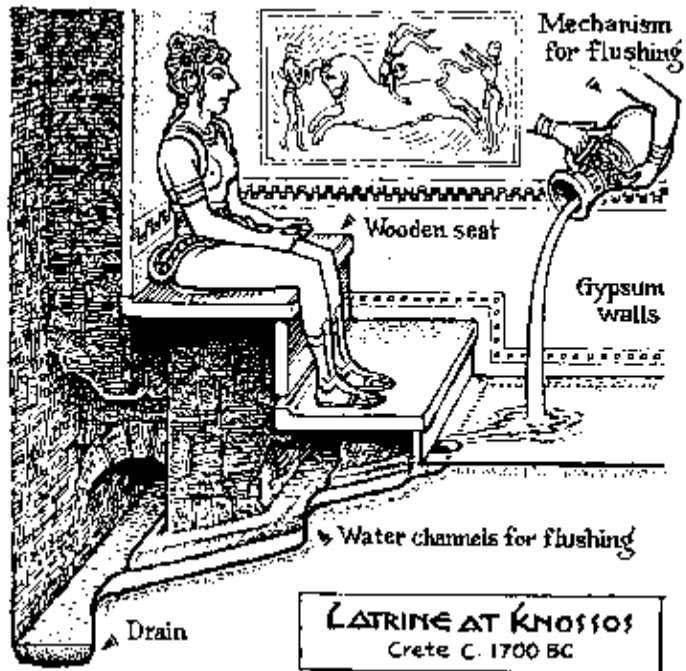


Waste Water Priorities To protect water quality

Noel Byrne
Manager OEE WW Enforcement Team

09 June 2016

History – Europeans were leaders!!

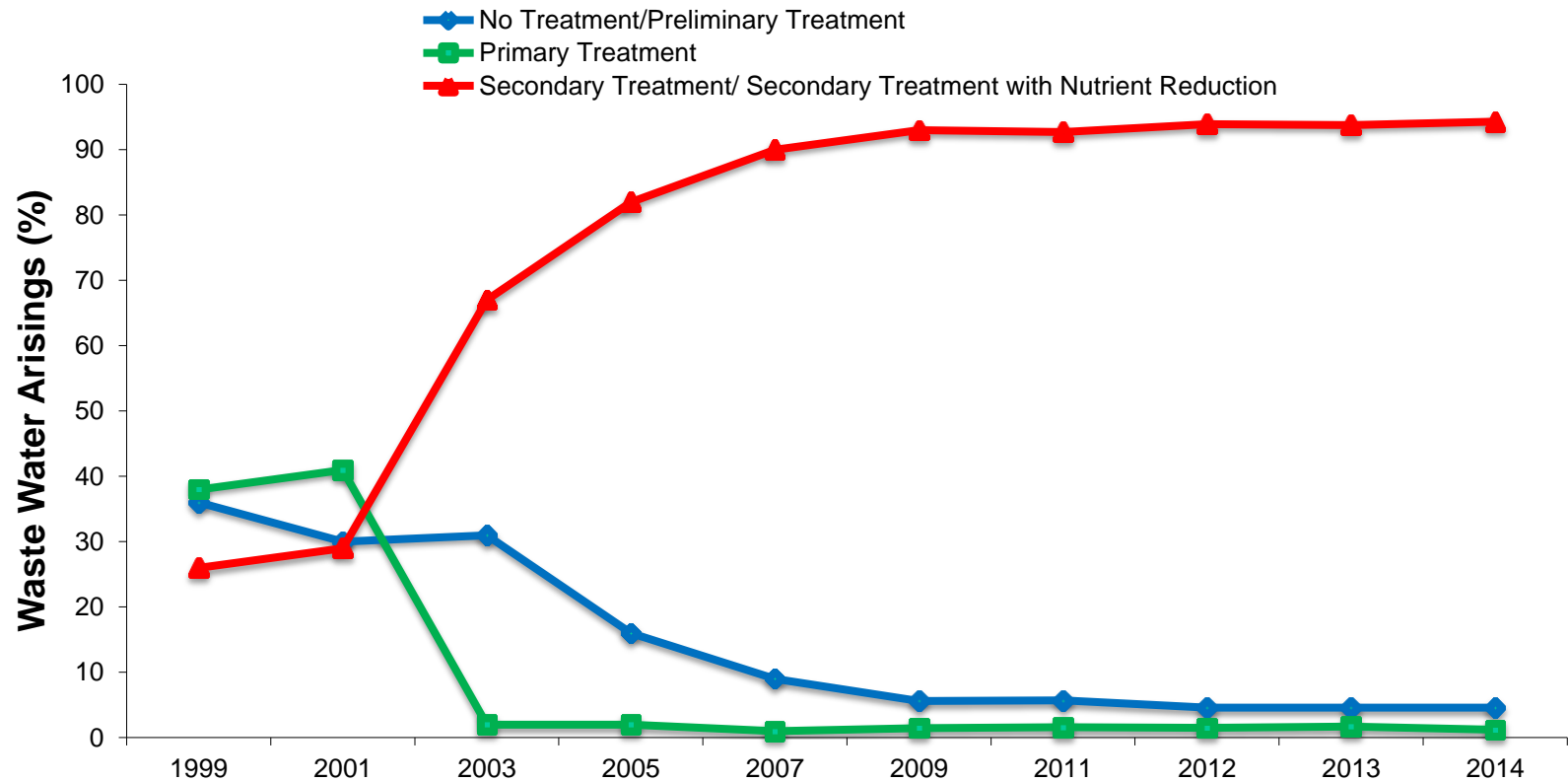


Licensing summary

- Waste water is one of the principal pressures on **water quality**.
- A **licence** is required for discharges from urban areas with a population equivalent (p.e.) of 500 or more.
- A **certificate of authorisation** is required for areas < 500 p.e.
- Over **1,000** licences & certs issued by the EPA (50:50 split).
- >2,500 individual discharge points

WW compliance in Ireland

Urban Waste Water Treatment (Source: EPA)



EU - commission

FINED



2015- France, England

2014 – Portugal, Spain

Identifying problems to be fixed

Risk based enforcement to identify problems and direct resources where they are most needed to fix these problems.

EPA priorities in waste water enforcement

Discharges causing
pollution of rivers

Discharges
contributing to poor
quality **bathing**
waters

Waste water
treatment required
by the Directive is
overdue

Discharges failed
Directive's
mandatory **quality /**
sampling standards

No treatment or
preliminary
treatment only

Improvement
needed to protect
freshwater **pearl**
mussels

Improvement
needed to protect
shellfish waters

Other environmental
pollution risk

Bathing waters

2014 report

- 7 failed locations
 - Clifden
 - Ardmara
 - Lilliput
- 2 additional locations
 - Merrion
 - Lough





Raw sewage

- **Untreated waste water** discharged at **45** urban centres.
- 60% of these areas are in **Cork, Donegal and Galway**.
- Includes tourist areas such as Ballycotton, Kilkee, Ballyvaughan, Kinvara, Spiddal & Bundoran.

Impacts

- Linked with **bathing water failures** at areas such as Youghal, Rush, Ardmore & Duncannon.
- Moville linked with **serious pollution** of the Bredagh river in 2014.
- Need for warning signs to protect human health.

ARDMORE



Waterford
City & County Council
Comhairle Cathrach
& Contae Phléin Lárge

NOTICE DATE 28/8/14



WARNING

ADVICE NOT TO SWIM

Bathers are advised not to swim at this bathing water due to an increase in the levels of bacteria found in bathing water sample taken on 25/8/14.

To reduce the risk of illness, beach users should take the following precautions:

- Avoid swallowing or splashing water
- Wash your hands before handling food
- Avoid swimming with an open cut or wound
- Avoid swimming if you are pregnant or have a weakened immune system.

Higher levels of bacteria are usually short-lived and most bathers are unlikely to experience any illness.

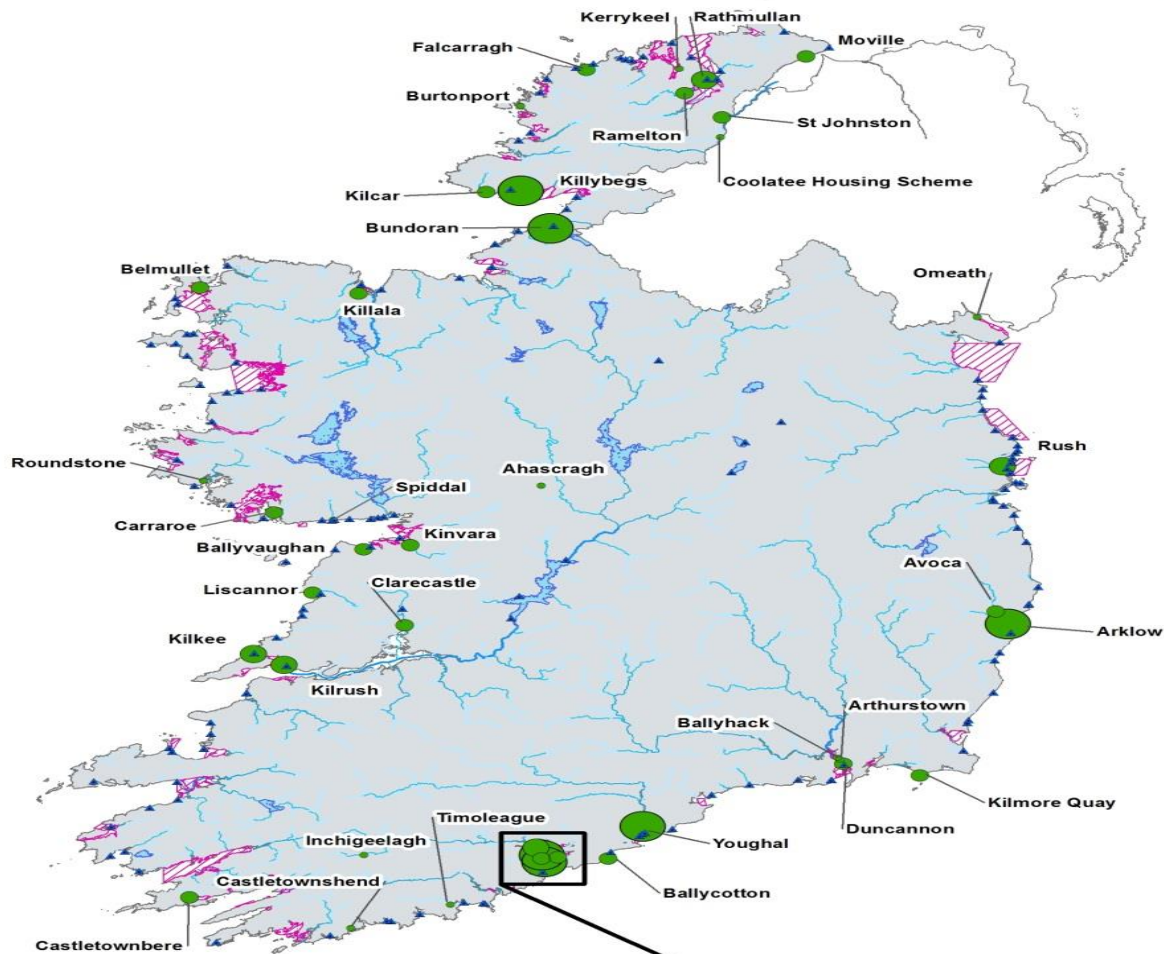
LIKELY CAUSE: **HEAVY RAIN**

EXPECTED DURATION: **2 DAYS**

ACTIONS TAKEN/PROPOSED: **RETEST AND REVIEW WATER QUALITY**

For further information please contact: WATERFORD CITY AND COUNTY COUNCIL Tel: 058 22000
Visit: <http://splash.epa.ie> or WATERFORDCOUNCIL.IE

Urban Areas Lacking Waste Water Treatment



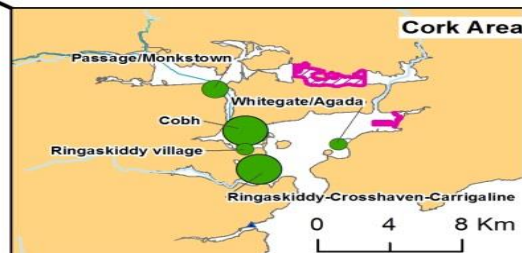
Size of Urban Area (population equivalent)

- < 500
- 500 to 2,000
- 2,000 to 10,000
- > 10,000

- River
- Large Lake
- ▲ Bathing Area
- ▨ Shellfish Area

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0 15 30 60 Km



Local concerns about raw sewage

Rush

- 280 + written complaints handed to EPA.
- On-line petition.
- Featured on Prime time



Concerns about raw sewage

Kilmore Quay

Complaint about health hazard





So everyone can enjoy our waterways safely.



Right now, untreated sewage flows into our rivers and seas at 44 different locations. We're going to make sure all wastewater is treated before it gets discharged.

**Treating Ireland's Wastewater.
It's all part of our 7 Year Plan.**

To learn more about our future plans visit www.water.ie

Safeguarding your water for your future.

UISCE
EIREANN : IRISH
WATER

Water Quality

- **Serious**

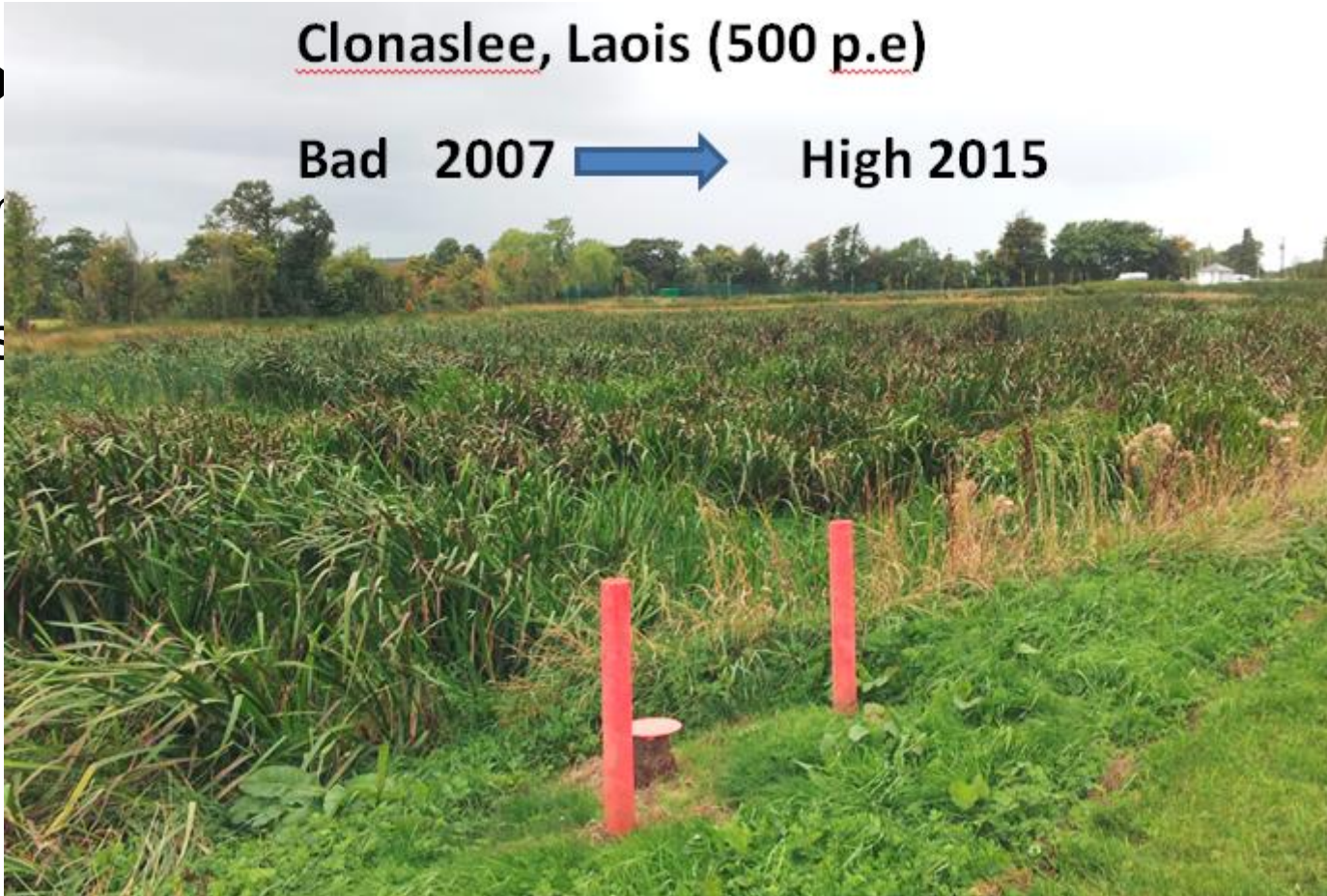
- 9 in

- **Areas**

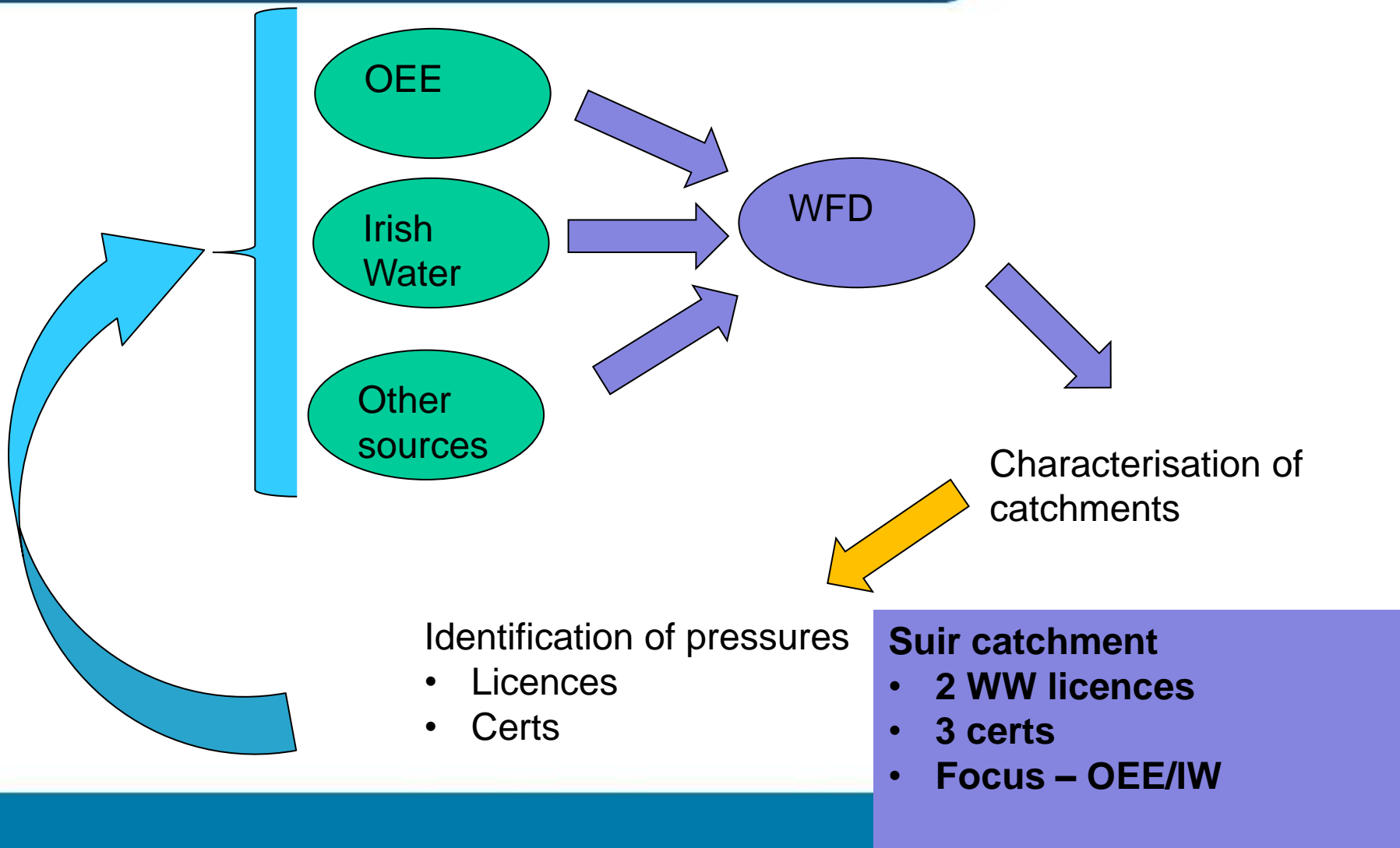
- 56

Clonaslee, Laois (500 p.e)

Bad 2007 → High 2015



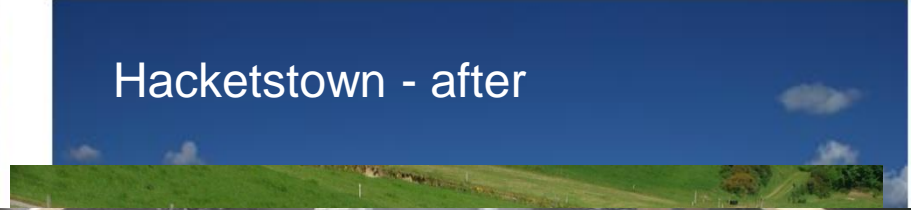
Water Quality – Outputs of WFD



Hacketstown - before



Hacketstown - after



Westport



Shellfish

- IW developing strat
- Engagement of MI,
- UV, balbriggan and

Networks

Significant Information gaps on networks

13 Networks are part of infringement proceedings

Storm water overflows

- Estimated 1500 ~1800 SWO's

2014 Annual environmental reports

- No of SWO's reported 1155
- No of SWO's assessed 333 ~ 30%

EPA requested IW to provide a strategy for networks

- To address key information gaps
- Prioritise networks/SWO's for investment

Targeting of enforcement

Enforcement targeted at sites where action is required to:

- **Comply** with mandatory requirements of the EU Directive.
- **Eliminate** the discharge of raw sewage.
- **Prevent** pollution and restore affected waters to good status.
- **Protect** vulnerable receptors.

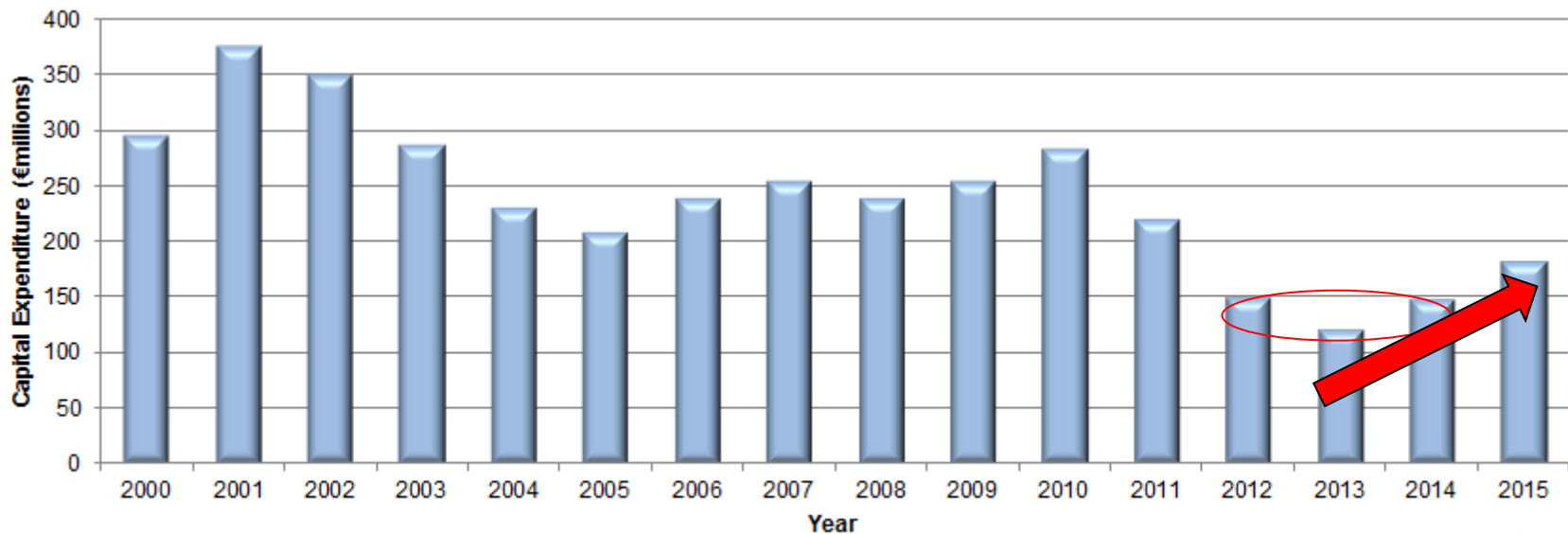
Two pronged approach to fix these problems:

- **Capital investment** in infrastructure.
- **Process optimisation** - improved operation of the assets already in place.

EPA requires corrective action plans from Irish Water to address all these issues.

Fixing the problem: Investment

- Requires significant capital investment.
- Marked decline in capital investment.



Fixing the problem: operational improvements

- Operational improvements
 - Not always investment that is required
 - Plants need to be optimised to minimise the impact of poor quality discharges
- Operational examples:
 - Process control – Flow meters, composite samplers
 - EPA 2015 Audits
 - Desludging practices
 - Inadequate dissolved oxygen control/monitoring
 - Ferric dosing

Summary

- Legacy problem of under investment in WW
- EPA have identified WW priorities
- Need for greater investment in WW infrastructure and sooner
- EPA need to see improved operation at certain plants
- IW need to target investment in line with EPA priorities