantages of using GIS

1. Large quantity of information can be stored.
2. Additional fields can be added and databases linked easily
3. Information can be analysed easily and displayed as map
4. Information can be displayed easily in different formats
5. Very efficient in updating information and maps get updated automatically.

The first step is to identify the attributes for which information is required. A background study is a must to understand disability and the needs associated. Various countryside organisations have worked on access for all issues and have devised guidelines for acceptable standards. In the case of British Waterways' access audits, the basic accessibility standards have been adopted from the BT Countryside for All Standards, The first edition of this guide came out in 1997 and a revised edition in 2005. The BT Countryside

for All good practice guide has assigned stages in the process of access improvements. In the case of the waterways this approach has been modified in places to suite the waterway environment.

Enhancing access to a wide variety of outdoor environments enables all individuals to have the same opportunity to enjoy the benefits that they provide. However, it is equally important to protect the outdoor environment and the experience it provides. When deciding access standards one needs to keep in mind that we must not spoil the natural character of a rural landscape in order to achieve a higher standard of accessibility, thereby undermining the purpose for which people visit the place. In most situations, outdoors that provides greater access for people with disabilities can be achieved without any or only minimal additional impact on the natural resources.

Preserving our heritage is a high priority for all individuals. Therefore, it is important that any changes that are made are in accordance with the character of the landscape. In some cases it is not possible to change a feature because of its historic value and hence in such situation alternatives should be explored to surpass the barrier. In case there are no feasible options available, the information about the barrier should be made available to the public before hand and also on site. The user then makes up his/her mind about whether to visit.

One challenging aspect of providing access along towpaths is to exclude the unauthorised use of motorbikes whilst facilitating access for the disabled. British Waterways has devised a Guidance on motorcycle barriers on waterway towpaths which emphasises the fact that deployment of barriers should only be carried out as a last resort, since they can hinder access for all.

Another important point to be considered is that the access surveys are integrated with other surveys undertaken by the organisation. E.g. In the case of British Waterways there is an existing Towpath Condition Survey for vehicular use which is integrated with a data processing system called SAP ("Systems, Applications and Products in Data Processing") in order to identify the works that need to be done on a particular section. The aim of access audits would be to integrate disability aspects with this survey, so that there is a universal method of reporting for SAP. This is important to ensure that work required, as identified through the surveys, are notified for action, either in the short or long term.

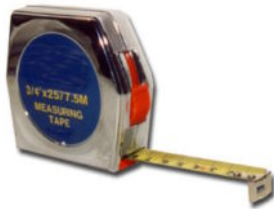
2.4 Preparations

Basic preparation for the survey is essential as it helps in organising work. There are a few things that we have to consider before starting any survey work on the ground. One has to decide on the survey schedule. 5 miles is the distance that one could comfortably cover in a day, This may vary as per the availability of access points on to the route.

2.4.1 Equipment Requirement

Before going out into the field one needs to do a checklist of the equipment that is required for survey.

1) Measuring tape



2) Hand held GIS and GPS equipped unit



3) Gradient measure



4) Camera with extra memory card

5) Mobile phone – (especially if auditing alone and in remote locations)

6) Life jacket- (health and safety requirements of some organisations when auditing close to water)

7) Wet weather gear

8) Walking boots

9) First aid kit

10) Drinking Water

2.4.2 Attribute selection

This refers to the kind of attributes we need to collect information for. These can be found in the Countryside for All Good Practice Guide. E.g. in case of access audits for canal towpaths we need to collect information on (1) access points; (2) towpath condition; (3) facility points. These aspects are further divided into attributes of width, slope, surface condition, passing places, resting places, clear walking surfaces etc. Detailed information on these attributes can be found further down the document in the data collection section. It is important to note down all the attributes so that there are no data gaps.

2.4.3 Desktop work (Creating master shape files for each attribute)

A GIS database can be stored in different file formats. The most basic and interchangeable format used in GIS is shape file also denoted as .shp. Shape files are created in GIS, to make the process of data collection more efficient. The results can be classified in categories rather than recording each and every value. The categories can be derived from the standards used for analysis, which are displayed as dropdowns fields in data collection, e.g. width below 815mm, 815-1000mm and above 1000mm etc. The next step is to load the master shape files and the background map (ordinance survey map) onto the handheld GIS unit and create a new project.

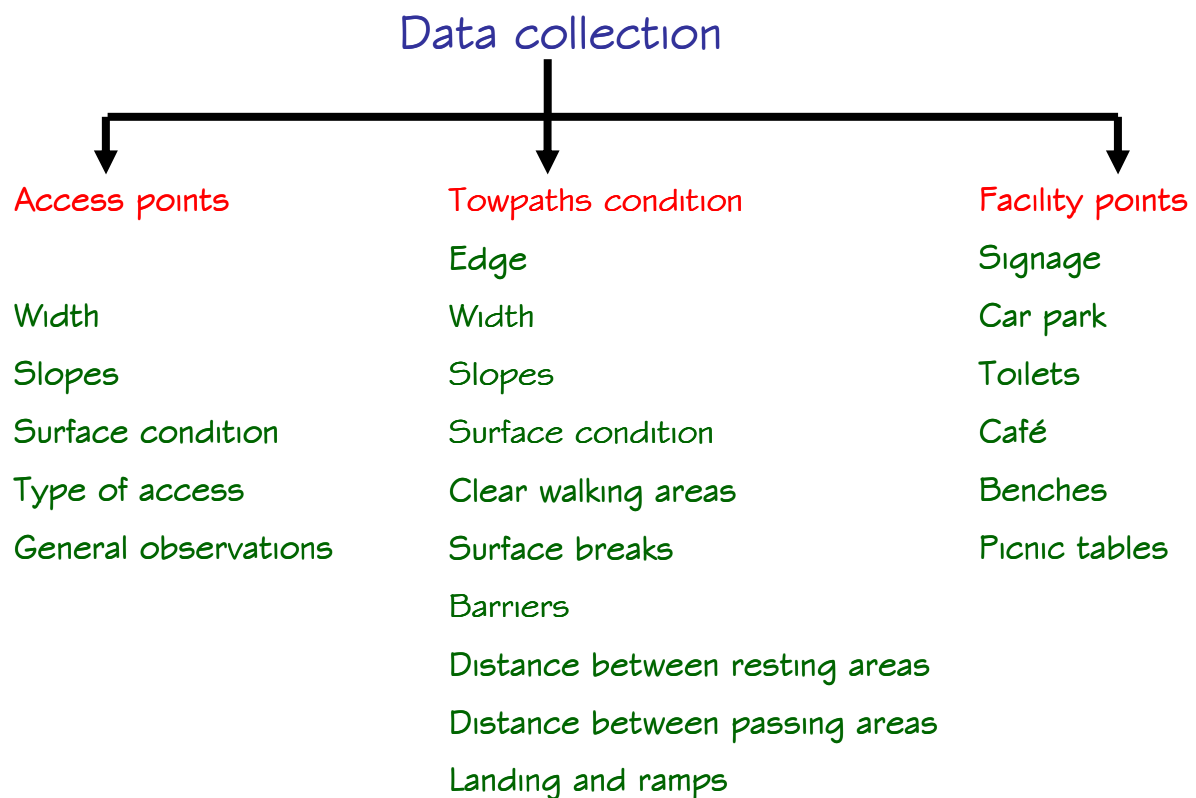
2.4.4 Risk assessment

Before setting out on the surveys it is recommended that a risk assessment sheet is prepared to determine the kind of risks that one may be exposed to while conducting the surveys. These risks will then determine the mitigation measures to be adopted before venturing out into the field.

3 Data Collection

Access audits have identified three attributes on which we need to collect information before starting the survey. It is important to note the date and weather conditions. It is also important to record any changes in the weather condition during the day. Information is collected for the following aspects namely access points, towpath condition, and facility points.

Figure III Data Collection



3.1 Access points

These consist of the actual entry points on the canal towpaths which may be in the form of a gate, stile, ramp, stairs or an open gap. Various aspects such as width, slopes (both cross and linear), locked gate, surface condition, use etc are measured. It is important to record all the access points irrespective of their nature. The information is collected through GIS and plotted on the map. The dataset required for the Access Points is as follows:

3.1.1 Primary use

One needs to know the user groups of the access point. It can be for public, private or British Waterways operational use. In the case of access surveys this information is important as

some of the access points may be there, but are not for public use and may have locked gates.

3.1.2 Condition of access point

This refers to the surface condition at the access point, which is important as this determines the ease with which people can use it. The surface of the access point can be anything ranging from hard smooth tarmac to rough unbound dirt. A smooth hard surface with well defined edges that drains immediately would be ideal in urban areas. On the other hand, a surface with some irregularities, a surface beginning to break up, with edges slightly eroded with little ponding could be acceptable for a rural setting . While recording the surface condition it's useful to note if there are any kind of roots or big stones jutting out as a result of erosion or if there are loose stones on the surface, as they can be a potential slipping and tripping hazard.

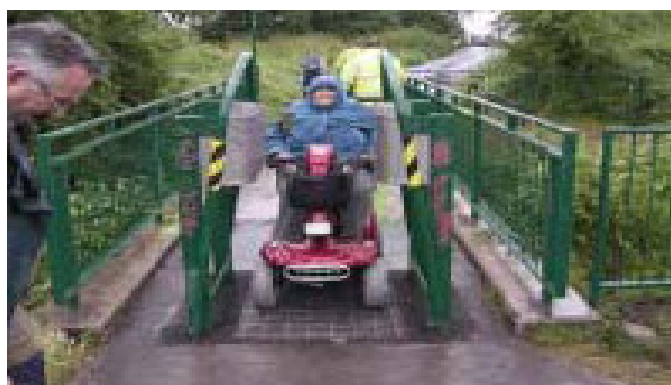
3.1.3 Width

Width is an important criterion to be considered. Different users have different width requirements e.g. a single person walking alone could pass through 600mm. On the other hand a person on a wheelchair may need at least 815mm to pass, though this would further change with respect to the size of the wheelchair. This is a curtail parameter as it will determine if the user can actually enter the site.



3.1.4 Type of access

This would include open access, gates and barriers like stiles or bike barriers. Open access is considered to be the most appropriate one as it poses no hindrance to the user. Gates are sometimes unavoidable in places



because of safety reasons or stock control, hence it is important to design them accordingly. The gates should not be very heavy to operate or difficult to open as they can be problematic for people, especially those with reduced strength due to prolonged illness, old age or dyslexia. It is also important to have the handles for the gates within easy reach for

wheelchair users. Stiles are not suitable for access and wherever possible should be replaced with well designed gates.

3.1.5 Means of access

This criterion would define the actual entry onto the towpath - if its level, a slope, ramp or steps. Access point can also be constituted of a mix. There may be a combination of slope and steps. In this case one needs to note the predominant feature and also record about the other in the comments section.



- If the access is through a gate, one of the important things to note is whether it is locked or not. Locked gates are considered to be a barrier for access, as it is impossible for people this disabilities to open locks unless they have a key. Also one needs to note the working condition of the latches as there may be incidences where the gates are not locked but the latches do not open easily and smoothly which again is a barrier.
- Slopes refer to both the cross and linear slope. Steep slopes may be a barrier for people with poor physical strength or wheelchair users who find it impossibel to go up and difficult to steer coming down slopes.

3.1.6 Comments and Photographs

It is important to note any extra information that has not been covered and would be helpful in assessing and further making recommendation for the access point. Every access point evaluated must be supported by at least one photograph.

Advantages of taking photographs

1. Refreshes your memory back in the office.
2. Acts as a record for maintenance works
3. Helps in marketing and promotion – as it provide a clear scenario of change before and after improvement works have been done.

3.2 Observation Points

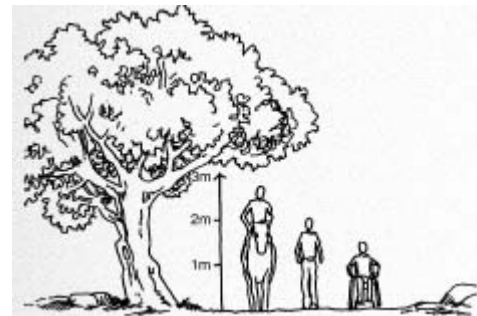
Refers to observations made on the towpath regarding, width, surface, condition, slopes, barriers, clear walking space, surface breaks, height rise, distance between resting area, distance between passing areas, edge etc. These observations are taken every 250m along

the towpath which is neither too long nor too short to record changes. Any abrupt changes or unusual features in this unit length should be recorded as comments.

The factors that determine the condition of the towpath are similar to the access parameters but the thing that needs to be considered is that along the towpath the measurements are taken on a linear basis i.e. for a particular length and hence the guidance is a little different especially as far as width of the towpath is considered.

3.2.1 Towpath width

The width of the towpath not only affects pedestrian usability but also determines the types of users that will have access. Ideally for good quality inclusive access the towpath should be above 1000mm. However, it is recommended that the towpath width be at least 1200 mm wide when possible. This allows space for people using assistive devices, such as a wheelchair, stroller, or walker, to easily pass one another. If a narrower passage space is unavoidable, for example under the bridges, the towpath width may be reduced to 815 mm for short distances.



3.2.2 Towpath Surface and condition

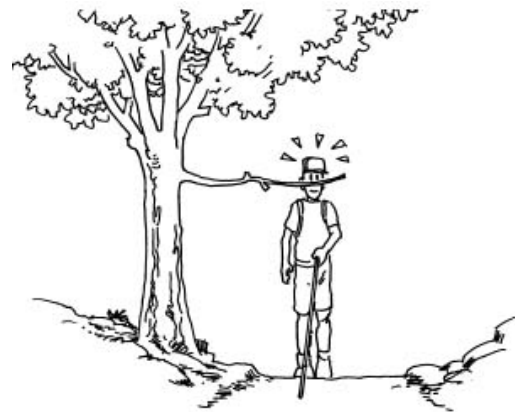
The surfacing material on the towpath significantly affects which user groups can negotiate it comfortably. The firmness, stability, and slip resistance of the towpath surface affects all users but is particularly important for people using mobility devices such as canes, crutches, wheelchairs or walkers.

- **Firmness** is the degree to which a surface resists deformation by indentation when a person walks or wheels across it. A firm surface would not compress significantly under the forces exerted as a person walks or wheels on it. Surfaces like tarmac, brick paving, concrete or rolled stone are firm and hard as compared to grass, unbound dirt or loose pebbles.
- **Stability** is the degree to which a surface remains unchanged by applied force so that when the force is removed, the surface returns to its original condition. A stable surface would not be significantly altered by a person walking or maneuvering a wheelchair on it.
- **Slip resistance** is based on the frictional force necessary to permit a person to ambulate without slipping. A slip resistant surface does not allow a shoe heel, wheelchair tyres, or a crutch tip to slip when ambulating on the surface.

Towpaths should have a firm and stable surface. When a person walks or wheels across a surface that is not firm and stable, energy that would otherwise cause forward motion instead deforms or displaces the surface or is lost through slipping. While selecting the material one must keep the setting of the towpath in mind e.g. in urban areas, brick paving or a tarmac towpath would blend with the character of the place. On the contrary if the same surface is provided in a rural area, it spoils the landscape and hence for rural settings well maintained grass or naturalised rolled surface would be more suitable.

3.2.3 Clear Walking surfaces

In addition to the above, the access auditor should also consider that most people tend to avoid path edges. They choose to travel in the centre of the towpath to avoid drop-offs and untrimmed vegetation. The tendency of people to avoid the edges of a path increases the width required for a given path to be usable. In



contrast, individuals with limited vision who use a cane for guidance tend to travel primarily along the edge of the towpath surface, using the difference between the towpath and the surrounding brush to provide direction. However both situations can be resolved by the use of well defined walking space on the towpath along with keeping hedges and vegetation under control by regular trimming.

Another challenge for disabled access in a canal environment is of the low bridges. The problem is complicated as most of them are listed and hence cannot be replaced or altered significantly. Hence in this case reasonable adjustment needs to be made. E.g. options of flagging the issue in the form of signage at the approach to the bridge; it is acceptable, to widen the towpath under the bridge; and providing a distinct boundary to define the water's edge.

3.2.4 Passing and Resting Places

Periodic passing spaces allow towpath users to pass one another and provide wheelchair users enough maneuvering room to turn around. Slower pedestrians benefit from passing spaces because faster users can travel past them with less disruption. Passing spaces should be provided more frequently if the site is challenging and there is no space to pull off the towpath to allow others to pass. Passing spaces should also be provided more frequently if the towpath is narrow and sight distances are so restricted that a towpath user may unexpectedly encounter somebody traveling in the opposite direction in an area where passing is not possible.

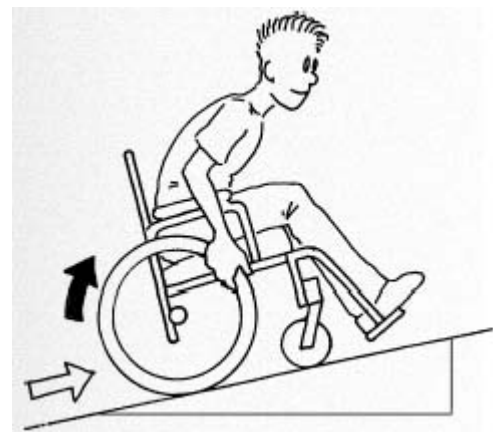
Periodic rest areas are beneficial for all towpath users, particularly for people with mobility impairments who expend more effort to walk than other pedestrians. Rest areas are especially crucial when grade or cross slope demands increase. The frequency of rest areas should vary depending on the towpath and intended use. For example, heavily used towpath should have more frequent opportunities for rest than rural towpaths with fewer users. Rest areas provide an opportunity for users to move off the towpath in order to stop and rest.

3.2.5 Slopes

Grades and cross slopes are very difficult for some people with mobility impairments to negotiate because it is harder to travel across sloped surfaces than horizontal surfaces. People with mobility impairments who are ambulatory or use manual wheelchairs must exert significantly more energy than other pedestrians to traverse sloped surfaces. Powered wheelchairs are affected by the additional work required on steep grades because more battery power is used. This reduces the travel range of a powered chair. Both powered and manual wheelchairs can become unstable and/or difficult to control on sloped surfaces. Whenever possible, slopes should be minimized to improve access for people with mobility impairments.

- **Linear Slope**

It is generally seen that canal towpaths are level in terms of linear slopes except at locks. The problem that is faced with a linear slope is that additional effort is required for mobility on steep grades. Manual wheelchair users may travel very rapidly on downhill pathways, but will be significantly slower on uphill segments. Steep running grades can be better tolerated by providing level segments at intervals. In addition, less severe grades that extend over longer distances may not tire users as much as shorter, steeper grades.



- **Cross slope**

Severe cross slopes make it difficult for wheelchair users and other users to maintain their lateral balance because they must work against the force of gravity. People using crutches or canes may be forced to turn sideways in order to keep their base of support at a manageable angle. Cross slopes can also cause wheelchairs to veer to the side which increases their risk of rolling into



the canal. The impacts of cross slopes are compounded when combined with steep grades and uneven surfaces

3.2.6 Barriers

Barriers are generally gates, stile or chicanes that are in the path of the towpath and restrict movement. The restriction can be because of the width or the gate itself, where the locks and latches are difficult to operate. It has been seen that, particularly on canal towpaths in order to discourage motorbikes, bike barriers have been installed. Many of these barriers are old and obsolete and do not server the purpose for which they are installed but instead create a problem for people who are in a wheelchair or families with young children in buggies. Ideally wherever possible all barriers should be removed. If this is not possible due to safety reasons there is a need to think about the principles of inclusive design while installing these barriers. (For further details on motor bike barriers refer to “Motorcycle Barriers on Waterway Towpaths”, Fieldfare Trust 2005)

3.2.7 Pinch Points

These include narrow sections on the towpath, which have the possibility of restricting movement to various groups of people. A pinch point can be created by the towpath going under a bridge or by some kind of obstruction like mooring rings on the towpath. It is important to know where these pinch points occur, as, if it is not possible to widen the path this information should be provided to people with disabilities so that they can make an informed decision on whether they would want to go to a particular stretch of towpath or not.

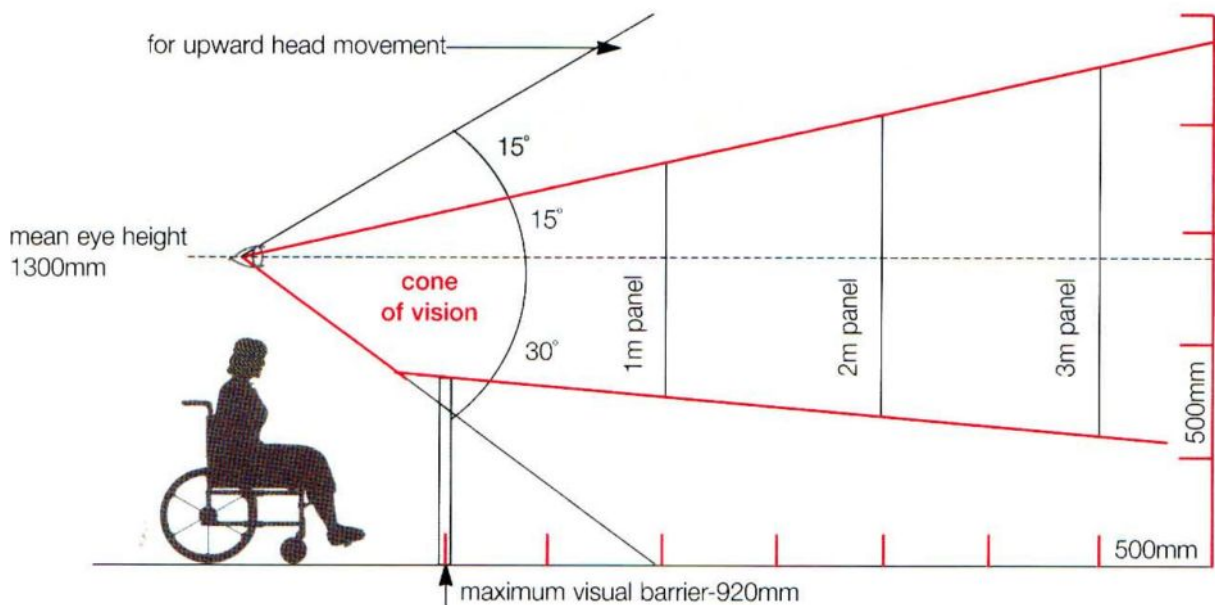
3.2.8 Obstructions

Information on the location of any kind of obstruction needs to be collected. The obstruction could be anything ranging from a jutting manhole in the towpath to pile sheets that have been exposed after erosion or mooring rings that could be a potential tripping hazard.

3.3 Facility points

Facility refers to the services that are available on the canal towpath to enhance the waterway experience. Provision of facilities not only benefits disabled people but extends to all visitors. The needs of disabled people should be kept in mind while designing these facilities. Information also needs to be collected regarding existing facilities and their condition. This information is stored in GIS in the form of different attribute layers for each facility point. Data is collected for six attributes - Information points/signage, car park, benches, picnic tables, toilets, café/pubs along the canal. This information is collected for facilities up to 100 m from the canal.

- Information points/ Signage-** information on the location and condition for these will provide a sense of reassurance and confidence for disabled people to explore the canal environment. Information points would be included in visitor destination planning, as they can be the starting point to direct people towards the accessible parts of the canal along with giving them an idea of what to expect. This facility should be at all destinations and information also provided to tourist information points. Proper signage at the entry point giving directions is helpful. This information should be supplemented with a pictorial map where ever possible. Information should be easy to understand in big font size. The colour contrast should be good, and well lit with a non reflective surface. (For BW the standard signage that is used on the canal is well contrasted white on black). It is also important to have the information placed in the cone of vision as shown below.



The information displayed should be clearly visible and not faded out. The panels to display information should be maintained. Special care should also be taken while installing interpretation on the canal. Efforts should be made to have raised text engraved to facilitate people with visual impairments. The signage that is placed at ground level should be at an angle of 60 degrees so that it is easily read by people standing and in a wheelchair.

- Car parks:** Visitor destinations and places of interest should have a car park in its vicinity. If it is not possible to locate one next to the canal, information should be provided regarding the location and the distance one would need to walk to reach the canal towpath. It is important that the surface is not uneven, and the parking bays clearly marked. There should be a provision of disabled parking at visitor destination

sites. The surface of the path from the car park to the canal should not be eroded and uneven.

- **Benches:** Benches provide a welcome break for people walking the canal towpath. Service providers should plan the resting areas along the canal. While collecting information it is important to note the location and condition of the benches that are present, making sure that they are not broken and are well maintained. One problem that is commonly seen in the countryside setting is that the benches are located a little away from the path of travel, usually on a grass surface. The approach to these benches may not be suitable for disabled people. Hence the path to the benches needs to be maintained and paved with a hard even surface. It would be advisable to have benches with back rests and arm rests which would be helpful for people who have difficulty in standing. The benches should also be of a convenient height. Seats should preferably be between 450 to 520mm height and perches 500- 750mm.
- **Picnic tables:** Information related to the condition of these tables and approach is most important to note, as in the case of benches. Another thing that should be considered is that, while designing these tables, there needs to be a provision for a wheelchair space.
- **Toilet** facilities along the canal are important, as people with disability may need to use them more often. Hence provision of this facility would encourage more people to visit canals. At present there are service blocks for boaters along the canal. Most of these blocks have a provision for a disabled toilet and can be accessed through a BW key obtained from a BW office for a charge of £ 4 to £5. It is crucial to provide this information to visitors, especially disabled people.
- **Café / pubs.** British waterways has a commitment to revive the economy around its canals by promoting canalside pubs and cafés. Since these establishments are not owned by BW, we cannot take responsibility for the facilities they provide. As a concerned service provider, general information regarding these establishments can be collected e.g. location and if they have a disabled access. Most of the information regarding eating places around the canals is already provided on British Waterways' marketing website www.waterscape.com

Comments: is a common field for all the attributes and any additional information which helps to describe the condition can to be noted here.

Also note that all the data collected should be accompanied by photographs.

4 Analysis

Once all the information is collected through the access audit on the GIS and GPS enabled hand held unit, the next stage is to filter this information and analyse it.

The analysis is done in relation to BT Countryside for All Standards. The first step in this direction is to evaluate the standards. Since the canals pass through a wide variety of landscape, it would be difficult to analyse it on one criterion. Hence the process of assigning the setting to the particular stretch is a good idea. The Countryside for all good practice guide includes a detailed methodology to evaluate if the setting is urban, semi urban or rural. In case of canals in Wales, since whole stretches were audited, a simpler approach has been devised i.e. towpaths 1 km on either side of visitor destination sites have been given a semi urban status and the rest of the towpaths are evaluated as rural.

The information for access points, observation points and facility points is then classified under three categories- Good, Fair and Poor. Each category is assigned a rating factor of 1, 2 and 3 respectively depending on the points they get. If any of the attribute is absent then it is not considered while evaluating the overall accessibility status.

Table I. (Ranking Factor)

Category	criteria	Points	Ranking
Good	Condition meets or is above the criteria set by Countryside for All Good Practice Guide. Minimum or no work required to improve.	3	1
Fair	Condition meets the minimum standards set by the criteria set by Countryside for All Good Practice Guide. Some work is required to improve the condition.	2	2
Poor	Condition is way below the minimum criteria set by Countryside for All Good Practice Guide. A considerable amount of work is required to improve the condition.	1	3
Not applicable	Rating factor absent	Nil	Nil

4.1 Access Point analysis

Access points will determine if a person can come onto the towpath or not. Since the needs of disabled people are diverse and complex it will be unwise to give priority to one attribute over the other. Hence to remove discrepancy all the attributes are marked on the same priority level.

The analysis of access points have been done on the following five factors.

1. Width

2. Condition of access
3. Means of Access
4. Access type
5. locked Gates

To measure the overall condition of the access point a three step approach is followed.

Step one: To assess the individual score of each attribute. All the five attributes mentioned above are categorised as good, fair and poor and the score for each is attached.

Table II. Access Point Rating

	Good (Rating factor 1)	Fair (Rating factor 2)	Poor (Rating factor 3)
Condition of access (surface)	Intact level hard or compact surface, neat well defined edges, drains immediately.	Intact compact surface with only slight irregularities, neat edges, drains immediately.	Some surface irregularities, surface beginning to break up, edge slightly eroded and irregular, drains quickly with little ponding.
Access type	Open gap	Gates etc meeting disability standards (minimum width 815mm, preferably up to 1200mm, clear space of 600 mm wide is required beside the opening side of the gate to enable the wheelchair user to get beside the gate to shut it. This clear space and space in front of the gate needs to extend back by 1600 mm. The ground surface should not be worn away. Gate fastenings situated between 600mm and 1200mm from ground	Gates/stiles not meeting standards i.e. gates that can't be opened without keys.
Width	above 1000mm	815-1000 mm	below 815
Means of Access	level entry linear slope above 1:12 and cross slope above 1:50	steps/ramp/slope meeting standards. Linear slope 1:10-1:12 and cross slope 1:35-1:45	steps/ ramps and slopes not meeting standard. Linear slope below 1:10 and cross slopes below 1:35
Lockable Gates	no locks/ fastenings etc	Locks and fastenings up to disability standard (600 to 1200 mm from ground and easy to operate.)	Locked gates and not meeting standard

Overlay of Linear slope and cross slopes to get an overall value.

Linear Slope	Good	Fair	Poor
Cross Slope			
Good	Good	Fair	Poor
Fair	Good	Fair	Poor
Poor	Fair	Poor	Poor

Step two : In order to determine the overall access suitability the cumulative score needs to be calculated as percentage, as there may be factors which are missing e.g. in case of the access point assessment if the access type is open gap and surface is level then the lockable factor will not be applicable.

The use of the overall rating factor as a % helps determine the access potential if the particular field description is absent. Hence the result for that particular field is not counted while assessing the overall status. The value of the % is directly proportional to the access potential i.e. the lower the %, the poorer is the access potential.

Table III. (Analysis Matrix for Access Points)

GOOD	above 60%
FAIR	40% to 60%
POOR	if overall score is 40% and below

4.2 Observation point analysis:

The data collected in the towpath observation survey is analysed under 13 factors,

1. Path Surface
2. Path width
3. Barriers
4. Linear slope
5. Cross slope
6. Surface breaks (grills, board-walks)
7. Clear walking tunnels/areas
8. Width restriction
9. Max distance between passing places
10. Max dist between rest areas
11. Max steepness of ramp
12. Max height rise between landing on ramp steeper than 1:20

13. Max step level and rails.

These 13 Factors are further divided into 2 categories.

1. **Deciding factors:** these are the factors that get top priority in classifying the condition of towpath. Five factors have been classified under this category namely Paths surface, Path width, Slope(both linear and cross) , clear walking surfaces and barriers.
2. **Supporting Factors:** these are the factors which support the deciding factors to improve access. Nine attributes have been put in this category, namely Surface breaks (grills, board-walks), Width restriction, Max distance between passing places, Max dist between rest areas, Max steepness of ramp, Max height rise between landing on ramp steeper than 1:20, Max step level and rails.

Table IV. (Analysis Matrix for Towpath observation Points)

	Good (Rating factor 1)	Fair (Rating factor 2)	Poor (Rating factor 3)
Path Surface	Intact level hard or compact surface, neat well defined edges, drains immediately.	Intact compact surface with only slight irregularities, neat edges, drains immediately.	Some surface irregularities, surface beginning to break up, edge slightly eroded and irregular, drains quickly with little ponding.
Path Width	1200 mm and above	1000-1200 mm	Below 1000 mm
Barriers	No barriers	Minimum barriers and the ones present are up to disability criteria (minimum width 815mm, preferably unto 1200mm, clear space of 600 mm wide is required beside the opening side of the gate to enable the wheelchair user to get beside the gate to shut it. This clear space and space in front of the gate needs to extend back by 1600 mm. The ground surface should not be worn away. Gate fastenings situated between 600mm and 1200mm from ground)	Barriers present not up to disability criteria
Linear Slope	1 in 12 and above	1 in 10	Below 1 in 10
Max slope across a path	1 in 50	1 in 45 to 1 in 35	Anything below 1:35

	Good (Rating factor 1)	Fair (Rating factor 2)	Poor (Rating factor 3)
Surface breaks (grills, board-walks)	Below 12mm	12mm	Above 12mm
Clear walking tunnels/areas	Above 1200mm wide and 2100mm high	1200mm wide and 2100mm high to 1000mm wide and 2100mm high	Below 1000 mm wide and 2100 mm high
Width restriction	1000mm for not more than 1600mm	815mm for no more than 300mm	Anything below 815 and more than 300
Max distance between passing places	50-100 meters	100-150 meters	Above 150m
Max dist between rest areas	100-200 meters	200-300 meters	Above 300 m
Max steepness of ramp	1 in 12	1 in 10	Below 1 in 10
Max height rise between landing on ramp steeper than 1:20	750 mm	830-950 mm	Anything above 950mm
Max step level and rails	5mm rails present up to disability criteria	10-15 mm rail present up to disability criteria	Anything above 15mm without rails

The observation point analysis is involves three stages

Stage 1 this involves giving individual ranking to all the parameter assessed.

Stage 2 involves analysis of the deciding factors that determines how accessible the towpath is. The results from this analysis are more or less coarse results and in most of the cases will not change significantly.

Stage 3 the supporting factor parameters would help in refining the results and suggesting what could be done in order to improve access.

As in the case of access point, the observation point analysis is also carried out using the scores and ranking method for the deciding factors.

The cumulative scores are then expressed as a percentage. The higher the percentage, the better is the condition.

4.3 Facility point Analysis

Table V. (Facility point Analysis)

	Good (Rating factor 1)	Fair (Rating factor 2)	Poor (Rating factor 3)
Distance of towpath from car park	below 100m	100m	Above 100m

Condition of surface from car park	Intact level hard or compact surface, neat well defined edges, drains immediately.	Intact compact surface with only slight irregularities, neat edges, drains immediately.	Some surface irregularities, surface beginning to break up, edge slightly eroded and irregular, drains quickly with little ponding.
Toilet facility	Disabled toilets present	Toilet present	No toilets
Café area	Present, within 100 m, Disabled friendly.	Present, within 100 m	No café area
Benches/picnic tables	Present and disabled friendly	Present	No benches/ picnic tables
Information/ signage	Present with simple and clear fonts.	Present	No information/ signage

5 Way forward

5.1 Implimentation stage

The analysis of the access audits results in the formulation of recommendations for improvement, along with identification of good access sections of the canal. Once the analysis is complete the process of access improvements move into the next stage - decision making. This is a very important stage in access improvements as it determines the actual improvement works that need to be carried out and acts as a catalyst for the organisation to promote the sites that are up to the standards and encourage inclusive access by providing different options for disabled people to get on to the canal network.

This stage is divided into four important components as stated below-

1. **Priority areas and work** – the map produced through the analysis work gives a clear picture of the existing condition and also helps in making decisions on where the available resources can be best utilised. These should also reflect in the policy of the organisation. In case of British Waterways, the priority areas coincide with the key visitor destination sites as referred to in the DES, but this does not mean that there would be no other area improvements other than at the visitor destination sites. One could follow a three step approach to rank the priority.
 - *Priority areas 1* - would comprise of the current key visitor destination sites.
 - *Priority area 2*- would comprise potential areas for improvements which have the potential of becoming future destination sites.
 - *Priority areas 3*- areas which require minimal resources to improve open countryside with limited potential for becoming a destination area.

For example the prioritised works are integrated with the General Works Programme of British Waterways through SAP notifications. Many of the notifications will be of an aspirational nature. Care must be taken so that there is no duplication of notification and hence, before feeding those in, it is advisable to look at the existing ones.

2. **Consultation**- the priority areas are then subject to consultation with access groups. The consultation process is important as the improvements that are done are targeted to benefit disabled groups. It is important to involve them as soon as possible as it helps to achieve a good design along with keeping people involved in what is going on. The consultation should be done for all priority areas, once the audits have been completed. This saves time in future if some immediate funds are available and helps in planning works better. Once some work has been done on the prioritised section one needs to do a consultation with the disabled groups again to find out if the designs that have been incorporated are actually helpful and what else could be incorporated for future


improvements. This is an important stage as a direct feedback is received from the users group itself.





3. **Physical works-** the access improvement works should be incorporated within the works programme of the organisation; this helps in maximising resources.
4. **Marketing good access-** Marketing of the information plays a very important role in access improvements. It has been seen in most cases that due to lack of proper dissemination of information, people are deprived of the countryside. Poor marketing affects visitor numbers and the potential of revenue that could be generated from the site. Hence marketing forms an important link in the process of leisure development. It is important to highlight the improved section because not providing such information is as bad as not doing any access improvement works. Marketing plays a decisive role in the success of the access improvements because if people do not know about the improvements made to the environment they would be excluded. The sites that are found to be close to meeting the standards should be promoted through the website and open day events etc.

The information that is displayed by the web need to be easy to understand and in standard text, well colour contrasted. The website itself should also be in accordance with standard web content accessibility guidelines (WCAG) developed by the web accessibility initiative (WAI) of the World Wide Web consortium (W3C).

The information displayed should be easily downloadable. Along with this there should be an option to get information sent out in large text size from the organisation. The most important point to note here is that disabled people have different capacity to do things and hence generalisation should be avoided. While recommending places to visit however information should be provided in such a format that the users are able to make an informed decision in accordance to there capability.

It is advisable to stick to general formats and terminology while displaying information. For example, in the case of British Waterways, the information has been displayed in line with the star grading system devised by the Forestry Commission. The main idea is to have a universal system for representation.

Easy Access Grading Forestry Commission		Easy Access Grading adopted by British waterways
	Easy	 Smooth level surface with gentle linear slopes above 1:12 and cross slopes above 1:50.
	Three Star - A smooth path with gentle slopes between 1:20 and 1:15	

	Moderate	Two Star - A reasonably smooth path with some slopes between 1:15 and 1:20	 Reasonably smooth surface with linear slopes between 1:10 - 1:12 and cross slopes 1:35 - 1:45.
	Difficult	One Star - A path with some rough patches and occasional short, fairly steep slopes between 1:15 and 1:8	 Rough patches and steep linear slopes of below 1:10 and cross slopes below 1:35

5.2 Monitoring stage

An access audit is a cyclic process and hence monitoring at regular basis is very important. It not only indicates any change in the situation, but also gives a new perspective to customer service by providing people with up-to-date information. It is important for the organisation to keep an eye on two aspects:

- 1) Regular maintenance: The first step in this direction is to come up with a maintenance programme, which ensures that general maintenance is carried out regularly. This programme should be incorporated in the business maintenance programme to keep a check on the condition of the towpath. Regular maintenance ensures that the condition of the access does not deteriorate. This includes things like vegetation management where a yearly schedule can be worked out for grass and hedge cutting. It is also important to incorporate the feed back from the public while doing the maintenance works wherever possible.
- 2) Review: Ideally access audits need to be reviewed on a yearly basis but, depending on the size of area audited, it is advised to have a review of the audits every 3-5 years.

The whole process of access improvements ensures the commitment of the organisation towards creating an inclusive environment, accessible to all. The essence of the whole exercise is to look for potentials for improvement and try to make reasonable adjustments keeping in mind needs of people. The process itself is quite complex and it is difficult to strike the right balance, hence it is up to the auditor to have the right “can do” attitude to achieve positive results.

6 Annexures

6.1 Information Sources

British Waterways Disability Equality Scheme.

See <http://www.britishwaterways.co.uk>

BT Countryside for All (1997) A good practice guide to disabled people's access in the countryside, Available from Fieldfare Trust, £25

See www.fieldfare.org.uk

By All Reasonable Means: Inclusive access to the outdoors for disabled people.

Countryside Agency, October 2005. CA215

Available from Countryside Agency Publications

See www.countryside.gov.uk

Motorcycles on Towpaths: Guidance on managing the problem and improving access for all, June 2006. See <http://www.britishwaterways.co.uk>

Designing sidewalks and trails for access part II of II Best practice design Guide September 2001. See Federal Highway Administration website www.fhwa.dot.gov

Barker, Barrick & Wilson (1995), Building Sight, London, RNIB.

ISBN 1-85878-074-8, £20.00. Available from RNIB Customer Services.

Barker, P., Fraser, J.,(2000), Sign Design Guide, JMU Access Partnership, London, ISBN 1 85878 412 3, £20.00. Available from RNIB Customer Services

Bright, K., Cook, G., Harris, J., (1997), Colour, Contrast and Perception – Design Guidance for Internal Built Environments, University of Reading. ISBN 0 70491 202 3, £15.00.

Available from Wayne Collins Associates.

British Standard Institute (2002) Graphical symbols and signs – Public information symbols BS 8501:2002, ISBN 0 580 40820 5

British Standards Institute (2001) Code of Practice for the Design of Buildings and their Approaches to Meet the needs of Disabled People BS 8300:2001 Published 31st October 2001, ISBN 0 580 38438 1.

British Standards Institute (1999) Code of Practice for Means of Escape for Disabled People BS 5588 Part 8 ISBN 0580282627 (to be replaced by BS9999)

Centre for Accessible Environments, PEEPS: Personal Emergency Egress Plans, Northern Officers Group. Price £6.00 , Available: 020 7357 8182

CIBSE (2002), Code for Lighting (printed extracts only), CIBSE.

ISBN: 0750656379. Price £68.00 £43.00 for members.

Cook., G.,K., Webber, G.,M.,B., Wright M., S., Emergency lighting and wayfinding systems for visually impaired people. IP9/97 BRE 1997. BRE Available from the Building Research Establishment. ISBN 1860811698, £7.50

Cook, G.K., Wright, M.S., Hill, S., (1999) Office Task Lighting: A user study of six task lights by five workers with low vision, The British Journal of Visual Impairment, 17, 3, 117-120. Available from The University of Reading.

Cook, G.K., Bright, K.T., Hill, S.L., Wright, M.S., (December 1999) The perception of lighting quality in a non-uniformly lit office environment, Facilities, Vol. 17, Number 12/13. 1999,. ISSN 0263-2772.

Cook, G.K., Hill, S.L., Slater, A.I., Wright, M.S., (1999) Task lighting for visually impaired people in an office environment: Phase II test results, Proceedings of the 24th Session of the CIE., Warsaw, Poland, p258 – 262.

Department for Transport, (2002), Inclusive Mobility – a guide to best practice on access to pedestrian and transport infrastructure, Philip R Oxley for the Mobility and Inclusion Unit, Crown Copyright.

The ICI/Dulux Product Selector CD Rom and Colour Selector CD Rom will give you an understanding of how colour and contrast can be used to improve the built environment for visually impaired people. To request a copy of the Product Selector or Colour and Contrast CD, apply to: Paul Fleming, Technical Training Manager, Decorative Training Centre, Wexham Road, Slough, Berks SL2 5DS UK. www.duluxtrade.co.uk or by telephone on 0870 242 1100.

Goldsmith, Selwyn (2000), Universal Design, Butterworth-Heinemann, Code: 22457 £29.99 Available at RIBA Bookshop

Hill S. L. and Wright M. S., (1999) Office lighting for people with low vision, Optician, April 1999, 28-32 ISBN 0030.3968

Joseph Rowntree Foundation 1999 Meeting Part M and Designing Lifetime Homes £19.95 ISBN 1 85935 051 8

ODPM 2003 Developing Accessible Play Space – a good practice guide Crown Copyright

Penton, John, (1999).Widening the Eye of the Needle, Access to Church Buildings for People with Disabilities, Published by Church House.

Rees, L. and Lewis, C Housing Sight RNIB Cymru, ISBN 1-85878-600-2, £19.95. Available from RNIB Customer Services.

Shields, J., Fire and Disabled People, Building Research Establishment. ISBN0-85125546-9

The Scottish Office DETR, Guidance on the use of Tactile Paving Surfaces, 1998 can be found on Internet address www.mobility-unit.dft.gov.uk/tactile/

The Stationery Office Disability Discrimination Act 1995 Code of Practice – Rights of Access Goods, Facilities, Services and Premises

ISBN 0-11-271055-7, £12.95.

The Stationery Office Accommodating pupils with special educational needs and disabilities in mainstream schools, 03/05/2001, ISBN 011271109X

The Stationery Office, Building Regulations 2000 Access to and Use of Buildings – Approved Document M - 2004 edition.

ISBN 0 11 753469 2, £14.00 <http://www.tso.co.uk/>

The Stationery Office, The Building Regulations Approved Document B, Fire Safety 1992.

The Stationery Office The Fire Precautions (Workplace) (Amendment) Regulations 1999 Series: Statutory instruments 1999, ISBN: 0110828828

The Stationery Office, DCLg 2003 Planning and Access for Disabled People – a good practice guide ISBN 1 85112604 X

6.2 Useful Contacts

Age Concern

Astral House, 1268 London Road
London SW16 4ER
Tel: 020 8679 8000
Fax: 020 8679 6069
Information Line: 0800 00 99 66

Aspire - Association for Spinal Injury Research, Rehabilitation and Reintegration

Royal National Orthopaedic Hospital Trust
Wood Lane, Stanmore, Middlesex HA7 4LP
Tel: 020 8954 5759
Email: info@aspire.org.uk

Association of Wheelchair Children

6 Woodman Parade, Woodman St, North Woolwich, London E16 2LL.
Tel: 0870 121 0050
Fax: 0870 121 0051
Email: hq@awc.btinternet.com

BBC Disability Programmes Unit

Room G504, White City, 201 Wood Lane, London, W16 4ER
Tel: 020 8752 4993
Fax: 020 8754 4542

C A E

Nutmeg House, 60 Gainsford Street, London, SE1 2NY
Minicom / Tel: 020 7357 8182
Fax: 020 7357 8183
E-mail: info@cae.org.uk

The British Deaf Association

1-3 Worship Street, London, EC2A 2AB

The British Dyslexia Association

98 London Road, Reading, Berkshire, RG1 5AU
Tel: 0118 966 2677
Fax: 0118 935 1927
Helpline: 0118 966 8271
Email: admin@bda-dyslexia.demon.co.uk

British Red Cross Society

9, Grosvenor Crescent, London, SW1X 7EJ
Tel: 020 7 235 5454
Fax: 020 7 245 6315

Change - (an umbrella organisation of people with learning disabilities)

Block D, Hatcham Park Mews, London, SE14 5QA
Tel: 020 7639 4312
Fax: 020 7639 4317
Minicom: 020 7639 4326
Email: londonoffice@changepeople.co.uk

Community Service Volunteers

237 Pentonville Road, London, N1 9NJ
information@csv.org.uk

Disabled Living Foundation (DLF)

380-384 Harrow Road, London, W9 2HU
Tel: 020 7289 6111
Helpline: 0845 130 9177
Text phone: 0870 603 9176
E-mail: info@dlf.org.uk

Employers' Forum on Disability - Information on good employment practice

Nutmeg House, 60 Gainsford Street, London, SE1 2NY
Tel: 020 7403 3020
Fax: 020 7403 0404
Minicom: 020 7403 0040
E-mail: website.enquiries@employers-forum.co.uk

Holiday Care

2nd floor, Imperial Buildings
Victoria Road, Horley, Surrey RH6 7PZ
Tel: 01293 771500
Fax: 01293 784647
E-mail: holiday.care@virgin.net

National Information Forum

Post Point 10/11, BT Burne House, Bell Street, London NW1 5BZ
Tel: 020 7402 6681
Fax: 020 7402 1259

Royal Association for Disability and Rehabilitation (RADAR)

12 City Forum, 250 City Road, London EC1V 8AF
Tel: 020 7250 3222
Fax: 020 7250 0212
Minicom: 020 7250 4119
E-mail: radar@radar.org.uk

Royal National Institute for the Blind (RNIB)

105 Judd Street, London, WC1H 9NE
Tel: 020 7388 1266
Fax: 020 7388 2034
Helpline: 0845-766 99 99
Email: helpline@rnib.org.uk

Royal National Institute for Deaf People (RNID)

19-23 Featherstone Street, London, EC1Y 8SL
Tel: 020 7296 8000
Fax: 020 7296 8199
Textphone: 020 7296 8001
E-mail: helpline@rnid.org.uk

Scope

Highland House, 6-10 Market Road, London, N7 0PW
Tel: 020 7619 7100
Fax: 020 7619 7331 (fax)
Helpline: 0808 800 3333
Email: cphelpline@scope.org.uk

The Countryside Agency

John Dower House, Crescent Place, Cheltenham GL50 3RA
Tel: 01242 521381
Publications: 0870 120 6466

The Fieldfare Trust

67a The Wicker, Sheffield, South Yorkshire, S3 8HT
Tel: 0114 270 1668
Fax: 0114 276 7900
Minicom: 0114 275 5380
Email: info@fieldfare.org.uk

The National Trust

The Adviser, Facilities for Disabled Visitors
Dept DV, 36 Queen Anne's Gate, London, SW1H 9AS
Tel: 0870 609 5380
Fax: 020 7222 5097

MIND

15-19 Broadway, London E15 4BQ
Tel: 020 8519 2122,
Fax: 020 8522 1725
email: contact@mind.org.uk

Macular Disease Society

PO Box 16, Denbigh, LL16 5ZA
Tel: 0800 328 2849

Diabetes UK

10 Parkway, London, NW1 7AA
Tel: 020 7424 1000
Diabetes UK Careline: 020 7424 1030

British Retinitis Pigmentosa Society

PO Box 350, Buckingham, MK18 5EL
Tel Office: 01280 821 334
Tel Helpline: 01280 860 363
Email: lynda@brps.org.uk

The Partially Sighted Society

PO Box 322, Doncaster, DN21 2XA
Tel: 01302 323132

LOOK

Queen Alexandra College, Court Oak Rd, Harbourne, Birmingham, B17 9TG
Tel: 0121 428 5038

The International Glaucoma Association (IGA)

108c Warner Road, London, SE5 9HQ
Tel: 020 7737 3265

* Information about local access groups is generally available from the local authority in your area.