





## Introduction

Waterways Ireland (WI) is the body responsible for the management, maintenance, development, and promotion of the 1,176km of inland navigable waterways on the island of Ireland. Established as part of the British-Irish Agreement of 1998, as one of the six North/South Implementation Bodies, WI covers 8 principal navigations:

BARROW NAVIGATION

LOWER BANN NAVIGATION ROYAL CANAL

ERNE SYSTEM

SHANNON-ERNE WATERWAY

GRAND CANAL

SHANNON NAVIGATION

ULSTER CANAL Waterways Ireland's operations cover navigation channels, embankments, towpaths, adjoining lands, harbours, jetties, fishing stands, bridges, locks, sluices, lock houses, along with buildings and archives.

WI faces two intertwined core objectives: the development of the navigations as a safe and high-quality recreational asset; and supporting the conservation of the industrial history and environmental heritage of the waterways for future generations. This is constrained by the requirement to find revenue sources to support expensive development works while also bearing the costs of maintaining and restoring a heritage asset stretching across the island. This funding is currently provided on a 15%/85% basis by the Northern Irish Assembly and the Houses of the Oireachtas. This funding is coming under pressure and there is an onus to operate the waterways in a financially prudent manner in the public interest.

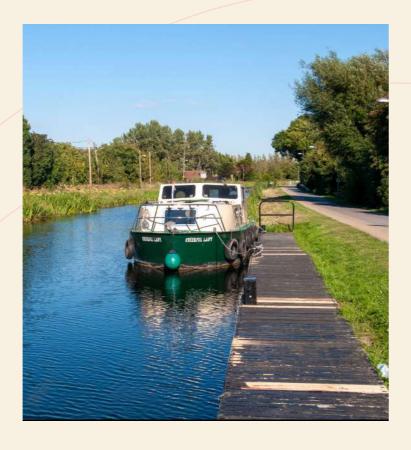


At present, this is constrained by the legislative legacy inherited by WI. The Bye-Laws governing WI's operation of the navigations as well as the pricing arrangements charged to users of the canals were enacted in 1988, a decade before the establishment of WI. The pricing structure established at that time was not indexed, and consequently has fallen behind as Ireland's economy developed rapidly in the late 80's and through the 1990's and in the period following on from the 2007 Global Financial Crisis. This legacy has created issues with the financial sustainability of the organisation's ongoing operations as well as acting on a constraint on development programmes for the wider network.

## **CURRENT PRICING STRUCTURE**

At present Waterways Ireland operates five permits; these are listed as follows:

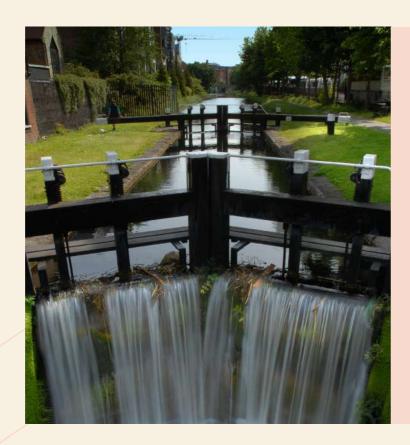
- **1.** Combined Mooring Permit (cost €126 per year) must be held by all boat owners who do not berth for more than five days in any one location.
- 2. Non-residential Extended Mooring Permit (costs €152 per year) must be held by all boats owners who moor for 12 months in an approved EMP location. It does not confer residential status.
- **3. Residential Mooring Permit** entitles the boat owner and their immediate family to reside on their boat for 12 months of the year, subject to certain conditions. Cost €278 per annum plus a service charge of €300 per annum.
- 4. Non-residential Extended Mooring Permit (Grand Canal Dock) which entitles the boat to remain for 12 months on the berth, but the owners may only reside aboard for 90 days during that period. Cost €278 per annum.
- **5.** There are 8 Shannon Harbour houseboat moorings leased by license.



## **ENGAGEMENT**

KPMG FA won the tender for a project to undertake a review of the canal pricing strategy. The goal of this review process was to answer three questions:

- **1** What is a fair and equitable methodology for leisure and residential permits, tolls and other charges?
- 2 *How do Waterways Ireland establish pricing* comparable with the market and international peers across the Waterways Ireland canal network?
- 3 How do Waterways Ireland establish a fair and transparent mechanism for reviewing pricing in the future (e.g. 5-year annual review of pricing and graduated pricing / charging points annually over a 5-year horizon)?



## **PROCESS**

Over the course of the engagement, KPMG FA has conducted a rigorous desk review of the documents supplied by WI as well as researching international case studies and comparable pricing structures to inform the analysis and advice offered in response to the questions posed to us.

We consulted documents from the Dutch, Belgian, French, German, Scottish, English and Welsh canal systems, as well as from Waterways Ireland itself. This included an extraction of pricing models where they were established and iterating upon their approaches to suit the Irish context. We were supplied with relevant documentation by WI and this informed our understanding of the Irish context as well as the specific opportunities and strategic priorities of WI.

Following on from this period of desk research and consultation; the team developed a pricing model considering the goals of Waterways Ireland, and the international best practice, and the need to provide transparent and predictable pricing.

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#### STAKEHOLDER ENGAGEMENT

The team carried out consultations with Scottish Canals, Canals and Rivers Trust, multiple senior personnel in Waterways Ireland, as well as users of other EU canal networks to establish international best practice and to deepen our understanding of the approaches taken by each party and their preferences in a new system.

Ireland, and representative groups for boaters including the Inland Waterways Association of Ireland, and their membership via surveys and reports conducted by ourselves and IWAI.

## SCOTTISH CANALS

Scottish Canals is the statutory body responsible for the management of the canals network of Scotland on a devolved basis since 2012. It is responsible for 5 sections of canal covering 220km, comprised of the Monkland, Crinan, Union, Forth and Clyde, and Caledonian Canals. Following a period of consultation Scottish Canals reformed their pricing structure in 2016 in order to improve the revenue generating capacity of the navigations, basing their prices on the local property market. This price setting power is possible as Scottish Canals controls the overwhelming percentage if not all the moorings available on the navigations. Seeking to establish a price comparison, Scottish Canals utilized an approach which used the local 2-bedroom rental apartment market as a reference variable with that value reduced to a percentage of that market price based on the quality of the navigations (42% - 47%) in Scotland). Scottish Canals also built-in demand and facilities adjustments of -25% to +10% and -10% to 0% respectively to allow for flexibility in the face of demand variations and to incentivise adequate maintenance of key infrastructure.

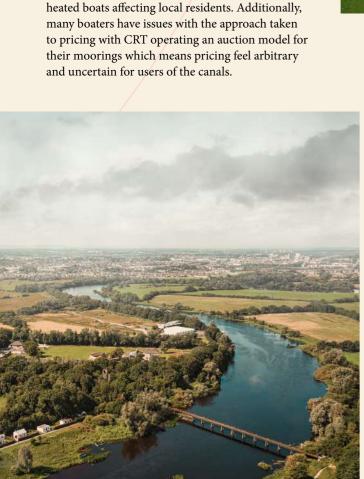
The system has been in operation for five years and according, to interviews with Scottish Canals, demand is robust. They are currently undertaking a period of review and public consultation and they are planning to maintain the current pricing structure with some small tweaks.

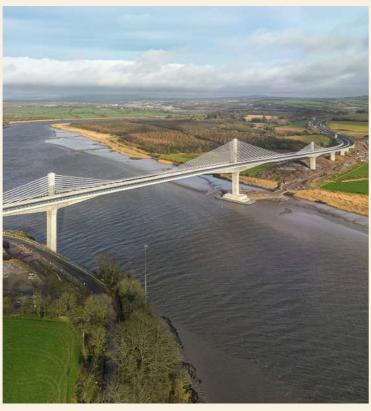
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## **CANALS AND RIVERS TRUST**

Canals and Rivers Trust is the statutory body responsible for the operation of canals in England and Wales. Our engagement with the trust primarily focused on their experience of operating the canals network particularly within London.

In contrast to Scottish Canals, pricing on the navigations under the control of the Trust is set largely by private marina operators who provide approximately 90% of the mooring locations within the Greater London Area. Consequently, the Trust has been unable to abate the number of berths within London and the consequential crowding of moorings and congestion of moorings which this has brought. Supply remains behind demand and this is expected to remain a chronic problem for the London in the short and medium term. CRT also faces a few acute stakeholder issues involving the general public and the boating population. Many of the moorings are close to private dwellings and there are issues with pollution from fossil fuel or wood heated boats affecting local residents. Additionally, many boaters have issues with the approach taken their moorings which means pricing feel arbitrary





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"AS WITH ALL SEGMENTS OF THE PRICING, THE TOLLS FOR THE OPERATION OF LOCKS ON THE NAVIGATIONS HAVE NOT BEEN UPDATED SINCE THEIR CREATION IN 1988 BARRING THEIR CONVERSION FROM IRISH POUNDS £ TO EUROS €. THIS HAS LED TO THE VALUE WATERWAYS IRELAND RECEIVE FOR LOCK OPERATION BEING REDUCED SUBSTANTIALLY IN REAL TERMS."

## PROPOSED PRICING MODEL

The consultation process underlined several common themes. The pricing system needs to operate with a set of principles which we understand as follows:

- 1. <u>Transparent: The pricing scheme must be</u> clear for the public and the boaters.
- 2. <u>Predictable: The pricing scheme should offer certainty of pricing for both WI and boaters.</u>
- 3. <u>Future-Proof: The pricing scheme should mitigate the potential for drift that the previous bye-laws suffered.</u>

We have designed this pricing structure to provide clarity and certainty to all stakeholders.





# PERMITS CURRENTLY WITHIN THE BYE-LAWS.

#### LEISURE PERMIT

The new Leisure Permit would replace the existing Combined Mooring Permit, maintaining the same right to moor on location for five days at a time. At the same time, it would also explicitly forbid residing permanently on the navigations.

The Leisure Permit price has been adjusted to capture the inflation of the Irish economy over the last 30 years. The relevant measure to capture this is the Consumer Price Index which measures the core components of consumer inflation in Ireland. The below analysis is conducted using the CPA01 data set from the Irish Central Statistics Office; and uses the Base Dec 2011 base period for the indexing. Using this measure, the price for the leisure permit can be determined by using the index to take the 1988 value and then matching it to the 2020 value and adjusting the price respectively.

Going forward pricing should be kept up to date to avoid a repeat of the drift seen over the previous period. However, doing so by following annual inflation updates from the CSO risks the price of the permit fluctuating year to year undermining the predictability and certainty of the pricing structure. In that mind, it is recommended that the price is updated to account for inflation at the next full pricing review. In the event that inflation accelerates in the coming years, a interim review of pricing should be considered and the bye-laws should make provision to adjust the pricing in line with changes to the over a 3 year rolling period to smooth out any increase and also to allow for the price to keep pace with inflation.

This calculation is as follows

Table 1: Leisure Permit CPI Calculation

YEAR	CPI (BASE YEAR 2011	PERMIT VALUE					
1988	55	€126.00					
2020	103	€235.96					

## **RESIDENTIAL MODEL**

A new Residential Permit will be created which will confer the right to reside aboard the boat for the period of the permit at established residential mooring locations. We would propose that that Extended Mooring Permit option be phased out with a number of Extended Mooring locations being created for Leisure permit holders to use on an up to 4 weeks basis thus preserving the ability of leisure users to temporarily reside on the navigations for holiday periods while clarifying the exclusive long term residency rights of those holding a residential permit.

The Residential Permit price has been adjusted to capture the inflation of the Irish economy over the last 30 years. The relevant measure to capture this is the Consumer Price Index which measures the core components of consumer inflation in Ireland. While we did consider using the Residential Property Price Index from the Irish Central Statistics Office; we did not find it to be a suitable measure for the permit. Firstly, the index contains blended data for all housing types in its core measure resulting in an inaccurate picture of property price inflation for the purpose of adjusting the permit. Second, when the index is disaggregated it does not break down the rate of inflation by unit type or house type focusing instead on housing or apartments as a broad class. Thirdly, the data is at a regional level outside of Dublin conflating varied housing markets rendering it unusable to measure local property prices and finally, the data set only starts from 2005 necessitating the construction of an alternative measure to fill in the missing data which is beyond the scope of the project. Consequently, using the CPI index as per the leisure model, the price for the residential permit can be determined by using the index to take the 1988 value and then matching it to the 2020 value and adjusting the price respectively.

## RESIDENTIAL MOORING

The pricing reforms for the residential mooring have taken into account the lessons of international practice. Following conversations with stakeholders the preferred locations for residential mooring have been identified as the Royal and Grand Canals, as well as the Barrow Navigation with ancillary residential in Shannon Harbour, additional residential moorings on the other navigations are hindered by ownership issues, or the current lack of development on stretches of these navigations. As such our mooring pricing model focuses on those the Royal, Grand and Barrow.

"TO FUTUREPROOF THESE PRICES WE WOULD RECOMMEND INCLUDING A PROVISION TO ALLOW WATERWAYS **IRELAND TO MAKE ADJUSTMENTS TO** PRICING TO REFLECT A 3 YEAR ROLLING AVERAGE OF THE CONSUMER PRICE INDEX (CPI); **ALLOWING PRICES TO** TRACK INFLATION EVEN IN THE ABSENCE OF **NEW BY-LAWS AT THE** NEXT REVIEW DATE.

To calculate the appropriate pricing for each mooring we have followed a version of the Scottish model, adjusting it for the Irish context. Using the data from the Daft.ie property price report we have established appropriate 2 bed apartment prices for the surrounding areas of the canal (postcode level for Dublin, county level outside of Dublin). These have then been adjusted by 35% (taking into account the current maintenance level of the canals and the need to ensure that pricing encourages turnover and uptake in residential living from new boaters).

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The prices range from €7865 for a serviced urban mooring to €3575 for a rural unserviced mooringc. We would estimate that demand on the navigations for liveaboard to be moderate in line with the experience of Scotland who have circa 100 liveaboards on their navigations. There might be scope to lower prices in more rural locations to incentivise residency, but such berths may be better used for tourism rather than residential purposes. These prices are comparatively lower than Scotland's 42% - 47% considering the less developed nature of the canals network than Scotland and as well as the different economic profile of users of the Scottish and Irish canal networks.

To future proof these prices we would recommend including a provision to allow Waterways Ireland to make adjustments to pricing to reflect a 3 year rolling average of the Consumer Price Index (CPI); allowing prices to track inflation even in the absence of new bylaws at the next review date.

Pricing is detailed across the navigations overleaf:

WATERWAYS IRELAND
DRAFT PRICING STRATEGY

## **IMPLEMENTATION**

The process for implementation needs to take into account not only the goal of improving the revenue generating capacity of the navigations but must also balance the duties that WI has towards users of the navigations. These include a need for clarity, certainty, and predictability. Following consultation and in order to meet the needs of clarity and certainty; the existing residential permit as well as the residential berth costs should be condensed into one new residential mooring permit inclusive of all fees. We have done so in all calculations from this point onwards. To further simply this pricing approach for WI to apply across the navigations we have produced a four-quadrant matrix comprising the urban/rural and serviced/un-serviced binaries. This has been done by adjusting for the average price across urban and rural locations and then a further adjustment to consider the current state of the navigations and the lower level of demand expected over the next period. Therefore, we propose the below four quadrant matrix be used to determine prices in each location.

	URBAN	RURAL
SERVICED	7865	4575
UN-SERVICED	6565	3575

Condensing the pricing research undertaken in preparation of this report; we have established the following pricing as appropriate for this more generalised set of prices. The lower level of urban serviced pricing in comparison to the price level for Grand Canal Dock reflects the need for this pricing to cover a range of potential sites including South, North, and West Dublin, Tullamore, and Naas among others. A separate GCD rate based upon the underlying research could be considered.

For the purpose of clarity, the pricing ratios are included below so that pricing can be established on a year to year basis once the implementation approach has been agreed. We understand that WI intends to pursue a Continual Raises approach.

An implementation timetable has also been included to assist in implementing the new pricing

		URBAN	RURAL
	SERVICED	100%	60%
ĺ	UN-SERVICED	85%	45%

#### IMPLEMENTATION APPROACHES

The prices within that matrix can be determined by one of the three implementation approaches below and have provided and indicative calculation below of the impact of each method on revenue generation in Grand Canal Dock.

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#### **FULL ADJUSTMENT**

WI could immediately reset pricing to the levels determined above. This would have the potential to maximise revenues over the course of the five-year period. However, this would create issues with the existing customer base who would be justified in arguing that this amounts to an aggressive attempt to "money grab"; and with new boaters who might be deterred by negative publicity around the canals as well as the steep price of the berth alongside the cost of acquiring a boat and meeting the safety standards of operating the boat on the navigations.

#### BASE AND RAISE

A compromise between Full Adjustment and Continual Raise would be to move all moorings to a new base price which is a set percentage of the final desired price and then proceed to make a series of raises over the following years to catch up to target price. This has the advantage of reducing the size of the complaint which could be made about the raise, but it does not avoid it entirely. It also would prompt frustration year on year as raises came into effect but those raises would be predictable and certain allowing boaters to make an informed choice. This method also improves revenue generation immediately which leaving the canals attractive to new boaters who are considering moving on to the navigations.

#### **CONTINUAL RAISES**

Finally, WI could embark on a series of raises larger than those in the Base and Raise scenario to improve revenue generation over the medium term. The larger raises would compensate for not taking a one-year sharp re-basing. WI could then proceed to implement these raises over the following years until target price is established. This does avoid any fight over a one-off large raise which could be resisted by in-situ boaters however it offers the slowest level of revenue growth of the three approaches and over the five year period before the review WI would be unlikely to meaningfully close the gap to the pricing levels determined above.

Note: It would also be possible to apply a Full Adjustment approach in the event that a new mooring was created or if an existing mooring was substantially redeveloped.



## *Table 4: Implementation Approaches inclusive of permit and berth.*

Scenario	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total Revenue Per Berth
Full Adjustment	€452	€7,865	€7,865	€7,865	€7,865	€7,865	€39,777
% of Maximum Amount	€1,943	6%	100%	100%	100%	100%	100%
Base and Raise	€1,766	€452	€3,500	€4,590	€5,680	€6,770	€7,865
% of Maximum Amount	€1,700	6%	45%	58%	72%	86%	100%
Continual Raise	€1,700	€452	€1,239	€2,025	€2,812	€3,598	€4,385
% of Maximum Amount	€1,592	6%	16%	26%	36%	46%	56%
Assuming a Grand Canal Dock berth, with a €1,872 two bed apartment monthly rent and						d a 35% rent ratio.	



## **OPTIONS**

There are several potential options for the sustainable delivery of boating services on the navigations. While leisure boats remain a comparatively simple mode of use to regulate, the challenge of residential use of the canals requires an examination of the different approaches to living on the navigation. While a more through examination will be included within the forthcoming Sustainable Living on Water report, we have included a brief discussion of options here.

## **HOUSE BOATS**

House boats are a severe challenge to the navigations. They would be new legal ground for WI who would need to operate as a commercial landlord or cede sections of the canal over to private operators. However, WI is not equipped at present to operate such a model, and third-party operations would likely be frustrated by the limited space on the navigation which would severely reduce the locations available for these operations on an active navigation operated as a leisure and heritage asset. Additionally, the burden that servicing, and providing foundations or mooring for houseboats would also new a completely novel challenge for WI to overcome. The fit of houseboats in with the character of the canals and the surrounding environment is also likely to be challenging and unnecessarily complicated while there are other options with which to providing housing on the navigations in particular on barges which support WI's goals of promoting the heritage, appreciation, and history of the canals.



#### PRIVATE MARINAS

WI does have several private Marina partners on sections of the network, which have proven to be successful. However, within the Barrow, Royal, and Grand there are a lack of suitable locations for a private marina to be installed without the need for a substantial planning process. A new marina development would likely be within either existing WI basins or inline on the navigations, and as such WI would be well placed to develop the marinas and so the preference remains for WI to develop their own projects in sections of as a source of revenue and as a way to ensure the pragmatic and sustainable provision of berths in locations that are cost effective and in keeping with the character of the canals as a heritage and leisure assets for the whole community.



#### FREE-MOORING

There has been commentary surrounding the idea of allowing green bank and free for all style mooring on the navigations. This idea cannot be seriously considered as it creates serious issues. Firstly, enforcement of permits, boat safety, and other provisions of the Bye-Laws would become increasingly cumbersome as boats become spread out along the navigations. An influx of new boats even if their residents are happy to forgo access to services, would place increased pressure on the local environment which WI has a duty of care to especially with regards to pollution risks from engines, as well as black and grey water. Free mooring would also likely bring boaters into conflict with local populations, harming the relationship between the canal and the local communities it benefits, especially if the boats were fuel burning or if the occupants engaged in anti-social behaviours.

## WI LED DEVELOPMENT

WI is well placed to lead the development of the canals by upgrading the existing berthing locations and expanding in areas identified as having robust demand as well as economic viability. By remaining the steward of the canals development, WI can manage against the unrealistic demand that the heritage, environmental, and leisure potential of the canal's be sacrificed to solve a housing crisis which it does not have the capacity to solve due to a lack of suitable location in the area's where housing is needed most. A full sustainable living on water strategy will identify appropriate locations as well as robustly discussing the challenges facing WI in providing housing while balancing its mandate as the manager of a heritage and leisure assets for the public good.

## RECOMMENDATIONS

Having assessed the options available to WI, and consulted with stakeholders both internally and externally, we have a number of recommendations:

- Balancing the needs of WI to raise revenue and improve financial performance with the duty WI has to its boating population, we find that a Continua Raise approach over the next 5 years is preferrable. This would allow WI to begin to correct the historical drift in pricing while also making the adjustments measured and predictable for the boating population. The option to uplift new moorings to a higher price should they be newly developed or renovated would remain and could be considered if the new mooring were a substantial improvement over other options. It is advisable not to lift prices to the highest possible level as that would create a substantial divergence between the continual raise option and these newer developments. An uplift in the region of 20% would be appropriate. The location of the new development will also be crucial as a prime location would be easier to set a higher price level due to higher demand. The Bye-Laws should allow WI the discretion to set prices below the maximum allowable to ensure that this is possible, and WI are not compelled to set new sites at the maximum value.
- WI should continue to lead the development of its navigations in order to ensure a suitable balancing of the various stakeholder relationships on the navigations, while also capturing the associated revenue streams to fund the important heritage, leisure, and historical work that they do.
- Removing of the Extended Mooring Permit would assist WI in enforcing rule surrounding the distinction between Residential and Leisure users.
   WI could still provide some extended mooring is key locations on the navigations on a similar 5-day basis as before such as Shannon Harbour and Clondara.
   The locations could be determined by WI following consultation with the boating population.
- We have also recommended the ending of toll collection for use of the locks, encouraging navigation along the canals, and improving the value for money in using the canals for permit holds. The existing permits have been simplified to a Leisure and Residential option and both have been indexed to the CPI in line with best practice.

- We would include smaller incidental fees related to visitors to Dublin located Docks, and additional fees for dry dock usage as follows:
- A daily fee of €10 applies to all visiting boats which do not hold an annual extended canals mooring permit or annual houseboat mooring permit for Grand Canal Dock but have been granted permission to moor in Grand Canal Dock or in Spencer Dock beyond 5 days
- Pay a fee of €25 per day for the first 7 days or part of any day. Thereafter a fee of €50 per day for the next 7 days and thereafter a fee of €100 per day.
- Heritage boats will be granted use of dry docks facilities for major works once every 20 years and will be charged at 50% of the fees payable. This will be granted subject to availability for a maximum period of 12 weeks and with prior agreement from Waterways Ireland

"BALANCING THE NEEDS OF WI TO RAISE REVENUE AND IMPROVE FINANCIAL PERFORMANCE WITH THE DUTY WI HAS TO ITS BOATING POPULATION, WE FIND THAT A CONTINUAL RAISE APPROACH OVER THE NEXT 5 YEARS IS PREFERRABLE. THIS WOULD ALLOW WI TO BEGIN TO CORRECT THE HISTORICAL DRIFT IN PRICING WHILE ALSO MAKING THE ADJUSTMENTS MEASURED AND PREDICTABLE FOR THE BOATING POPULATION.

*Table 5: Pricing Scenarios by Quadrant inclusive of permit and berth.* 

Continual Raise Pricing by Quadrant	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total Revenue Over Five Years
Urban Serviced	€452	€1,239	€2,025	€2,812	€3,598	€4,385	€14,510
Urban Un-serviced	€152	€1,053	€1,721	€2,390	€3,058	€3,727	€12,101
Rural Serviced	€452	€743	€1,215	€1,687	€2,159	€2,631	€8,887
Rural Un-serviced	€152	€557	€911	€1,265	€1,619	€1,973	€6,478

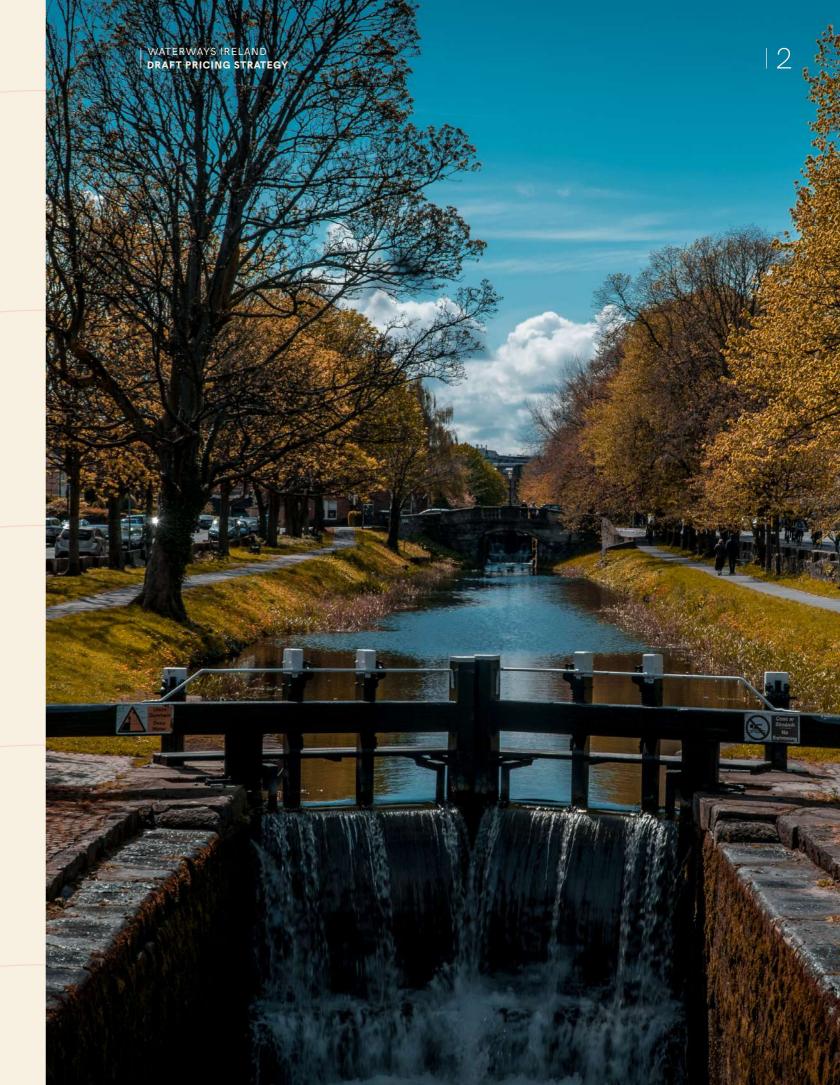


WATERWAYS IRELAND
DRAFT PRICING STRATEGY

## CONCLUSION

The challenge facing Waterways Ireland is the need to update pricing to reflect nearly 40 years of economic change, including a rapid period of economic growth in the late 1980s through until the mid-2000s. Pricing has diverged greatly from the underlying macro-economic reality and so a repricing is necessary to restore the revenue generating potential of the canals and to support WI's ongoing mandate to develop and preserve the canals as a heritage asset.

Reviewing the international examples of the Welsh and English Canals and River Trust and Scottish Canals, we have developed a pricing scheme which seeks to restore the revenue generating potential of the canal while also recognising the need to manage the increase for those already on the navigations. It is for that reason that we would recommend that either a Base and Rise or Continual Rise Approach was followed in setting prices, with WI staying aware for the opportunity to develop new or renovate old moorings and taking the chance to implement a higher adjustment closer to maximise revenue generation to support their work on the canals.







BY: —— KPMG-Future Analytics
ON BEHALF OF: —— Waterways Ireland

