



Unite Submission to the Defra Consultation **Waterways for Everyone**

1 Introduction

- 1.1. Unite is the UK's largest trade union with over 1.5 million members across the private and public sectors. The union's members work in a range of industries including manufacturing, financial services, print, media, construction, transport, local government, food, agriculture, education, health, not for profit and, of particular relevance to this submission, the docks, rail, ferries and waterways sectors.
- 1.2. Unite's docks, rail, ferries and waterways sector has just under 19,000 members and is continuing to grow. Unite has membership in port-based or coastal maritime activity in companies such as Associated British Ports, Hutchison Port Holdings, Forth Ports, DP World, as well as members who work for British Waterways. Unite also has members who are tug boat operatives and masters in companies like Svitzer and organises ferries in Scotland, Liverpool and Southampton. Unite is the biggest maritime union in British waters, uniting masters and ratings as well as those who work on the canals and waterways themselves. Unite welcomes this inquiry into the future of British Waterways.

2 Executive Summary

- 2.1. Unite is clearly concerned over the job security of its members within British Waterways. Too many times in other sectors we have seen the introduction of unskilled and low paid labour on agency and zero hours contracts which places not just the terms and conditions of our members' contracts at risk, but also their health and safety.
- 2.2. The maintenance of the network of canals and aquaducts is a considerable technical challenge requiring the utilisation of skilled and qualified labour. The efforts to avoid the potential damage caused by a breach cannot be left in the hands of volunteers.
- 2.3. The UK inland waterway network is a totally under utilised resource in the battle against climate change. As a logistics facilitation inland network, it is unmatched in terms of its ability to reduce transport carbon emissions. The complex

structure also readily lends itself to various avenues to further reduce the impact of other industries and activities.

- 2.4. Unite believes that recreational use of the network could be enhanced by widening toe paths to accommodate cycling and walking opportunities to coexist, and by providing better public transport connectivity to marinas and mooring locations. Unite also believes that the principle barrier to more canal boat holidays is the lack of public amenities on the canal bank and the cost of boat hire compared with other holiday options.
- 2.5. Unite would also like to see safety improved around the network's locks to prevent death and injuries, particularly to inexperienced holiday makers. This could be achieved by the reinstatement of lock keepers, especially during the holiday season around flights of locks which can be a daunting task to negotiate for the inexperienced.
- 2.6. Unite believes British Waterways should remain in the public sector and should be appropriately funded. Should there be a transfer to the third sector then appropriate safeguards need to be in place.
- 2.7. The network should be staffed by a dedicated and properly trained workforce. Assistance from volunteers needs to be managed and supervised by full time staff and volunteers should receive sufficient training.
- 2.8. The canals and waterways of the UK offer significant advantages both for environmentally sustainable transport and leisure activities.

3 Answers to the specific questions

Q1. Do you agree that the range of benefits of inland waterways identified above and expanded upon in the following chapters are correct? Are there any benefits that we have missed or overstated?

- 3.1. Unite believes that in general the list of benefits provided is correct but there are additional areas which appear to have been overlooked or understated.
- 3.2. For example, canals and houseboats can contribute to meeting housing demand and urban renewal. This is particularly prevalent in the inner city areas as it avoids or reduces commuting costs. In the UK and most European countries, a licensing system operates and prospective owners can apply for a mortgage to buy a houseboat with a mooring, which can cost from £26,000 up to £260,000. Because the practice is discouraged in most areas as it can lead to congestion, moorings rarely come with basic service connectivity such as electricity, water and waste disposal.
- 3.3. Unite firmly believes that there should be greater provision for low cost housing¹ and solutions should consider utilising under-developed urban areas. Provision should also be made to avoid these communities from creating a navigation

¹ See *Meeting housing need: building Britain out of recession*, Unite (2009)

obstacle. This requires the creation of marinas and the use of patrols of full time enforcement officials supported by the police and fire service.

- 3.4. Such marina complexes would provide a focal point not just for residential use of boats but also for the provision of public transport connectivity, enhanced tourist activities, chandlers etc which would encourage more visitors to the area,. Centralised security could be provided to protect owners from antisocial behaviour and allow for proper enforcement of mooring and licensing of vessels.

Q2. Do you consider that waterways are in a better condition now than they were 10 years ago? What have been the main achievements over this time and what could have been done better?

- 3.5. Unite does not believe there have been improvements, rather a managed decline over the last 10 years. The funding supplied by government is only sufficient to meet 85% of the maintenance budget. If it was not for the efforts of volunteers in opening up new areas of the canals, no further recovery of infrequently used stretches would be possible. These efforts often prove to be, in the long run, self defeating as they require limited resources to be stretched further.
- 3.6. The loss of a dedicated maintenance workforce creates additional problems. Hiring outside contractors to carry out the work removes the quality control element that would be available with an in-house team. The use of contractors to obtain a quick fix rather than a quality long term solution has to be discouraged.

Q3. Do you agree that it is important for regional development bodies and local authorities to work closely with those responsible for managing the Inland Waterways to ensure that the potential benefits in respect of place making and shaping are maximised? Do you have any ideas as to how this can be achieved?

- 3.7. Unite agrees that it is important for regional development bodies and local authorities to work closely with the inland waterway management organisations. If a canal is to be utilised as a logistical resource for the transit of freight, then provision is required to accommodate this traffic with connectivity to other modes of transport. To facilitate this interchange, adequate wharf and storage facilities are required to ensure goods can be transferred in the right quantities onto these other modal formats.
- 3.8. An intermodal wharf based hub would facilitate a transition towards a low carbon transport network. Goods could be transhipped on to canals from ports to inland storage facilities as happens currently in Rotterdam. The development of such inland storage facilities and transport hubs would require the involvement of regional and local authorities to ensure that the land required is not developed for alternative purposes and that road and rail access is provided for in their general planning.
- 3.9. Tesco has already begun to move bulk tanks of wine from Liverpool docks to a bottling plant near Manchester along a 40-mile stretch of the nearby Manchester Ship Canal, becoming the first major retailer in England to transport goods by canal.

- 3.10. When approving canal bank developments, maximum utilisation of ground source heat pumps should be a planning requirement enabling the waterway to provide an environmentally low cost solution to the development's heating and cooling needs. As highlighted below, the waterway network offers the opportunity to utilise the otherwise waste biomass feed stock in the form of reeds and fast growing woody material such as willow. It would therefore require the involvement of local authorities to ensure that the requirement to provide combined heat and power facilities on new waterside developments are encouraged.

Q4. What more can navigation authorities do to encourage local authorities to consider using waterways to improve the quality of life of their local communities?

Q5. What do you think the barriers are to local authorities taking more interest in waterways in respect of place making?

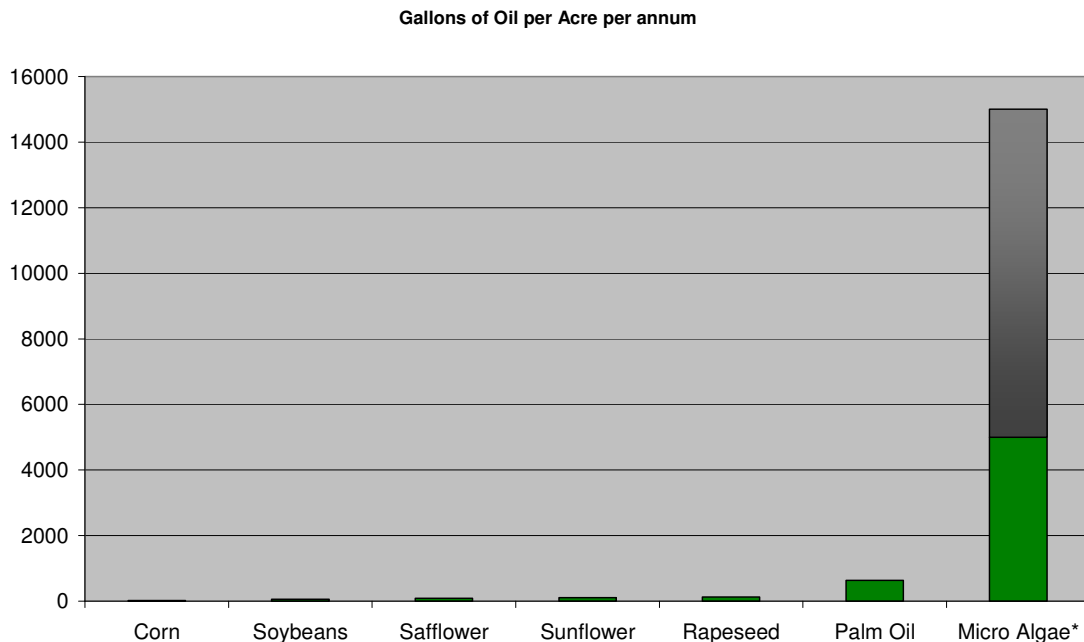
- 3.11. Unite believes that there are considerable administrative barriers created by British Waterways themselves which have weakened the level of contact between the local authorities and British Waterways. The quantity of red tape utilised in this area is considerable and would require a significant overhaul. Unite believes there should be an environment of mutual co-operation rather than the current territorially adversarial approach.

Q6. Do you agree that inland waterways offer an opportunity to help the UK mitigate and adapt to the effects of climate change? Are there any areas you consider that should be explored further in this context, including how the waterways themselves will need to adapt?

- 3.12. Unite strongly agrees that there are significant opportunities to help mitigate the effects of climate change. The waterways can be farmed to provide biofuel production feed stock and plant material that can be burnt or fed through an anaerobic digestion system to produce heat and power. The network could be used to reduce the level of emissions from the logistics and public transport network. It can provide heating and cooling for waterside developments avoiding the need for conventional air conditioning equipment.
- 3.13. As a potential resource for the production of biofuels there are various plants a materials that could be used. These include the use of fast growing woody crops such as willow, which requires boggy ground and the use of any plant based material in either anaerobic digestion facilities or as combustion feed stock.
- 3.14. The most prevalent environmental problem on the canals is currently the management of algae. This material has huge potential as a drop-in direct replacement for fossil fuels and is currently being evaluated as biofuel. Initial investigations by the aviation sector into the potential of algae has suggested that per hectare it is significantly more productive than currently available

alternative organic feed stock sources² and in test flights has shown to provide a slight increase in efficiency over conventional aviation fuel³.

- 3.15. Understandably, considerable interest has currently been generated within aviation circles in commercial algae production, but it is thought that there will be considerable difficulty at the moment in obtaining the volumes needed to meet the growing demand. It is unlikely that on its own the current level of algae found on the network would be sufficient to meet this demand, but properly farmed the network has enormous untapped potential.
- 3.16. The additional benefit of algae production is its potential to cleanse contaminated water supplies of harmful pollutants making it possible to turn the water supplies into a quality suitable for agriculture and possibly even consumption⁴ by animals or, in time, humans.



Source:- http://www.oakhavenpc.org/cultivating_algae.htm.

* results vary dependant on variety and growing conditions.

- 3.17. Rather than treating this material as an invasive species, regular harvesting and even cultivation of algae on weirs and disused sections of canal, and vertically stacked production facilities may prove to be an invaluable resource which could be exploited as a direct drop in replacement for boat fuel or exported to be used in other transport sectors. Setting up such conversion facilities on the banks of a

² See graph below

³ Source: Boeing and Airbus flight test results

⁴ Source : http://www.nasa.gov/centers/ames/news/features/2009/clean_energy_042209.html

water course it would reduce the production mileage to an absolute minimum making the fuel even more sustainable.

- 3.18. Companies such as Algenol biofuels already use algae to turn salt water into fresh supplies, whilst at the same time producing large quantities of ethanol⁵. PetroSun Biofuels has opened a commercial algae-to-biofuels farm on the Texas Gulf Coast near Harlingen Texas. They assert that an area the size of Maryland could produce enough algae biofuel to satisfy the entire fuel requirements of the United States⁶.
- 3.19. Algae thrive in a carbon dioxide rich atmosphere and hence using such a facility as a carbon scrubbing technique would not only increase the output but also the level of emissions from the combustion based generation method employed. During the conversion process to fuel CO₂ is released but this could be fed back into the system to improve growth rates further if production and conversion was sited on the canal bank.
- 3.20. Currently this and other plant matter which hampers transport and wildlife is cleared and left on the canal bank to rot. As it rots this material produces heat and methane which is a highly flammable greenhouse gas in its own right, thought to be 27 times as damaging to the atmosphere as CO₂. Even if this material was collected and this gas burnt off it would reduce the environmental impact of this practice.
- 3.21. Willow is particularly useful not only as a sustainable fencing material but also as a fast growing wood which can be chipped and used as a solid fuel co firing material or as a direct replacement for solid fossil fuel. Willow is also a sustainable and natural bank protection medium which has been replaced by very unattractive, unsustainable and expensive steel reinforcement.
- 3.22. The US based, Solena Group in partnership with British Airways is to establish a £178 million high-tech plant⁷ which will turn 500,000 tonnes of waste destined for landfill into 16 million tonnes of aviation fuel⁸. This fuel has been found to be of a higher calorific value than fuel derived from fossil fuels which will lead to improved engine efficiency. Such a plant is ideally suited to handle plant based material but can also handle non biomaterial such as plastics and tyres. The plant will also be producing large quantities of biodiesel, 20 MW of electricity, which will be feed back into the national grid, vitrified glass, for use in construction and 72,000 tonnes of naphtha from the Fisher-Tropsh stage of the process which could be used by the petrochemical industry⁹. The installation will also export its waste steam for use as an alternative heating source for the area in which it will be located.

⁵ <http://www.algenolbiofuels.com/default.html>

⁶ <http://www.wired.com/autopia/2008/04/algae-farm-to-p/#ixzz0haECr6du>

⁷ Currently earmarked for a site in one of four locations in East London with construction to begin in 2012 the plant will provide around 1,000 jobs during construction and around another 200 once complete.

⁸ More than twice the volume of aviation fuel required by British Airways at London City airport or two percent of the fuel needs of Heathrow.

⁹ <http://www.solenagroup.com/news.htm>

- 3.23. To encourage the utilisation of a more sustainable network, British Waterways should also be encouraging the use of electrically and biodiesel powered engines. If investment is made into waterside electrical generation and biomass to fuel production, the network could become an almost totally carbon neutral transport system.
- 3.24. The creation of such production facilities and their maintenance would create a considerable number of jobs but it is recognised such a development would require considerable investment initially. In the long term, however, there could be considerable benefits to the environment and to the wider transport industry and the government in its fight against climate change.

Q7. Do you agree that the unique cultural heritage associated with inland waterways provide a key benefit to those who use and visit waterways? How can these resources be used to further enhance and encourage use of the waterways?

- 3.25. Unite agrees that the canal network does have a unique cultural heritage associated with it but feels that the opportunity to develop that heritage has not been fully explored. As stated earlier, the canal network is often hidden away from the public gaze, especially in urban areas. Despite this, there is great public interest in taking to the water as is highlighted by the volume of people currently visiting the network each year.
- 3.26. The major problem is access to these canals and making the public aware that these canals exist and are not confined to areas such as the Norfolk Broads and Lake District.

Q8. Do you consider the protection of the natural and built heritage to be one of the waterway authorities primary tasks?

- 3.27. Whilst Unite believes that the preservation of the natural environment should be a primary task, this should not be to the exclusion of its responsibility for its historical buildings and structures.
- 3.28. British Waterways has the responsibility to maintain around 1,800 18th and 19th century historic bridges designed by engineers such as James Brindley. Every week it seems that at least two of these bridges are struck by vehicles, which are much faster and often larger than the horse and cart traffic these bridges were originally designed for. As a result British Waterways has diverted up to £2.5 million¹⁰ of its limited resources towards fixing the damage receiving only limited compensation from insurance companies and the drivers.
- 3.29. Often these bridges are far narrower than modern roads, allowing only single direction traffic. Unite believes that funding should be diverted from the capital raised by the Highways Agency and local authority budgets to maintain necessary traffic calming measures to reduce the number of these incidents.

Q9. What area of waterway heritage do you consider most under threat?

¹⁰ British Waterways Press release 11/02/2010

- 3.30. Unite believes that the area most under threat is the extent of the network itself. The historical and natural significance of navigable waterways should not be underestimated. A well maintained canal can become a haven for wildlife and specialist rare species. Such routes also offer considerable opportunities to both reduce carbon and congestion on the road and rail network. If the current policy of a managed retreat is continued canals will become overgrown, unusable and only attract the dumping of shopping trolleys and other detritus. Such a continued retreat would not only destroy these habitats but also the navigable access to locations further upstream.

Q10. Do you agree that inland waterways, including their paths and surrounding environments provide an important resource for outdoor recreation, sport and improving public well being? What more can be done to protect and improve these important resources?

- 3.31. Unite agrees that these open areas do provide an important resource for recreation and escapism from today's stressful work environment. If these areas are to become more attractive to the public then the towpaths need to be widened and more flood resistant and not left as a single muddy track along the bank.
- 3.32. When planning waterside developments, adequate space needs to be set aside for a dedicated cycle path, which would remove the number of incidents that occur between anglers, walkers and cyclists.
- 3.33. The UK waterway system is not just utilised for navigation but also as drainage. Climate change experts are suggesting a change in the UK climate which features periods of monsoon level rainfall followed by drought rather than the current situation where showers and heavy rain are the norm. Consequently, the potential for locks to be overcome by the volumes involved increases. The recent damage sustained when paddles were left open on the Grand Union¹¹ illustrates the scale of the potential problem, which would leave these routes unattractive and potentially unsafe.
- 3.34. Inexperienced boat operators such as those who take their holidays on the waterways, often only receive very basic training in to basic lock operation. In Leighton Buzzard, for example, holidaying boat users may be trained on the use of the Tolberts lock only then to be faced with a flight of three locks only a few miles further on in their journey as their first practical experience of unsupervised lock operation. Whilst a trained lock keeper would be able to take boat users through locks swiftly and safely, these inexperienced individuals may take more than twice the time needed and more importantly could cause significant damage.

¹¹ See http://www.narrowboatworld.com/index.php?option=com_content&view=article&id=1341:open-paddles-caused-damage&catid=30:news-flash&Itemid=38

- 3.35. The absence of lock keepers, particularly during the summer months, does create significant risk to neighbouring properties and the potential for loss of life. If the network is to be used as an alternative freight transfer option then they need to be sure that locks are going to be operated safely and reliably.
- 3.36. If boats are not correctly positioned, or paddles lifted at the wrong time, boats can easily be swamped or become jammed in a lock as happened in August 1998 when four people with learning difficulties, drowned on a canal holiday¹². In August 2009 a woman had died in a lock on the Oxford Canal as a result of the narrowboat she was steering hitting the lock gates. This accident occurred as a result of the rush of water created when paddles were lifted too rapidly by her husband and daughter¹³.
- 3.37. In July 2008, according to holidaymaker David Miller, his hired narrowboat caught "A little ridge of brickwork that's moved over 200 years" and became wedged at a 40 degree angle as he negotiated a lock in Worcester. Fortunately there were no deaths or injuries in this incident but it caused British Waterways and other canal users' considerable problems while part of the canal was drained to prevent more water from entering the barge.
- 3.38. Often by the time British Waterways staff are alerted to problems at locks, it is far too late to prevent the incident escalating into something far more major. As a result, staff are required to be far more reactive to resolving these issues at the expense of the ongoing maintenance programme. On the Caledonian Canal in Scotland, lock keepers are still employed to take craft through the often extensive canal flights. This ensures that traffic continues to flow without incident or injury. Unite believes that if Lock Keepers were reinstated it could make the canals far less daunting and more attractive to the boat user.

Q11. What needs to be done to make waterside paths more accessible and better appreciated by local communities?

- 3.39. Canal banks are all too often hidden away behind hedgerows and property developments only appearing in the open when they reach a public thoroughfare. Proper signage to canal locations from road junctions should be more made available to make residents and tourists aware of its location. In urban environments, canals provide not just a recreational function but offer the potential to become an historic and cultural tourist attraction enabling the city dweller to escape from the hectic environment onto much more relaxed surroundings.
- 3.40. If these surfaces are added and paths widened, then they need to be flood resistant or actions need to be put into place to improve security, especially in lock operations. This could be achieved by reinstating lock keepers as stated earlier.

¹² <http://news.bbc.co.uk/1/hi/uk/360034.stm>

¹³ http://www.narrowboatworld.com/index.php?option=com_content&view=article&id=1386:inquest-on-lock-death&catid=30:news-flash&Itemid=38

Q12. Do you agree that waterside paths offer considerable potential for increasing green commuting, both for pedestrian and cyclists? What more can be done to encourage this further?

- 3.41. Unite is supportive of cycle to work schemes and for the provision of safe cycle paths. Canal banks offer a traffic free alternative avenue to cross large distances between locations, especially in towns and cities.
- 3.42. Areas such as canal banks are havens for anglers who clash regularly with boat users and cyclists due to the positioning of rods and equipment. Another major problem arises between cyclists and those exercising their animals. Wherever possible, clearly delineated cycle lanes and foot paths should be made available to preserve the health and safety of cyclists, anglers and pedestrians alike.

Q13. What can be done to reverse the decline in freight on the inland waterways in recent years? Which elements of the commercial waterways have the greatest potential for freight use? How should the planning process ensure the protection of freight interests in those areas with greatest freight potential?

- 3.43. In the days before the railways, the canals were the highways of the country, carrying manufactured goods as well as raw materials. Generally, for bulk trades, such as coal to power stations, inland canals remained cheaper than railways (and a lot cheaper than roads) right up to the end of their commercial operation. The British Waterways Board published figures in the early 1970's which suggested that for a given cost a single ton of freight could be moved about four miles (6.4 km) by air, sixty miles (97 km) by road, two hundred miles (320 km) by rail and over four hundred miles (650 km) by water.
- 3.44. Unite believes that the major obstacle to freight shipment on the waterways today is the volume of paperwork and the indirect route that needs to be taken in getting a licence.
- 3.45. Unite believes that even the most apparently insignificant section of the inland waterway network has potential for commercial freight applications. The hard lessons learnt from the outcomes of the Beeching Report on the railways, highlight the importance of the smaller branches in feeding the main arteries of any network. Lack of regular dredging has caused many areas to become so shallow as to discourage the movement of heavier loads making it more convenient to move goods by alternative avenues. A look at a map of the waterways at the turn of the last century (see Appendix 4) illustrates the potential for freight on what were once the highways of the industrial age.
- 3.46. Unlike the rail industry where there are separate and competing major freight companies, the canals rely primarily on small operators who do not currently have to deal with the volumes needed to put pressure on British Waterways to deal with these navigable problem areas. Unite would suggest that a financial incentive to haulage operators, making it cheaper to move goods by barge between depots should be considered. Canals can make a particular contribution in respect of oversized loads and loads that do not have to deal with the pressures of a just in time delivery system, such as waste recycling and the removal of spoil etc.

- 3.47. There is considerable interest in greater utilisation of the Manchester Ship Canal, even before Tesco started shipping vats of wine to a Manchester bottling plant via this artery. The Humber with its feeding tributaries of the Ouse, Trent, Aire and Calder Navigation offers similar potential due to their proximity to the ports of Grimsby, Immingham, Hull & Goole. Similarly, the other ports with close proximity to the network such as those on the Forth, Clyde, Tyne, Thames, Orwell, Severn, Haven and even the Broads could accommodate a greater utilisation of freight haulage. These main arteries could in turn feed the network further inland as it did in years before the locomotive.
- 3.48. Tugs and hopper barges or pairs of narrowboats can deliver 60 – 70 tonnes of aggregate at a time directly to waterside construction and development sites¹⁴. A site in west London on the Regent's canal had very poor road access and very little storage space on site. The barge delivery option for this site was both efficient and cost effective. With no congestion on the canal network, journey times became consistent and predictable.
- 3.49. What is vitally needed on the canals to encourage freight operations is a programme of dredging and, where practicable widening of the network to allow for a greater volume of freight movement. As shown by the table in Appendix 1 freight operations on the canal network are hampered by the length of time it has been left to fill up with silt and other debris. A 380-tonne barge could take 20 (twenty-five tonne) lorry loads off the road and the fuel consumed by each barge will be 50 times less than that required by a single lorry completing the same journey¹⁵.
- 3.50. Cemex (previously RMC Aggregates) has wharfs on the east bank of the River Severn at Ripple Quarry, near the M50 Bridge, and at the Ryall House Farm Quarry, near Upton, to facilitate river transport of sand and gravel aggregate between the two localities and on to Gloucester. Over the next ten years the operation between Ryall and Gloucester will remove the need for over 340,000 lorry journeys¹⁶.
- 3.51. The planning process should ensure that future property and transport network connections do not cut off sections of canal or navigable stretches of waterway by diverting them via drainage ditches and through pipelines. Such actions result in these areas, and those further upstream, being lost forever to the network. Where there is no option but to intersect these water courses, provision should be put into place to allow for the navigation of traffic past this point.

Q14. How can we best encourage a common purpose between different users of the waterways? What can be done to better manage potential conflicts?

- 3.52. As stated earlier, on the canal bank there needs to be a division, wherever practicable, between areas for cyclists, anglers and pedestrians. Additionally,

¹⁴ http://www.cboa.org.uk/downloads/pdf/construction_aggregates_more_studies.pdf

¹⁵ Source :- Freight by water

¹⁶ Source :- Cemex

there needs to be a clear line that should be followed between anglers and boat users to prevent bait (such as maggots) landing on decks of boats and rods being left across canals. As stated further below, proper signage outlining what is acceptable, and dedicated fishing platforms may prove useful.

Q15. What do you believe should be done to maintain and increase the number of boat registrations on our inland waterways?

- 3.53. Unite believes that the greatest barrier to boat registrations is the lack of amenities found on canal banks. In a number of residential boats, coal and solid fuels are still used for cooking and heating due to the lack of available gas and electrical supplies. In many cases, fresh water supplies and sewage disposal points are few and far between. Increasing these facilities, wherever possible, particularly at locks and marinas, would encourage a greater uptake of boat ownership.
- 3.54. The cost of mooring fees should be set at a level which favours medium and long-term storage over a single night's use.

Q16. How can the waterways increase their share of the holiday market?

- 3.55. Unite believes that the main discouraging factor when comparing holiday options is the price. To book a 45 ft canal boat for a week's break at peak season would cost the average family of four between £1,400 and £1,000, while a cottage hired in the same area may cost less than a third of that price and come with all services connected and pre paid for. For less than £1,000, this same family could afford to spend their week's break in self catering in some cheaper continental holiday destinations, such as Spain, Turkey or Tunisia.
- 3.56. Additionally, once on the canal, the holiday maker would leave their car behind and therefore would be limited in their excursion options by the availability of public transport to tourist attractions. A camping, caravanning or cottage hire holiday maker would still have access to their own transport and the wider area. One way to increase holiday market share would be to increase the regularity of local bus services to these marina or moorings.
- 3.57. The other aim of holidays is to relax and escape the stress of the working environment. The apprehension of navigating a canal boat through a flight of locks produces significant worry for many potential holiday makers. Although minimal training is provided, the worry about flooding areas down stream and having accidents while going through a lock are real, especially where young children are involved. The provision of an experienced pair of hands in the form of a lock keeper in these circumstances would go a long way to remove these fears and maintain a stress-free atmosphere.
- 3.58. Holidaying on the canals and waterways is one of the more environmentally sustainable options for a family holiday and should be marketed as such. The carbon footprint of such a holiday could be improved if fuel to power the craft was more sustainable and the heating and cooking facilities did not rely on fossil fuel sources. As outlined earlier, there are options available to make a holiday on the canal almost totally carbon neutral.

Q17. Do you agree that there is scope for increasing waterway related volunteering activity? How can this be achieved?

- 3.59. Unite agrees that there is scope for increased volunteering activity but would argue that this 'workforce' would need to be closely supervised, managed and only allowed access after having received appropriate training to stop them being a danger to themselves and others. Whilst well meaning, unsupervised and unmanaged volunteer activity can lead to damage to the network and working on the canals can hold considerable dangers for the untrained individual.
- 3.60. Additionally, whilst the work of volunteers has resulted in the reopening of considerable areas of the network, this also leads to the already stretched funds of British Waterways being extended further to maintain these additional areas. Unite would therefore like to funding for the network increased proportionately to reflect the additional work required in these areas.

Q18. How can schools and colleges be encouraged to make greater use of the waterways for educational purposes?

- 3.61. Unite does not wish to comment on this area

Q19. What can be done to help NCBA to increase the use of waterways to improve social inclusion?

- 3.62. Unite does not wish to comment on this area

Q20. What can be done to overcome barriers to achieving greater diversity among boaters and anglers using the waterways?

- 3.63. Anglers can be seen as a nuisance by other canal users due to their potential to obstruct waterways and banks with their rods and equipment. Additionally, in attempts to lure fish away from their hiding places under vessels, anglers shoot bait (which may include worms and maggots) toward the hulls of moored vessels and houseboats. If they overshoot with this bait or with their fishing lines they can hit boat users and make a mess on decks.
- 3.64. Unite does not wish to discourage responsible anglers from enjoying their time on the bank, but proper signage and dedicated angling platforms it would make it easier for the respective parties to enjoy their pursuits.
- 3.65. The major obstacle to obtaining a greater number of visitors is one of access. In urban areas this access could be due to the way in which developments have been allowed to encroach too close to the land boundary blocking access over long distances. In more rural areas, it is a matter of connectivity to public transport provisions, adequate signage and parking provisions.
- 3.66. Unite would suggest that the provision of public transport connections and the existence of canal routes should be more widely available. Although there are a limited number of one or two hour boat trips provided on some canals, these are

often poorly advertised to the general public. Provisions should be made to assist boat operators in providing advertising via information bureaux, for example.

Q21. In view of the pressure on public finances, how can waterway authorities make the most of their resources over the next few years? Would mutual or third Sector status for British Waterways be beneficial in this respect?

- 3.67. It would appear from the announcement in the chancellors 2010 Budget that this decision has already been taken to turn British Waterways into a 'mutual' organisation in England and Wales¹⁷. As has been highlighted earlier, there are considerable opportunities to develop a more financially viable inland waterway network without moving the role of British Waterways out of public ownership. This decision, may offer the opportunity for such development to take place.
- 3.68. Unite will need reserve judgement on this suggestion, to study the proposals more closely and awaits the decision of the Scottish Government to see if they decide if British Waterways in Scotland will be part of a new structure. Unite feels that the first priority should be for there to be enough investment in the network and incentives provided to prospective commercial operations for the full potential of the network to be realised. This would include providing good quality employment to the workforce
- 3.69. Unite is campaigning under the banner of 'valuing public services'. This includes our core Unite public service values;
- Valuing public service users and staff
 - Accountability
 - Long term commitment
 - Universal access
 - End to market madness
 - Sustainability
- 3.70. The economic slump and recession has already claimed many businesses and led to unemployment growing to over 2 million. Unite has also witnessed the cutting of public expenditure become a theme underpinning the future of public services. The UK budget deficit of £176 billion has caused some parties to play the dangerous game of which public services can be slashed and by how much. The CBI, for example, has published plans for cutting £136 billion over the next five years¹⁸.
- 3.71. The primary cause of the economic slump has been a decline in investment in the economy – a decline which has continued. Rather than addressing this

¹⁷ Page 102, http://www.hm-treasury.gov.uk/d/budget2010_complete.pdf

¹⁸ CBI, 'Doing more with less', October 2009

cause of the downturn however, there has been a focus on one of its symptoms – a rise in the public spending deficit. The public spending deficit is not the result of proliferate spending on the Government's behalf. Instead, the decline in economic activity – such as investment, household spending, lower levels of employment - has led to a fall in tax revenues. Michael Burke, former senior international economist with Citibank, has argued that “In the clamour to cut public sector spending – including jobs and pay, as well as services – this key fact has been overlooked. The rise in the deficit is almost entirely due to the slump in taxation receipts, not some allegedly reckless increase in government spending.”¹⁹ In December 2009 a collection of respected economics professors, led by Prof. David Blanchflower, wrote that “reducing the deficit now through spending cuts would undermine the recovery and ultimately damage the public finances further” as taking such risks may tip the economy back into recession²⁰.

- 1.1. Unite firmly believes that the network is best served by retaining existing ownership rather than moving to a purely third sector model. The network requires investment to fully realise the opportunities and to repair the damage done by years of under utilisation.
- 3.72. The Association for Public Service Excellence (APSE) has produced a report analysing why there is a trend among local authorities to deliver services in-house²¹. It discovered that the primary reason for in-sourcing services appeared to be the poor performance of outsourced services against key local and national targets and lower customer satisfaction. By in-sourcing a better value service was provided. The same argument could be applied to British Waterways.
- 3.73. If retention within the public sector is not possible, then the last thing that should happen is to leave decisions to short-term market forces. A long-term strategy needs to be developed. The canal and waterway network has substantial environmental promise within the transport sector as a more environmentally friendly alternative to logistical challenges than long distance haulage by road or short hauls through heavily congested areas.
- 3.74. There are more miles of canal in Birmingham than there are in Venice which could hold the potential to relieve the congestion of the cities roads. The same could be said of Coventry, Liverpool and Manchester to name but a few. London already utilises the Thames for commercial purposes and has done so for hundreds of years. What is often forgotten are the canal networks that lead away from the Thames and enable freight and passenger travel from the centre out to the west in particular. An example of this potential is the provision of four passenger services an hour to central London from the Olympic village²² while the games are on by extending the Thames Clipper service. Such a service

¹⁹ Michael Burke, Tribune, ‘The Wrong Road to Recovery’, 29th January 2010, <http://www.tribunemagazine.co.uk/2010/01/29/taking-the-wrong-road-to-recovery/>

²⁰ Prof David Blanchflower and others, We urge Darling not to undermine recovery with cuts, 7th December 2009, published in the Financial Times, <http://www.ft.com/cms/s/0/fa03538e-e2d0-11de-b028-00144feab49a.html>

²¹ Insourcing: a guide to bringing local authority services back in-house – APSE <http://www.apse.org.uk/publications/order-form/iinsourcing.pdf>

could serve up to 160,000 people a day, around 10% of the total expected visitors on a far less congested network.

Q22. What scope is there for enhanced partnership working to improve the resources available to protect and enhance the benefits delivered by inland waterways?

3.75. As outlined previously, there is potential for a partnership arrangement to be developed between British Waterways and a developer of biofuels derived from algae and other natural sources found in the canal and waterway system. There are further opportunities to enhance the potential for the waterways to reduce road congestion in busy city centres by providing waterborne passenger and logistical opportunities.

Q23. What activity should be undertaken to monitor the benefits delivered by the inland waterways over the coming years?

3.76. Unlike any other network in the UK, there is not an overriding regulator to ensure that all water authorities conform to an acceptable standard throughout their network. If such a body were set up it could ensure that repairs are conducted to an acceptable level and that authorities are as sustainable as possible. A regulator would also be in a position to resolve disputes between inland waterway operators and the users of these networks. It could also reform the burden of boat licensing administration and act as a central resource in the promotion of freight transit on these bodies of water. Such a body could also actively promote the utilisation of the waterways.

4 **Conclusion**

- 4.1. Unite believes British Waterways is best served by remaining under public sector control and should be appropriately funded to a level sufficient to not just meet the needs of the urgent repair bill but also sufficient to develop this resource as a real alternative to rail and road transport particularly on bulk loads which do not have such a time critical element to them such as building rubble, aggregates and waste. Should there be a transfer to the third sector then appropriate safeguards need to be in place.
- 4.2. The network should be staffed by a dedicated and properly trained workforce. Assistance from volunteers needs to be managed and supervised by full time staff and volunteers should receive sufficient training.
- 4.3. The canals and waterways of the UK offer significant advantages both for environmentally sustainable transport and leisure activities.

Brendan Gold
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Appendix 1 WATERWAY GAUGES (Revised 17 Jan 01)

Waterway	Length	Width	Draft	Air Draft	Location (Br = Bridge < = Greater than)
Aire & Calder	142ft	17ft 8ins	7ft 6ins	12ft 3ins	
Ashby Canal	No Locks	7ft	3ft 6ins	6ft 6ins	Br 15 (89ins), 17 (87ins), Snareston Tunnel (75ins)
Avon River (Stratford)	70ft	13ft 6ins	4ft	10ft	
Basingstoke Canal	72ft 6ins	13ft 6ins	2ft 6ins*	7ft 6ins	Fleet to Greywell 5ft *Draft <3ft 6ins as far as Ash reported
Bridgewater Canal (PrestonBrook-Leigh, Castlefield-Waters Meeting)	70 ft	14ft 9ins	4ft	8ft 6ins	Preston Brook tunnel reported low
Calder & Hebble Navigation	57ft 6ins	14ft 2ins	5ft	9ft	Wakefield to Broadcut Top lock - Length 120ft, Width 17ft 6ins, Draft 6ft 6ins, Air Draft 11ft
Caldon (Etruria-Hazlehurst Junction)	70ft	7ft	3ft 4ins	5ft 9ins	Br 8,9,15,18,22 reported low & Stockton Brook Locks
Chelmer & Blackwater Navigation	60ft	16ft	2ft	6ft	
Chesterfield	72ft	7ft*	3ft 6ins	7ft	Airdrafts lower than 6ft 10ins reported * Width Stockwith- Retford 9ft 3ins
Coventry	72ft	7ft	3ft 6ins	6ft 6ins	Caution at Br 13. Bridges 56 & 65 reported low - no airdraft given
Forth & Clyde Canal (Scotland)	70ft	19ft 6ins			
Fossdike Canal (Torksey-Lincoln)	74ft 6ins	15ft 2ins	5ft	8ft 10ins	
Grand Canal (Ireland)	60ft	13ft			
Grand Union Canal (London-Braunston)	72ft	14ft	3ft 6ins	7ft 6ins	Braunston & Blisworth Tunnels 6ft 6ins at edges
Grand Union Canal (Braunston-Birmingham)	72ft	12ft 5ins*	3ft 6ins	7ft 6ins*	*Blue Lias br subsidence reported (Width & Height), Leamington br (reported low - no airdraft given)
Grand Union Canal (Norton Junction-Leicester*)incl Mkt Harborough Arm	72ft	7ft	3ft 6ins	7ft 6ins	Br 61 reported low, Br 6 on Mkt Hbrh Arm 7ft 6ins. Caution at Foxton Locks - Lock gate footboards. *Leicester-Foxton

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Waterway	Length	Width	Draft	Air Draft	Location (Br = Bridge < = Greater than)
					14ft, Foxton-Mkt Harborough 12ft 6ins
Grand Union Canal (Northampton Branch)	72ft	7ft	3ft 6ins	7ft 6ins	Br 5 (Lift Bridge), 13 (6ft 9ins), 14 (7ft)
Grand Union (Slough Branch)	No locks	14ft	3ft 6ins	7ft 6ins	Caution: Br 7
Huddersfield Broad Canal	57ft 6ins	14ft 2ins	2ft 9ins	9ft 3ins	
Kennet & Avon Canal	72ft	13ft 10ins	3ft 6ins	7ft 6ins	Newbury br reported low. Care needed at Bristol Harbour moveable br
Llangollen	70ft	6ft 10ins	2ft	7ft 6ins	Ellesmere & Chirk tunnels + Grindley Brook Lk footboards reported low. Care needed at all locks
Leeds & Liverpool Canal (Including Rufford & Leigh Branches)	62ft	14ft	3ft 9ins	8ft	Gannow & Foulridge tunnels reported low
Lee, River	88ft	15ft 9ins	6ft 9ins	7ft 10ins*	Overall airdraft 7ft 10ins *6ft 10ins on two bridges near Hertford
Nene, River	13ft	4ft	4ft		Northampton South Br (8ft)
Macclesfield Canal (Marple-Kidsgrave (incl Bosley Locks))	70ft	7ft	3ft		Airdraft reported in excess of 6ft 10ins
Medway (Allington Lock - Maidstone)	180ft	20ft	6ft 6ins	10ft 6ins	
Medway (Maidstone - Tonbridge)	80ft	18ft 6ins	5ft 6ins*	8ft 6ins	*Draught 4ft above Hampstead Lock
Middle Level: Twenty Foot River	72ft	14ft	3ft 6ins	7ft	Caution: Whittlesey Bend (sharp, narrow bend), Infields Br reported low
Montgomery	72ft	7ft	3ft 6ins	7ft 6ins	
Ouse, River Great (St Neots - Earith)	100ft	10ft 6ins	3ft	9ft	
Ouse, River Great (Earith - Denver)	70ft	12ft 6ins	3ft	12ft	
Ouse, River Yorkshire (Trent Falls - Naburn)	150ft	12ft	8ft 6ins		
Ouse, River Yorkshire (Naburn-York)	150ft	25ft 6ins	8ft 6ins	25ft 6ins	
Oxford-South	72ft	7ft	3ft 3ins	7ft	Br 145, 146, 165, 168, 173, 179, 181, 183, 188, 190, 194,

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Waterway	Length	Width	Draft	Air Draft	Location (Br = Bridge < = Greater than)
					198, 200, 213, 214, 215 reported low
Oxford -North	72ft	7ft	3ft 6ins	7ft	Caution at Br 80, 75, 71 (87ins - variable), 66, 50, 43, 14, 4
Upper Peak Forest (Marple - Whaley Bridge & Buxworth)	70ft	7ft	3ft		Airdraft reported in excess of 6ft 10ins. Note: Marple Locks passable with care.
Lower Peak Forest	70ft	7ft	3ft		Hyde Bank & Woodley tunnels plus several bridges reported low
Regents	78ft	14ft 6ins	4ft 6ins	8ft 10ins	Islington & Maida Hill Tunnels reported 6ft 10ins
Rochdale (Sowerby Bridge-Todmorden)	74ft	14ft 2ins	4ft	9ft	Care needed at Walkleys Clog Factory Br
Selby Canal	78ft 6ins	16ft 6ins	6ft	10ft	
Sheffield & South Yorks. Navigation (Keadby - Sheffield)	61ft 6ins	15ft 6ins	6ft	10ft	
Shropshire Union Canal (incl Middlewich Branch)	70ft	7ft*	3ft 4ins	8ft	Care needed with footboards on Tyrley & Audlem locks *Width 14ft Ellesmere Port-Nantwich (Pinch Point 11ft at Ellesmere Port new Road Bridge)
Soar, River	72ft	14ft	3ft 6ins	7ft 6ins	
Staffs & Worcs (Great Heywood-Autherley Junct)	72ft	7ft	3ft	7ft 6ins	Autherley-Stourport awaiting report - believe lock bridges + Cookley & Dunsley tunnels low
Stort, River	88ft	13ft 4ins	4ft	6ft 3ins*	Roydon & Sawbridgeworth Railway Brs reported low (*less than 6ft 3ins after heavy rainfall)
Thames, River	109ft*	14ft*	3ft*	7ft 6ins**	**Osney Br 7ft 6ins. *Dimensions: Oxford-Lechlade (Greater on lower reaches)
Trent, River	237ft	19ft 6ins	7ft 3ins	11ft	

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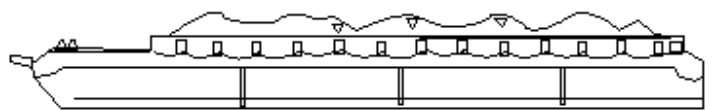
Waterway	Length	Width	Draft	Air Draft	Location (Br = Bridge < = Greater than)
Trent & Mersey Canal	70ft	7ft	3ft 4ins	5ft 9ins	Br 3,5,30,32,50,51,87,114,115,165 + Harecastle,Barnton,Salterford tunnels reported low. Lock 41 passable Sanny Stn side
Trent & Mersey Canal (Shardlow - Burton, Preston Brook-Croxton)	70ft	13ft 6ins	3ft 4ins	5ft 9ins	
Witham Navigable Drains	72ft	18ft	3ft 6ins	8ft	Note: Dimensions quoted are via Antons Gowt Lock. Otherwise Length 60ft,Width 11ft
Wey River	73ft 6ins	13ft 10ins	2ft 6ins*	6ft	* Draft reported <3ft 6ins Weybridge-Guildford

Appendix 2 Large Barge Navigable Waterways

Aire & Calder Navigation	River Mersey
Brightlingsea Creek	River Nene
Caledonian Canal	River Orwell
Cromarty Firth	River Ouse
Gloucester & Sharpness Canal	River Parrett
Grand Union Canal	River Roach
Loch Fyne	River Severn
Manchester Ship Canal	River Stour
Moray Firth	River Taw
River Blackwater	River Tay
River Clyde	River Tees
River Colne	River Test
River Crouch	River Thames
River Dart	River Torridge
River Dee	River Trent
River Fal	River Tyne
River Forth	River Wear
River Hull	River Weaver
River Humber	River Welland
River Itchen	River Witham
River Lee	Sheffield & S. Yorks. Navigation
River Medina	Southampton Water
River Medway	

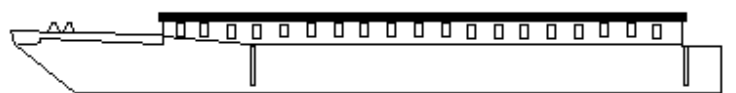
Appendix 3

Common US Barge Types



OPEN HOPPER BARGES

TYPE	LENGTH FEET	BREADTH FEET	DRAFT FEET	CAPACITY TONS
Standard	175	26	9	1000
Jumbo	195-200	35	9	1600
Super Jumbo	250-290	40-52	9	2100-3300



COVERED HOPPER BARGES

TYPE	LENGTH FEET	BREADTH FEET	DRAFT FEET	CAPACITY TONS
Standard	175	26	9	1000
Jumbo	195-200	35	9	1600



INTEGRATED CHEMICAL AND PETROLEUM BARGES

TYPE	LENGTH FEET	BREADTH FEET	DRAFT FEET	CAPACITY TONS
Tanker	150-300	35-54	9	1400-3300

Source : http://www.caria.org/barges_tugboats.html

Appendix 4 A Map of the UK Canal and Navigable Waterway System Circa 1906

