



# Organisation of Water Services in Ireland

Oulu, Finland 4<sup>th</sup> June 2014

**Conrad Harley**

Senior Executive Engineer

Mayo County Council

# Conrad Harley

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- 20 years experience in Water Services
- Senior Executive Engineer
- Capital Schemes
- GIS Systems
- Water Conservation
- Water Charges
- Group Water Schemes



# Water Services in Ireland

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- Transition
- Government decision to Reform Water Services
- Economic situation
- Reform of Local Government
- 150 million set up costs
- Significant quality improvements in terms of customer service quality and network quality, integrity, and efficiency
- Substantial efficiencies in the future



# Local Authority

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- 34 Local Authorities
- 34 Separate Water Authorities
- 34 Separate Water Charges
- 34 Separate Polices & Procedures
- 4,300 staff directly employed
- Over 900 public Water Supplies
- Over 1,000 public Waste Water Services.



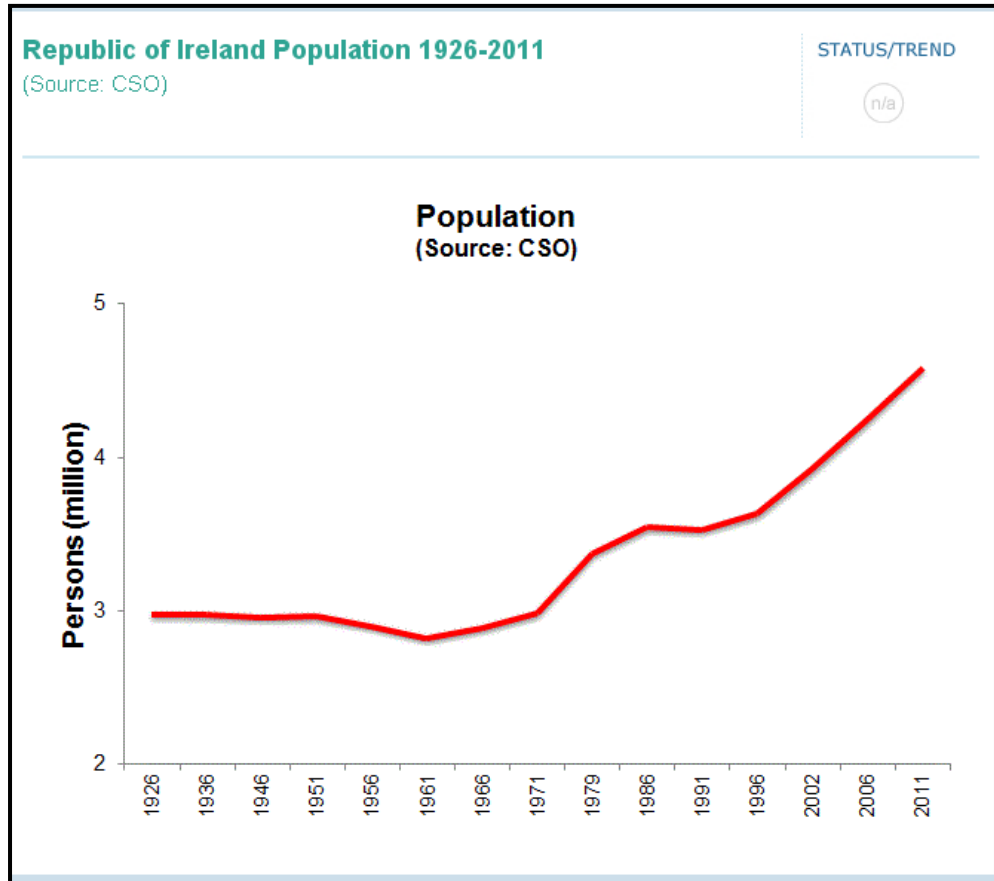
# Local Authority

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- Typical cost of €1.2 billion annual maintenance costs
- A further €600 million required for Capital works with most of this funding coming from the Exchequer.
- Capital investment in water infrastructure needs to increase in the years ahead to guarantee quality water supply and meet high environmental standards. By establishing a national water utility, funding for future investment can be secured and greater economies of scale achieved for the delivery of services.



# Growth of Population



# Overview of old system

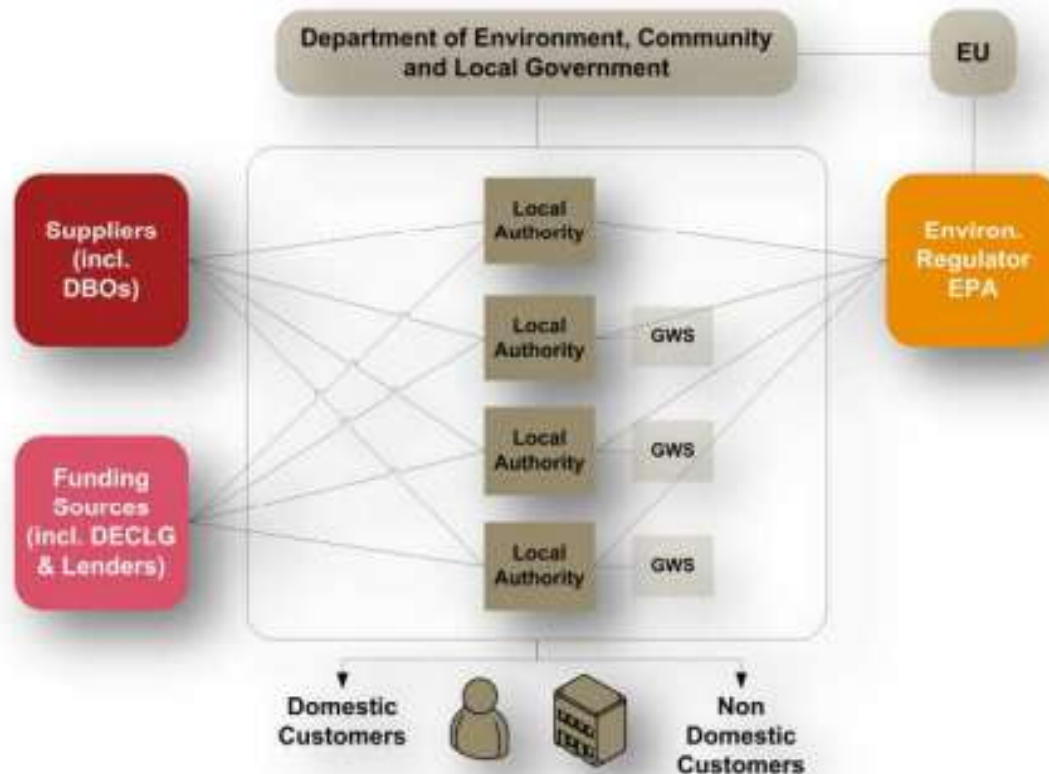
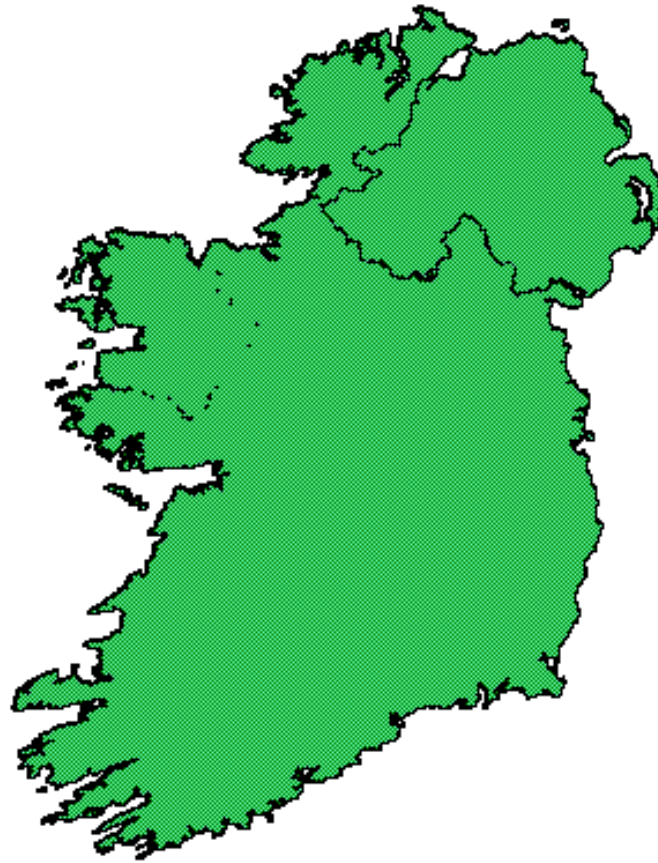


Figure 3: Overview of Current Industry Structure



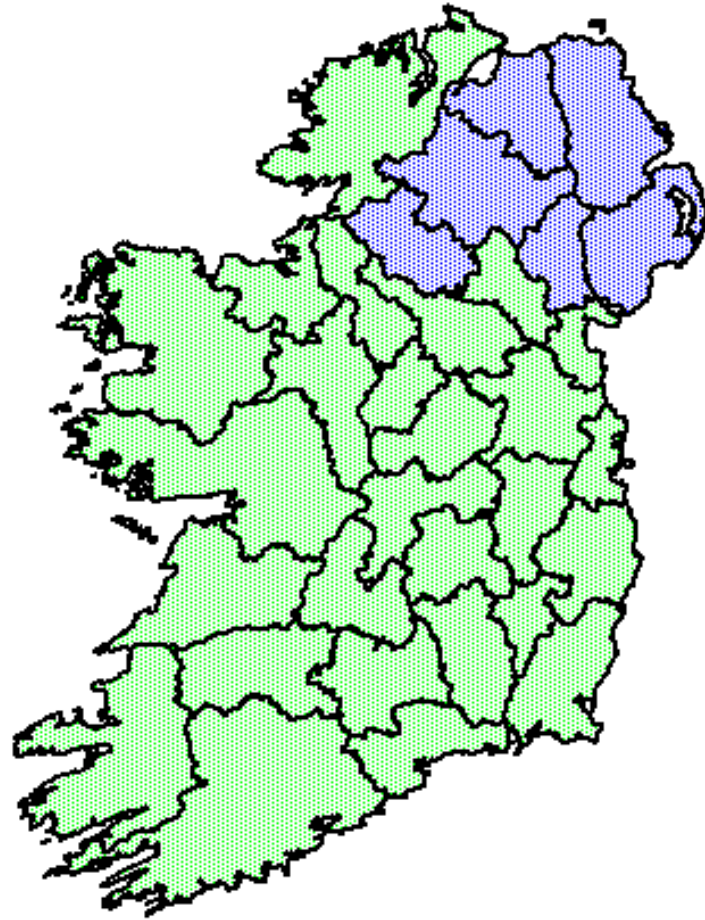
# Ireland

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# 34 Local Authorities

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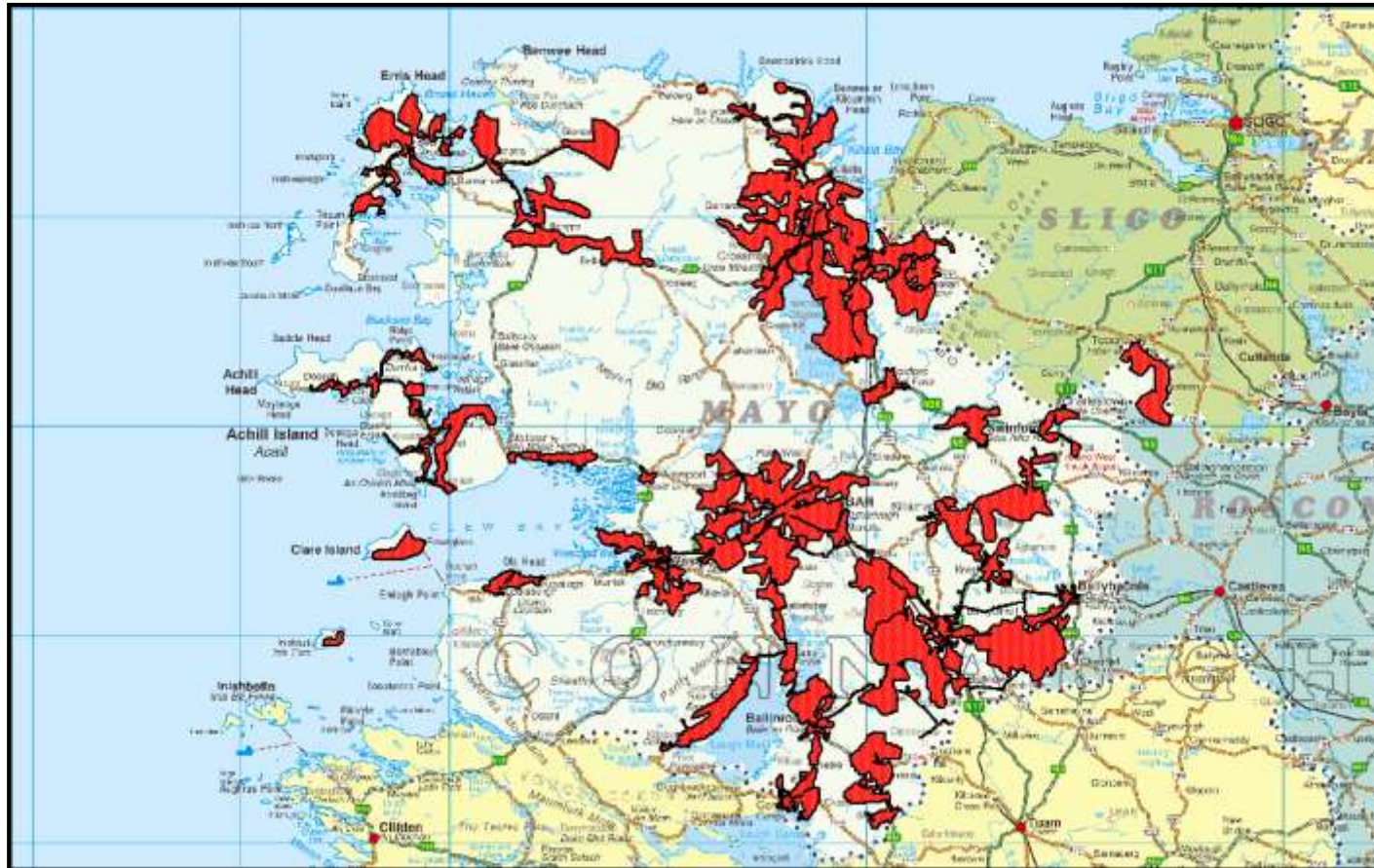


# Local Authority

- Despite the good work of the Local Authorities, much greater investment nationally is needed to address weaknesses in the water system, including high leakage rates, varying quality standards, and disruptions to supply.
- Ireland is currently the only country in the [OECD](#) that does not have domestic water charges.
- This transition will ensure that Ireland is well positioned to attract foreign and indigenous investment, creating real potential for new jobs within the country.



# Public Water Supply Network



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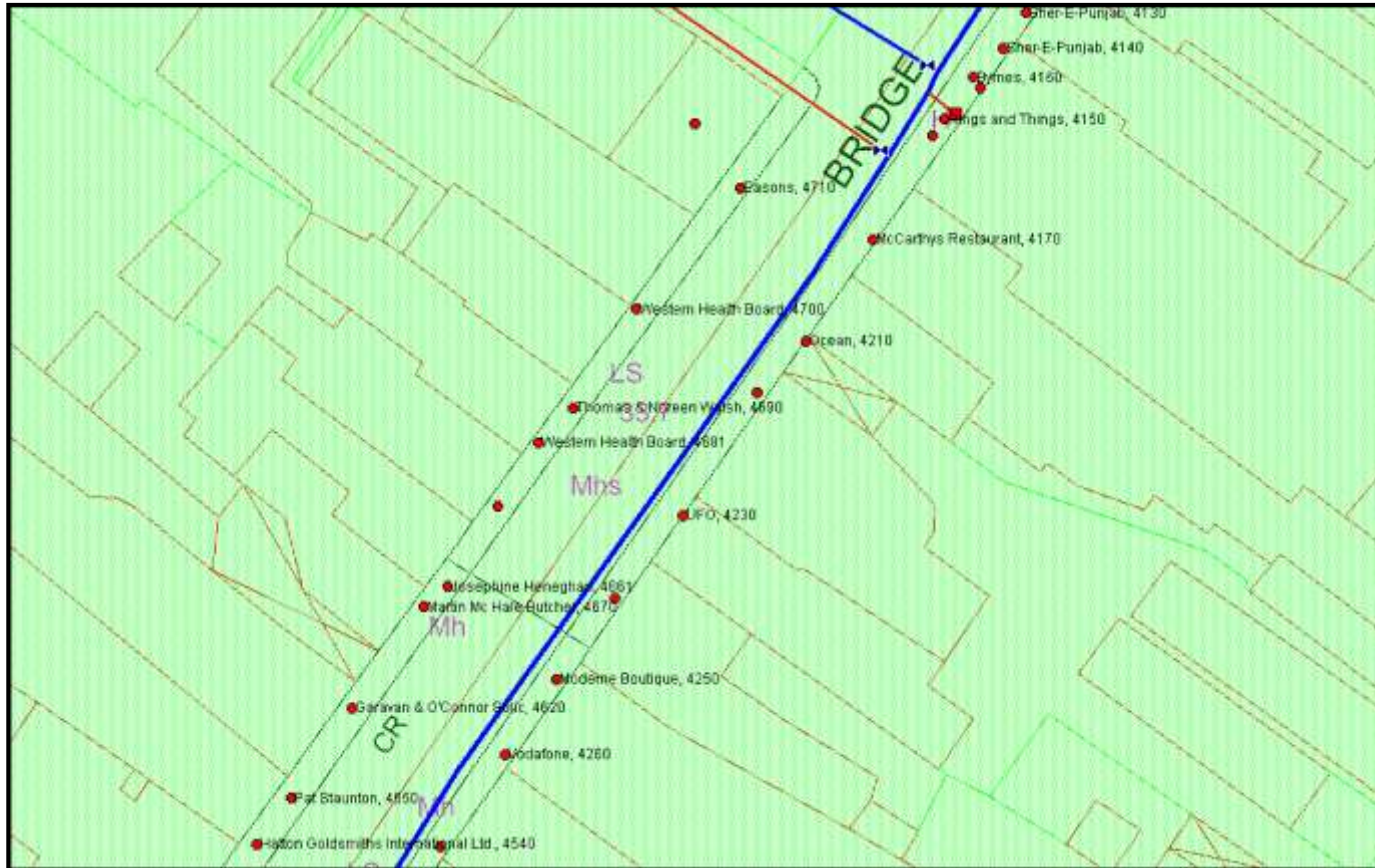
# District Metering Areas



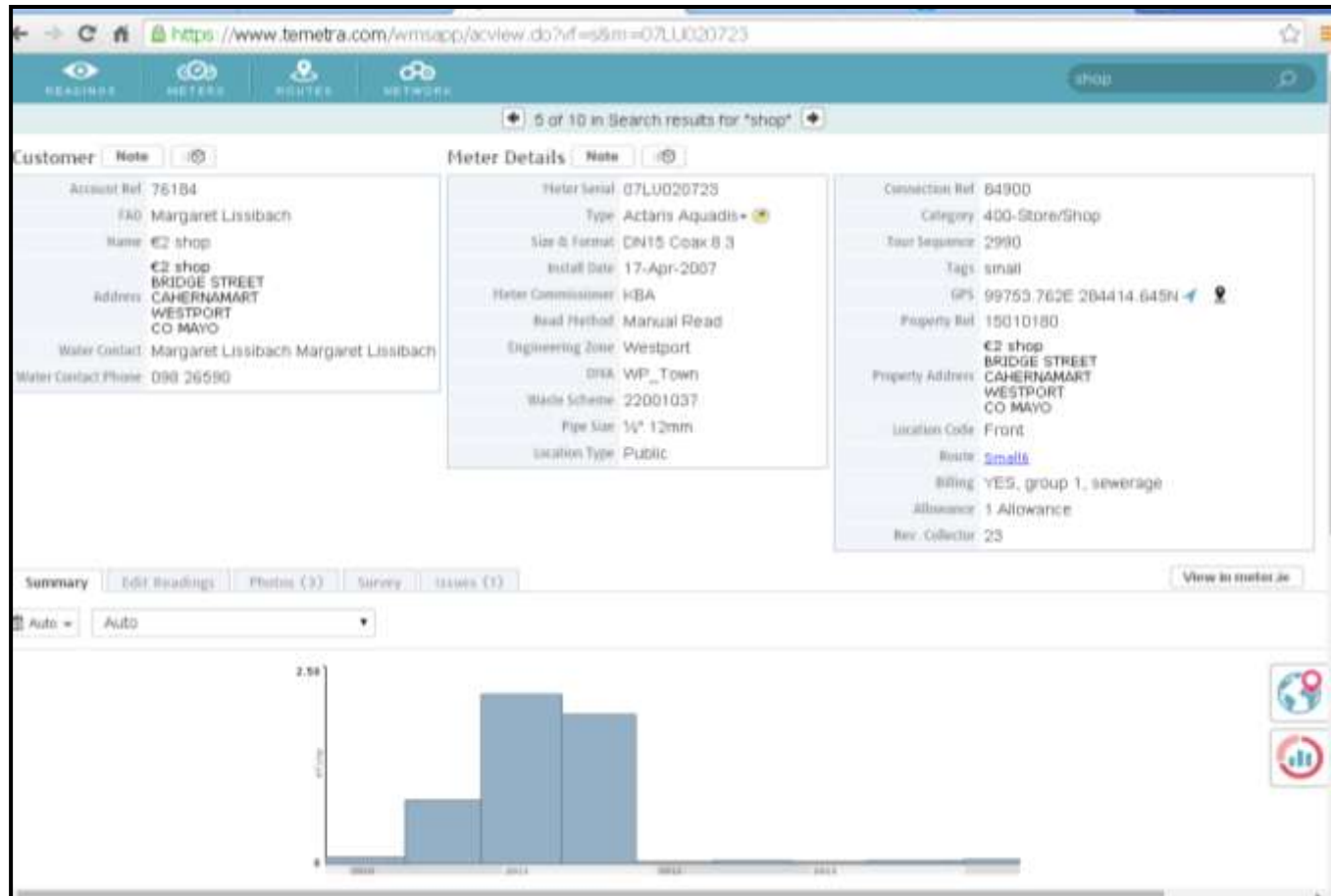
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# Non-Domestic Water Charges



# Non-Domestic Database



# Water Conservation



Scheme Name	Total Inflow (m3/day)	UFW (%)	UFW (m3/km/hr)	UFW (L/Conn)	Pipe Length (km)	No Res Props	No Props Total
ACHILL	1,482	67%	0.35	544	118	1,659	1,814
BALLINA_RURAL	5,258	47%	0.28	666	363	2,196	3,726
BALLINA_TOWN	4,568	51%	0.80	419	122	4,501	5,579
BALLYCASTLE	232	48%	0.40	454	12	181	243
BONNICONLON	239	36%	0.17	255	21	189	335
CEIDE_FIELDS	19	4%	0.02	382	2	0	2
CHARLESTOWN	635	60%	0.76	630	21	470	605
CLAREISLAND	98	76%	0.24	801	13	93	93
CLOONTIA/DOOCastle	214	70%	0.19	717	34	74	208
CROSSMOLINA	725	51%	0.34	423	45	671	874
ERRIS	3,199	9%	0.05	126	224	1,427	2,285
FOXFORD	660	10%	0.20	100	22	772	907
INISHTURK	27	80%	0.15	1,044	6	21	21
KILKELLY	650	41%	0.17	350	65	396	768
KILMAINE	671	60%	0.40	741	42	212	547
KILTIMGH	720	31%	0.25	244	38	681	916
KNOCK_AIRPORT	34	2%	0.01	50	7	1	16
LOUGH_MASK_BALLINROBE	3,118	44%	0.58	594	97	1,648	2,291
LOUGH_MASK_BALLYHEANE	4,331	77%	0.84	2,054	166	945	1,622
LOUGH_MASK_BARNACARROLL	4,125	35%	0.31	527	193	1,858	2,737
LOUGH_MASK_CASTLEBAR	12,650	50%	0.82	738	323	7,116	8,611
LOUGH_MASK_CLAREMORRIS	6,505	64%	0.78	1,207	223	2,480	3,464
LOUGH_MASK_TOURMAKEADY	1,210	20%	0.10	152	31	415	673
LOUISBURGH	431	59%	0.45	380	24	539	672
MULRANNY	381	56%	0.31	432	29	403	494
NEWPORT	245	33%	0.39	172	9	402	464
SHRULE	479	34%	0.27	453	25	213	362
SWINFORD	645	24%	0.15	134	43	855	1,138
WESTPORT	3,340	43%	0.72	391	83	3,079	3,672
<b>Totals</b>	<b>56,890</b>	<b>48%</b>	<b>0.48</b>	<b>608</b>	<b>2,401</b>	<b>33,497</b>	<b>45,139</b>



# Bunnyconlon Sewerage Treatment Plant

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# Westport Sewerage Treatment Plant

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# Bursts

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# Local Authority disadvantages

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- low levels of funding and an inability to access alternative sources of funding in the past have resulted in a backlog of investment and maintenance in the water services infrastructure



# Local Authority disadvantages

## Cont...

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- Efficiency levels do not compare well against international benchmarks
  - Operating expenditure per connection was twice the average of UK water companies;
  - The level of “Unaccounted for Water” at 41% is very high against international benchmarks



# Local Authority disadvantages

## Cont...

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- Staffing levels are higher than comparable UK water companies on an employee per population served basis;
- The collection level for non-domestic water charges which averages 52% in 2010 is particularly low.



# Local Authority disadvantages

## Cont...

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- Fragmented leadership and coordination with a range of stakeholders able to influence and control directions; including the 34 local authorities, the DECLG, the EPA, the CCMA the NFGWS and others;
- Difficulty in exploiting economies of scale, particularly as the water service is organised on the basis of county boundaries;
- Relative difficulty in implementing policies and projects of national importance;
- An ageing and poor quality network;
- Historical underinvestment in the Water Service.



# Local Authority Advantages

- The value of having a local body accountable to the local community for the provision of local water services;
- The operational effectiveness of the current locally based maintenance teams with water engineers who “know their assets” and the associated asset maintenance regimes;
- The ability to draw on the wider resources of the local authorities in times of great need for water Services, such as occurred during previous cold weather events



# Objectives of Reform Programme

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- Financially sustainable water services
- Improving Ireland's water services infrastructure
- Ensuring Environmental Standards
- Delivering improved outcomes for customers:
- Strong governance with clear accountabilities
- Support other aspects of water reform in Ireland
- Promote efficiency





# IRISH WATER

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Commenced 1<sup>st</sup> January 2014



# Irish Water

- Irish Water's vision of the future is that:

*“Through responsible stewardship, efficient management and strong partnerships, Ireland has a world-class water infrastructure that ensures secure and sustainable water services, essential for our health, our communities, the economy and the environment.”*

The over-riding objective of the WSSP is to realise this vision, by meeting the service expectations of our customers at the lowest achievable cost.



# Irish Water

- Irish Water is responsible for:-
- Operation of Public Water and Wastewater services.
- Water and Wastewater services of the 34 Local Authorities together under one national water utility.
- Responsible for the management of national water assets,
- Maintenance of the water system,
- Managing capital projects
- Customer care and billing.



# Irish Water

- Irish Water will make capital and operational investment decisions regarding the country's national water infrastructure.
- Irish Water will develop a 25 year Strategic Plan for the future provision of water services.
- **Water Services Strategic Plan (WSSP)**



# Water Services Strategic Plan

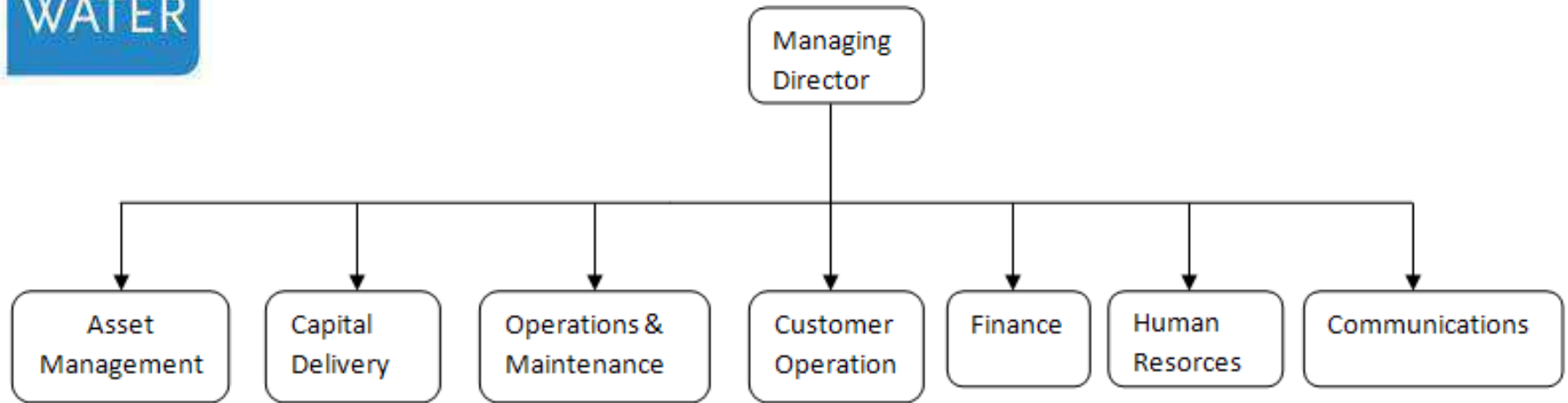
- **What is the WSSP?**
- The Water Services Strategic Plan is intended to outline the strategic direction for Irish Water over the short, medium and long-term time frames up to 2040.
- It will identify what areas require focus and development in order to meet key objectives and mandate set out by government.
- A strategic framework which will identify and prioritise the key objectives required to ensure the public water system can meet the challenges of the future. This framework will also allow future capital investment plans to be developed by Irish Water and approved by the Economic Regulator.



# Irish Water

- 2,000 major plants,
- 8,000 above ground facilities
- 50,000km of pipelines
- Serving 1.8m premises
- Commission for Energy Regulation (CER)

# Irish Water Organisational Chart



# Focus of Activities

- Operations & Maintenance
  - No gap in Operations during Transition
  - Strong Customer Focus
- Asset Management
  - Identify Priority Schemes
  - Highest Priority on Quality Deficient Schemes
  - Review Design proposals
- Introduction of Domestic Water Charges

# Operations & Maintenance

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- Introduction of Total Asset Management system,
- “Maximo”
- Efficiencies in work practices
- Workforce Planning
- Linking Customer Services to Operations



# Asset Management

- Priority given to quality deficient schemes
- Large numbers of small projects
- Large capital works under design review to identify smaller works to postpone large investment.

# Domestic Water Charges.

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- National Programme of meter installation
- Operational by end of year
- 60% of customers metered.
- Remaining customers receiving fixed bill.
- No decision made on future meter installations.
- Rates to be decided by the Regulator



## • Transition.....

- As Irish Water is a completely new organisation it is likely that the current business model will evolve over the next few years.





**Thank you**

**Any Questions?**

