Draft Lead in Drinking Water Mitigation Plan Consultation Report

Safeguarding our water for our future

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GLOSSARY

AA	Appropriate Assessment
ARC	Activity Requiring Consent
BER	Building Energy Rating
CER	Commission for Energy Regulation
CFRAM	Catchment Flood Risk Assessment and Management
DAERA	Department of Agriculture, Environment and Rural Affairs
DAHRRGA	Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
DCCAE	Department of Communications, Climate Action and Environment
DECLG	Department of Environment. Community and Local Government (now Department of Housing, Planning, Community and Local Government)
DHPCLG	Department of Housing, Planning, Community and Local Government
DWD	Drinking Water Directive
DWSP	Drinking Water Safety Plan
EAM	Environmental Assessment Methodology
EPA	Environmental Protection Agency
GLAS	Green Low-Carbon Agri-Environment Scheme
HRB	Health Research Board
HSE	Health Service Executive
IEBFH	Irish Expert Body on Fluorides and Health
IFI	Inland Fisheries Ireland
IROPI	Imperative Reasons of Overriding Public Interest
IWA	International Water Association
LA	Local Authority
LDWMP	Lead in Drinking Water Mitigation Plan
NPWS	National Parks and Wildlife Services
NIS	Natura Impact Statement
POU	Point of Use
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority Ireland
USEPA	United States Environmental Protection Agency
WFD	Water Framework Directive
WHO	World Health Organisation
WSSP	Water Services Strategic Plan
WSZ	Water Supply Zone
WWTP	Wastewater Treatment Plant

SUMMARY

Irish Water is preparing a long term Lead in Drinking Water Mitigation Plan (referred to as the Plan). The Plan is in response to recommendations made in the National Strategy[1] to Reduce Exposure to Lead in Drinking Water, which was published by the then Department of Environment, Community and Local Government (DECLG) and the Department of Health in June 2015. In May 2016 the DECLG was renamed the Department of Housing, Planning, Community and Local Government (DHPCLG). For the purposes of this report the new name has been adopted. The draft Plan was developed in order to identify measures to mitigate risks to human health posed by the presence of lead in drinking water as a result of antiquated lead pipework.

Current available data indicates that lead pipework exists in up to 180,000 residential properties in Ireland as well as in commercial and public buildings. The establishment of Irish Water has provided the opportunity to deal with this risk to drinking water through national and regional strategic planning, enhanced asset management capabilities and increased investment.

The draft Plan was prepared in consultation with the Environmental Protection Agency (EPA), Health Service Executive (HSE) and other stakeholders. The draft Plan was prepared to comply with Irish Water's statutory obligations and it formed the basis for broad public and stakeholder engagement. Irish Water published the draft Plan, the SEA Environmental Report and the Natura Impact Statement in July 2016. These reports were then the focus of an 8 week statutory public consultation from 27th July to 21st September 2016.

The draft Plan was subject to Strategic Environmental Assessment[2] (SEA) and Appropriate Assessment (AA)[3]. Strategic Environmental Assessment is the process of identifying and evaluating the significant environmental effects that are likely to result from the implementation of a plan or programme at a national, regional or local level. The SEA process also gives interested parties the opportunity to comment on the environmental impacts of a proposed plan or programme and to also be kept informed during the decision making process.

Through this consultation, Irish Water sought feedback from the public, statutory consultees and all interested individuals and organisations on the draft Plan, the SEA Environmental Report and the Natura Impact Statement.

The public consultation on the draft Plan was preceded by consultation 1 on the 'Lead in Drinking Water Mitigation Plan Issues Paper' in June 2015. The feedback from this consultation was considered by the project team and incorporated into the draft Plan.

The first Section of this report sets out the activities undertaken to ensure widespread awareness of the consultation while the second Section of the report sets out the feedback raised by stakeholders throughout the consultation process. The feedback provided by stakeholders is described in a

[1] National Strategy to Reduce Exposure to Lead in Drinking Water. Department of Environment, Community and Local Government and the Department of Health, June 2015.

[2] Lead in Drinking Water Mitigation Plan SEA Environmental Report. Irish Water,July 2016. https://www.water.ie/about-us/project-and-plans/projects/lead-mitigation-plan/public-consultation/Lead-in-Drinking-Water-Mitigation-Plan-SEA-Environmental-Report.pdf

[3] Lead in Drinking Water Mitigation Plan Natura Impact Statement. Irish Water, July 2016. https://www.water.ie/about-us/project-and-plans/projects/lead-mitigation-plan/public-consultation/Lead-in-Drinking-Water-Mitigation-Plan-Natura-Impact-Statement.pdf

thematic fashion in section two of this report. All technical details and recommendations have been taken as read and full cognisance given to in informing the final Plan. The final section outlines the next steps in the Plan.

1 BACKGROUND

1.1 INTRODUCTION

In December 2013 the legal limit for lead in drinking water was reduced from 25µg/l to 10µg/l by the European Union following World Health Organisation (WHO) advice. Since its incorporation in 2014, Irish Water now has the responsibility to provide water and wastewater services in Ireland. This includes managing approximately 856 water treatment plants and approximately 1,000 wastewater treatment plants.

The issue of the 2013 lead limit has been signalled by the Environmental Protection Agency (EPA) in Ireland since 1998. The issue had not been successfully dealt with as a result of a disjointed approach through differing water authorities. A number of EPA Drinking Water reports had identified the need for Water Services Authorities to plan and implement measures to meet the limit.

In the Water Services Strategic Plan (WSSP) (2015)[4], Irish Water undertook to prepare and implement a Lead in Drinking Water Mitigation Plan (the Plan). The objective of the Plan is to address the risk of failure to comply with drinking water quality standard for lead in respect of the infrastructure for which Irish Water is responsible. There are a number of actions that Irish Water can take within its remit but the emerging data reinforced the view of a 2013 Health Service Executive (HSE) and EPA joint positional paper that tackling the issue requires collective action involving a number of stakeholders.

In June 2015, the then Department of Environment, Community and Local Government (DECLG) (now DHPCLG) and the Department of Health drafted the 'National Strategy to Reduce Exposure to Lead in Drinking Water'. Irish Water produced a document in June 2015 entitled the 'Lead in Drinking Water Mitigation Plan – Issues Paper' and a public consultation was held between 3rd June and 15th July 2015. All feedback received during this consultation period has been considered in the drafting of the Plan.

The draft Plan was prepared in consultation with the EPA, HSE and other stakeholders and sets out the short, medium and long term actions that Irish Water intends to undertake, subject to the approval of the Commission for Energy Regulation. The draft plan provides a detailed framework of measures for implementation to effectively address lead in drinking water.

This is in keeping with the objectives of Irish Water's WSSP, which is Irish Water's 25-year strategy for the delivery of water services available at www.water.ie.

The draft Plan was based on advice in the EPA Handbook (2010)[5], EPA advice notes 1[6] and 2[7], and the International Water Association (IWA) Best Practice Guide on the Control of Lead in Drinking Water (2010).

[4] Water Services Strategic Plan. Irish Water, 2015.

[5] A handbook on the Implementation of the Regulations for Water Service Authorities for Public Water Supplies. Environmental Protection Agency, 2010.

1.1.1 Development of the draft Plan and SEA Scoping

The SEA Directive requires that certain Plans and Programmes, prepared by statutory bodies that are likely to have a significant impact on the environment, be subject to the SEA process.

Screening of the proposed Plan was undertaken by Irish Water in 2015 and a decision was taken to undertake an SEA.

As part of the process, an SEA Scoping Report was published in November 2015. The SEA Scoping Report established the range of environmental issues and level of detail of information to be included in the environmental reports. The report was the result of a period of formal scoping with the defined statutory consultees for SEA in Ireland and consultation was also undertaken with the authorities in Northern Ireland in August 2015.

SEA workshops were conducted with the statutory consultees on 28th October 2015 and 15th May 2016 to present details of the Plan and associated environmental assessment methodology.

1.1.2 Lead in Drinking Water Mitigation Plan Issues Paper Consultation

Irish Water produced a public document in June 2015 entitled the 'Lead in Drinking Water Mitigation Plan – Issues Paper' and a public consultation, referred to as consultation 1, was held between 3rd June and 15th July 2015. All relevant feedback received during this consultation period was considered in the drafting of the Plan.

1.1.3 Draft Plan Consultation

Irish Water published the draft Plan, the SEA Environmental Report and the Natura Impact Statement and commenced an eight week statutory public consultation, referred to as consultation 2, on 27th July 2016 to 21st September 2016.Throughout the draft Plan consultation, Irish Water sought feedback from the public, statutory consultees and all interested individuals and organisations on these documents. All of the communications activities undertaken as part of this statutory public consultation are summarised below in Section 1.2 while feedback received is summarised in Section 2.

1.1.4 Next steps

All feedback has been reviewed and, where relevant, incorporated into the final Plan.

The final Plan will be available in quarter 2 of 2017 and will be available online at www.water.ie/lead. Figure 1 below sets out the development process carried out in respect of the Plan.

[6] Advice Note No. 1: Lead Compliance Monitoring and Surveys. Environmental Protection Agency, 2009.

[7] Advice Note No. 2: Action programmes to restore the quality of drinking water impacted by lead pipes and lead plumbing. Environmental Protection Agency, 2009.

Figure 1: Project Road Map

Lead in Drinking Water Mitigation Plan Roadmap

DECLG - Department of the Environment, Community and Local Government
EPA - Environmental Protection Agency
LDWMP - Lead in Drinking Water Mitigation Plan
LPP - Limerick Priority Project
NIS - Natura Impact Statement
SEA - Strategic Environmental Assessment

1.2 CONSULTATION PROCESS FOR THE DRAFT PLAN

A range of communications tools were employed for consultation 2 in order to raise levels of awareness of the project and to facilitate participation in the process.

Key components of the consultation process included:

- Advertising in national press;
- Engagement with media;
- A dedicated project web section hosted on the Irish Water website;
- Social media;
- Project educational explainer video
- Project Infographics;
- Project information leaflet;
- Verbal and written briefings to:
  - Local Authorities;
  - National elected representatives;
  - National and regional media;
  - Interested bodies.

This section of the report provides further detail on each of the above consultation components.

1.2.1 Consultation Promotion

1.2.1.1 Advertising

A public consultation advertisement was placed in national newspapers the Irish Examiner, Irish Independent and Irish Times on 27th July 2016, a copy of which is included in Appendix A.

The national advertisement outlined where the relevant documents could be viewed in person or in digital form, the date range in which feedback could be received, the contact details for the dedicated project phone line, the project email address, the address to post feedback to and the invitation to any members of the public to provide feedback.

1.2.1.2 Engagement with Media

Media engagement activities included issuing news releases to national, regional and local media organisations to generate press, radio and online media coverage. Limerick and southern regional media were issued with the Limerick Priority Project Information Note in addition to all information pertaining to the draft Plan. Detailed in the press release were the consultation commencement and closing dates, where further information was available (online) and the purpose of the consultation. The news section of the Irish Water website was also utilised to promote and encourage participation in the public consultation at the onset of the consultation (27th July 2016) and at the midpoint of the consultation (23rd August 2016). Media briefings were offered to environmental and

specialist media correspondents. Publications to which these briefings were offered, the national and regional press releases and media outlets which were issued with these press releases are included in Appendix B. The Limerick Priority Project Information Note can be viewed in Appendix C.

Media activity was focused on the date of publication of the draft Plan and launch of consultation 2. This provided a platform to raise awareness amongst the public on the impact of lead pipes on drinking water, the responsibility on householders regarding private side plumbing and the opportunity to submit feedback to the formulation of the Plan.

Irish Water technical and scientific experts were made available as spokespeople for print, television and radio interviews. A high level of national and regional coverage across all media was generated for the consultation through pro-active engagement especially at the time of the consultation launch. In total the consultation resulted in:

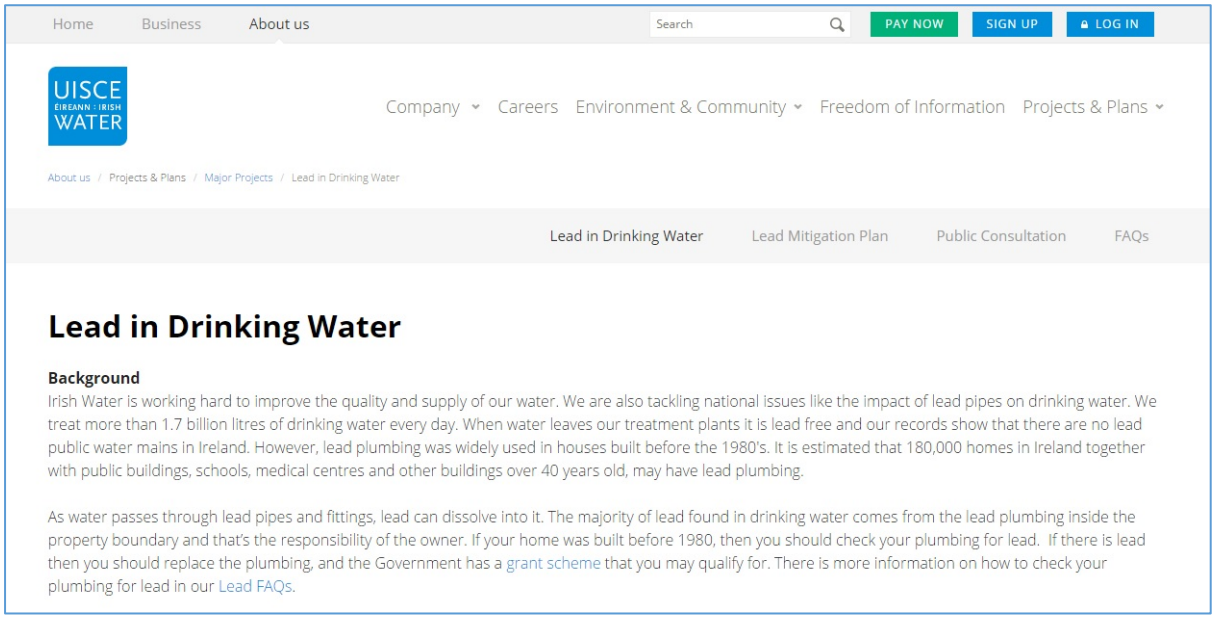
- 38 press articles;
- 55 internet articles;
- 73 broadcast media mentions.

Local and national press coverage can be viewed in Appendix D.

1.2.2 Project Web Section

Relevant information including PDF versions of the draft Plan, SEA Environmental Report, Natura Impact Statement and a list of frequently asked questions regarding lead in drinking water were made available online on the 27th July 2016 when formal consultation commenced. Post close of consultation the information on the webpage is reflective of the current phase of the draft Plan. A screengrab of the home page of the dedicated project web section is included as figure 2. The project information remains in place on the web section hosted on www.water.ie/lead.

Figure 2: Dedicated project web section home page



An educational explainer video summarising the lead issue and the draft Plan was produced and hosted on the dedicated webpage and promoted via social media. An infographic summarising same was developed for the web page and Irish Water social media outlets. An infographic summarising the Limerick Priority Project was also produced. The infographics for the draft Plan and Limerick Priority Project can be viewed in Appendix E.

The project webpage invited stakeholders to submit submissions or observations by email, post or the dedicated project phone line before September 21st 2016. The project phone line was also offered as a resource for further information. Page views for all elements of the webpage are listed in figure 3.

Figure 3: Webpage views 27th July 2016 to 21st September inclusive

Page	Page Views	Unique Page Views	Avg Time on page
Lead in Drinking Water	1427	876	2:27
Lead FAQ	1030	922	7:42
Lead Mitigation Consultation	489	292	2:23
Lead Mitigation Plan	336	206	1:45
Lead Mitigation FAQ	268	186	4:19

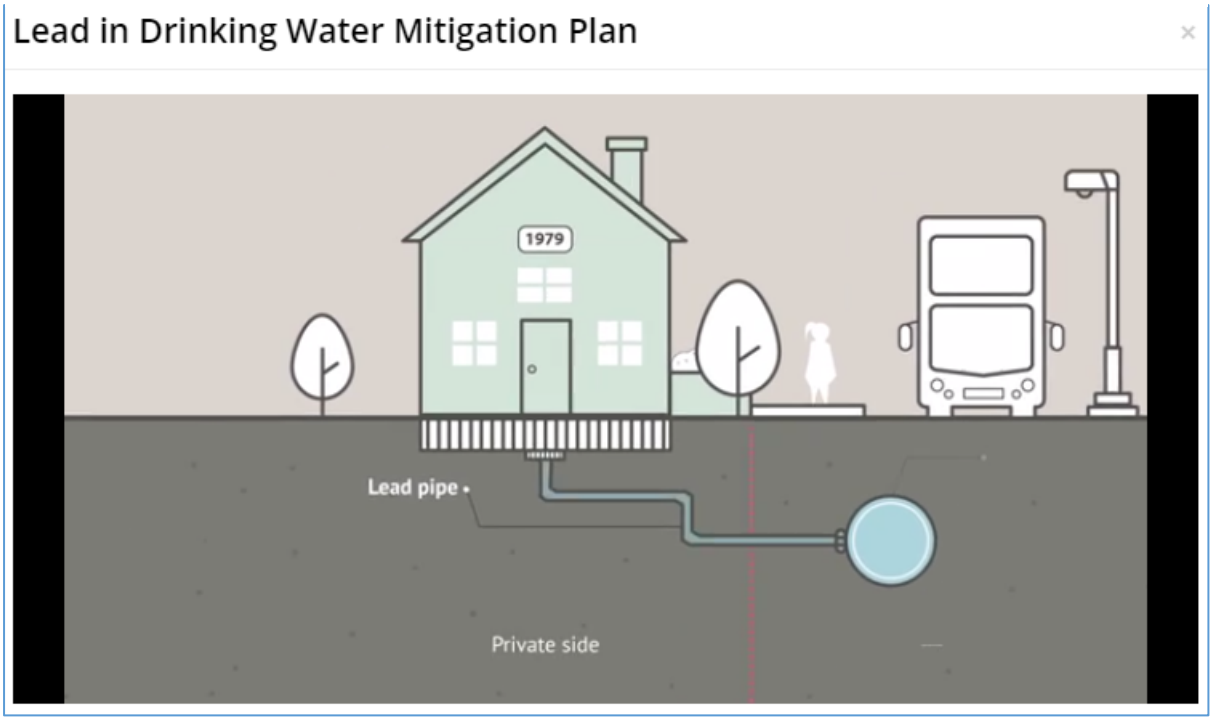
The project roadmap (see Figure 1.1) and public information leaflet (Appendix G) were also displayed on the webpage.

1.2.2.1 Project Video

A two minute educational explainer video summarising the issue of lead pipework and draft Plan was produced and hosted on the dedicated webpage. The video outlined the historical issue with lead piping on the public and private side, the mitigation options and the channels by which feedback could be submitted to the consultation process. A still from the video is included as figure 4.

The project video commanded 226 views through YouTube and click-throughs from the web section on water.ie.

Figure 4: Still from Lead in Drinking Water Mitigation Plan educational explainer video



1.2.2.2 Project Infographic

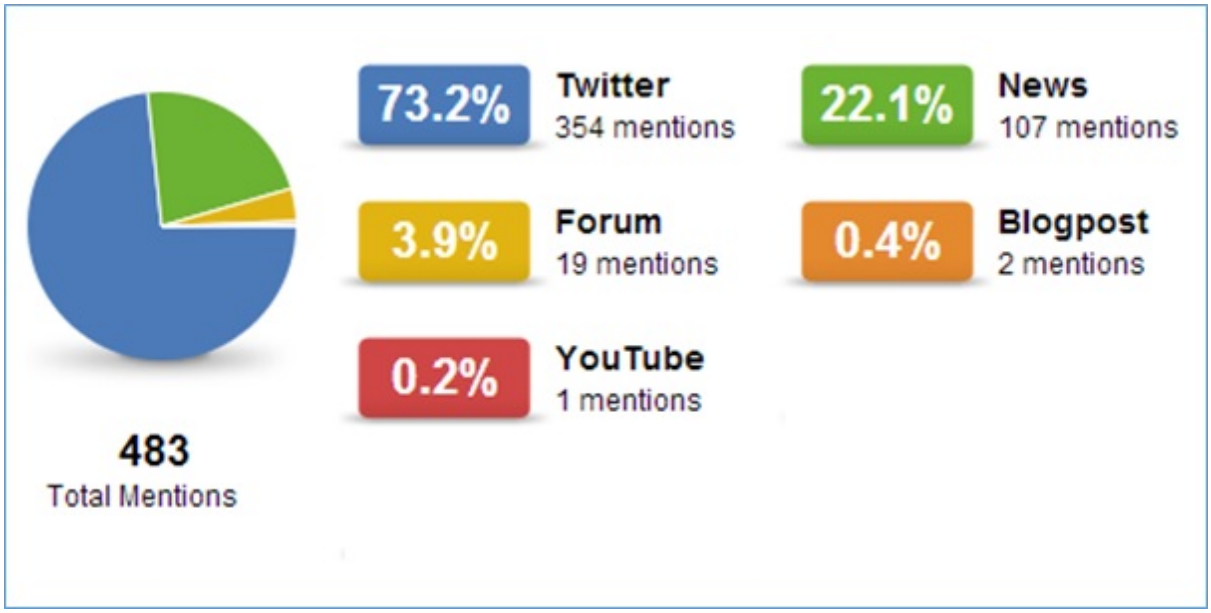
An infographic summarising the issue of lead pipework and the draft Plan was produced in the same style as the project video and hosted on the dedicated webpage. The infographic concisely outlined the Lead in Drinking Water issue, draft Plan, interim proposal for protection of human health and all channels by which feedback cold be submitted to the consultation process. The project infographic can be viewed in Appendix E.

An infographic summarising the Limerick Priority Project was produced in the same style as the explainer video and overall project infographic. The Limerick Priority Project infographic was used to brief Limerick City and County Councillors and Clare County Councillors. The Limerick Priority Project infographic can be viewed in Appendix E.

1.2.3 Social Media

The Irish Water twitter account (@IrishWater) tweeted the Irish Water news story referring to the launch of the draft Plan consultation on July 27th with further tweets outlining the directions to the webpage and the infographic image. On 4th August 2016 the account tweeted the project video. Mentions of the draft Plan across all social media platforms are summarised in figure 5.

Figure 5: Social media mentions 27th July 2016 to 21st September 2016



The Irish Water Linkedin page posted a link to the project web page on the 27th of July and posted the project video on the 3rd of August.

The Irish Water dedicated boards.ie forum 'talk to us service' posted a 'sticky' thread on July 27th for the draft Plan outlining all pertinent information and directions on how to provide feedback for the consultation.

1.2.4 Specific Stakeholder Engagement

In recognition of the mandate given to national elected representatives and the critical role they play in representing the public and the public interest, Ministers, TDs, Senators and Councillors were identified as priority stakeholders. Notice of publication of the draft Plan and associated SEA Environmental Report and Natura Impact Statement was issued by Irish Water to all the elected representatives in Ireland, including information on consultation 2. The email to these elected representatives can be viewed in Appendix F.

All Limerick and Clare based Ministers, TDs, Senators and Councillors were provided with the Limerick Priority Project Information Note in addition. The email sent to Limerick and Clare based Ministers, TDs and Senators can be viewed in Appendix F. The list of Limerick and Clare based Ministers, TDs and Senators who were provided with this information can be viewed in Appendix F.

Irish Water operates a Local Representative Support Desk (LRSD) with a dedicated phone line and email address. An Elected Representatives Support Desk with a dedicated phone line and email address is in place for members of the Oireachtas. Clinics are available for members of the Oireachtas and one on one engagement opportunities are offered to all elected representatives which are delivered by the Irish Water Regional Information Specialists. All of the above services were made available for the 8 week statutory consultation period on the draft Lead in Drinking Water Mitigation Plan. Briefings to elected representatives were offered through these channels. Irish Water representatives delivered a briefing to Limerick City and County Councillors and Clare County Councillors on 5th September 2016 outlining the draft Plan and the Limerick Priority Project.

An email was sent to all Local Authorities on July 27th 2016 including the same content as that sent to the aforementioned public representatives. In addition, Limerick and Clare Local Authorities were provided with the Limerick Priority Project Information Note.

Members of the National Stakeholder Group and some additional stakeholder groups were emailed on 27th July 2016 with the same information as provided to the public representatives listed above. The National Stakeholder Group members can be viewed in appendix F.

All stakeholders who provided feedback to consultation 1 were emailed on 27th July 2016 with the same information as above.

1.2.5 Statutory Bodies

As part of consultation 2 Irish Water provided notice of publication of the draft Plan and associated SEA Environmental Report and NIS to the following five statutory authorities, and the NIEA, on 27th July 2016:-

- Environmental Protection Agency (EPA);
- Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA)Department of Arts, Heritage and the Gaeltacht (DAHG);
- Department of Communications, Climate Action and Environment (DCCAE)Department of Communications, Energy and Natural Resources (DCENR);
- Department of Housing, Planning, Community and Local Government (DHPCLG); and
- Department of Agriculture, Food and the Marine (DAFM).

Feedback from consultation 2 from the statutory authorities is included in Section 2 of this report.

1.2.6 Public Information

Hard copies of the draft Plan, the SEA Environmental Report and NIS were distributed to 31 local authorities with each County Planning Department contacted and requested to display same. Five copies of the public information leaflet (Appendix G) were included with the copies of the reports distributed to the main planning counters.

The availability of these documents at each Local Authority's main planning counter was promoted through the project web page, information leaflet and advertisements in national newspapers.

County libraries were also contacted in each Local Authority and 20 copies of the public information leaflets were provided to the 32 facilities to be displayed to the public.

A list of the Local Authorities and libraries that collateral was sent to is included in Appendix H.

2 FEEDBACK FROM CONSULTATION

There were 18 submissions received during the period of public consultation. Six submissions were received from organisations and 12 from individual stakeholders. All organisations who submitted feedback are listed in figure 6. Individual stakeholders are not to be identified as per conditions of the public consultation.

Figure 6: Organisations from which feedback was received for public consultation on draft Plan

Organisation
Galway City Council
Environmental Protection Agency
The Irish Expert Body on Fluorides and Health
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
Department of Agriculture, Environment and Rural Affairs Northern Ireland
Limerick City & County Councillors and Clare County Councillors
Inland Fisheries Ireland

The following section compiles issues raised and feedback provided. The below feedback is taken from stakeholders' submissions with repeated themes summarised and singular items of feedback taken directly from the stakeholders' submissions. Feedback provided by individuals is unattributed and feedback given by organisations has been ascribed.

This feedback has been reviewed by the project team and where relevant, will be taken into account in the development of the final Plan and the associated SEA Statement. Actions or answers to enquiries are not provided for the purpose of this report as relevant feedback is addressed in the final Plan and SEA statement.

2.1 LEAD IN DRINKING WATER

It was suggested that the estimate of 180,000 residential properties with existing lead pipework was low given the average levels of construction since 1970.

One stakeholder questioned why in 2014 Irish Water identified lead in drinking water as a major issue if the EPA had identified it in 2004 and local authorities had not identified it as an issue.

Seven stakeholders expressed concerns about the presence of levels of lead in drinking water supplies. One stakeholder stated that lead contamination is caused by lead paint and other pollutants. Another stakeholder enquired if fluoridation has any impact on increasing lead solvency or increased presence of lead ions in drinking water.

One stakeholder expressed concern at the lack of communication and requested that all members of their community be advised on how to apply for the government grant scheme to replace lead pipes and fittings. This stakeholder group also stated their intention to seek legal aid to ensure lead issues in their community are dealt with in an appropriate manner.

There was a suggestion that the draft Plan does not prove that it is the best use of funds for either infrastructural remediation or health reasons. It was the view of the same stakeholder that the plan contains no substantive technical data to back up the proposed remediation measures.

Galway City Council stated that there are circa 12 houses in their jurisdiction which are still served by lead mains but that these are at site investigation stage under the Watermain Rehabilitation Scheme in Galway.

Concern was raised at the proposed significant investment in the draft Plan but the perceived low success rate referencing the French Lead Mitigation Plan.

One stakeholder stated that the 10 μg/l limit of lead imposed under the EU Drinking Water Directive is not backed up by any research findings. This stakeholder also stated that the goal of 'no concentration of lead in drinking water' is unrealistic but agreed with taking measures to reduce exposure to lead.

A stakeholder indicated that the provision of graphs or a series of graphs indicating the impact of various parameters regarding plumbosolvency would have been useful.

The use of UK research and modelling was a cause of concern for one stakeholder who claimed that due to climate and geological differences, Ireland and the UK are not comparable.

Home water testing kits were requested by one stakeholder.

2.2 LEGISLATION AND REGULATION

One submission expressed concern over an apparent contradiction between the capabilities of the SEA and AA and the Drinking Water Directive (DWD). If the SEA or AA deems orthophosphate treatment incompatible with a Water Supply Zone (WSZ), it was argued that this is in conflict with Article 9 of the DWD which states that 'where a drinking water supply constitutes a potential danger to public health its use must be prohibited or restricted'. The stakeholder enquired if a homeowner does not replace their lead pipes are they in direct breach of the DWD with a possibility of fines being imposed on the Government or Irish Water. There was concern at the possible imposition of fines where Irish Water is not legally in a position to replace the asset causing the issue and that Irish Water cannot reach the compliance target when the responsibility for much of the lead pipework lies outside its remit.

Two stakeholders pointed out the issues surrounding brass fittings as a source of lead in drinking water. It was stated that if this is an issue with approved building materials then the responsibility for regulation lies with the Government and National Standards Authority. One stakeholder stated that the research done by Irish Water into these fittings represents an opportunity for Irish Water to encourage manufacturers to make lead free fittings.

It was proposed that enforcement measures be put in place to encourage replacement of lead pipework with some stakeholders emphasising this measure to allow future property buyers the opportunity to ensure their house has had its pipework replaced. The implementation of a scheme similar to the Building Energy Rating (BER) certificate was suggested as it would ensure that house buyers would not inherit historical lead pipework and help achieve Irish Water's long term objective of identifying and replacing all lead pipework.

Views and queries were raised on the respective roles of the three regulatory bodies (CER, HSE and EPA) with respect to the draft Plan.

2.3 LEAD MITIGATION OPTIONS

Alternative methods of mitigation including insertions of plastic liner pipes as drilling of existing pipes is carried out or threading/boring a small pipe into existing lead pipes were suggested. Another stakeholder questioned the scoring system of alternative actions to mitigate for lead in drinking water.

A stakeholder expressed disappointment at what they perceive as a lack of extensive discussion on alternatives such as pH treatment alone. It was stated that this would ensure no deleterious effects from lead in the short term. It was also noted that there is a correlation between high pH values in drinking water and a low incidence rate for pulmonary diseases. This stakeholder outlined that given the likelihood for numbers of WSZs to fail on suitability for orthophosphate treatment, the requirement for pH elevation will be widespread. The stakeholder continued that the possible effects of increased pH as a corrosion inhibitor has not been scrutinised in the same manner as the proposed orthophosphate treatment.

A stakeholder questioned if the possibility of the use of modern plastic pipes dissolving low concentrations of chemicals into water supplies had been investigated.

Galway City Council expressed a preference to see more European case studies similar to the French case study ('France, Lead Mitigation Plan') to ascertain a greater insight as to how other authorities have dealt with this issue.

The Irish Expert Body on Fluorides and Health (IEBFH) stated that the use of Point of Use (POU) Reverse Osmosis Systems are not recommended but noted that the recommendation to not utilise POU systems is limited to properties served by fluoridated water.

One stakeholder questioned the justification of investment in mitigation measures if non-compliance with lead is at a level close to the limit (11-15 μg/l).

Five stakeholders objected to the addition of more chemicals and chemical processes to the drinking water supply. Concerns were also raised over lead issues being present in a 'minority' of properties but the proposed corrective treatment is covering the majority of water supplies.

2.4 LEAD SERVICE REPLACEMENT

The EPA, the Department of Agriculture, Environment and Rural Affairs Northern Ireland (DAERA) and one other stakeholder welcomed the priority placed on the replacement of public drinking water infrastructure and commended Irish Water for bringing the matter of lead in drinking water to the public's attention. The EPA acknowledged that the draft Plan has been prepared in response to the *National Strategy to Reduce Exposure to Lead in Drinking Water* (DHPCLG, 2015) and welcomes the approach of adopting a 'Drinking Water Safety Plan' (DWSP) approach to all WSZs.

Two stakeholders felt there will be inertia toward the replacement of private side lead pipework due to the effort and multidisciplinary approach required to complete the works. It was stated that private side remediation would require the following:

- External civil works;
- Opening licences;
- Internal general and decorative works;
- Other utility company engagement;
- Time off work;
- Co-ordination with Irish Water.

Two stakeholders expressed preference for a scheme that would package these works including measurable scope and cost certainty similar to that of the SEAI (Sustainable Energy Authority of Ireland) Better Energy Homes Scheme. It was stated that they would pay a premium for such packaged works and such a scheme would counteract any reluctance from stakeholders to undertake the replacement works if already financially feasible. Packaging these works with the pre-existing Home Renovation Incentive (HRI) Scheme was also suggested to encourage contactor priced packages. Similarly to the HRI scheme, it was suggested that the cost of the works required for private side lead replacement could be tax exempt on a par with the aforementioned HRI scheme.

Two stakeholders expressed concern that if they undertook lead replacement works on their property the contractors may not be certified to carry out such works to the levels required by Irish Water and to qualify for the grant scheme. It was suggested that certified contractors be listed or be co-ordinated by Irish Water to encourage householders to undertake the required works. One stakeholder suggested a credit be paid back to homeowners post replacement of private side lead piping on certification of disposal.

Clarity was sought on the ownership of the lead which would be removed from properties resulting from the implementation of the lead replacement programme. One stakeholder was of the opinion that the recovered lead could be worth approximately €10m.

It was recommended in one submission that benefits such as possible improved water pressure following pipe replacement could be communicated to householders.

In one case, feedback cited advice from the USEPA National Drinking Water Advisory Council which stated that short-term elevated lead levels were a concern for both full and partial lead service pipe replacement. Concern was also raised that if this was to occur it would impose a cost on the homeowner through no fault of their own.

One stakeholder cited missing parameters from the Raheny case study analyses including water pH and pipe lengths which are, in their opinion, vital in assessing the effectiveness of proposed solutions.

It was stated that there appears to be no intention to utilise sources of information regarding the levels of lead in water which are varied and numerous. It was suggested by this stakeholder that most of the lead pipework still in situ was installed by local authorities and therefore its location would be known to Irish Water.

In the case of total lead pipe replacement it was suggested that consideration should be given to micro trenching and directional drilling. The use of older ESB or telecoms service trenches as multipurpose service connections was also referenced with particular preference for economic installation of fibre broadband services alongside any works required.

Preferences for pipe replacement in place of orthophosphate treatment and for terraced houses to be a priority for lead replacement due to a perceived elderly population occupying this style of housing were advised.

2.5 CORRECTIVE WATER TREATMENT

A suggestion was made that the cost of the proposed orthophosphate dosing programme be borne either fully or partially by the cohort of homeowners who do not replace their private side lead pipework. A further suggestion was made that the cost could be itemised if billing is resumed and the payment discontinued on confirmation of private side lead replacement.

A stakeholder expressed concerns that the proposed orthophosphate treatment programme is a 'sticky plaster' solution to a wider problem. One stakeholder questioned its status as a short term solution and questioned if it will continue on a long term basis.

Galway City Council stated that it is unlikely that orthophosphate dosing will reduce lead concentrations by a multiple of seven or eight which is what is required by a large number of the lead exceedances recorded to date.

Galway City Council outlined its concerns around potential damage to hot water appliances from orthophosphate dosing which they stated was raised in a 2009 study commissioned by them entitled 'Water Control in Galway City – An analysis of plumbosolvency in Galway City'. Apprehension regarding the perceived effects of orthophosphate, when added to water supplies, with other water treatments such as fluoridation was also conveyed. The IEBFH sought information from the Centres for Disease Control in the US and the Dental Public Health, Public Health England, regarding the application of orthophosphate in public water treatment and both organisations concluded that its use does not give rise to fluorapatite formation.

In reference to jurisdictions which have implemented orthophosphate treatment, one stakeholder cited the absence of Scotland from the Drinking Water Inspectorate (DWI) instructions for orthophosphate treatment in the UK. They stated that this was a result of soft water (low pH) and large areas of Scotland have enhanced lead levels in groundwater which the stakeholder compared to conditions in Ireland. A stakeholder stated that by following the World Health Organisation (WHO) recommendations for water treatment Indian authorities caused a serious incident which had adverse health effects for thousands of individuals.

The prioritisation of highest risk and most sensitive customers and how the rank for pregnant women, infants and children fitted into a proposed hierarchy was questioned. The objectivity of prioritisation decisions was also questioned by a stakeholder as it was stated that these decisions could not be scrutinised without disclosure of costs and proposed benefits to the recipients of treatment.

An assertion was made that Irish Water has data on lead levels in drinking water as estimated figures for orthophosphate treatment are available, but these figures are not provided to the public.

One stakeholder raised concern regarding the role of possible increased phosphate run off in planning permissions and if prosecution for non-compliance would be sought. A stakeholder also asked if planning permission could be refused on the basis of non-compliance with lead.

The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA) sought clarification regarding the establishment of orthophosphate treatment as a viable mitigation measure. The DAHRRGA stated that there is variation in the acceptable circumstances for the implementation of orthophosphate treatment between the draft Plan and the NIS with the exploration of Imperative Reasons of Overriding Public Interest (IROPI) stage only to consider human health and public safety if the integrity of a European Designated site is brought into question. The DAHRRGA recommend that the statements presented relating to the environmental circumstances under which treatment may be undertaken are amended to ensure consistency in the two documents.

The DAHRRGA also stated that if an Article 6(4) derogation is pursued at the plan or project level, the Plan should establish the policies or basis on which it would be argued as having IROPI as well as setting out any alternative measures that may be explored. The DAHRRGA highlighted the absence of a definition of 'environmentally viable' in reference to suitability for orthophosphate treatment.

It was the opinion of the DAHRRGA that there will be a large number of cases where orthophosphate treatment would likely cause adverse effects on European sites or breaches in Water Framework Directive water quality standards and that in this case Article 6(4) derogations or alternatives to orthophosphate treatment will be required.

Feedback regarding the supply of phosphate for use in the proposed treatment was offered by one stakeholder who stated that phosphate is listed as a critical raw material for the EU and its use in the proposed manner is at odds with EU policy. The stakeholder enquired as to why it may not be sourced in Ireland. The source of supply was also questioned by a stakeholder who referenced issues regarding UN sanctions and market manipulation regarding counties which commonly supply the raw material.

A stakeholder enquired if they will be liable to be prosecuted by the EPA for releasing phosphate via a septic tank system into the environment through water supplied by Irish Water. It was questioned whether the EPA will be in a position to prosecute Irish Water for such releases of phosphate which run the risk of breaching limits imposed by the Water Framework Directive.

It was the opinion of one stakeholder that if orthophosphate treatment is warranted, the SEA or AA should not hamper its utilisation.

2.6 PUBLIC HEALTH

The EPA acknowledged that orthophosphate treatment of drinking water at the proposed concentrations does not pose a human health risk but noted that there is risk for wider environmental impacts on surface water. Feedback from another stakeholder suggested that orthophosphate is currently seen as the best way to address lead exceedances but it is their opinion that it could be associated with yet to be detected health problems in the future.

It was stated that in the case of any health complications arising from orthophosphate treatment, legal action would be pursued. One stakeholder stated that under certain circumstances they understood increased levels of phosphorus could lead to osteoporosis.

A stakeholder stated that they can choose to consume foodstuffs that contain phosphoric acid however it is their opinion that they will have no choice but to consume increased levels of phosphorus due to the proposed actions of this plan. Some feedback outlined that trace amounts of lead are ingested by people every day and this raises questions surrounding what a safe limit is and the costs associated with achieving this limit when decided.

One stakeholder stated they understood from their own research orthophosphate reduces water alkalinity, which, they stated, when ingested would increase the acidity of the human body and promote disease.

It was highlighted that there is a lack of commitment by the HSE, EPA or Health Research Board (HRB) to fund research into the health effects of lead particles in drinking water and a lack of evidence was cited of same from Irish studies to support the Plan and/or links to neurological problems. Commitment to research of effects of lead on Irish populations before the project is finalised was requested with international studies being useful only for comparative purposes. It was stated that evidence shows where an individual experiences elevated lead levels in blood, these levels subside rapidly.

A stakeholder expressed concern over public access to health services as a result of issues arising from lead consumption if the member of the public concerned did not replace their private side lead pipework.

2.7 LIMERICK PRIORITY PROJECT

One stakeholder enquired if there is preference for larger population centres over rural areas and if investment to reduce lead levels in drinking water in rural areas would also be committed.

Galway City Council recommended access to the results of the Limerick Priority Project in order to discuss the effectiveness of orthophosphate dosing and what can be achieved through its implementation.

2.8 PIPE RESPONSIBILITY

One stakeholder expressed concern at the delineation between shared and single services and what they have observed as shared services being replaced with no cost borne to those householders.

Feedback from one stakeholder indicated their dissatisfaction with, as they described, a ‘not our responsibility’ approach and it was this stakeholder’s opinion that Irish Water should not engage on such a major health issue on such a simple basis.

A stakeholder described what they believe to be a lack of certainty on Irish Water’s behalf of the presence of lead in a given area.

The need for clarity on the responsibility of the section of piping between a water meter outside a property boundary and the property boundary was highlighted.

It was suggested that responsibility for internal plumbing in dwellings previously constructed by the Local Authority (LA) should be within the remit of Irish Water due to the initial installation of the systems by the LA's.

2.9 TIMELINES

Feedback from the DAHRRGA suggested that the AA for the Plan will require further analysis if the Plan's period of implementation goes beyond its current timeframe. The DAHRRGA outlined how an extension in timeframe would be handled and stated that a commitment should be made to revisit the conclusions of the AA and SEA in line with same.

One stakeholder stated that as there are no distinct timelines outlined in the proposed plan it cannot therefore be ascertained if the Plan is fit for purpose.

2.10 PUBLIC COMMUNICATIONS

It was proposed that Irish Water take a more personal and professional approach regarding communication in order to establish a relationship with affected householders.

A stakeholder cited repeated referrals to the Irish Water website in order to access required information. Feedback from this stakeholder suggested that this information was not available and older householders would not be able to access this information as a result of low computer literacy. Feedback from another stakeholder stated that access to web based information and referral to same should be informed by percentages of identified at risk customers that may be older and without internet access.

The absence of a public information programme on possible pH increases in drinking water through treatment was questioned.

In reference to the public consultation process, one stakeholder stated that they understood there has been only one period of consultation on the draft Plan. One stakeholder stated that there was an absence of a summary of the Issues Paper consultation (consultation 1) submissions in the plan.

A stakeholder asked would a property owner be informed of the possibility of prosecution for non-compliance if sampling at a property exhibits non-compliance.

There was a query as to whether public consultation on the individual risk assessments will take place and what the next step is, if the risk is deemed unacceptable.

An enquiry about the stakeholder status of members of the public who do not own a property was made as it was their understanding that they are excluded from any stakeholder groups listed in the draft Plan.

A perceived lack of openness surrounding the consultation process was cited due to a perceived assumption that stakeholders were required to provide names, addresses and contact details but the same level of data was not provided by Irish Water who utilised a P.O box for their submissions to consultation 1. Feedback outlined the inability to judge the expertise of personnel who contributed to the LDWMP through the non-disclosure of names, and in this stakeholder's view, refusal to partake in public discourse. It was stated by a stakeholder that the flow of information regarding the project is one way.

A stakeholder cited a conflict of information regarding the statements of drinking water produced by Irish Water being free from lead and a corresponding sentence stating that drinking water produced by Irish Water meets all requirements regarding lead limits. Regarding compliance levels in Northern Ireland resulting from orthophosphate treatment, a stakeholder stated conflicting information was provided with 99% and 97.45% compliance rates both provided.

There was concern that advice for flushing pipes was contradictory to advice given to preserve water with possible re-introduction of water charges by Irish Water.

Feedback received from one stakeholder regarding consultation 1 was that the publication and ensuing consultation process was not well publicised.

2.11 GOVERNMENT LEAD REMEDIATION GRANT SCHEME

It was suggested that means testing should not be considered when attempting to tackle such a large public health issue and all households should be encouraged to resolve the issue.

A stakeholder expressed frustration at the lack of information regarding what tax year is to be assessed in relation to the grant scheme to replace lead pipes and fittings. The grant process and requests for paperwork from local authorities was a source of annoyance for one stakeholder with the perceived lack of collaboration with Irish Water isolating the home owner in their opinion.

The requirement for the householder to bear costs upfront and the receipt of the grant at a later date was cited as an issue by two stakeholders who stated that every effort should be made to assist householders. It was suggested that the grant be available as an upfront payment, possibly through a 'hire purchase' style system or that property tax paid by the householder could be offset to cover the cost of the associated works. One stakeholder proposed a re-alignment of the grant scheme to focus costs associated with orthophosphate treatment into large scale aid for private side lead replacement.

A stakeholder asked if a local authority is entitled to a grant in order to replace public watermains.

2.12 CUSTOMER OPT-IN SCHEME

One stakeholder asked if there is a conflict between the First Fix scheme and the Customer Opt-in Lead Replacement Scheme in terms of pipe replacement where a customer has a right to pipe repair but does not want to replace a lead pipe. A guarantee for replacement of public side lead connections post private side replacement was also requested.

2.13 ENVIRONMENTAL CONSIDERATIONS

The EPA recommended that the Plan, AA and SEA should take into account any available Geological Survey of Ireland (GSI) groundwater vulnerability mapping data in the preparation of DWSPs for each WSZ. One other stakeholder highlighted the GSI database as a source for informing the plan.

The EPA noted the findings that there is potential for environmental impacts to surface water quality and recommended that the Plan should commit to protecting relevant Water Framework Directive (WFD) Areas, monitoring these areas throughout implementation.

The EPA highlighted the need to develop the context of Article 4 exemptions of the WFD where a decision to proceed with orthophosphate treatment may prevent achievement of the WFD objectives.

Additional feedback from the EPA highlighted the consideration that orthophosphate treatment will have no significant impact on coastal waters receiving discharges from a wastewater treatment plant (WWTP) to long sea outfalls however clarification was sought on if any WWTPs without long sea outfalls are under Irish Water's remit and how they are taken into account if so. A stakeholder expressed concern at what they interpreted as an absolute probability of orthophosphate entering the environment through leakage being termed a possibility.

Inland Fisheries Ireland (IFI) expressed concern at potential discharges of untreated effluent to water bodies from sewer outflows and leakage of phosphates from the wastewater drainage network to the surrounding environment. IFI recommended the selected placement of orthophosphate removal treatment points at treatment plants or systems where orthophosphate is being introduced.

IFI highlighted that a significant number of watercourses are located outside areas under formal European and National Legislation and these watercourses may hold species that are designated under the European Habitats Directive.

The DAHRRGA recommended studies of ecological responses to orthophosphate treatment in England and Wales but added that the context of long term anthropogenic impacts may contribute to phosphorus levels.

Clarification on the definition of a high risk water supply was sought by one stakeholder and if it included areas which have naturally occurring high lead values which can lead to enhanced values in surrounding waters. This stakeholder also sought clarification on the suggestion that the treatment may not be delivered in all areas.

It was stated that phosphate rock, post mining, can still contain deleterious materials including radioactive elements in trace amounts.

2.13.1 SEA Environmental Report

A stakeholder stated that they were unsure if the SEA had already been completed and if not, felt that the public are being asked their opinion on a project missing a large amount of data. Another

stakeholder stated that it was unclear in the document whether the Environmental Assessment Methodology (EAM) had been completed.

The EPA recommended that if amendments to the Plan are proposed, these amendments should be screened for likely significant effects and should be subject to the same methods of assessment applied to the draft plan.

The EPA also stated that following the adoption of the proposed plan, an SEA statement should be prepared and supplied to any environmental authority consulted with during the SEA process. The EPA also noted that text from the SEA could be included in the Plan in setting additional relevant additional legislative context.

In reference to drinking water infrastructure, the EPA recommended treating this infrastructure in the same manner as WWTPs are linked to the National CFRAM Programme and Flood Risk Management Guidelines in the SEA.

The EPA stated that the key finding that most of Ireland's water bodies are of good ecological status is misleading as the most recent EPA water quality report, Water Quality in Ireland 2010-2012 (EPA, 2015), states that only 53% of surface waters and 43% of lakes are of good status. The EPA recommends that the SEA monitoring programme takes the most recent EPA report into account.

The inclusion of indicators used in the higher level Water Service Strategic Plan (WSSP) was welcomed by the EPA acknowledging it will lead to a consistent and coordinated approach to major water projects.

The EPA recommended the draft Plan and SEA related monitoring programme should be capable of monitoring the effectiveness of the orthophosphate treatment programme and compliance aspects in achieving set targets. The EPA went on to recommend incorporating higher level wider environmental monitoring considerations and the SEA should include information on the frequency of monitoring for each environmental objective described where possible. Another recommendation by the EPA related to the thresholds for differing mitigation actions being considered, where possible.

Feedback from the EPA regarding wastewater discharge incorporated a number of recommendations. It was recommended that Irish Water identify and review the implications of orthophosphate treatment for relevant settlements and assess if the additional loading resulting from the treatment would result in existing licence non-compliances. This assessment would be carried out in collaboration with the EPA. Risk assessment on a site specific basis was also proposed by the EPA with determinations for non-compliances and resolutions managed through consultation with the body.

IFI stated that from a fisheries perspective, water quality, fish spawning and nursing areas, ecosystem structure and function, all fishing activities, amenity areas and recreational areas should be considered in the SEA.

The DAHRRGA noted that monitoring for the effectiveness of the proposed mitigation measures is outlined in the draft Plan but stated that this monitoring is not accompanied by any plan specific monitoring that will identify the failure of mitigation from an environmental perspective. The

Department stated that biodiversity monitoring undertaken by the DAHRRGA themselves, in reference to Article 17 of the Habitats Directive, is not fit for purpose to monitor the possible effects of the proposed actions in the draft Plan.

DAERA welcomed the consideration of transboundary issues through the SEA process. DAERA stated that it was their assumption that mitigation measures to reduce impacts identified in the Environmental Report would also apply to assets in Northern Ireland in order to reduce transboundary impact.

The DAHRRGA stated that the Irish Water analysis of risks to orthophosphate treatment failing to achieve its desired outcome does not include the actual quality of raw water supplied in Ireland. The DAHRRGA added that possible additional treatment to raw water and environmental protection being dependent on improvements to wastewater treatment will have additional costs that would affect any cost-benefit analysis of the Plan. These possible additional requirements would, according to the DAHRRGA, delay compliance target timelines and pose a risk to the success of the strategy. The DAHRRGA recommended the consideration of these wider environmental effects in both the SEA and the AA. Feedback from other stakeholders also cited the preference for a cost-benefit analysis.

The EPA recommended that the EAM consider taking into account relevant environmental sensitivities and vulnerabilities, including environmental sensitivity mapping information which may be gleamed from relevant County Development Plans and associated SEA reports. The EAM approach was widely welcomed by the EPA but it was recommended by both the EPA and DAHRRGA that the model should include any cumulative effects including those on the receiving environment for the WFD River Basin Management Units of Management. The EPA proposed that the second cycle of River Basin Management planning should be integrated into the EAM process for each WSZ and Catchment Management Units within WSZs should also be taken into account. It was the view of the DAHRRGA that organic inputs such as agricultural or forestry activities are considered in conjunction with inorganic fertilisation and are taken into account. Phosphate inputs from forestry are also recommended for inclusion as a cumulative effect by the DAHRRGA if not included as a diffuse pollution source.

One stakeholder stated that all actions should be postponed until water chemistry from all WSZs is analysed and decisions based on current knowledge delayed to include this data.

2.13.2 Natura Impact Statement

The DAHHRGA expressed concern over the requirement for higher concentrations of orthophosphate required in summer months due to the elevated levels of plumbosolvency at increased temperatures. The Department stated that higher temperatures also correspond with the growing season for primary producers and the time of greatest potential for biological impacts. It was advised by the DAHRRGA to include seasonal changes and increases in phosphorus availability due to low flows.

The DAHRRGA proposed that the existing NIS would benefit from the below recommendations in relation to risk to European sites and their conservation objectives.

1. Identify overlaps between the water supplies/wastewater networks and the catchment of water dependent designated sites.

2. Highlight the designated sites that contain phosphorus sensitive habitats and species.
3. Identify 'high risk' water supplies where qualifying factors for European site designation are likely to be an issue.

The DAHRRGA recommended Irish Water is vigilant on amendments to conservation objectives for designated sites in Ireland and respects those objectives in place until notice of same. Specific reference was made by the DAHRRGA to the amendments to conservation objectives for the Freshwater Pearl Mussel in the Blackwater River (Cork/Waterford) SAC 002170.

With respect to lagoons, the DAHRRGA recommended that Irish Water considers indirect as well as direct paths by which treated water may enter these priority habitats. It is considered by the Department that the sensitivities of these sites should be reflected in the NIS and the EAM.

The DAHRRGA stated that the Activity Requiring Consent (ARC) system was not proposed by the NPWS for the Green, Low-Carbon, Agri-Environment (GLAS) Scheme but it is established under regulation. It has recommended that the Plan reflect this and that authorities regard the types of activities listed as ARCS when assessing their own plans and projects.

The DAHRRGA clarified that if actions are undertaken by a farmer outside of a GLAS plan, the NPWS are not notified but a requirement to seek Ministerial consent, not notification, will apply to those activities requiring consent. The Department noted that GLAS plans are screened by relevant authorities to establish if AA is required and that this should be reflected in the text and the regulatory requirements relevant to the GLAS programme accurately reflected.

It was a matter of concern for the DAHRRGA that export of phosphate from the distribution system may be of particulate and insoluble phosphorus and sought clarification on how WWTP capacity and performance has been incorporated into the analyses along with available information on the risks to the sewerage network.

The DAHRRGA stated that a narrow view of the requirements of the Habitats Directive is given by stating that the environmental processes may delay the roll out of orthophosphate treatment. The DAHRRGA recommended an amendment to the text (P61, Para 6) to accurately reflect the requirement of Article 6 of the Habitats Directive.

In relation to orthophosphate treatment in Hacketstown Co. Carlow, the DAHRRGA recommended that the environmental report and NIS of the Plan should analyse the available biological data for the River Derreen and any other water bodies that are receiving discharge from supplies treated with orthophosphate. Another stakeholder enquired as to why the treatment at Hacketstown is in place.

DAERA were content with the consideration given to Natura 2000 sites in Northern Ireland during the assessment processes and with the conclusions of the NIS. However, the Department did note that the strategic level of the draft Plan did not identify specific sites for orthophosphate treatment but are content that when specific sites are identified associated with sensitive water bodies, Appropriate Assessments will be carried out at site level.

2.14 SAMPLING AND MONITORING

The EPA stated its recommendation that detailed reporting is carried out through the implementation of the Plan. One stakeholder observed that the random daytime sampling programme should be carried out on a pilot basis as the Irish public is sociologically different from those in countries in which such sampling has already taken place. It was noted by a stakeholder that they were unsure if Irish Water had commenced its water sampling programme already and if it had, why the numbers of non-compliant samples and cost per sample had not been published.

There was an enquiry if the random sampling at customer's taps would be performed by only Irish Water agents and if Irish Water will be the only body involved in testing the effectiveness of orthophosphate treatment at Clareville Water Treatment Plant with reference to the Limerick Priority Project.

A stakeholder asked if the water sampling programme will test for lead only or will other substances be incorporated into the analyses and whether the water samples will be retained for future analyses. The number of samples, initial and post pipe flushing, was cited by the same stakeholder. Feedback regarding the analysis stated that the presence of substances will be measured but the effects are not. It was noted that flushing is effective in reducing the presence of lead in water but that parameters such as pipe diameter are not considered in the draft Plan.

The DAHRRGA proposed that a national, environmental monitoring strategy be described and implemented which can demonstrate that orthophosphate does not impact on the environment in general and Natura 2000 sites in particular. Targeted biological monitoring is recommended by the DAHRRG which should take place before and during orthophosphate treatment and focus on sensitive elements and early-warning indicators. It was stated that it would not be sufficient to rely solely on established WFD water quality metrics. It was suggested by the DAHRRGA that such a biological monitoring system could be accompanied by systems that would be used to undertake compliance checks and take any necessary corrective actions at project-level.

A stakeholder enquired as to whether the data on sampling and orthophosphate treatment will be available to the public and what timeframe it would be made available within.

A suggestion was made that Irish Water cover the cost of private water testing for lead in properties to help locate those with lead exceedances.

3 NEXT STEPS

Irish water would like to thank all stakeholders who submitted feedback as part of the public consultation process on the draft Plan. The feedback received during this period of public consultation has been reviewed by the project team with feedback and issues raised informing the development of the final Plan and relevant feedback incorporated into the environmental reports. All stakeholders who provided feedback have now been acknowledged.

It is anticipated that the Final Plan will be available in quarter 2 of 2017 subject to approval and will be available online at www.water.ie/lead.

Further to a review and consideration of the submissions received during the public consultation process and as highlighted in the Limerick Priority Project Customer Information Note published 27th June 2016, Irish Water commenced orthophosphate treatment of drinking water for the protection of human health in Limerick City and Environs in November 2016.

APPENDIX A

ADVERTISING OF DRAFT PLAN CONSULTATION

THE IRISH TIMES
Wednesday, July 27, 2016

Home News

UK prime minister Theresa May and Taoiseach Enda inside 10 Downing Street yesterday. PHOTOGRAPH: REUTERS

Briefs

Personal lending

Credit union scheme to offer loans to low-income families

Credit unions across Ireland are to start offering cheaper loans to low-income families.

Since November, 2015, the It Makes Sense loans have been available in 30 credit unions, on a pilot basis.

The scheme makes short-term credit available on a low-cost basis and the loans are specifically designed as an alternative to high-cost moneylenders.

Since the scheme was launched, more than 1,200 loans have been drawn down with an overall value of over €720,000. The average individual loan is €500.

The pilot stage showed that more than half of those using the scheme had previ... used a moneylender, ... 22 per cent of those o... scheme had been thin... about using a moneyl... before they signed up.

The scheme is now ... to a permanent footin... being offered to credi... nationally. Fifty credi... have already expres... interest and 18 are in ... process of signing up.

Minister for Social ... tion Leo Varadkar urg... other credit unions to ... saying: "This scheme ... sents real practical he... families and individu... struggling on low inco...

CONOR ...

Civil Service

New move to appoint secreta... general to Department of Ju...

A process to appoint a permanent secretary general to the Department of Justice is expected to be under way by the end of the year.

Tánaiste Frances Fitzgerald's department has been without a secretary general, the most senior civil servant in a government department, since 2014.

The position became vacant when Brian Purcell sought a transfer to another Civil Service branch following a report by Kevin Toland, the chief executive of the Dublin Airport Authority, which criticised how the Depart... ment of Justice was b... Since then Noel Wate... been acting secretary ... and Ms Fitzgerald sai... "doing an extremely ... job".

Previous efforts to ... permanent successor ... Purcell failed.

Ms Fitzgerald said ... department would "s... look at starting a new ... to fill the position, an... said this would likely ... by the end of the year.

"We'll have to see w... process we will use to ... with it," the Tánaiste ...

FIA...

Irish Times advertisement, Wednesday 27th July 2016

APPENDIX B

PRESS RELEASES AND MEDIA DISTRIBUTION LIST

Press Release for National Media

Irish Water publishes Draft Lead in Drinking Water Mitigation Plan

27th July 2016 - Irish Water is today urging all homeowners whose houses were built before 1980 to check their internal plumbing for lead pipes. Public drinking water supplies are lead free but lead, which poses a serious health risk, can dissolve in drinking water from internal lead pipes which are common in older homes and buildings. Irish Water is confident that lead piping has been removed from the public water distribution mains but the utility estimates that approximately 180,000 homes in Ireland and hundreds of commercial and public buildings still have internal lead plumbing, including lead service pipes from the water main to the stopcock. Of the homes affected, about 40,000 are thought to have shared backyard (common service pipes) which Irish Water will be targeting the replacement of over the next 5 years. Irish Water is issuing this advice as it launches an 8 week period of public consultation on its draft 'Lead in Drinking Water Mitigation Plan' which runs until the 21st September next.

Exposure to lead is a known serious health risk particularly affecting young children. In recent decades, lead has been removed from petrol and paint. Since then, Irish people have limited exposure to lead except in drinking water where people with lead plumbing in their home can be exposed to low concentrations of lead as it dissolves in drinking water passing through lead pipework on its way to the tap. Because of the known health risks, the limit for lead in drinking water has been reduced to a very low level in EU Drinking Water Regulations (10 parts per billion). Sampling by Irish Water has shown that this limit can be exceeded (in some cases significantly) where water flows through lead pipes.

The Health Services Executive has advised the public (HSE Lead FAQs May 2015) that because lead affects the developing brain, the risk from lead exposure is greatest for young children, infants and babies in the womb. Bottle-fed infants are most affected by lead in drinking water, because for the first 6 months of life, all of their food comes from formula made up with drinking water. Children and infants absorb more lead than adults.

Public side pipework, as far as a property boundary, is the responsibility of Irish Water but all pipes within the property boundary including those in the home are the responsibility of the property owner, except for those 40,000 served by common backyard mains where responsibility is shared. The best and most effective way of dealing with lead in drinking water is to replace all lead pipes and homeowners should seek the advice of a plumber if they are unsure what material the pipes in their home is made from. The Department of the Environment has established a grant scheme to assist low income households to replace lead pipes.

Jerry Grant, Managing Director of Irish Water, commenting on the launch of the public consultation said; "*Irish Water has today published the first plan to reduce the risk to public*

health from lead dissolving in water passing through old lead pipes. This plan is the result of major surveys of the issue, review of international practise, consultation on the issues with key health, environmental and other stakeholders. The plan includes much more widespread sampling (already underway) which is used to inform the public of the risk and help prioritise Irish Water actions. Irish Water is now targeting 35,000 random samples of water quality annually compared with 3,000 previously. Drinking water produced at our plants is lead free and we have already replaced all lead water mains in the distribution system. We have also started a programme to replace any remaining lead service connections, these are the short pipes that connect the watermain to property boundaries prioritising common or shared backyard service pipes. The greatest risk remaining from lead in drinking water is therefore arising on private property from internal plumbing," Jerry Grant explained.

Outlining the options available to Irish Water to assist the public in reducing the health risk from lead pipes Jerry Grant added*, "While full lead replacement is the best option, this has taken decades in other countries. For that reason, and following the experience of other countries who have addressed this problem much earlier than Ireland, we have identified an option to treat the water at the treatment plant in order to reduce the risk. A food grade product called orthophosphate can be added to drinking water at our plants to coat old lead pipes in people's homes and reduce exposure and consequent health risk until the pipes are replaced. This option is extensively used in Britain, Northern Ireland and widely across North America. Before Irish Water can commence this practice in Ireland it is obliged under environmental legislation to consider the potential impact on the environment. This will involve individual assessment for each Irish Water supply. The 'Lead in Drinking Water Mitigation Plan' is Irish Water's contribution to the overall national strategy for lead pipe removal. We are now asking members of the public to look at the plan and give us their feedback on our proposed approach. In the meantime, we are also urging all property owners, especially those with young children, to check for lead pipes and to have them replaced if at all possible."*

Public Consultation

Public consultation on the 'Draft Lead in Drinking Water Mitigation Plan' will run for 8 weeks from Wednesday 27th July until 21st September 2016 during which time the draft Plan and associated environmental reports are available to view online any time at www.water.ie/lead and during working hours at the planning counters of the Local Authority offices. Comments and feedback can be sent to Irish Water by 5pm on 21st of September by email or post as outlined below:-

Email: **lead@water.ie**

Post: **Lead Public Consultation, Irish Water, Colvill House, 24-26 Talbot St, Dublin 1**

The final plan and the accompanying SEA Statement will be published once the public consultation is completed.

Information on the health effects of Lead in Drinking Water is available here:

http://www.hse.ie/eng/health/hl/water/drinkingwater/lead/

Information on Grant Assistance for replacement of Lead Pipes is available here:

https://www.environ.ie/water/water-quality/lead-drinking-water/lead-drinking-water

ENDS

For media queries contact press@water.ie or call 087 1458896

Notes to the Editor:

LEAD AND DRINKING WATER

Drinking water as produced by Irish Water is free from lead. While there are currently no known lead water mains in Ireland – internal plumbing, service connection pipes and shared service connections may contain lead pipework, especially in buildings constructed up to and including the 1980s. Lead from lead pipework can dissolve into drinking water. The chances of lead getting into drinking water from lead pipes and lead plumbing can depend on the chemical make-up of the water. Some types of water such as soft water and warm water can pick up lead more easily.

EU Drinking Water Regulations have gradually lowered the acceptable concentration of lead in drinking water from 50 micrograms per litre (µg/l) pre 2003 to 25 µg/l in 2003 to 10 µg/l in 2013. Exposure to lead is an acknowledged health risk and the primary driver behind the National Strategy and the draft Plan is the protection of public health. Action must be taken to ensure that Ireland conforms to these new levels and that public health is protected.

OWNERSHIP OF WATER SUPPLY PIPES

Pipes that deliver drinking water to our homes and businesses are divided into **public** side and **private** side. **Public** side pipes include the water main and the connection from the water main to the property, referred to as the service connection, to the outer edge of the boundary of the property. **Irish Water** is responsible for these pipes. **Private** side pipes are those pipes from the outer edge of the property boundary to the building and all the internal plumbing. Responsibility for the maintenance and replacement of the supply pipe (i.e. the private-side service pipe) and internal plumbing pipes, tanks and fittings lies with the **property owner**.

To assist low income households to replace lead pipes in their home, the Department of Housing, Planning, Community & Local Government has established a grant scheme, details of which can be found on their website www.environ.ie.

WHAT IS THE DRAFT LEAD IN DRINKING WATER MITIGATION PLAN?

Irish Water will replace all remaining **public side** lead service pipes by 2026, with shared backyard pipes (affecting about 40,000 houses) prioritised much sooner. However, because it is up to property owners to replace their own lead pipes, interim measures have also been proposed in Irish Water's Draft Plan to reduce the risk to public health from lead from internal pipes dissolving in drinking water, as a priority.

The Draft Lead in Drinking Water Mitigation Plan is Irish Water's response to recommendations made in the *National Strategy to reduce exposure to Lead in Drinking Water* and sets out the Irish Water proposed actions to reach lead compliance in drinking water under the EU Drinking Water Regulations.

WHAT IS ORTHOPHOSPHATE TREATMENT?

As part of the interim measures outlined in the *Draft Lead in Drinking Water Mitigation Plan*, Irish Water proposes to carry out orthophosphate treatment until lead pipes are replaced. A range of measures have been examined in the Plan including: service replacement; lining of lead services; the use of filters and; corrective water treatment.

By changing the chemical make-up of the water, it is possible to reduce the amount of lead which is picked up from lead pipes and lead plumbing. Orthophosphate treatment forms a protective film around the inside of the pipe providing a barrier between the water and the lead. Orthophosphate used for this purpose is a food grade product and is a clear, odourless liquid which is very common in the beverage industry.

WHAT ARE IRISH WATER'S STATUTORY OBLIGATIONS?

As Ireland is only now considering using orthophosphate treatment in drinking water we are obliged to take account of the EU Water Framework Directive and the Habitat's Directive. These Directives impose additional statutory processes and obligations which must be complied with. Where the treatment process in a given water supply zone could result in a conflict between health and environmental considerations, it is anticipated that Irish Water will refer the matter to the relevant Government departments / agencies for collective review and recommendation.

WHAT ARE THE ENVIRONMENTAL REPORTS ASSOCIATED WITH THE DRAFT PLAN?

SEA Environmental Reports and Natura Impact Statements are prepared as part of the required Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes on draft plans. The reports for the Draft LDWMP have been developed following public consultation in June and July 2015 with statutory bodies, interested parties and the general public. These reports form the basis for assessing any detrimental environmental risk to rivers, lakes and estuaries from dosing of orthophosphate, which can be considered by the relevant statutory bodies along with the Health Risk Assessment due to presence of

lead in supplies. The purpose is to ensure that the environmental consequences of plans and programmes are assessed both during their preparation and prior to adoption. The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the proposed plan or programme and to be kept informed during the decision making process.

Press Release for Limerick Regional Media

Irish Water publishes Draft Lead in Drinking Water Mitigation Plan as Limerick confirmed as priority project

27th July 2016 - Irish Water is today urging all homeowners whose houses were built before 1980 to check their internal plumbing for lead pipes. Public drinking water supplies are lead free but lead, which poses a serious health risk, can dissolve in drinking water from internal lead pipes which are common in older homes and buildings. Irish Water is confident that lead piping has been removed from the public water distribution mains but the utility estimates that approximately 180,000 homes in Ireland and hundreds of commercial and public buildings still have internal lead plumbing, including lead service pipes from the water main to the stopcock. Of the homes affected, about 40,000 are thought to have shared backyard (common service pipes) which Irish Water will be targeting the replacement of over the next 5 years. Irish Water is issuing this advice as it launches an 8 week period of public consultation on its draft 'Lead in Drinking Water Mitigation Plan' which runs until the 21st September next. Within the Plan there is a proposal for the treatment of lead pipes with orthophosphate as an interim measure and Limerick has been confirmed as a priority project.

Exposure to lead is a known serious health risk particularly affecting young children. In recent decades, lead has been removed from petrol and paint. Since then, Irish people have had limited exposure to lead, except in drinking water where people with lead plumbing in their home can be exposed to low concentrations of lead as it dissolves in drinking water as it passes through lead pipework on its way to the tap. Because of the known health risks, the limit for lead in drinking water has been reduced to a very low level in EU Drinking Water Regulations (10 parts per billion). Sampling by Irish Water has shown that this limit can be exceeded (in some cases significantly) where water flows through lead pipes.

The Health Services Executive has advised the public (HSE Lead FAQs May 2015) that because lead affects the developing brain, the risk from lead exposure is greatest for young children, infants and babies in the womb. Bottle-fed infants are most affected by lead in drinking water, because for the first 6 months of life, all of their food comes from formula made up with drinking water. Children and infants absorb more lead than adults.

As part of the interim measures outlined in the *Draft Lead in Drinking Water Mitigation Plan*, Irish Water proposes to carry out orthophosphate treatment until lead pipes are replaced. A range of measures have been examined in the Plan including: service replacement; lining of lead services; the use of filters and; corrective water treatment.

By changing the chemical make-up of the water, it is possible to reduce the amount of lead which is picked up from lead pipes and lead plumbing. Orthophosphate treatment forms a protective film around the inside of the pipe providing a barrier between the water and the

lead. Orthophosphate used for this purpose is a food grade product and is a clear, odourless liquid which is very common in the beverage industry.

Limerick was confirmed as a priority project for orthophosphate treatment because of the high level of properties with lead service pipes and also because the waste water is not discharged into an inland fresh water river or waterway.

The higher proportion of older housing in parts of Limerick City makes it more likely that private lead pipework will be present. A number of homes in Limerick have confirmed levels of lead in their drinking water higher than the relevant limit allowed under the Drinking Water Regulations. This presents a health risk, especially to infants and young children for which orthophosphate treatment is the only practical short-term option. Until all lead pipework is replaced, the introduction of orthophosphate treatment in Limerick has the potential to protect customers and reduce lead concentrations below the drinking water regulation limit for properties that have lead in the private distribution system and service connection to the property boundary. Irish Water will begin adding orthophosphate at very low concentrations to the Clareville Water Treatment Plant supplying Limerick City & environs in October 2016.

Public side pipework, as far as a property boundary, is the responsibility of Irish Water but all pipes within the property boundary including those in the home are the responsibility of the property owner, except for those 40,000 served by backyard mains where responsibility is shared. The best and most effective way of dealing with lead in drinking water is to replace all lead pipes and homeowners should seek the advice of a plumber if they are unsure what material the pipes in their home is made from. The Department of the Environment has established a grant scheme to assist low income households to replace lead pipes.

Jerry Grant, Managing Director of Irish Water, commenting on the launch of the public consultation said; "*Irish Water has today published the first plan to reduce the risk to public health from lead dissolving in water passing through old lead pipes. This plan is the result of major surveys of the issue, review of international practise, consultation on the issues with key health, environmental and other stakeholders. The plan includes much more widespread sampling (already underway) which is used to inform the public of the risk and help prioritise Irish Water actions. Irish Water is now targeting 35,000 random samples of water quality annually compared with 3,000 previously. Drinking water produced at our plants is lead free and we have already replaced all lead water mains in the distribution system. We have also started a programme to replace any remaining lead service connections, these are the short pipes that connect the watermain to property boundaries prioritising common or shared backyard service pipes. The greatest risk remaining from lead in drinking water is therefore arising on private property from internal plumbing,"* Jerry Grant explained.

Outlining the options available to Irish Water to assist the public in reducing the health risk from lead pipes Jerry Grant added*, "While full lead replacement is the best option, this has taken decades in other countries. For that reason, and following the experience of other countries who have addressed this problem much earlier than Ireland, we have identified an*

option to treat the water at the treatment plant in order to reduce the risk. A food grade product called orthophosphate can be added to drinking water at our plants to coat old lead pipes in people's homes and reduce exposure and consequent health risk until the pipes are replaced. This option is extensively used in Britain, Northern Ireland and widely across North America. Before Irish Water can commence this practice in Ireland it is obliged under environmental legislation to consider the potential impact on the environment before proceeding. This will involve individual assessment for each Irish Water supply. The 'Lead in Drinking Water Mitigation Plan' is Irish Water's contribution to the overall national strategy for lead pipe removal. We are now asking members of the public to look at the plan and give us their feedback on our proposed approach. In the meantime, we are also urging all property owners, especially those with young children, to check for lead pipes and to have them replaced if at all possible."

Public Consultation

Public consultation on the 'Draft Lead in Drinking Water Mitigation Plan' will run for 8 weeks from Wednesday 27th July until 21st September 2016 during which time the draft Plan and associated environmental reports are available to view online any time at www.water.ie/lead and during working hours at the planning counters of the Local Authority offices. Comments and feedback can be sent to Irish Water by 5pm on 21st of September by email or post as outlined below:-

Email: lead@water.ie

Post: Lead Public Consultation, Irish Water, Colvill House, 24-26 Talbot St, Dublin 1

The final plan and the accompanying SEA Statement will be published once the public consultation is completed.

Information on the health effects of Lead in Drinking Water is available here:

http://www.hse.ie/eng/health/hl/water/drinkingwater/lead/

Information on Grant Assistance for replacement of Lead Pipes is available here:

https://www.environ.ie/water/water-quality/lead-drinking-water/lead-drinking-water

ENDS

For media queries contact press@water.ie or call 087 1458896

Notes to the Editor:

LEAD AND DRINKING WATER

Drinking water as produced by Irish Water is free from lead. While there are currently no known lead water mains in Ireland – internal plumbing, service connection pipes and shared service connections may contain lead pipework, especially in buildings constructed up to and including the 1980s. Lead from lead pipework can dissolve into drinking water. The chances of lead getting into drinking water from lead pipes and lead plumbing can depend on the chemical make-up of the water. Some types of water such as soft water and warm water can pick up lead more easily.

EU Drinking Water Regulations have gradually lowered the acceptable concentration of lead in drinking water from 50 micrograms per litre (µg/l) pre 2003 to 25 µg/l in 2003 to 10 µg/l in 2013. Exposure to lead is an acknowledged health risk and the primary driver behind the National Strategy and the draft Plan is the protection of public health. Action must be taken to ensure that Ireland conforms to these new levels and that public health is protected.

OWNERSHIP OF WATER SUPPLY PIPES

Pipes that deliver drinking water to our homes and businesses are divided into public side and private side. Public side pipes include the water main and the connection from the water main to the property, referred to as the service connection, to the outer edge of the boundary of the property. Irish Water is responsible for these pipes. Private side pipes are those pipes from the outer edge of the property boundary to the building and all the internal plumbing. Responsibility for the maintenance and replacement of the supply pipe (i.e. the private-side service pipe) and internal plumbing pipes, tanks and fittings lies with the property owner.

To assist low income households to replace lead pipes in their home, the Department of Housing, Planning, Community & Local Government has established a grant scheme, details of which can be found on their website www.environ.ie.

WHAT IS THE DRAFT LEAD IN DRINKING WATER MITIGATION PLAN?

Irish Water will replace all remaining public side lead service pipes by 2026, with shared backyard pipes (affecting about 40,000 houses) prioritised much sooner. However, because it is up to property owners to replace their own lead pipes, interim measures have also been proposed in Irish Water's Draft Plan to reduce the risk to public health from lead from internal pipes dissolving in drinking water, as a priority.

The Draft Lead in Drinking Water Mitigation Plan is Irish Water's response to recommendations made in the *National Strategy to reduce exposure to Lead in Drinking Water* and sets out the Irish Water proposed actions to reach lead compliance in drinking water under the EU Drinking Water Regulations.

WHAT IS ORTHOPHOSPHATE TREATMENT?

As part of the interim measures outlined in the *Draft Lead in Drinking Water Mitigation Plan*, Irish Water proposes to carry out orthophosphate treatment until lead pipes are replaced. A range of measures have been examined in the Plan including: service replacement; lining of lead services; the use of filters and; corrective water treatment.

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WHY HAS LIMERICK CITY BEEN SELECTED BY IRISH WATER FOR ORTHOPHOSPHATE TREATMENT?

Limerick was chosen as a priority project because of the high level of properties with lead service pipes and also because the waste water is not discharged into an inland fresh water river or waterway.

The Clareville Water Treatment Plant in Limerick City supplies drinking water to homes and businesses in Limerick City and its environs. The drinking water produced at Clareville Water Treatment Plant does not contain lead. There are also no lead water mains in the distribution system. However, water entering homes and businesses can pick up lead as it passes through lead supply pipes and fittings, where these exist within the property boundary.

The higher proportion of older housing in parts of Limerick City makes it more likely that private lead pipework will be present. A number of homes in Limerick have confirmed levels of lead in their drinking water higher than the relevant limit allowed under the Drinking Water Regulations. This presents a health risk, especially to infants and young children for which orthophosphate treatment is the only practical short-term option. Until all lead pipework is replaced, the introduction of orthophosphate treatment in Limerick has the potential to protect customers and reduce lead concentrations below the drinking water regulation limit for properties that have lead in the private distribution system and service connection to the property boundary.

WHEN WILL IRISH WATER ADD ORTHOPHOSPHATE TO THE CLAREVILLE WATER TREATMENT PLANT SUPPLYING LIMERICK CITY & ENVIRONS?

Irish Water is planning to begin adding orthophosphate to the water for the protection of public health in October 2016, following the completion of the public consultation for the draft Lead in Drinking Water Mitigation Plan. Irish Water will communicate with customers in advance of the commencement of the corrective water treatment.

HOW MUCH ORTHOPHOSPHATE WILL BE ADDED TO THE WATER AT THE CLAREVILLE WATER TREATMENT PLANT?

Orthophosphate will be added to water at very low concentrations. The quantity to be added will be 1.2 mg/l (milligrams per litre, also expressed as parts per million) measured as Phosphorus. This is the optimum treatment level specific to the Clareville Water Treatment Plant as demonstrated during laboratory tests.

IF THERE IS NO LEAD IN THE DRINKING WATER AT THE TAP IN A HOME, WHY IS ORTHOPHOSPHATE BEING ADDED TO THE WATER?

It is not practical or feasible to selectively supply orthophosphate treated water to properties only where there is lead pipework or fittings. For this reason, orthophosphate will be added at source – the Clareville Water Treatment Plant. This facility provides drinking water to homes and businesses in Limerick City and environs. The addition of orthophosphate will have no negative impact.

HOW WILL IRISH WATER BE MONITORING THE EFFECTS OF ORTHOPHOSPHATE IN LIMERICK?

Irish Water will be testing water at randomly selected customer taps throughout the distribution network of each water supply zone to monitor the effectiveness of orthophosphate treatment and levels of lead present. Samples will be taken in the Water Supply Zone every two months after the commencement of orthophosphate treatment. If a Lead exceedance is detected during monitoring, the customer will be informed in writing of the result. These results are also reported to the HSE and the EPA.

Irish Water set strict target levels for orthophosphate in the water distribution system and scheduled monitoring is planned to ensure that the target levels are being met. The monitoring results will be used to ensure a stable level of protection is achieved.

IS THE LIMERICK PLUMBOSOLVENCY CONTROL PLAN A PRIORITY PROJECT?

Yes. Orthophosphate as a 'corrosion inhibitor' is widely used around the world for the last twenty years It is added to treated drinking water to reduce levels of lead found in drinking water from the tap. The Limerick Priority Project has been advanced in order to assess if there are any environmental impacts of orthophosphate introduction. Irish Water will monitor the impact of phosphorus on the water environment. As discussed above, these studies will provide our stakeholders with a comprehensive Environmental Assessment Methodology to apply to the national rollout of this decision making tool. Extensive baseline sampling is currently being completed so that we can measure benefit once treatment commences. The priority project has been developed in consultation with the HSE and EPA.

HAS THERE BEEN PUBLIC CONSULTATION FOR ORTHOPHOSPHATE TREATMENT IN LIMERICK?

Yes. The Limerick Project was highlighted in the Irish Water 'Lead in Drinking Water Mitigation Plan – Issues Paper that was published for non-statutory public consultation in June 2015. Irish Water has also briefed local Elected Representatives on the proposed Orthophosphate treatment at Limerick City Water Treatment Plant.

http://www.water.ie/news/irish-water-briefs-local-/

The draft Lead in Drinking Water Mitigation Plan has been published for consultation and Irish Water is seeking feedback on the draft Plan, the associated environmental reports and the Limerick Priority Project. This public consultation on the draft Plan will run from 27th July 2016 to 21st September 2016.

WHAT OTHER IMPROVEMENTS IS IRISH WATER MAKING IN LIMERICK

Lead water pipes are being replaced in Limerick under a €6.5 million investment for the city. By the end of this year 4,000 lead service connections between homes/businesses and the public water mains will have been replaced.

Irish Water has also committed to replacing lead service connection pipes on the public side of a boundary free-of-charge when customers replace their private lead drinking water pipes inside their property boundary. A number of connections have been replaced to date in Limerick City under this programme.

Consultation Period Mid-Point Press Release

Irish Water urging households to have their say as public consultation for Irish Water's Draft Lead in Drinking Water Mitigation Plan reaches half-way point

23rd August 2016 – There are just over 4 weeks remaining to make a submission on Irish Water's Draft Lead in Drinking Water Mitigation Plan so Irish Water is urging members of the public to have their say on this issue that affects up to 180,000 households around the country.

The 8 week public consultation period will end on Wednesday September 21st.

Anyone interested can view the draft Plan and associated environmental reports online or watch our short video. During working hours the Plan is available to view at the planning counters of the Local Authority offices.

Exposure to lead is a known serious health risk particularly affecting pregnant women and young children. In recent decades, lead has been removed from petrol and paint. Since then, Irish people have limited exposure to lead except in drinking water where people with lead plumbing in their home can be exposed to low concentrations of lead as it dissolves in drinking water passing through lead pipework on its way to the tap. Because of the known health risks, the limit for lead in drinking water has been reduced to a very low level in EU Drinking Water Regulations (10 parts per billion). Sampling by Irish Water has shown that this limit can be exceeded (in some cases significantly) where water flows through lead pipes.

The Draft Lead in Drinking Water Mitigation Plan is the result of major surveys of the issue, review of international practise, consultation on the issues with key health, environmental and other stakeholders. The plan includes much more widespread sampling (already underway) which is used to inform the public of the risk and help prioritise Irish Water actions. Irish Water is now targeting over 35,000 random samples of water quality annually compared with 3,000 previously. Drinking water produced at our plants is lead free and we have already replaced all lead water mains in the distribution system. We have also started a programme to replace any remaining lead service connections, these are the short pipes that connect the watermain to property boundaries prioritising common or shared backyard service pipes. The greatest risk remaining from lead in drinking water is therefore arising on private property from internal plumbing.

Irish Water is again urging all homeowners whose houses were built before 1980 to check their internal plumbing for lead pipes. Public drinking water supplies are lead free but lead, which poses a serious health risk, can dissolve in drinking water from internal lead pipes which are common in older homes and buildings. Irish Water is confident that lead piping has been removed from the public water distribution mains but the utility estimates that approximately 180,000 homes in Ireland and hundreds of commercial and public buildings

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http://www.housing.gov.ie/search/archived/current?query=Lead%20grant

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Media Distribution Lists: National Media Outlets

News Editors
Evening Echo
Herald, The
Irish Daily Mail
Irish Daily Mirror, The
Irish Examiner
Irish Independent, The
Irish Times, The
Nuacht RTE AND Nuacht TG4
Star, The Irish Daily
Sun, The Irish (and Irish Sun on Sunday)
Sunday Business Post, The
Sunday Life
Sunday Times, The
Sunday World

National Sunday Newspapers
Sunday Independent, The
Sunday World
Irish Mail on Sunday
Sunday Mirror, The Irish (Dublin)
Sunday Times, The
Sunday Life
Sunday Business Post, The
Sunday Mirror, The Irish (Belfast)

News Desks
Belfast Telegraph
Daily Mirror NI, The
Evening Echo
Financial Times
Herald, The
Irish Daily Mail
Irish Daily Mirror, The
Irish Examiner
Irish Farmers Journal
Irish Independent, The
Irish Mail on Sunday
Irish News, The
News Letter, The
Press Association of Ireland - Dublin Office
SportsJoe.ie
Star, The Irish Daily
Sun, The Irish (and Irish Sun on Sunday)
Sunday Business Post, The
Sunday Independent, The
Sunday Life
Sunday Mirror, The Irish (Belfast)
Sunday Mirror, The Irish (Dublin)
Sunday Times, The
Sunday World
The Ireland Edition of The Times
The Journal.ie
Times, The - Northern Ireland

Environmental Media
BBC Northern Ireland
Energy Business Europe
Energy Ireland Yearbook
Freelance Contributors
Irish Examiner
Irish Farmers Journal
Irish Independent, The
Irish Times, The
RTE News And Current Affairs
Sunday World

Radio News
Newstalk 106-108 FM
Freelance Contributors
Q102 (Dublin)
Raidio na Gaeltachta
RTE News And Current Affairs
RTE Radio 1

Radio Producers
Newstalk 106-108 FM
100-102 Today FM
RTE Radio 1

Morning Talk Shows
Radio Centre
RTE 2fm
RTE Radio 1
RTE Television
Today FM
TV3

Newsdesks TV & Radio
Classic Hits 4FM
100-102 Today FM
BBC Northern Ireland
BBC Television & Radio
Eir Sport
News Letter, The
Newstalk 106-108 FM
Raidio na Gaeltachta
RTE 2fm
RTE News And Current Affairs
RTE News And Current Affairs
RTE Radio 1
RTE Television
TG4
TV3
TV3 Network Limited
UTV Ireland Ltd

Afternoon Talk Shows
Newstalk 106-108 FM
RTE Radio 1
Today FM

Media Distribution Lists: Regional Media Outlets

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KCLR 96 FM	Gorey Reporter(Gorey People)	RTE News And Current Affairs, Midlands Correspondent
98FM	Highland Radio	RTE News And Current Affairs, Mid-West Correspondent
Anglo-Celt, The	Inish Times, The	RTE News And Current Affairs, North East Correspondent
Anons Polski	InishowenNews.com & Inishowen Independent	RTE News And Current Affairs, North-West Correspondent
Argus, The	Into The West	RTE News And Current Affairs, RTE North-East
Arklow Reporter	iRadio	RTE News And Current Affairs, RTE South-East
Athlone Topic	Irish Examiner	RTE News And Current Affairs, South-East Correspondent
Athlone-Mullingar Advertiser	Irish Independent, The. Regional Correspondents, South-West	RTE News And Current Affairs, Southern Editor
Ballincollig Newsletter, The	Irish Times, The. Environment Correspondent	RTE News And Current Affairs, Southern Reporter
Beat 102-103 FM	Irish Times, The. Western & Marine Correspondent	RTE News And Current Affairs, Western Reporter
Blanch Gazette, The	Irishdigest.com	Saol (online)
Bray People	K FM	Search- A Church of Ireland Journal
Bray Reporter(Bray People)	Kerryman, The	Shannonside FM
C103	Kerry's Eye	Sliabh Luachra Outlook
Campus (DCU College Newspaper)	Kildare Extra	South East Radio
Carlow Nationalist	Kildare Nationalist	South East Radio
Carlow People	Kildare Post	South Mayo Reporter
Carrickmacross Reporter	Kildare Times	South Tipp Today
Carrigdhoun Newspaper, The	Kildare,Monasterevin & West Kildare Reporter	Southern Star
Clare County Express	Kildare.tv	Spin 103.8
Clare Courier	Kilkenny People	Spin South-West Ltd. 102-103fm, 94.7fm
Clare FM	Killarney Advertiser	Sunshine 106.8
Clare People	Killarney Outlook	Swords Gazette, The
Clare People Weekender	Laois Nationalist	Take Off
Claremorris Community Radio	Lee Valley Outlook	TG4
Clondalkin Echo	Leinster Leader	The Avondhu
Clondalkin Gazette	Letterkenny Post	The Clare Champion
Community Radio Castlebar	Life FM - Cork	The Clare Herald
Community Radio Youghal	Liffey Champion	The Corkman
Connacht Tribune	Liffey Sound FM	The Mayo News
Connaught Telegraph	Limerick Leader & Chronicle	The Munster Express

Regional News Outlets		
Connemara Community Radio	Limerick Post	The Nationalist and Leinster Times
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Cork Independent	Local News, The	The Tuam Herald
Cork's 96 FM	Longford Leader	Tipp FM
CRY 104FM	Lucan Gazette, The	Tipp Tatler
Donegal Democrat	Malahide Gazette, The	Tipperary Mid-West Community Radio
Donegal News	Mayo Advertiser	Tipperary Star
Donegal People's Press	Meath Chronicle	Tipperary Town News
Donegal Post	Metro Eireann	Tirconaill Tribune
Drogheda Independent	Mid Cork Today	Tralee Advertiser
Drogheda Leader	Midlands 103	Tralee Outlook
Drogheda Life (Online)	Midleton News	Trinity News
Dublin City FM	Midwest Radio	TV3
Dublin People Newspapers, The	Nationalist (Tipperary)	UL Links
Dublin South FM	Near FM	Unit 5 Youghal Business
Dundalk Democrat	New Ross Reporter(New Ross Standard)	University Times (TCD College Newspaper)
Dundalk FM 100	New Ross Standard	UTV Ireland Ltd, Southern Correspondent
Dundalk Leader	North County Leader	Vale Mallow Star & Observer
Dundrum Gazette, The	Northern Sound	Waterford News and Star
Dungarvan Leader	Northwest Express	Waterford Today
Dungarvan Observer	Nuacht	West Cork People
East Coast FM	Nuacht RTE AND Nuacht TG4	West Dublin Access Radio
East Cork Journal	Ocean FM	West Limerick 102
Echo, The- Gorey/New Ross/Enniscorthy/Wexford	Offaly Topic	Western People
Enniscorthy Guardian	P5tv Limited	Westmeath Examiner
Evening Echo	People Group Newspapers	Westmeath Independent
Fingal Independent	Phoenix FM	Wexford Free Press
Flirt FM (NUIG College Radio)	Photojournalist	Wexford People
FM 104	Q102 (Dublin)	Wexford Reporter(Wexford People)
Freelance Contributors	Radio Kerry	Wicklow People
Galway Advertiser	Raidio na Gaeltachta	Wicklow Reporter(Wicklow People)
Galway Bay FM	Raidio na Life	Wicklow Times
Galway Bay FM	Red FM	Wired FM
Galway City Tribune	RTE Cork	WLR FM
Galway Independent	RTE Mid-West	Youghal News

Regional News Outlets		
Go Rail	RTE News And Current Affairs	
Gorey Guardian	RTE News And Current Affairs, Dublin Correspondent	

APPENDIX C

LIMERICK PRIORITY PROJECT INFORMATION NOTE

Lead in Drinking Water Mitigation Plan:

Limerick Priority Project Customer Information

Since the establishment of Irish Water, we have been working hard to improve the quality and supply of our drinking water by fixing old and leaking pipes, and upgrading and building new state of the art water and wastewater treatment facilities. We are also tackling national issues, such as the impact that lead pipework has on our drinking water.

1. Is there lead in the drinking water in Limerick City?

The water that leaves the Clareville Water Treatment Plant to supply Limerick City and environs is free from lead. Our records show that there are no lead public water mains in Limerick.

However, lead plumbing was used widely in Ireland for house construction up to and including the 1970s. It is estimated that there are 180,000 homes in Ireland with lead plumbing. As water passes through lead pipes and fittings, lead can be dissolved into the water.

It has been confirmed that a number of homes in Limerick have lead in their drinking water at levels higher than the EU Drinking Water Regulations limits.

The higher proportion of older housing in parts of Limerick City makes it more likely that private lead pipework will be present. Therefore a plan of action is needed to reduce lead levels to acceptable limits in order to protect human health.

2. What are the acceptable limits for lead in drinking water?

Limits on lead content in drinking water only began to apply in 1998. The EU Drinking Water Directive, following World Health Organisation (WHO) advice, proposed a staged reduction in lead limits for drinking water from a previous standard of 50µg/l (parts per billion) to an interim level of 25 µg/l. This limit applied until 25th December 2013, when it was further reduced to 10 µg/l.

3. Where does Limerick's drinking water come from?

Homes, businesses, schools and other public buildings in Limerick City and its environs are supplied with drinking water from the Clareville Water Treatment Plant. Water is collected and treated at the Clareville facility where it is managed to a very high standard by Limerick City and County Council, on behalf of Irish Water. Irish Water confirms that;

- there is no lead in the drinking water that is produced and distributed from Clareville Water Treatment Plant when it leaves the plant; and
- Records show that there are no public lead water mains in Limerick. There are still some lead pipes in the public network, but these are mostly in old shared connections or in the short pipes connecting the (public) water main to the (private) water supply pipes in older properties.

4. **How is lead getting into some of Limerick's drinking water?**

As drinking water passes through lead pipework, lead can be dissolved into the water in low concentrations. Pipe work in some older homes, businesses and public buildings may contain lead. In Limerick owing to the age of some buildings there is a higher risk of this than in other parts of the country. Based on results from a water sampling programme currently underway in Limerick, Irish Water estimates that approximately 6,000 people could potentially be at risk from unacceptable levels of lead in their drinking water predominantly owing to private lead supply pipes.

5. **Is Limerick the only area where lead gets into drinking water through private water pipes?**

No. It is estimated that approximately 180,000 homes throughout Ireland may contain lead water pipes.

6. **Why is lead in drinking water an issue?**

Regular intake of even low levels of lead can have minor health effects for everyone. The greatest health risk is for babies in the womb, infants and young children.

7. **How can the issue of lead in drinking water be fixed?**

Irish Water, in partnership with Limerick City and County Council is completing the following improvements:

- Lead water pipes are being replaced in Limerick under a €6.5 million investment for the city. By the end of this year 4,000 lead service connections between homes/businesses and the public water mains will have been replaced.

- Irish Water has also committed to replacing lead service connection pipes on the public side of a boundary free-of-charge when customers replace their private lead drinking water pipes inside their property boundary. A number of connections have been replaced to date in Limerick City under this programme.

- Until all private side lead pipework is replaced, and in line with established international best practice, Irish Water proposes to provide an additional treatment process to the water before it leaves Clareville Water Treatment Plant. Irish Water is consulting with the Environmental Protection Agency and the Health Services Executive on a carefully planned process to ensure that drinking water in Limerick City is safe by adding orthophosphate. By adding, orthophosphate to the drinking water it is hoped that lead concentrations in homes/businesses with private lead pipework will brought within the limits set by EU Regulations.

- Orthophosphate works by creating a protective coating inside lead pipes and fittings and stops lead from dissolving into the drinking water. As a result it is expected that lead levels at the tap will be reduced.

8. What is orthophosphate?

Orthophosphate is a colourless and odourless food product that is used in soft drinks and food production and is safe for human consumption. The average person consumes between **1,000 and 1,500 milligrams** of phosphorus every day as part of the normal diet[1]. Consuming 3 litres of water that has been treated with orthophosphate at 1.5 mg/l (milligrams per litre) would contain only 4.5 milligrams of phosphrous. Some soft drinks can contain up to 100 times more phosphorus than the equivalent amount of orthophosphate treated drinking water.

- All water treatment plants in Northern Ireland have had continuous orthophosphate treatment for over ten years.
- Orthophosphate treatment has also been carried out successfully in Great Britain, USA, Canada and mainland Europe since the late 1990's.

9. Is orthophosphate safe?

The HSE has recognised[2] that there is no health concern linked to the addition of orthophosphate to drinking water. This recognition is based on extensive use across the UK for over a decade as well as in many other major metropolitan settings, including New York, where reduced lead levels in drinking water have been achieved after the addition of orthophosphate. Orthophosphate treatment has been used in Hacketstown, Co. Carlow and is also used in some small areas bordering Northern Ireland which use drinking water supplies from Northern Ireland Water treated with orthophosphate.

10. When will the additional water treatment begin and how much Orthophosphate will be added?

Irish Water is planning to begin adding orthophosphate to drinking water in October 2016. Irish Water will communicate with customers in advance of the beginning of the corrective water treatment. Orthophosphate will be added to water in very low concentrations of 1.2 mg/l which is the optimum treatment level for the Clareville Water Treatment Plant as identified during laboratory tests.

11. How will we know if this treatment works?

Irish Water is undertaking this work to protect the health of people in Limerick city and environs. Irish Water will test drinking water at randomly selected customer taps to monitor the effectiveness of orthophosphate treatment and levels of lead present every two months after the commencement of orthophosphate treatment. If an excess of lead is detected during monitoring, the customer will be informed in writing of the result. These results will also be reported to the HSE and the EPA.

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[1] European Food Safety Authority - EFSA Journal 2013;11(11):3444
http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/233.pdf

[2] HSE as cited in Mudiwa, L. (2015). Lead treatment poses no threat. Irish Medical News [online]. Available at: http://www.imt.ie. [Accessed 10 May 2016].

12. What about properties where there is no lead in the drinking water at the tap?

It is not practical or feasible to selectively supply orthophosphate treated water to properties where there is lead pipework or fittings. For this reason, orthophosphate will be added at the Clareville Water Treatment Plant. The addition of orthophosphate will have no negative impact on you or your family.

13. What about the environment?

The addition of orthophosphate treatment at the Clareville Water Treatment Plant has been the subject of an Appropriate Assessment. The Appropriate Assessment under the Habitats Directive determined that there will not be any significant direct, indirect or cumulative impact on the environment. The project is being undertaken in consultation with the Environmental Protection Agency (EPA). Irish Water and the EPA will continue to closely monitor the receiving waters where wastewater is discharged.

14. What is happening elsewhere in Ireland to manage lead in drinking water?

The Government has developed a National Strategy to Reduce Exposure to Lead in Drinking Water and Irish Water has drafted the Irish Water Lead in Drinking Water Mitigation Plan in consultation with the Health Service Executive and Environmental Protection Agency. We would like to hear your views on our plan which is open for public consultation from 27th July 2016 for an eight week period.

15. Where can I find out more information?

Visit: www.water.ie/lead for infographics, videos and other additional information

Email: lead@water.ie

Lead Public Consultation Phoneline: 1890 800 110 or 01 472 1072

APPENDIX D

MEDIA COVERAGE

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Irish Water details plans to replace lead piping - News	tv3.ie	unattributed	27/07/16
Irish Water criticised as householders face €5k bill for lead pipe removal	Clare FM	unattributed	27/07/16
Irish Water criticised over plans to replace lead pipes	Cork 96FM	unattributed	27/07/16
Irish Water urges householders in pre 1980 houses to check for lead piping	Highland FM	unattributed	27/07/16
Irish Water urges householders in pre 1980 houses to check for lead piping	Highland FM	unattributed	27/07/16
Limerick a priority for lead pipe replacement	Limerick 95FM	unattributed	27/07/16
Irish Water criticised over plans to replace lead pipes	Limerick 95FM	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Midwest Radio	unattributed	27/07/16
Discussion about lead pipes	NewsTalk	unattributed	27/07/16
Irish Water criticised as householders face €5k bill for lead pipe removal	Radio Kerry	unattributed	27/07/16
Irish Water to remove and replace public sections of lead piping	RTE1	unattributed	27/07/16
Irish Water criticised as householders face €5k bill for lead pipe removal	Shannonside	unattributed	27/07/16
Irish Water criticised over plans to replace lead pipes	Shannonside	unattributed	27/07/16
Discussion on Irish Water to spend €370m replacing lead pipes	Today FM	unattributed	27/07/16
Irish Water details plans to replace lead piping	TV3	unattributed	27/07/16
Irish Water details plans to replace lead piping	TV3	unattributed	27/07/16
Irish Water plans to cut lead in supply from older pipes	irishexaminer.com	unattributed	27/07/16
Irish Water will replace lead pipes of non-bill payers	Irishtimes.com	Olivia Kelly	27/07/16
Irish Water to spend €370m replacing lead pipes	Irishtimes.com	unattributed	27/07/16
Irish Water in lead warning for pre-1980 built homes	Irish Daily Mirror	unattributed	27/07/16
Irish Water plans to cut lead in supply	Irish Examiner	Evelyn Ring	27/07/16
Irish Water to spend €370m on lead pipes	Irish Times	Olivia Kelly	27/07/16
Pipes to be replaced despite unpaid bills	Irish Times	Olivia Kelly	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	breakingnews.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	breakingnews.ie	unattributed	27/07/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Plan to replace lead pipes could cost households up to €5k	carlow-nationalist.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	carlow-nationalist.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	enniscorthyecho.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	enniscorthyecho.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	eveningecho.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	eveningecho.ie	unattributed	27/07/16
Homeowners May Have To Replace Lead Pipes	fm104.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	irishexaminer.com	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	irishexaminer.com	unattributed	27/07/16
Thousands Of Kildare Households May Have To Spend Up To €5K Replacing Lead Pipes.	kfmradio.com	Mark McCauley	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	kildare-nationalist.ie	Kildare Nationalist Reporter	27/07/16
Plan to replace lead pipes could cost households up to €5k	kildare-nationalist.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	laois-nationalist.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	laois-nationalist.ie	Laois Nationalist Reporter	27/07/16
Irish Water to spend almost €400m to replace external lead pipes	newstalk.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	roscommonherald.ie	Herald Reporter	27/07/16
Plan to replace lead pipes could cost households up to €5k	roscommonherald.ie	Herald Reporter	27/07/16
Irish Water propose adding chemical to water to help tackle lead pipes issue	thejournal.ie	Michael Sheils McNamee	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	westernpeople.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	westernpeople.ie	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	wexfordecho.ie	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	wexfordecho.ie	unattributed	27/07/16
Donegal householders check your pipes - old lead ones to be replaced, but who will pay?	donegalnow.com	unattributed	27/07/16
Donegal householders check your pipes - old lead ones to be replaced, but who will pay?	donegalpost.com	Donegal Now	27/07/16
Irish Water urges householders in pre 1980 houses to check for lead piping	highlandradio.com	Mark McCauley	27/07/16
Irish Water Criticised As Thousands Of Kildare Householders Face €5K Bill For Lead Pipe Removal.	kfmradio.com	Ciara Plunkett	27/07/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Irish Water makes appeal on dangers of lead pipes	Rte.ie	unattributed	27/07/16
Irish Water details plan to replace lead piping - News	tv3.ie	unattributed	27/07/16
Irish Water criticised as thousands of Kildare householders face €5k bill for lead pipe removal	Cork 96FM	unattributed	27/07/16
Irish Water criticised as thousands householders face €5k bill for lead pipe removal	Galway Bay FM	unattributed	27/07/16
Irish Water criticised as householders face €5k bill for lead pipe removal	Northern Sound	unattributed	27/07/16
Cavan and Monaghan homeowners urged to check homes for lead pipes	Northern Sound	unattributed	27/07/16
Irish Water criticised over plans to replace lead pipes	Red FM	unattributed	27/07/16
Irish Water urges Louth homeowners to check their plumbing for lead pipes	droghedalife.com/791/s/front-page	unattributed	27/07/16
Irish Water checks on lead pipes in Laois	leinsterexpress.ie	unattributed	27/07/16
Irish Water says Limerick is a priority for lead pipe replacement	live95fm.ie	unattributed	27/07/16
Irish Water to treat lead pipes but only to property boundary	98FM	unattributed	27/07/16
Discussion about Irish Water to spend €370m replacing lead pipes.	NewsTalk	unattributed	27/07/16
Discussion about Irish Water to replace Lead pipes	RTE Radio 1	unattributed	27/07/16
Irish Water to spend €370m replacing lead pipes	4 FM	unattributed	27/07/16
Thousands of households told water may be contaminated	98FM	unattributed	27/07/16
Irish Water plans to fork out almost 400 million Euro to replace lead pipes	Clare FM	unattributed	27/07/16
Replacing lead pipes could cost affected homeowners up to €5,000	Clare FM	unattributed	27/07/16
Irish Water plans to fork out almost 400 million Euro to replace lead pipes	FM104	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Galway Bay FM	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	KCLR FM	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Limerick 95FM	unattributed	27/07/16
Replacing lead pipes could cost affected homeowners up to €5,000	LMFM	unattributed	27/07/16
Irish Water to treat lead pipes but only to property boundary	Midlands 103	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Midwest Radio	unattributed	27/07/16
Irish Water will replace lead pipes of non-bill payers	NewsTalk	unattributed	27/07/16
Householders may have to spend up to 5,000 euro replacing lead pipes	NewsTalk	unattributed	27/07/16
Irish Water will replace lead pipes of non-bill payers	NewsTalk	unattributed	27/07/16
Plan to replace lead pipes by Irish Water to cost nearly €400m	Radio Kerry	unattributed	27/07/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Irish Water to spend €370m replacing lead pipes	Shannonside	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	WLR FM	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Cork 96FM	unattributed	27/07/16
Irish Water plans to spend almost 400 million Euro to replace lead pipes	Cork 96FM	unattributed	27/07/16
Homeowners may have to fork out up to 5,000 euro replacing lead pipes	FM104	unattributed	27/07/16
Irish Water will replace lead pipes of non-bill payers	NewsTalk	unattributed	27/07/16
Discussion about Irish Water to spend €370m replacing lead pipes	NewsTalk	unattributed	27/07/16
Households to spend up to €5,000 replacing lead pipes	98FM	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	East Coast Radio	unattributed	27/07/16
Plan to replace lead pipes could cost households up to €5k	Midlands 103	unattributed	27/07/16
Irish Water To Treat Lead Pipes But Only To Property Boundary	98fm.com	unattributed	27/07/16
Tipp homeowners urged to check pipes	The Nenagh Guardian	unattributed	27/08/16
Lead pipes	Limerick Post	unattributed	27/08/16
Irish Water urges Monaghan homeowners to check their pipes as new "lead in drinking water" plan is published	Northern Standard	unattributed	28/07/16
Homeowners urged to contact plumber over lead piping concerns	Clare FM	unattributed	28/07/16
Irish Water plans to cut lead in supply from older pipes	Ocean FM	unattributed	28/07/16
Irish Water: Thousands at risk of lead poisoning	Irish Daily Mail	Seán Dunne	28/07/16
Taxpayer to foot €448m bill to deal with potentially dangerous lead pipes	Irish Examiner	Daniel McConnell	28/07/16
Utility in lead fear	The Sun	unattributed	28/07/16
Irish Water: Thousands at risk of lead poisoning	evoke.ie	Seán Dunne, Sarah Burns, Leah McDonald	28/07/16
Taxpayer to foot €448m bill to deal with potentially dangerous lead pipes	irishexaminer.com	Daniel McConnell	28/07/16
Discussion about Irish Water makes appeal to 180,000 households with lead pipes	Clare FM	unattributed	28/07/16
Homeowners Urged To Contact Plumber If They Have Concerns Over Lead Piping	Clare FM	unattributed	28/07/16
Discussion about Plan to replace lead pipes could cost households up to €5k.	Kildare FM	unattributed	28/07/16
No grants paid to households for lead pipe replacement	Irishtimes.com	Olivia Kelly	28/07/16
Leap pipes: All you need to know about this hazard	Irishtimes.com	Olivia Kelly	28/07/16
Irish Water urging homeowners to check their homes for lead pipes	East Coast Radio	unattributed	28/07/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Advice from Irish Water	East Coast Radio	unattributed	28/07/16
Discussion about the project to replace lead pipes	Galway Bay FM	unattributed	28/07/16
Homeowners Urged To Contact Plumber If They Have Concerns Over Lead Piping	clare.fm	unattributed	28/07/16
Kerry homeowners urged to check for lead water pipes	Radio Kerry	unattributed	29/07/16
Mayo homeowners urged to check their pipes as draft Lead in Drinking Water Mitigation Plan is published	Mayo Advertiser	unattributed	29/07/16
Levels of lead in Limerick pipes 'priority' for Irish Water	limerickleader.ie	AnneSheridan	29/07/16
Kerry homeowners urged to check for lead water pipes	radiokerry.ie	unattributed	29/07/16
Views sought over city water plans	Limerick Leader Monday Edition	David Hurley	29/08/16
Limerick water will be chemically treated for lead from October	Limerick Post	Bernie English	30/07/16
Irish Water to prioritise Limerick for upgrades	Limerick Leader County Edition	unattributed	30/07/16
Homeowners in Carlow and Kilkenny are being urged to check their internal plumping for lead pipes	kclr96fm.com	Dean Egan	30/07/16
Levels of lead in Limerick pipes priority' For Irish Water	Limerick Leader	Anne Sheridan	30/07/16
Irish Water to prioritise Limerick for upgrades	Limerick Leader West Edition	Anne Sheridan	30/07/16
Clare homeowners urged to check for lead piping	clarechampion.ie	unattributed	31/07/16
Homeowners urged to check for lead piping	Donegal News Derry People Monday Edition	unattributed	01/08/16
Irish Water issues warning to households over lead pipes	Western People	unattributed	01/08/16
Local homeowners warned about dangers of lead pipes	Dundalk Democrat	Ian Cameron	02/08/16
Fingal households warned over lead pipes	Fingal Independent	unattributed	02/08/16
Lead pipe check is urged by Irish Water	Munster Express	unattributed	02/08/16
Irish Water urges homeowners to check their pipes	Roscommon Herald	unattributed	02/08/16
Homeowners urged to remove lead piping	Waterford News and Star	unattributed	02/08/16
Fingal households warned over lead pipes	Swords Fingal Independent	unattributed	02/08/16
Irish Water urges home owners to check pipes	sligoweekender.ie	Luke Henderson	03/08/16
New warning on dangers of lead in drinking water	Nationalist and Munster Advertiser	unattributed	04/08/16
Irish Water Is Urging All Homeowners to Check Their Pipes As Draft Lead In Drinking Water Mitigation Plan Is Published	Vale Star	unattributed	04/08/16
Homeowners urged to check domestic plumbing for lead pipes	Clondalkin Echo	unattributed	04/08/16
Irish Water urges Homeowners to check their pipes as Draft Lead in Drinking Water	Mallow Star	unattributed	04/08/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Mitigation Plan is Published			
Irish Water urges Sligo home owners to check pipes	Sligo Weekender	unattributed	04/08/16
Homeowners urged to check domestic plumbing for lead pipes	Tallaght Echo	unattributed	04/08/16
Homeowners urged to check domestic plumbing for lead pipes	Ballyfermot Echo	unattributed	04/08/16
Home owners urged to check domestic plumbing for lead pipes	Lucan Echo	unattributed	04/08/16
Irish Water urges Offaly homeowners to check their pipes for lead	Offaly Topic	unattributed	04/08/16
Irish Water urges Tipperary homeowners to check their pipes	Tipperary Star	unattributed	04/08/16
Homeowners in Kilkenny urged to check plumbing for lead in houses built pre-1980	kilkennypeople.ie	unattributed	05/08/16
Homeowners in Kilkenny urged to check plumbing for lead in houses built pre-1980	kilkennypeople.ie: p80	unattributed	05/08/16
Irish Water urges Waterford homeowners to check their pipes as Draft Lead in Drinking Water Mitigation plan is published	Dungarvan Observer	unattributed	05/08/16
Homeowners in Kilkenny urged to check plumbing for lead in houses built pre-1980	Kilkenny People	unattributed	05/08/16
Check for lead pipes	Longford Leader	unattributed	05/08/16
Limerick water a 'complicated cocktail	Limerick Post	Alan Jacques	06/08/16
Irish Water investing 6.5 million euro to replace Limerick's lead water pipes	live95fm.ie	unattributed	06/08/16
Local homeowners warned about dangers of lead pipes	dundalkdemocrat.ie	unattributed	08/08/16
Lead pipes another legacy of lack of investment in water infrastructure	Lucan News	Eoin Ó Iroin T	15/08/16
Irish Water: No known lead water mains in Waterford	WLR FM	unattributed	15/08/16
Irish Water urges checks on homes built prior to 1980	Laois Nationalist	Joe Barrett	16/08/16
Lead warning for householders	Evening Echo	unattributed	24/08/16
Up 12% of houses in Carlow Kilkenny could have dangerous lead piping	KCLR FM	unattributed	24/08/16
Up to 12% of houses in Carlow/Kilkenny could have dangerous lead piping	KCLR FM	unattributed	24/08/16
Chat about lead in water supply	Northern Sound	unattributed	24/08/16
Irish Water hope to replace all lead materials within 10 years	Ocean FM	unattributed	24/08/16
Irish Water hope to replace all lead materials within 10 years	oceanfm.ie	Mike Kelly	24/08/16
Co. Monaghan public urged to have their say on new Irish Water plan	Northern Standard	unattributed	25/08/16
Galway homeowners invited to participate in public consultation on lead in drinking water	connachttribune.ie	unattributed	25/08/16
Galway homeowners invited to participate in public consultation on lead in drinking water	galwaybayfm.ie	GBFM News	25/08/16

Item	Publication/Radio Station/Television Channel	Author/Host/Speaker	Date
Galway homeowners invited to participate in public consultation on lead in drinking water	galwaynews.ie	Our Reporter	25/08/16
Galway homeowners invited to participate in public consultation on lead in drinking water	Galway Bay FM	unattributed	25/08/16
Irish Water plea to check lead pipes	Tipperary Star	unattributed	25/08/16
Councillors want grants to be provided for inspection of lead pipes	Laois Nationalist	Siiin Lennon	26/07/16
Irish Water puts focus on lead pipes	Clare Champion	unattributed	26/08/16
Galway homeowners invited to participate in public consultation on lead in drinking water	Galway Bay FM	unattributed	26/08/16
Views sought over Limerick city water plans	limerickleader.ie	David Hurley	30/08/16

APPENDIX E

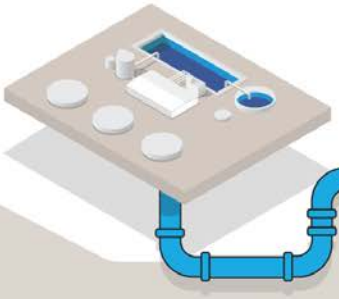
PROJECT INFOGRAPHICS

Irish Water
Draft Lead in Drinking Water Mitigation Plan

UISCE ÉIREANN : IRISH WATER

1. What we know

- Irish Water supplies 1.7 billion litres of drinking water per day.
- Lead-free water is supplied from our treatment plants.
- Records show we've no lead public water mains.



2. But lead is getting into our drinking water

Lead can dissolve into water passing through lead pipes and fittings.

Regular intake of even low levels of lead can affect our health.

3. Who is affected?

Estimated 180,000 homes

Lead was used in water service connections and internal plumbing in houses built before 1980.

Greatest risks are for:

Pregnant Women | Babies | Children

4. We are managing it

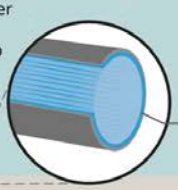
Government has a national strategy and Irish Water has developed a Draft Lead in Drinking Water Mitigation Plan.

Irish Water are:

- ☑ Checking for lead in drinking water.
- ☑ Checking for public lead services.
- ☑ Writing to you if we find lead at your property.
- ☑ Fast-tracking replacement of all public side lead service connections.

5. Interim proposal to protect public health

We propose to treat water with Orthophosphate in suitable locations to stop lead dissolving in it.



- ☑ No health risk
- ☑ Widely used around the world

7. Public Consultation

We'd like to hear your views on the draft Plan by Wednesday 21st of September, 2016

Find out more: www.water.ie/lead

6. What should I do?

Majority of lead in water comes from plumbing inside a property, which is owner's responsibility

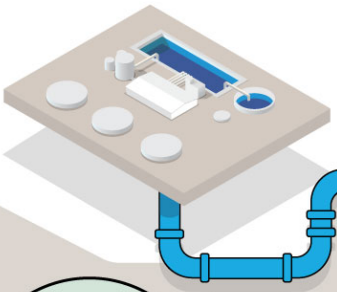
- ☑ House built before 1980
- ☑ Check for lead plumbing
- ☑ Find and replace all lead plumbing

Government has grants available

Email lead@water.ie **Call** 1890 800110 / 01 472 1072 **Write to** Lead Consultation, Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1

Irish Water
Limerick Priority Project

UISCE ÉIREANN : IRISH WATER

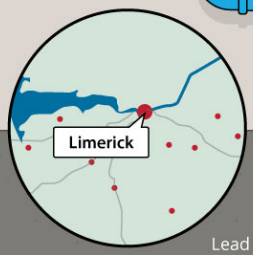


1. What we know

- Lead-free water is supplied from our Clareville Water Treatment Plant.
- Records show we've no lead public water mains in Limerick.

2. But lead is getting into our drinking water

Lead can dissolve into water passing through lead pipes and fittings.

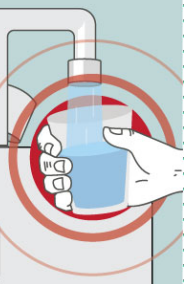


3. Who is affected?

Estimated 6,000 people in Limerick

Lead was used in water service connections and internal plumbing in houses built before 1980.

Regular intake of even low levels of lead can affect our health.



Greatest risks are for:

Pregnant Women | Babies | Children

4. We are managing it

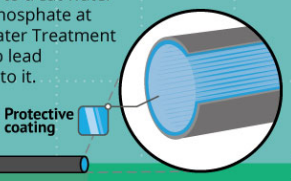
Government has a national strategy and Irish Water has developed a Draft Lead in Drinking Water Mitigation Plan.

Irish Water are:

- ☑ Checking for lead in drinking water.
- ☑ Checking for public lead services.
- ☑ Writing to you if we find lead at your property.
- ☑ Fast-tracking replacement of all public side lead service connections.

5. Orthophosphate Treatment - Interim Solution

We propose to treat water with orthophosphate at Clareville Water Treatment Plant to stop lead dissolving into it.



- ☑ No health risk
- ☑ Widely used around the world
- ☑ Results will be measured at taps

8. Public Consultation

We'd like to hear your views on the draft Plan by Wednesday 21st of September, 2016

Find out more: www.water.ie/lead

7. What should I do?

Majority of lead in water comes from plumbing inside a property, which is owner's responsibility.

- ☑ House built before 1980
- ☑ Check for lead plumbing
- ☑ Find and replace all lead plumbing

Government has grants available

6. What about the environment?

- ☑ Appropriate Assessment shows no significant impact on the environment
- ☑ Irish Water and EPA will monitor all waters where waste water is discharged

Email lead@water.ie **Call** 1890 800110 / 01 472 1072 **Write to** Lead Consultation, Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1

APPENDIX F

ELECTED REPRESENTATIVES EMAILS

EMAIL ISSUED TO ALL ELECTED REPRESENTATIVES 27TH JULY 2016

Dear Councillor,

Irish Water today published its Draft Lead in Drinking Water Mitigation Plan (the draft Plan), which outlines its plan to address the impact that lead pipework has on the levels of lead in drinking water, as part of a broader Government strategy.

- Attached please find:
- Public Consultation Leaflet – Lead in Drinking Water Mitigation Plan
- Irish Water – Lead Mitigation Plan info graphic
- National press release

Public consultation on the draft Plan, the Strategic Environmental Assessment (SEA) Environmental Report and Natura Impact Statement is now underway. Irish Water is now seeking feedback on these documents from the public over an eight week period starting today and ending on 21 September 2016.

Printed copies of the Draft Plan, the SEA Environmental Report and the Natura Impact Statement are available for you to view at planning counters in the main offices of Local Authorities during normal working hours for the duration of the consultation period and are also available to download from the Irish Water website at www.water.ie/lead.

Written submissions or feedback on the draft Plan and associated environmental reports should be sent by email or post to:

By Email: lead@water.ie
Post: **Lead Consultation, Irish Water, Colvill House, 24-26 Talbot St, Dublin 1**

The closing date for receipt of submissions is 5pm on Wednesday 21 September 2016.

Submissions will be reviewed and relevant feedback will be incorporated into the final Lead in Drinking Water Mitigation Plan. In addition a separate Consultation Report will be prepared on the feedback received and will be published online at www.water.ie/lead. Submissions from individuals will be reported anonymously in the Consultation Reports, while feedback from organisations will be attributed. It is expected that the final Plan and SEA Statement will be published later this year.

If you have any queries regarding this consultation or the measures proposed by Irish Water please contact us by phone on 1890 178 178.

Yours sincerely,

EMAIL ISSUED TO LIMERICK AND CLARE BASED MINISTERS, TDS AND SENATORS 27TH JULY 2016

Dear Oireachtas Member,

Irish Water today published its Draft Lead in Drinking Water Mitigation Plan (the draft Plan), which outlines its plan to address the impact that lead pipework has on the levels of lead in drinking water, as part of a broader Government strategy.

Attached please find:

- Public Consultation Leaflet – Lead in Drinking Water Mitigation Plan
- Irish Water – Lead Mitigation Plan info graphic
- Press release
- Limerick Priority Project Information

Public consultation on the draft Plan, the Strategic Environmental Assessment (SEA) Environmental Report and Natura Impact Statement is now underway. Irish Water is now seeking feedback on these documents from the public over an eight week period starting today and ending on 21 September 2016.

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If you have any queries regarding this consultation or the measures proposed by Irish Water please contact us by phone on 1890 178 178.

Yours sincerely,

LIMERICK AND CLARE BASED MINISTERS, TDS AND SENATORS ISSUED WITH EMAIL

Name	Email	Jurisdiction/Panel
Joe Carey T.D	joe.carey@oir.ie	Clare
Michael Harty T.D	votehartyge16@gmail.com	Clare
Pat Breen T.D	pat.breen@oireachtas.ie	Clare
Timmy Dooley T.D	timmy.dooley@oir.ie	Clare
Jan O'Sullivan T.D	jan.osullivan@oir.ie	Limerick City
Jan O'Sullivan T.D	jan.osullivan@oireachtas.ie	Limerick City
Maurice Quinlavin T.D	mquinlivan@cllr.limerickcity.ie	Limerick City
Michael Noonan T.D	minister@finance.gov.ie	Limerick City
Willie O'Dea T.D	willie.odea@oir.ie	Limerick City
Niall Collins T.D	niall.collins@oireachtas.ie	Limerick County
Patrick O'Donovan T.D	patrick.odonovan@oireachtas.ie	Limerick County
Tom Neville T.D	tom.neville@oir.ie	Limerick County
James Heffernan	james.heffernan@oireachtas.ie	Agricultural Panel

NATIONAL STAKEHOLDER GROUP

National Stakeholder Forum	
Age Action Ireland Ltd	IDA
An Taisce	Irish Farmers Association
Customer Contact Management Association	Irish Small and Medium Enterprises Association
Chambers Ireland	Money Advice and Budgeting Services
Commission for Energy Regulation	The Competition and Consumer Protection Commission
Construction Industry Federation	National Disability Authority
Consumer Association Ireland	National Federation of Group Water Schemes
Engineers Ireland	National Youth Council of Ireland
Environmental Protection Agency	Restaurant Association of Ireland
Fáilte Ireland	Small Firms Association
Federation of Irish Sport	St Vincent de Paul
Food Safety Authority of Ireland	Sustainable Water Network
Department of Jobs, Enterprise and Innovation (DJEI)	The Environmental Pillar
Higher Education Authority	The Wheel
IBEC	Voice of Irish Concern for the Environment
Irish Creamery Milk Suppliers Association	DECLG Water Services Section

APPENDIX G

INFORMATION LEAFLET

Draft Lead in Drinking Water Mitigation Plan
Public Consultation

What is happening?

Irish Water is seeking feedback on the Draft Lead in Drinking Water Mitigation Plan, the Strategic Environmental Assessment (SEA) Environmental Report and the Natura Impact Statement.

The public consultation will take place for eight weeks from Wednesday 27th July to Wednesday 21st September 2016.

Printed copies of the draft Plan, SEA Environmental Report and the Natura Impact Statement are available for you to view at planning counters in the main offices of Local Authorities during normal working hours for the duration of the consultation period and are also available to view and download from the Irish Water website at **www.water.ie/lead.**

Have your say

If you would like to make a submission, please send it by email or post by 5pm on Wednesday 21st September 2016:

Email: **lead@water.ie**

Post: **Lead Consultation, Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1**

What is the Lead in Drinking Water Mitigation Plan?

The draft Plan has been prepared in response to recommendations made in the *National Strategy to Reduce Exposure to Lead in Drinking Water*, which was published by the Department of Environment, Community and Local Government (DECLG) and the Department of Health in June 2015 and has been developed in order to identify measures to mitigate risks to human health posed by the presence of lead in drinking water as a result of lead pipework.

The National Strategy requires the contributions of a number of stakeholders in order to achieve its targets. These stakeholders include Irish Water, the DECLG, the Health Service Executive (HSE), the Environmental Protection Agency (EPA) and the general public.

The draft Plan addresses Irish Water's role in meeting the recommendations of the National Strategy and the standards required by the European Union Drinking Water Regulations 2014.

Why do we need to address the impact that lead pipes have on our drinking water?

Drinking water, as produced by Irish Water, is free from lead. However, it can dissolve low concentrations of lead as it passes through lead pipework and fittings that serve properties.

While there are currently no known public lead water mains in Ireland – internal plumbing, service connection pipes and shared service connections may contain lead pipework, especially in buildings constructed up to and including the 1970s. Exposure to lead is an acknowledged health risk and the protection of public health is the primary driver for the draft Plan.

The limit for lead in drinking water has been gradually reducing and is currently set at 10 micrograms per litre as per the EU Drinking Water Regulations 2014. Action must be taken to ensure that Ireland conforms to these new levels and that public health is protected.

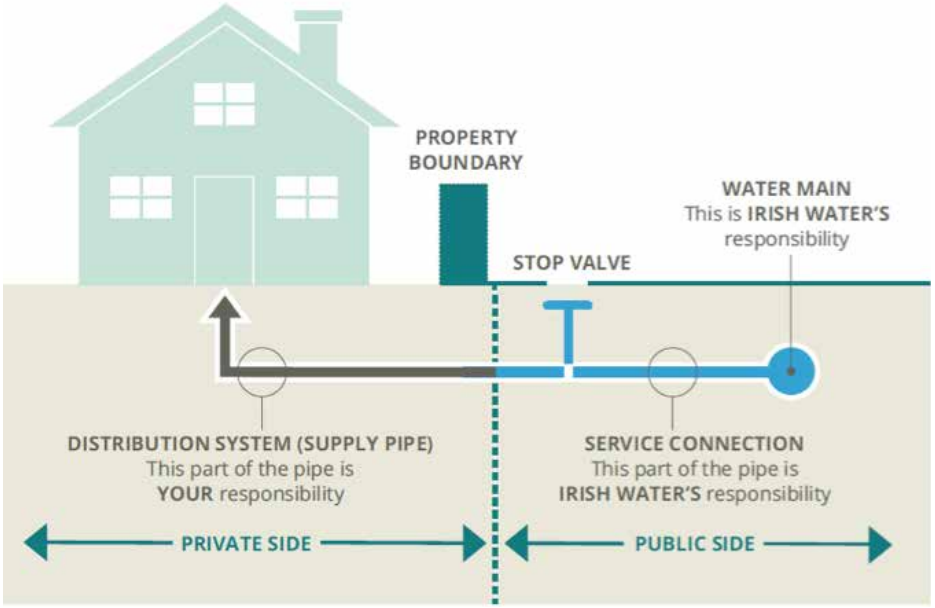
Who is responsible for the pipes?

The draft Plan proposes a series of actions to address the risk of failure to comply with the drinking water quality standard for lead, due to lead pipework, to the extent that Irish Water's responsibility allows.

Pipes that deliver drinking water to our homes and businesses are divided into **public** side and **private** side.

Public side pipes, which include the water main and the connection from the water main to the outer edge of the boundary of a property, are the responsibility of I**rish Water.**

Responsibility for the maintenance and replacement of the **private**-side service pipe and internal plumbing pipes, tanks and fittings lies with the **property owner.**



Extent of Responsibility for Household Connection Pipe (for the purposes of the Lead Mitigation Plan)

What does the draft Plan propose?

The best and most effective way of dealing with lead in drinking water is to replace all lead pipes on both **public** and **private** side. However, there is no certainty as to whether the replacement of the private side lead services would be carried out by property owners, or when they might be completed.

A range of measures have therefore been examined in the Plan including: service connection replacement; lining of lead services; the use of filters and the internationally recognised lead treatment using orthophosphate.

Irish Water proposes to replace all **public side** lead service connections by 2026 and carry out a number of interim measures, including orthophosphate treatment where appropriate. The Plan proposes the following measures:

- Combining an extensive national sampling programme and available housing data to determine at-risk areas, to assess levels of lead and to define priority areas for action.
- A programme of investment (subject to approvals and funding) and an accelerated national programme for the replacement of the public lead service pipes, and any other types of lead connections which are the responsibility of Irish Water
- A programme of targeted communications to encourage property owners to remove lead pipework from within their property.
- Continuing the "Customer opt-in lead pipe replacement scheme" whereby if you remove lead pipework within your property Irish Water will replace lead pipework on the public side if present.
- Corrective water treatment including pH adjustment and orthophosphate treatment to reduce the amount of lead dissolving into water from lead pipework within properties.

Lead Replacement Grant Scheme for Homeowners

The DECLG has established a grant scheme that is available to homeowners to assist with the cost of replacing lead pipework in properties.

Information on applying for the lead replacement grant scheme is available at:
http://www.environ.ie/water/water-quality/lead-drinking-water/lead-drinking-water

Lead in Drinking Water Mitigation Plan Roadmap

Irish Water milestone
Consultation opportunity

2013

2013 December
- Acceptable lead limit reduces internationally to 10 micrograms per litre

2014 January
- Irish Water assumes responsibility for all public water services

2014 May
- Irish Water identifies the need for a national co-ordinated approach to address issue of lead pipework

2015 January
- EPA Drinking Water Report calls for National Lead Strategy

2015 June
- National Strategy to reduce exposure to Lead in Drinking Water published by DECLG and Department of Health
- Irish Water Lead in Drinking Water Mitigation Plan – Issues Paper published
  - **6 week non statutory public consultation on Issues Paper and LPP informing Strategic Environmental Assessment Scoping**
  - **Irish Water begins informing consumers of possible lead pipework detected at properties**

2015 October
- Water Services Strategic Plan Published: Stated Objective to prepare a Lead in Drinking Water Mitigation Plan

2015 November
- SEA Scoping Report on LDWMP
  - **Consultation with Statutory Consultees undertaken**

2016 Jan/Feb
- Screening for Appropriate Assessment

2016 July — WE ARE HERE
- Publication of draft LDWMP
- **8 week statutory consultation on draft LDWMP, SEA Environmental Report and NIS**

2016 Quarter 4
- Finalisation and publication of LDWMP and SEA statement
- **Publish consultation feedback report**

Implementation of Lead in Drinking Water Mitigation Plan

DECLG - Department of the Environment, Community and Local Government
EPA - Environmental Protection Agency
LDWMP - Lead in Drinking Water Mitigation Plan
LPP - Limerick Priority Project
NIS - Natura Impact Statement
SEA - Strategic Environmental Assessment

What are the associated environmental reports with the Plan?

Irish Water has prepared SEA Environmental Reports and Natura Impact Statements as part of the required Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes on the draft Plan. These reports have been developed following a period of public consultation in June and July 2015.

The purpose is to ensure that the environmental impacts of the draft Plan are assessed both during their preparation and prior to adoption. The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the draft Plan and to be kept informed during the decision making process.

Initial consultation and formation of the draft Plan

This draft Plan was compiled following a previous public consultation on the Lead in Drinking Water Issues Paper conducted in June and July 2015.

Public Consultation

Irish Water has published the draft Plan and associated SEA Environmental Report and Natura Impact Statement, outlining Irish Water's strategy and actions for addressing the effects of lead pipework on the supply of drinking water. The draft Plan will assist Ireland in meeting the required drinking water standards.

Irish Water is now seeking feedback as part of the second consultation on the draft Plan and the associated environmental reports.

What happens next?

Feedback received during this consultation will be reviewed and considered and relevant feedback will be incorporated into the final Lead in Drinking Water Mitigation Plan.

We expect to publish the final Plan and the accompanying SEA Statement later this year.

Feedback

Comments and feedback on these documents can be sent to Irish Water by 5pm Wednesday 21st September 2016 by the following methods:

Email: **lead@water.ie**
Post: **Lead Consultation, Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1**

Further information on the Draft LDWMP and associated environmental reports is available online at **www.water.ie/lead**

If you have enquiries or seek further information please contact us on lo-call **1890 800 110** or **01 472 1072**

UISCE ÉIREANN : IRISH WATER

APPENDIX H

LOCAL AUTHORITY DISTRIBUTION LISTS

LOCAL AUTHORITY PLANNING DEPARTMENTS WHERE LDWMP INFORMATION LEAFLETS AND DRAFT NWSMP REPORTS AND ENVIRONMENTAL REPORTS SENT FOR DISPLAY

Local Authority
Carlow County Council
Cavan County Council
Clare County Council
Cork City Council
Cork County Council
Donegal County Council
Dublin City Council
Dun Laoghaire Rathdown County Council
Fingal County Council
Galway City Council
Galway County Council
Kerry County Council
Kildare County Council
Kilkenny County Council
Laois County Council
Leitrim County Council
Limerick City & County Council
Longford County Council
Louth County Council
Mayo County Council
Meath County Council
Monaghan County Council
Tipperary County Council
Offaly County Council
Roscommon County Council
Sligo County Council
South Dublin County Council
Waterford City and County Council
Westmeath County Council
Wexford County Council
Wicklow County Council

LIBRARIES WHERE NWSMP INFORMATION LEAFLETS SENT FOR DISPLAY

Library
Cork City Library
Cork County Library
Kerry County Library
Limerick City Library
Limerick County Library Headquarters
Waterford City Central Library
Waterford County Council Library Service
Tipperary Library
Galway City Library
Galway County Council - Libraries Headquarters
Clare County library
Central Library
County Library
Kilkenny County Library
Kilkenny City Library
Mayo County Library
Roscommon County Library
Leitrim County Library
Longford County Library
Westmeath County Library
Portlaoise Library
Kildare Library & Arts Service Headquarters
Meath County Library
Louth County Library
Wicklow County Library Headquarters
Sligo Central Library
Johnston Central Library H.Q
County Library
Monaghan Branch Library
South Dublin Libraries' Headquarters
Laois County Library HQ
Tullamore Library