

NI Water's Contribution to the Environment

Upper Neagh Bann Catchment Stakeholder Group

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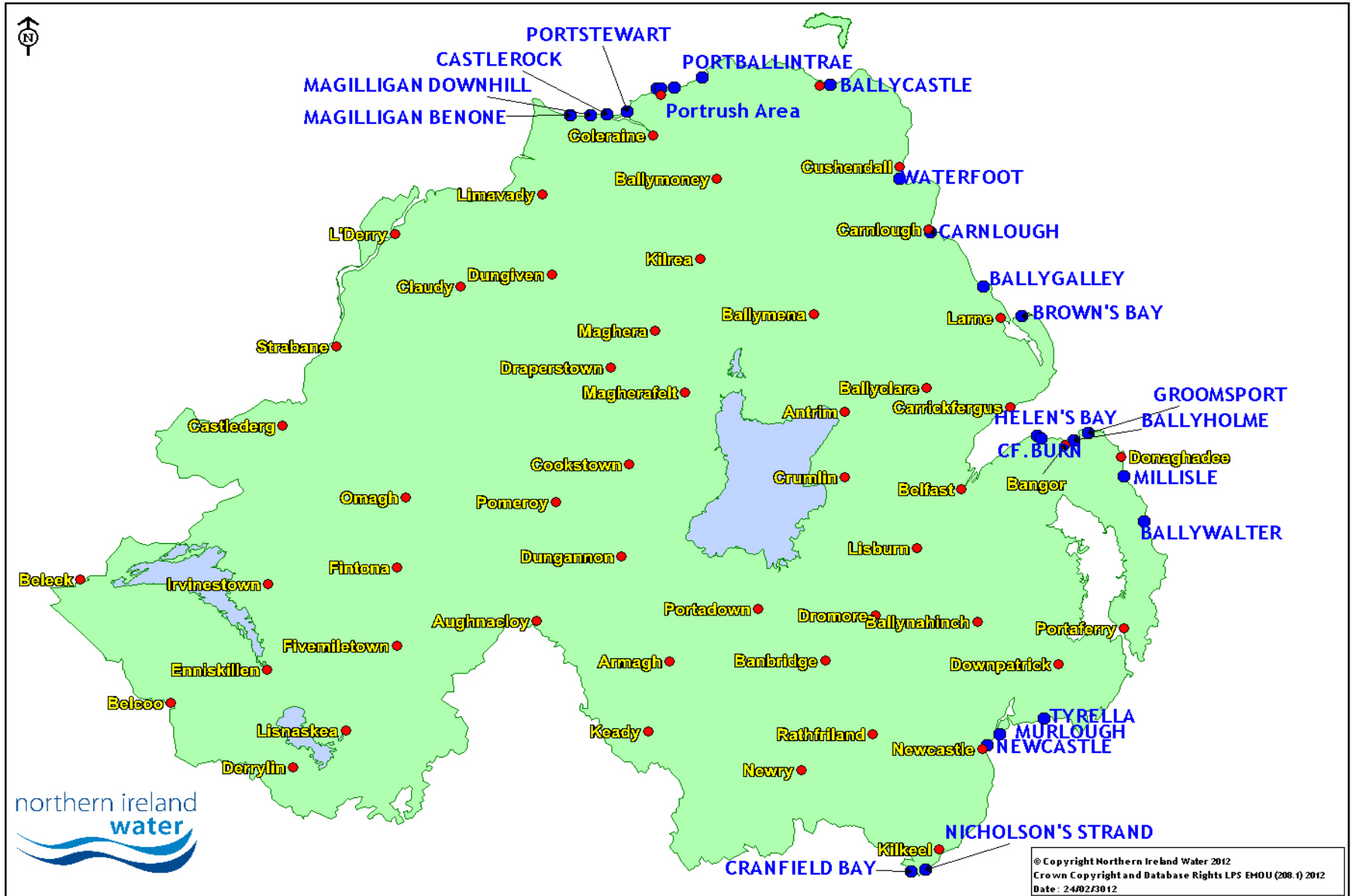
NI Water's Environmental Contribution Presentation Structure

- 1) Capital Expenditure**
- 2) Compliance**
- 3) Operational Issues**
- 4) Environmental Solutions**
- 5) Summary**

Capital Expenditure

- Enhancement of water / wastewater treatment works – to improve quality of discharges
- Upgrades of sewer networks – to limit overflows
- Base Maintenance and Operational expenditure – to sustain quality of discharges

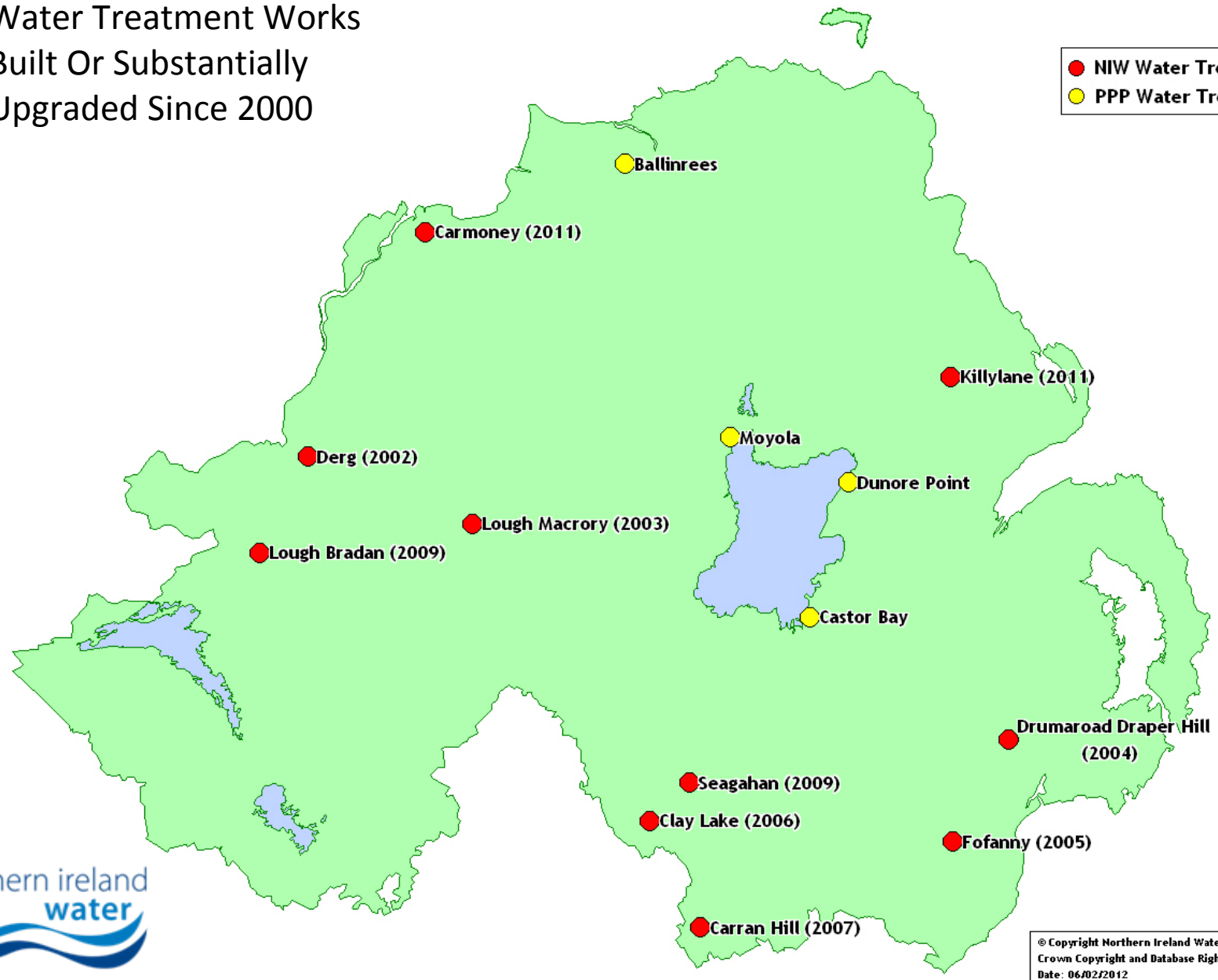
NIW Operating Area – Predominantly Rural, Long Coastline, 24 Bathing Waters >99% of Raw Water Drawn from Surface Water Sources





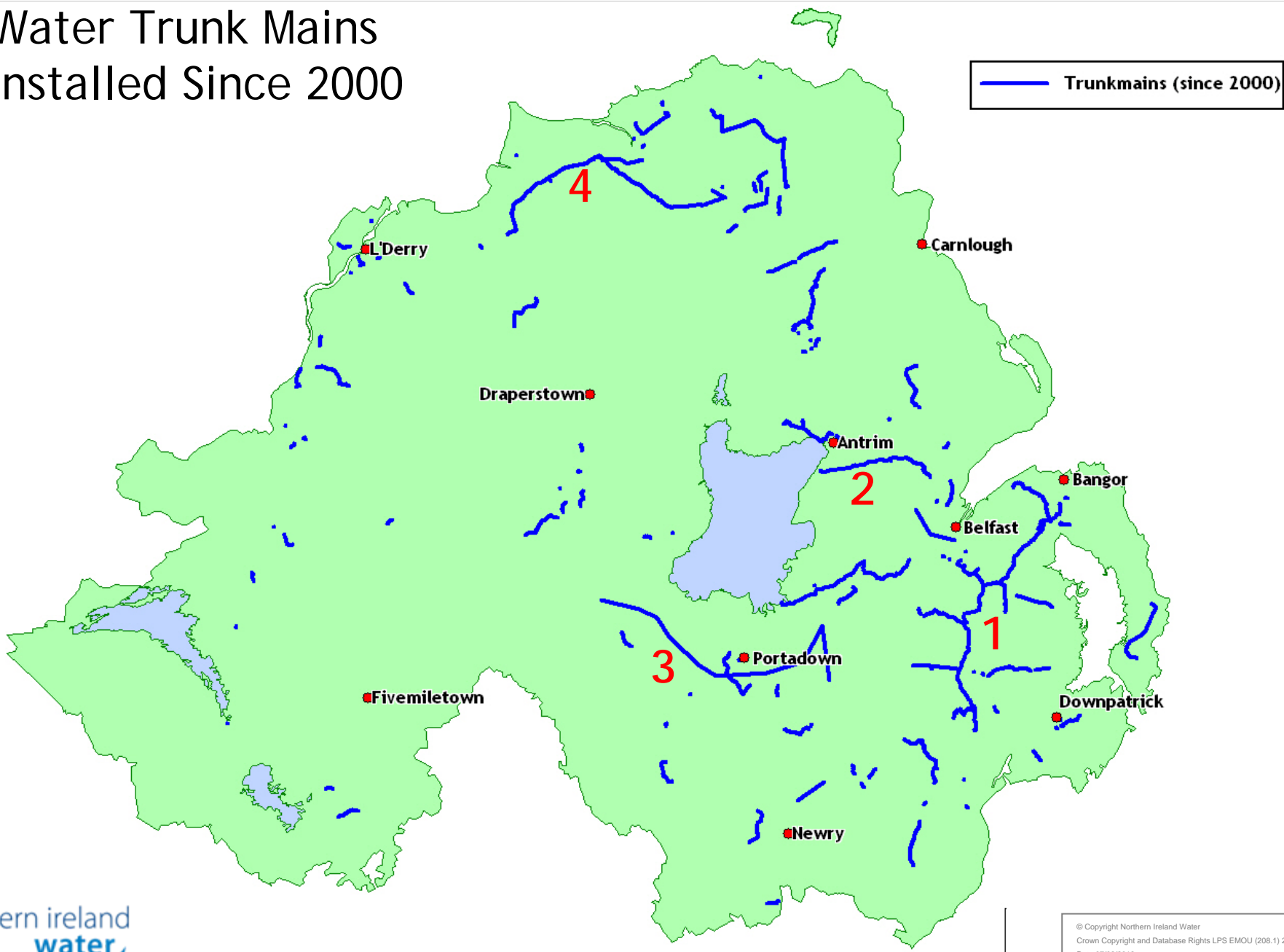
Water Treatment Works Built Or Substantially Upgraded Since 2000

- NIW Water Treatment Works
- PPP Water Treatment Works

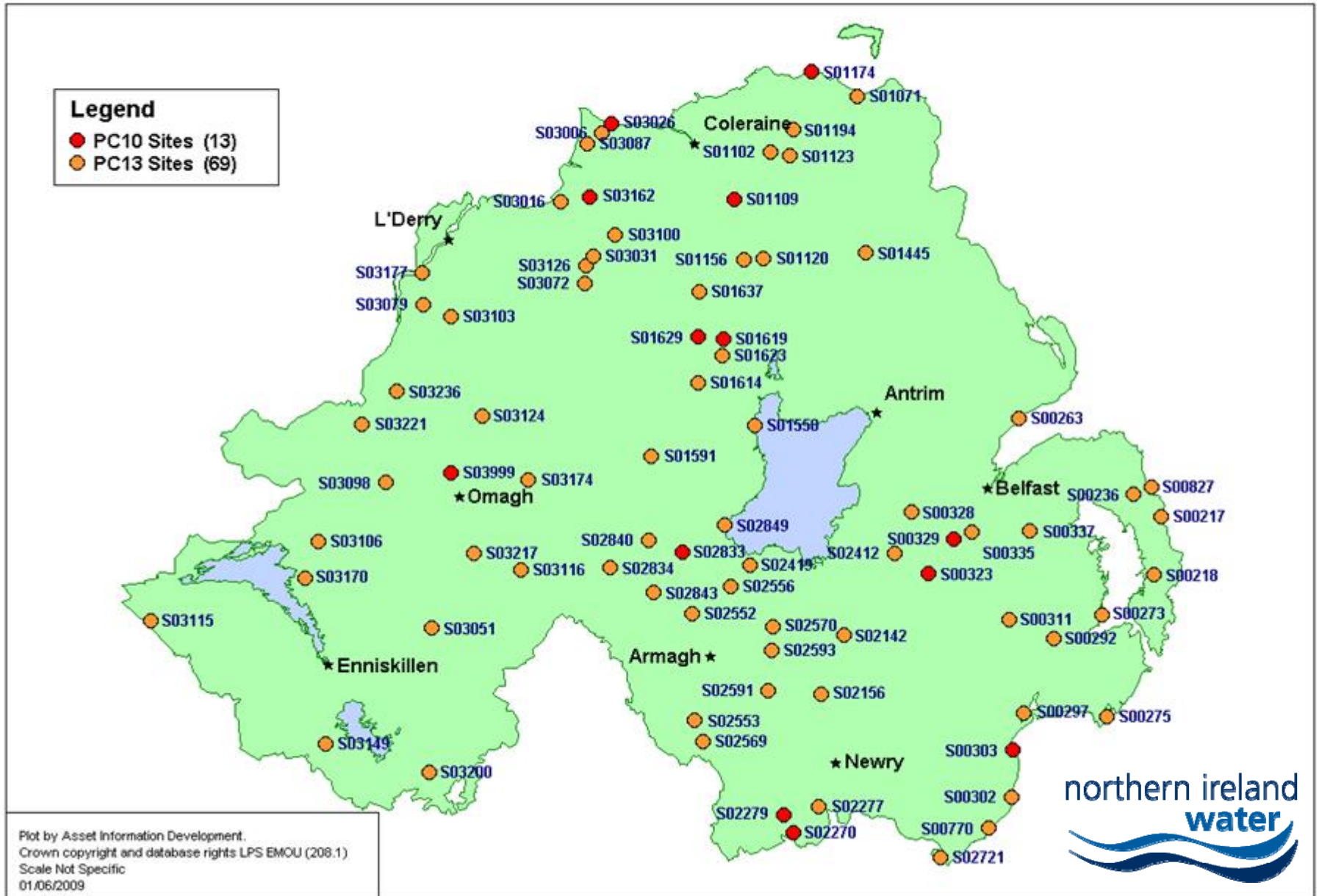


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Water Trunk Mains Installed Since 2000



PC10 Period & PC13 Period WwTW Programme



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Scale Not Specific
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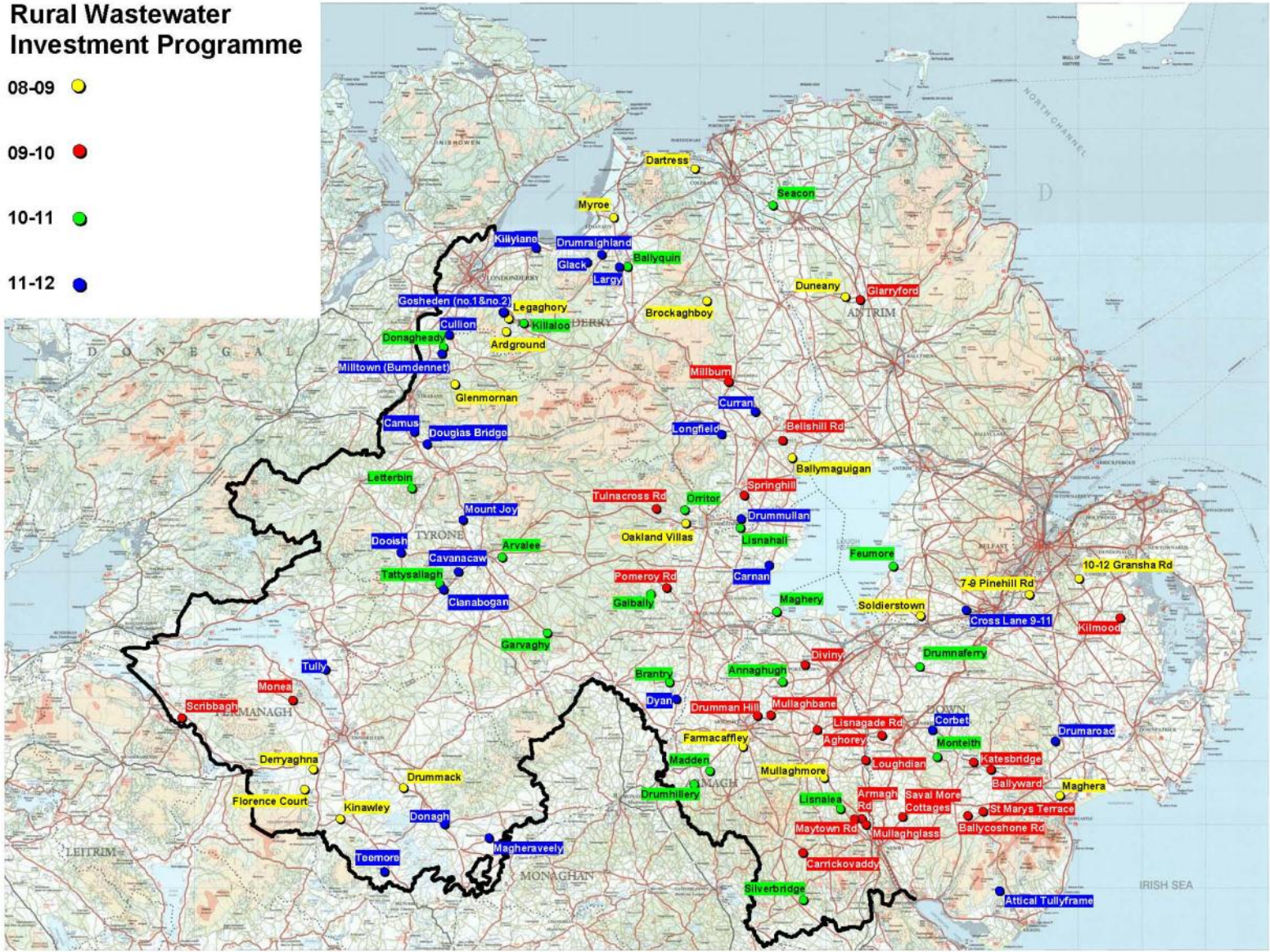
Rural Wastewater Investment Programme

08-09 ●

09-10 ●

10-11 ●

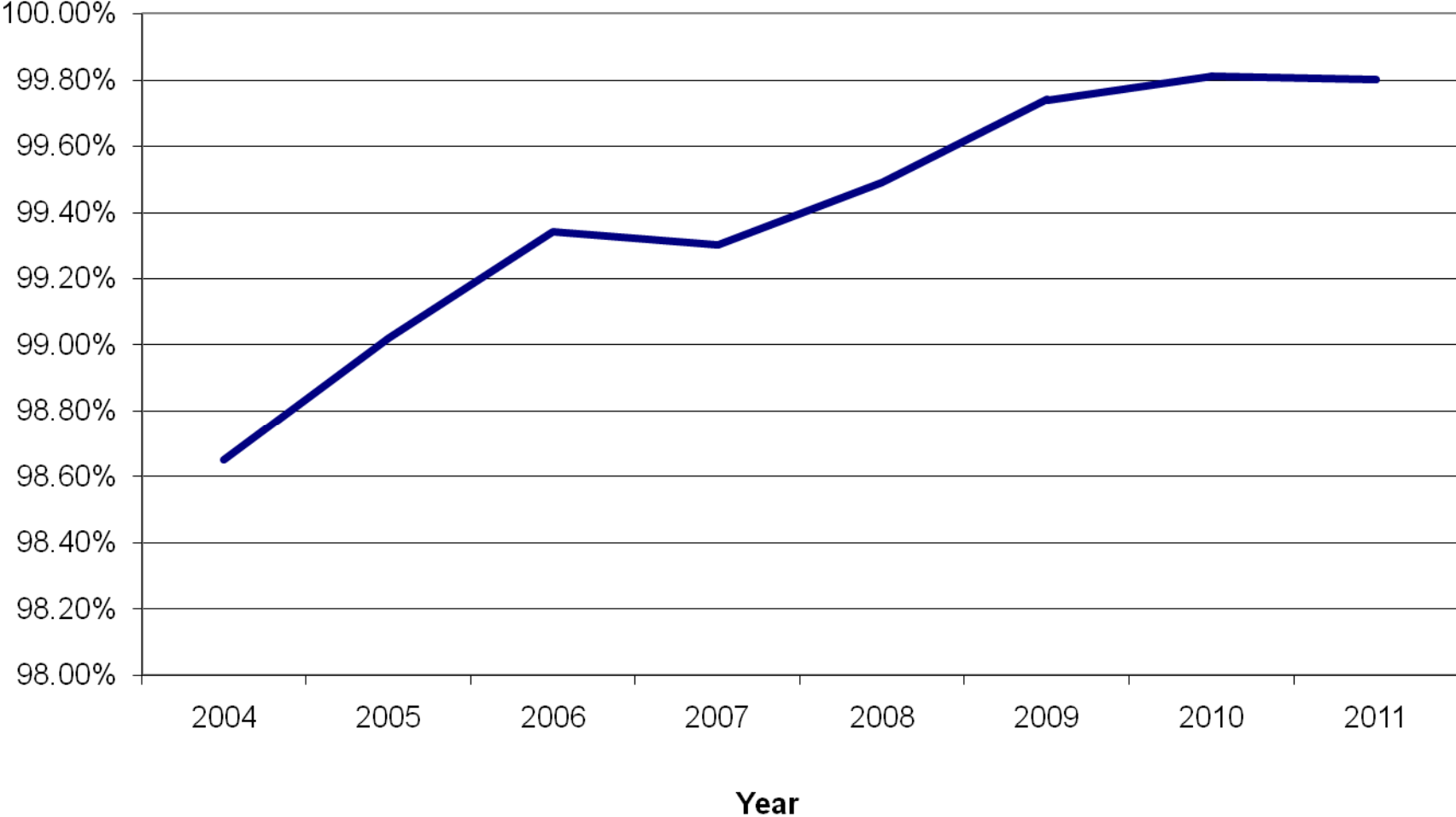
11-12 ●



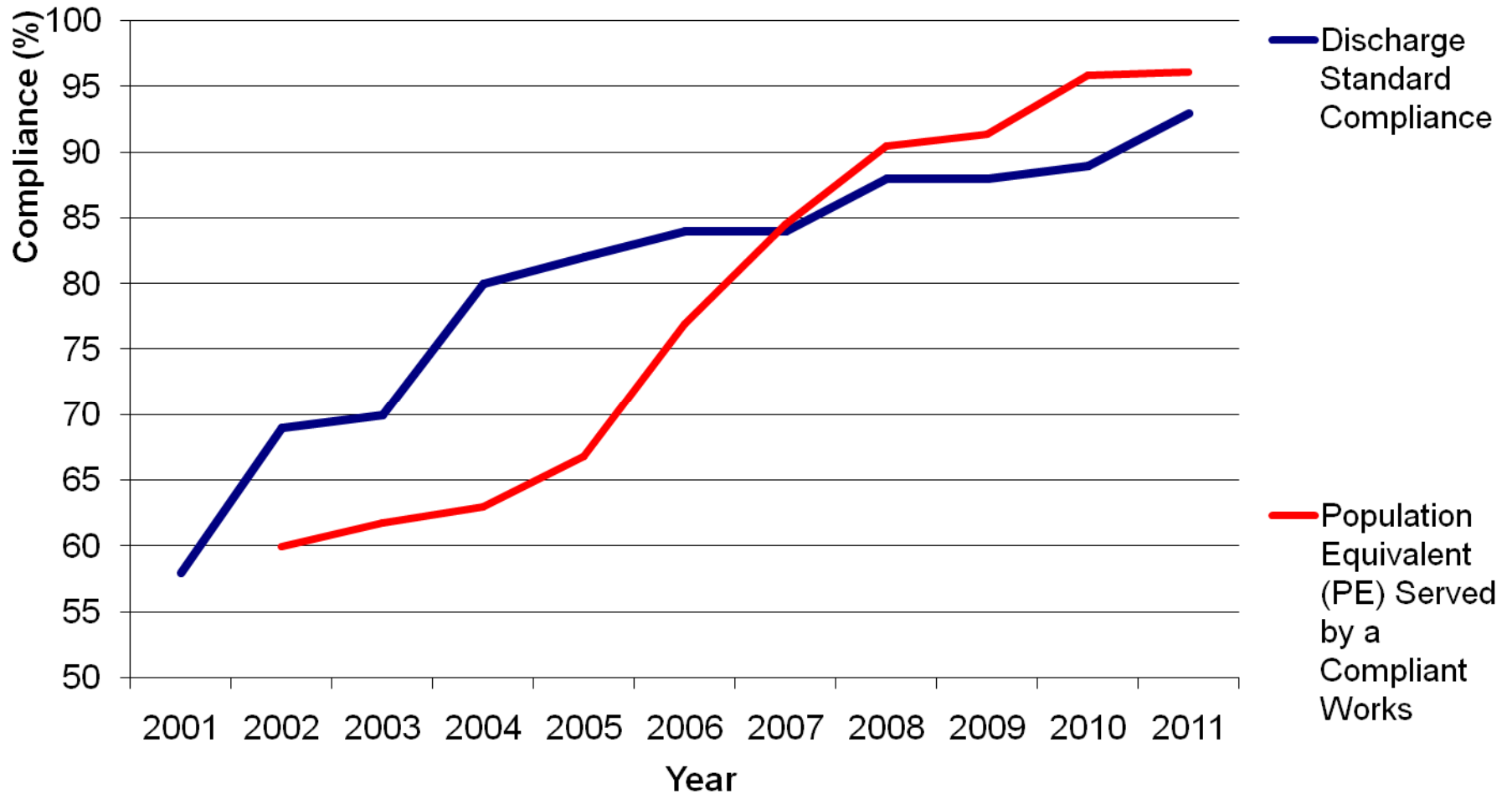
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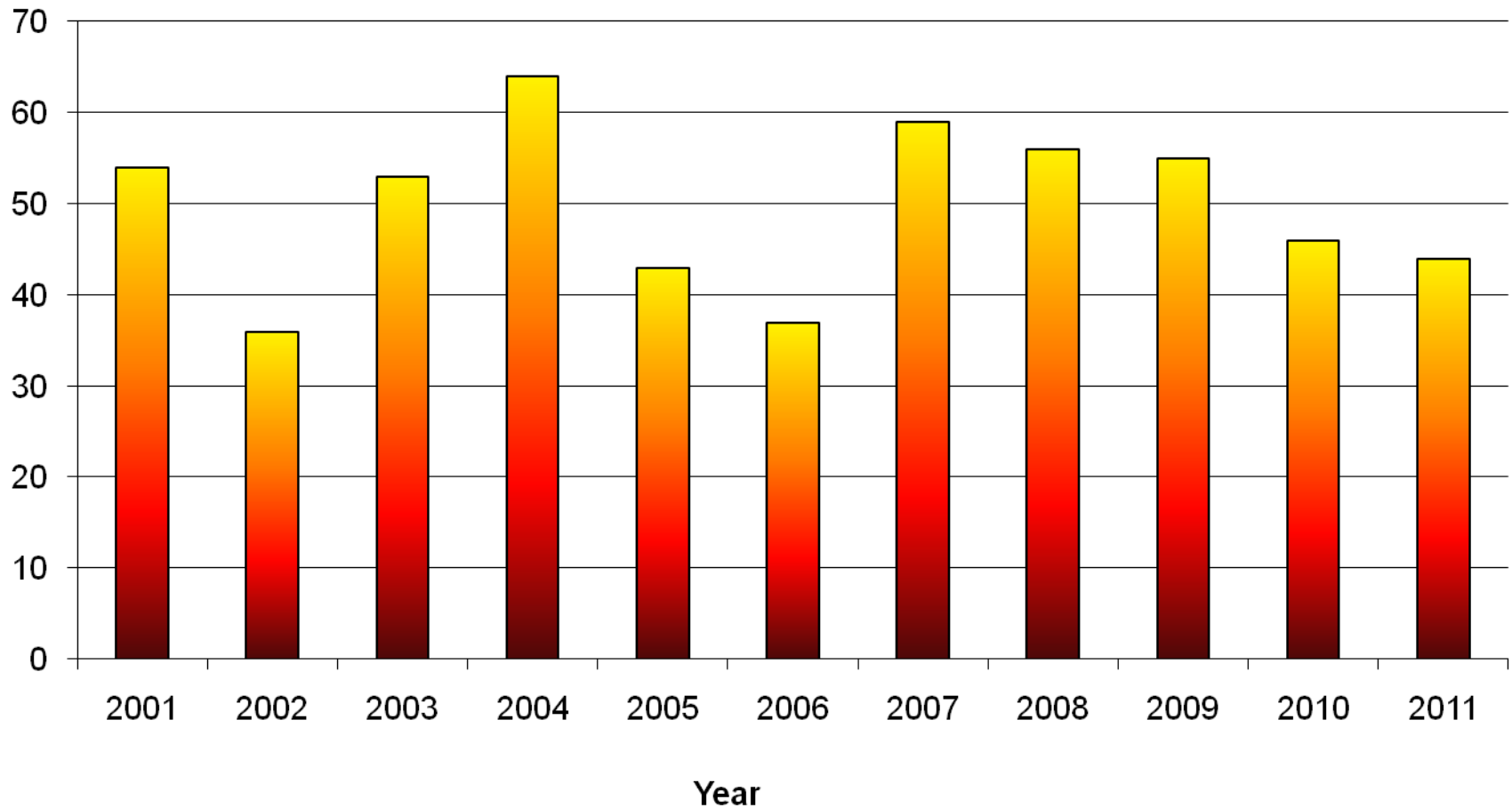
Drinking Water Quality - Mean Zonal Compliance (MZC)



Wastewater Treatment - Discharge Standard Compliance



High / Medium Pollution Incidents attributed to NIW



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Operational Issues



Background

- Sewer flooding is caused by both hydraulic overload and other causes
- **Hydraulic overload** - due to heavy rain and insufficient capacity in sewer network. (10%)

These problems are being dealt with by 'upgrading' the system.

- **Other cause flooding** - due to blockages (90%), pump failure and sewer collapses.

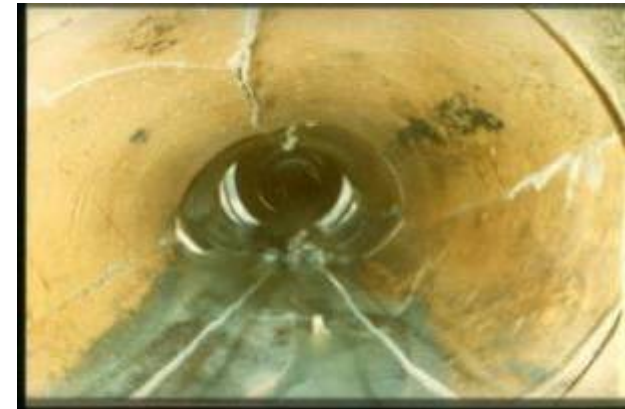
These problems are being dealt with by reactive clearance/ maintenance/ repairs.



Current situation

Understanding of what causes blockages is crucial

- Current NIW records suggests that:
 - 2/3 of blockages are caused by rags;
 - almost 1/3 by fats, oils and greases (FOG); and
 - only 2% by problem in a pipe.



Inappropriate flushing

- Disposable products – rags
- Fats, oils and greases (FOG)
- Food waste

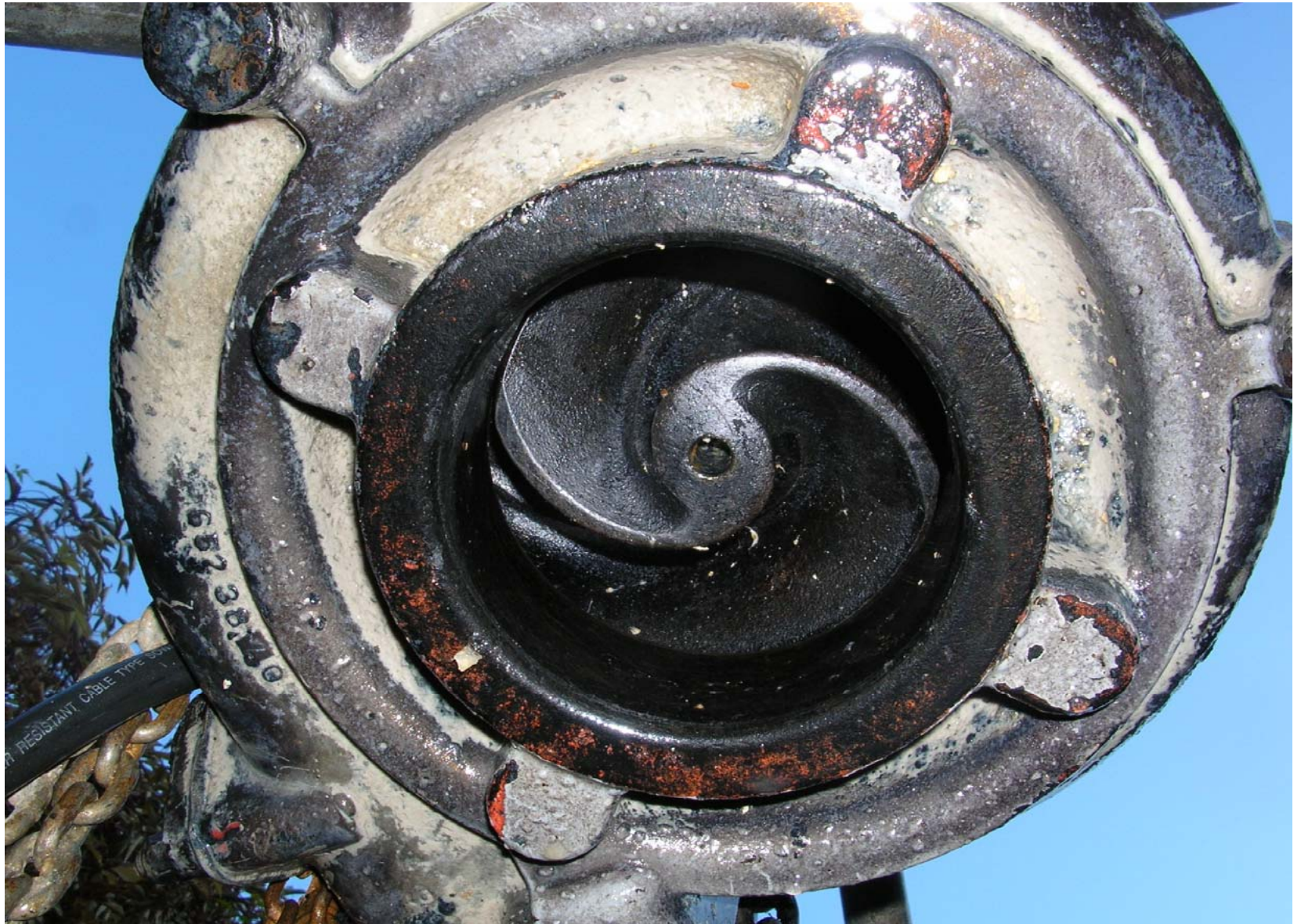


Severe grease build up



Rags, grease and debris





Wastewater Operational Scope

- 1) Approximately 14,000km of sewers**
- 2) Over 1,000 Wastewater treatment works**
- 3) Over 1,200 sewage pumping stations**
- 4) Over 700 combined sewer overflows**
- 5) Over 950 emergency overflows**

Telemetry Control Centre

- 1) Pumping stations have telemetry alarms in place**
- 2) Provide early warning of pump failures and overflows**
- 3) Prompt response minimises environmental impact**

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General Public - Education and Awareness Techniques

Bag it & Bin it Campaigns



Local Press

Advertising



Public representatives & community groups



School visits

Commercial / Industrial - Education and Awareness techniques



NIW Booklet

Face to face visits, monitoring, trade effluent team, Environmental Health Officer, letters of warning, prosecutions



Guidance posters

In summary

NI Water is progressing education campaigns in partnership with a number of organisations

NI Water will continue to deliver investment on a prioritised basis to improve the water environment

**Thank you for your
attention.**

Any questions?

Visit www.niwater.com
for more information