

The Lead Strategy One Year On...



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Protection of public health through limiting exposure to lead in drinking water

Lead affects brain development - unborn babies, bottle fed infants & young children are most at risk

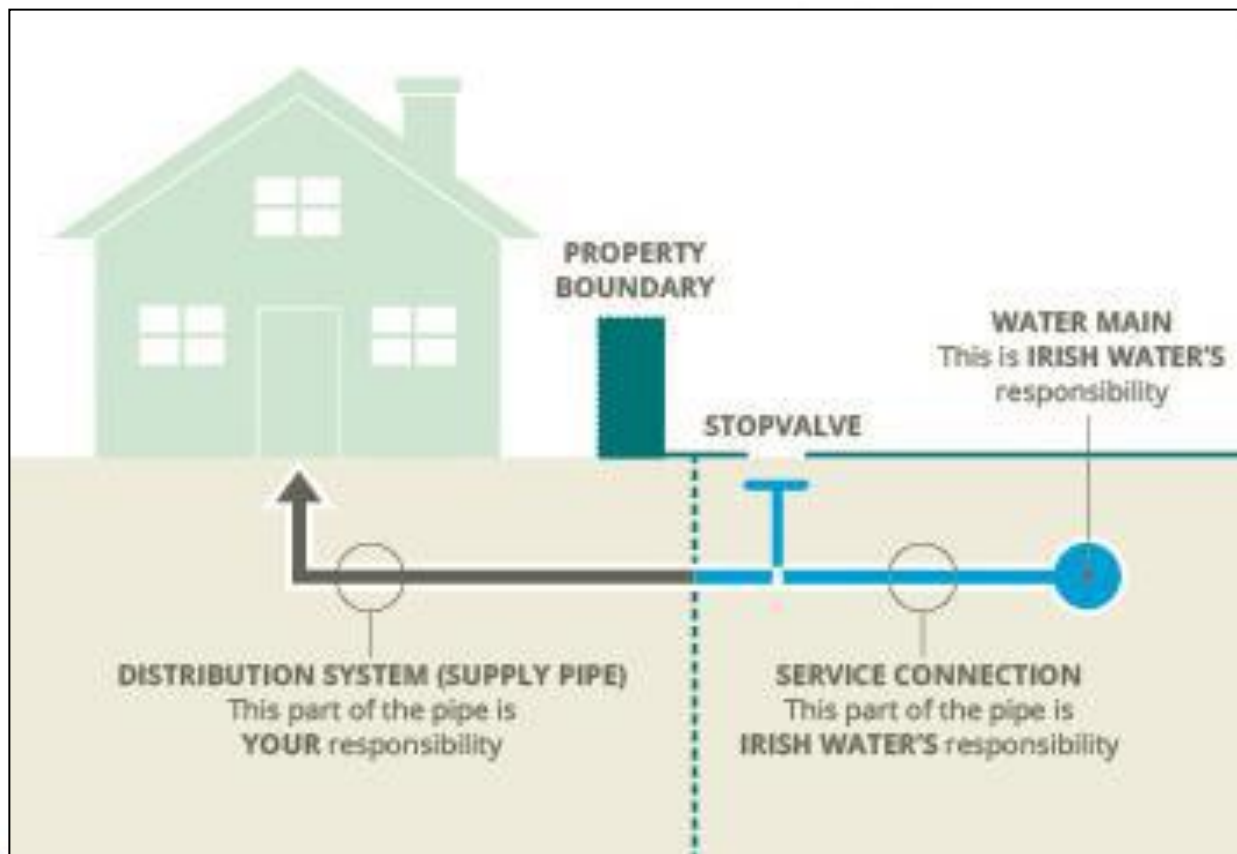
Drinking Water Regulations

- Parametric value (limit) has decreased to 10 µg/l
- No safe level of lead in drinking water (WHO/HSE)
- Responsibilities of water suppliers and premises owners in relation to exceedances
- Responsibilities include the internal plumbing of a building
- Exceedances must be notified to the EPA
- EPA reports on exceedances annually

Strategy development

- 2013: Joint Position Paper (HSE/EPA): key points for actions to reduce lead exposure
- January 2015: EPA Drinking Water Report called for a national strategy on lead in drinking water
- June 2015: National Strategy published by DoECLG and DoH
<http://www.environ.ie/water/water-quality/lead-drinking-water/national-lead-strategy-june-2015>
- June 2015: first phase of Irish Water lead mitigation plan for public consultation
- Strategies provide a framework for assessing and responding to lead exposure across the population

Responsibilities for distribution pipework- public supply



National Strategy Actions 1-7

- Action 1 Raising awareness
- Action 2 Water providers (Irish Water and Group Water Supplies)
- Action 3 Removing lead from housing stock
- Action 4 Education sector
- Action 5 Hospitals and health care facilities
- Action 6 Other public bodies
- Action 7 Research and monitoring

Action 1 Raising awareness

- EPA/HSE information and guidance to suppliers and consumers
- Irish Water advice to consumers
 - Development of template letters and advice leaflets to consumers
 - In conjunction with the EPA and the HSE
- DECLG engagement with stakeholders in health, education, public sectors on plumbing of public buildings, properties they own or operate
- Grant aid for domestic lead replacement- leaflet and supporting materials to be published by DECLG in June 2016
- Action 2: Water suppliers to be dealt with in more detail below

Action 3 Removal of lead from housing stock

- Ultimate removal of exposure to lead in drinking water
- Private side lead: provision of advice to property owners, grant aid, IW Opt In scheme
- DECLG engagement with building regulations on approved materials/fittings (link to Action 1 on advice)
- Social housing with internal lead plumbing
 - Housing authorities recommended to survey properties
 - DCC pilot use of lead lining system in 20 properties during renovations

Actions 4-6 Education, Health and Public Bodies

- High level seminar in November 2015 for stakeholders: e.g. HSE, Depts. Education and Health, OPW, CCMA
- Responsibilities of organisations owning or operating public buildings
- Provided information on risk and compliance- EPA and HSE
- DECLG & WSNTG planning workshops for LA
- Start assessment process- estimate scale of lead plumbing within these properties through lead surveys
- Start process of designating funding for lead replacement e.g. schools, hospitals on a risk basis

Action 7 Research and monitoring

- EPA reporting on an annual basis
- EPA compliance tracking for public supplies on a national basis quarterly since Q1 2016, facilitated by the framework of the national strategy and Irish Water draft mitigation plan
- Irish Water chemical lining system trial
- Dublin City Council use of lining systems
- Proposed orthophosphate treatment in Limerick
- Expanded Irish Water sampling programme to determine lead levels and help define priority areas

Irish Water Lead in Drinking Water Mitigation Plan

- Describes plans within Action 2 of the National Strategy
- Issues Paper published by Irish Water mid June 2015
- Irish Water preparation of environmental assessment reports for Strategic Environmental Assessment and Appropriate Assessment legislation (currently)
- To be followed by 8-12 week statutory consultation period

The scale of lead exceedance (public supplies)

- Irish Water programme of Random Daytime Sampling
- Estimated 140,000 houses at risk of lead non-compliance
- Estimated up to 40,000 additional homes with “backyard shared service” containing lead pipework
- Public buildings to be assessed
- Risk prioritisation of individual water supplies- population at risk of lead exposure
- Output: Irish Water plumbosolvency maps to show high risk supplies- to be used to prioritise mitigation actions

Lead replacement- ultimate goal

- Both private and public side need to be replaced at the same time
- Replacement plumbing fittings to be of suitable quality and standards
- Grant for householders since February 2016
- Irish Water Opt In scheme

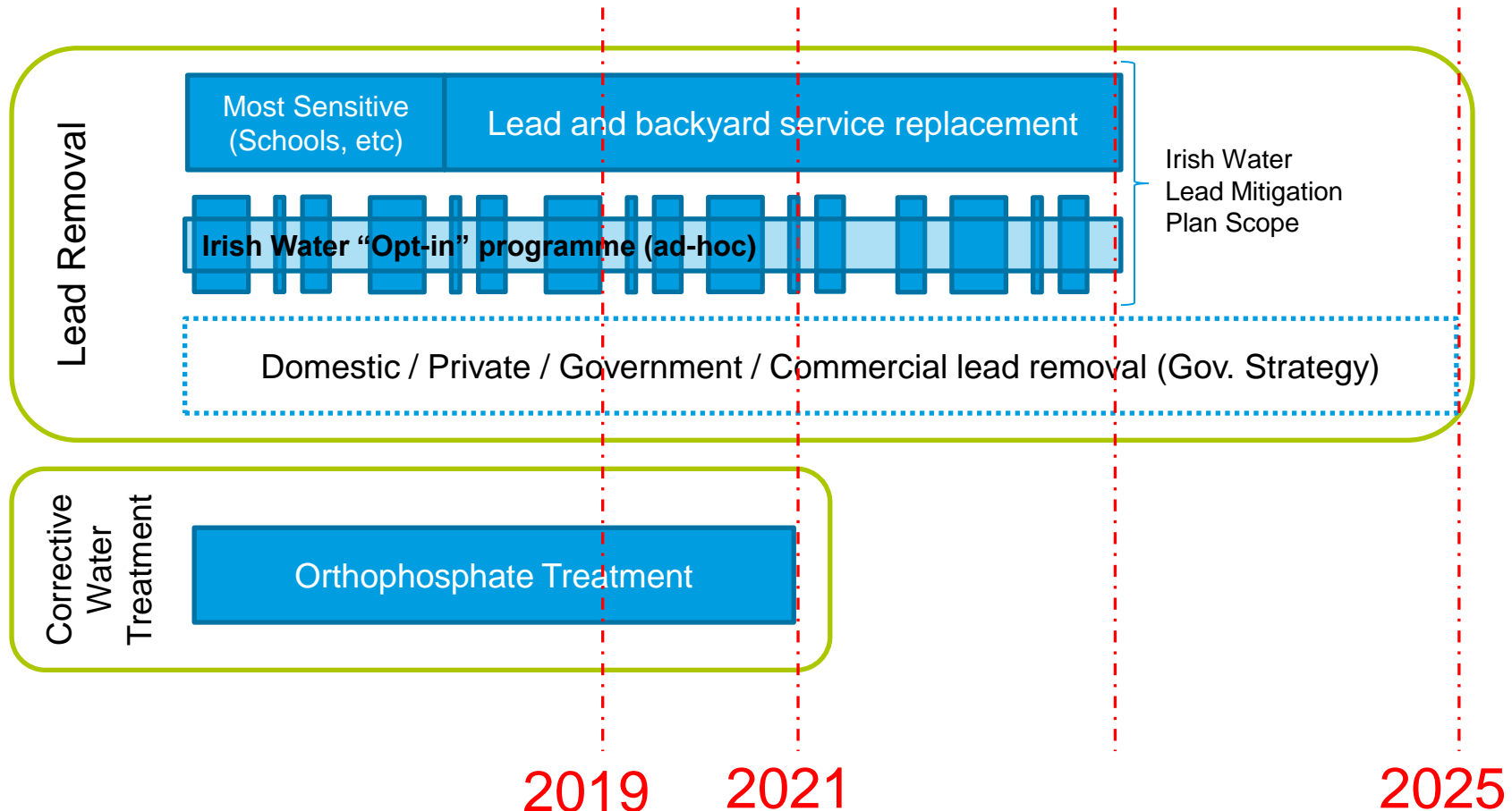
Lead mitigation options

- Interim actions to limit exposure prior to lead replacement
 - Corrective water treatment
 - pH adjustment
 - Lead lining systems
 - Point of use filtration
 - Advice to consumers
- Actions assessed within mitigation plan- e.g. complexity, compliance achieved, cost, delivery time...
 - Corrective water treatment, replacement public and private side lead, replacement public side lead

Corrective water treatment – orthophosphate dosing

- Orthophosphate as food grade additive
- Prevent contact of the drinking water with lead, taking 6-24 months to develop coating, maintenance dose then required
- Irish Water proposal for 400 “high risk” water supplies where technically, economically, environmentally viable
- Addition of phosphorus to aquatic environment (e.g. through leakage, wastewater)
- Site specific risk assessment for each proposed supply
- Range of environmental protection measures may be required
- Model for risk assessment being developed by Irish Water

Approach: Treatment & Removal in parallel



Limerick Orthophosphate pilot

- Will enable development of suitable dose and monitoring protocols for an Irish setting (climate/water chemistry/maintenance dose rates)
- Has been subject to Appropriate Assessment under Habitats Directive
- Baseline sampling underway so the impact on compliance can be measured
- Inform Environmental Assessment Methodology for screening “high risk” supplies

What's next?

- Irish Water Lead Mitigation Plan
 - SEA public consultation
 - Limerick orthophosphate pilot
 - Continue expanded monitoring programme
- National Strategy:
 - Individual houses: promotion of lead replacement
 - Public Buildings: assessment & lead replacement
 - Annual progress report

Thank you

■ Acknowledgements

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