

# **NI Water's Contribution to the Environment**

## **Bush & Glens Catchment Stakeholder Group**

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**LIMS & Compliance Reporting Manager**

**25<sup>th</sup> April 2012**

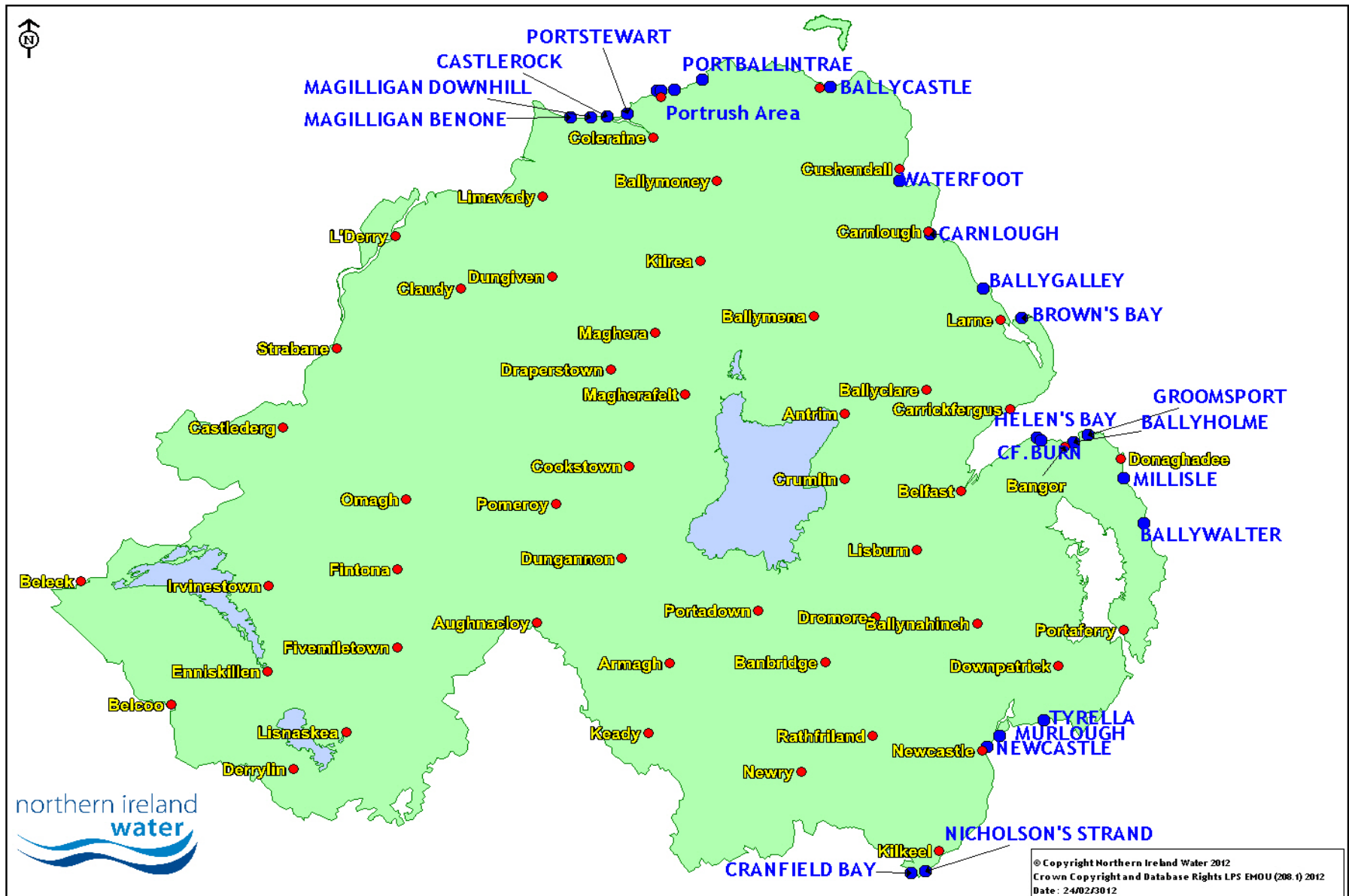
# **NI Water's Environmental Contribution Presentation Structure**

- 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

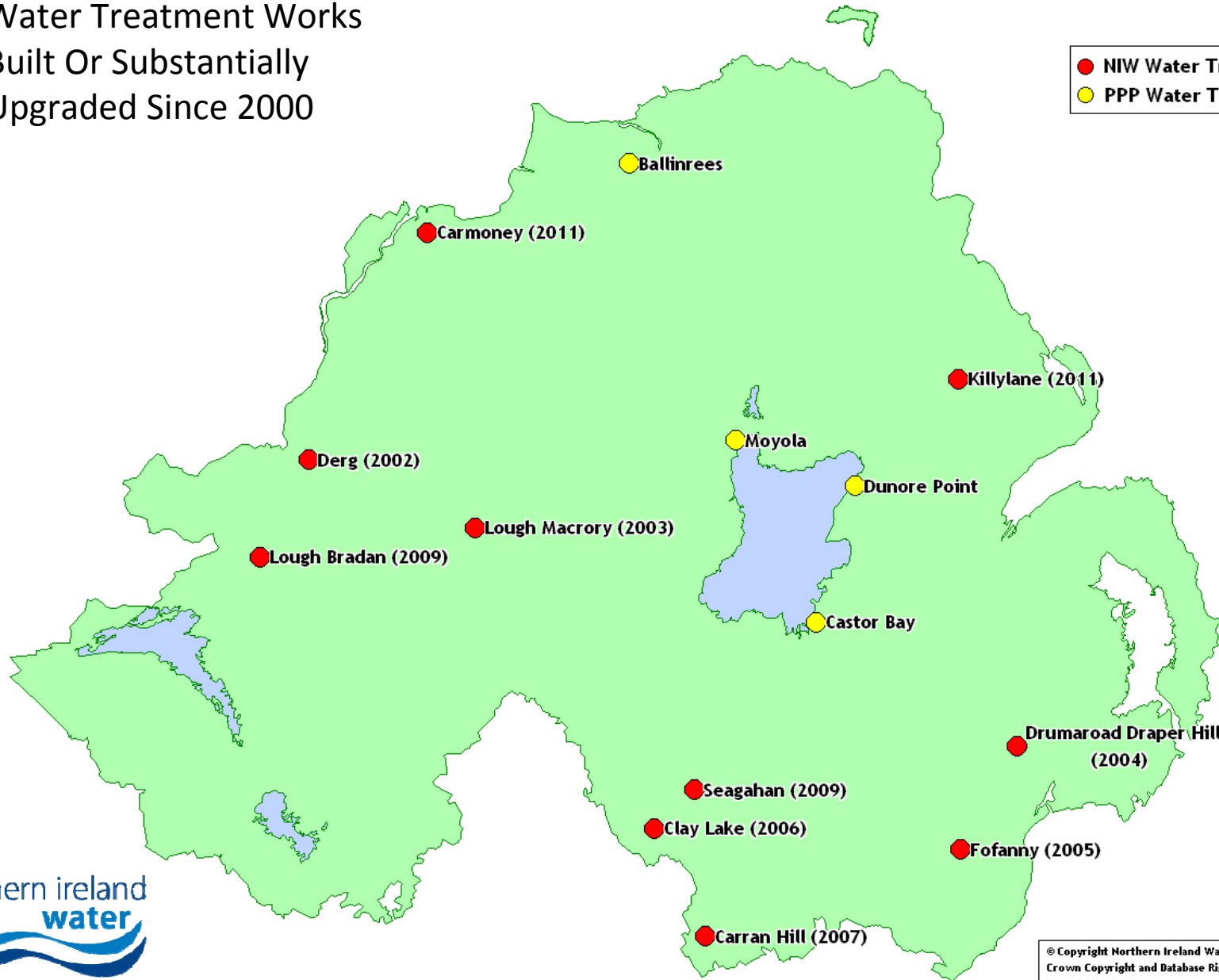
# NIW Operating Area – Predominantly Rural, Long Coastline, 24 Bathing Waters >99% of Raw Water Drawn from Surface Water Sources





# Water Treatment Works Built Or Substantially Upgraded Since 2000

- NIW Water Treatment Works
- PPP Water Treatment Works

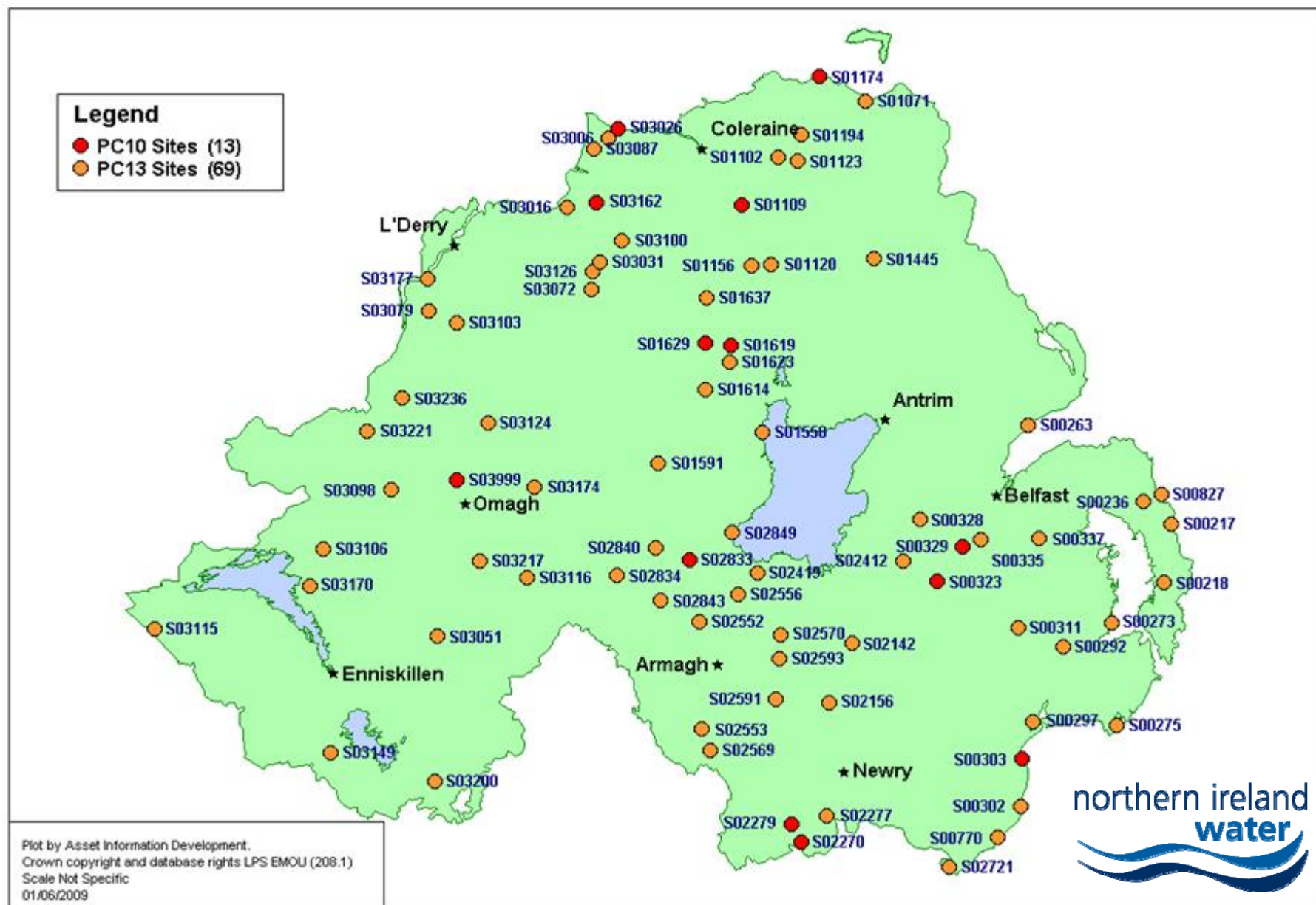


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# Water Trunk Mains Installed Since 2000



# PC10 Period & PC13 Period WwTW Programme



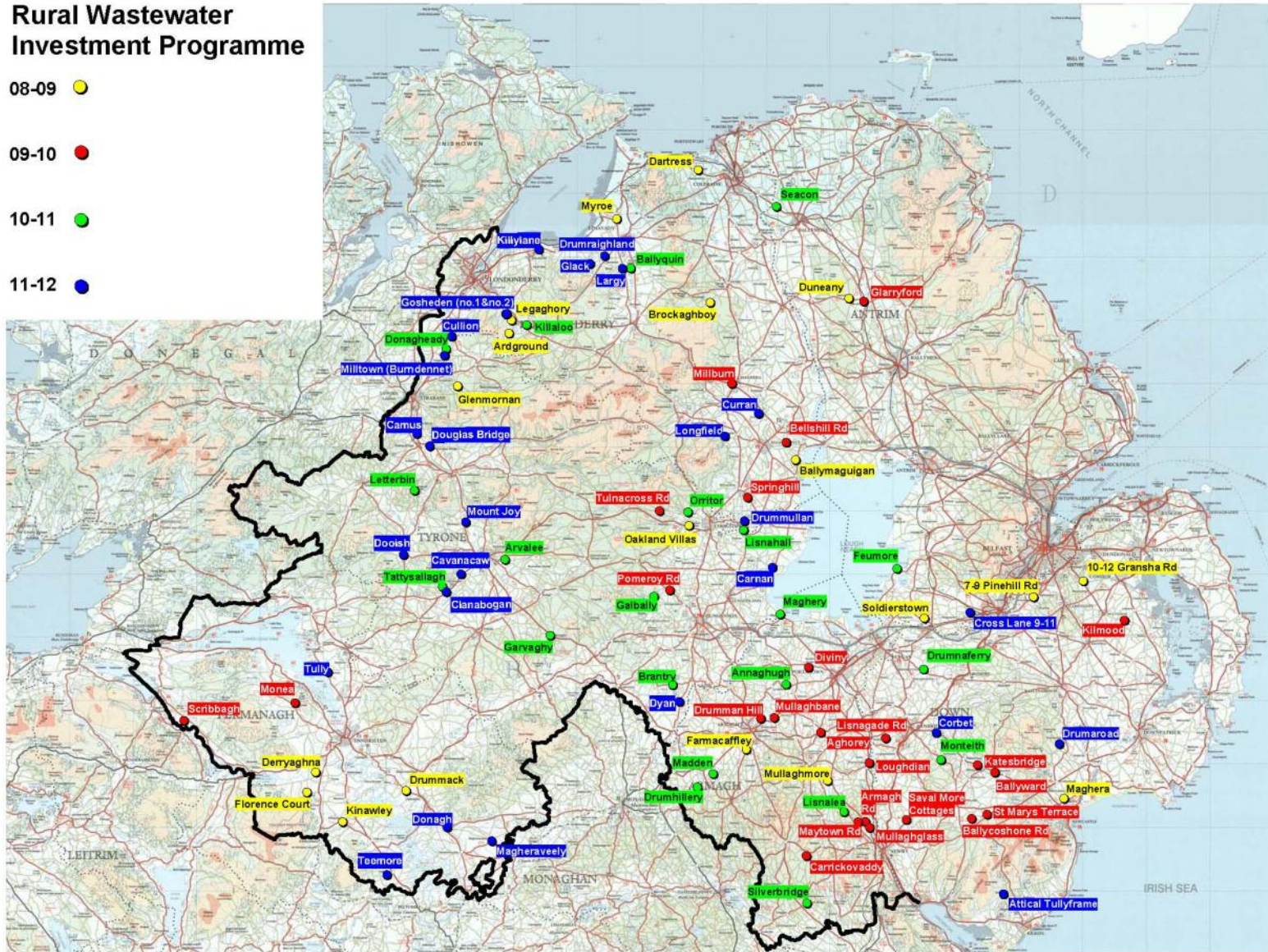
# Rural Wastewater Investment Programme

08-09 ●

09-10 ●

10-11 ●

11-12 ●





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**1) Capital Expenditure**

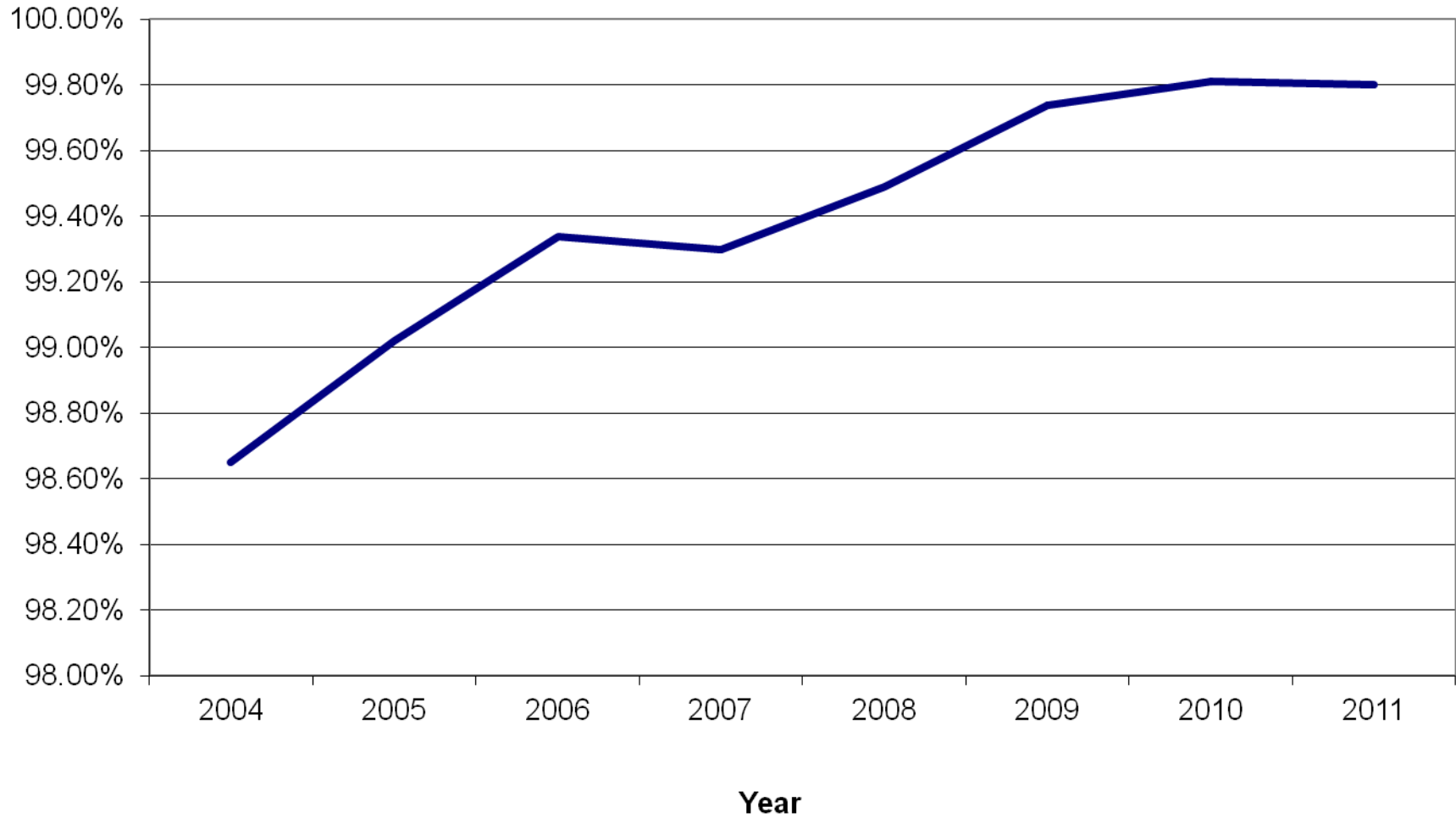
**2) Compliance**

**3) Operational Issues**

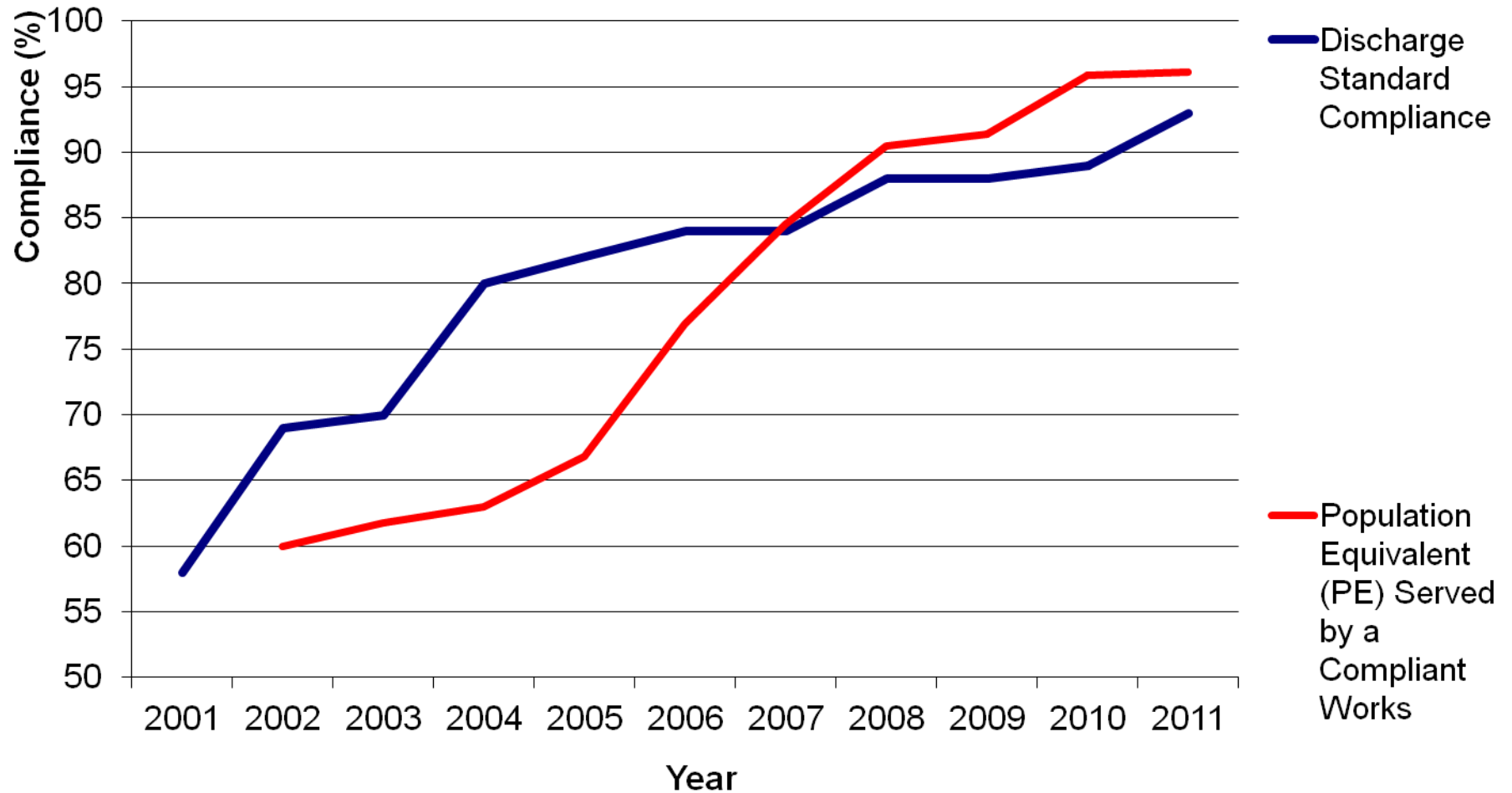
**4) Environmental Solutions**

**5) Conclusions**

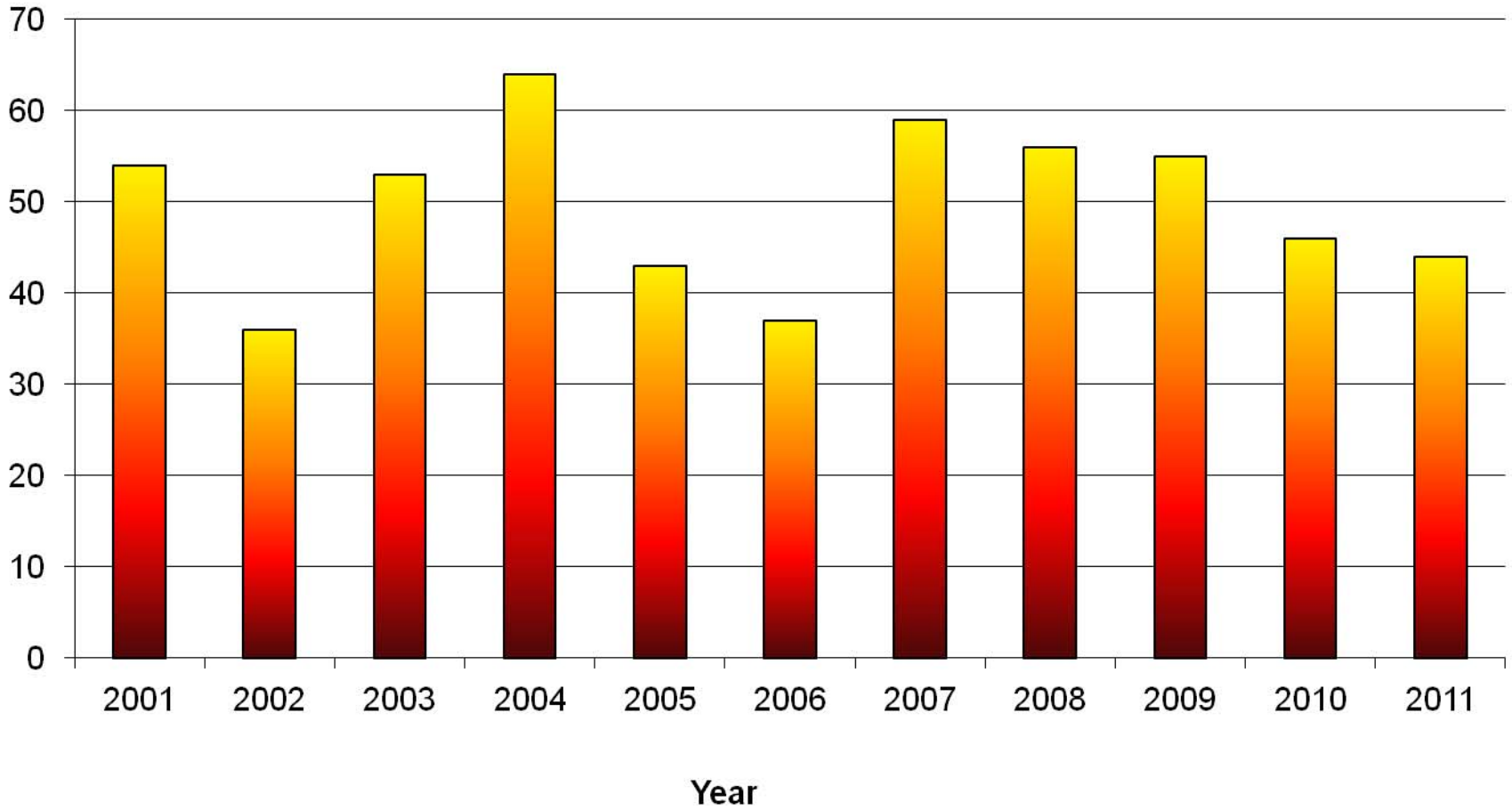
# Drinking Water Quality - Mean Zonal Compliance (MZC)



## 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.

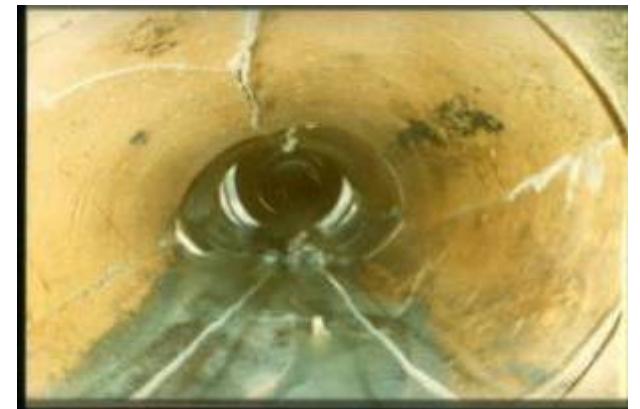
These problems are being dealt with by reactive clearance/ maintenance/ repairs.



# 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

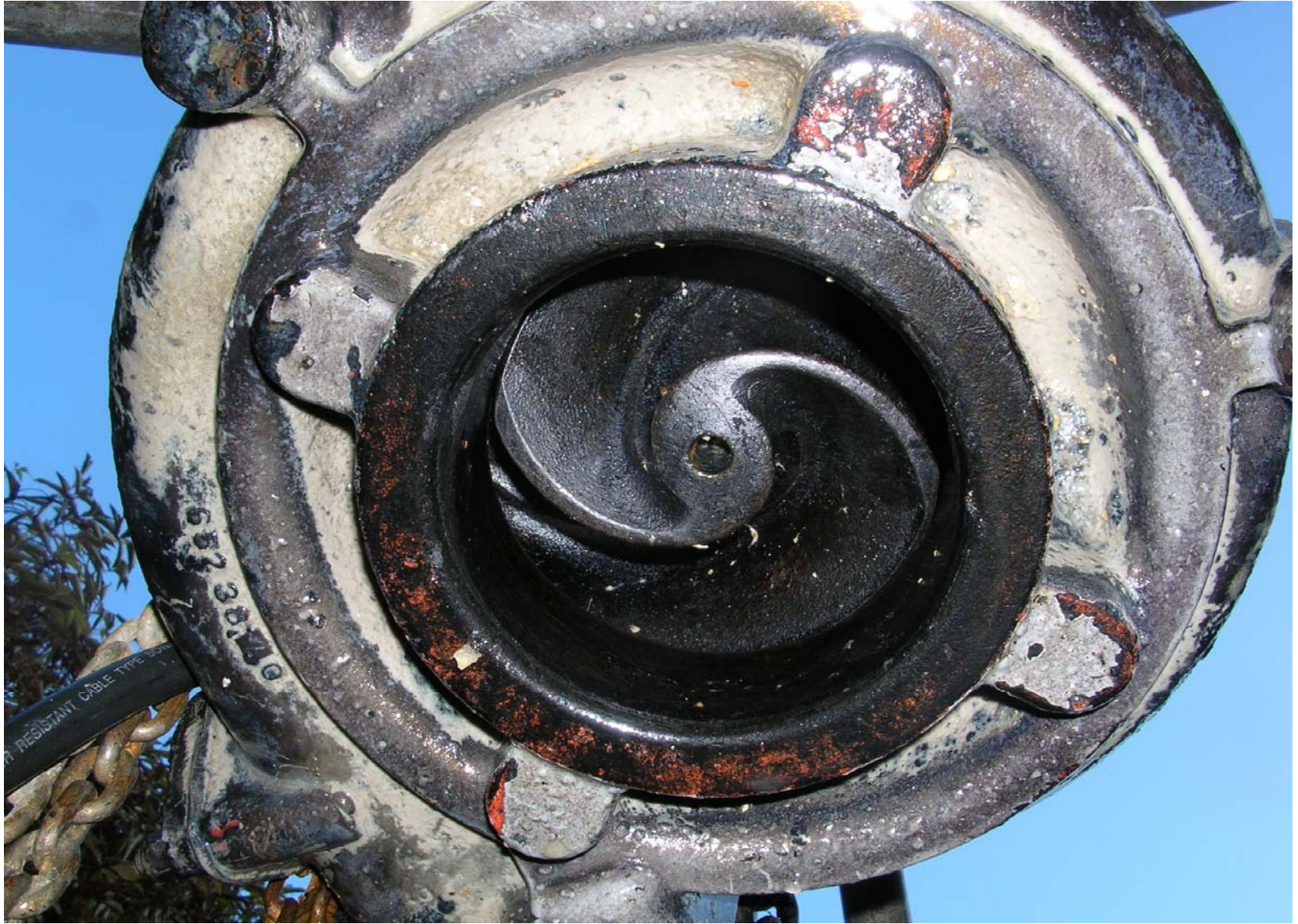


# Severe grease build up



# Rags, grease and debris





## 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

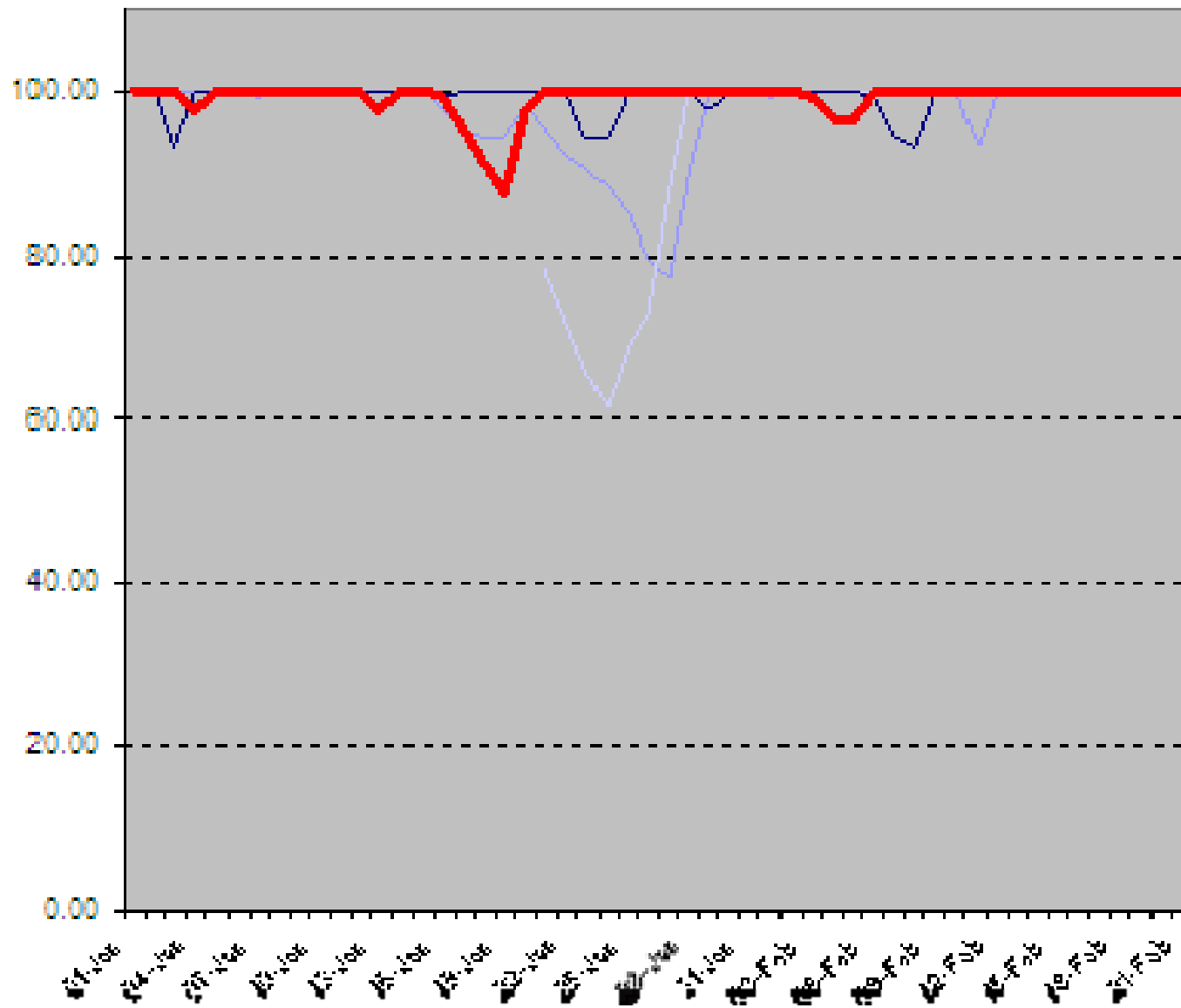
NI Water will continue to deliver investment on a prioritised basis to improve the water environment


# Altnahinch Compensation Water

- The compensation flow is set at 3.21 MI/d which is the minimum flow that will bypass the dam and re-enter the River Bush.
- At times when the dam is overflowing then the excess water plus the 3.21 MI/d will be returned to the river.

% Full

# 2011 Altnahinch Dam Level



A scenic landscape at sunset. The sun is low on the horizon, casting a golden glow over a body of water. In the background, there are dark silhouettes of mountains. On the right side, a large, dark tree is silhouetted against the sky. The foreground shows a dark, rocky shoreline. A blue wavy graphic element is at the bottom of the image.

**Thank you for your  
attention.**

**Any questions?**

Visit [www.niwater.com](http://www.niwater.com)  
for more information