

Title: Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2014 IA No: DfT00288 Lead department or agency: Maritime & Coastguard Agency Other departments or agencies: Department for Transport	Impact Assessment (IA)		
	Date: 30/04/2014		
	Stage: Final		
	Source of intervention: Domestic		
	Type of measure: Secondary legislation		
Contact for enquiries: Michael Gregson Tel: 02380 329280 Email: michael.gregson@mcga.gov.uk			
Summary: Intervention and Options		RPC Opinion: GREEN	

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out? Measure qualifies as
£5.78m	£5.85m	-£0.57m	Yes OUT

What is the problem under consideration? Why is government intervention necessary?

The existing Merchant Shipping (Inland Waterway and Limited Coastal Operations) (Boatmasters' Qualifications and Hours of Work) Regulations 2006 do not adequately address industry needs for appropriate risk based qualifications and have resulted in continued unresolved areas of conflict. Some aspects of the current qualifying requirements (national tidal licences required for use in local restricted areas) are disproportionate to the risks involved and as much of the industry are small to medium enterprises (SMEs) many are now struggling to maintain financially viable businesses. Government intervention is necessary to address the areas of concern to reduce the burden and costs to businesses.

What are the policy objectives and the intended effects?

The objective of the policy is to implement a range of amendments including a) introducing a restricted local tidal licence; b) extending the list of acceptable equivalent qualifications and training; c) addressing safety issues not provided for in the existing regulations and amending and simplifying the existing regulations for ease of public accessibility. This will enable an industry made up primarily of SMEs to continue operating viable businesses and maintain the local areas they serve including transport networks, tourism, services to other vessels and employment.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Do nothing has not been considered as an option because this would leave some industry SMEs struggling to remain financially viable. Also the proposal has been developed with industry involvement and the changes are fully supported. Two options are therefore considered:

Option 1: Introduce a local restricted tidal licence to facilitate the recruitment of suitably qualified masters to work in local specific tidal areas and, in addition, extend the recognition of alternative qualifications where they demonstrate an equivalent or superior level of competency to the existing boatmasters' qualifications and/or endorsements.

Option 2: **the preferred option.** Implement a range of amendments to the existing regulations including the introduction of a new local specific tidal licence, the widening of the scope of recognised equivalent qualifications and also increasing safety standards where risks have been identified on categorised waters.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 04/2019					
Does implementation go beyond minimum EU requirements?				N/A	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		Micro Yes	< 20 Yes	Small Yes	Medium Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)				Traded: N/A	Non-traded: N/A

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister: John Hayes Date 23rd February 2015

Summary: Analysis & Evidence

Policy Option 1

Description: Introduce a local specific tidal licence to facilitate the recruitment of suitably qualified masters to work in local specific tidal areas and, in addition, extend the recognition of alternative qualifications where they demonstrate an equivalent or superior level of competency to the existing boatmasters' qualifications and/or endorsements.

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	High: N/A	Best Estimate: 5.62

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	0.0	Neg.	0.1

Description and scale of key monetised costs by 'main affected groups'

There is one identified cost, which is the revision of the Maritime & Coastguard Agency's (MCA) existing Boatmaster licence (BML) Database to enable the recording of the proposed licence. There are no costs to industry for this option.

Other key non-monetised costs by 'main affected groups'

The main non-monetised cost will be a minimal administrative burden on the MCA for revising guidance and procedural documentation; and for surveyors familiarising themselves with the newly proposed equivalent acceptable qualifications.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	1.8	0.5	5.7

Description and scale of key monetised benefits by 'main affected groups'

The key monetised benefits are to new and existing masters and industry SMEs by introducing a new licence which is quicker to obtain, more appropriate and cost-effective for boatmasters only wishing to operate on local tidal areas. Based on the number of vessel exemptions issued to date, it is expected that 41 new entrants will take up this new licence each year. The 160 masters currently named on vessel exemptions will incur a one-off benefit upon introduction of the proposed licence.

Other key non-monetised benefits by 'main affected groups'

The scope of qualification under the Regulations will be extended, masters who have undergone equivalent or superior training will no-longer be required to retrain under the Regulations. This benefit has not been monetised and consultation responses suggested it was not a large issue. In line with Red Tape Challenge commitments, the Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006 will be incorporated into the Regulations.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
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A minimal degree of risk is associated with the uptake projection for the proposed restricted local tidal licence (T2L2 BML). The projection has been calculated on the assumption that the new entrants obtaining the T2L2 each year will follow the trend for new masters operating under vessel exemptions each year. There are sensitivities surrounding the assumed unqualified wage which is a best estimate provided by industry representatives, and also the largest monetary saving associated with the new proposed licence.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:	In scope of OITO?	Measure qualifies as
Costs: 0	Yes	OUT
Benefits: -0.55		
Net: -0.55		

Summary: Analysis & Evidence

Policy Option 2

Description: Implement a range of amendments including the introduction of a new local specific tidal licence, widening of the scope of recognised equivalent qualifications and also increasing safety standards where risks have been identified

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	High: N/A	Best Estimate: 5.78

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	0.0	0.0	0.1

Description and scale of key monetised costs by 'main affected groups'

There are two key monetised costs. The first is to the boatmaster should they not have sufficient service time and wish to continue undertaking a specific operation, as the amendments will introduce service time requirements to revalidate certain specialist operation endorsements. The cost to industry is minimal at a total of £25, 442 over ten years. The second is the revision of the MCA's existing BML Database to enable the recording of the proposed licence.

Other key non-monetised costs by 'main affected groups'

There are a number of non-monetised costs to be borne by industry including the separation of existing and introduction of new of specialist operation endorsements for national licences. These proposed requirements are based on a safety case and supported by industry. As existing MCA approved company training will be accepted as evidence of meeting the required standard and that the majority of boatmasters hold local licences which do not require specific endorsements; the cost to industry will likely be negligible.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	1.8	0.5	5.9

Description and scale of key monetised benefits by 'main affected groups'

The key monetised benefits are to new and existing boatmasters and industry SMEs by introducing a new licence which is quicker to obtain, more appropriate and cost-effective for boatmasters only wishing to operate on local tidal areas. Based on the number of vessel exemptions issued to date, it is expected that 41 new entrants will take up this new licence each year. The 160 masters currently named on vessel exemptions will incur a one-off benefit upon introduction of the proposed licence.

Other key non-monetised benefits by 'main affected groups'

The scope of qualification under the Regulations will be extended, masters who have undergone equivalent or superior training will no-longer be required to retrain under the Regulations. This benefit has not been monetised and consultation responses suggested it was not a large issue. In line with Red Tape Challenge commitments, the Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006 will be incorporated into the Regulations.

Key assumptions/sensitivities/risks Discount rate (%) 3.5

A minimal degree of risk is associated with the uptake projection for the proposed restricted local tidal licence (T2L2 BML). The projection has been calculated on the assumption that the new entrants obtaining the T2L2 each year will follow the trend for new masters operating under vessel exemptions each year. There are sensitivities surrounding the assumed unqualified wage which is a best estimate provided by industry representatives, and also the largest monetary saving associated with the new proposed licence.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of Yes	Measure qualifies as OUT
Costs: Neg.	Benefits: -0.57	Net: -0.57		

Evidence Base

1. Problem under consideration

The problem under consideration is how to reduce the legislative and financial burden to industry imposed by SI 2006/3223, The Merchant Shipping (Inland Waterways and Limited Coastal Operations) (Boatmasters' Qualifications and Hours of Work) Regulations 2006 (**the Regulations**) without compromising safety.

The Regulations do not adequately address industry needs resulting in continued unresolved areas of conflict. Some aspects of the current qualifying requirements are disproportionate to the risks involved, such as the requirement to obtain a national licence suitable for nationwide operation for work in a restricted local tidal area.

The industry affected is predominantly comprised of small to medium enterprises (SMEs)¹. The absence of an appropriate qualification for local tidal waters has led to a significant number of SMEs struggling to get qualified masters impacting on their ability to run financially viable businesses. This in turn has serious implications for the local areas they serve.

2. Background

The Regulations came into force on 1 January 2007 and were the output of a project which had been initiated in response to:

- Lord Justice Clarke's Interim Report to the Thames Safety Inquiry presented to Parliament in December 1999; and
- Council Directive 96/50/EC on the harmonisation of the conditions for obtaining Boatmasters' certificates for the carriage of goods and passengers by inland waterways, as amended by EC Regulation 1882/2003 (**the Directive**).

The collision of the passenger ship MARCHIONESS and the dredger BOWBELLE, resulting in the loss of 51 lives, triggered Lord Justice Clarke's investigation. One of the key recommendations was for the regulation of non-passenger vessels on UK inland waterways, which were at that point largely unregulated. The previous regulations, The Merchant Shipping (Local Passenger Vessels) (Masters' Licences and Hours, Manning and Training) Regulations 1993 (**the 1993 Regulations**) only applied to passenger vessels. The current Regulations make a major contribution to protecting the safety of those using UK inland waterways in particular covering non-passenger commercial operators and smaller vessels.

The Regulations also transpose EU requirements for the regulation of inland waterways. In line with Article 3(2) of the Directive, the UK established our national Boatmasters' Licence (**BML**) applicable for masters who wished to operate solely on UK inland waterways. The criteria for the BML is based on the Directive's Boatmasters' Certificates (**BMC**) which facilitates any transition that qualified UK BML holders might wish to make in order to work in other EEA countries and use their BML to get a BMC.

3. Rationale for intervention

The Regulations were drafted in a highly politicised environment which influenced how the policy was formed. It has become apparent that whilst the Regulations meet the requirements of the Directive and incorporate the recommendations from the Thames Safety Inquiry they fail certain groups within industry. The regulations fall short in the following areas:

- i) Over regulation in the BML system²

¹ According to the Maritime & Coastguard Agency's UK Ship Register (on 1 August 2013) approximately three quarters of the inland waterway (vessel operating) industry consists of owner/operators with less than a tenth of industry being non-SMEs.

² In 2009 the Passenger Boat Association (PBA) conducted a study of the UK passenger boat industry to determine the composition and size of the sector. The results are published in "The UK Passenger Boat Industry – What Value to the Economy, July 2009". As part of this study the PBA distributed a questionnaire to all passenger boat employers in the UK. Some 67 responses were received (which is an 18% response rate). Respondents were invited to comment on what they would like to see changed to allow their business to be more successful in the future. The PBA grouped the 131 additional comments into a number of themes; the most popular 'Relaxation of MCA Regulations' (19 comments); followed by 'Concise regulations from the MCA' (15 comments) and less mentioned 'Realistic approach by MCA about Boatmaster Licence' (3 comments).

A significant group felt that their views had been poorly represented at the time of the original consultations for the Regulations and have not been content since their introduction. With regards to scope of qualification, concerns can be summarised into two main areas where the Regulations are considered to have placed unnecessary burdens on SMEs:

- a. the lack of provision for a restricted local tidal licence; and
- b. the failure to recognise alternative qualifications that demonstrate an equivalent or superior level of competency which could be held in lieu of a generic BML and/or endorsements.

This is apparent because:

- it takes longer and costs more for a master to qualify;
- there are more exams or assessments to pass; and
- the academic level of tests or exams is above that required to operate only in restricted local tidal areas.

To facilitate the recruitment of new and/or replacement masters operating in restricted local tidal waters (whilst the proposed Regulations are being developed) the Maritime & Coastguard Agency (**MCA**) has issued BML vessel exemptions under section 48 of the Merchant Shipping Act 1995. Companies may apply to the MCA for specific vessels to be removed from the scope of the Regulations, providing that they are skippered by a named individual on a particular route. The intention is that during the validity period masters obtain the required knowledge, training and service time for the national Tier 1 Level 2 (**T1L2**) BML (the only available licence for tidal waters).

However, T1L2 is an intentionally stringent licence because it enables the holder to operate anywhere within UK categorised waters thereby facilitating movement of labour, which was not available under the 1993 Regulations³. In practice many masters and SMEs operate exclusively in one local area and therefore do not require a national licence, simply a local one that is fit for purpose.

Likewise, expecting someone who already has suitable training and knowledge to complete further assessments and re-qualify under the BML system prevents them from being able to start work straight away. The additional tests and assessments which are not considered necessary due to their equivalent or superior qualifications represent an extra cost burden to industry.

These barriers restrict the opportunity for potential masters to gain work and so limit the supply of workforce in the industry. If companies could not operate due to a lack of suitably qualified masters there would be the potential for a negative effect on the economy, the environment and associated social issues as these operators contribute to:

- Transport networks:

Such as ferries across estuaries. Without these, people would have to travel longer routes, causing more traffic congestion on those routes. It could affect feasibility of travel to places of work, shops or to access services because some people may not be able to make the longer journey, particularly foot passengers who may have no alternative transport. For island communities, ferries can represent the only link to mainland services.

- Tourism:

Taking a boat trip is a popular tourist activity in many scenic locations and areas of natural interest. Such ferry services take people to towns before they visit tourist attractions giving their custom to local shops and other businesses such as those in the hospitality sector.

- Services to other vessels:

Such as delivering supplies, maintenance or towing. Larger vessels rely on these services, so the wider shipping community would experience operational problems if they were not available.

- Employment:

As well as the masters of the vessels, employment is also provided in a range of related occupations. Some examples include: crew, company staff and boat repairers.

ii) Safety issues

³ Under the 1993 Regulations all BMLs were restricted area licences.

Inland waterways traffic is increasing⁴ and with it, the risks to safety. Although the evidence for the frequency of accidents and near misses is lacking, the consequences of such event could be severe given the mix of large commercial vessels, tourist traffic and pleasure vessels on the UK's busy waterways. Consideration should be given to any potential risks that have not so far been addressed in the Regulations and close any areas of uncertainty.

In addition to the considered over regulation on industry, there are also two areas concerning safety that have not been adequately addressed under the Regulations:

- a. suitability of small vessel masters, both in terms of medical fitness and operational ability; and
- b. the range of Tier 1 BML endorsements⁵ to ensure that masters are and remain appropriately qualified for specialised operations.

Currently there are nine alternative certificates accepted in lieu of a BML for masters operating small vessels. Whilst these certificates are appropriate for general operations and the carriage of no more than 12 passengers, they lack adequate training for small vessels engaged in towage operations or carrying oil, chemical or liquefied gas cargoes in bulk. Masters holding generic BMLs are required to undergo additional assessment to test their understanding of the distinct complexities associated with the above operations before having their generic BML endorsed. However, there is no equivalent system in place for these recognised alternative certificates.

It is also recognised that medical standards associated with the alternative vessel qualifications vary significantly. The MCA considers that self-certification is appropriate for masters operating small vessels on non-tidal waters. However, a common medical standard is required for masters operating in tidal waters with a higher level of associated risk.

In addition, it is acknowledged by the MCA and our industry partners that the current syllabi for specialist operations are in some cases overly generic and in other cases lacking. To address these flaws, the proposal intends to introduce a number of new endorsements with accompanying syllabi that adequately reflect the distinct complexities of each operation and reflect the standard of training already adopted by industry.

Furthermore, under the existing system there is no safeguard of competency given that endorsements are automatically carried forward upon revalidation of the generic licence, regardless of whether there has been any current service time operating the specific type of vessel. The revalidation of specialist operation endorsements will be introduced to ensure a master's continued level of competence.

4. Policy objective

The policy objectives of these proposed Regulations are:

- a. to extend the licensing structure to include restricted local tidal operations;
- b. to increase the list of qualifications which can be held in lieu of a BML;
- c. to recognise additional training courses which are considered equivalent to some areas of BML training requirements;
- d. to address safety issues not provided for under the Regulations; and
- e. to amend and simplify the current regulations to incorporate proposed changes for ease of public accessibility.

5. Description of options considered and consultation and responses

5.1 Do nothing

Based on the research conducted to date, it is clear that the Regulations pose an undue burden to both small businesses and boatmasters alike. Interim measures have been put in place to address these

⁴ Department for Transport statistics show that inland waters traffic measured by goods lifted, has increased from 3.18 to 3.48 million tonnes per annum between 2003-2011, which equated to a 9.4% increase. These statistics are accessible from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/16226/dwf0202.xls

⁵ An endorsement is required for masters that wish to undertake the following operations: carriage of passengers (more than 12), cargo, oil cargoes, dredging, towing, fast draft and radar. The skills required for these specialist operations are not covered within the syllabi for generic BMLs, therefore, additional assessment is required to ensure that masters are competent in these operations.

problems but these cannot remain indefinitely. Safety issues would remain unaddressed. This is not considered a viable option.

Bearing in mind industry feedback from previous consultations undertaken for the Regulations, every effort was made to extend the list of stakeholders consulted to increase engagement. The MCA has strived to include all stakeholders throughout the process of developing the policy to ensure that the proposed amendments to the Regulations reduce undue burden to industry whilst maintaining the highest safety standards.

Two informal consultations⁶ have already been undertaken to allow all sectors of industry to make their views known before developing firm proposals for amending the Regulations.

The initial informal consultation solicited industry opinion on how to address the areas of concern that had been identified since the introduction of the Regulations. The comments received provided a clear steer on many policy areas. The MCA liaised with stakeholders through formal safety group meetings such as the Domestic Passenger Ship Safety Group (**DPSSG**) – BML Subgroup and correspondence to develop policy for the remaining areas. A second informal consultation was circulated to update industry on policy developments, seek further clarification and to engage with key sectors who had not responded to the first informal consultation.

5.2 Option 1: Introduce the proposed restricted local tidal licence⁷ to facilitate the recruitment of suitably qualified masters to work in local tidal areas and extend recognition of alternative qualifications that demonstrate an equivalent or superior level of competency to the BML and/or endorsements.

This option would provide masters wishing to operate only in specific local tidal areas with a licence and level of competency appropriate to such individual operating areas. It would also recognise the wide range of additional qualifications and training which are considered either of an equivalent or superior standard of competency and which could be used in lieu of a BML. Again safety issues and other areas of concern raised by industry would remain unaddressed, therefore this is not considered the preferred option.

5.3 Option 2: Implement a range of amendments to the Regulations including the introduction of a new restricted local tidal licence, the widening of the scope of recognised equivalent qualifications and also increasing the safety standards for masters operating in UK inland waterways

This option would address all of industry concerns and is therefore **the preferred option**.

In addition to introducing the restricted local tidal licence and extending the scope of equivalent qualifications, this option would also:

- remove low risk vessels from the scope of regulations;

⁶ The first consultation was undertaken 14 December 2009 – 7 March 2010. The consultation and a selection of the 84 responses to the questions posed which numbered over 70 are available from: http://www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/consultations/mcga-consultations-archive/consultations-closed_started-2009/ds-stc-consultations-bml.htm The second consultation was undertaken 6 November – 17 December 2010. The consultation and a selection of the 78 responses received are available from: <http://www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/consultations/mcga-consultations-archive/consultations-closed-started2010/ds-stc-tc-consultation-2bml.htm>

⁷ The table below contrasts the existing BML Structure against the proposed structure in options 1 and 2. For reference: Tidal waters = Categories C, D and limited coastal area; and Non-Tidal waters = Categories A, B and non-linked C. Under Grandfathers' Rights the majority of holders of a BML issued under the 1993 Regulations were issued with Tier 2 (restricted area) licences upon conversion to the Regulations. Holders of Tier 2 licences issued under Grandfathers' Rights for tidal waters will be issued with a Tier 2 Level 2 licence on conversion to the proposed Regulations.

Existing BML Structure		Proposed BML Structure	
Tier 1 Level 2 (T1L2)	National licence valid for operating a vessel anywhere on the UK's inland waterways (categories A to D) and limited coastal area, except where local knowledge requirements apply.	Tier 1 Level 2 (T1L2)	No change
Tier 1 Level 1 (T1L1)	National licence valid for operating a vessel anywhere on the UK's non-tidal waters (categories A, B and non-linked C), except where local knowledge requirements apply.	Tier 1 Level 1 (T1L1)	No change
No licence available for restricted tidal waters		Tier 2 Level 2 (T2L2)	Restricted licence valid for specified areas of category A to D waters and limited coastal area. (options 1 & 2)
Tier 2 (T2)	Restricted licence valid for (i) specified areas of category A and/or B waters; or (ii) specified areas of non-linked category C waters.	Tier 2 Level 1 (T2L1)	Inclusion of - all Category A canals (option 2)

- align all revalidation and medical requirements regardless of age and qualifications; and
 - review the requirements for specialist endorsements.
- 5.4 We asked a number of questions during formal consultation on the first stage impact assessment.

These are set out below:

Question 1 to consultees: What is the comparable difference in salary of a master working under exemption to those holding a BML?

Question 2 to consultees: Where can the MCA find information on the numbers of masters who have qualified for a T1L2 licence but who are working only in a restricted local tidal area. If the information is not readily available, please indicate whether you operate in only one restricted local tidal area?

Question 3 to consultees: Please indicate whether you had to fully or partially retrain for a BML even though you held one of the proposed superior certificates.

Question 4 to consultees: Please indicate whether you had to retrain for a BML endorsement even though you held one of the proposed STCW training certificates.

Question 5 to consultees: Please indicate whether you currently work on the Medway with a T1 licence or intend to work on the Medway with one of the proposed acceptable equivalent qualifications and will be affected by this proposed measure.

Question 6 to consultees: Please indicate whether you currently work in a LKE area with a T1 licence or intend to work in an LKE area with one of the proposed acceptable equivalent qualifications and will be affected by this proposed measure.

Question 7 to consultees: Please indicate whether you currently hold one of the proposed acceptable equivalent small vessel qualifications and will be affected by this proposed measure.

Question 8 to consultees: Please indicate whether you currently operate vessels which transit waters of a higher category and will be affected by this proposed measure.

Question 9 to consultees: If you are currently training towards a T1 BML and wish to operate in one of the LKE areas listed above, please indicate if you will benefit by this proposed measure.

Question 10 to consultees: Please indicate how many masters would have used this proposed alternative measure to qualify for the large passenger endorsement if it had been available since 2007.

We are grateful for the answers we received in response to these questions and have reflected these responses in this final stage impact assessment where appropriate.

6. Monetised and non-monetised costs and benefits of each option (including administrative burden)

The following costs and benefits are summarised and a full breakdown is provided in Annex 1.

The figures are indicative costs and have been obtained from the maritime industry including: operators, training course providers etc. The numbers of BMLs and endorsements used have been obtained from the MCA database unless specifically stated otherwise.

6.1 The Do Nothing Scenario

Candidates wishing to operate only within restricted local tidal areas will continue to be required to obtain a national T1L2 BML encompassing all UK inland waterways. The option remains for companies to apply for named masters to operate under vessel exemptions; however this arrangement is cumbersome for companies and disadvantageous for the masters.

Given the exemptions are vessel and route specific, named masters are not transferable between vessels and routes which hampers a company's ability to respond to daily operational needs. For example, companies have reported difficulties finding an appropriately qualified replacement master to cover sick-leave at short notice which disrupts their operations. Whilst larger companies can afford to retain a pool of stand-in masters with multiple vessel exemptions this is not the case for smaller companies and owner/operators. Furthermore this situation results in a greater level of administrative

burden on the company and local MCA Marine Offices (who test for BML vessel exemptions). Each exemption is valid for a maximum of three years, and it is the company's responsibility (as opposed to the Boatmaster) to ensure that associated paperwork is retained and a new exemption obtained at the end of each validity period.

In the Regulatory Triage Assessment we noted that there is likely to be a difference in the salaries of those masters operating with a full BML and those operating under an exemption. The latter were expected to receive a relatively lower salary. We did not monetise this as figures were not available on the number of masters that have obtained a T1L2 for operations exclusively in restricted local tidal areas.

In their responses consultees stated that this is not the case and there is in fact no difference between the salaries of masters working under exemption and those holding a BML. They also provided details on the status of their particular operations, but none of the responses suggested further sources of aggregate data.

6.2 Option 1: Introduce the proposed restricted local tidal licence to facilitate the recruitment of suitably qualified masters to work in restricted local tidal areas and extend recognition of alternative qualifications that demonstrate an equivalent or superior level of competency to the BML and/or endorsements

6.2.1 Monetised costs

Revision of the MCA's BML Database

The proposed Regulations will require a revision of the MCA's BML database to incorporate a new category of licence. The estimated initial cost of revision and annual maintenance is anticipated to be £70,000 over a 10 year period.

The BML database holds applicant, training and licence details for all BMLs issued under the Regulations.

There are no monetised costs to industry for this option.

6.2.2 Non-monetised costs

Administrative burden on the MCA

The proposed regulations will pose the following non-monetised administrative burdens on the MCA:

- reviewing and reissuing all BML guidance and procedures in line with changes to the Regulations; and
- the requirement for surveyors to familiarise themselves with the newly proposed equivalent acceptable qualifications.

However, it is expected that these would be offset by the proposals which will mean:

- industry will find the Regulations more practical and there will be less complaints and queries; and
- no unnecessary applications (associated with masters holding equivalent qualifications wishing to seek BML qualifications).

There are no non-monetised costs to industry for this option.

6.2.3 Monetised benefits

Unless otherwise specified, all statistical data is obtained from the MCA Boatmasters' Licence database and is correct as at 30 June 2013 for in date licences.

The introduction of the restricted local tidal licence – Tier 2 Level 2 (T2L2 BML)

There is no provision under the Regulations for a restricted local tidal licence. Masters wishing to operate only in such areas must currently obtain the national licence which encompasses a two year training period in addition to the completion of three basic training courses, an oral assessment on underpinning knowledge for the whole of the UK and a practical boat handling exam. This licence allows masters to operate anywhere in the UK, whilst in practice masters often only wish to operate in one specific area. The extent of training required is therefore considered disproportionate to the risks of exclusive operations in a restricted local area. As a result of the onerous qualification requirements, companies operating in these areas reported difficulties in recruiting suitably qualified new or

replacement masters. Furthermore, the cost associated with a two year training period impedes these businesses taking on trainees.

To facilitate recruitment of new or replacement masters, the MCA in April 2008 began issuing BML Vessel Exemptions as referred to earlier.

Upon introduction of the proposed Regulations all masters operating under a BML Vessel Exemption will incur a one-off benefit as they will no longer require a T1L2 BML for operation. The one-off benefit is derived from the number of named masters on BML Vessel Exemptions multiplied by the monetary difference between obtaining a T1L2 and a T2L2 BML. In addition to a saving on the generic licence there is also a saving on the cost of endorsements. As Tier 2 (T2) BMLs are area and operation specific, separate endorsements are therefore not required.

The breakdown for the cost of each BML, the number of masters operating under a BML Vessel Exemption and savings on endorsements can be found in Annex 1.

One-off benefit

▪ Estimated number of masters on BML Vessel Exemptions ⁸ =	160
▪ Difference between a T1L2 and a T2L2 BML ⁹ =	£10,861
▪ Benefit on the generic BML =	£1,737,839
▪ Estimated number of endorsements not required (160 x 2.32 ¹⁰) =	372
▪ Saving per endorsement =	£100
▪ Benefit on endorsements =	£37,179
▪ Total one-off benefit to industry =	£1,775,018

Annual benefit

▪ Estimated number of new entrants per year =	41
▪ Benefit on generic licence =	£444,804
▪ Estimated number of endorsements not required (41 x 2.32) =	95
▪ Benefit on endorsements =	£9,516
▪ Annual benefit to industry =	£454,320
▪ Total annual benefit over 10 years =	£4,543,200

The estimated number of masters who will acquire the proposed T2L2 BML is conservative. It is expected that the numbers applying for this new licence will exceed the estimates mentioned above due to the following reasons:

- a. holders of existing restricted tidal licences obtained under Grandfather Rights¹¹ will most likely be replaced by T2L2 holders upon retirement; and
- b. a greater number of new entrants is required to sustain industry.

From 1 January 2007 (when the Regulations came into force) until 30 June 2013, new entrants obtaining a T1L2 BML represent 4% of the population of 2,278 boatmasters who held an in date tidal licence (excluding those issued for the Thames) as of 30 June 2013. This new entrant rate does not

⁸ Based on masters currently named on BML vessel exemption, the expected number of new T2L2 entrants is 41 each year – a breakdown of this figure is included in section 3 to Annex 1. By April 2014 it is expected that 160 masters will hold a current BML Vessel Exemption (129+ (41 x 0.75)). At 30 June 2013 there were 129 masters named on current BML vessel exemptions. Between 01 July 2013 and 31 March 2014 an expected 31 new masters will be named on vessel exemptions (41 x 0.75).

⁹ Please refer to section 1 to Annex 1 for the cost breakdown for Tier 1 Level 2 and Tier 2 Level 2 BMLs.

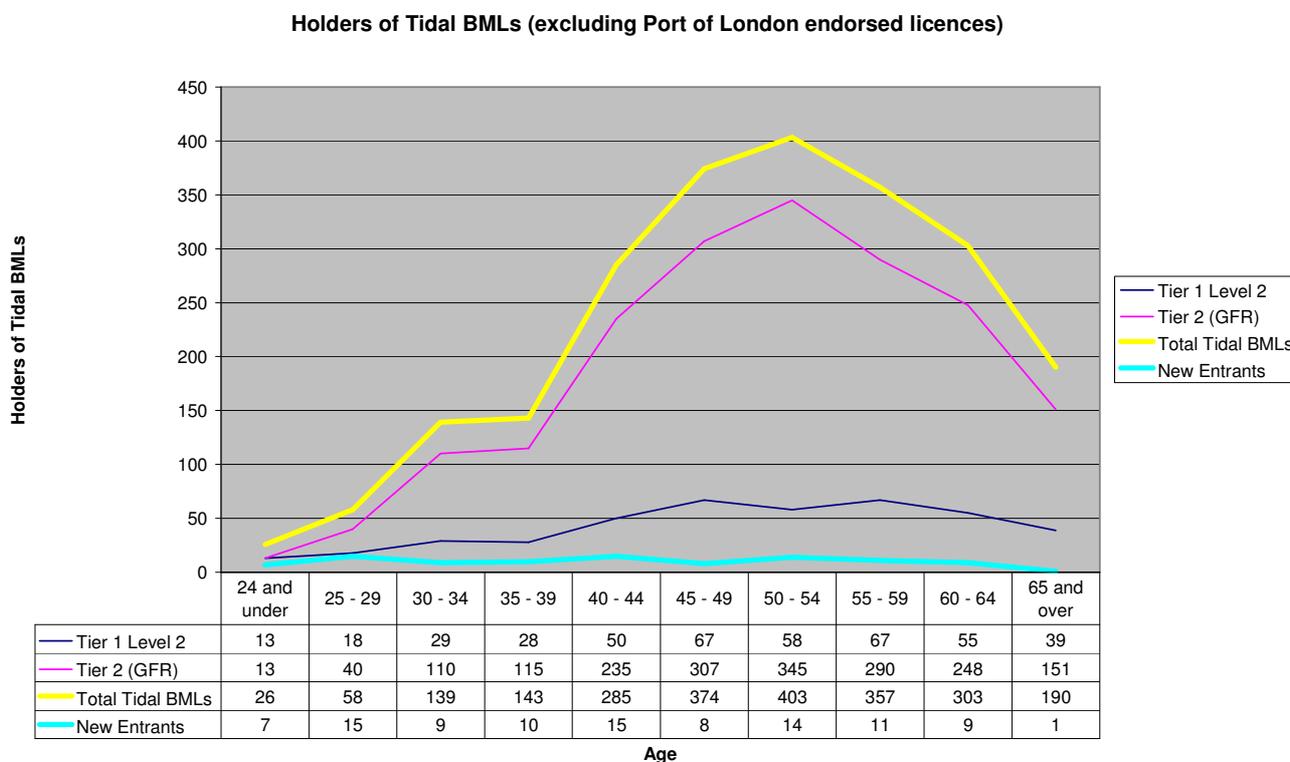
¹⁰ Each BML has on average 2.32 endorsements. Please refer to Annex 1, section 4 for the breakdown.

¹¹ When the Regulations were introduced masters holding existing Boatmasters Licences issued under the 1993 Regulations, were granted licences on a 'like for like' basis to ensure they were not left worse off.

compensate for the number of Boatmasters who are expected to leave the industry, given that 7% of the same population are already at the assume retirement age of 65.

Between the same period in 2007 – 2013, 667 boatmasters have let their tidal licences lapse which compounds the requirement for new entrants into the industry.

The graph below depicts the age profile of Boatmasters holding in date tidal licences. We believe the distribution is typical for an industry predominantly comprised of owner/operators and SMEs¹².



Holders of a T1L2 licence with the Port of London endorsements have been specifically excluded from the statistics for tidal licences in this section as to operate on the Thames below Teddington, candidates will continue to require the full T1L2 – they will not be eligible for the proposed T2L2 licence.

6.2.4 **Non-monetised benefits**

Acceptance of additional courses to qualify for the radar endorsement

The Regulations specify the prerequisite course for the radar endorsement is the Merchant Navy Training Board (MNTB) Small Ships Navigation and Radar course. In practise the MCA have taken a pragmatic approach by accepting equivalent and superior radar courses for the issue of a radar endorsement. There are seven other courses that are at least equivalent, if not superior, in content to the MNTB course and the proposed regulations will formally recognise them.

Acceptance of superior qualifications in lieu of a BML

Currently only two superior STCW¹³ certificates are recognised as acceptable in lieu of a BML. However, there are other UK STCW, Fishing and Royal Navy qualifications which meet or exceed the BML competency requirements and would be suitable for use within UK inland waterways. The proposed regulations will list those UK Certificates of Competency (CoCs) and Equivalent Competency (CECs) considered appropriate to be accepted in lieu of a BML for masters. It is not considered

¹² According to the Passenger Boat Association’s study on the UK passenger boat industry conducted in 2009: 58% of employers in the industry own one boat (owner-operator), 34% own between two and four boats (SMEs) and only 8% own five or more boats. These findings are published in “The UK Passenger Boat Industry – What Value to the Economy, July 2009”. Please refer to footnote 1 for the composition of all inland waterway vessel commercial operators (passenger and non-passenger).

¹³ The International Convention for the Standards of Training, Certification and Watchkeeping (STCW) are the international training standards for seafarers established by the International Maritime Organization (IMO).

appropriate that holders of these certificates be required to retrain and pay for duplicate qualifications. A T1L2 BML costs £13,500¹⁴.

In the first stage IA we noted that it is not considered appropriate for holders of superior qualifications to be required to retrain for a duplicate BML. We were unable to quantify the benefit of not requiring this retraining and recognising the certificates. Responses to the consultation explained that this was not a significant issue and we have therefore not monetised this impact.

Acceptance of STCW training in lieu of BML endorsements

In the same way as superior qualifications, the Regulations do not accept any previous training in lieu of BML specialist operations endorsements. There are a number of STCW training courses with a superior level of competency than that associated with BML endorsements. Consequently the proposed regulations will recognise certain STCW training to be accepted in lieu of a BML endorsement. This provision will again remove the need to undergo a further assessment of training which has already been evidenced in a different format. Assessment for a BML endorsement costs £100. This benefit has not been monetised as no data is available to forecast the number of masters this will affect.

In the first stage IA we noted that it is not considered appropriate for candidates that have undergone superior training to be required to retrain for a duplicate BML endorsement. We were unable to quantify the benefit of not requiring this retraining and recognising the certificates. Responses to the consultation explained that this was not a significant issue and we have therefore not monetised this impact.

Extension of the BML coastal limitation

The Regulations apply to masters of six classes of vessels which predominantly operate in categorised waters. Two of the classes of vessels can operate up to 3 miles to sea but not more than 15 miles from a nominated point of departure; these breakpoints form the BML coastal limits. However, in recent years more UK operators are purchasing vessels built to EU standards which are permitted to operate greater distances to sea and from safe havens. To enable holders of BMLs skippering EU Classed vessels to sail closer to the vessels' capability, the proposed Regulations will extend the BML coastal limitation to no more than 5 miles from land and not more than 15 miles from point of departure and/or arrival.

The extension of the coastal limit represents a benefit to industry and offers greater employment opportunity to BML holders. Currently operators of EU Classed vessels must employ STCW qualified masters if they wish to operate vessels beyond the BML coastal limits. The minimum qualifying period for a new entrant to obtain a master's qualification under STCW is approximately eight years compared to the two year training period for BML holders. This benefit has not been monetised as whilst the proposal was supported during the first informal consultation and raised again post-statutory consultation by industry, figures for the number of operators affected were not supplied. Furthermore it is also difficult to quantify the saving to operators for employing a BML holder over an STCW qualified master, as wages for the latter vary significantly across different sectors (e.g. passenger ships, containers ships etc.).

Acceptance of additional qualifications as alternative certification for masters of vessels less than 24m and carrying no more than 12 passengers.

The Regulations allow for masters of small vessels (less than 24m and carrying no more than 12 passengers) to hold alternative qualifications to a BML. Currently there are six alternative qualifications listed in the Regulations; however there are a number of other ones listed in associated marine notices which in practise are already accepted by the MCA and will be formally recognised by the proposed Regulations. In consultation with industry the MCA has identified a number of further qualifications which offer an appropriate level of training for masters of small vessels that will also be accepted under the proposed Regulations. The total number of accepted qualifications for masters of small vessels will increase to 25. This benefit has not been monetised as no data is available for the number of masters this will affect.

Incorporation of the Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006

The Red Tape Challenge identified the Crew Regulations as an area for improvement as much of these regulations have already been revoked. To address this finding the remaining aspects will be incorporated into the Regulations so that all Boatmaster issues will be located in one set of regulations. This will allow the Crew Regulations to be revoked in its entirety.

¹⁴ Please refer to section 2 to Annex 1 for a breakdown of this cost.

6.3 **Option 2: The preferred option** - Implement a range of amendments to the Regulations including the introduction of a new restricted local tidal licence, the widening of the scope of recognised equivalent qualifications and also increasing the safety standards for masters operating in UK inland waterways

6.3.1 **Monetised Costs**

Revalidation of certain specialist operation endorsements

The proposed regulations will introduce the requirement for revalidation of some specialist operation endorsements considered to be of higher risk¹⁵. This addresses a current safety gap and provides attestation that masters remain competent to undertake the specific specialist operations. Only masters without sufficient qualifying service time (**QST**) on the appropriate vessels for the specific endorsement(s) when the generic licence is due for revalidation will bear an additional cost.

Table 1 below reflects the estimated annual cost to industry. The anticipated number of endorsement revalidations each year is based on the expiry date of current BMLs on the MCA database. The majority of masters will have sufficient QST to revalidate their endorsements at the same time as their generic BML. However, a small percentage will not and therefore will be required to undertake a reassessment. The percentage has been calculated based on the number of reassessments taken to date for revalidation purposes¹⁶ in comparison to the number of BMLs issued.

Since the Regulations were introduced, there have been 171 new entrants obtaining a Tier 1 BML¹⁷, therefore the average number of new entrants each year is 26.

The cost for a reassessment of competencies (at a separate time to the general licence) is £109.

Table 1: Estimated cost to industry for revalidating high risk endorsements

Year	Number of BMLs					No. of Specialist Operations Endorsements (2.32 per BML)	Cost (£109 per endorsement)
	First Revalidation	Second Revalidation	New Entrant Revalidation	Total	No. with insufficient QST (5%)		
2014	121	0		121	6	14.04	£1,530
2015	70	0		70	4	8.12	£885
2016	294	0		294	15	34.10	£3,717
2017	234	0		234	12	27.14	£2,959
2018	143	0		143	7	16.59	£1,808
2019	0	121	26	147	7	17.05	£1,859
2020	0	70	26	96	5	11.14	£1,214
2021	0	294	26	320	16	37.12	£4,046
2022	0	234	26	260	13	30.16	£3,287
2023	0	143	26	169	8	19.60	£2,137
						Cost over 10 years	£23,442

Revision of the fast craft endorsement syllabus

The Regulations state that masters operating passenger ships and those engaged in the carriage of general cargo or oil, chemical and liquefied gas cargoes must hold the relevant specialist endorsement. But these specialist endorsements are not required if a master holds a fast craft endorsement. However, the syllabus content for the fast craft endorsement does not contain the same competency standards as the syllabi for the individual specialist endorsements. Therefore the situation is considered to pose a safety risk.

The proposed regulations will separate out all the syllabi so masters are tested rigorously according to the individual specialist operations they wish to undertake. The separation of the syllabi will only have cost implications for new entrants undertaking one of the above specialist operations on fast craft.

The expected cost of this new requirement per annum is £200 which is £2,000 over a 10 year period. This calculation is broken down as:

¹⁵ Specialist operations considered to be of a higher risk are: general towage, fast craft, Ro-Ro, the carriage of passengers and oil, chemical and liquefied gas cargoes.

¹⁶ Six MCA marine offices supplied information on the number of reassessment exams taken compared to the number of revalidations issued. Marine offices carry out all practical and oral assessments for BMLs.

¹⁷ Between 1 January 2007 till 30 June 2013 = 6.5 years.

- Total number of new entrant BMLs endorsed with Fast Craft Operations in the last six and a half years = 14
- Number of other endorsements issued on these BMLs 14
- Number of BML endorsed with fast craft operations per year = 2.15
- Number of other endorsements held on these BMLs = 1
- Cost of a specialist operations endorsement (examined at the same time as the general licence)= £100
- Annual cost to industry – 2 x 1 x £100 = £200
- **Total annual cost over 10 years = £2,000**

The separation of the fast craft syllabus will have minimal cost implications for masters whose BMLs are currently fast craft endorsed as they are already endorsed with other specialist operations. There is a potential to incur costs at revalidation but this is covered in 'Revalidation of certain specialist operation endorsements' above.

Revision of the MCA's BML Database

The proposed Regulations will require a revision of the MCA's Boatmasters' Licences database to incorporate a new category of licence and to record the revalidation of endorsements. The estimated initial cost of revision and annual maintenance is anticipated to be £70,000 over a 10 year period.

The BML database holds applicant, training and licence details for all BMLs issued under the Regulations.

6.3.2 Non-monetised costs

A new area of local knowledge

The generic BML syllabus covers general competencies such as 'rules of the road' and chart reading; however there are some waters in the UK where additional local knowledge is required to navigate safely. The requirements for further local knowledge may be due to high traffic density, complex tides and streams, particular physical hazards and the lack of suitable charts for the area. These features will be unique to the area in question, without knowledge of which and how to handle these situations, a master unfamiliar with the area would pose a safety risk to both themselves and others. The requirement for a local knowledge endorsement (**LKE**) also applies to holders of accepted European certification that wish to work in waters of local knowledge status.

Local knowledge status is awarded on application from Competent Harbour Authorities (**CHA**) and approval by the Equivalence Committee to waters that meet the criteria set out in Marine Guidance Note (**MGN**) 334 (summarised in the above paragraph).

Medway Port (competent navigational authority for the Medway) submitted a successful application for local knowledge status in 2007 but the LKE requirement has not yet been included in the Regulations.

We believe the majority of existing Boatmasters working in the Medway will be using restricted local licences obtained under Grandfather Rights and therefore will not be affected by this change. Similarly new entrants wishing to operate exclusively in the Medway will be eligible for the proposed T2L2 and thus will not incur any additional cost for the LKE.

The introduction of this new local knowledge area represents a minimum additional cost of £100 (the cost of a LKE assessment) for each new entrant wishing to operate/ existing master operating in the Medway using either a Tier 1 (**T1**) BML or an alternative accepted qualification. Dependant on the areas in which existing masters have been operating there will also be a potential cost of up to £8,480¹⁸ to operators for each master that needs to accumulate the 80 days qualifying service time for Medway LKE. It is difficult to monetise the overall cost to industry as records are not kept for masters operating in the Medway using alternative accepted qualifications or for masters holding a national T1 BML operating in the area. It is expected that the numbers of masters requiring a LKE for the Medway to be minimal but

¹⁸ The average wage for qualified masters operating in tidal waters in £25,394, which equates to £106 per day. The qualifying service requirement for Medway is 80 days, 80 x £106 = £8,480.

the requirement for local knowledge status will now be included in the proposed Regulations to makes certain UK T1 new entrants and any European masters working/wishing to work in the Medway are familiar with unique local features to ensure safety.

A respondent to the first stage IA disputed the methodology for costing the introduction of the Medway LKE. They felt that the cost to the operator for assisting BML candidates to accumulate the 80 days qualifying service should be noted. The MCA agrees to the extent that qualifying service time may represent a cost to holders of accepted alternative qualifications; this has been reflected in the evidence base above. The MCA does not believe that qualifying service represents an additional cost burden to BML holders given the majority of Boatmasters working in the Medway would be using restricted local licences, and new entrants would choose the shortest route through which to become qualified (the new T2L2 licence). Both these licences are area specific therefore no additional LKE would be required. Where new entrants wish to work in the Medway using a Tier 1 licence, only the cost of assessment for an LKE (£100) was presented, as qualifying service for the Tier 1 licence and Medway LKE can be counted concurrently. Responses to the consultation offered no indication of the numbers affected; we have therefore not monetised this impact.

Four competent harbour authorities have submitted an application for local knowledge status for their waters during the statutory consultation. These applications will be assessed by the MCA against the local knowledge criteria set out in MGN 334. Where the MCA considers local knowledge status is appropriate, a full impact assessment and public consultation will be conducted prior to introducing any new areas of local knowledge. To facilitate amending the list of local knowledge areas without parliamentary time, these areas will now only be listed in the Merchant Shipping Notice not the Statutory Instrument. A full impact assessment and public consultation will still need to be undertaken before any new areas of local knowledge are made statutory.

Revalidation of local knowledge endorsements

LKEs are awarded to holders of T1 BMLs that pass the relevant local knowledge assessment and, where applicable, on completion of a period of QST. At present LKEs are automatically carried forward at revalidation if QST requirements are met for the generic licence. However, on consultation with the relevant CHAs whose waters have local knowledge status under the Regulations, they have proposed a mixture of QST and examination to assure continued competence to revalidate the LKE.

CHAs have a statutory responsibility under the Harbours, Docks and Piers Act 1847 for safety of navigation in their area. Many achieve this through mandatory pilotage requirements which are determined through a formal process of risk assessment and governed by the Pilotage Act 1987.

Whilst the BML local knowledge areas and pilotage areas are not strictly the same, the BML LKE revalidation requirements put forward by the CHAs are similar to their processes for the revalidation of pilot's licences and pilotage exemption certificates for their waters issued under the Pilotage Act. Therefore it is proposed that LKEs be revalidated on submission of a letter from the relevant harbour authority confirming the candidate is considered competent to operate in their area.

The cost associated with revalidating LKEs has not been monetised as it is expected to be minimal. With the exception of the Port of London LKEs issued for the tidal Thames (which already require revalidation under the Regulations), only 20 other LKEs are endorsed on Tier 1 BMLs valid as at 30 June 2013.

A respondent to the first stage IA challenged our assumption that the impact of revalidation requirements for LKEs would be minimal but did not elaborate on the numbers of masters that would be affected. Given the available evidence on the number of BMLs endorsed with LKEs we believe that the number who will not be able to meet the revalidation requirements will be minimal, therefore this impact remains not monetised.

Introduction of a Roll On-Roll Off (Ro-Ro) endorsement

Ro-Ro vessels are distinct to conventional cargo vessels in a number of manners, including:

- upper decks are “through” decks which facilitate cargo to be transported in a horizontal manner on and off the vessel (e.g. vehicles to be driven straight on and off the vessel in lieu of being loaded and unloaded by crane); and
- cargo access doors at the stern and bow of the ship are often fitted close to the waterline and serve as ramps

These features result in Ro-Ro vessels being more susceptible to taking on water and capsizing/sinking more rapidly than conventional cargo vessels which are partitioned into watertight compartments.

The competencies for Ro-Ro operations are currently incorporated within the cargo operations syllabus. At industry's request, the proposed regulations will remove the competencies for Ro-Ro operations from the cargo syllabus for inclusion into a more rigorous stand alone Ro-Ro syllabus to reflect the higher associated risks with Ro-Ro operations.

Whilst there are no accidents that highlight the need for a specific endorsement, unless the syllabus for Ro-Ro vessels is more robust to ensure competency for masters, the higher risk of an accident remains. This view is shared by many large Ro-Ro operators¹⁹.

At present responsible companies ensure that all their working masters undertake thorough training specific to skills required for Ro-Ro operations and details of such training are implicit within the company's Safety Management Systems such as: International Safety Management²⁰ (ISM) or Domestic Management System documentation. In fact numerous companies exceed this practice and place masters on STCW courses. However, there is no mandatory requirement specific to Ro-Ro operations for masters working within UK inland waterways. It is considered that the introduction of a Ro-Ro endorsement would guarantee a minimum standard across industry for Ro-Ro operations.

The BML Ro-Ro syllabus was established in partnership with the main Ro-Ro operators through the Ro-Ro subgroup of the DPSSG. This subgroup is chaired by the Marine Training Manager of Caledonian MacBrayne Limited which operates 16 of the 54 UK registered Ro-Ros falling under the Regulations. In total the representatives on this subgroup account for 61% of the 54 vessels. The MCA has also explored with industry alternative scenarios through which the required competencies to be encompassed within the Ro-Ro syllabus can be assured.

To reduce regulatory burden on companies, if specific Ro-Ro training is already incorporated within company ISM procedures their masters will not require a Ro-Ro endorsement to undertake operations within that company. This will be on the condition that (i) the MCA approves the training course details delivered by company ISM, (ii) there is an auditable trail of the master receiving such training and (iii) such training is only valid in lieu of a Ro-Ro endorsement for the duration that the master works for that specific company. ISM procedures are not transferable across companies as training received is exclusive to the type of vessels operated by the individual companies.

Despite ISM training being company exclusive in nature, ultimately this training and minimum standard set by a Ro-Ro endorsement will facilitate movement of labour within the Ro-Ro industry. Companies can be sure that prospective masters that transfer companies (not holding a Ro-Ro endorsement) have the basic underpinning knowledge which can then be tailored to the types of vessels operated by their own fleet.

The majority of companies already have robust ISM procedures in place²¹; therefore the number of masters that will need an actual endorsement from the MCA is considered minimal²². Should an endorsement be required, there is an associated cost of £100 per master for the Ro-Ro endorsement assessment.

Separation of oil, chemical and liquefied gas operation endorsements

The current oil and chemical cargo endorsement will be separated into three individual ones for each specialist operation involving the carriage of oil, chemical and liquefied gas in bulk. The existing oil and chemical endorsement covers all three operations but the depth in which each are tested do not adequately reflect their distinct associated complexities. This safety gap will be addressed in the

¹⁹ This is an industry view supported by the MCA. Since the HERALD OF FREE ENTERPRISE (Ro-Ro/Passenger ferry) catastrophe which resulted in the loss of 193 lives, the training of seafarers on Ro-Ro vessels has been an extremely important for all Ro-Ro operators. The report into the accident found fault with the conduct of the seafarers on board but more crucially flagged up systemic failures in company procedure which directly contributed to the disaster. The recommendations from the report formed the basis for the ISM Code.

²⁰ The ISM Code applies to vessels over 500 GT operating in international waters and facilitates operating companies to develop their own safety management systems. This approach is auditable and ensures accountability at every level, from managing directors, operators through to crew working on the vessels. The MCA approves ISM systems and upon approval companies receive a 'document of compliance' and vessels a 'safety management certificate'.

²¹ The UK Ship Register (current as at 9 August 2013) shows that there are 11 companies operating a total of 54 Ro-Ro vessels to which the Regulations apply. Only two companies solely operate Ro-Ros under 500 GT and therefore would not need to comply with ISM.

²² The two Ro-Ro operators to which ISM would not apply operate a total of five vessels – MCA records show that all five vessels are/have been skippered by masters named on BML Vessel Exemptions. It would be reasonable to assume that these vessels will in the future be skippered by holders of the proposed local tidal licence which will be specific to the area and type of operation so no endorsement would be required.

proposed regulations through the issue of separate endorsements. Masters will be assessed on standalone syllabi for each operation in greater detail.

Existing masters holding the oil and chemical endorsement may continue to operate without separate endorsements until their current BML expires. At revalidation masters will be required to provide evidence of having worked 30 days in the last five years for each of the three operations they wish to have revalidated. Where endorsements are revalidated at the same time as the generic BML, the only charge applicable is the existing cost for the revalidation of the generic licence.

The cost to industry of separating out these three operations for new entrants and existing masters undertaking these operations is not clear as data is not available for the number of masters that undertake more than one of these three specialist operations.

As a guide, there will be an additional fee of £100 per specialist operation assessment, borne by each new entrant who wishes to undertake more than one of the name operations. Existing masters who do not meet the service time requirements for the specialist operation endorsement at the time of revalidating their generic licence, may revalidate the endorsement(s) once the service time criteria is met at a separate time to the generic licence at a cost of approximately £28²³.

At present 63 Boatmasters hold a current Tier 1 licence endorsed with oil and chemical cargo operations, of which there has only been 3 new entrants in the last 6.5 years. Therefore the cost to industry of separating out the syllabi has not been monetised as it is expected to be minimal.

Medical requirement for masters using alternative small vessel qualifications in tidal areas

To maintain safety standards and provide consistency when recognising alternative qualifications, the proposed regulations will require masters of small vessels operating in tidal waters who hold one of the newly accepted alternative certificates to obtain a valid medical certificate.

This cost to industry has not been monetised as figures are not available to establish the number of masters this change will affect. The ML5 is the preferred medical certificate for UK inland waterways costing approximately £90. It is anticipated that this cost will be offset by the acceptance of additional small vessel qualifications in lieu of the BML as described in the paragraphs 'Acceptance of additional Small Vessel Qualifications' below.

No comments were received in response to the methodology or numbers affected by the proposal during the first stage IA, this impact remains non monetised.

Requirement for masters of small vessels undertaking towage operations or the carriage of oil, chemical or liquefied gas cargoes using accepted alternative qualifications to obtain the appropriate BML paper endorsement

The MCA considers that the training to obtain one of the accepted small vessel qualifications does not adequately cover the skills needed for a small vessel involved in towage operations or the carriage of oil, chemical or liquefied gas in bulk. Masters holding such qualifications will be required to undertake the same specific training as BML holders involved in the same operations (i.e. through obtaining a BML endorsement or having completed equivalent training²⁴ which will be accepted in lieu of a BML endorsement under the proposed Regulations).

The cost of assessment for a BML endorsement is £100. The cost implication of this new requirement has not been monetised as no data is available for the number of masters who use one of the accepted alternative qualifications for small vessels undertaking towing and pushing (to be renamed) towage operations or the carriage of oil, chemical or liquefied gas. These endorsements would also be subject to a revalidation cost of £28²³ every five years.

No comments were received in response to the methodology or numbers affected by the proposal during the first stage IA, this impact remains not monetised.

Requirements for masters of regularly transiting vessels to obtain a T2L2 BML

The Regulations state that masters must be appropriately qualified in accordance with the category of water in which they operate. Transiting refers to a vessel entering a category of water for which the

²³ This fee will be introduced in the proposed amending Merchant Shipping (Fees) Regulations, but is based on the current cost to revalidate a BML.

²⁴ The proposal to accept equivalent (STCW) training in lieu of BML special operation endorsements is a non-monetised benefit under option 2 listed in section 6.2.4.

master is not qualified as a means of access to another route for which they are qualified. The MCA is aware that in certain areas masters qualified to operate in canals enter waters of a higher category in order to move between canal systems. The action of these masters is in contradiction to the Regulations but currently the MCA has not actively been enforcing the Regulations. However, this does pose a safety risk which needs addressing.

The proposed regulations will state that (i) masters transiting infrequently must undertake an MCA risk assessment, (ii) masters transiting through an area of local knowledge must obtain the appropriate LKE, and (iii) masters transiting regularly (more than once a month) must obtain the appropriate BML. The new T2L2 licence will be an appropriate qualification for masters transiting regularly through tidal areas. Transiting through non-tidal areas which is perceived to have less associated risk will be addressed by the risk assessment.

Whilst the requirement for masters who transit regularly to obtain a BML and where appropriate a LKE will represent a cost to industry, this has not been monetised as records are not kept for masters that hold an alternative qualification to the BML. For reference the cost of a T2L2 is £2,511 and the cost of an LKE is £100.

A respondent to the first stage IA queried the financial assessment for transiting masters; they proposed the inclusion of an annual cost of £1,500 for engaging the services of a pilot to transit areas that require local knowledge given the difficulty for such masters to accrue sufficient service time to qualify for the relevant LKE. The MCA does not consider the inclusion of the cost for engaging a pilot appropriate as the only local knowledge area with qualifying service time requirements through which masters can feasibly transit between canals is the Port of London (Thames). Transiting can only be undertaken by masters of vessels under 24m carrying no more than 12 passengers. When operating on the Thames such vessels are already subject to the Port of London Authority (PLA) licensing requirements, which already require masters to hold a PLA LKE or engage the services of a PLA authorised pilot. The PLA LKE has the same qualifying and assessment requirements as the Port of London LKE issued under the proposed Regulations.

No numbers relating to those affected by the proposal were received during the first stage IA, this impact remains not monetised.

Administrative burden on the MCA

The proposed regulations will pose the following non-monetised administrative burdens on the MCA:

- reviewing and reissuing all BML guidance and procedures in line with changes to the Regulations;
- the requirement for surveyors to familiarise themselves with the newly proposed equivalent acceptable qualifications; and
- some increase in endorsement assessments and applications.

However, it is expected that these would be offset by the proposals which will mean:

- industry will find the Regulations more practical and there will be less complaints and queries;
- no unnecessary applications (associated with masters holding equivalent qualifications wishing seeking BML qualifications);
- cost recovery through fees for the additional endorsements assessments and applications;
- protecting the public and environment; and
- less risk of a serious incident.

Business familiarisation costs

Industry has been actively involved in the consultation process for the new regulations and is aware of the scope of changes being proposed. Although the consultation did not ask a specific question on familiarisation costs no respondents identified significant familiarisation costs as an issue.

However, we have identified five groups of candidates have been who may need to set aside time to familiarise themselves with the new regulations. These are:

- Candidates applying for Tier 2 tidal license;
- Candidates applying for the new Medway Local Knowledge Endorsement;

- Candidates applying for Specialist Operations Endorsements;
- Holders of vessel exemptions; and
- Holders of alternative qualifications.

The cost to industry has not been monetised as figures are not available to quantify the time an individual spends reading new MCA publications. The MCA considers that familiarisation time will not generally be significant, but may vary between groups.

6.3.3 **Monetised benefits**

The introduction of the restricted local tidal licence (T2L2) BML

- **Total one-off benefit to industry =** **£1,775,018**
- **Total annual benefit over 10 years =** **£4,543,200**

The description and breakdown of these benefits have been detailed previously in Option 1.

The inclusion of all Category A canals on T2L1 non-tidal BMLs

Category A canals are considered uniform in nature because there is very little flow of water so conditions do not vary significantly. Given the nature of the UK canal system, the requirement to undertake a further assessment for an additional area of a Category A canal seem unnecessary. Therefore all masters holding active T2 BMLs for non-tidal waters will be given the right to operate in all Category A canals without further assessment. The MCA database shows that a total of 771 masters will benefit upon the introduction of the proposed regulation.

One-off benefit

- Cost of an additional area of operation = £62 (MCA fee)
- Number of masters holding active T2 non-tidal BMLs= 771
- **Total one-off benefit to industry =** **£48,802**

Likewise, any new masters obtaining a T2L1 non-tidal BML will no longer be required to take additional examinations to operate in more than one area of canalised waters. Since the introduction of the Regulations in January 2007 until the end of June 2013, a total of 37 new entrant masters (holding a valid BML as at 30 June 2013) have applied for two or more areas of operation, one of which being waters in a Category A canal. This equates to approximately 6 new entrants per year.

Annual benefit

- Cost of an additional area of operation = £62 (MCA fee)
- Estimated number of new entrants requiring an additional area of operation in Category A canals = 6
- Annual benefit to industry = £372
- **Total annual benefit over 10 years =** **£3,720**

Acceptance of the Canal & River Trust Helmsman Certificate (formerly known as the British Waterways Helmsman Certificate (BWHC))

The Canal & River Trust Helmsman Certificate (**CRTHC**) is a qualification that is held by all Canal & River Trust employees whose role involves being in command of a vessel. Currently this qualification is not recognised as an alternative to the BML, despite the training being equivalent in rigour to a BML for non-tidal waters. It is therefore considered that the existing requirement for masters employed by or volunteering for the Canal & River Trust to obtain a BML in addition to their CRTHC presents an unnecessary cost burden. The proposed regulations will accept the CRTHC in lieu of the BML for operating commercial vessels over 24 metres on Canal & River Trust waterways, which are non-tidal waters, subject to individual licence limitations.

This will affect approximately 100²⁵ masters each year where savings will be incurred for: obtaining an appropriate licence, revalidating licences, and medical arrangements as follows:

Benefits per year for new entrants = **£14,553**

²⁵ The Canal & River Trust confirmed that they have approximately 100 masters at any one time on a rolling turn-over.

Benefits per year on revalidations =	£620
Annual benefit =	£15,153
Total annual benefit over 10 years =	£151,530

A breakdown of these figures is shown in section 5 to Annex 1.

6.3.4 **Non-monetised benefits**

Clarification of counting LKE and generic QST concurrently (with the exception of the Thames)

There are currently only four areas with local knowledge status that require QST for an endorsement; these are the Port of London, Padstow Harbour, Portsmouth Harbour and the Isles of Scilly. The Regulations state that QST for the Port of London LKE must be counted consecutively to the generic QST. The Regulations do not specify how QST should be counted for the other LKE areas.

During the informal consultation, the competent harbour authorities for Padstow Harbour, Portsmouth Harbour and the Isles of Scilly confirmed that the concurrent counting of LKE and generic QST would not pose a threat to the safety of navigation within their areas and is therefore acceptable. This will be stated in the proposed regulations. The requirement for consecutive counting of LKE and generic QST for the Port of London will remain unchanged.

The benefit has not been monetised as few T1 BMLs are endorsed with local knowledge outside of the Thames. Therefore, any savings would be negligible nevertheless there is the potential for benefit. The potential saving per master of counting QST concurrently is £2,820²⁶ for the additional 60 days QST required for Portsmouth Harbour and the Isles of Scilly LKEs. The savings for Padstow Harbour are less; the maximum would be £564²⁷ assuming that the 12 required trips are undertaken on separate days.

No comments were received in response to the methodology or numbers affected by the proposal during the first stage IA, this impact remains not monetised.

Clarification of large passenger endorsement QST (more than 250 passengers)

The Regulations state that a master wishing to qualify for a large passenger vessel endorsement must have first served as master of a passenger vessel carrying no more than 250 passengers. The MCA considers that the required skills and experience can also be gained working as the mate or another role in an appropriate deck capacity on a large passenger vessel. Therefore the regulation as it stands does not take into account all routes through which appropriate skills and experience can be obtained. This unfairly discriminates against companies that only operate large passenger vessels, who will experience greater difficulty gaining qualification for their trainees.

Therefore the proposed regulations will recognise service as a mate or other appropriate deck capacity on a large passenger vessel towards qualification for the large passenger vessel endorsement. There is a potential benefit to industry but it is difficult to monetise as figures are not available to quantify which qualification route masters will use to obtain a large passenger vessel endorsement.

No comments were received in response to the methodology or numbers affected by the proposal during the first stage IA, this impact remains not monetised.

Removing the requirement for over 65s to revalidate BMLs annually

The Regulations require masters aged over 65 or over to revalidate their BMLs annually whereas younger masters need only revalidate their BML every five years up until the age of 65. Although not explicitly stated in the Regulations, masters are responsible for ensuring that their medical certificate (usually a ML5 for inland waterways) is current. The Regulations state that masters must inform the Secretary of State (MCA) should they become unfit to operate.

It is not considered that the annual revalidation of the BML to ensure that masters over 65s have renewed their medical certificate contributes to safety. So that masters aged 65 or over do not bear any further undue financial burden, the MCA only applies the standard £28 revalidation fee at every fifth renewal.

²⁶ Both Portsmouth Harbour and the Isles of Scilly have QST set at 60 days in 6 months. Cost per service day for tidal waters = £47 (see Annex1, section 1), £47 x 60 days = £2,820.

²⁷ Padstow Harbour requires 6 inward and outward trips, £47 x 12 days (trips) = £564.

The removal of this requirement reduces the administrative burden on both the boatmaster and the MCA. The cost saving in terms of postage is minimal overall; therefore the benefit has not been monetised.

Removal of low risk vessels from the scope of the Regulations

The proposed regulations will remove certain small vessels involved in limited operations of low risk from the scope of the regulations. The MCA and industry consider that even the accepted qualifications for small vessels, listed in the 'Acceptance of additional small vessel qualifications' below, are disproportionate to the associated risks of these vessels.

At present low risk vessels are removed from the scope of qualification through the issue of a General Exemption contained in Marine Information Note (MIN) 457 which exercises the Secretary of State's power under Section 48 of the Merchant Shipping Act 1995. The intention is to incorporate the exemption of certain low risk vessels into the proposed regulations, thereby removing the need for a separate General Exemption.

Industry already enjoys this benefit; therefore it has not been monetised.

Acceptance of additional courses to qualify for the radar endorsement

The description of these benefits has been detailed previously in Option 1.

Acceptance of additional small vessel²⁸ qualifications

The Regulations specify a limited number of qualifications that the master of a small vessel may hold in lieu of a BML. In practise the MCA have taken a pragmatic approach by accepting a number of additional qualifications which ensure masters have a level of competence appropriate the waters navigated and type of operation undertaken. These additional qualifications are published in Merchant Shipping Notice (MSN) 1808 and MIN 457; industry voiced its support for the additional qualifications during the two informal consultations conducted to date. The proposed regulations will formally recognise the additional qualifications. As industry already enjoys this benefit, this measure has not been monetised.

Acceptance of superior qualifications in lieu of a BML

The description of these benefits has been detailed previously in Option 1.

Acceptance of STCW training in lieu of BML Endorsements

The description of these benefits has been detailed previously in Option 1.

Incorporation of the Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006

The description of these benefits has been detailed previously in Option 1.

7. Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

The proposed changes to the Regulations are fully supported by industry, which has been engaged throughout the whole process of policy development, from conception to the final proposals as set out in this document. Figures relating to the number of BMLs, endorsements and vessels exemptions issued are taken directly from the MCA's BML Database. Where the MCA does not retain the required information, the data has been sourced straight from the relevant industry parties (e.g. the cost of The Canal & River Trust Helmsman Certificate was supplied from The Canal & River Trust).

The level of analysis undertaken is in line with the depth of available information.

8. Risks and assumptions

8.1 Risks of implementing all the proposed changes

No risks have been identified with implementing the proposed restricted local tidal licence or extending the scope of qualification. Both elements have been developed with industry and offer less onerous alternative routes for compliance with the Regulations.

²⁸ Small vessels are vessels carrying no more than 12 passengers and less than 24 metres.

There is a risk that Boatmasters may not be able to meet the proposed additional safety requirements and as a result require additional training to meet the proposed standards. However, the overall cost to industry is expected to be minimal as set out in the evidence base above.

8.2 Risks of doing nothing

The Regulations will continue to pose an undue burden to both small businesses and Boatmasters alike, as candidates will still require a national licence to work on a local tidal area. The number of new entrants to the industry is unlikely to increase; therefore a significant number of SMEs will continue to struggle to source qualified masters impacting on their ability to run financially viable businesses. This in turn may have serious implications for the local areas they serve.

Safety issues identified would remain unaddressed increasing the likelihood of a serious accident occurring on the UK's inland waterways.

8.3 Risks and assumptions in relation to the monetary analysis

A minimal degree of risk is associated with the uptake projection for the proposed restricted local tidal licence (T2L2 BML) given that the following assumptions have been made throughout this impact assessment:

- a. masters currently operating under vessel exemptions will apply for the T2L2 BML upon expiry of their exemption, as opposed to leaving the industry;
- b. the number of new entrants obtaining the T2L2 each year will follow the trend for new masters operating under vessel exemptions each year; and
- c. that the average unqualified²⁹ wage is representative for trainee Boatmasters, as it currently does not distinguish between the wage for new entrants and existing crew. The benefit of the proposed T2L2 BML to an operator for training a new entrant into the industry would be considerable greater than an existing member of crew. Given that typically there is a positive correlation between numbers of years served and wages.

Furthermore, in relation to the monetisation of the savings attributable to the inclusion of all canals on T2L1 BML, and the cost to industry of revalidating high risk endorsements, the following assumptions have been made:

- d. the number of new entrants to the UK's inland waterways industry will follow the same trend as those recorded on the MCA BML database since the introduction of the Regulations in 2007; and
- e. the percentage of Boatmasters requiring a reassessment for the revalidation of a specialist operation endorsement will be similar to the percentage who currently are reassessed for the revalidation of the licence.

9. Direct costs and benefits to business calculations (following OITO methodology)

This proposal is within scope of One In, Two Out. It is a deregulatory OUT because of the net beneficial impact on business as it introduces a less burdensome route for boatmasters wishing to specifically work in restricted local tidal waters without obtaining a national licence. The proposal will also extend the scope of qualification to recognise equivalent or superior training so existing competent masters will no longer be required to retrain or obtain certification under the Regulations.

Employers in the inland waterways industry are expected to pay for trainees to complete the necessary training to work on an inland waterway vessel; therefore the lower costs of this new qualification route and extending the scope of qualification are considered direct benefits to business.

The proposal will introduce additional safety requirements with a minimal associated cost to industry; however these will be more than adequately offset by the savings.

Accordingly, our best estimate for the business net present value of this measure is £5.85m and the equivalent annual net cost to business (EANCB) has been calculated as -£0.57m (2009 prices, in line with One-In-Two-Out (OITO) methodology) (i.e. an annual net benefit to UK business of £0.57 million).

Please refer to section 6 and Annex 1 for a full breakdown of the business calculations.

²⁹ Where unqualified refers to a member of crew/trainee who does not hold a BML. In practice not all members of crew will be training towards a BML.

10. Wider impacts

Equality impact Assessment

There is no effect, positive or negative, on outcomes for persons in relation to their age, disability, gender assignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

Small and Micro Business Assessment

The majority of companies in the UK inland waterways industry have less than 20 full time employees. Many are sole operators and most of the charities and voluntary groups are also considered small operations.

The Regulations are concerned with the qualification for the master of a vessel, and that person must be appropriately qualified whether there is one or many employees. So it is not possible to exempt small companies from the Regulations. In the interests of safety we cannot make requirements different because a company has fewer employees.

The cost per master of becoming qualified is the same, and not dependent on company size, although it is recognised that the larger companies may be more able to absorb the costs.

The Regulations are being updated because it is recognised that there has been a negative impact on small businesses. The suggested amendments to the Regulations will give a wider scope for compliance which will benefit small companies. It is largely the smaller companies who require the restricted local tidal licence. It is these operators who will suffer the most if we do not make the proposed amendment and whose future is currently threatened through being unable to find sufficient trainee masters and get them qualified.

It is likely that the proposals regarding transiting vessels and medical requirements for masters using alternative qualifications on small vessels will affect small companies more. The cost of qualification is considered necessary to address the risk to safety of no qualification. It should be noted that the alternative qualifications are cheaper to obtain than the BML, furthermore, centres where they can be assessed are more widely spread which will offset the cost of alternative qualification.

Smaller operators had complained that they felt under represented in the consultations leading to the Regulations. Whilst considering the policy options for the proposed regulations two informal consultations have been undertaken and the proposals have been circulated to an extended consultation list inviting comments from across industry as a whole.

It should also be noted that the smallest firms and charities mostly operate on non-tidal waters (Category A and B) waters and the majority of the proposals relate to tidal waters.

Competition assessment

Besides underpinning safety, another intention in introducing the Regulations was to raise the profile of the inland waterways freight industry as a viable alternative to road and rail transport. It is recognised that operators maintain their businesses against considerable economic odds with fragile profit margins and would therefore have difficulty bearing the high compliance costs of the BML. The proposals for amending the Regulations go some way to alleviating the costs by allowing wider scope for qualification.

If the current Regulations are not amended then there could be fewer firms, reduced choice and less competition due to some operators going out of business through insufficient supply of qualified masters.

The effect of the proposals on those operating small passenger vessels and small commercial vessels has been sought through informal consultation.

11. Summary and preferred option with description of implementation plan

Under the preferred option the scope of qualification is increased greatly. The proposed regulations introduce a new type of BML for restricted local tidal areas and a range of other qualifications in lieu of BMLs and endorsements. Safety gaps will also be addressed through revalidation requirements and new endorsements. This ensures competency and reduces the risk of masters posing a danger to themselves and others whilst working on UK inland waterways.

Implementation and Review Plan

The MCA would continue to administer and enforce the Regulations and the proposals are overall unlikely to cause any great variation in MCA workload.

Application processing, inspection and auditing would be carried out under the existing MCA systems.

The proposed regulations will be subject to the statutory review clause. They will be monitored through the following existing forums:

- The MCA Focal Point System – This system draws in regional operations staff (consultant surveyors who liaise directly with operators on a daily basis) and policy leads from headquarters to discuss technical issues and feedback from industry. Each Focal Group meets every three months and discuss any urgent issuing arising between meetings through correspondence. Focal Group 5 is responsible for overseeing inland waterways.
- The Domestic Passenger Ship Safety Group (DPSSG) – This group is chaired by the MCA and meets biannually. The group is comprised of industry representatives (operators, ship builders/repairers), MCA (relevant policy leads and consultant surveyors), port authorities, inland waterways navigation authorities and representatives of BML holders. The overall objectives for the group is to work with industry to:
 - provide early sight of new regulation
 - develop appropriate safety standards for domestic passenger ships and their crews that prevent accidents and environmental damage
 - promote a safety culture that reduces risks to passengers and crew
 - achieve a consistent interpretation and application of standards

The DPSSG also has a number of subgroups (including a BML Subgroup).

A formal DPSSG BML Subgroup meeting will be called in during 2017 (if one has not already taken place since the October 2014 implementation date) to formally obtain feedback and review the proposed Regulations. Given the close working partnership between the MCA and the industry we regulate, we expect any implementation issues to be flagged up very quickly.

Breakdown of figures and calculations used to monetise the costs and benefits of each option³⁰

The following estimates and assumptions have been used throughout the economic impact analysis.

The figures are indicative costs and have been obtained from the maritime industry; operators, training course providers etc. The numbers of BMLs shown have been provided by the MCA BML database unless specifically stated otherwise.

1 Estimated costs of Tier 1 Level 2 and Tier 2 Level 2 (tidal) BMLs:Breakdown per item:Employment cost on Tidal Waters:

Tidal waters:	Qualified Wage = £25,394 p.a.
	Unqualified Wage = £19,752 p.a.
Cost of service per year	= £5,642 p.a.³¹ (difference between qualified and unqualified wage)

Safety Courses

Average fee for 1 day fire safety training ³²	= £118
Average fee for 1 day first aid training ³³	= £98
Average fee of 1 day personal survival training ³⁴	= £110
Total average fee for three basic courses	= £326

Cost of Time for Safety Courses

Cost of service per year	= £5,642
Service days per year ³⁵	= 120
Cost of service per day	= £47
Total time for safety courses (3 days)	= £141

Cost of Underpinning Knowledge (UPK) Study Course

Cost of service per day	= £47
UPK study course	= 30 days
Total cost of UPK study	= £1,411

These values have been carried forward for the remainder of this annex where appropriate.

1.1 Estimated cost of Tier 1 Level 2 BML:

Employment cost of QST in tidal waters (240 days/24 months)	= £11,285
Average fee for three basic courses	= £326
Time for safety courses (3 days)	= £141

³⁰ Numbers may not sum due to rounding

³¹ Average wages have been calculated from information provided by the Passenger Boat Association in July 2013, encompassing their Industry Economic Survey 2008 [source material HAMER, Geoff (2008) *Trip Out, A Guide to the passenger boat services of the British Isles*].

³² This figure is an average fee charged by 6 training centres delivering MCA accepted / approved fire safety training on 30 July 2013.

³³ This figure is an average fee charged by 9 training centres delivering MCA accepted / approved fire aid training on 30 July 2013.

³⁴ This figure is an average fee charged by 8 training centres delivering MCA accepted / approved personal survival training on 30 July 2013.

³⁵ QST for the T1L2 BML is 240 days in a minimum qualifying period of 2 years.

Practical boat handling assessment ³⁶ (MCA fee)	= £94
UPK oral assessment (MCA fee)	= £94
UPK study course/tuition (30 days)	= £1,411
Issue of BML (MCA fee)	= £22
Total Cost to Obtain a Tier 1 Level 2 BML	= £13,372

1.2 **Estimated cost of Tier 2 Level 2 BML:**

Employment cost of QST in tidal waters (assumed 40 days ³⁷)	= £1,881
Average fee for three basic courses	= £326
Time for safety courses (3 days)	= £141
Combined practical boat handling and UPK oral assessments ³⁸ (MCA fee)	= £141
Issue of BML (MCA fee)	= £22
Total Cost to Obtain a Tier 2 Level 2 BML	= £2,511

2 **Estimated costs of Tier 1 Level 1 and Tier 2 Level 1 (non-tidal) BMLs**

Breakdown per item:

Employment costs on Non-Tidal Waters:

Non-Tidal waters:	Qualified Wage = £22,356 p.a.
	Unqualified Wage = £18,000 p.a.
Total Cost of service	= £4,356 p.a.³⁹ (difference between qualified and unqualified wage)

Cost of Time for Safety Courses

Cost of service per year	= £4,356
Service days per year	= 120
Cost of service per day	= £36
Total time for safety courses (3 days)	= £109

Cost of Underpinning Knowledge (UPK) Study Course

Cost of service per day	= £36
UPK study course	= 30 days
Total cost of UPK study	= £1,089

These values have been carried forward for the remainder of this annex where appropriate.

³⁶ Practical and oral assessments for Tier 1 BMLs are undertaken separately.

³⁷ QST for T2L2 will be at examiner discretion, however a 40 day guideline will be published

³⁸ Combined assessment is only available for Tier 2 BMLs

³⁹ Average wages have been calculated from information provided by the Passenger Boat Association in July 2013, encompassing their Industry Economic Survey 2008 [source material HAMER, Geoff (2008) *Trip Out, A Guide to the passenger boat services of the British Isles*].

2.1 Estimated Cost of a Tier 1 Level 1 BML:

Employment cost of QST in non-tidal waters (120 days)	= £4,356
Average fee for three basic courses	= £326
Time for safety courses (3 days)	= £109
Practical Boat handling assessment (MCA fee)	= £94
UPK oral assessment (MCA fee)	= £94
UPK study course/tuition (30 days)	= £1,089
Issue of BML (MCA fee)	= £22
Total Cost to Obtain a Tier 1 Level 1 BML	= £6,090

2.2 Estimated cost of Tier 2 Level 1 BML:

a) Employment cost of QST in non-tidal waters (20 days ⁴⁰)	= £726
b) Average fee for three basic courses	= £326
c) Time for safety courses (3 days)	= £109
Combined practical boat handling and UPK oral assessments ¹³ (MCA fee)	= £141
Issue of BML (MCA fee)	= £22
Total Cost to Obtain a Tier 1 Level 2 BML	= £1,324

3 Estimated number of T2L2 BML new entrants each year:

The expected number of new entrants applying for a T2L2 BML is based on the number of masters named on BML vessel exemptions.

Number of masters named on exemptions issued (01 April 2008 – 30 June 2013)	= 215
Average number of masters named per year (total number of masters named / 5.25 years)	= 41

4 Estimated benefit on endorsements with the introduction of T2L2 BML

The figures used in this section are based on valid BMLs recorded on the MCA's BML database at 30 June 2013. The original data extraction contained an error and this has been amended in this latest version of the impact assessment.

Number of endorsements per master

Number of Tier 1 BMLs	= 862
Number of endorsements issued	= 2,003
Average number of endorsements per master	= 2.32

Estimated one-off benefit:

Number of masters operating under exemptions	= 160
Number of endorsements per master	= 2.32
Total number of endorsements	= 372
Cost per endorsement	= £100

⁴⁰ QST for T2 (to be renamed T2L1) is at the discretion of the examiner, however a 20 day guideline will be published

Estimated one-off benefit on endorsements = £37,179

Estimated annual benefit:

Estimated number of new masters per year = 41

Number of endorsements per master = 2.32

Total number of endorsements = 95

Cost per endorsement = £100

Estimated annual benefit on endorsements per year = £9,516

5 The Canal & River Trust Helmsman Certificates (CRTHC)

The Canal & River Trust have approximately 100 masters at any one time on a rolling turn-over (figure supplied by The Canal & River Trust)

Cost of qualifying for a CRTHC:

60 hours familiarisation, study and course time = approx 7.5 days

Cost per qualified day = £36 (See 2 above)

Cost of time for study, course, familiarisation 7.5 x £52 = £272

Course Cost (figure supplied from CRTHC) = £400

Total Cost to qualify for a CRTHC = £672

5.1 Benefit on obtaining CRTHC compared to BML T2L1 for new entrants:

Cost to qualify for Tier 2 Level 1 BML = £1,324 (See 2.2 above)

Cost to qualify for a CRTHC = £672

Benefit per master (cost of certification) = £652

Cost of ML5 Medical (estimate provided by MCA

Seafarer Health and Safety branch) = £90

Cost of a medical under the CRT scheme = £15

Benefit per master (cost of medical) = £75

Benefit per master (cost of certification and medical) = £727

Estimated number (per year) of CRTHC holders

who would otherwise acquire BMLs = 20

Total benefit per year for new entrants = £14,533

5.2 Benefit on revalidation requirements

Cost of revalidating a CRTHC = Nil*

Cost of revalidating a BML = £28

Benefit per master on revalidation of certificate = £28

* done under line management/ reporting arrangements

ML5 Medical Certificates require revalidation every 5 years until masters reach 65, at which point the ML5 must be revalidated annually.

Medical Certificates under CRT scheme require revalidation annually.

Revalidation cost per year for a ML5 £90/5 = £18

Revalidation cost of a medical under BW scheme = £15

Benefit per master on revalidation of medical = £3

Benefit per master on revalidation (certificate and medical) = £31

Estimated number of CRTHC holders (per year)

Who would otherwise need to revalidate their medical = 20

Total Benefit per year on revalidations = £620

5.3 Benefit of accepting CRTHC in lieu of BML

Benefit per year for new entrants = £14,533

Benefit per year on revalidations = £620

Annual Benefit = £15,153

Total Annual Benefit over 10 years = £151,528