Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

NOTIFICATION TO ATTEND MEETING OF THE ENVIRONMENT SPC

TO BE HELD IN THE COUNCIL CHAMBER, CITY HALL, DAME STREET, DUBLIN 2.,

ON WEDNESDAY, 24 JUNE 2015 AT 2.00 PM

AGENDA

WEDNESDAY, 24 JUNE 2015

That the text of the posters protocol is amended to reflect below

"A Notice of Intent to exhibit your posters/notices on Dublin City Council property (which is in or can be seen from a public place) must be submitted to the City Council not Jess than 7 working days before it is proposed to exhibit such material unless it can be demonstrated by the applicant that the event being advertised is being organised in response to an occurrence that could not have been foreseen within the normal two weeks' timeframe of supplying notice for intent to poster 14 days before the event and erection of the posters seven days before the event This must be sent to us by one of the following methods and we will respond to all fully completed
Notices of Intent within 2 working days."

10 A.O.B.

Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Minutes of the Meeting Environment Strategic Policy Committee, held on 24th June 2015

1. Minutes of the meeting held on 22nd April 2015.

   Order: Agreed

2. Irish Water Briefing.
   (i) Lead Piping – Jerry Grant, Irish Water.

   Members raised the following concerns
   - Lead contamination specifically in the Raheny Area.
   - Irish Water allows customers to drink water that the HSE has deemed contaminated.
   - Irish Water charging for contaminated water.
   - Cryptosporidium is deemed a public health issue but the lead situation is not.
   - The Water metering project punctured the water supply network which ultimately disturbed the network and added to the lead problem.
   - Supply of Water Tankers in affected areas.
   - When did Irish Water become aware of the gravity of the lead problem?
   - What levels of sampling / testing to detect lead will take place?
   - Financial implications of replacing lead pipes to householders.

   Mr. Grant assured the members that the that the metering project did not exacerbate the lead problem; this was disputed by Councillor Ciarán O'Moore.

   (ii) Strategic Water Supply Project for the Eastern Region – Gerry Geoghegan, Irish Water.

   Members raised the following issues
   - Rights to the water where the abstraction is proposed.
   - Reduction in leakage levels.
   - Would it be more advantageous to fix leaks instead of taking water from a distant source.
   - Possibility of a grant aided retrofitting programme to address water conservation in particular rainwater harvesting.
   - Prohibitive cost of water desalination.
   - The emerging preferred option that is determined will be final.
   - Irish Water to be invited to give a further presentation when the preferred option is decided.

   Order: Presentations Noted.

3. Chairpersons Business.

None.

4. Correspondence.

Acknowledgement form Minister Kelly in relation to Councillor Smith's motion.

5. Draft City Development Plan, 2016 -2022 (Presentation)

It was agreed to relist this item on the September Agenda with the following themes as the areas of interest:

- Local Adaptation Plan
- Energy Action Plan
- Climate Change Strategy
- Initiatives to promote waste reduction & encourage re-use / recycle
- Guidelines on waste storage facilities
- Parks use & Management
- Urban Agricultural Support

The Committee will meet for a workshop on or about the 15th October 2015 to formulate submissions on the Development plan which will be tabled during the public consultation process.

Order: Presentation Noted

6. New Climate Change Strategy & Renewable Energy Initiatives

(i) Climate Change Strategy
The Climate Change Strategy 2008 – 2012 is to be circulated to the Members to be used as starting point to develop a new strategy and Members should identify other areas of interest.

A sub-committee should be established in the Autumn to deal specifically with the Climate Change Strategy.

(ii) Renewable Energy Initiatives
Dr. Gerry Wardell gave a verbal report on renewable energy initiatives in the city and pointed out that there are 107 renewable energy sites in the region and 1% of the City's energy electricity requirements are supplied from renewable sources. This is quite good as all these site are stand alone and do not feed into the National Grid. It was also pointed out that Electricity producing Solar Panel technology has improved to such an extent that they can be self-financing within 12 years.

Additional Solar Panels are being installed on the Civic Offices in Cabra, Raheny, Ballymun & Coolock libraries.

Order: Presentation Noted. The housing Department to be contacted to identify a Housing complex that is suitable for Renewable Energy

7. Waste Policy

(i) Eastern & Midland Waste Plan / Regional Office update

Discussions were held around the following topics

- **Locations of Waste facilities**
  The plan gives a commitment to develop citing guidelines for Waste facilities which will be drawn up over the coming months.
- **Food waste being sent to Landfill**
  It is a Government priority to roll out the Brown Bin Collection service nationally. An extensive awareness and educational campaign will be put in place with a view to increasing organic waste collection participation.
  The intended introduction of pay by weight from next year is a further measure that will support the diversion of organic waste from Landfill.
- **Deposit Refund scheme (specifically glass containers)**
  The three regions were supportive of the concept of a deposit scheme but the Department will not introduce this at this stage. At a regional level it is proposed to introduce a pilot scheme.
- **Contracts**
  The role in developing the Regional Office was to put in place a policy framework that would maximise recycling waste materials to include glass. The structure of contracts is a matter for each Local Authority.

(ii) Waste regulations – Pay by Weight

Order: Report Noted, Briefing note to be circulated to all members and relist (waste regs) for September Meeting.

8. Dublin Waste to Energy Project update report.

Members raised the following concerns regarding the elements of the report:

- **Community Gain fund – how it was determined & the Allowance for the Chairperson**
  A comprehensive report will issue on how the value of the Community Gain fund was calculated.
  The Allowance paid to the Chairperson is determined by the Departmental guidelines.
- **Location of the Local Office**
  Discussion held on the proposed site for the location of the Local Office at the Pigeon House Hotel. Members were of the view that the proposed office location was too far away from the communities that would take an interest in the project.
- **Local Employment Charter**
  There is currently in the region of 240 people employed on the site. Vacancies that arise will be referred to the Local Employment office.
  A breakdown of the employment type & areas of employment will be included in the next DWtE report.

- **PM 10 & PM 2.5 Monitoring.**
  A discussion was held between Mr. Martin Fitzpatrick and Mr. Joe McCarthy on this issue.

Martin Fitzpatrick, Principal Environmental Health Officer, DCC stated

- The EPA maintained an Air Monitoring station 2 – 2.5 years which was discontinued in 2012.
- EU limit values were not breached.
- The data gives a good benchmark in relation to Air Quality and the proposed monitoring campaign.

SPC Member Joe McCarthy, An Taisce, stated

- All measurement campaigns since 2002 including the EPA air monitoring campaign had PM10 breaches.
- The EPA stated there were no exceedances but it was visible on the on line reporting that PMs were being breached.
- PM10 & PM2.5 campaigns must be extensive enough to determine the air quality on the Poolbeg Peninsula.
- That he cannot accept the assurances on Air Quality as provided.

Martin Fitzpatrick, Principal Environmental Health Officer, DCC, responded:

- PM10 & PM2.5 monitoring will take place during some elements of the construction.
- The benchmark to compare it to will be the published report of the EPA.

- **Traffic Impacts**
  The major foundations and concrete construction are largely complete and it is intended that facility components will be delivered to the dock in order to minimize traffic.
- **Luxembourg financing**
  All subsidiaries of DWtE group are domiciled in the state and there is no Luxembourg subsidiary in the group. It was noted that both DCC and the NDFA examined the financing and project company structures in advance of the contracts being signed. The company referred to in the media report is not part of the DWtE group; it is a wholly owned subsidiary of one of the funders of the project.
- **Site Water run offs**
  Any site water run offs are collected on site and transported under license awarded by Irish Water to the Waste Water Treatment Plant.
- **Site Visit**
  A site visit is to be arranged for the members of the committee.

Order: Report Noted

9. Motion in the name of Councillor Michael O'Brien

That the text of the posters protocol is amended to reflect below

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before the event . This must be sent to us by one of the following methods and we will respond to all fully completed Notices of Intent within 2 working days."

Order: Recommend to Council

10. A.O.B.
    The Chief Executive's Department and Protocol Committee are to be contacted in relation to noise issues from a private event in the Rotunda.

Attendance

Members
Councillor Naoise Ó Muirí (Chairperson)
Councillor Catherine Ardagh
Councillor Mannix Flynn
Councillor Andrew Keegan
Councillor Denise Mitchell
Councillor Ciaran O'Moore
Councillor Michael O'Brien
Sinead O'Brien - Environmental Pillar
Robert Moss - Dublin City Community Forum
Joe McCarthy - An Taisce

Apologies
Councillor Claire Byrne
Nicholas Cloake - Dublin Docklands Business Forum
Lord Mayor Christy Burke

Absent
Councillor Declan Flanagan
Councillor Bríd Smith
Louise McCann - Disability Federation of Ireland
Councillor Bríd Smith

Officials
Michael Phillips, City Engineer and Director of Traffic
Declan Wallace, Executive Manager
Helen McNamara, Senior Executive Officer
Gerry O'Connell, Senior Engineer
Hugh Coughlan, Administrative Officer
James Nolan, Executive Engineer
Ciarán McGoldrick, Staff Officer
Owen Sweeney, Staff Officer

Irish Water
Jerry Grant
Gerry Geoghegan

City of Dublin Energy Management Agency

Dr. Gerry Wardell

Councillor Naoise Ó Muirí
Chairperson
9th July 2015.

Dublin City Council Environment SPC: Lead Briefing

24th June 2015

Introduction

- Drinking water as produced is free from lead. However, water supply can acquire lead as it passes through lead pipes and plumbing (historically lead pipes were used for plumbing to 1970's)
- Drinking Water Regulations since 1990's have set progressively lower lead limits. Values in drinking water now 10 microgrammes per litre
- Up to 150,000 properties currently above the EU limit, and 40,000 common lead shared services
- Non compliance is almost entirely a private side issue, i.e. within the property
- Pre Irish Water there was limited focus & limited sampling evidence. Customer requests for testing have increased dramatically with high failure rates recorded
- Water restrictions were being imposed by the HSE on ad hoc basis

EPA Drinking Water Report 2013

- *EPA Drinking Water Report 2013:
  - *Key Findings: Strategic Issues:* ***Implement a National Lead Strategy***

Lead Compliance Year on Year			
Limit/Year	2013	2014	2015+
25µg/l	99.1%*	98.5%*	Est. 86%
10µg/l	Est. 96%	Est. 96%	Est. 75%

- Examples of Directions

WSA	Supply	Reason for Direction	Issue date	Status at end 2013
Clare	Ennis PWS	No timeframe submitted for the removal of lead mains in the	06-Jan-11	Direction not complied with. Further EPA enforcement action being
Kerry	Lisardboola and Lisloose	Replacement of WSA-owned lead pipework.	28-Sep-11	Direction deadline was the end of December 2013.
Cork	Mallow	Replacement of WSA-owned lead pipework.	28-Sep-11	Direction deadline was the end of December 2013.

Lead Study

- Dublin City Council conducted a detailed study in Raheny:
- **Key findings:**
  - *15 of the 16 properties failing the 10µg/L limit had **no public side lead***
  - *Flushing reduced lead concentrations but did **not achieve compliance***
- Findings are in line with international experience: "strategic replacement of lead communication pipes by water companies **does not achieve significant benefits . . .** unless the consumer replaces lead pipes serving the property at the same time. (DWI July 2013 'DWI PR14 Guidance – Lead in Drinking Water)

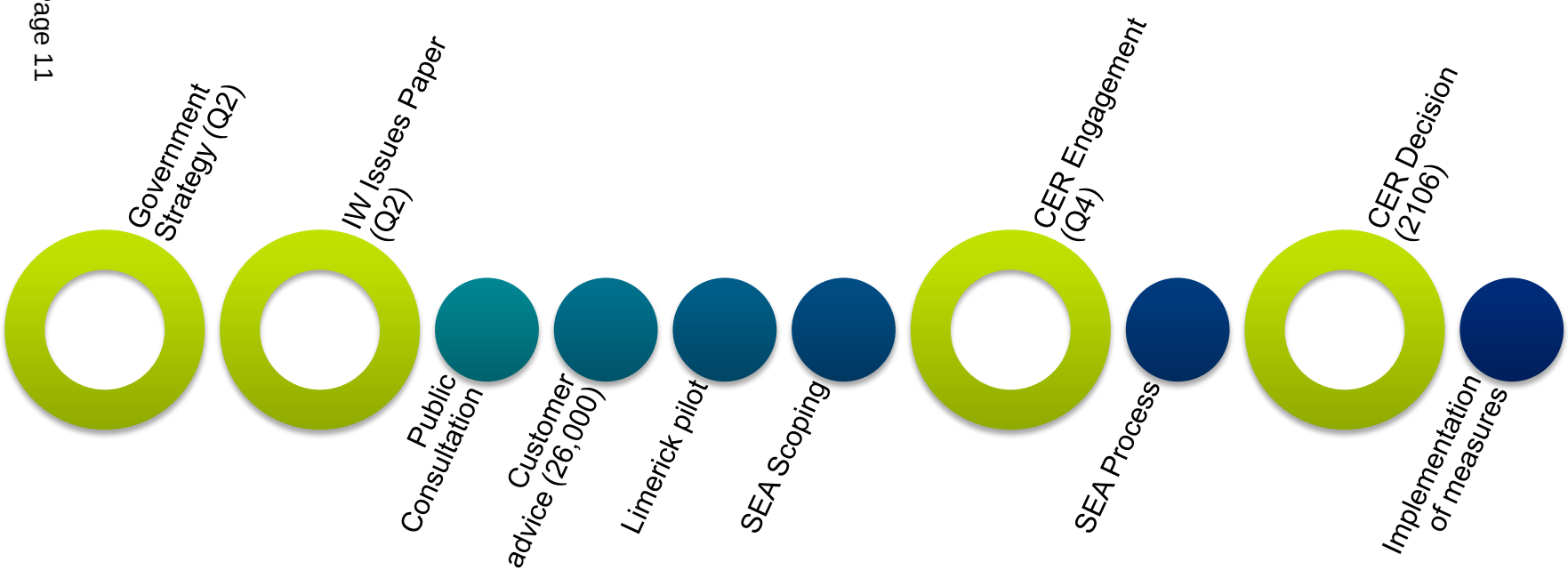
Component of Water Supply Network	Responsibility for Water Quality
Water Treatment, Transmission and Storage	Irish Water – Fully Compliant
Water Distribution Network Mains	Irish Water – Fully Compliant
Water Communication Pipe from Main Pipe to Customer Boundary	Irish Water – Fully Compliant
Water Service Pipe and plumbing and fittings within Customer Boundary / House where there is no lead	Customer – Fully Compliant
Water Service Pipe and plumbing and fittings within Customer Boundary / House where there is lead	Customer – Not Compliant

Lead pipe and fittings	Contribution to lead in drinking water
Communication pipe	50 – 75%
Supply pipe	20 – 35%
Fittings	1 – 3%

AWWARF 2008

Lead: Update

- 8th June 2015: First letters and advice arrive to over 600 customers in Limerick based on lead information from the metering programme. Note: 26,000 advice letters pending.
- 9th June 2015: Government published a national strategy to reduce exposure to lead in drinking water
- 16th June 2015: Irish Water published Lead in Drinking Water Mitigation Plan – Issues Paper



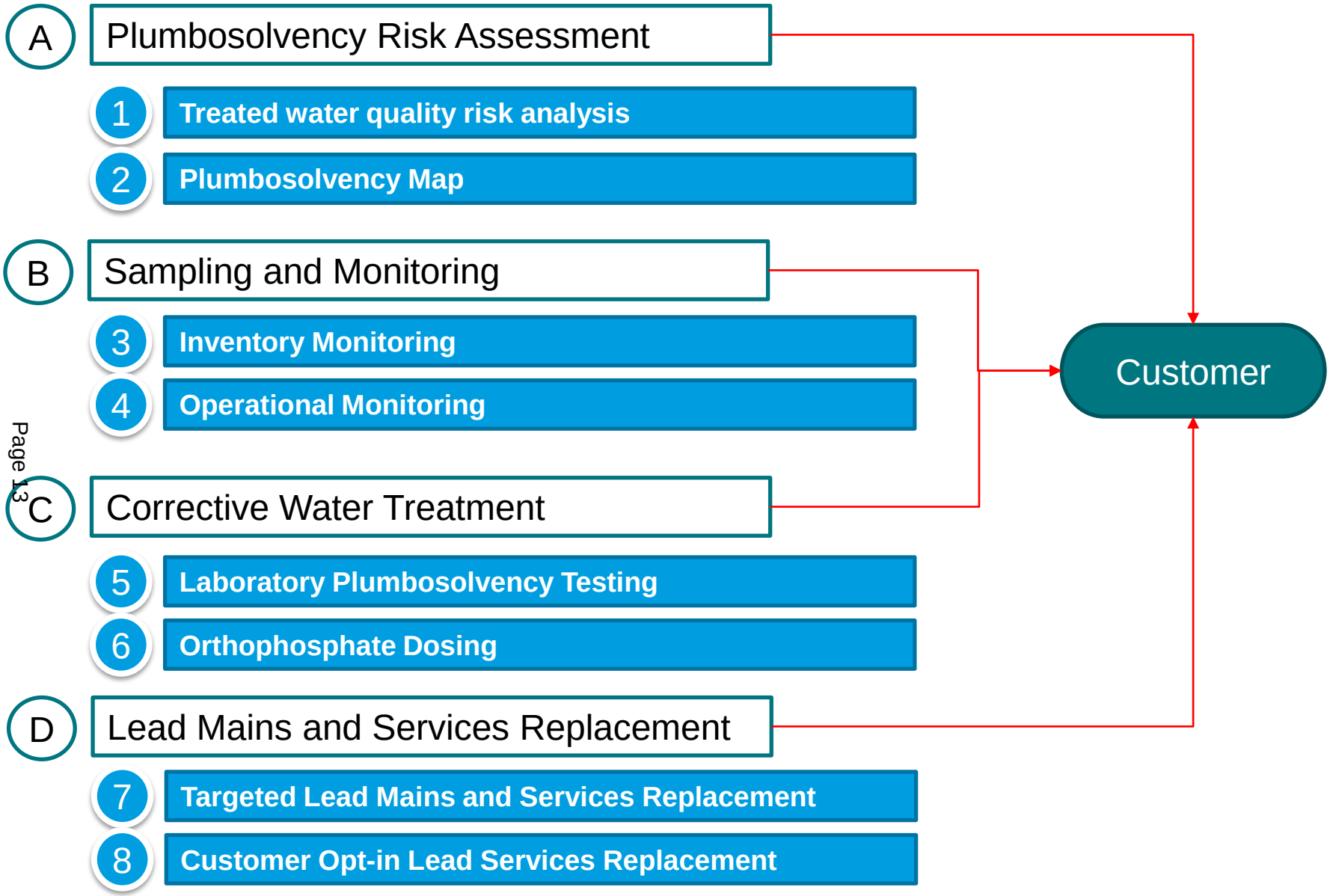
Lead: proposed measures

- Extensive **sampling programme to map risk of lead nationally**
- **Information** for households – **Lead pipes indicates likely to fail lead standard**
- **Customer Opt-in scheme** supported by government grant
  - *Irish Water will ensure conjunctive replacement of supply pipe*

Risk Prioritised:

  - ***Replacement of the public connection pipes**, and any other types of lead connections, under a long term planned programme.*
  - *Prioritising common backyard lead pipe replacement*
  - ***Optimisation of the treated water** (e.g. control of pH and ortho-phosphate dosing).*
- Research:
  - ***chemical lining systems** (Dundalk)*
  - ***ortho-phosphate** piloted as corrosion treatment (Limerick).*

Irish Water Lead Mitigation Plan

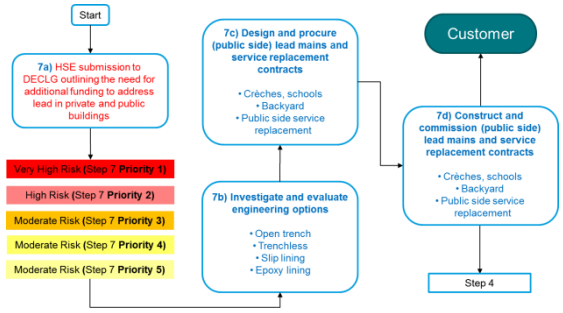


Lead Mains and Services Replacement

Targeted Lead Mains and Services Replacement

Focus on Risk

- High Risk supplies
- Vulnerable Customers (Schools, crèches etc.)
- Backyard supplies & Conjunctive (with private owner)
- Public side service pipes
- Longer term solution



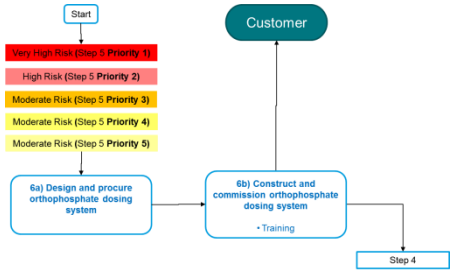
Lead pipe and fittings	Contribution to lead in drinking water
Communication pipe	50 – 75%
Supply pipe	20 – 35%
Fittings	1 – 3%

AWWARF 2008

Corrective Water Treatment

Orthophosphate Dosing

- Install ortho-phosphoric acid dosing systems
  - *Ortho-phosphoric acid (food grade)*
  - *Standardised design / modular construction and installation*
  - *Adjustable ortho-phosphate dose*
- Upgrade / Install pH control to maintain optimum pH



Orthophosphate dose range (mg/L P)	% of high alkalinity ground waters	% of high alkalinity surface waters	% of low alkalinity surface waters
0.5 to 0.6	6.5	0	33.7
0.9 to 1.2	60.9	26.7	38.6
1.4 to 2.0	32.6	73.3	23.8
2.2 to 2.8	0	0	3.9

Hayes, 2008

Summary of Lead Problem

- Legacy issue – Properties up to 1970's
  - *Issue relates to lead pipes*
- National Strategy now in place
  - *Grants scheme being finalised by Govt*
  - *Irish Water consulting on our Plans*
  - *Replacement is the long term solution*
  - *Interim measures (information, risk mapping and changes to water treatment)*

Water Supply Project (WSP)

Eastern and Midlands Region

UISCE ÉIREANN : IRISH WATER

Dublin City Council Environment SPC: Briefing

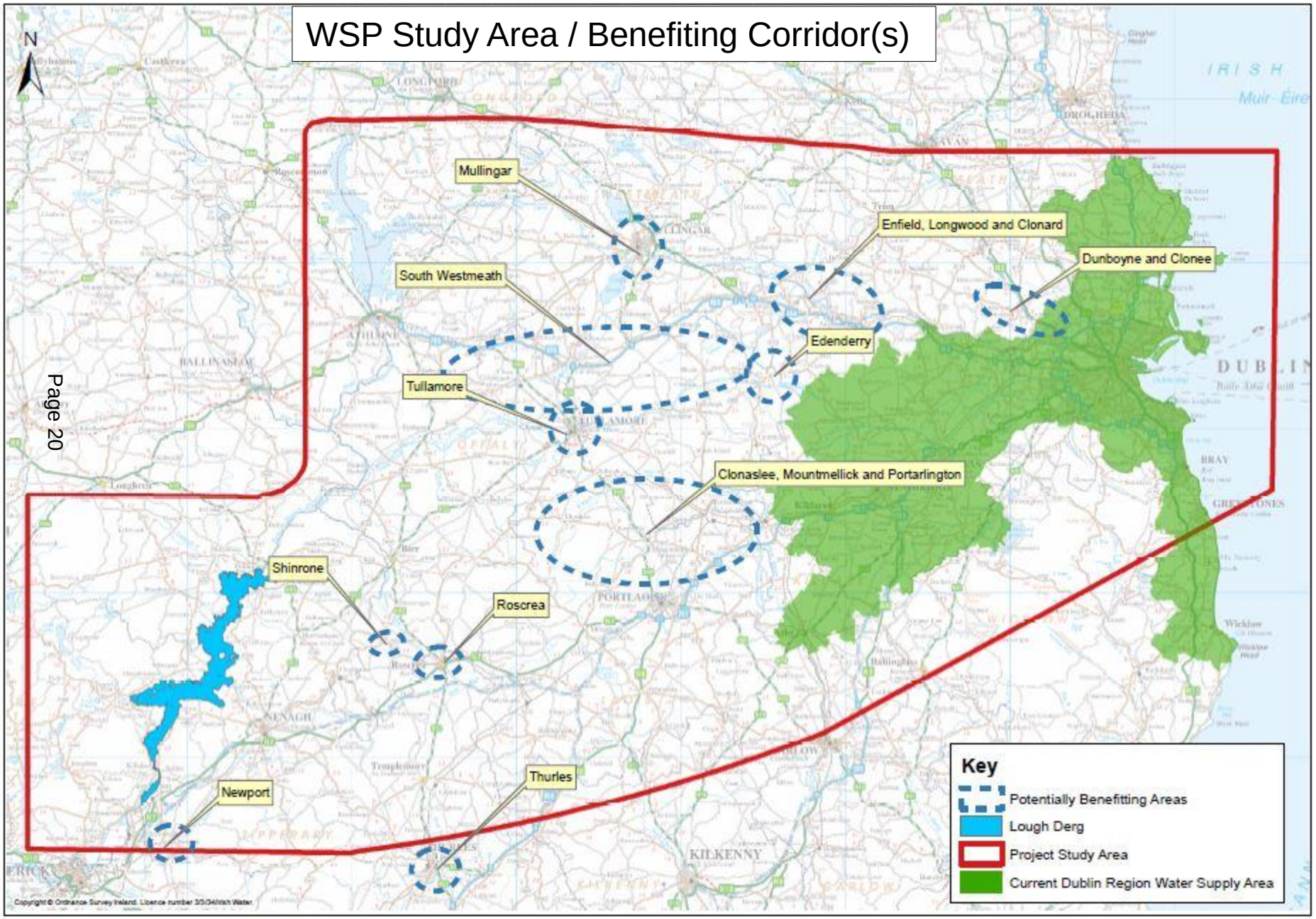
24th June 2015

Background & Introduction

- Dublin City Council transfer WSP to Irish Water (Ervia) - 1st Jan 2014
- WSP Project in Planning Phase – Direct Application to An Bord Pleanala
- Planning Process involves Public Consultation (5 Stages)
  - ***1st Stage – Project Need Report*** *(10 March 2015 – 5 May 2015)*
  - ***2nd Stage – Options Working Paper*** *(9 June 2015 – 4 August 2015)*
  - *3rd Stage – 'Emerging Preferred Option' (Data + Consultation) – Oct 2015*
  - *4th Stage – Confirmation of 'Preferred Option' (April 2016)*
  - *5th Stage – Scoping EIS (Q2, 2016)*
- Submit EIS & Planning Application Q2, 2017

Project Need

WSP Study Area / Benefiting Corridor(s)



Demographic Report (AOS Planning)

- Population Projections:-

Area No	Description	2011 Census	2050 Most Likely
1	Water Supply Area (Dublin)	1,516,133	2,154,252
2	Benefiting Corridor	533,984	692,296
3	Rest of the State	2,538,135	2,920,852
	Total State Population	**4,588,252**	**5,767,400**

Key Data – Project Need Report (2015 – 2050)

- **Domestic** (70Mld)
  - Population Growth 1.5m – 2.1m (PCC 125 litres / person / day)
- **Non Dom** (55Mld) + Strategic Provision (100Mld) / IDA (FDI)
- **Leakage** Network (50Mld reduction – 33% to 20%) + Household
- **Operational Requirements** (International Standards)
  - 20% - Peaks (90Mld) / 15% - Headroom (70Mld)
  - Avoids Outages (€78m per day) / Provides for Climate Change Impacts
- **Resilience** (IDA) / Diversification of Source (Failure) Risk
- **Benefiting Corridor** (100Mld)
  - Agri-Food (Milk Quotas) / FDI / Tourism / WTP Rationalisation

Summary – New Supply Need / Timing / Extent

Population Increases

Industrial / Commercial & FDI

Water Conservation / Leakage

Metering & Charging

YEAR	PEAK DEMAND
2014	540Mld – 560Mld
2020's	600Mld – 620Mld
2050's	800Mld – 900Mld

Maximum Production of Existing Dublin Sources (2020)

Maximise Sustainable Production Existing Sources

Minimise Demand – Metering / Efficient Appliances

Plan Now for New Supply **330Mld** @ **2050** (approx 4m^3/sec)

- Operate to International Service Standards
- Enhance Resilience of Overall Supply System (FDI etc)
- Benefiting Area (**99Mld** included in **330Mld**)

Public Consultation

Project Need

(10 March – 5 May 2015)

Submissions (Project Need) / Conclusion

SUBMISSIONS – CONSULTATION (Project Need)	CONSULTATION CONCLUSION
Local Authorities 10 No • DCC submitted on behalf of Fingal, Wicklow, Dun Laoghaire, South Dublin • Kildare , Meath, Offaly, Laois	• New Source of Water Required for Eastern Region (incl Dublin) to supply 215Mld by 2050 • Leakage Reductions & Conservation insufficient to meet projected growth in demand from population & economy incl FDI • Benefiting Corridor established by (say) 'Dublin-Shannon' scheme potentially 99Mld demand by 2050
Inland Fisheries Ireland	
Chambers Ireland	
Dublin Chamber of Commerce	
IDA, Enterprise Ireland and the Dept of Jobs Enterprise and Innovation	
Lough Derg Science Group	
River Shannon Protection Alliance (RSPA)	
An Taisce	
Independent TD	
Killaloe District Councillors	
East Clare Tourism	
9 Individual Submissions	

Options Working Paper

(New Supply) Options Working Paper (1)

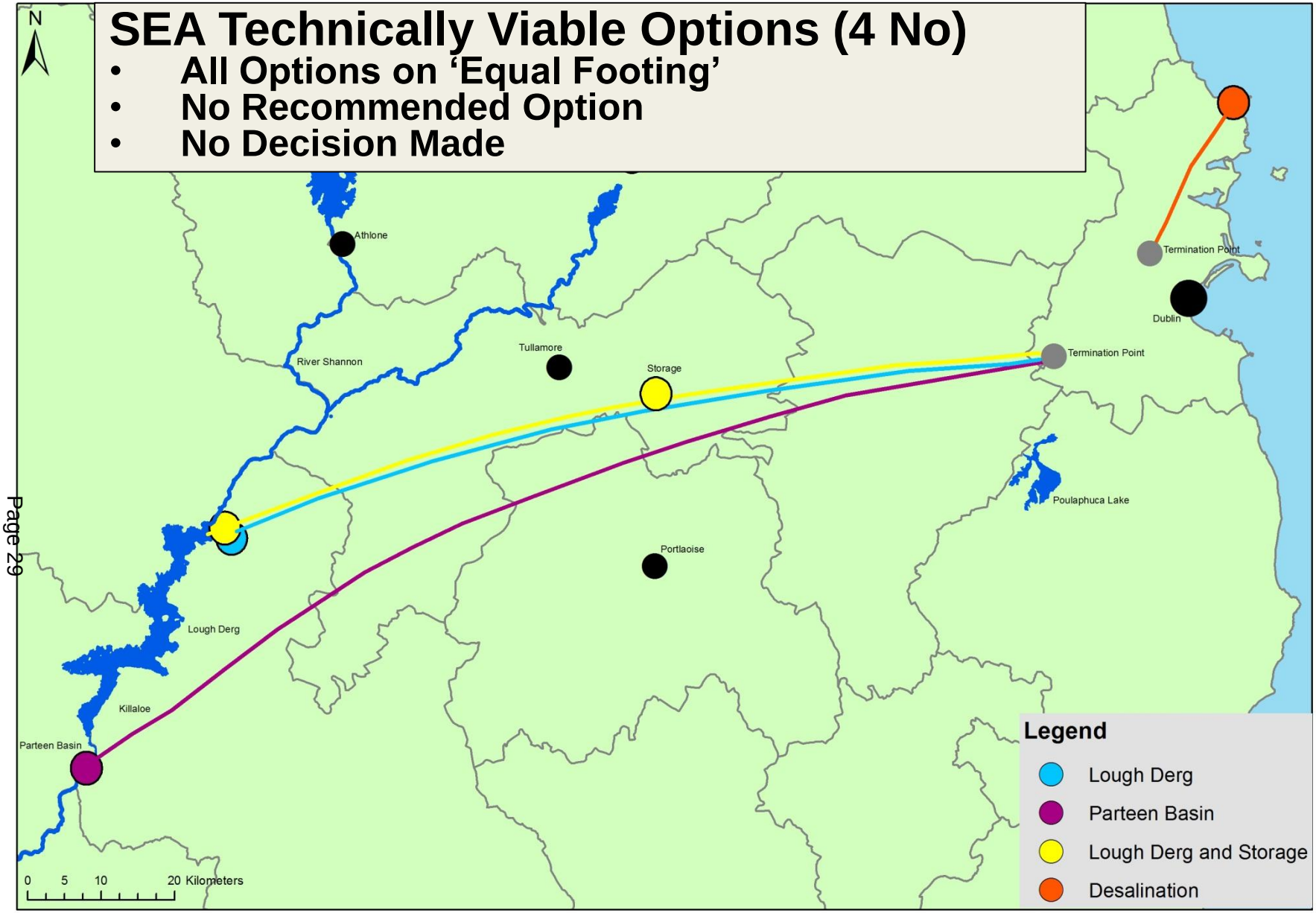
- Four Technically Viable Options for Meeting Need (WSP) being investigated in detail
- Investigations (on all four options) include Water Quality Data Gathering, Surveys, Ground Investigations, Modelling Simulations
- Four Tech Viable Options identified in previous SEA (2007-2011) updated / re-validated – Env / Legal / Stakeholders (2011 – 2015)
- Six Options Eliminated (from original SEA 10 Options) – Insufficient Water Availability or Non Compliance with Habitats Directive

(New Supply) Options Working Paper (2)

- No ‘Recommended’ or ‘Preferred Option’ at this stage / All Options being assessed on Equal Footing / no Decision Made
- ‘Emerging Preferred Option’ can only be identified at ‘End of Process’ when Sufficient Data Available + Consultation Complete
- Oct / Nov 2015 – ‘Emerging Preferred Option’ (6 months data) + Submissions from Consultation
- April 2016 – Confirmation of Preferred Option (1 years data)

SEA Technically Viable Options (4 No)

- All Options on 'Equal Footing'
- No Recommended Option
- No Decision Made



Public Consultation

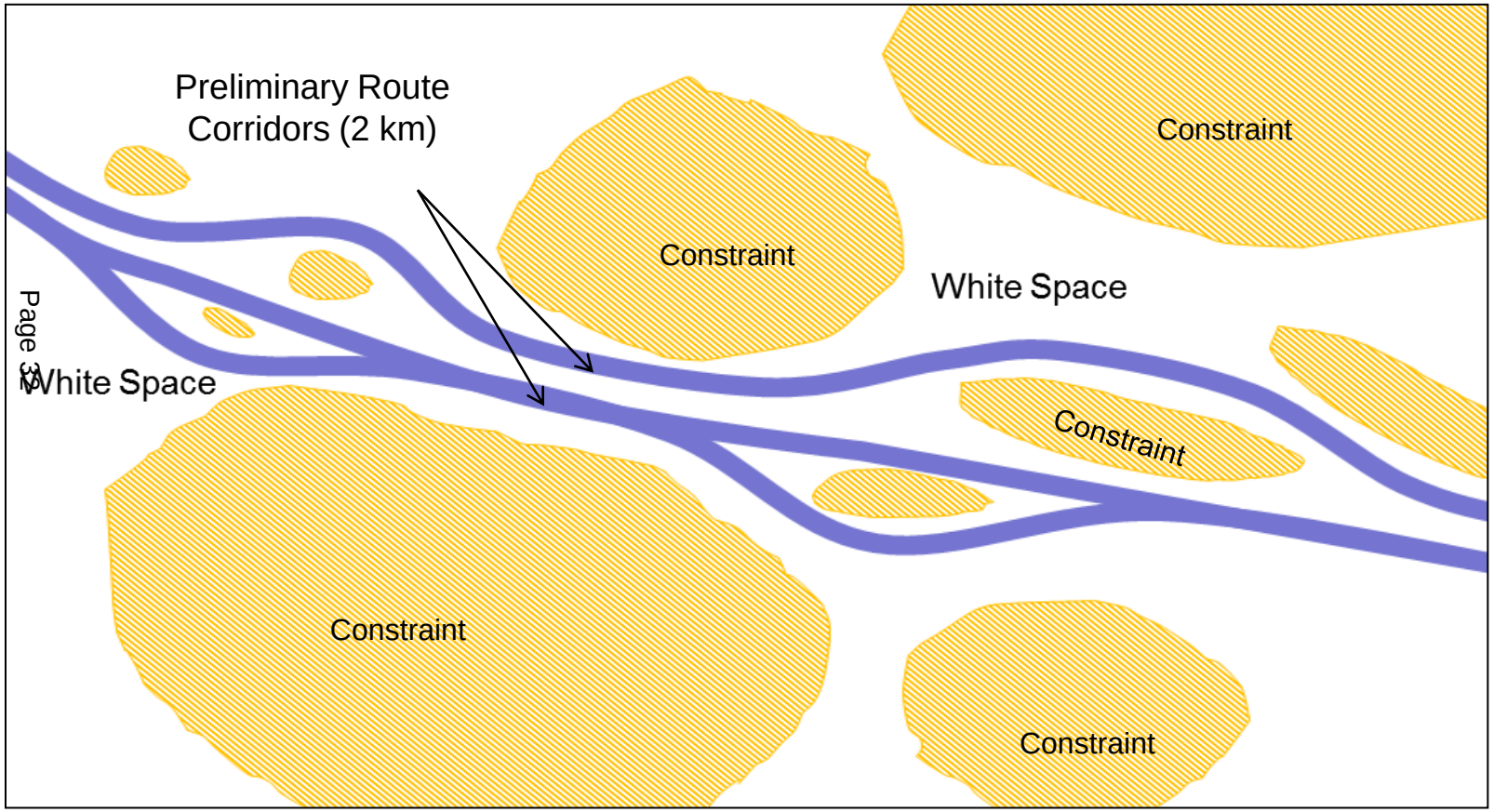
Options Working Paper

Options Working Paper – Public Consultation

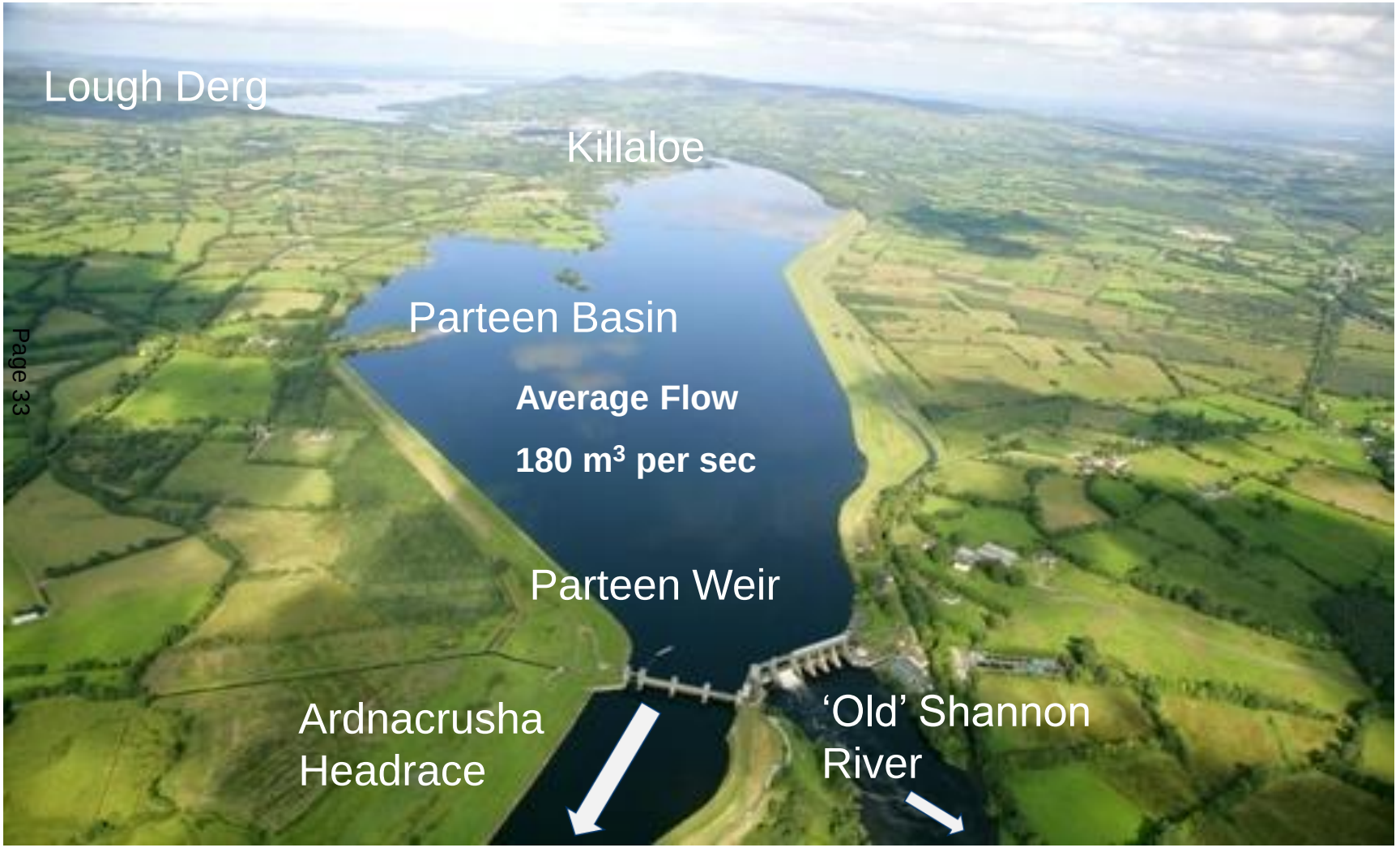
- Consultation Period on Options Working Paper (9 June – 4 Aug)

- Options Working Paper Consultation
  - *Outlines **Process** for Reducing Options from four (4) Technically Viable Options to one (1) 'Emerging Preferred Option' – Oct / Nov 2015*
  - ***Process** Involves **CONSTRAINTS** for locating Water Supply Infrastructure for each Option and **ASSESSMENT CRITERIA** for evaluating options relative to each other (e.g. Technical, Environmental, Socio-Economic, Economic, Risk etc*

Infrastructure Constraints (Positioning Pipelines)



Abstraction Constraints (e.g. Shannon Option)




Sample Constraint
Ramsar Sites (Iternationally Designated Wetland)
© Harris Corp, Earthstar Geographics LLC © 2015 Intermap Earthstar Geographics SIO © 2015 Microsoft Corporation

OWP Public Consultation - Questions

- What other national, regional or locally important constraints should Irish Water take into account when locating the infrastructure associated with each water supply option?

- Have you any comment on the proposed constraints and the approach to their use?

- Are there any assessment criteria other than those proposed which should be used in the next phase of options appraisal?

- How would you like to be communicated with as the project progresses?

WSP Planning & Overall Timeline

- EIS & Planning Application Completion – **Q1 / Q2, 2017**
- Submit Planning Application **Q2, 2017**
- Oral Hearing **Q4, 2017 (Subject to ABP)**
- Procure / Design / Construct (**2018 – 2022**)

Environment SPC 24th June 2015

Draft Dublin City Development Plan 2016-2022

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

KEY DATES

2014	Planning Department prepared an Issues Paper
10th Nov 14/14th Jan 15	Observations on Issues Paper submitted by public
Jan – July 15	Preparation of draft Plan, Environmental Report, Appropriate Assessment and Strategic Flood Risk Assessment
27th July 15	Draft Plan & Reports to be circulated to Members
July- mid August 15	Members consider Draft and submit Motions
End August 15	Chief Executive prepares a Response & Recommendations
Early September 15	Report circulated to Members
Mid September 15	Special Council Meeting
October 15	Draft on Public Display

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PROGRAMME FOR THE REVIEW OF DUBLIN CITY COUNCIL DEVELOPMENT PLAN 2016- 2022

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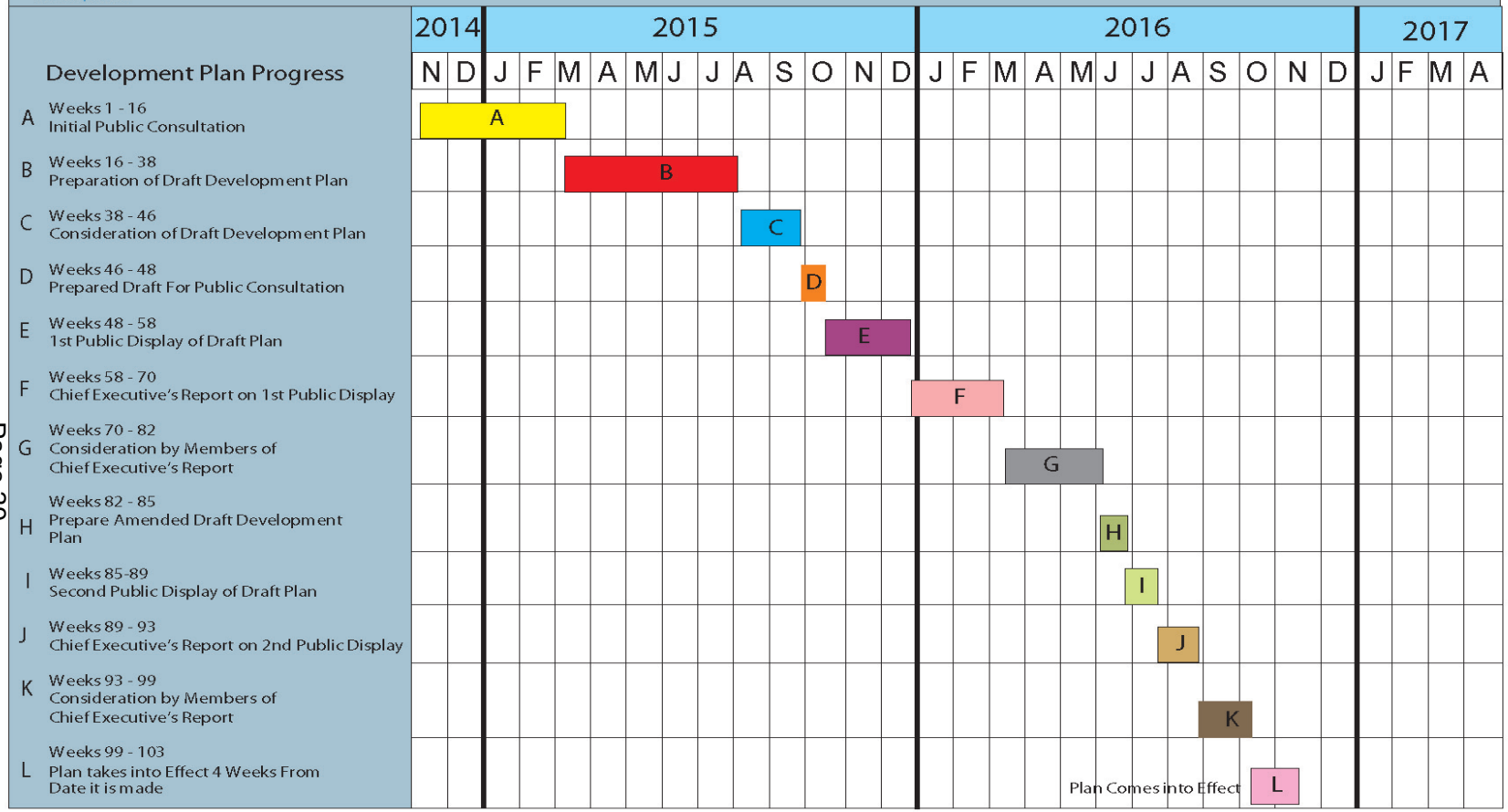
Dublin City Council



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Priority issues for the City

1. Shaping the City
2. Climate Change Adaptation and Mitigation
3. City & Regional Economy
4. Movement & Transport
5. Population & Housing
6. Physical Infrastructure
7. Green Infrastructure, Landscape, Open Space & Recreation
8. Retailing
9. Culture & Heritage
10. Community Infrastructure & Social Inclusion
11. Environmental Assessments

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Climate Change Adaptation & Mitigation

Mitigation measures:

- **Sustainability Energy Action Plan 2010/2020**

  Encourages sustainable energy generation and use
  Monitors sustainability indicators to gauge progress

- **National Energy Efficiency Action Plan 2014**
  Focus on energy savings targets for 2020

Adaptation initiatives:

- Flood Resilient Cities Project (Intense Rainfall)
- Major Emergency Plan 2013
- Turas Project (Transitioning towards Urban Resilience and Sustainability)

National Climate Change Adaptation Framework 2012 (DOECLG)

Local authorities must produce a “Local Adaptation Plan” as part of the development plan process

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Local Adaptation Plans must:

Identify adaptation actions required to avoid or reduce the adverse impacts of climate change and take advantage of any positive impacts.

A multi-disciplinary approach required, focusing on:

Energy Use

Settlement Patterns

Transport

Green Infrastructure

Physical Infrastructure

- *Energy* – need to reduce energy consumption and find alternative renewable sources for energy and transportation to reduce CO2 contributions
- *Surface Water & Flood Risk Management* – the Greater Dublin Strategic Drainage Study identifies the strategic infrastructure required to service existing and new development in the context of managing storm water and foul effluent
- *Eastern Catchment Flood Risk Assessment and Management Studies(CFRAM)* identifies flood risk areas and feasible measures for managing tidal and river flood risks – flood maps being produced.
- *Waste Management* – policies and objectives of Eastern –Midlands Waste Management Plan 2015/2021 to be implemented and will be included in Development Plan

- *Telecommunications* – usually provided by Private sector and regulated by Commission for Communications Regulation – high speed broadband required by the City at economic and local community levels.
- *Air & Noise Quality* – DCC – Noise Action Plan for Dublin 2013/2018 – sets out measures for the management of environmental noise exposure
- *Water Supply & Wastewater Treatment* - responsibility now with Irish Water

Potential input from SPC

- to draft Dublin City Development Plan via Councillor Motions
- to preparation of Local Adaptation Plan
- to preparation of Energy Action Plans
- to preparation of new Climate Change Strategy
- To identify further initiatives to promote waste reduction and to encourage re-use/recycling
- To guidelines on waste storage facilities

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Environment SPC 24th June 2015
New Climate Change Strategy

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Dublin City Council

Climate Change Strategy for Dublin City 2008-2012

Prepared by the Environment & Engineering SPC in association with Codema

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Strategy looked at areas where DCC has direct impact and control

5 Focus Areas selected :

- Energy
- Planning
- Transport
- Waste Management
- Biodiversity

Strategy recommended that the City Development Plan and all other plans and studies be Climate Change proofed & recommended the preparation of an Energy Action Plan for Dublin

Mitigation Measures to the fore:

- Reduce CO_2 emissions by 20% by 2020

- 33% reduction in energy consumption by DCC (council buildings, public lighting, fleet vehicles, solar panels) by 2020 – in line with national targets

Dublin City Sustainable Energy Action Plan 2010-2020 (SEAP)

Vision: Dublin to become and energy-smart and efficient city

Monitoring & Progress Report 2014

(produced by Codema as part of DCC commitment to the Covenant of Mayors)

Energy Consuming sectors reviewed:

Residential, Commercial, Transport, Municipal

- Results indicate substantial decrease in overall energy consumption and emissions for Dublin City over the period 2006-2011
- DCC on track to meet 33% energy reduction target

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Sustainability Report 2013

Annual report prepared by DCC

Goal is to incorporate sustainability in all DCC planning and activities using 8 themes providing a balance for social, economic and environmental development:

1. Innovation
2. Climate & Energy
3. Resource Management
4. Biodiversity
5. Infrastructure & Land Use
6. Transportation
7. Society
8. Economy

Achievements and actions listed under each theme.

Uses a wide range of indicators to help understand the condition of the environment.

New Strategy on Climate Change to address Mitigation measures and Adaptation measures

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

National Climate Change Adaptation Framework 2012 (DOECLG)

Local authorities must produce a “Local Adaptation Plan” as part of the development plan process

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Local Adaptation Plans must:

Identify adaptation actions required to avoid or reduce the **adverse** impacts of climate change and take advantage of any **positive** impacts.

A multi-disciplinary approach required, focusing on:

Energy Use

Settlement Patterns

Transport

Green Infrastructure

Prepare a vision for a well-adapted local community that is resilient to the impacts of climate change through:

1. Determining the area's vulnerability to climate risks
2. Identifying, prioritising and costing adaptation actions
3. Developing and Implementing a comprehensive Action Plan
4. Ensuring that climate change impacts and risks are embedded into all decision-making

Climate Change Strategy 2008-2012	Dublin City Council Sustainability Report 2013	Dublin City Sustainable Energy Action Plan Monitoring Report 2014	National Climate Change Adaptation Framework 2012
Energy	Climate Change & Energy	Residential	Energy
Planning	Innovation	Commercial	Settlement Patterns
Transport	Transportation	Transport	Transport
Biodiversity	Biodiversity	Municipal	Green Infrastructure
Waste Management	Infrastructure & Land use		
	Resource Management		
	Society		
	Economy		

The City Development Plan 2016-2022

Issues for the city:

Climate Change Adaptation & Mitigation:

Identify further adaptation and mitigation measures to face the challenges of Climate change

Energy: - reduce energy consumption and find alternative renewable sources for energy and transportation to reduce CO2 contributions.

Surface Water & Flood Risk Management – Greater Dublin Strategic Drainage Study indentifies the infrastructure required to service existing and new development in the context fo managing storm water and foul effluent

Eastern Catchment Flood Risk Assessment & Management Studies – identifies flood risk areas and measures for managing flood risks – flood maps produced

Waste Management :

Eastern – Midlands Waste Management Plan 2015/2021:

3 Targets: 1% Reduction p.a. in household waste generated

Recycling Rates of 50%

Eliminate direct disposal of unprocessed waste to landfill

Telecommunications: High Speed broadband required

Air & Noise Quality – Noise Action Plan for Dublin 2013/2018

Water Supply & Wastewater Treatment – Irish Water

Additional Projects for consideration in new Strategy

- EU Horizon 2020 Projects
- Major Emergency Plan Update
- District Heating
- Renewable Energy : IBM Project
- Turas

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waste region

Waste Management Plan 2015-2021.

Briefing Note

In 2001 Ireland was divided into 10 Regions for the purposes of Waste Management Planning. There followed 2 Waste Plan Cycles from 2001 to 2005/6 and from 2005/06 to 2011/12. Much was achieved during this period with significant advances with regard to recycling targets, a reduction in the dependence on landfill as a disposal option and the embedding of waste prevention initiatives in Local Authorities. In July 2012 The Minister for the Environment issued a policy statement "A Resource Opportunity- Waste Management Policy in Ireland" which stated that:-

" local authorities undertaking their waste management planning responsibilities, guided by the programme of reform of local government structures which is currently underway, will significantly reduce the number of regional formations,(currently 10) to no more than 3."

In October 2012 the Minister indicated a reconfiguration of the Regions in the "Action Programme for Effective Local Government - A Guide to Putting People First". The Waste Management Regions were reconfigured in line with the Assembly Regions proposed.

Following the evaluation of the existing waste plans in line with the EU Waste Framework Directive the local authorities of the three proposed regions agreed to prepare waste plans on the new regional basis and the current waste regions were born:

The Eastern and Midlands Waste Region	Population 2.2M	12 Authorities
The Southern Waste Region	Population 1.5M	10 Authorities
The Connacht Ulster Waste Region	Population 0.84M	9 Authorities

The CCMA, Environment Sub Committee, subsequently facilitated a process to designate lead authorities for the three regions and:

Dublin City Council was designated for the Eastern and Midlands Region
Limerick/Tipperary County Councils for the Southern Region and
Mayo County Council for the Connacht Ulster Region

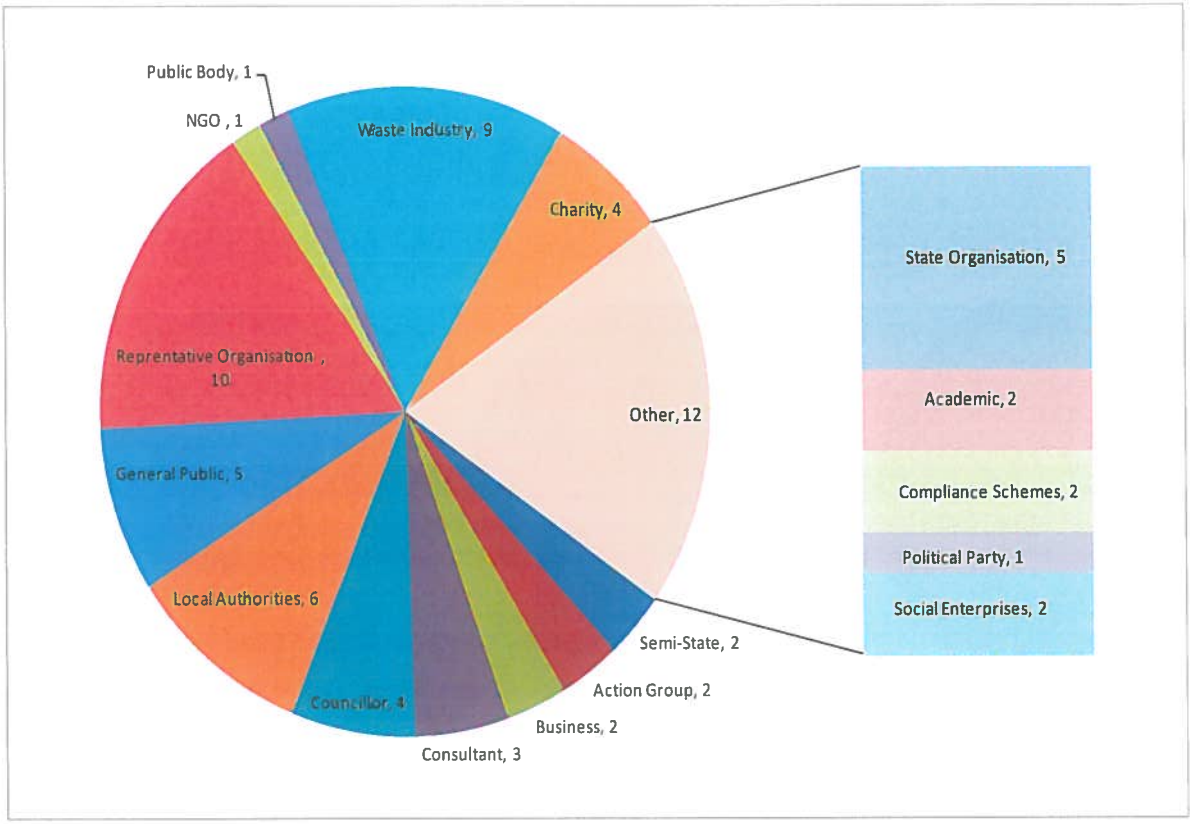
Preparation of the regional waste plans began in Q4 2013, in accordance with the European Communities (Waste Directive) Regulations, 2011 and the Waste Management (Planning)

Regulations, 1997, and culminated with the publication of the three Regional Waste Management Plans on the 12th of May 2015.

The Plan has been prepared by the Lead Authorities supported by the National Coordinating Committee for Waste Management Planning, The Regional Waste Steering Group, Individual Local Authorities and the RPS Group in respect of the SEA/AA and common elements of all regional plans.

In the course of the development of the plan policies the local authorities have considered many factors including the findings of the evaluations of the previous plans and the successes achieved. Policy development has also taken account of European and national waste legislative requirements and environmental impact has been considered throughout the evolution of the plans and the submissions received during the consultation phases.

There was a pre-draft public consultation advertised in 2013 and in addition to this, briefing sessions were held for stakeholders including Elected Members, Irish Waste Management Association representing waste contractors and the Environmental Pillar. In addition several national organisations were also consulted including Repak, Irish Water, An Bord Pleanala and Cement Manufacturer's Ireland. The DECLG also set up an Advisory Group representing the stakeholders including the environmental pillar. A Strategic Environmental Assessment (SEA) consultation phase was also published in June 2014. The Draft Plan and associated Environmental Documents were published on the 18th of November and all three Draft Regional Plans were launched nationally on that date. The public consultation period commenced on the 18th of November and ran until the 30th of January 2015. Following the public consultation a total of 61 submissions covering all policy areas were considered before the final plan was published in May 2015. A summary graph below details the source of the submissions received.



The preparation of the plan has been funded by the local authorities of the region on a population basis and the national cost of SEA / AA has been shared by the regions on a population basis.

The plan structure consists of five parts as follows:

Executive Summary

Part 1.0 Background

Part 2.0 Present Position

Part 3.0 Implementation

Appendices

Part 1 - Background sets out the strategic vision for the plan:

The strategic vision of the regional waste plan is to rethink our approach to managing wastes, by viewing our waste streams as valuable material resources which can lead to a healthier environment and sustainable commercial opportunities for our economy.

The strategic vision is supported by 8 overall objectives which in turn are supported by policy statements. The plan contains three headline performance targets in addition to the mandatory targets which must be achieved over the life of the plan.

PART 2 PRESENT POSITION

Data on generation of household, municipal waste, priority wastes and other non-municipal waste has been collated for the plan. Data on the destinations of these waste streams has also been collated and the biggest change is the move away from landfill disposal over the last few years and this illustrated in the graph below. The increase in the landfill levy has moved residual waste towards thermal recovery solutions in Ireland and abroad.

Municipal Waste - Household	2010	2011	2012
Household waste managed(Kerbside)	567,608	581,818	560,786
Household waste collected from CA and bring sites (excluding WEEE and batteries)[1]	103,893	92,463	91,464
Household waste collected from other bring facilities (PTUs) and direct to landfill[1]	n/a	n/a	3,145
Bulky household waste[1,2]	24,493	32,995	26,054
Total Municipal Waste - Household	**695,964**	**707,276**	**681,449**

[1] EPA NWR/LA Returns
[2] National Waste Collection Permit Office

In 2012 approximately 80% of the permanent private households within the EMR were signed up to a kerbside collection service with generally a higher participation rate in urban areas.
The quantity of unmanaged household waste generated in the EMR was estimated at 63,333 tonnes, which represents about 19% of the household waste generated in the region. The challenge of addressing the quantity of unmanaged waste in the region will be tracked over the course of the plan period.

This section also highlights the issues that local authorities have with dealing with aftercare of existing landfills, closing landfills with space. This section also deal with developing a road map for managing high risk (Class A) historic and legacy landfills over the lifetime of the plan.

PART 3 Implementation

The plan contains over 54 policy statements which are embedded throughout the plan in the relevant chapters and summarised in **Chapter 19 Policy Actions and Targets**. Just over 50% of the policy statements are targeted directly at the Local Authority Sector and there are 63 actions identified to give effect to the policies described.

The balance of the policies are directed at the sector in general and are designed to give a clear indication as to what the plans support in particular in relation to the provision of waste infrastructure locally, regionally and nationally.

Each of the 63 actions targeted at the local authority sector have an associated: **Expected Time Line** for completion, **Target** which describes the outcome required, **Indicator** by which the action can be measured and a **Responsibility** for the completion of the action typically by the Lead Authority or individual Local Authorities.

Almost 70% of the 63 actions identified for the local authority sector will be lead by the Lead Authority illustrating the importance of the role of the lead authority in the implementation of the plan. The balance of the actions will be lead directly by the individual local authorities.

In policy terms the plans support the implementation of legislation, the prioritisation of waste prevention, the transition from a waste management economy to a circular economy, increased coordination at all levels, consistent and coordinated enforcement and regulation, the protection of the environment and human health and the proactive management of wastes not currently subject to either EU or National legislation or regulation.

The plans further support the provision of waste infrastructure in keeping with the proximity and self sufficiency principles and in the context of the level of current waste authorisations issued regionally and nationally. The plans support the provision of specific

quantities of both thermal recovery treatment and biological treatment based on projections of waste arising and current authorised capacities.

There will be an annual review of performance under each policy heading conducted by the Regional Waste Management Office and an Annual Report will be prepared focusing on the progress of plan implementation across the region.

A detailed presentation will also be made at the meeting and will cover the submissions, main policies and role of Regional Office.

Ends.

The Eastern-Midlands Waste Region encompasses the following local authorities:

Dublin City, Dún Laoghaire -Rathdown, South Dublin, Fingal, Wicklow, Kildare, Laois, Offaly, Westmeath, Longford, Meath & Louth.

Contact Details:

Regional Waste Coordinator

Eastern-Midlands Region Waste Management Office,
Dublin City Council,
Environment & Transportation Department,
Block 1, Floor 6,
Civic Offices,
Dublin 8. Tel: 01-2222023 Email: emwr@dublincity.ie www.emwr.ie

Eastern-Midlands Region Waste Management Plan 2015-2021

SPC Presentation 24/06/15

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National Policy- *A Resource Opportunity*

" local authorities undertaking their waste management planning responsibilities, guided by the programme of reform of local government structures which is currently underway, will significantly reduce the number of regional formations,(currently 10) to no more than 3."

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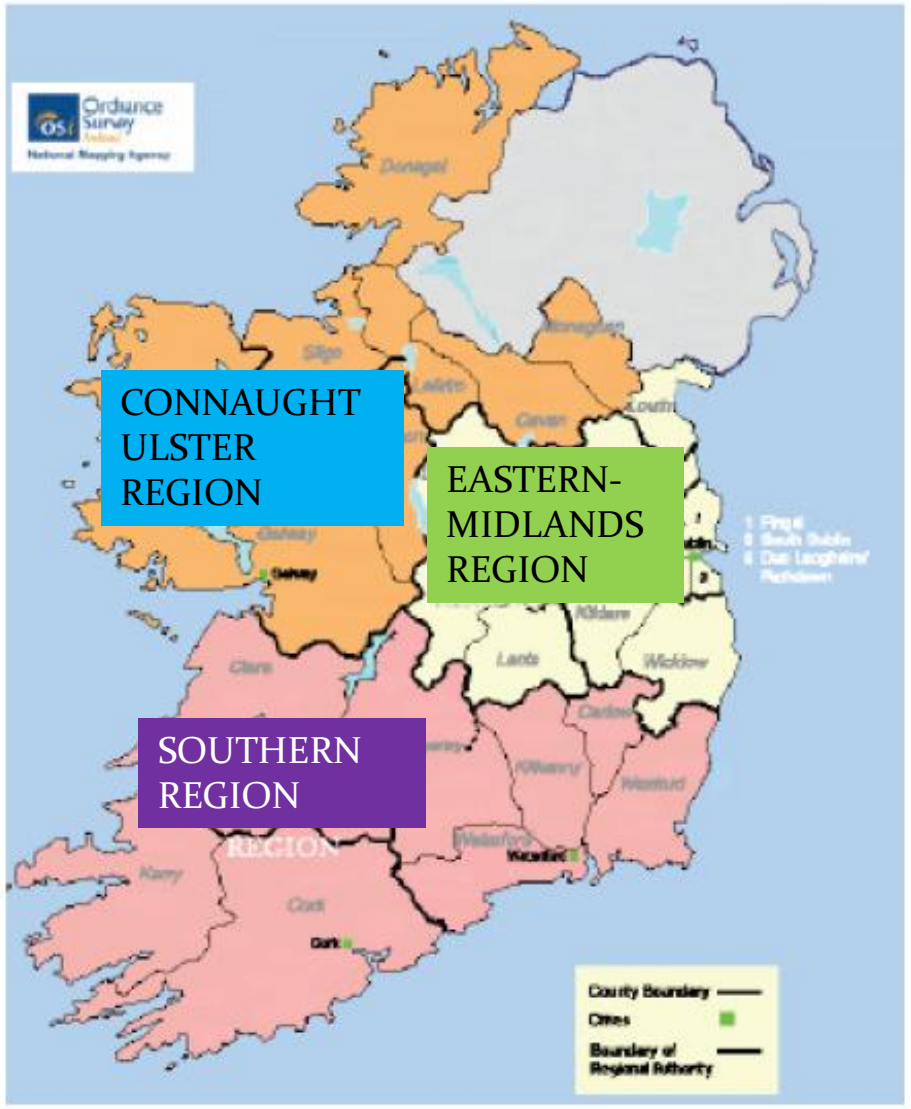
The Planning Regions



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new region new vision

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waste region

Consultation

- Pre-draft Workshops with Waste Contractors meetings with member local authorities and National Advisory Group
- Pre-draft official consultation phase 19th October 2013 to 19th Dec 2013
- Submissions received and considered
- Published Draft Plan on the 18th November 2014
- Consultation Phase 18th Nov 2014- 30th Jan 2015
- 61 EMR Submissions received and considered

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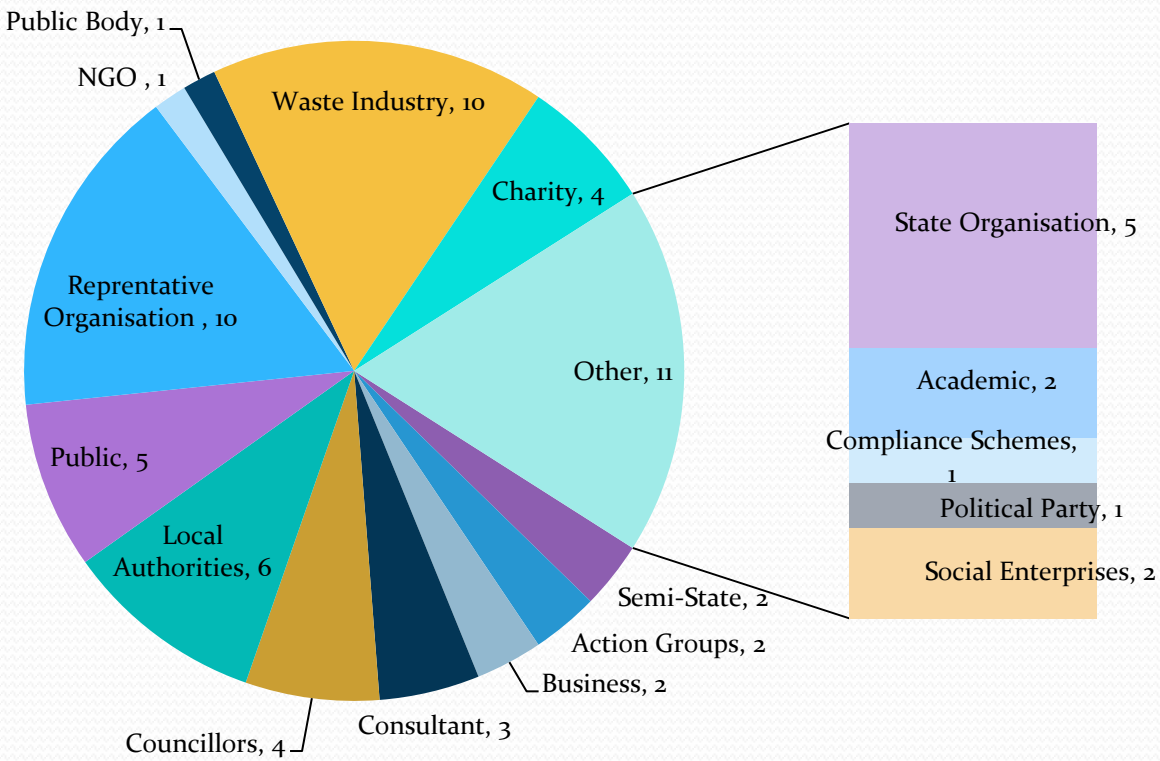
Summary of Submissions



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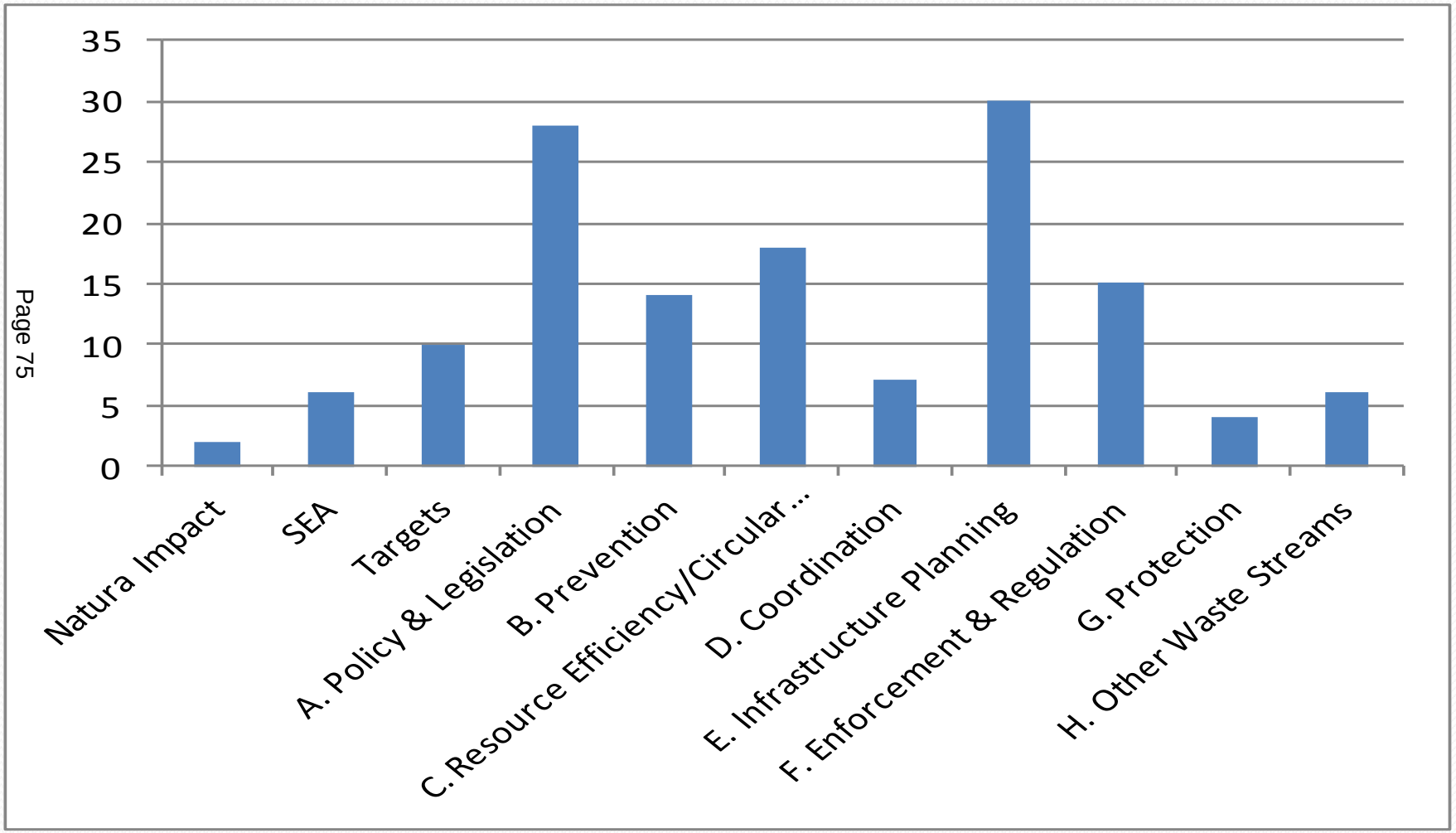
Issues Raised in Submissions



SPC Submission

Section	Comment	Response
19 – Policy Actions and Targets	1% reduction p/a in the quantity of HH waste generated per capita over the period of the plan is not ambitious enough	Emerging from a period of recent low economic activity and with economic recovery anticipated, the challenge will be to ensure waste growth is decoupled from economic growth; therefore a 1% reduction target is appropriate particularly as this is the first time a target has been specified.
19.2 – Policy & Legislation Actions (A)	Waste collection industry should be encouraged to further develop seasonal patterns within waste collection	Policy action C.2.1* : Review/introduce presentation of waste bye-laws, to maximise quantity & quality of recyclable waste collected …
19.3 – Prevention Actions (B)	Green Home Programme should receive more prominence Research needed to assess attitude of citizens towards recycling No emphasis in the plan on changing behaviours of manufacturers in relation waste generation including packaging	Regional Plan supportive of all initiatives/programmes promoting prevention.. Policy Action D.3.1: Establish partnerships to build knowledge capacity and promote higher order waste activities. Policy Action C.5.1*: Encourage SMEs and industry re: environmental and economic benefits of resource efficiency.

Section	Comment	Response
19.4 – Resource Efficiency & Circular Economy (C)	Additional charging structures at bring centres/ CAS are regressive DCC should open up CAs to allow for swapping of reusable waste items Consideration of kerbside glass collections	Policy Action A.2.2: Review & implement charging structures in place for waste accepted at LA CAs & other LA waste facilities. Policy Action C1.2*: Review/amend LA CAs contracts for the segregation of materials for reuse/preparing for reuse. Currently it is the case that at a minimum it is open to Waste Operators to operate a separate kerbside system for glass.
16.1 – Market Analysis & Infrastructure Planning (E)	Queried the requirement for 300,000 tonnes of additional capacity for processing residual municipal waste Policy E15 for 300,000 tonnes of thermal recovery capacity should be removed for reasons outlined in Appendix A of submission: • Waste arisings in 2020 and 2030 when balanced against the disposition capacities listed show a deficit of residual MSW •There will be adequate and active competitive treatment from dispositions provided to satisfy the States need	The policies in relation to the need for future thermal recovery facilities are based on the predicted needs of the residual waste market to 2030 at the time of preparing the waste plan and take into account waste prevention, growing recycling rates and conversion of pending capacity into active treatment. Developments in excess of 300,000 tonnes will only be permitted if the applicant justifies and verifies the need for the capacity, the authorities are satisfied it complies with national and regional waste policies and does not pose a risk to future recycling targets. E15* has been split into E15a and E15b.

Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) Processes:

Provide for a high level of protection of the environment and contribute to the integration of environmental considerations to the preparation of the final waste plan for the Eastern-Midlands Region.

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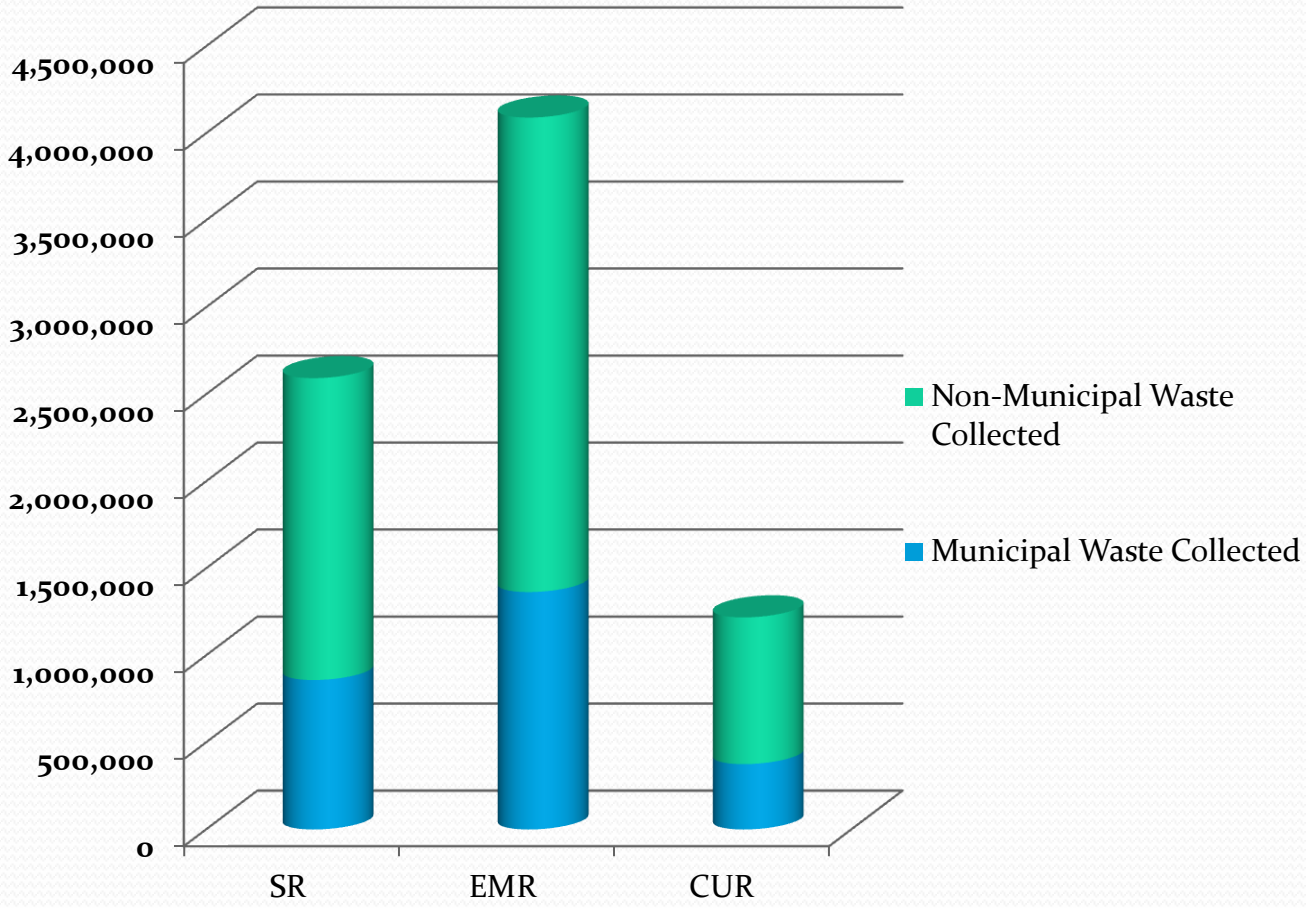
Regional Waste Data- Tonnes/annum



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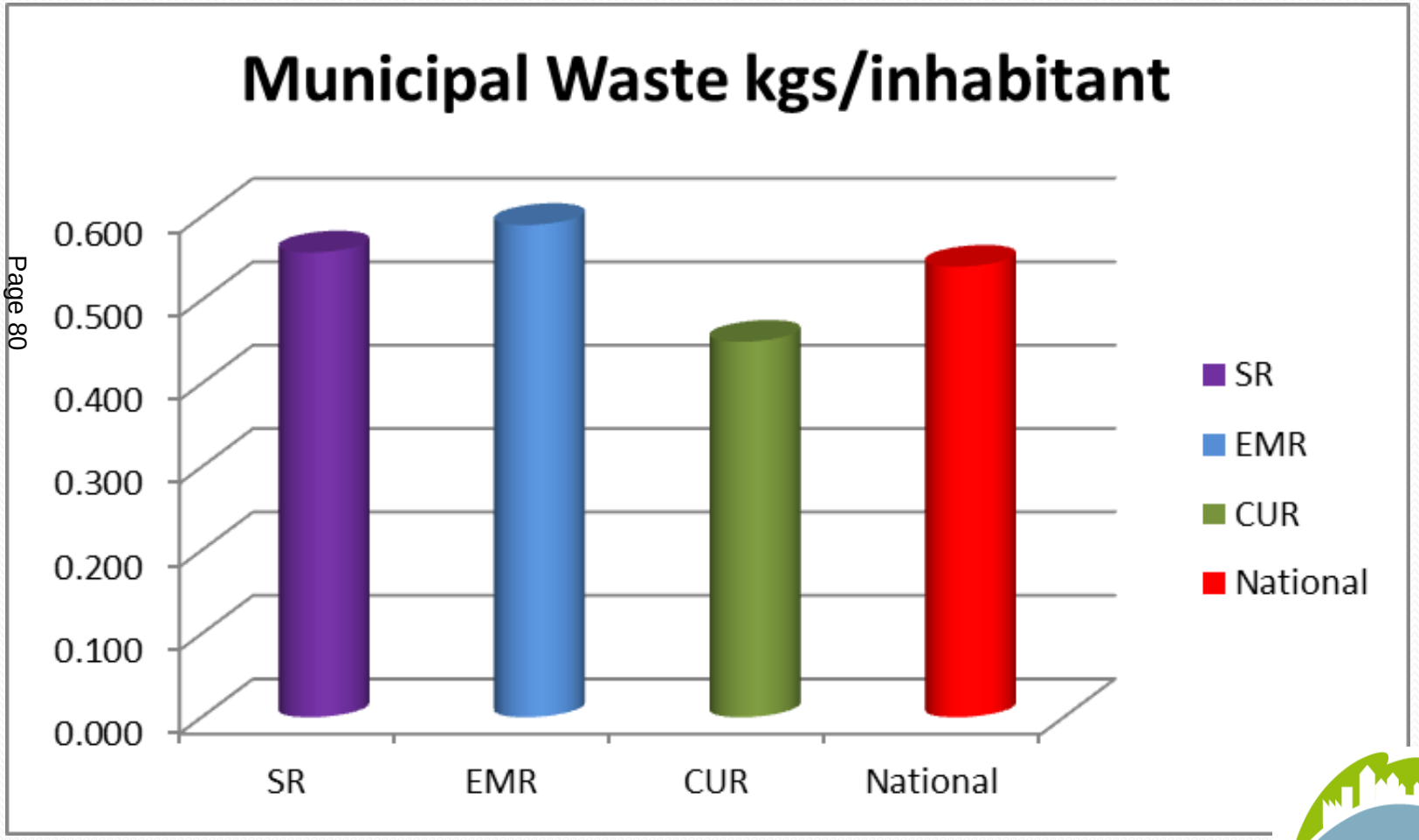
Municipal Waste Generation



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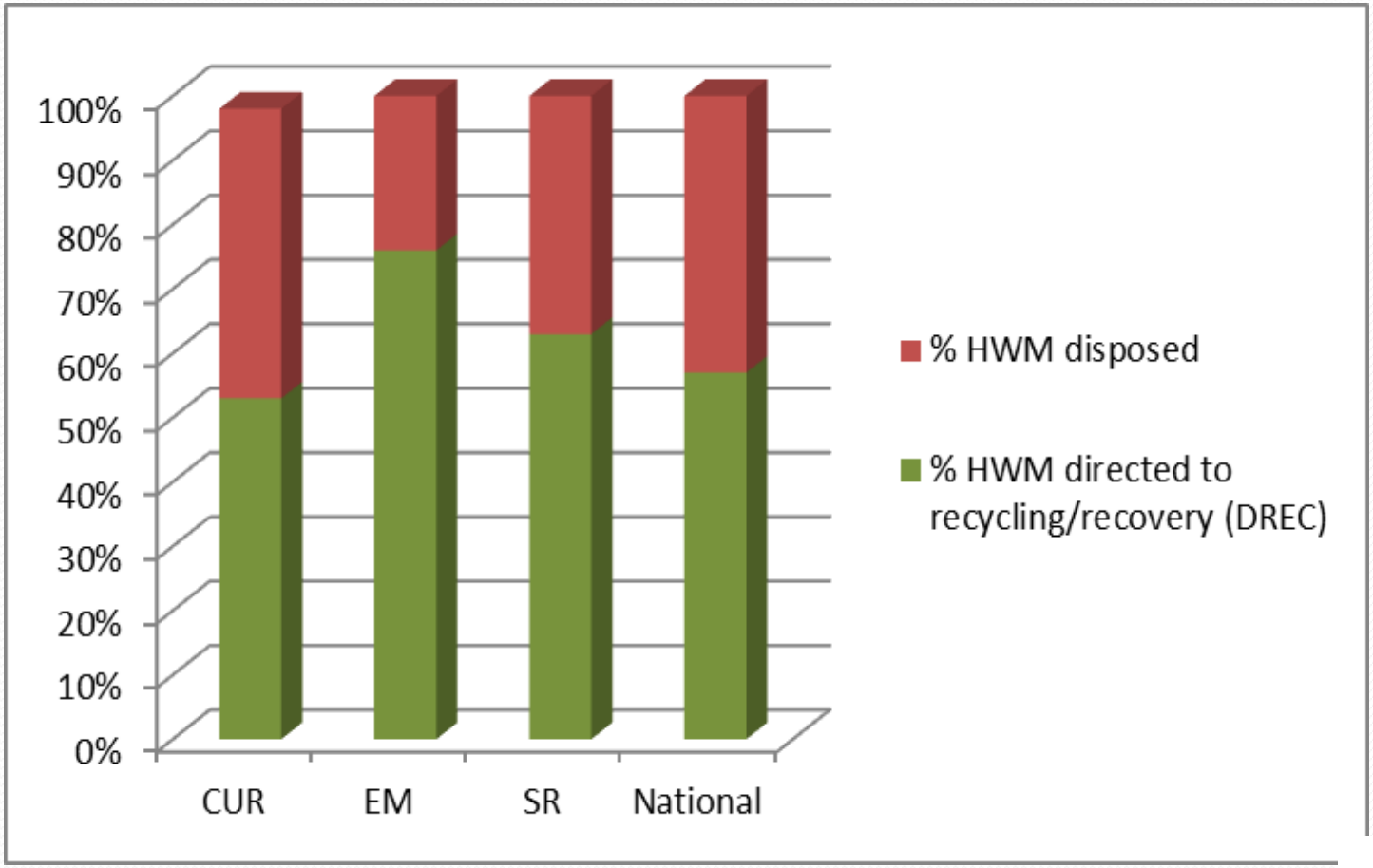
Regional Household Data - Recycled/Disposed



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STRATEGIC VISION AND APPROACH

The strategic vision of the regional waste plan is to rethink our approach to managing wastes, by viewing our waste streams as valuable material resources that can contribute to a healthier environment and sustainable commercial opportunities for our economy

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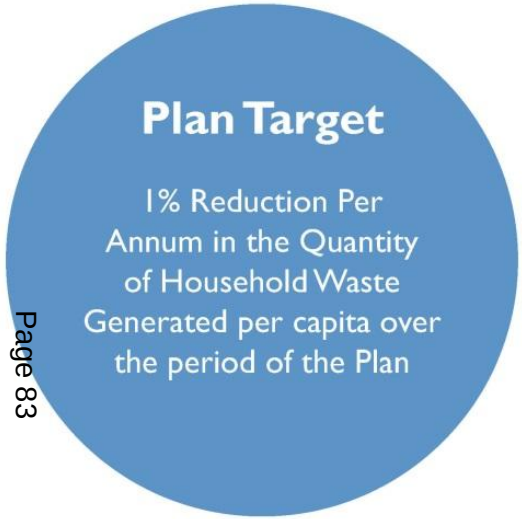
The Targets...



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Strategic Policy Objectives

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Waste Plan - Policy Statements and Policy Actions

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Key Policy Statements

- Continued movement towards elimination of landfill
- Capacity requirements identified for Thermal Recovery, Biological & Hazardous Waste
- Consistent and co-ordinated enforcement regime to be implemented
- Development of repair/preparing for reuse enterprises to be actively promoted and supported.
- Additional Civic Amenity/Recycling Centres/Bring Banks required

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Implementation – Regional Office

- Office based in Dublin City Council (funded by 12 Local Authorities)
- 4 Staff (Co-Ordinator, Technical, Prevention & Resource Efficiency)
- Role (Operational Plans, Annual Reports, Task Groups, Steering Group, National Groups, Funding & Training)
- 2015 Key Tasks (Establish Office & Steering/Task Groups, Prevention Projects, Awareness Campaign, Data Gathering/Analysis, Participation at National Groups)

Further Information:

Regional Waste Coordinator
Eastern-Midlands Region Waste Management Office
Block 1 Floor 6
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Dublin 8

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emwr.ie

eastern - midlands
waste region

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Environment and Transportation Department,
Block 2, Floor 6,
Civic Offices,
Dublin 8.

25th November 2015.

To Each Member of the
Environment Strategic Policy Committee

Dublin Waste to Energy (DWtE) Project

1 Construction Status

Construction remains on schedule for completion in Q3 2017.

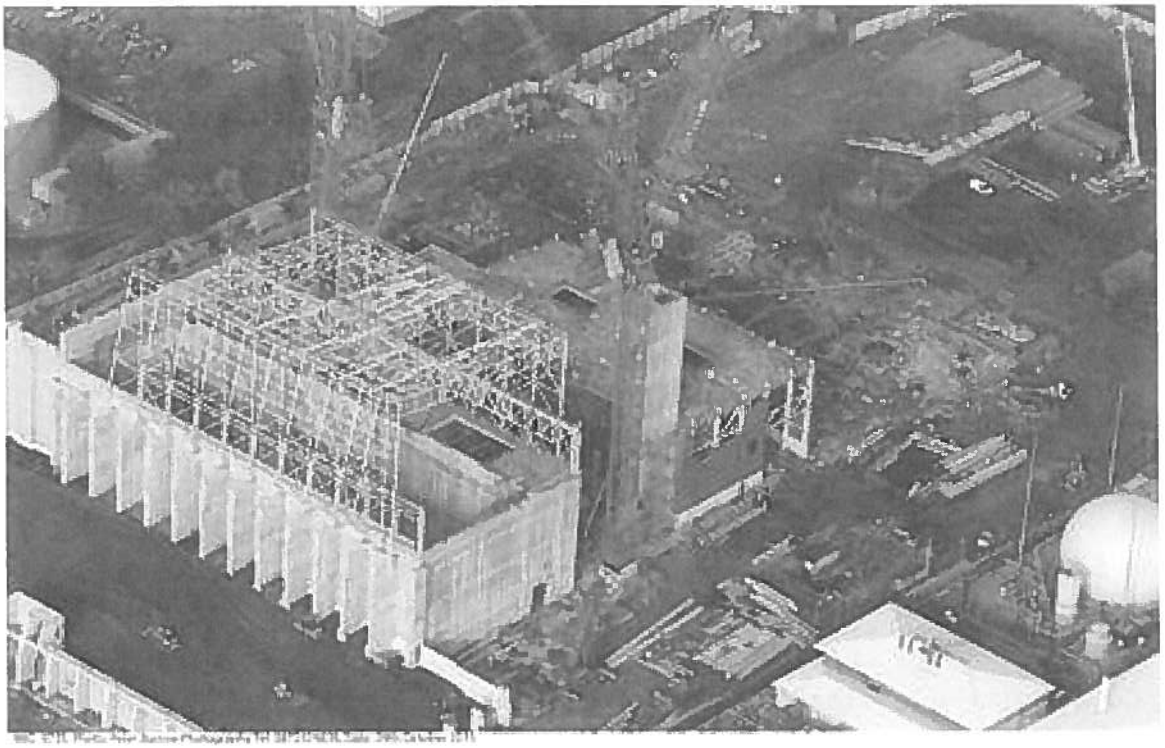
1.1 Progress to Date

Progress in the key areas are summarised below:

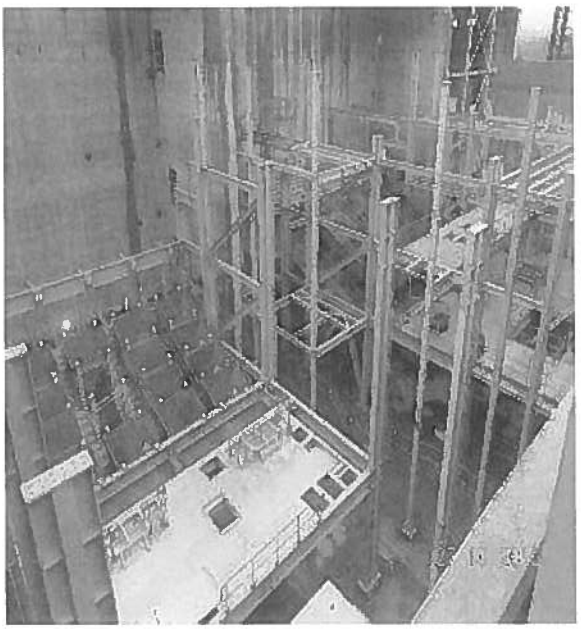
Construction

- There are currently approximately 289 contractors on site at any point in time.
- Construction is currently programmed on a 24/7 basis.
- PM Group Limited, the civil designer and construction manager have reported that design and procurement activities for the civil related aspect of the facility are now 95% complete.
    - The main focus of PM Group and their subcontractors are:
        - the installation of structural steel for the enclosure over the waste bunker area,
        - works associated with the facility cooling water system,
        - works associated with the tipping hall floor,
        - finalisation of the civil works associated with the electrical and transformer rooms.
- Hitachi Zosen Inova (HZI), the process systems designer have reported that they are 85% complete in the efforts focused on completing Process & Instrumentation Diagram's, equipment specifications and procurement of equipment.
    - The main focus of HZI and their subcontractors activities are:
        - erection of structural steel for both lines of the boiler and the turbine hall,
        - installation of the process equipment,
        - inspection and review of process equipment manufacturing.

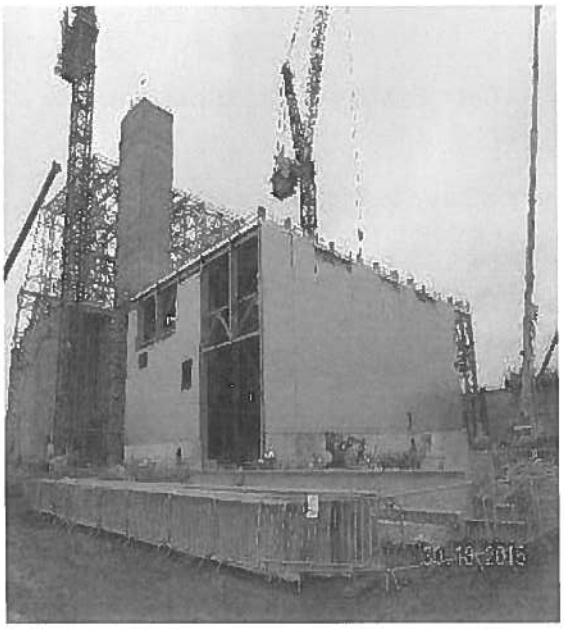
Site Aerial View Looking East October 2015 (Copyright PML)



Site Aerial View Looking Northwest October 2015 (Copyright PML)



Boiler Hall (Copyright PML)



Turbine Hall (Copyright PML).

2 Environmental Impact

Environmental monitoring and mitigation measures continued to be implemented during the Construction phase of the DWtE facility and the construction phase environmental report for quarter 3 (July – September) 2015 is presented as Appendix 1 to this report.

Additionally the wildfowl monitoring report for winter 2014/2015 is presented as Appendix 2 to this report.

All reports are also available for download at the Dublin Waste to Energy Website.

3 Community Liaison

3.1 DWtE Local Office

The local office for the Dublin Waste to Energy Facility relocated to the Ringsend Library, Fitzwilliam Street, Dublin 4, on a trial basis from the 17 November. The office will operate on Tuesday and Thursday mornings between 10:00 and 12:00.

3.2 Community Gain Liaison Committee

The second meeting of the Community Gain Liaison Committee (CGLC) took place on the 28th of October 2015.

4 Compliance with statutory consents

There are no non-compliance issues to report.

Declan Wallace

Executive Manager

Dublin Waste to Energy

Issue date: 19 November 2015

Construction Phase Environmental Monitoring Report - Quarter 3 (July - September) 2015

Signoff	Originator	Checked	Approver	Date
Name	Ray Derrig	Ciaran Reay	Eoin Curham	19th November 2015

Contents

1 Introduction

An environmental monitoring programme has been implemented during the construction stage of the Dublin Waste to Energy (DWTE) Project. In conjunction with the monitoring, a number of controls and procedures have been implemented during construction activities to avoid, or minimise, potential adverse impacts to the environment and local community.

The monitoring programme assists in demonstrating compliance with the conditions and requirements laid out in An Bord Pleanala Order-29S.EF2022, Condition 13d; *"A scheme for monitoring noise, dust deposition and suspended solids in surface water run-offs and adjacent waters shall be prepared for the construction phase of the development. Details of the scheme shall be made available for inspection at the offices of Dublin City Council and at a local office in the Ringsend/Poolbeg area prior to the commencement of construction works. Monitoring shall be carried out during the construction phase and reports on the monitoring shall be made available for inspection at the offices in question on a 3 monthly basis. The reports shall compare monitored results with standards set out in the environmental impact statement or standards given in recognised national or international guidelines as relevant."*

Construction of the DWTE facility recommenced in October 2014 and an environmental monitoring programme in accordance with the 'Dublin Waste to Energy - Construction Phase Monitoring Scheme' September 2009 has been implemented. The 3rd Quarterly Report 2015 on the Construction Phase Monitoring Scheme relates to environmental monitoring undertaken for the period of July to September 2015. The PM Group construction management team were present on site throughout the July to September 2015 monitoring period. The PM Group construction management team ensured construction works were undertaken to comply with environmental procedures for the site. Environmental monitoring with regards to noise, dust deposition and suspended solids in surface water commenced with construction works.

2 Local Environment

The main population centres of Ringsend, Irishtown and Sandymount are located approximately 1km from the boundary of the site.

The closest sensitive receptors to the site are the residential properties at Pigeon House Road which are located approximately 865m west of the site boundary. A map of sensitive locations and environmental monitoring points (noise, dust and surface water) are included in Figure 2.1.

The identified sensitive noise locations are N1 – N6 as follows:

- N1 - Rehab Institute
- N2 – Seafort Avenue
- N3 – Beach Avenue
- N4 – Leukos Road
- N5 – Pigeon House Road
- N6 – Walkway (Irishtown Nature Reserve)

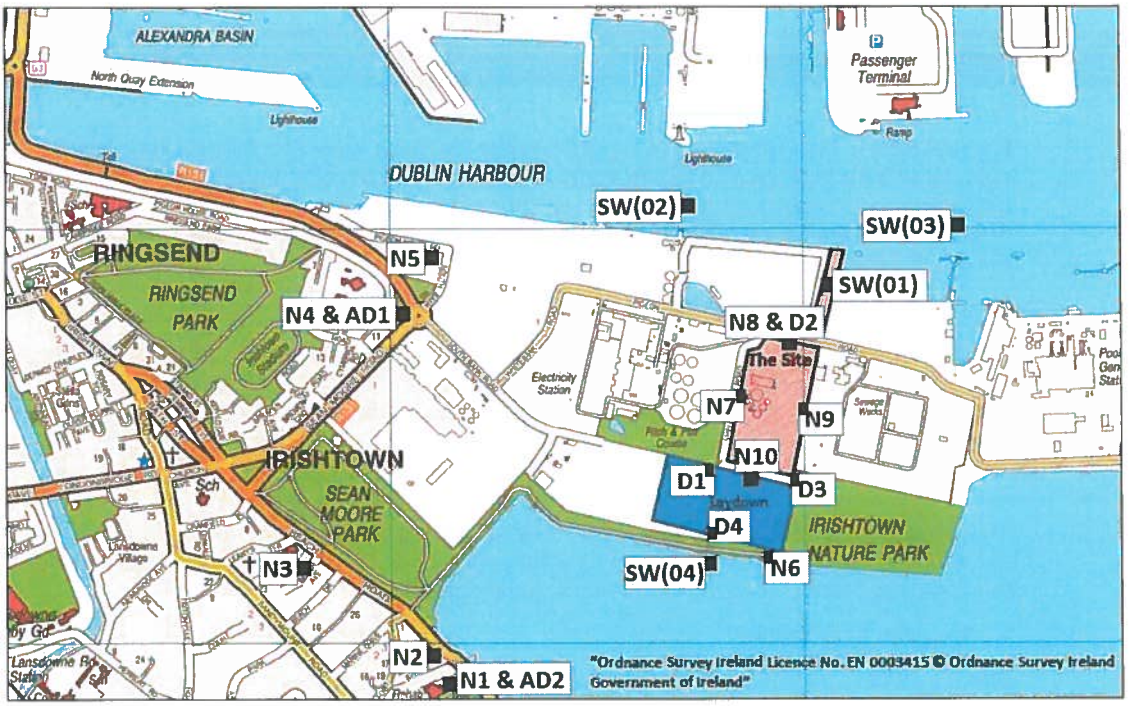


Figure 2.1: Environmental Monitoring Locations

3 Noise

Monitoring of noise levels at sensitive locations is required during construction to assess compliance with the requirements of the Environmental Impact Statement (EIS) and An Bord Pleanala Order-29S.EF2022, Condition 13d. Refer to Figure 2.1 in Section 2 for the monitoring locations.

3.1 Noise Guidance & Standards

The noise monitoring was conducted in accordance with the following guidance:

- International Standard ISO 1996-1:2003 - Acoustics – Description, Measurement and assessment of Environmental Noise
- BS 4142:2014 - Methods for rating and assessing industrial and commercial sound
- BS 5228-1:2009 + A1:2014 – Code of practice for noise and vibration control on construction and open sites.

3.2 Measurement Parameters

Noise is measured in terms of decibels (dB). The various measurement parameters and noise terminology are defined below.

- Decibel (dB)

Decibel (dB) is the standard unit for expressing the noise level (sound pressure level). It is calculated as a logarithm of the intensity of sound. It is derived from the logarithm of the ratio between the value of a quantity and a reference quantity. For sound pressure level the reference quantity is 20μPa which is the threshold of normal hearing and equates to 0dB. At the upper end of the scale 140dB is the threshold of pain.

- A-weighted Decibel (dBA)

Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sound of different frequency (pitch) in a similar way to the human ear. This takes account of the fact that the human ear has different sensitivities to sound at different frequencies.

- L_{Aeq}

The equivalent continuous sound level – the sound pressure level of a steady sound having the same energy as a fluctuating sound over a specified measuring period. It can be considered similar to an average level. The L_{Aeq} value is the A-weighted Leq.

- L_{A90} and L_{A10} Values

The L_{A90} and L_{A10} values represent the A-weighted sound pressure levels exceeded for a percentage of the instrument measuring time. The L_{A90} represents the sound pressure level exceeded for 90% of the monitoring period and is a good indicator of the background noise level excluding peak noise events. L_{A10} indicates the sound pressure level exceeded for 10% of the monitoring period and is a good parameter for expressing event noise such as passing traffic.

- L_{AMax} (dBA)

The maximum instantaneous value recorded over the monitoring period including A-weighting

3.3 Construction Noise Limits at Sensitive Locations

Ambient noise levels at the nearest sensitive locations to the site have being established based on review of the Environmental Impact Statement, Dublin City Noise Map model and preconstruction noise monitoring. These ambient measurements at the noise sensitive locations are compared against the values identified in "British Standard 5228-1:2009+A1:2014: Code of practice for noise and vibration control on construction and open sites – Part 1:Noise " and maximum permissible

noise levels at façade dwellings are recommended. The maximum noise levels are presented in Table 3.1 below.

Table 3.1: Maximum Permissible Noise Levels at the Facade of Dwellings during Construction

	Sensitive Locations					
	Rehab Institute	**Seafort Avenue**	**Beach Avenue**	**Leukos Road**	**Pigeon House Road**	**Walkway Irishtown Nature Park**
Daytime Monday - Friday 0700hrs to 1900hrs Rating level, L_{Aeq} (1hr)dB	65	65	65	65	65	65
Evenings and Weekends 1900hrs to 1100hrs Rating level, L_{Aeq} (1hr)dB	55	55	55	55	55	55
Night time 2300hrs to 0700hrs Rating level, L_{Aeq} (1hr)dB	50	50	50	50	50	50

3.4 Noise Monitoring Results

Monitoring was undertaken at site boundary and sensitive locations during construction works. The survey was carried out over the months July to September 2015. The surveys involved a 30 minute sample period taken at each of the noise monitoring locations.

3.4.1 Noise Calculations from Boundary Sampling Locations

To establish the contribution of the July - September 2015 DWTE site activities, to the noise levels at the sensitive receptors, the 'British Standard 5228-1:2009+A1:2014: Code of practice for noise and vibration control on construction and open sites – Part 1: Noise" was used to calculate the noise levels at the sensitive receptors based on noise levels monitored at the western and southern site boundary locations only.

The western and southern boundaries are used to represent the closest boundaries to the sensitive receptors as the most accurate calculation of noise levels. On this basis, when both are available, the southern boundary is used to calculate the noise level contribution levels for the Rehab Institute, Seafort Avenue, Beach Avenue and Irishtown Nature Park. The Western Boundary is used to calculate the noise contribution levels at the Pigeon House Road and Leukos Road.

Using the BS 5228 Standard calculation, the highest contribution of noise calculated for the months of July to September 2015 at each of the sensitive locations is presented in Table 3.2.

Table 3.2: The Contribution of the DWTE Site Activities to Noise Levels at Sensitive Receptors

		Sensitive Locations					
Month	**Time**	**Rehab Institute N1**	**Seafort Avenue N2**	**Beach Avenue N3**	**Leukos Road N4**	**Pigeon House Road N5**	**Irishtown Nature Park N6**
July 2015 Results level, L_{Aeq}(30 min)dB	Daytime	35	34	33	34	34	48
	Evening	22	21	20	23	23	35
August 2015 Results level, L_{Aeq}(30 min)dB	Daytime	37	36	35	43	43	50
	Evening	34	33	32	36	36	47
	Nightime	27	27	25	28	29	40
September 2015 Results level, L_{Aeq}(30 min)dB	Daytime	31	30	29	36	33	44
	Evening	23	22	21	25	25	36
	Nightime	24	23	22	28	29	37

3.5 Conclusion

The noise levels were calculated from measurements taken at the site boundary locations and their contribution to the closest residential sensitive receptor established. During the July to September period the greatest daytime noise level contribution at a residential sensitive receptor was 43dB. The greatest daytime noise level at Irishtown Nature Park was calculated as 50dB. The greatest evening time noise level contribution at a residential sensitive receptor was 36dB. The greatest evening time noise level at Irishtown Nature Park was calculated as 47dB. The greatest nightime time noise level contribution at a residential sensitive receptor was 29dB. The greatest daytime noise level at Irishtown Nature Park was calculated as 40dB.

These noise contribution levels are significantly lower than the construction noise limits as detailed in Table 3.1. Most construction works occur during the daytime hours with limited construction occurring thereafter. The noise monitoring contribution at sensitive location is within permissible levels.

Ambient noise level at sensitive locations is found to be similar or higher than those monitored at site boundary locations. The sensitive locations are situated up to 1km away from site boundaries and noise contribution from site is low as shown in Table 3.2. The noise at sensitive receptors is affected by localised noise sources, mainly road traffic. The boundary monitoring readings are used to calculate the noise contribution at the closest sensitive receptors. Table 3.2 shows that these were below the maximum permissible noise levels at the facade of dwellings during construction.

On this basis, it is concluded that the site activities undertaken during the July – September 2015 construction period are not causing exceedances of the construction noise limit values at sensitive receptors.

Detailed noise monitoring data is included in Appendix A.

4 Dust Deposition

A scheme for monitoring dust deposition and direction has been developed for the construction phase of the development.

4.1 Monitoring Method

Monitoring was overseen by the Project Environmental Consultant and undertaken by independent laboratory in accordance with the 'Dublin Waste to Energy - Construction Phase Monitoring Scheme', September 2009. Dust monitoring locations D1 – D4 are shown in Figure 2.1.

There are no legislative regulations regarding fugitive dust during construction either in Ireland or the UK. The "Technical Instructions on Air Quality Control – TA Luft" 2002 emission value for dustfall of 350 mg/m^2/day is therefore used as the maximum guideline level during construction.

Continuous particulate matter monitors were installed at two sensitive locations close to the construction project. The parameter being sampled was particulate matter (PM_{10}, $PM_{2.5}$ and Total Particulate Matter. These locations AD1 and AD2 are shown in Figure 2.1.

4.2 Monitoring Results

4.2.1 Weather Conditions

The average weather conditions during the July to September 2015 monitoring period are given below (http://www.wunderground.com);

- July 2015
  - Average Precipitation: 1.8mm/ Day
  - Average Wind Speed: 18.2 km/H
  - Average Temperature: 13.6° C
  - Total Precipitation 55.0mm
- August 2015
  - Average Precipitation: 2.1mm/ Day
  - Average Wind Speed: 16.0 km/H
  - Average Temperature: 13.8° C
  - Total Precipitation 64.0mm
- September 2015
  - Average Precipitation: 0.8mm/ Day
  - Average Wind Speed: 16 Km/H
  - Average Temperature: 11.6° C
  - Total Precipitation 22.9mm

4.2.2 Dust Deposition – Bergerhoff Gauges

The dust deposition results from the Bergerhoff gauges are given in Tables 4.1 – 4.3. Refer to Figure 2.1 in Section 2 for the monitoring locations.

Table 4.1: Dust Deposition Results – July 2015

Sample Locations	Date Deployed	Date Collected	Dust Gauge Diameter (cm)	Dust Collected mg/gauge	Rate of Dust Deposition mg/m²/day	TA Luft Limit mg/m²/day (Annual Average)
1 (West)	23.06.2015	21.07.2015	8.5	18.5	116	350
2 (North)	23.06.2015	21.07.2015	8.5	14.8	93	350
3 (East)	23.06.2015	21.07.2015	8.5	41.3	260	350
4 (South)	23.06.2015	21.07.2015	8.5	15.0	94	350

Table 4.2: Dust Deposition Results – August 2015

Sample Locations	Date Deployed	Date Collected	Dust Gauge Diameter (cm)	Dust Collected mg/gauge	Rate of Dust Deposition mg/m²/day	TA Luft Limit mg/m²/day (Annual Average)
1 (West)	21.07.2015	18.08.2015	8.5	17.8	112	350
2 (North)	21.07.2015	18.08.2015	8.5	31.8	200	350
3 (East)	21.07.2015	18.08.2015	8.5	37.6	237	350
4 (South)	21.07.2015	18.08.2015	8.5	24.0	151	350

Table 4.3: Dust Deposition Results – September 2015

Sample Locations	Date Deployed	Date Collected	Dust Gauge Diameter (cm)	Dust Collected mg/gauge	Rate of Dust Deposition mg/m²/day	TA Luft Limit mg/m²/day (Annual Average)
1 (West)	18.08.2015	22.09.2015	8.5	151.3	762	350
2 (North)	18.08.2015	22.09.2015	8.5	60.9	307	350
3 (East)	18.08.2015	22.09.2015	8.5	56.1	283	350
4 (South)	18.08.2015	22.09.2015	8.5	48.1	242	350

Table 4.4: Dust Deposition Results – Annual Average October 2014 – September 2015

Sample Locations	Commencement Date	Completion Date	Rate of Dust Deposition mg/m²/day (Annual Average)	TA Luft Limit mg/m²/day (Annual Average)
1 (West)	28.10.2014	22.09.2015	319	350
2 (North)	28.10.2014	22.09.2015	160	350
3 (East)	28.10.2014	22.09.2015	224	350
4 (South)	28.10.2014	22.09.2015	143	350

4.2.3 Particulate Monitoring Results

Date	Sample Location				Limit values of CAFE Directive 2008/50/EC	
	AD1 Recycling Facility		AD2 Rehab Facility		24 Hour Mean Limit	Annual Mean
	PM10 µg/m³	PM2.5 µg/m³	PM10 µg/m³	PM2.5 µg/m³	PM10 µg/m³	PM2.5 µg/m³
01/07/2015	30	7	18	6	50	-
02/07/2015	8	2	5	2	50	-
03/07/2015	23	5	10	4	50	-
04/07/2015	22	8	21	7	50	-
05/07/2015	12	5	11	5	50	-
06/07/2015	11	3	9	3	50	-
07/07/2015	7	3	7	3	50	
08/07/2015	12	4	10	4	50	
09/07/2015	11	5	10	5	50	-
Average	15	5	11	4	-	25
Min	7	2	5	2	-	-
Max.	30	8	21	7	-	-

4.3 Conclusion

The annual average readings (Table 4.4) for all monitoring locations are below the recommended "Technical Instructions on Air Quality Control – TA Luft" 2002 standard guideline of 350mg/m^2/day over an annual period. The largest annual average reading of 319mg/m^2/day on the westerly boundary location for dust deposition exists for the site since monitoring commenced in October 2014.

One elevated reading of 762mg/m^2/day was recorded in September on the western boundary (D1) from the twelve results over the three monthly period. The September reading was over twice the recorded value of the other monitoring points in September. Due to the confined construction area, excavations undertaken adjacent to the monitoring station is the likely cause for the elevated reading. A water bowser operated to mitigate dust in dry weather conditions. All vehicles leaving the construction areas of the site pass through a wheel cleansing area prior to entering the local road network.

The maximum PM_{10} concentration recorded at sensitive locations was 30µg/m^3 which is below the limit value for PM_{10} of 50µg/m^3 over a 24hour period. The maximum $PM_{2.5}$ concentration recorded at sensitive location was 8µg/m^3. There is no 24 hour limit to compare $PM_{2.5}$ monitoring results to. The maximum $PM_{2.5}$ concentration over 24 hours of 8µg/m^3 is below the recommended annual mean limit of 25µg/m^3. This monitoring confirms site activities are causing no elevated particulate matter at offsite sensitive locations.

5 Surface Water

A scheme for monitoring suspended solids in surface waters adjacent to the site is placed for the construction phase of the project, as per the EIS requirements and in accordance with An Bord Pleanala Order-29S.EF2022. Refer to Figure 2.1 in Section 2 for the monitoring locations.

5.1 Monitoring Method

Monitoring was carried out by an independent laboratory technician and overseen by the project environmental consultant in accordance with 'Dublin Waste to Energy - Construction Phase Monitoring Scheme' September 2009.

5.2 Monitoring Results

Analysis of suspended solids in surface water at the four surface water monitoring locations was undertaken.

The suspended solids results for July to September 2015 are presented in Table 5.1.

Table 5.1: Surface Water Monitoring – Suspended Solids Results

Parameter	Units	Date	Time	High Tide	Low Tide	SW(01)	SW(02)s	SW(02)d	SW(03)s	SW(03)d	SW(04)
Location	-	-				Cooling Water Channel	Fairway West (surface)	Fairway West (deep)	Fairway East (surface)	Fairway East - Pier (deep)	Irishtown Nature Park
Grid Reference Easting	-	-	-	-	-	6°11'54.95W	6°12'170W	6°12'170W	6°11'640W	6°11'640W	6°12'02.01W
Grid Reference Northing						53°20'28.32N	53°20'596N	53°20'596N	53°20'606N	53°20'606N	53°20'08.35 N
Suspended Solids (July 2015)	mg/l	21/07/15	09:30-13.50	03:25 & 15.53	09.17 & 21.26	244	150	184	135	173	192
Suspended Solids (August 2015)	mg/l	24/08/15	09:45 -11.15	06:55 & 19.33	00.17 & 12.56	2	2	10	10	13	2
Suspended Solids (September 2015)	mg/l	22/09/15	09.35 – 10.50	06.23 & 18.53	12.16	58	56	140	134	84	149

5.3 Conclusion

In the 3rd Quarter 2015 period the suspended solids ranged from 2 – 244mg/l. The highest level of suspended solids was recorded at the Cooling Water Channel, SW(01) in July 2015 with a result of 244mg/l. Baseline monitoring from 2010 – May 2015 ranged from 1 - 508mg/l.

Enabling works for site setup to construct the cooling water pump station commenced at end of June 2015. Construction works of the coffer dam for the cooling water pump station commenced at the end of July 2015.

During the construction period no elevated suspended solid readings were recorded when compared against preconstruction baseline readings and previous months. The levels recorded in August were detected at very low levels compared to other months. Fluctuations in suspended solids occur due to the intertidal area, urbanised catchment being sampled and water traffic operating on the waterbody. Therefore variation is expected throughout all samples readings. Fluctuations in suspended solids are common with levels recorded up to 508mg/l over the preconstruction monitoring period. During the quarterly monitoring period no elevated suspended solid readings were recorded compared to previous readings.

Appendix A
Noise Data

Table 1.1: Construction Noise Monitoring Locations

Noise Monitoring Location	Description
N1 – Rehab Institute	Outside front gate of Rehab, Roslyn Park
N2 – Seafort Avenue	Footpath adjacent to No. 33 Seafort Avenue
N3 – Beach Avenue	Footpath adjacent to the dividing wall of No. 10 and No. 11 Beach Avenue
N4 – Leukos Road	In front of DCC recycling facility
N5 – Pigeon House Road	Footpath immediately in front of the Coastguard Cottages
N6 – Walkway (Irishtown Nature Reserve)	Walkway south of the site connecting Sean Moore Park and Irishtown Nature Reserve
N7 – Western Site Boundary	Midway on the western site boundary
N8 – Northern Site Boundary	Midway on the northern site boundary
N9 – Eastern Site Boundary	Midway on the eastern site boundary
N10 – Southern Site Boundary	Midway on the southern site boundary

Table 1.2 Continued: July Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	LAeq dB(A)	LAMax dB(A)	LA90 dB(A)	LA10 dB(A)	Principal Noise Sources	Weather Conditions
02nd July 2015	N7	Western	30	09.05	67.6	87.1	59.6	70.7	- Cranes operating - Digger excavating material, A40 trucks operating - Trucks arriving with concrete and material - Steel erection - Dumper trucks operating shifting material - Erecting Scaffolding - Digger stockpiling material - Rebar installation	Calm, Partially Cloudy
02nd July 2015	N8	Northern	30	09.42	53.5	78.4	50.3	54.8		
02nd July 2015	N9	Eastern	30	11.08	68.8	82.6	70.8	65.2		
02nd July 2015	N10	Southern	30	11.42	70.7	93.3	56.1	70.9		
09th July 2015	N7	Western	30	09.40	69.1	85.4	57.3	73.7	- Digger excavating material - Digger stockpiling material - Rebar installation - Steel erection - Humming noise from Ringsend Wastewater Treatment Plant (WWTP) - Cranes operating - Shuttering for concrete	Clear and calm
09th July 2015	N8	Northern	30	10.15	57.6	77.8	48.8	56.0		
09th July 2015	N9	Eastern	30	12.37	76.2	93.1	68.1	79.9		
09th July 2015	N10	Southern	30	13.11	65.9	84.9	54.8	67.8		
09th July 2015	N7	Western	30	21.11	49.4	63.3	48.1	50.6	- Steel fixing - Formwork installation	Clear and calm
09th July 2015	N10	Southern	30	21.53	51.7	67.3	49.1	53.6		

Table 1.2 Continued: July Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
14th July 2015	N7	Western	30	14.29	66.5	85.0	59.3	69.9	- Diggers excavating material, A40 trucks operating - Trucks arriving with concrete and material, Concrete pump - Piling rigs operating - Cranes operating - Dumper trucks operating shifting material - Road sweeper - Slipform scaffolding operating - Rebar installation - Humming noise from WWTP	Dry, slight breeze
14th July 2015	N8	Northern	30	15.04	58.9	74.8	53.0	62.7		
14th July 2015	N9	Eastern	30	15.39	70.0	98.6	66.8	71.9		
14th July 2015	N10	Southern	30	16.12	63.7	79.7	57.5	66.3		
14th July 2015	N7	Western	30	20.52	53.2	63.5	50.8	54.6	- Culvert Shuttering works - Steel fixing	Calm, Cloudy
14th July 2015	N10	Southern	30	21.31	51.8	60.8	48.3	53.8		
23rd July 2015	N7	Western	30	12.01	65.8	83.3	58.4	69.8	- Steel Installation - Diggers excavating material - Dumper trucks operating - Scaffolding erection/removal - Rebar installation - Digger stockpiling material - Trucks arriving with concrete and material - Formwork installation - Crane operating - Roadsweeper - Humming noise from WWTP	Sunny Clear, Slight Breeze
23rd July 2015	N8	Northern	30	12.35	56.2	74.6	53.2	60.0		
23rd July 2015	N9	Eastern	30	14.09	67.8	83.2	64.9	70.0		
23rd July 2015	N10	Southern	30	11.24	62.9	81.6	57.9	64.4		

Table 1.2 Continued: July Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
30th July 2015	N7	Western	30	08.44	71.8	95.5	61.7	75.0	- Steel Installation - Sheetpiling - Diggers excavating material - Dumper trucks operating - Scaffolding erection/removal - Rebar installation - Trucks arriving with concrete and material - Formwork installation - Crane operating - Roadsweeper	Clear and calm
30th July 2015	N8	Northern	30	09.18	54.5	74.7	51.8	56.4		
30th July 2015	N9	Eastern	30	09.55	70.3	91.8	64.3	72.3		
30th July 2015	N10	Southern	30	10.29	62.9	92.0	53.5	65.3		
30th July 2015	N1	Rehab	30	12.39	65.1	89.3	52.2	67.4	- Consistent road traffic - No construction noise audible at any noise source - Backround noise from Dublin Port, crane and container loading machinery - Car passing - No construction noise audible at the noise source	Sunny, Clear, Calm
30th July 2015	N3	Beech Ave	30	13.31	69.8	83.4	54.6	73.4		
30th July 2015	N5	Pigeon Hs	30	12.03	60.6	81.8	55.8	63.4		
30th July 2015	N6	Nature Reserve	30	11.02	51.7	78.0	48.0	52.9	- Humming noise from WWTP - Hum from machinery	

Table 1.2 Continued: August Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
06th August 2015	N7	Western	30	11.00	71.0	89.0	66.2	73.5	- Trucks arriving with concrete and material - Cranes operating - Digger excavating material, A40 trucks operating - Steel erection - Dumper trucks operating shifting material - Erecting Scaffolding - Digger stockpiling material - Rebar installation	Clear, Slight Breeze
06th August 2015	N8	Northern	30	11.36	56.2	82.9	54.2	58.3		
06th August 2015	N9	Eastern	30	12.16	70.6	93.3	65.9	72.8		
06th August 2015	N10	Southern	30	12.50	64.6	79.1	57.6	68.3		
06th August 2015	N7	Western	30	19.58	63.5	72.4	57.8	65.8	- Rebar installation - Formwork Installation	Dry, Calm, Cloudy
06th August 2015	N10	Southern	30	19.17	63.8	87.8	51.7	62.2		
07th August 2015	N7	Western	30	00.39	60.2	69.3	45.4	47.1	- Steel Fixing - Formwork Installation	
07th August 2015	N10	Southern	30	01.15	57.1	68.2	50.2	53.0		

Table 1.2 Continued: August Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
13th August 2015	N7	Western	30	11.45	71.1	94.4	60.6	72.6	- Digger excavating material - Digger stockpiling material - Rebar installation - Steel erection - Humming noise from Ringsend Wastewater Treatment Plant (WWTP) - Cranes operating - Shuttering for concrete	Clear and calm
13th August 2015	N8	Northern	30	12.28	63.2	86.1	53.0	63.0		
13th August 2015	N9	Eastern	30	13.01	67.7	97.5	62.2	67.6		
13th August 2015	N10	Southern	30	13.38	65.0	84.1	62.2	67.4		
13th August 2015	N7	Western	30	19.40	60.8	73.1	57.8	63.9	- Steel fixing - Formwork installation	Cloudy and Calm
13th August 2015	N10	Southern	30	20.27	62.1	76.1	55.3	65.3		
14th August 2015	N7	Western	30	00.10	53.3	63.1	45.3	49.3	- Steel Fixing - Cladding	Cloudy and Calm
14th August 2015	N10	Southern	30	00.53	45.3	49.2	42.3	44.5		

Table 1.2 Continued: August Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
18th August 2015	N7	Western	30	14.51	64.9	82.6	62.0	66.7	- Diggers excavating material, A40 trucks operating - Trucks arriving with concrete and material, Concrete pump - Piling rigs operating - Cranes operating - Dumper trucks operating shifting material - Road sweeper - Slipform scaffolding operating - Rebar installation - Humming noise from WWTP	Dry, slight breeze
18th August 2015	N8	Northern	30	16.40	63.4	80.9	55.5	64.4		
18th August 2015	N9	Eastern	30	16.05	73.6	90.3	70.3	75.9		
18th August 2015	N10	Southern	30	15.31	60.4	82.3	54.8	63.8		
20th August 2015	N7	Western	30	20.21	55.3	63.5	46.3	49.1	- Shuttering works - Steel fixing - Cladding installation	Calm, Cloudy
20th August 2015	N10	Southern	30	21.15	59.8	69.1	47.8	50.3		
20th August 2015	N7	Western	30	23.30	57.8	62.8	47.1	49.9		
21st August 2015	N10	Southern	30	00.10	53.8	63.5	46.1	50.2		

Table 1.2 Continued: August Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
27th August 2015	N7	Western	30	10.00	63.4	82.5	59.8	65.7	- Steel installation - Digger excavating material, A40 trucks operating - Trucks arriving with concrete and material - Cranes operating - Trucks arriving with concrete - Erecting Scaffolding - Digger stockpiling material - Rebar installation - Road sweeper operating - Humming noise form WWTP	Cloudy, slight breeze
27th August 2015	N8	Northern	30	10.35	56.5	75.0	52.4	58.6		
27th August 2015	N9	Eastern	30	11.29	67.9	78.7	65.2	70.1		
27th August 2015	N10	Southern	30	12.14	64.1	82.2	56.7	66.5		
27th August 2015	N7	Western	30	20.32	63.2	79.2	57.8	63.6	- Concrete truck arriving - Pouring wall - Steel and cladding erection	Cloudy slight breeze
27th August 2015	N10	Southern	30	19.34	61.1	70.8	60.1	62.4		
27th August 2015	N7	Western	30	23.52	49.3	73.0	46.6	51.2	- Pouring wall - Steel and cladding erection - Hum from wastewater treatment plant	
28th August 2015	N10	Southern	30	00.38	45.7	70.2	43.8	46.4		

Table 1.2 Continued: August Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
28th August 2015	N2	Seafort Ave	30	10.31	65.1	71.2	49.4	68.9	- Consistent road traffic - No construction noise audible at any noise source	Sunny, slight breeze
28th August 2015	N3	Beech Ave	30	11.07	64.7	76.1	52.0	68.6		
28th August 2015	N5	Pigeon Hs	30	09.31	62.7	95.7	57.4	65.5	- Backround noise from Dublin Port, crane and container loading machinery - Car passing - No construction noise audible at the noise source	
28th August 2015	N6	Nature Reserve	30	08.30	54.5	72.3	51.8	57.3	- Humming noise from WWTP - Hum from machinery	

Table 1.2 Continued: September Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
01st September 2015	N7	Western	30	09.41	66.1	91.7	59.0	68.8	- Trucks arriving with concrete and material - Cranes operating - Digger excavating material, A40 trucks operating - Steel erection - Cladding installation - Erecting scaffolding - Digger stockpiling material - Rebar installation and concrete pours	Dry, Cloudy, slight breeze
01st September 2015	N8	Northern	30	12.00	60.7	80.0	54.6	63.2		
01st September 2015	N9	Eastern	30	12.40	70.6	90.8	72.1	65.8		
01st September 2015	N10	Southern	30	11.10	65.0	90.3	56.7	68.0		
01st September 2015	N7	Western	30	20.40	52.4	76.2	49.6	53.5	- Rebar installation - Formwork Installation - Steel Erection - Hum from Ringsend Wastewater Treatment Plant	Dry, Calm, Cloudy
01st September 2015	N10	Southern	30	19.55	54.1	78.1	49.9	55.4		
02nd September 2015	N7	Western	30	00.15	52.9	72.1	50.8	53.7		
02nd September 2015	N10	Southern	30	00.55	53.3	87.7	48.3	51.7		

Table 1.2 Continued: September Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
08th September 2015	N7	Western	30	09.32	65.7	88.6	59.2	62.2	- Cranes lifting materials - Trucks arriving with concrete and material - Digger excavating material, A40 trucks operating - Steel erection - concrete pouring with pumps - Cladding installation - Erecting scaffolding - Rebar installation and concrete pours	Dry, sunny, and slight breeze
08th September 2015	N8	Northern	30	10.09	54.3	71.9	54.0	56.3		
08th September 2015	N9	Eastern	30	10.46	71.7	86.6	69.8	72.1		
08th September 2015	N10	Southern	30	11.23	63.5	92.5	53.0	59.5		
08th September 2015	N1	Rehab	30	14.31	73.6	90.5	59.3	78.9	- Consistent road traffic - Pedestrians walking close by - No construction noise audible at any noise source	Dry, sunny, and slight breeze
08th September 2015	N2	Seafort Ave	30	13.39	58.0	83.3	49.9	52.4		
08th September 2015	N3	Beech Ave	30	12.57	55.2	75.4	47.0	57.5		
08th September 2015	N4	Leukos Rd	30	15.10	63.7	86.5	60.7	66.7	- Consistent road traffic passing or in backround - Noise from Dublin Port prominant - No construction noise audible at any noise source	Dry, sunny, and slight breeze
08th September 2015	N5	Pigeon Hs	30	15.44	58.7	79.0	53.0	57.0		
08th September 2015	N6	Nature Reserve	30	12.00	49.0	77.9	45.5	49.1	- General construction noise audible, reversing beacons, diggers - Humming noise from WWTP - Birds singing	Dry, sunny, and slight breeze

Table 1.2 Continued: September Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
10th September 2015	N7	Western	30	22.25	50.4	67.9	49.8	52.3	- Cladding Installation - Rebar installation - Formwork Installation - Steel Erection - Hume from Ringsend Wastewater Treatment Plant	Dry, Calm, Clear
10th September 2015	N10	Southern	30	21.42	54.6	75.6	52.8	53.4		
11th September 2015	N7	Western	30	03.02	53.2	71.6	50.0	52.4		
11th September 2015	N10	Southern	30	03.40	55.5	69.8	50.1	53.3		
17th September 2015	N7	Western	30	12.12	63.8	86.1	63.1	67.0	- Diggers excavating material, A40 trucks operating - Trucks arriving with concrete and material, Concrete pump - Cranes lifting materials - Dumper trucks operating shifting material - Road sweeper - Slipform scaffolding operating - Steel erection - Erecting Scaffolding - Rebar installation and formwork - Humming noise from WWTP	Dry, Clear, Calm
17th September 2015	N8	Northern	30	12.40	62.0	80.7	56.3	61.1		
17th September 2015	N9	Eastern	30	13.24	68.0	83.5	68.2	70.6		

Table 1.2 Continued: September Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
17th September 2015	N10	Southern	30	14.05	63.9	79.6	64.9	67.3	As Above.	
17th September 2015	N7	Western	30	22.20	55.2	74.4	55.1	57.0	- Steel Erection - Rebar and formwork installation - Cladding installation	Calm, Cloudy
17th September 2015	N10	Southern	30	21.40	52.9	82.0	49.6	50.3		
18th September 2015	N7	Western	30	00.15	54.6	74.0	53.0	55.4		
18th September 2015	N10	Southern	30	00.50	53.2	84.7	50.2	50.8		

Table 1.2 Continued: September Noise Monitoring Results

Date	Location No.	Boundary Location	Duration (min)	Start Time	L_{Aeq} dB(A)	L_{AMax} dB(A)	LA90 dB(A)	L_{A10} dB(A)	Principal Noise Sources	Weather Conditions
24th September 2015	N7	Western	30	09.10	66.2	85.0	62.1	68.3	- Digger excavating material, A40 trucks operating - Steel installation - Trucks arriving with concrete and material - Cranes lifting materials - Digger stockpiling material - Rebar installation - Road sweeper operating - Humming noise form WWTP	Clear, slight breeze
24th September 2015	N8	Northern	30	09.45	59.8	79.8	56.7	61.3		
24th September 2015	N9	Eastern	30	10.20	68.7	84.4	65.2	69.7		
24th September 2015	N10	Southern	30	10.55	60.3	79.6	56.2	63.3		
29th September 2015	N7	Western	30	22.56	50.8	73.0	48.3	51.2	- Concrete pouring wall - Steel and cladding erection	Clear, slight breeze
29th September 2015	N10	Southern	30	22.20	51.7	62.6	50.1	53.0		
30th September 2015	N7	Western	30	01.12	54.4	79.4	51.4	54.1	- Steel and cladding erection - Hume from wastewater treatment plant	
30th September 2015	N10	Southern	30	01.48	50.7	65.4	51.6	53.5		

Table 1.3: July noise Level Calculation Monitoring Results "(BS 5228-1:2009:+*A1:2014* Code of practice for noise and vibration control on construction and open sites – Part 1:Noise (Section F.2.2)"

Date	Time	Site Boundary	Noise Level dB(A) (Laeq 30 min)	Distance between boundary monitoring location and noise source location (m)	Distance betweeen receptor location and noise source location (m)						Screening adjustment dB(A)	Calculated Noise level at closest Sensitive receptors (Noise Level dB(A) (Laeq 30 min)					
					Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd		Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd
02/07/2015	09:05	Western	67.6	25				900		865	10				31		32
02/07/2015	11.42	Southern	70.7	25	870	941	1127		191		10	35	34	33		48	
09/07/2015	09:40	Western	69.1	20				900		865	10				31		31
09/07/2015	13.11	Southern	65.9	30	870	941	1127		191		10	32	31	29		45	
09/07/2015	21.11	Western	49.4	40				900		865	10				17		18
09/07/2015	21.53	Southern	51.7	40	870	941	1127		191		10	20	19	18		33	
14/07/2015	14.29	Western	66.5	15				900		865	10				26		26
14/07/2015	16.12	Southern	63.7	30	870	941	1127		191		10	29	29	27		43	
14/07/2015	20.52	Western	53.2	50				900		865	10				23		23
14/07/2015	21.32	Southern	51.8	50	870	941	1127		191		10	22	21	20		35	
23/07/2015	12.01	Western	65.8	30				900		865	10				31		32
23/07/2015	11.24	Southern	62.9	40	870	941	1127		191		10	31	30	29		44	
30/07/2015	08:44	Western	71.8	20				900		865	10				34		34
30/07/2015	10.29	Southern	62.9	30	870	941	1127		191		10	29	28	26		42	

Table 1.3: Continued: August noise Level Calculation Monitoring Results "(BS 5228-1:2009:+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1:Noise (Section F.2.2)"

Date	Time	Site Boundary	Noise Level dB(A) (Laeq 30 min)	Distance between boundary monitoring location and noise source location (m)	Distance betweeen receptor location and noise source location (m)						Screening adjustment dB(A)	Calculated Noise level at closest Sensitive receptors (Noise Level dB(A) (Laeq 30 min)					
					Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd		Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd
06/08/2015	11.00	Western	71.0	15				900		865	10				30		31
06/08/2015	12.50	Southern	64.6	20	870	941	1127		191		10	27	26	25		40	
06/08/2015	19.58	Western	63.5	40				900		865	10				31		32
06/08/2015	19.17	Southern	63.8	50	870	941	1127		191		10	34	33	32		47	
07/08/2015	00:39	Western	60.2	40				900		865	10				28		29
07/08/2015	01:15	Southern	57.1	50	870	941	1127		191		10	27	27	25		40	
13/08/2015	11.45	Western	71.1	60				900		865	10				43		43
13/08/2015	13.38	Southern	65.0	60	870	941	1127		191		10	37	36	35		50	
13/08/2015	19.40	Western	60.8	40				900		865	10				29		29
13/08/2015	20.27	Southern	62.1	50	870	941	1127		191		10	32	32	30		45	
14/08/2015	00:10	Western	53.3	50				900		865	10				23		24
14/08/2015	00:53	Southern	45.3	70	870	941	1127		191		10	18	18	16		32	
18/08/2015	14.51	Western	64.9	30				900		865	10				30		31
18/08/2015	15.31	Southern	60.4	30	870	941	1127		191		10	26	25	24		39	
20/08/2015	20.21	Western	55.3	40				900		865	10				23		24
20/08/2015	21.15	Southern	59.8	50	870	941	1127		191		10	30	29	28		43	
20/08/2015	23:30	Western	57.8	40				900		865	10				26		26
21/08/2015	00:10	Southern	53.8	50	870	941	1127		191		10	24	23	22		37	
27/08/2015	10.00	Western	63.4	30				900		865	10				29		29
27/08/2015	12.14	Southern	64.1	50	870	941	1127		191		10	34	34	32		47	
27/08/2015	20.32	Western	63.2	70				900		865	10				36		36
27/08/2015	19.34	Southern	61.1	60	870	941	1127		191		10	33	32	31		46	
27/08/2015	23:52	Western	49.3	50				900		865	10				19		20
28/08/2015	00:38	Southern	45.7	60	870	941	1127		191		10	17	17	15		31	

Table 1.3: Continued: September noise Level Calculation Monitoring Results "(BS 5228-1:2009:+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1:Noise (Section F.2.2)"

Date	Time	Site Boundary	Noise Level dB(A) (Laeq 30 min)	Distance between boundary monitoring location and noise source location (m)	Distance betweeen receptor location and noise source location (m)						Screening adjustment dB(A)	Calculated Noise level at closest Sensitive receptors (Noise Level dB(A) (Laeq 30 min)					
					Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd		Rehab Institute	Seafort	Beach	Leukos	Irishtown Nature Park	Pigeon House Rd
01/09/2015	09:41	Western	66.1	30				900		865	10				32		32
01/09/2015	11.10	Southern	65.0	30	870	941	1127		191		10	31	30	29		44	
01/09/2015	20.40	Western	52.4	30				900		865	10				18		18
01/09/2015	19.55	Southern	54.1	40	870	941	1127		191		10	22	22	20		36	
02/09/2015	00:15	Western	52.9	30				900		865	10				18		19
02/09/2015	00:55	Southern	53.3	40	870	941	1127		191		10	22	21	19		35	
08/09/2015	09:32	Western	65.7	30				900		865	10				31		32
08/09/2015	11.23	Southern	63.5	30	870	941	1127		191		10	29	29	27		42	
10/09/2015	22.25	Western	50.4	40				900		865	10				18		19
10/09/2015	21.42	Southern	54.6	30	870	941	1127		191		10	20	20	18		34	
11/09/2015	03:02	Western	53.2	30				900		865	10				19		19
11/09/2015	03:40	Southern	55.5	40	870	941	1127		191		10	24	23	22		37	
17/09/2015	12.12	Western	63.8	50				900		865	10				34		34
17/09/2015	14.05	Southern	63.9	40	870	941	1127		191		10	32	31	30		45	
17/09/2015	22.20	Western	55.2	40				900		865	10				23		24
17/09/2015	21.40	Southern	52.9	50	870	941	1127		191		10	23	22	21		36	
18/09/2015	00:15	Western	54.6	40				900		865	10				23		23
18/09/2015	00:50	Southern	53.2	50	870	941	1127		191		10	23	23	21		37	
24/09/2015	09:10	Western	66.2	20				900		865	10				28		28
24/09/2015	10.55	Southern	60.3	50	870	941	1127		191		10	30	30	28		44	
29/09/2015	22:56	Western	50.8	80				900		865	10				25		25
29/09/2015	22:20	Southern	51.7	40	870	941	1127		191		10	20	19	18		33	
30/09/2015	01:12	Western	54.4	80				900		865	10				28		29
30/09/2015	01:48	Southern	50.7	40	870	941	1127		191		10	19	18	17		32	

To the Lord Mayor and
Members of Dublin City Council

Report No. 240/2015
Report of the Executive Manager

Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Amendment to the City Council's Protocol to erect Temporary Posters / Notices on Dublin City Council Property to Advertise Public Meetings / Events

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The City Council's Postering Protocol was introduced in April 2007 to facilitate, with the prior consent of the City Council, the placement of posters in the public domain, advertising public meetings/events which allow free access to the general public. The Protocol essentially gives effect to the provisions of Section 19 of the Litter Pollution Act 1997, as amended, which exempts posters placed in the public domain from prosecution once prior permission has been obtained and the posters are not in place outside statutory time limits.

A review was initiated by the Environment & Engineering SPC in July 2013 and a revised protocol was considered and approved by the SPC at its meeting on the 16th Jan 2014 which was subsequently adopted by the Council at its February 2014 meeting.

A motion was proposed and agreed at the June 2015 meeting of the Environment Strategic Policy Committee that the protocol is to be amended. The text of the current protocol to be amended is highlighted in red.

Please note that this Protocol does not relate to postering for elections / referenda which are dealt specifically under the Litter Pollution Acts.

Declan Wallace
Executive Manager
18th August 2015.

Protocol for the Erection of Temporary Posters / Notices on Dublin City Council Property to Advertise Public Meetings / Events

(August 2015)

It is Dublin City Council's policy to uphold article 10 of the European Convention on Human Rights Act 2003 (which relates to freedom of expression).

Please note that Posters/Notices promoting commercial events are prohibited.

This document provides conditions, which must be followed as part of the agreement to put up your poster/notice.

What you need to send:

A *Notice of Intent* to exhibit your posters/notices on Dublin City Council property (which is in or can be seen from a public place) must be submitted to the City Council not less than 7 working days before it is proposed to exhibit such material **unless it can be demonstrated by the applicant that the event being advertised is being organised in response to an occurrence that could not have been foreseen within the normal 7 working days timeframe.** This must be sent to us by one of the following methods and we will respond to all fully completed *Notices of Intent* within 2 working days.

- by E-mail to: traffic@dublincity.ie
- by Post to: Environment and Transportation Department, Block 2, Floor 6, Civic Offices, Wood Quay, Dublin 8.

***The Notice of Intent* must include the following information:**

1. All details which are listed in the attached Appendix 1 – "Information to be included in *Notice of Intent*"
2. A statement that the requirements listed in Appendix 2 –"Health and Safety Requirements" - will be complied with and that all of the people involved in putting up or removing posters have been briefed in relation to its contents and all relevant Health and Safety Legislation.
3. A sample poster/notice must be submitted with the ***Notice of Intent***.

Vulgar or offensive content:

You should note that we may refuse permission at anytime to put up any poster/notice and/or we may remove any posters/notices that we deem to be vulgar or offensive. In the event of such an issue arising, we (City Council) will discuss the issue with the Chairperson and as many members as possible of the Environment & Engineering SPC, before making a decision regarding the issue.

Details which must be put on the Poster/Notice:

The poster must have at a minimum 75% of the poster layout detailing the details of the meeting and this content must be clearly visible to members of the public. **Note for information - The name and picture of the individual hosting the meeting can only take up a maximum 25% of the poster.**

The Poster/notice must also carry the name and contact details of the person/organisation that is promoting or arranging the meeting or event (e.g. postal address, email address or website). A case can be made for withholding this information based on safety concerns, but this must be agreed by us in advance of putting up the posters/notices.

Size and material to be used for poster/notice:

The maximum size of the posters/notices shall be 900mmx600mm.
All posters/notices must be made of cardboard composites or other durable recyclable materials. All posters must be put up at a minimum height of 2.3 metres and a maximum height of 4.5 metres above footpaths, cycle tracks or any area to which pedestrians have access.

When, where and how many Posters/Notices can be put up/taken down:

A maximum of 500 posters will be permitted in respect of each event which is the subject of an application.

Posters/notices must not be put up on lamp standards with overhead line electricity feed, traffic signal poles, bridge parapets, overpasses, pedestrian bridges, or roadside traffic barriers.

Posters/notices erected on lamp standards (without overhead electricity feed), public information signs or traffic poles carrying road signage (e.g. stop, yield, parking control, clearway, bus lane, cycle track, pedestrian and/or directional signage) must not obscure any statutory road signage or traffic/pedestrian signals in any way.
Posters that obscure statutory road signage or traffic/pedestrian signals will be removed.

All posters/notices must be securely fixed to posts/poles with cable ties or similar material to facilitate removal without damage to posts/poles. Adhesive substances (e.g. glue) or other binding materials may not be used. Metal fixings may not be used.

We may remove without notice any poster/notice that is not fixed securely to a post/pole. We may also remove any fallen poster/notice and issue proceedings under the Litter Pollution Acts.

Posters are not to be put up more than 7 days prior to a meeting/event and posters/notices and fixings/cable ties must be removed and recovered from all poles/posts within 7 days after the date of the meeting/event.

We may remove authorised posters/notices remaining on display following the expiry of the 7 days referred to in the conditions above.

The Litter Pollution Acts provide for the issuing of an on the spot fine and/or prosecution in respect of posters/notices that are not removed within 7 days after the date of the meeting/event.

Posters/notices will not be authorised on the following streets:

- **O'Connell Street**
- **Grafton Street**
- **Henry Street**

Insurance requirement:

You are required to provide details of your public liability insurance on the Appendix 1 (Section 8). Should your organisation not hold Public Liability Insurance cover, you can avail of insurance cover from Dublin City Council. This is provided at a cost of €100 and will provide cover for a period of 12 months. Local organisations are exempt from the €100 payment if no more than 40 'A3' or smaller paper posters/notices are erected in an area agreed by the Area Office of Dublin City Council.

APPENDIX 1

INFORMATION TO BE INCLUDED IN THE *NOTICE OF INTENT* TO ERECT POSTERS/NOTICES ON DUBLIN CITY COUNCIL PROPERTY TO ADVERTISE PUBLIC MEETINGS/EVENTS

1. Name/Address of Person Promoting the Meeting/Event
Name:
Address:
Organisation/Group:
Title/Position:
Function/Status of Organisation/Group:

2. Contact Details
Name:
Address:
Telephone Number:
Mobile Number:
Email address:

3. Location where Posters/Notices are to be displayed
Please indicate the area of the city in which you intend to display/exhibit your posters/notices.

4. Number of posters/notices (approx.) to be displayed (Max 500)

5. Date of Meeting/Event

6. Copy of poster enclosed

7. Date on which you wish to commence putting up the posters/notices (Posters/notices may not be put up more than 7 days prior to the date of Meeting/event):

8. Public Liability Insurance Policy (for consideration)

If Public Liability Insurance Policy is in place please submit the following details;

- *Policy Number:*
- *Expiry Date:*
- *Name of Company Providing Cover:*
- *Name of Insured:*
- *Amount Insured:*

If no Public Liability Insurance Policy is in place, please see 'Insurance requirement' section in the protocol document.

9. Confirmation: *The Notice of Intent submitted to the City Council should include confirmation that the promoter of the meeting/event will (a) adhere to the City Council Protocol and (b) that he/she has read the Health and Safety Requirements and briefed all of the people involved in putting up and taking down posters/notices about the contents and all other relevant Health and Safety issues.*

APPENDIX 2 - HEALTH AND SAFETY INFORMATION SHEET

In relation to the erection and removal of posters/notices

The main hazard associated with putting up posters/notices etc. is that someone may fall from a height. This commonly results in death or serious injury to the person working on the elevated access work equipment (e.g. Ladder) and, in some cases, physical injury to those in the immediate area. Most of these hazards arise from the following groups of hazards:
Incorrect specification, poor maintenance, electric shock, manual handling injuries, traffic hazards, slips, trips and falls, falling objects /material.

Any person involved in putting up or removing posters/notices etc. on Dublin City Council property must be suitably trained and be fully able to work at heights.

An employer/person who requires the use of elevated access equipment, e.g. ladder, shall be responsible for the following:

- The correct selection, use and maintenance of the elevated access equipment they use.

- That work at height is properly planned, appropriately supervised and carried out in a manner that is, so far as is reasonably practicable, safe and without risk to health.

- That work at height is carried out only when weather conditions do not jeopardise the safety and health of employees or other persons.

- That work is not carried out at height unless it is reasonably practicable to do so safely and without risk to health.

- Take suitable and sufficient measures to prevent an employee or other person falling a distance liable to cause personal injury.

- Take suitable and sufficient measures to prevent equipment, tools, materials or other objects falling a distance liable to cause injury to persons or damage to property.

- Provide appropriate training and instruction or take additional suitable and sufficient measures to prevent, so far as is practicable, any employee or another person falling a distance liable to cause personal injury.

Any surface upon which a ladder rests shall be stable, firm, of sufficient strength and of suitable composition to support safely the ladder, so that the ladders rungs or steps and any loading intended to be placed on it remain horizontal.
A ladder should be positioned so that it remains stable during use.