



EPA National Water Event

Working Together from Source to Sea

17th June 2015

Galway Bay Hotel

Meeting the Environmental Challenges

Local Authority Reforms

Frank Curran
Chief Executive
Leitrim County Council

Summary of Presentation

- ❑ Regional Waste Management Plans
- ❑ Waste Management in Leitrim
- ❑ Waste Enforcement Review
- ❑ Climate Change – Leitrim's Story
- ❑ Water Framework Directive

Common Themes

- ❑ Regional Approach
- ❑ Shared Services
- ❑ Community Engagement
- ❑ Job Creation
- ❑ Efficiency and Value for Money



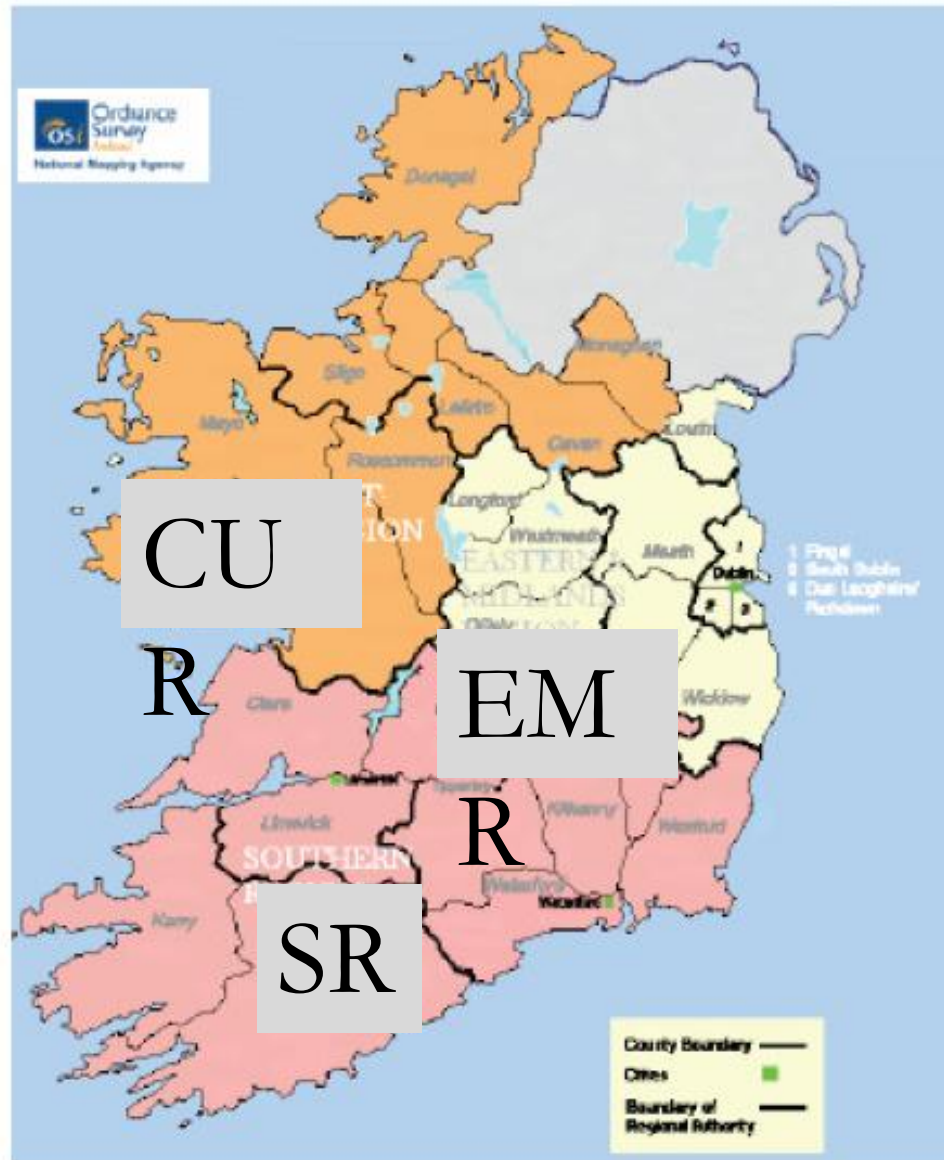
-
- ❑ Putting People First
 - ❑ 'the need for the system to embrace change, share the burden, modernise, adapt to new financial circumstances and deliver even better services with scarce resources'

REGIONAL WASTE MANAGEMENT PLANS 2015-2021



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”



WASTE MANAGEMENT PLANS

Executive Summary

Part 1 Background

Part 2 Current Position

Part 3 Implementation

Appendices

SEA / AA

Strategic Vision and Approach (Part 1 Chapter 5)

The strategic vision of the regional waste plans 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.

Overall Performance Targets

Plan Target 1

1% reduction per annum in the quantity of household waste generated per capita over the period of the plan

Plan Target 2

Preparing for Reuse and Recycling Rate of 50% of Municipal Waste by 2020

Plan Target 3

Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill



Objectives and Policies

Policy and Legislation

The Region will implement EU and national waste and related environmental policy, legislation, guidance and codes of practice to management of resources and waste.

Other Waste Streams

The region will establish policy measures for other waste streams not subject to EU and national waste management performance targets.

Prevention

Prioritise waste prevention through behavioural change activities to decouple economic growth and resource use.

Protection

Apply the relevant environmental and planning legislation to waste activities to protect and reduce impacts on the environment in particular Natura 2000 sites and human health from the adverse impact of waste generated.

Resource Efficiency Circular Economy

The region will encourage the transition from a waste management economy to a green circular economy to enhance employment and increase the value, recovery and recirculation of resources.

Enforcement and Regulation

The region will implement a consistent and coordinated system for the regulation and enforcement of waste activities in cooperation with other environmental regulators and enforcement bodies.

Coordination

Coordinate the activities of the regions and work with relevant stakeholders to ensure the effective implementation of objectives.

Infrastructure Planning

The Region will promote sustainable waste management infrastructure/technology in keeping with the waste hierarchy and self-sufficiency.



Actions



Three Plans



“the next challenge”

“new region new vision”

“do one more thing”



Leitrim County Council
Comhairle Chontae Liatroma

What is Leitrim County Council doing ?

- ❑ Implementing Pay by Weight Byelaws for Household waste Collection
- ❑ 2 ATFS in the County to manage End of Life Vehicles
- ❑ Ensuring proper management of tyres, hazardous waste including clinical waste, farm plastic, batteries, packaging and electrical goods and other such waste streams
- ❑ Ensuring that C&D waste is managed properly and not disposed of.
- ❑ Ensuring commercial and household organic waste is diverted from landfill
- ❑ 2 recycling centres and 38 bring banks
- ❑ Awareness activities in schools and community

Pay by Weight - Leitrim

- ❑ Pay by Weight and Brown Bin across the County from 1st December 2014
- ❑ System working out much cheaper than tag system
- ❑ Waste Generated reduced
- ❑ Increase in Recycling and Diversion of Organic Waste from landfill
- ❑ Registration requirement – focus of attention at present.

Reason for Change from tag system to PBW

Problems created by the previous volumetric tag-based payment system -

- ❑ infrequent presentation.
- ❑ excess bin weights (100-120kgs).
- ❑ non- transparent use of the system
- ❑ no clarity regarding customer-collector contract.
- ❑ surge in illegal dumping & back-yard burning
- ❑ significant drop in the amount of material recycled and a noticeable drop in the amount of waste collected.
- ❑ With significant overloading of bins, irregular presentation of bins and only 70% of occupied houses availing of the service, the future viability of the present service in low density rural areas of Leitrim was questionable.

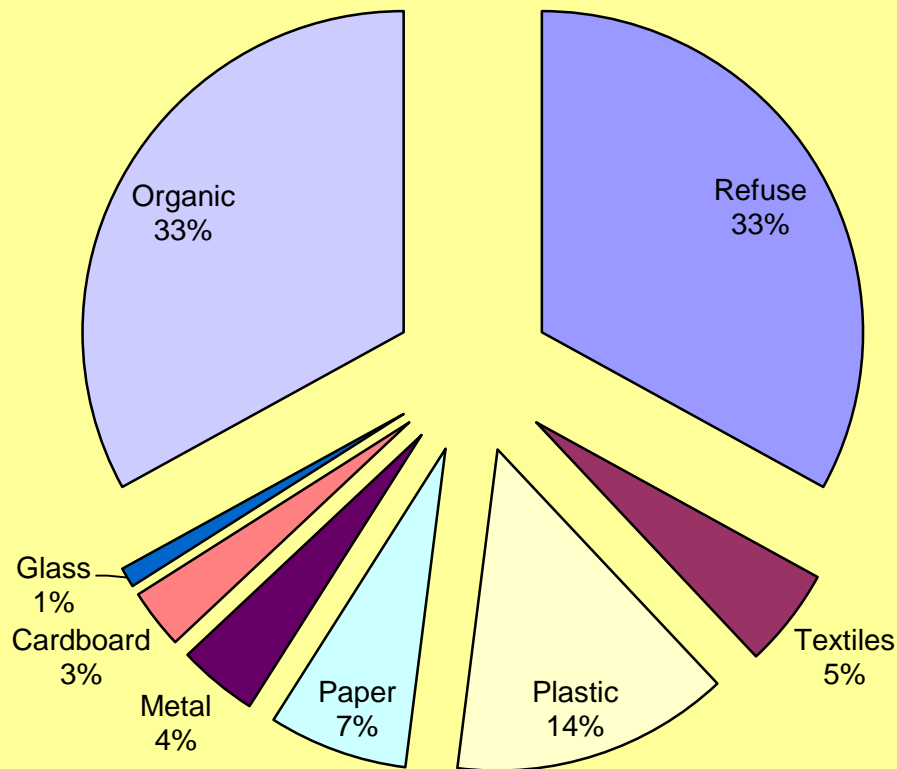


Reason for Change Continued

- ❑ Bags left out on wrong days
- ❑ Bags being torn and flittered by dogs and wildlife – litter
- ❑ Bags are non biodegradable (won't breakdown in Landfill)
- ❑ Excess bag weights posing Health & Safety issues to waste collection staff and potential litigation.
- ❑ Sharp objects in bags posing H&S issues
- ❑ 96% bags waste, 4% recycling, those using bags not recycling
- ❑ Almost 4000 households on the County not availing of **any** waste kerbside service

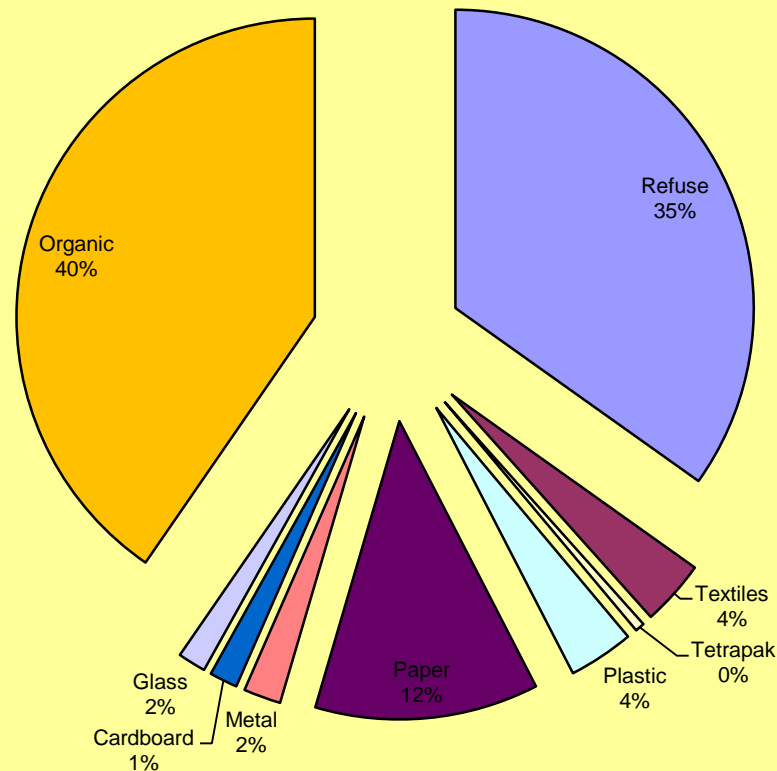
Waste Characterisation Survey (Black Bin)

Waste Characterisation Survey - Leitrim (Rural)



Waste Characterisation Survey (Black Bin)

Waste Characterisation Survey - Carrick-on-Shannon
(Urban)



Bin Weights & Presentation Rates

Rural Study	Presentation Rate – 24%										
Weight	>100	>90	>80	>70	>60	>50	>40	>30	>20	>10	Total Bins
Number	1	2	1	4	8	4	6	1	0	0	27
%	3.7%	7.4%	3.7%	14.8%	29.6%	14.8%	22.2%	3.7%	0.0%	0.0%	

74.1% of bins > 40kgs

Urban Study	Presentation Rate – 18%										
Weight	>100	>90	>80	>70	>60	>50	>40	>30	>20	>10	Total Bins
Number	4	0	2	11	13	14	10	8	0	0	62
%	6.45%	0.00%	3.23%	17.74%	20.97%	22.58%	16.13%	12.90%	0.00%	0.00%	

70.97% of bins > 40kgs

Landfill Capacity Reducing

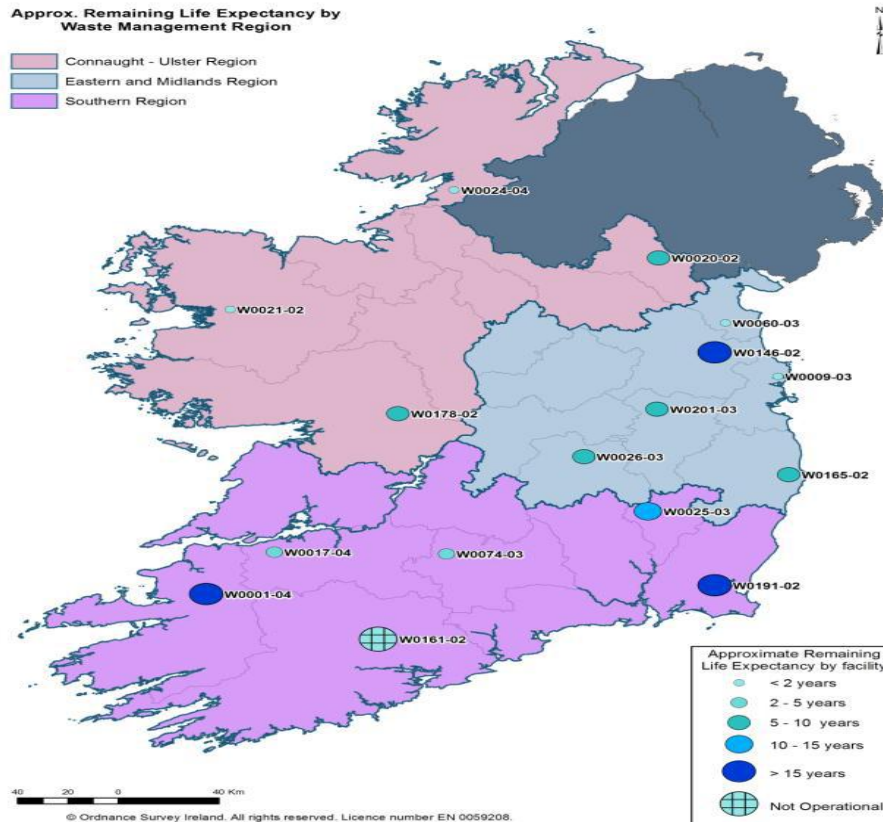
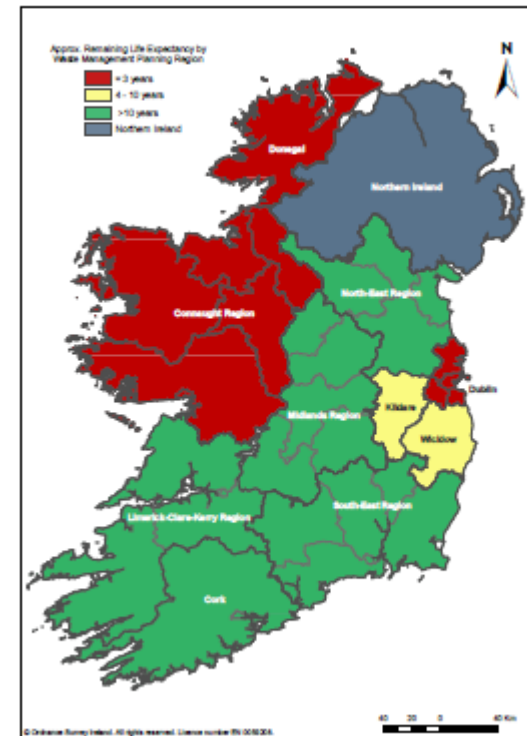
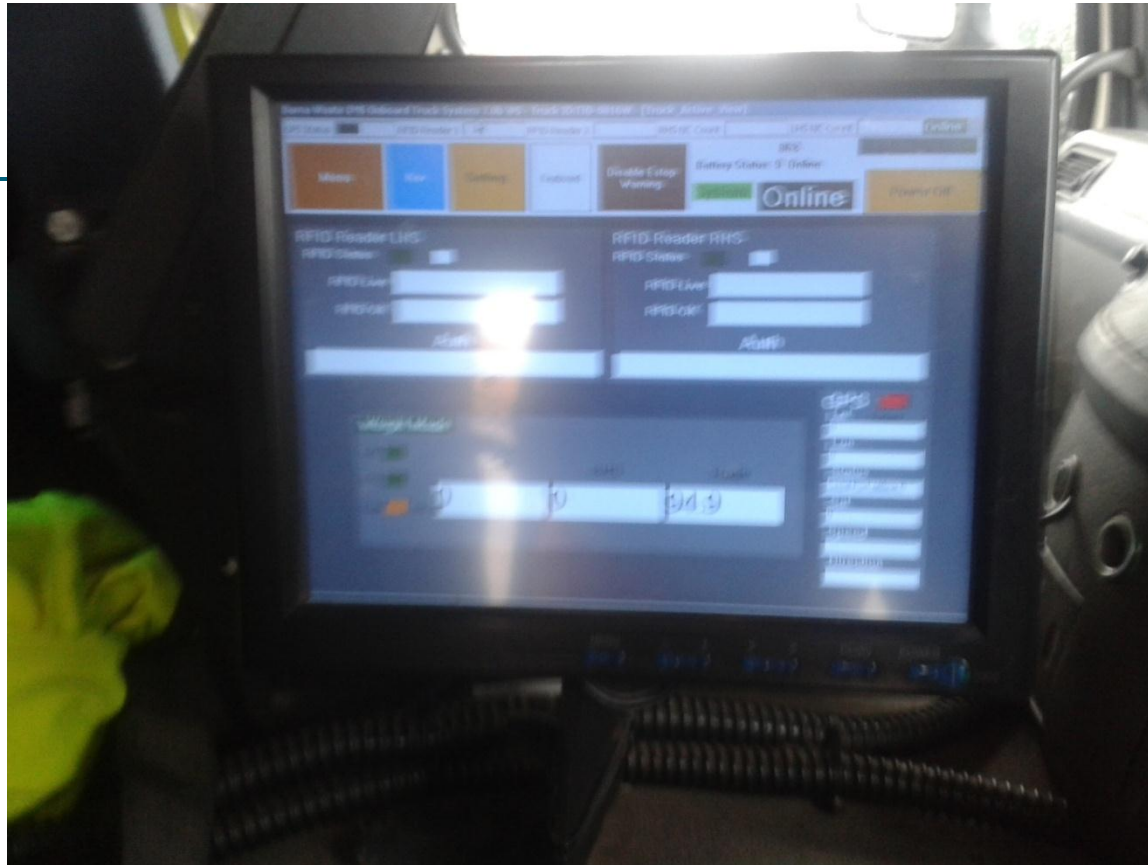


Figure 5.7 Distribution of Landfill Capacity in Ireland (Source: EPA)





Pay by Weight System



Pay by Weight

The screen on board the truck

Cost & Advantages

- ❑ All of the collectors have published their costs for the new system.
- ❑ The Pay by weight system will allow the householder to save money through diversion of recyclables and food waste from landfill. (€20 per quarter standing charge, 22c/kilo Black, 8c/kilo Blue, 8c/kilo organic - €6-7 black, €1 blue, €1 organic)
- ❑ 33% recycling and 33% food waste potentially in black bin to be diverted.
- ❑ Householders will in turn be in a position to better avoid increasing landfill fees (81% of waste in tag system going to landfill – this is a major financial threat to households and business).
- ❑ Households will have a modernised waste service.
- ❑ Increased recycling rates
- ❑ Biodegradable waste removed from landfill where it caused significant environmental damage.
- ❑ Creation of jobs in recycling and composting sector as we move to circular economy

Waste Enforcement Review

- ❑ Commitment in 'A Resource Opportunity'
- ❑ Acknowledgement of the contribution of Local Authorities
- ❑ Lack of Capacity
- ❑ Lack of Consistency

Lead Regional Enforcement Authorities

- ❑ Setting priorities and common objectives for waste enforcement
- ❑ Ensuring consistent enforcement of waste legislation
- ❑ Centres of Excellence
- ❑ Local Authorities still 'Boots on the Ground'

Climate Change - Leitrim

- ❑ EU position
- ❑ National Position
- ❑ Climate Change Plan- 2015 to 2020
- ❑ Projects Completed update

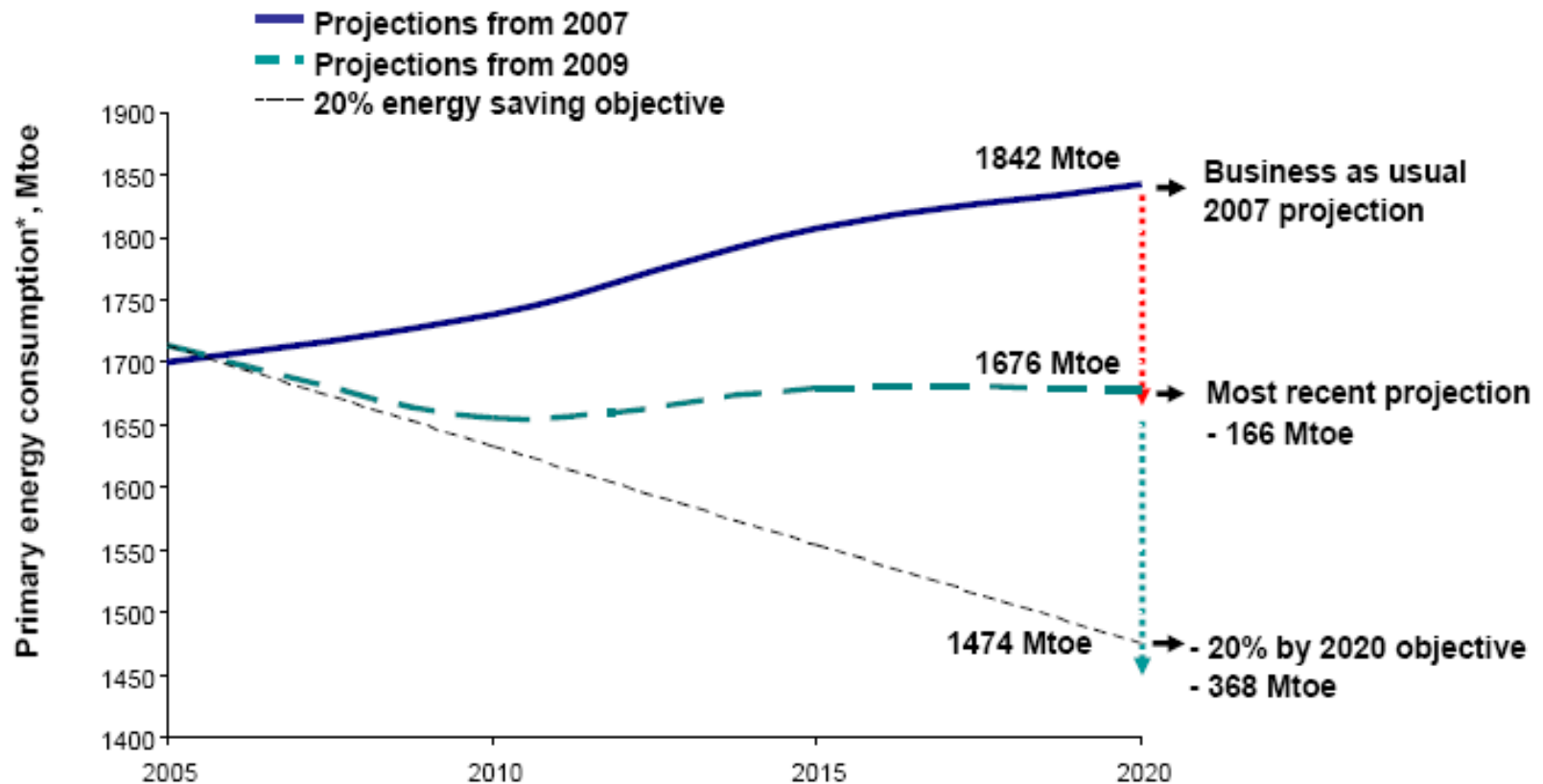
Flooding -2009



EU Policies

- ❑ Roadmap for moving to a Competitive Low Carbon Economy in 2050
- ❑ Limit the increase in average global surface temperature to 2 degrees C
- ❑ Reduce emissions to 85% of 1990 levels by 2050
 - 20% by 2020
 - 40% by 2030
 - 60% by 2040
- ❑ Carbon Emissions Trading Scheme under review

Energy Trends in the EU



* Gross inland consumption minus non-energy uses

Ireland's Position

- ❑ Climate Action and Low Carbon Development Bill Published 2015
- ❑ Minister required to produce
 - National Mitigation Plan
 - National adaptation framework
- ❑ Sectoral Roadmap - by which each sector of the Irish economy will migrate towards a low-carbon state

Climate Change Plan for Leitrim

- ❑ Climate Change Plan in place 2015 – 2020
- ❑ Target is to reduce our energy consumption by 33% between 2013 and 2020.
- ❑ Carbon emissions and reduction targets reflect this new target for energy consumption. By switching some energy loads to renewable sources as we achieve these obligatory energy savings, a target of 40% reduction in CO2 emissions between now and 2020 seems reasonable.



Carbon Emissions for 2013 following the removal of Irish Water installations - 3,669,320 kgs

59% Electricity usage

- Metered and unmetered PL 65%,
- Offices 20%
- Aura and Halting site 11%,

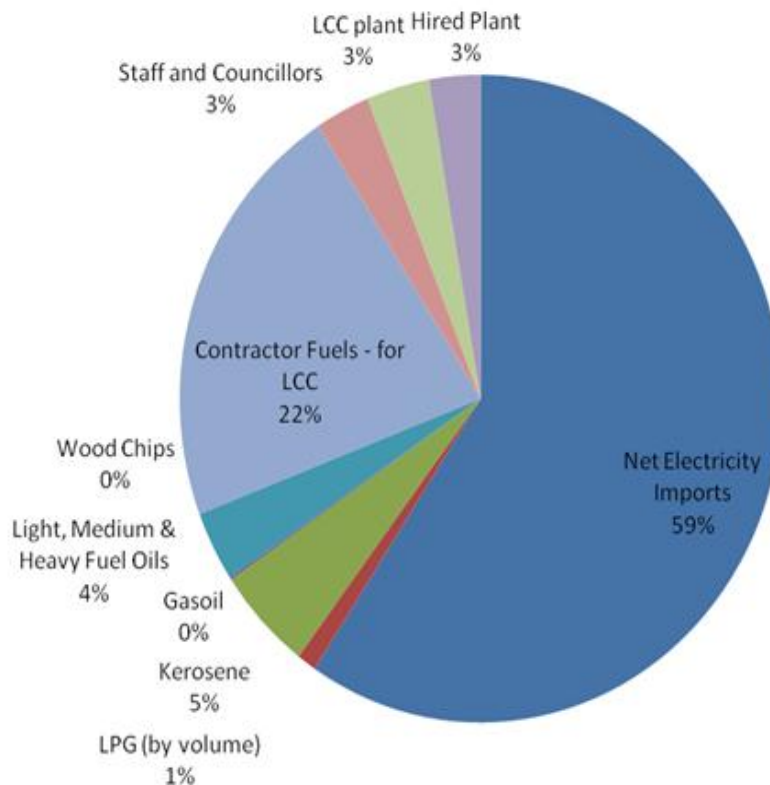
31% Transport Fuels /Fuel Oil

- 70% Contractors
- 10% Machinery Yard
- 10% Hired Plant
- 10% Staff/Councillors travel

10% Space Heating (Oil/LPG)

- 46% Aras and Dock
- 7% Park Lane
- 5% Ballinamore Library
- 5% Manorhamilton Fire Station/Office

CO2 Emissions by Fuel Type/Use Category (2013)
(% kg CO2 Used)



Immediate Steps

- ❑ Implement Departmental tasks
- ❑ Lighting retrofit
- ❑ Biomass Boilers – Aras an Chontae, Aura Leisure Centre
- ❑ Engage with ESBI to install network of e-car rapid-charge points
- ❑ Need to get accurate figure on Energy consumed by contractors and develop appropriate procurement protocols



Space Heating Comparisons

Space Heating July 2014		
Fuel	Price per kWh (adjusted by Seasonal Efficiency Rating)	kg CO2 per kWh
Wood Chip	4.97	0.005
Air to Air Heat Pump	6.20	0.153*
Wood pellets(bulk)	7.00	0.005
Night Rate Electricity	8.61	0.533
Gas Oil (condensing boiler)	11.16	0.23
Gas Oil (conventional boiler)	14.35	0.29
Standard electricity	24.11	0.533



TRANSPORT AND ROADS

- ❑ Reduce carbon emissions from public lighting by 36,000 kgs of CO2 per year.(current emissions eliminated over 20 years)
- ❑ Provide fast charging points in all significant premises serviced by LCC caretaking staff.
- ❑ All lorries and heavy vans when being replaced, will be replaced with vehicles adapted for the use of bio-diesel
- ❑ All light vans will be replaced with plug-in electric vans over a four year period commencing in 2015. Integrate sustainable travel into all relevant policies and practices
- ❑ Separated cycle lanes and pedestrian walkways will be provided in all new road projects to encourage cycling and walking instead of car usage.
- ❑ Install facilities for cyclists, pedestrians and electric vehicles at Council Buildings and in all of the towns and village centres and integrate facilities into all new streetscape projects.
- ❑ Review the use of fuel cards by all outdoor staff, including wardens etc.
- ❑ Provide eco-driving training to all staff to reduce carbon emissions
- ❑ Utilise software in all Council Road Design Projects, with carbon footprint being part of the scoring criteria when deciding routes & materials used. Require all consultants for County Council work utilise relevant software and provide Carbon Footprints on draft and final designs.
- ❑ Use of solar cells in school signs and pay & display machines etc - Analysis of current installations & development of plan for roll-out of additional installations where warranted.
- ❑ Develop a programme for retro fitting of cycle lanes to primary & secondary schools where these are deemed possible.
- ❑ All new urban connector roads to have cycle lanes included in their design, with a strategy to link into existing cycles lanes / routes on existing urban roads.
- ❑ Bike Parking in all Urban Areas - Implement additional Bike Parks in all Urban areas
- ❑ All new public lights and all replacement lamps will be the most energy efficient on the market not entailing excessive cost (e.g. pay-back<10 years)
- ❑ The potential for the use of recycled materials in road reconstruction will be investigated.



Corporate and Housing

- ❑ Comprehensive review of current energy usage in Corporate Buildings, install monitoring equipment and prepare energy audits
- ❑ Take measures to achieve energy efficiency in Corporate Buildings with target of 6% per annum in energy efficiency
- ❑ All new construction local authority buildings to be A Rated
- ❑ Arrange for installation of Biomass Heating System for Corporate Building Campus at Aras an Chontae
- ❑ Encourage use of Tele-Conferencing and Video-Conferencing as a means of reducing travel to meetings
- ❑ Compile tenant information pack on CO2 emissions
- ❑ All new Local Authority houses to be designed and constructed to current Building Regulations and achieve minimum 40% renewable energy sources
- ❑ Inclusion of requirement for Water Conservation Measures in Design of all new Local Authority Houses.

Mohill Better Energy Communities 2014

Works Period: June 2014 to December 2014

Cappagh Internal Heating Upgrades

Radiators Used in conjunction
with Air-to-Water Heat Pump
System



Thermostatic Radiator Valve

To control temperature to
radiator/room



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Knocklongford Heat Pumps

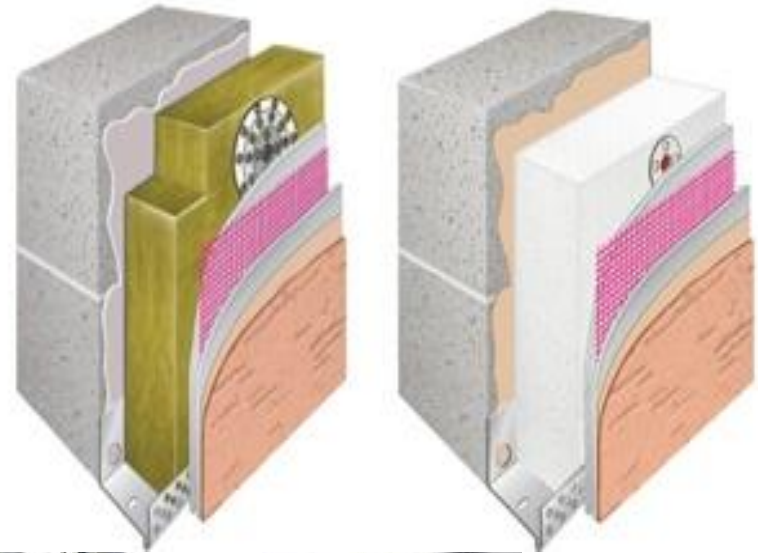


Air to Air Heat Pump Installations:

- Internal Heater
- Heating Controls
- External Unit



Recent Works – Mohill Library and Fire Station



- **100mm External Wall insulation** provided to the front and rear walls of the original fire station building and also the roof level of Mohill Library
- **60mm external wall insulation** was used to solid walls in Mohill Library


External Wall Insulation at Mohill Library

Before Installation



After Installation





External Wall Insulation to Front
of Mohill Fire Station.
100mm insulation used to original
sections of the Fire Station



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Typical LED Fluorescent
Tube



Typical LED Bulb



Typical LED Spot lamp

Public Lighting Works in Mohill

- ❑ Ballinamore Road, Mohill, upgrade to LED consists of **50 public lights**
- ❑ Aim for at least a 50% reduction in energy use



Before

After

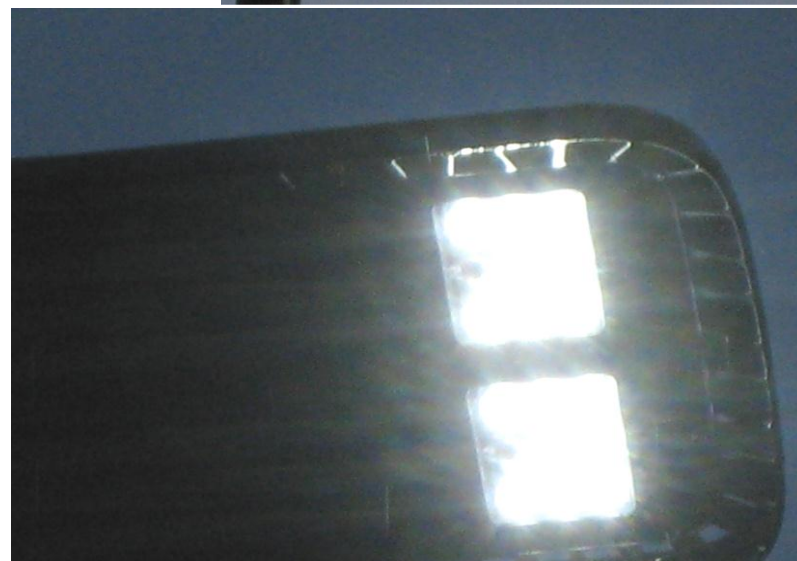


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PHILIPS

Typical LED Public Lighting Lanterns



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Project Details

- Grant Aided Scheme as part of SEAI Better Energy Communities Scheme – **approx 48% funding from SEAI**
- Total Scheme **Costs €459,000**, (community facilities- €106k; residential works- €304k), with **SEAI grant of €220k**.
 - Knocklongford - energy upgrades to 26 OPD's
 - Cappagh – 16 LCC Dwellings (+7 private dwelling)
 - Mohill Public Library – insulation, heating and lighting upgrade
 - Mohill Fire Station – insulation, heating and lighting upgrade
 - Hyde Terrace – insulation, storage heating and lighting upgrade
 - Public Lighting upgrade at Ballinamore Road, Mohill - 50 units in total (including at O'Carolan Court, Cappagh, Knocklongford etc)
 - Dromod Public Lighting – Mailcoach Road (20 units)

Key Objectives of BEC Scheme

- ❑ Improve the **thermal efficiency of homes** at risk from **energy poverty**
- ❑ Deliver cost effective approach to low-income housing retrofit in **mixed ownership homes**
- ❑ Apply a **partnership approach** which allows the development of innovative and cost effective delivery
- ❑ Encourage the implementation of deeper and more technically/ economically **challenging measures**
- ❑ **Stimulate employment** in local area through sustainable energy upgrading projects

- ❑ The scheme allows for a mix of technologies and a blend of domestic and non domestic elements across a range of sectors
- ❑ Focused on energy efficiency and integrated renewable energy technologies and infrastructure

Community Approach

- ❑ Knocklongford - development of older person dwellings (OPD's). Cappagh - mixed ownership development.
- ❑ Notable proportion of these dwellings were noted as fuel poor (approximately 70% of the 42 dwellings to be upgraded).
- ❑ The Library in Mohill offers range of services to community groups, contains a 'Sensory Room' to cater for people with sensory impairments, and also the Citizen's Information Service.
- ❑ The Community Building on Hyde Terrace regularly used by different community groups from Mohill area, including an After School Club, residents associations within Mohill, and CE scheme personnel.
- ❑ The Public lighting intended to demonstrate that energy conservation is a priority within LCC, in line with climate change and energy conservation requirements.
- ❑ It is hoped that the works outlined for these units may be readily replicated at other similar location throughout County Leitrim.

Estimated Project Savings (€)

Leitrim Summary	Original Est. Spend (exc VAT)	Actual Spend (ex VAT)	Grant Aid	Estimated Cost Savings	Payback Period (inc grant) - (years)
Mohill Fire Station	20,080	25,080	12,038	1,875	6.9
Hyde Terrace	5,196	5,438	2,950	375	6.6
Mohill Library	34,823	37,760	15,222	2,075	10.8
Mohill Public Lighting (Ballinamore Road)	31,660	27,482	7,800	2,320	8.5
Dromod Public Lighting	10,400	10,377	2,950	650	11.4
Totals	€102,159	€106,137	€40,960	€7,295	8.9



Local Authorities Role in Mobilising Community Involvement in Natural Water's



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Water Framework Directive

- ❑ WFD - *"Water is not a commercial product like any other but, rather, a heritage which must be protected defended and treated as such"*
- ❑ Article 14 – Public Information & Consultation
 - *"Member States shall encourage the active involvement of all interested parties in the implementation of this Directive,...."*
- ❑ Aarhus Convention – public has right to participate in decision making in environmental matters
 - Implemented by Directive 2003/35/EC



Consultation



Participation



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New WFD Governance

- ❑ Review commenced in 2011 - **All stakeholders**
 - ❑ EU Commission assessment of 1st RBMP's
- ❑ 3 Tier governance model
 - 1 = Water Policy Advisory Committee (in place)
 - 2 = EPA (in place)
 - 3 = LA's (2 step process)
- ❑ **1st Step** Coordination & Public Participation
- ❑ **2nd Step** Review existing Activities & Resources
- ❑ New Regulations published July 2014



LA WFD Implementation

- ❑ A balanced enforcement, education and participatory approach

- ❑ **3 Principle Roles for New LA WFD Office**
 - Coordination of LA activities (and PA's)
 - Mobilising Community Participation
 - Support to Minister & EPA

Mobilising Community Participation

- ❑ **Consultation ≠ Participation**
- ❑ Integrated catchment Management
- ❑ Education
 - *Tell me – and I forget ... Show me – and I remember Involve me – and I understand. **Chinese proverb***
- ❑ Provision of support and expertise
- ❑ Liaison with PPN's and LCDC's
- ❑ Assist Development of Local Water Plans
- ❑ Identification of Funding (assisting access)

Networking Model

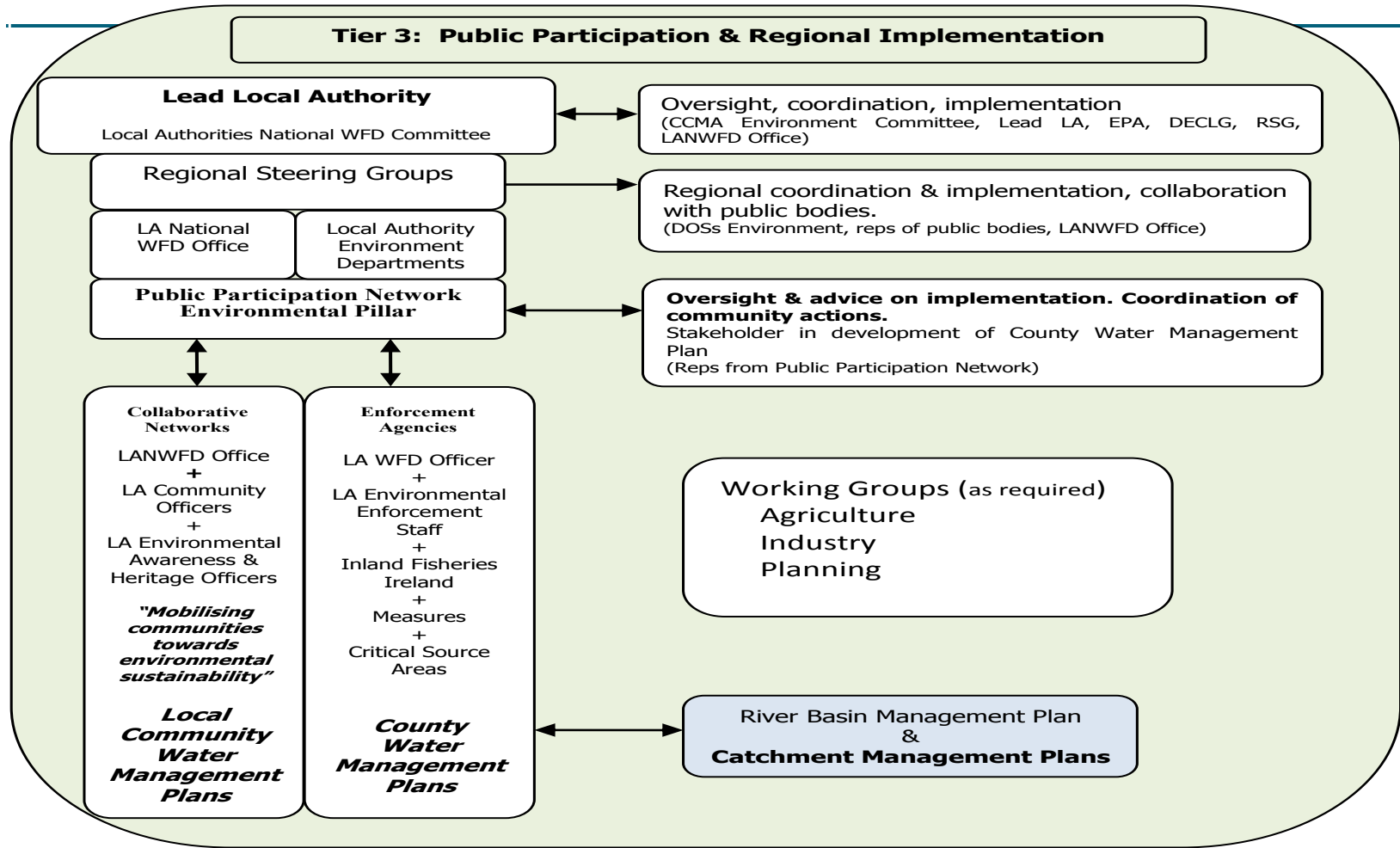
- ❑ 3no. Coordinators
- ❑ 3no. Support Officers
 - Funding
 - Marketing, Education & Communications
 - IT, GIS, Websites, Social Media
- ❑ 12no. Community Water Officers
 - ❑ LA Environmental Awareness Officers
 - ❑ LA Community Officers
 - ❑ LA Environmental Staff

Mobilising Community Participation

- ❑ Virtual Office
- ❑ Geographical dispersed



Model



Not just Water Quality

- ❑ WFD = Land Use Directive
- ❑ Multiple benefits,
 - tourism, industry, agriculture, society, Public Health

3 tier Governance Model designed to be best fit for all Stakeholders

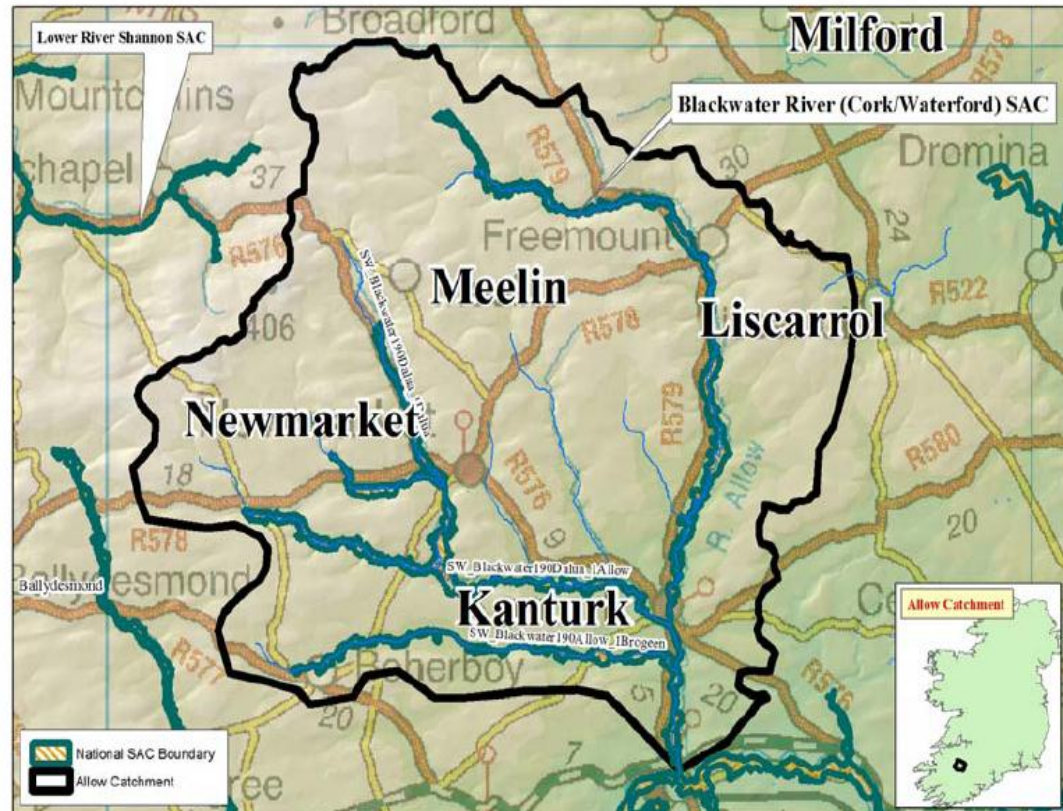
LCDC's & PPN's

- ❑ 3 pillars, Social, Community & Environment
- ❑ **Public participation = sustainability**



Best Practice

- ❑ Duhallow, Co Cork - River Allow
- ❑ Catchment Plan by local community
- ❑ Implementation by local community
- ❑ Life+ €2.3m



DuhallowLIFE

Objective:

Improve conservation status of upper portion of Blackwater SAC

Target species:

Freshwater Pearl Mussel, Atlantic salmon, Otter, Kingfisher, Dipper

Partners: IRD Duhallow & Inland Fisheries Ireland

Duration: 4.5 years

Project budget: €1.9m



Achievements include

River bank restoration best practice

River bank fencing >30km

Invasive species (H balsam removal) ~40km

~6km pruning and planting of native trees

Innovative field drain silt trapping

Actions for otters, otter piles and brush bundles, road signage

Birds: bird boxes

Awareness: Wide range of media, brochures, website, newsletters (10,000 homes delivered to on a quarterly basis)

36 NS and 5 PP Schools visit and Field trips and Workshops with farmers etc



I.R.D. Duhallow Ltd.



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Alternative approach to water management with community

Community partnership

River Allow Catchment Management Group

Examine the broader issues affecting river

Examine specific issues relevant to the local stakeholders

Attempting to bring everyone into the tent

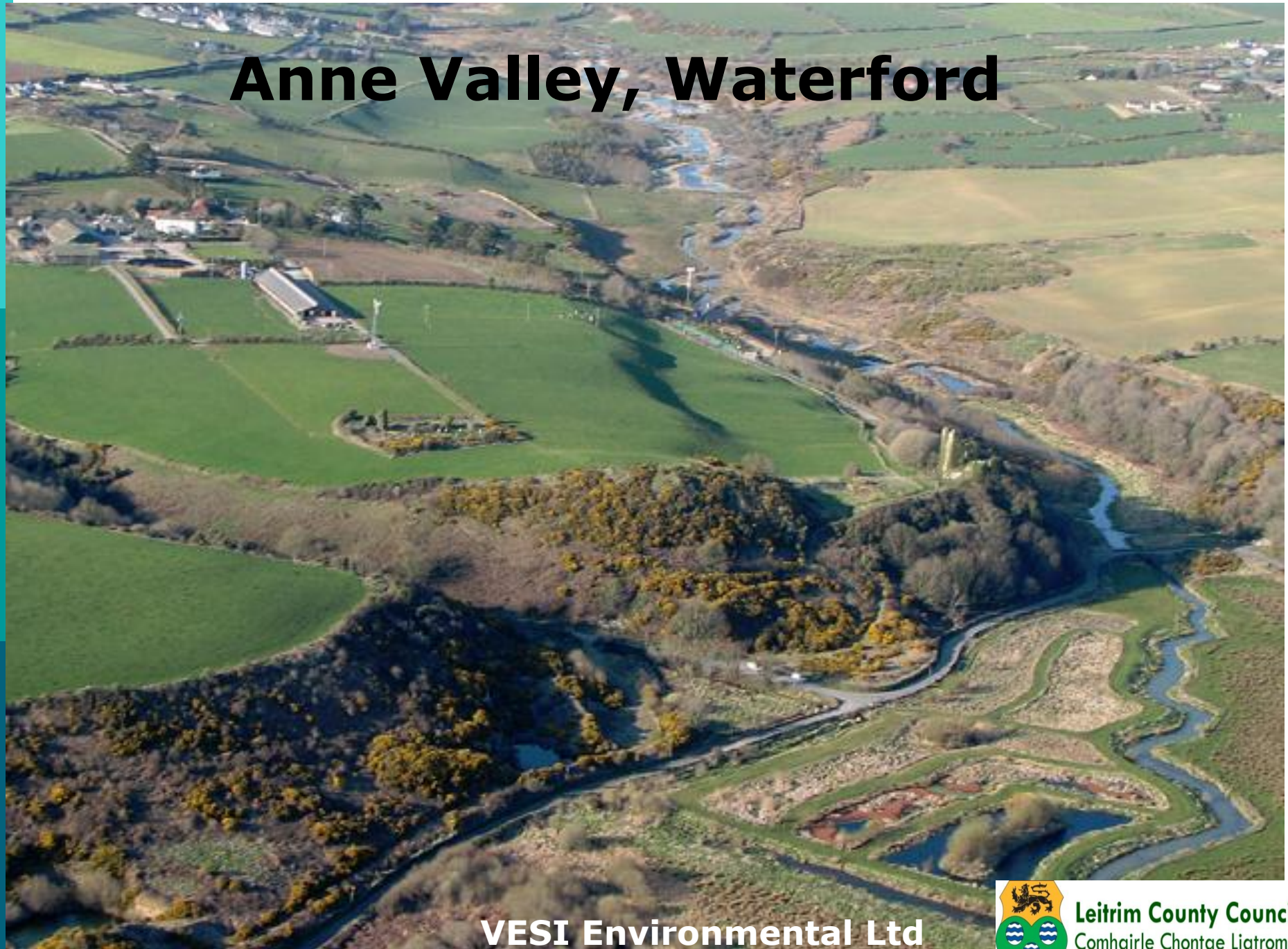
Proactive engagement with the community and state agencies

Meeting on a 6 weekly basis

Building on successes of the LIFE project and expanding to address other issues e.g., conflicting management prescriptions for SAC and SPA, water treatment, macro-pollution and diffuse, farm flooding, wider ecosystem concepts, Local Agri-Environment scheme



Anne Valley, Waterford



VESI Environmental Ltd



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River Blackwater Catchment Trust

Established in 2013

It is the only cross border Rivers Trust

Membership

Blackwater Regional
Partnership

Angling Clubs

Shooting Clubs

Walking Clubs

Community Groups

Farmers & land owners

Councils –

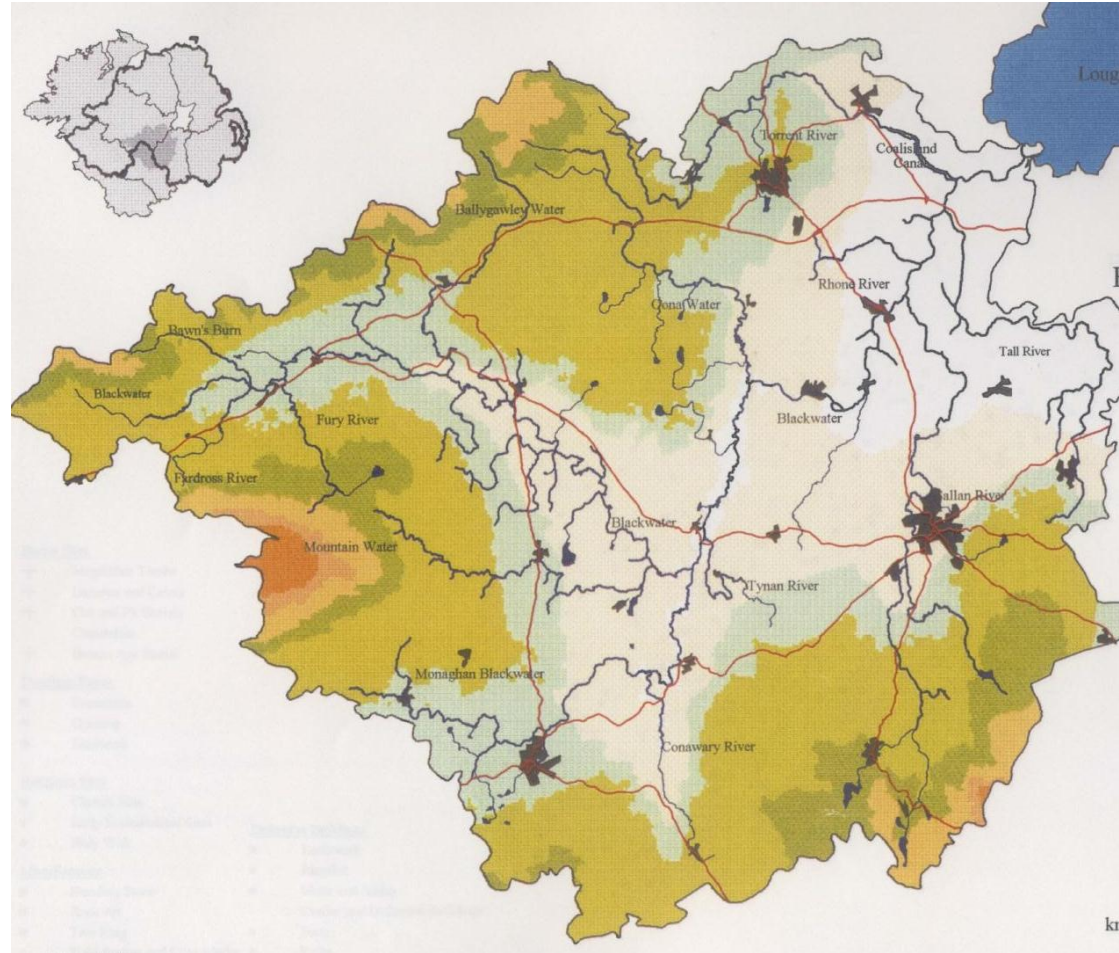
Monaghan Co

Council

Mid Ulster Council

Armagh/ Banbridge /

Craigavon Council



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-
- ❑ Carried out a fisheries and habitat survey to advise on the provision of spawning, nursery and holding pool areas
 - ❑ Preparing work programme
 - ❑ Invasive weed programme

Slaney River Trust (2005)

- ❑ Primary European and Irish Spring Salmon River until 1960s until closure
- ❑ Clubs, Fisheries Owners, Anglers, Community
- ❑ Detailed Scientific Information
- ❑ Improvement of spawning beds
- ❑ Rocky Ramp for Baltinglas lake
- ❑ Draft net fishing closed, Catch and Release for Rods

Nore Suir River Trust (2006)

- ❑ Clearing Excessive Growth
- ❑ Stream Stabilisation
- ❑ Inlet Surveys



Inisowen River Trust (2014)

- ❑ Celebrate Water Moville, Tidy Towns, FAS
- ❑ Community – LA 21-Environmental Partnership Fund
- ❑ New River Trust with assistance of Mark Horton, River Trust Coordinator NI
- ❑ MoU and AA being prepared

Best Practice

- ❑ **County Kilkenny – Interaction between the Dairy Sector, Industry and the Local Authority**
- ❑ **Tidy Towns (1953)**
 - **700 towns av. per year**
 - **Led by local communities**
 - **Implemented by local communities**
 - **Value Water Award (2015) - Irish Water**
- ❑ **Pride of Place – The Island of Ireland (2003)**

Give us a Name

- ❑ Name for Local Authority National Water Framework Directive Office (LANWFDO)
- ❑ **Water Protection Office**
- ❑ **Water Catchments Office**
- ❑ **River Catchments Management Office**
- ❑ **Water Environment Agency**
- ❑ **Water Eco-systems Office**
- ❑ **Communities & Water Office**
- ❑ **Healthy Natural Waters Office**

Conclusion

- ❑ 1st Step in a 2 Step process
- ❑ Integrated model with other Stakeholders
- ❑ The resources sought here, on their own, will not deliver on WFD Objectives

**Coordination – Integration –
Collaboration – Networking – Working
Together –
Public Participation**