

1. INTRODUCTION

This statement sets out the determination of Bord Gáis Éireann (BGE) under the provisions of Article 9 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 – 2011 on whether or not a Strategic Environmental Assessment (SEA) is required for the proposed Irish Domestic Water Metering Programme (IDWMP).

2. THE SCREENING PROCESS

The screening process has been carried out in accordance with Article 9 the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 – 2011 (S.I. No. 435 of 2004 and S.I. No. 200 of 2011) and involved the following:

- **Screening Report**

RPS, acting on behalf of BGE, assessed the IDWMP programme in respect of the relevant criteria set out in Schedule 1 of the Regulations. This assessment is set out in the IDWMP SEA Screening Report. As part of this assessment, in the opinion of RPS, a Strategic Environmental Assessment is not required in accordance with EU Directive 2001/42/EEC as transposed into Irish Legislation through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 - 2011. Reasons as to why a SEA is not required are outlined in Section 3 of this determination statement and in the SEA Screening Report.

- **Consultation with Environmental Authorities**

In accordance with Article 9 of the Regulations, on 8th April 2013 BGE sent notice (via email) to the relevant environmental authorities to make a submission or observation(s) in relation to whether the proposed programme would, or would not, be likely to have significant effects on the environment. The Environmental Authorities were given 4 weeks from the date of the notice to respond (i.e. by 7th May 2013).

The following Environmental Authorities were consulted:

- Environmental Protection Agency (EPA);
- Department of Environment, Community and Local Government (DECLG);
- Department of Agriculture, Food and the Marine (DAFM);
- Department of Communications, Energy and Natural Resources (DCENR); and
- Department of Arts, Heritage and the Gaeltacht (DAHG).
- Inland Fisheries Ireland,

One response was received from the Environmental Protection Agency as summarised below.

2.1 Environmental Protection Agency (EPA)

The EPA's submission was received via email on 7th May 2013. A summary of this submission is detailed below in points (a) to (e) below.

- (a) Initial determination in respect of SEA requirement is noted and the role of the IDWMP is acknowledged;
- (b) Suggest that consideration should be given to including an element in contractor's audits which assesses and reports on the performance of the contractors against the relevant commitments and procedures set out in the Environmental Management System (EMS), Environmental Management Plan (EMP) and Waste Management Plan (WMP). Also suggest that where inconsistencies with the EMS, EMP and WMP are observed, provisions should be included to ensure appropriate measures / procedures are adopted to address any identified inconsistencies;
- (c) Suggest that consideration should also be given to implementing appropriate reporting requirements for each contractor to ensure that a reporting trail is maintained to document compliance with the relevant aspects of the environmental systems, plans and associated procedures;
- (d) Note that any future modifications of the IDWMP should be screened for the potential for likely significant effects on the environment; and
- (e) Note obligations with respect to requirements in respect of European Communities (Birds and Natural Habitats) Regulations 2011.

Response to Issues Raised:

- (a) The EPA's acknowledgements in respect of the initial Screening Determination are noted;
- (b) In accordance with suggestions made in point (b) above, Section 4.6 of the IDWMP Services and Works Contract - Health, Safety, Quality and Environment (HSQE) Requirements, contains provisions to assess and report on performance of contractors and address inconsistencies. Therefore it is considered that matters raised in respect of point (b) above are adequately dealt with.
- (c) Section 3.16 of the IDWMP HSQE requirements requires contractors to provide monthly reporting to BGE as specified by BGE. In accordance with suggestions made in point (c) above, it is considered that a reporting trail and reporting requirements will be adequately dealt with in this regard;
- (d) BGE will ensure that any future modifications of the IDWMP will be screened for the potential for likely significant effects on the environment; and
- (e) BGE acknowledge the IDWMP obligations with respect to requirements in respect of European Communities (Birds and Natural Habitats) Regulations 2011. A Habitats Directive Appropriate Assessment (AA) Screening has also been carried out with respect to the IDWMP programme which identifies that the IDWMP shall not give rise to significant effects on the integrity of any Natura 2000 sites. The AA Screening Statement was also issued to the above environmental authorities for consideration/comment.

3. DETERMINATION

The IDWMP has been assessed against the relevant criteria in Annex II of the SEA Directive to determine the potential for significant environmental effects.

3.1 The characteristics of the programme having regard, in particular, to

(i) *The degree, to which the programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.*

The IDWMP requires the installation of domestic boundary water metering boxes (including the meter) only. It does not set a framework for projects or other activities. The HSQE contractual requirements for contractors have been prepared and set strict parameters in which contractors' works are to be carried out in an environmentally sensitive manner including the provision of environmental management plans and waste management plans. Contractors carrying out works will be contractually obliged to ensure that specified environmental provisions are implemented as part of contractor's requirements. Contractors will be regularly audited by BGE to ensure compliance with the HSQE elements of the contract and the contractors own method statements.

There are no predicted secondary negative impacts likely to be generated as a result of the IDWMP such as negative impacts to water, natural environment, built heritage, as the nature of the works is restricted by the IDWMP HSQE contractor's requirements documentation, the methodology for boundary box installation and contractual obligations for its implementation.

(ii) *The degree to which the Programme influences other plans, including those in a hierarchy.*

The IDWMP supports a number of plans requiring water conservation including the National Development Plan 2007-2013. The implementation of the IDWMP will help to meet objectives of the Water Framework Directive (WFD), the River Basin Management Plans (RBMP) and associated Programme of Measures (POMs) (See point (v) below). It will also help meet objectives of future water conservation plans/projects which are considered a positive impact.

(iii) *The relevance of the Programme for the integration of environmental considerations in particular with a view to promoting sustainable development.*

The HSQE contractor's requirements and methodology for the IDWMP is very specific and sets strict parameters in which works are to be carried out in an environmentally sensitive manner. Contractors selected to carry out the works must demonstrate their capabilities to meet with these procedures and will be assessed by BGE prior to award of contract. When carrying out works contractors are contractually obliged to adhere to

the HSQE procedures, implement an Environmental Management System (EMS) and prepare Environmental Management Plans (EMP), Waste Management Plans (WMP) and method statements for carrying out the works to meet environmental standards. Contractors will also be regularly audited by BGE.

The IDWMP is likely to result in overall long term positive effects as it will reduce the amount of domestic water usage nationwide which will have knock on positive effects with respect to biodiversity, on population, agriculture etc. Water metering is a very important tool in identifying leaks in the water piping system. Leakage in domestic water pipes is thought to result in a 42% loss of water annually and thereby this programme will benefit water conservation efforts significantly.

The introduction of volumetric water charges will provide households with an important incentive to reduce their consumption of water. International experience identifies that the introduction of water meters can achieve a reduction in consumption of at least 10%. This will also reduce the operational costs of providing water services as well as providing longer term savings in relation to requirements for capital investment and the economy in turn.

(iv) Environmental Problems Relevant to the Plan.

The IDWMP will deliver an overall reduction in water usage and conservation of water nationwide. However there is the potential for some environmental impacts associated with the construction works.

A list of potential negative effects on the environment due to the cumulative nature of installing 1.05 million individual meter boxes is provided in Table 1 below. The potential cause of such impacts as a result of implementing the programme is also described in this table along with options for BGE current environmental procedures which are in place to mitigate such impacts. Critically the measures currently in place for avoiding such impacts are listed in column 3 of this table.

As mentioned above HSQE and BGE's procedures for reviewing contractor's currently in place adequately addresses any potential negative impacts associated with the programme as outlined in table 1 below. In particular BGE request all contractor's to operate an EMS and complete EMPs, WMPs etc. to ensure works are carried out to best practice environmental standards. BGE also operate strict auditing of contractors on site to ensure the implementation and effectiveness of the EMS and associated plans such as EMPs and WMPs.

Table 1: Potential Effects Resulting from Installation of Water Meters

Potential Effects	Cause	Contractual HSQE Requirements
<ul style="list-style-type: none"> Sedimentation and associated impacts on water courses Controlled and uncontrolled discharges to ground water, surface water or sewers. Runoff associated with excavated materials 	<ul style="list-style-type: none"> Boxes or holes in ground left open resulting in run off to nearby streams, ditches and rivers. 	<ul style="list-style-type: none"> Detailed requirements for installation of boundary boxes are provided which sets out requirement to backfill boundary box holes. HSQE requires contractor to operate an EMS to include preparation of an EMP and WMP It is a current contractor requirement to ensure that digging, placing of boxes and reinstatement of areas takes place together. No oils, solvent or fuel dispensing will occur on site, such activities will take place at contractor facilities prior to going on site. Spill kits will however be available on site at all times to deal with accidental spillages from site machinery involved in the construction activities. Any contaminated soil or soil not used in the backfilling of the excavated areas will be removed from the site and disposed of appropriately in licensed facilities.
Potential spread of invasive species	Replacement planting including invasive species.	<ul style="list-style-type: none"> BGE will review contractor EMP to ensure it includes an Invasive Species Plan
Contamination - Run off of pollutants during construction	<ul style="list-style-type: none"> Contractor's vans Spillages of contractor's materials 	<ul style="list-style-type: none"> No dispensing of oils, fuels etc. will occur on site. Maintenance of contractor's vehicles. Storage of oils/fuels should be banded
Disturbance to birds	Noise associated with digging	<ul style="list-style-type: none"> Localised noise control measures. No night time works proposed.
Impact on archaeology and heritage	<ul style="list-style-type: none"> Digging up of protected walls or boundary fences. Over ground boundary boxes 	<ul style="list-style-type: none"> Ensure no removal of boundary walls or fencing.
Discharge of energy, noise, odour, dust, vibration, nuisance and visual impact	<ul style="list-style-type: none"> Contractor's vans running unnecessarily Machinery used to dig made ground to install boxes 	<ul style="list-style-type: none"> Contractor to ensure employee environmental awareness. Contractors EMS shall address discharge of energy, noise, odour, dust, vibration, nuisance and visual impact.
Other Impacts	n/a	<p>BGE also have the following measures in place to ensure good environmental practices are employed on site at all site:</p> <ul style="list-style-type: none"> Contractor to ensure employee environmental awareness. BGE Auditing procedures in place Regular Contractor Reporting system in place

- (v) *The relevance of the Programme for the implementation of European Union legislation on the environment (e.g. plans linked to waste management or water protection).*

The IDWMP supports a number of plans requiring water conservation including the following:-

- **EU Water Framework Directive**

The EU Water Framework Directive 2000/60/EC (WFD) requires all countries within Europe to improve management of water resources. The Directive commits member states to preventing deterioration and achieving at least good status of our waters by the year 2015. Article 9 of the WFD requires implementation of pricing policies that provide an incentive to use water efficiently.

The Irish Government are obliged to implement the WFD. In recent years the Government's Water Services Investment Programme 2010 – 2012, identified specific environmental and economic pressures including the need to deal with the very high levels of unaccounted for water in many of our public water supplies which has resulted in the initiation of the IDWMP.

- **Water Services Act 2007**

This Act incorporates a comprehensive review, update and consolidation of all existing water services legislation, and facilitates the establishment of a comprehensive supervisory regime to ensure compliance with specified performance standards. It places duties of care on users of water services in relation to water conservation, protection of collection and distribution networks, and prevention of risk to public health and the environment. Specifically it makes provision for water metering under Part 5 of this Act.

- **The National Development Plan 2007-2013 states the following:**

Good quality water supplies are fundamental to public health. Measures to reduce unaccounted for water in public water supplies also reduce abstraction requirements at source and related pressures on the environment (NDP p.124). *“Expanding infrastructural water conservation activity, particularly by rehabilitation and reinforcement of existing water networks, prioritised by reference to asset management studies to be undertaken by local authorities (NDP p.143)”*.

- **River Basin District Management Plans**

Under Article 9 of the WFD, national water pricing policies are required to provide adequate incentives for efficient water usage as well as a contribution to the cost of providing water services.

The Directive envisages that users would be required, through the application of the polluter pays principle, to pay for water supplies in order to develop awareness and efficiency in water usage. This method has been proved in the context of domestic waste services to bring about behaviour changes as well as providing an important source of revenue to improve services.

The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). Implementation of the 7 RBMPs and POMs throughout the country supports the water metering concept (RBMPs were finalised July 2011). The POMs set out the key priorities for water quality management in the period to 2015. This is evident in the various policies and objectives which support water metering and water conservation.

- **Water Pricing Policy**

The WFD intends that water pricing policy should act as an incentive towards efficient water usage so as to “contribute to the environmental objectives of the directive” and to recover “an adequate contribution” of the costs of water services from the main user groups, including industry, agriculture and households.

Since 1998 the National Government’s Water Pricing Policy has been to charge non domestic customers for water and waste water services to recover the full costs of providing such services to these customers. Metering of all non-domestic uses is largely complete. The installation of meters on the supply of non-domestic customers facilitates the equitable, transparent and efficient implementation of water pricing policy.

In relation to the domestic sector the cost of capital, operational and maintenance costs for water services have been met in full from the Exchequer since 1997. Following a recent Government decision, legislation is to be introduced by the Minister for Environment, Heritage and Local Government to enable local authorities to charge domestic users for water services in a manner which provides incentives for efficient water use and which recovers an adequate contribution of the costs of water services. Proposals will also be brought forward for a metering programme for domestic users (SW RBMP p. 69).

Further, the Action Programmes developed for the various plans also support water conservation and metering, for example:

Appendix 5 of the South Western RBD Action Programme (similar programme for other RBDs) sets out the following actions:

What	Who Leads	When & Where
COST RECOVERY FOR WATER SERVICES		
Water Pricing Policy: Purpose: to promote the conservation and efficient use of water resources in accordance with the Water Framework Directive.		2009 – 2015 National
Relevant Actions:		
<ul style="list-style-type: none"> Develop and implement strategy to achieve water metering of domestic users connected to public water supplies. 	DEHLG	
<ul style="list-style-type: none"> Introduce legislation to allow local authorities to charge domestic users for water services 	DEHLG	
<ul style="list-style-type: none"> Develop charging methodology for water services and introduce water charges for domestic users. 	Local Authorities	
PROMOTION OF EFFICIENT AND SUSTAINABLE WATER USE		
Water Services Act (No. 30 of 2007): Purpose: to facilitate the provision of safe and efficient water services and water service infrastructure for domestic and non-domestic requirements.		2009 – 2015 National
Relevant Actions:		
<ul style="list-style-type: none"> Develop and implement strategy to achieve water metering of domestic users connected to public water supplies. Facilitate the provision of efficient water services. 	DEHLG	
<ul style="list-style-type: none"> Rehabilitate and repair water works. 	Local Authorities	
<ul style="list-style-type: none"> Ensure that water distribution systems are in a fit state and free from leaks. 	Premises Owner / Occupier	
National Water Conservation (Leakage Reduction) Programme: Purpose: to establish water conservation and leakage control strategies		
Relevant Actions:		
<ul style="list-style-type: none"> Establish and maintain GIS-based water management systems. Establish an on-going leakage control programme. Rehabilitate and replace defective water supply networks. Develop water conservation public awareness campaigns. Provide project-specific funding designed to meet specific leakage reduction targets. 	Local Authorities / DEHLG	

3.2 Characteristics of the Effects and of the Area Likely to be Affected having regard in particular, to

(i) The probability, duration, frequency and reversibility of the effects.

There is likely to be some minor negative effects to the public realm for short periods of time as a result of installation of the boundary boxes. However impacts are likely to be short term and localised.

No significant negative effects as a result of implementation of the programme are expected. Long term positive effects are likely as a result of implementation of the programme due to the long term reduction in water usage nationwide and losses through leakages. This is also likely to have economic and climatic benefits in the long term.

(ii) The cumulative nature of the effects.

Cumulative long term positive effects of the IDWMP are expected due to reduction in water usage with resultant economic and climatic benefits nationally. However there maybe the potential for increased drilling of private wells which is currently unregulated and does not require a consent procedure. This is not likely to be a significant cumulative impact; however it may require further investigation in the future depending on the outcome.

(iii) The transboundary nature of the effects.

No negative transboundary effects are expected as a result of implementation of the IDWMP.

(iv) The risk to human health or the environment (e.g. due to accidents).

Potential negative effects on human health and the environment are detailed in Table 1 above. BGE have a number of environmental procedures and HSQE requirements in place to ameliorate against potential negative effects. These HSQE requirements have been devised as part of the IDWMP contract which contractors are obliged to adhere to in the implementation of this programme. Therefore no risk to human health or the environment is expected as a result of implementation of the IDWMP.

(v) The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected).

The IDWMP will be implemented nationally. No significant negative effects are anticipated as a result of implementation of the IDWMP nationally. Long Term positive effects are expected nationally as a result of the implementation of the IDWMP due to the reduction in domestic water usage and leakage which is likely to have economic and climatic benefits.

(vi) *The value and vulnerability of the area likely to be affected due to:*

- **Special Natural Characteristics or Cultural Heritage**

Underground boundary meter boxes will be installed on top of water connections which are easily located and identified as being unique to a particular domestic unit. Most connections will take place in an urban environment. It is proposed that the boxes will be installed underground in order to ensure any visual impacts as a result of installation will be minimal. In this regard, it is not expected that the proposed boxes will have a negative impact in respect of installation within Architectural Conservation Areas or in respect of protected structures. As outlined in Table 1 above, no boundary walls or fences will be removed as a result of implementation of the boundary boxes and boxes will be located within the ground to mitigate against visual impact. It is also a contractual obligation of the contractor to reinstate finishes in the vicinity of boundary boxes which will ensure no negative visual impacts in this regard.

No negative impacts are likely with regard to archaeological sites as meters will be installed on top of 'existing' water connections. Therefore no further excavation underground will take place beyond that previously excavated for the installation of the water mains in the first instance.

No significant negative impacts on areas of special natural characteristics are likely given the small area required for installation of boundary boxes. Furthermore, detailed requirements with respect to the installation of these boxes will need to be adhered to as set out in contract and specifically with respect to potential impacts identified in Table 1 above.

Furthermore a Habitats Directive Appropriate Assessment Screening has also been carried out with respect to this programme which determined that the IDWMP shall not give rise to significant effects on the integrity of any Natura 2000 sites. Therefore no significant environmental effects are likely with respect to special, natural or cultural heritage as a result of implementation of the IDWMP.

- **Exceeded environmental quality standards or limit values,**

Environmental quality values or limit values are not likely to be exceeded as a result of implementation of the IDWMP.

- **Intensive land use.**

It is not proposed that land will be used intensively as a result of implementation of the IDWMP. Therefore no negative impacts are expected in this regard.

(vii) *The effects on areas or landscapes which have recognised national, European Union or international protection status.*

As outlined in point (vi) above, underground boundary meter boxes will be installed on top of water connections that are easily located and identified as being unique to a particular domestic unit. It is proposed that the boxes will be installed underground in order to ensure that any visual impacts as a result of installation will be minimal. In this regard, it is not expected that the proposed boxes will have a negative impact in respect of designated landscapes. It is also a contractual obligation of the contractor to reinstate finishes in the vicinity of boundary boxes which will ensure no negative visual impacts in this regard. Furthermore, detailed requirements with respect to the installation of the meter boxes will need to be adhered to as set out in the IDWMP contract.

4. CONCLUSION

Having considered the relevant criteria set out in Schedule 1 of European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 - 2011 and the submissions received from the environmental authorities in response to the notice issued under Article 9 of the Regulations, Bord Gáis Éireann has determined that the Irish Domestic Water Metering Programme would not be likely to have a significant effect on the environment and therefore a Strategic Environmental Assessment is not required for the proposed IDWMP. BGE will ensure that any future modifications of the IDWMP will be screened for the potential for likely significant effects on the environment.

In accordance with Article 9 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 - 2011, BGE have made a copy of this SEA Screening Determination Statement along with the reasons and considerations for not requiring SEA available for public inspection at the offices of the competent authority during office hours and on their website. BGE have also notified this decision to the environmental authorities.