INLAND WATERWAYS ASSOCIATION

Canal & River Trust
Making life better by water

Waterway Restoration Conference 2025

Saturday 26th April

WATER TRANSFER
The context

John Pomfret, IWA

Location: Waterways Museum, Ellesmere Port

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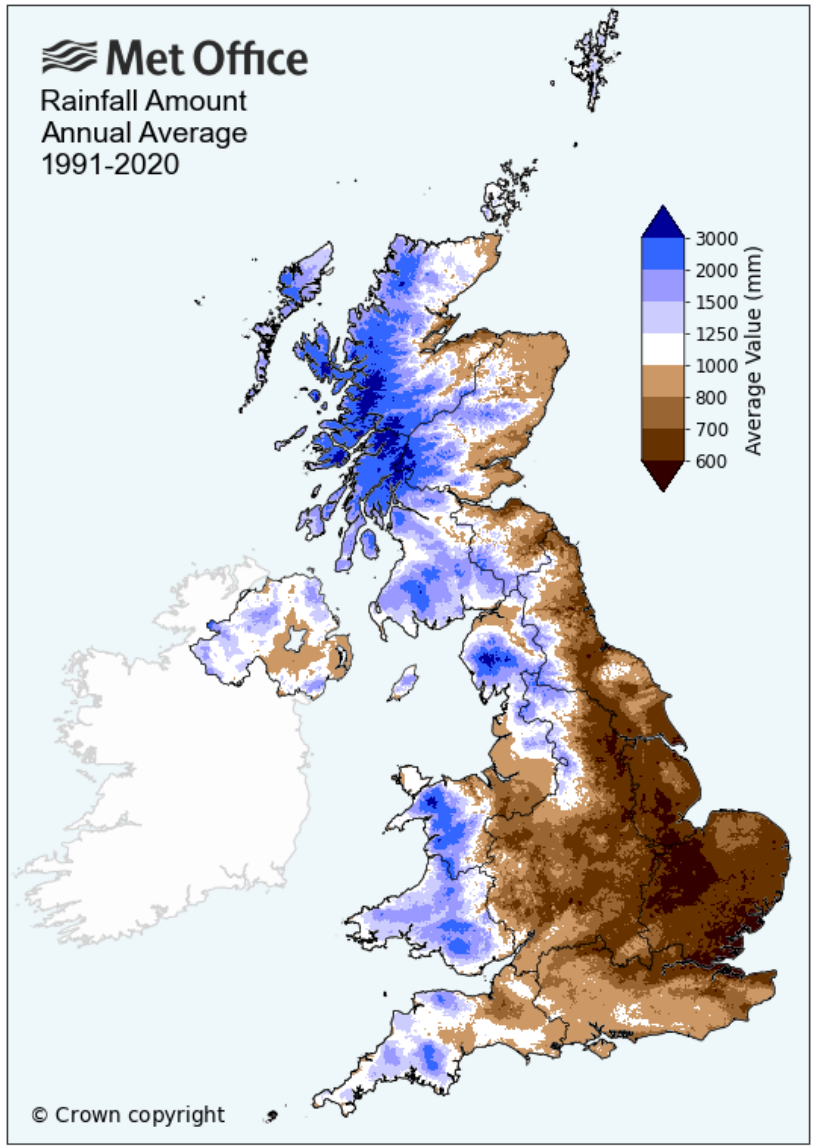
Background to water transfer in the UK

THE ISSUE



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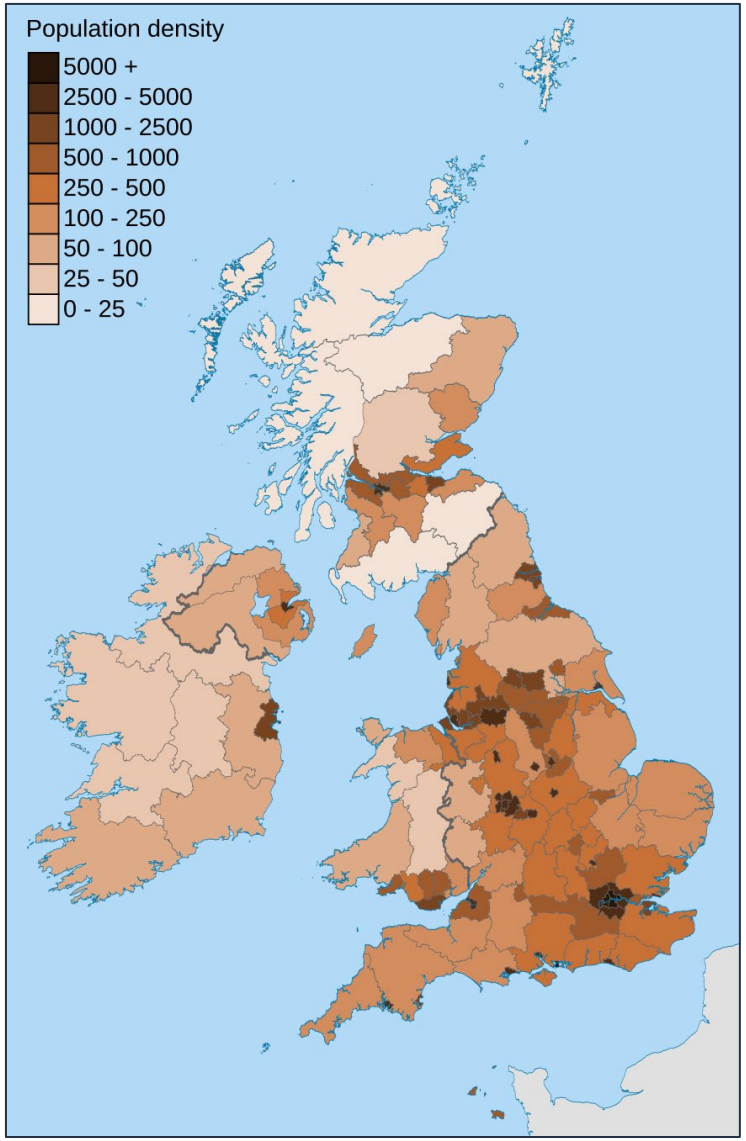

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- Greatest rainfall in the UK is in the west and north
- Greatest population density is in the generally drier areas
- These areas are running out of water
- How can we move water to where it is needed?

WE HAVE BEEN DOING THIS FOR A LONG TIME!

- Long-distance aqueducts have been around since Victorian times
- So, there is a lot of experience available, some published

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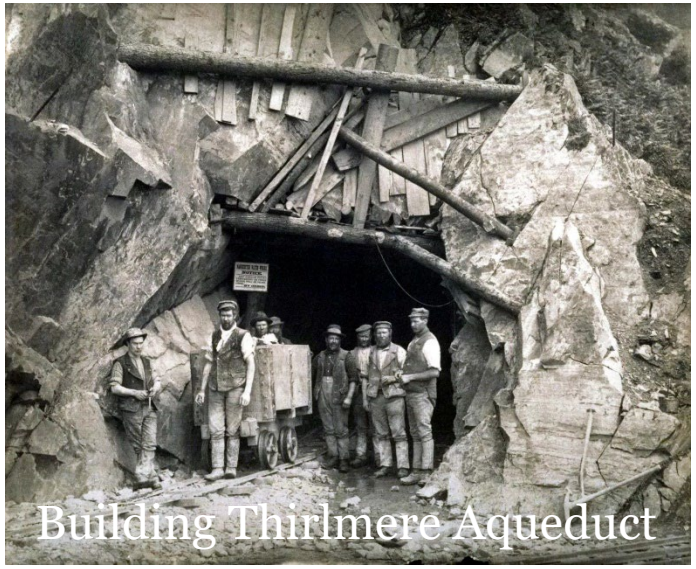
Location	*Date*	*Owner*	*Length*	*Capacity*	*Drive*	*Treatment*
Ware to Stoke Newington (New River)	1613	TW	>32 km	220 Ml/d	Gravity	Raw
Loch Katrine to Milngavie, Glasgow	1859	SW	42 km	110 Ml/d	Gravity	Raw
Thirlmere to Heaton Park, Manchester	1894	UU	154 km	250 Ml/d	Gravity	Screened
Nidd Reservoirs to Chellow Heights, Bradford	1899	YW	51 km	95 Ml/d	Gravity	Screened
Loch Katrine to Milngavie, Glasgow	1901	SW	38 km	120 Ml/d	Gravity	Raw
Haweswater to Heaton Park, Manchester	1955	UU	116 km	570 Ml/d	Gravity	Screened
Vyrnwy to Prescot, Liverpool	1892	UU	110 km	180 Ml/d	Gravity	Raw
Elan Valley to Frankley, Birmingham	1906	ST	126 km	345 Ml/d	Gravity	Raw
Catcleugh to Whittle Dene system	1906	NW	~72 km	205 Ml/d	Gravity	Raw
Ely-Ouse to Essex	1971	EA/NW	>200 km	455 Ml/d	Pumped	Raw
Trent to Witham to Ancholme	1974	EA	~75 km	180 Ml/d	Pumped	Raw
Riding Mill (Tyne) to Eggleston (Tees)	1979	NW	40 km	410 Ml/d	Pumped	Raw

WE HAVE BEEN DOING THIS FOR A LONG TIME!

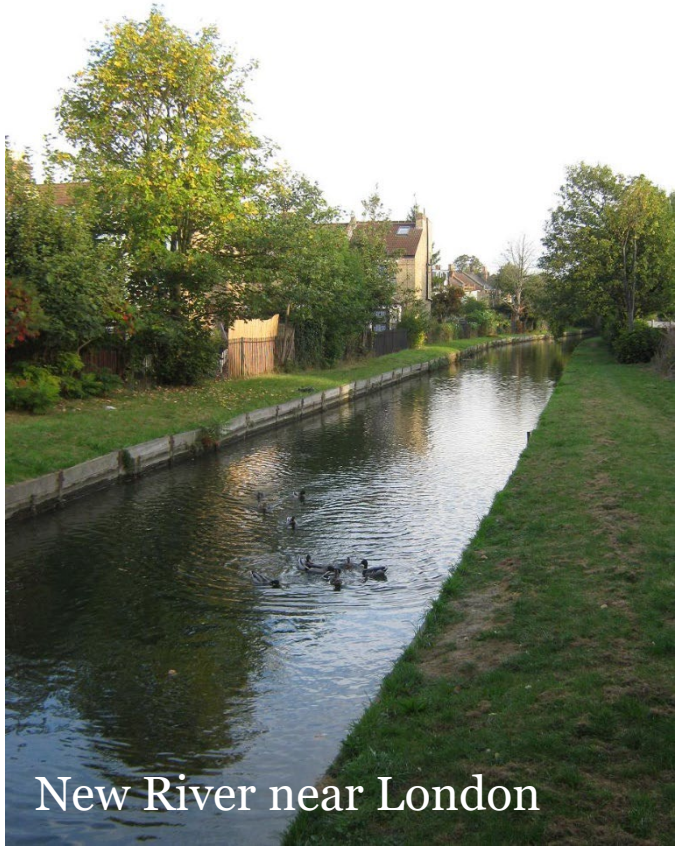
- These aqueducts comprise tunnels, pipes and open channels


Elan Valley Aqueduct – Severn crossing


Thornham Hill Tunnel – Whittle Dene


Building Thirlmere Aqueduct


Riding Mill PS


New River near London

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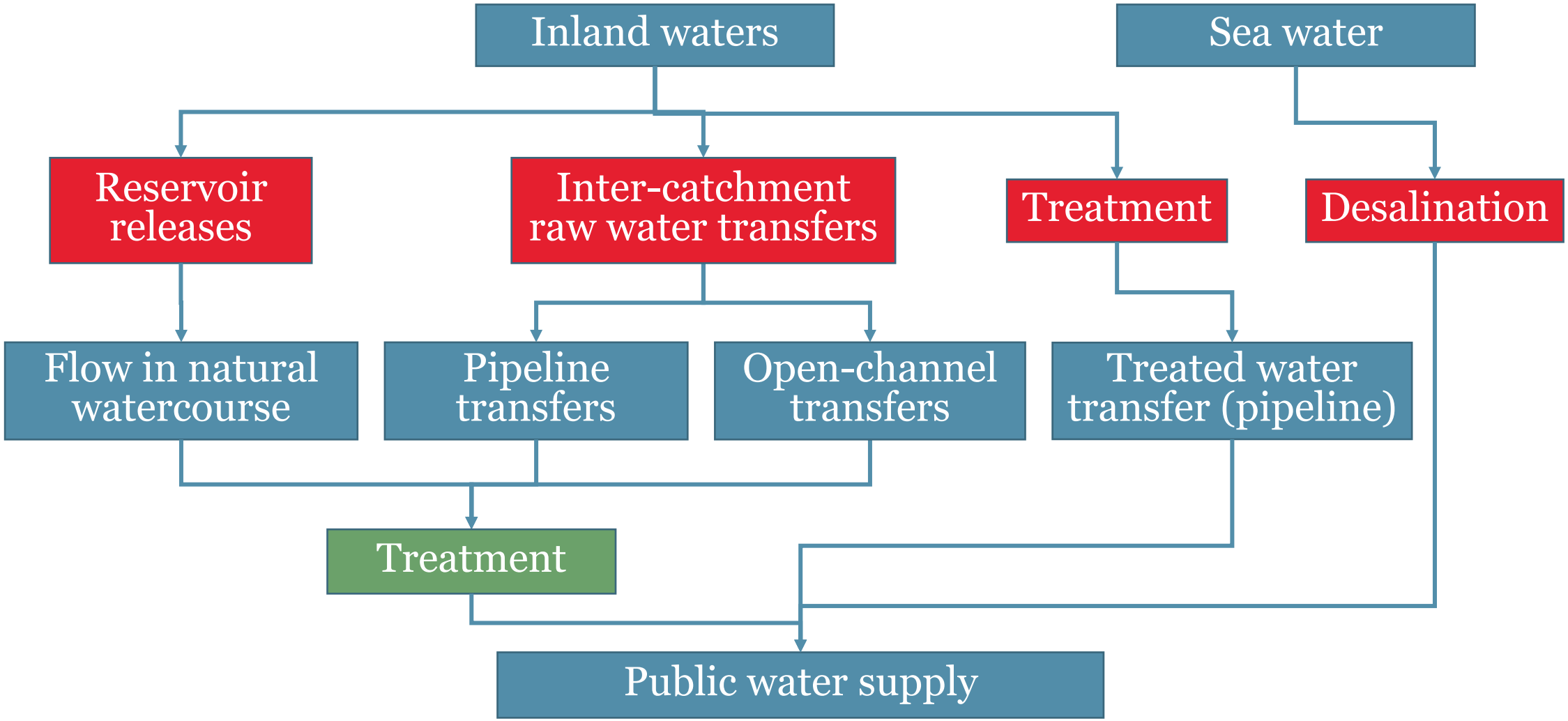
SOME TRANSFERS USE WATERWAYS

- Water transfer currently makes use of both navigable and formerly navigable waterways
- Comprehensive list is available

MANY OPTIONS

- Preference to stay within catchment for reasons of water quality and INNS but inter-catchment transfer is an option



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Why are we talking about it at the Restoration Conference?

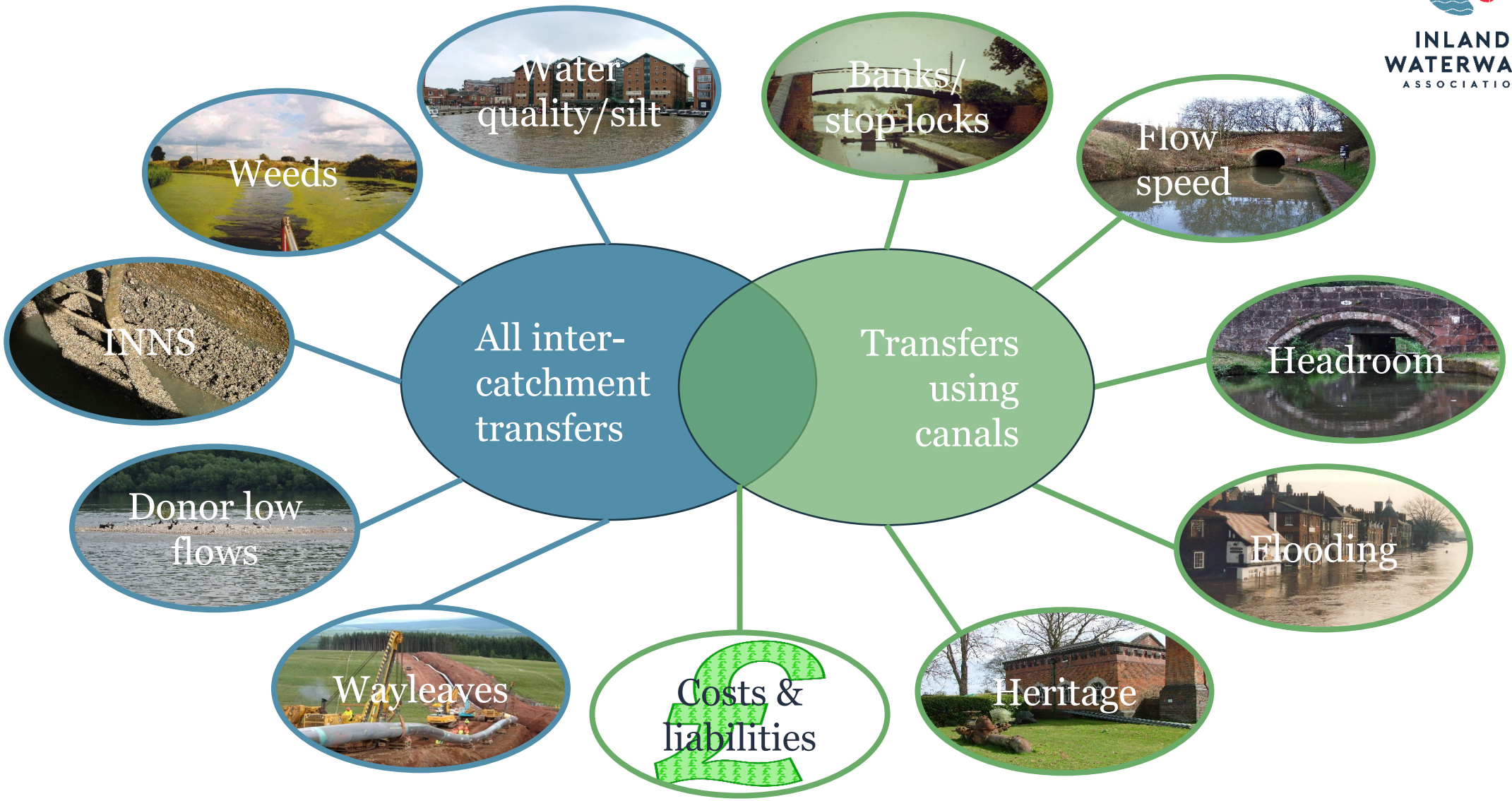
WATER TRANSFER AND RESTORATION

- Current water resource plans (SRO) are considering:
  - new reservoirs
  - water transfer
  - desalination
- Some transfer schemes are being proposed that use canals or navigable rivers
- Potential for restoration schemes to form part of the plan directly as transfer route or indirectly via BNG credits for example
- Potential for new waterways as part of water transfer schemes

However, remember -

- Transfers may be required during drought periods only
- These projects can have very long lead times (but so do many restorations!) – need to think ahead – possibly to future SROs

ISSUES REQUIRING CONSIDERATION/MITIGATION



- We will consider these at the workshop later this morning

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Now we will hear from
Peter Walker and Sarah Jayne O'Kane
about the
Grand Union Canal Transfer project