

# 7.4

## The Environment, Air Quality and Water

**197 -**

Ireland's Environment, An Assessment 2016. <http://www.epa.ie/pubs/reports/indicators/ireland-senvironment2016.html>.

**198 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>, page 27.

**199 -**

Collective term for nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

**200 -**

<http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html> (Chapter 2: Air, page 27).

### → THE ENVIRONMENT

The environment can influence our health in positive terms (e.g. amenities) as well as negative terms (e.g. pollution). In relative and general terms, Ireland's environment is good and in a broad sense it presents a safe and clean environment to live in. This standpoint however requires qualification. Local environmental issues to do with water pollution, air quality, noise and odours need to be resolved. These issues can be masked when considering national level results but they can significantly affect the health and wellbeing of communities at a local level. It is now accepted that even low levels of pollution (e.g. from particles such as soot and dust) can negatively impact health. And whilst Ireland has better air quality than most other European countries, challenges remain and emergent challenges require consideration.

National (such as the EPA and the Department of Communications, Climate Action and Environment Issues) and international agencies (such as the World Health Organisation, WHO) work to develop standards and strategies to minimise the negative impact of environmental issues.<sup>197</sup>

### → AIR QUALITY

Air pollution is one of the most significant environmental threats to human health and ecosystems. The European Environment Agency (EEA) estimate that 1,510 people in Ireland died prematurely in 2014 as a result of poor air quality (EEA 2017).<sup>198</sup> In Ireland the EPA implements all Irish and EU ambient air quality legislation and it manages the National Ambient Air Quality Network. In 2016 air quality was monitored in 30 stations in Ireland. The placement of stations is based on population size, spatial distribution and vulnerability to air quality issues, and the network monitors a range of air quality parameters including heavy metals, inorganic and organic gases and particulates.

EU legislation governs air quality monitoring in Ireland for a number of pollutants that impact on health and vegetation. The following pollutants are required to be measured: NO<sub>x</sub>,<sup>199</sup> SO<sub>2</sub>, carbon monoxide (CO), ground level ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), benzene, heavy metals and PAHs. The pollutants NO<sub>x</sub>, PM and O<sub>3</sub> are of most concern<sup>200</sup>

**201 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

**202 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

**203 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>, page 7.

**204 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

**205 -**

<http://www.epa.ie/air/quality/monitor/>.

**206 -**

World Health Organisation.

**207 -**

The numbers refer to the diameter of particles.

**208 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

**209 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

**210 -**

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>.

## → ABOUT POLLUTANTS

Traffic emissions are the main source of nitrogen oxides in Ireland and electricity generating stations and industry can also raise levels of this gas. Nitrogen oxides are a significant precursor in the formation of ozone and 'smog' at ground level.<sup>201</sup> In Ireland 'The NO<sub>2</sub> concentrations at all monitoring sites were below the EU annual limit value and WHO annual air quality guideline value, both of which are 40 µg/m<sup>3</sup>.'<sup>202</sup>

NO<sub>2</sub> is associated with adverse respiratory effects in healthy people as well as asthmatics. Long-term exposure is linked with increased risk of respiratory infection in children.<sup>203</sup>

Sulphur Dioxide (SO<sub>2</sub>) forms when fuels (mainly coal and oil) which contain sulphur are burned. The dominant natural source of sulphur dioxide is volcanic eruptions but the gas also forms from power station and domestic emissions. High concentrations of SO<sub>2</sub> can cause temporary breathing difficulties for those suffering from respiratory conditions such as asthma with long term exposure potentially aggravating existing cardiovascular disease and respiratory illness. 11 stations monitored SO<sub>2</sub> in Ireland in 2016. None exceeded EU daily limit values but Cork was one of two locations (zones) which were above WHO air quality guideline values.

Carbon Monoxide is a colourless gas that can be harmful depending on exposure levels and is mostly caused by traffic. Other sources include tobacco smoke and poorly adjusted and maintained combustion devices such as boilers. If the gas exists in ambient air it can cause fatigue in healthy people and is most serious for those suffering from cardiovascular diseases. At higher concentrations, not normally found in ambient air, the gas is poisonous and can cause death. Levels of this gas are low in Ireland. It is monitored at five locations and all locations recorded levels which were below EU limit values and WHO air quality guideline values in 2016.<sup>204</sup>

Ozone is naturally found in the atmosphere, mostly between 12 and 50km above sea level. It is also found closer to earth and this tropospheric ozone contributes to global climate change.<sup>205</sup> Pollutants emitted by traffic deplete ground level Ozone resulting in higher Ozone levels in rural areas than in urban areas. Ozone is an irritant for eyes, nose, throat and lungs. It can decrease lung function and lead to premature mortality. It was measured at 12 sites in Ireland in 2016 and no exceedances of EU limit values were found. Concentrations at seven stations nationally exceeded WHO<sup>206</sup> air quality guideline value but Cork was not one of these.

PM<sub>10</sub> and PM<sub>2.5</sub><sup>207</sup> monitoring stations measure particles (for example: dust, emissions, plant spores and pollens). 'PM<sub>10</sub> refers to particles with diameters of 10 µm or less.'<sup>208</sup> Ireland's main sources of PM<sub>10</sub> are from the burning of solid fuel and road traffic. Inhalation of particles can increase the likelihood and severity of cardiopulmonary and respiratory disorders and there is a strong association with circulatory disease and mortality. PM<sub>2.5</sub>/'fine' particulate matter is particle pollution consisting of a mixture of solids and liquids of size 2.5 µm or less.

PM<sub>10</sub> was monitored at 17 sites in 2017 and PM<sub>2.5</sub> at 9 sites. PM<sub>10</sub> concentrations were found below EU annual limits, EU daily limit values and WHO air quality guideline value.<sup>209</sup> PM<sub>2.5</sub> concentrations were below EU annual limit values, but two stations recorded values above the annual WHO air quality guideline value. Cork was not one of these locations. However, all nine stations exceeded the WHO daily air quality guideline value.<sup>210</sup>

**211 -**  
<http://www.epa.ie/air/quality/index/>.

**212 -**  
<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20In%20Ireland%202016.pdf>, page 1.

**213 -**  
 May 7th 2018.

**214 -**  
 For more details please refer to <http://www.epa.ie/air/quality/data/cslink/gas/#d.en.53587>. Some results are 'automatic' and unvalidated.

**215 -**  
 11th, July 2018.

## → POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

PAHs are emitted from the combustion of solid fuels, the incomplete combustion of vehicle fuel, waste burning 'backyard burning', bonfires and cigarette smoke. High concentrations of PAHs are unlikely to be found in ambient air. Short-term exposure to high levels of PAHs may cause nausea, confusion, eye irritation and diarrhoea. PAHs were monitored at five locations in Ireland in 2016 and although mean concentrations were below the EU limit value four sites (including Cork) had levels above the European Environment Agency (EEA).

## → RADON

Radon is a radioactive, odourless, colourless and tasteless gas. It is a carcinogen and is in the same category as asbestos and tobacco smoke as a cause of lung cancer. In Ireland it is estimated that up to 250 cases of lung cancer per year can be linked to radon and these are largely associated with exposure in the home. A radon map of Ireland is provided by the EPA – [www.epa.ie/radiation/radonmap](http://www.epa.ie/radiation/radonmap).

The EPA Air Quality Index for Health (AQIH) presents open data on regional air quality.<sup>211</sup> The Index is measured each hour and indicates if air quality is good, fair, poor or very poor. Nationally, no monitoring site in the network recorded a breach of the EU limit value. However, a number of monitoring sites exceeded the (stricter) WHO guideline values for particulate matter (PM10 and PM2.5), ozone, SO<sub>2</sub> and NO<sub>2</sub>.<sup>212</sup>

### **There are four air quality monitoring locations in Cork City:**

South Link Road, CIT Bishopstown, UCC Distillery Fields and Heatherton Park.

- » South Link Road monitors (O<sub>3</sub>) Ozone, NO<sub>2</sub> (Nitrogen Dioxide), SO<sub>2</sub> (Sulphur Dioxide) and PM<sub>10</sub> (Particulate Matter). Currently<sup>213</sup> there are no exceedances at this station.<sup>214</sup>
- » CIT Bishopstown, Cork monitors (O<sub>3</sub>) Ozone and SO<sub>2</sub> (Sulphur Dioxide). No exceedances when referenced.<sup>215</sup>
- » UCC Distillery Fields, Cork monitors (O<sub>3</sub>) Ozone, NO<sub>2</sub> (Nitrogen Dioxide) and PM<sub>2.5</sub> (Particulate Matter). No exceedances at this site when referenced.
- » Heatherton Park, Cork monitors Heavy Metals (Nickel, Arsenic, Cadmium and Lead), no exceedances. PM<sub>10</sub> and PM<sub>2.5</sub> (No exceedances) and Benzo (a) Pyrene, no exceedances when referenced.

**216 -**

epa\_Y5\_factsheet\_river monitoring-nala5.

**217 -**<http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html>, Chapter 5, page 69.**218 -**<http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html>.**219 -**

The ecological Status of rivers in Ireland, 2010-2015, EPA Factsheet.

**220 -**

epa\_Y5\_factsheet\_river monitoring-nala5.

**221 -**[http://www.epa.ie/pubs/reports/water/drinking/EPA\\_DW\\_Report%202016.pdf](http://www.epa.ie/pubs/reports/water/drinking/EPA_DW_Report%202016.pdf).**222 -**

Referenced on May 7th, 2018.

**223 -**

A 'Catchment' is defined as an area of land around a river, lake or other body of water. A Catchment with healthy water can enhance a Community's quality of life.

**224 -**Page 35, [http://www.epa.ie/pubs/reports/water/drinking/EPA\\_DW\\_Report%202016.pdf](http://www.epa.ie/pubs/reports/water/drinking/EPA_DW_Report%202016.pdf).

## → WATER

### Inland waterways

Ireland has over 73,000 km of river channels, the longest the Shannon. 50% of all the endangered freshwater pearl mussels in Europe live in Irish rivers. Riverbanks are an important habitat for many wildflowers that support butterflies and bees as well as providing food and shelter for a wide variety of plants and animals. Since 1971 biological monitoring has been carried out in Irish rivers and currently the EPA monitoring programme covers more than 13,000 km of river channels.<sup>216</sup> By European standards, Ireland has good quality groundwater and surface waters. However, issues need to be addressed in order to raise the quality of all waters up to a satisfactory level and protect those waters already in good condition. In terms of biodiversity, 'species considered to be most under threat are those linked to wetlands and those that are sensitive to water pollution.'<sup>217</sup>

The European Union Water Framework Directive (WFD) guides the assessment of rivers and allows comparison of water quality between countries. According to the report 'Ireland's Environment, An Assessment 2016', Ireland is a long way from meeting the full legal requirements of the WFD. Approximately 50% of rivers, lakes and estuaries that are impacted by pollution and other pressures require improvement. Untreated sewage is discharged at 36 coastal locations or estuaries and the global issue of marine litter, causing a marine environment and biodiversity challenge, is evident on Ireland's beaches.<sup>218</sup>

Under the WFD, water is classified under quality levels High, Good, Moderate, Poor and Bad. 57%<sup>219</sup> of monitored river water in Ireland has a status of 'good' and 'high' but there is concern of a 'worrying trend in the loss of our highest quality river sites.'<sup>220</sup>

## Drinking water

Cork City's water supply comes from the River Lee. Its treatment entails coagulation, flocculation with Rapid Gravity Filtration followed by Chlorination and Fluoridation.<sup>221</sup> Latest Data<sup>222</sup> from [www.catchments.ie](http://www.catchments.ie)<sup>223</sup> which publishes information on water quality indicates that in Cork Harbour (River Lee) 49% is 'Good', 26% is 'High', 15% is Moderate and 12% is 'Poor'. Compliance was 100% for microbiological in 2016 as it was in 2011 and Chemical compliance was 99.5% down from 100% in 2011. No boil water notices or water restrictions were issued during 2016, as was the case in 2011.<sup>224</sup>

The following table outlines the results of drinking water tests carried out by Irish Water for Cork City from 2014 to 2018.

Table 173: **Drinking Water Results from Cork City** <sup>225</sup> (Source: Irish Water)

Parameter	% of Tests within Exceedance Limit				
	2018	2017	2016	2015	2014
Bacteria and Protozoa	99.06	97.39	98.18	99.04	99.17
Chemicals	100	99.81	99.71	99.68	100
Metals	99.45	99.41	98.51	98.78	98.81
Other	99.52	94.61	92.27	99.39	99.79

**225 -**

<https://www.water.ie/water-supply/water-quality/results/summary/>.

**226 -**

A legally binding agreement which is expected to come into force in 2020. <http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html>.

**227 -**

<http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html>.

**228 -**

<http://www.epa.ie/pubs/reports/indicators/irelandsenvironment2016.html>.

**229 -**

<http://www.dttas.ie/sites/default/files/publications/corporate/english/transport-trends/transport-trends-2017.pdf>.

**230 -**

[www.dttas.ie/sites/default/files/publications/corporate/english/transport-trends/transport-trends-2017.pdf](http://www.dttas.ie/sites/default/files/publications/corporate/english/transport-trends/transport-trends-2017.pdf).

**231 -**

Application to European Green Capital Award, 2017.

## → CLIMATE CHANGE

Ireland's national policy position on climate change is a vision of low-carbon and a reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80% (in comparison to levels in 1990) by 2050 across the transport, built environment and electricity generation sectors. This vision also includes the aim of carbon neutrality in land use and agriculture sectors without comprising sustainable food production.

Ireland adopted the Paris Agreement<sup>226</sup> on climate change in December 2015. One of the aims of this agreement is to limit global temperature increase to 1.5°C above pre-industrial levels. To achieve this aim our dependence on fossil fuels for energy, heating and transport needs to be reduced with a greater sense of urgency than heretofore, our energy efficiency needs to be improved and we need to plan for unavoidable outcomes of climate change such as flooding.<sup>227</sup>

Ireland has a target to reduce Greenhouse Gas Emissions by 20% by 2020 (compared to 2005 levels). Based on 2016 data, emissions are projected to be between 6% and 11% below 2005 levels. This data is not encouraging in progressing Ireland to a carbon neutral society and economy.<sup>228</sup> In order to address and limit climate change, fossil fuels need to be phased out and replaced by renewable energy sources such as solar, wind and tidal.

The transport sector consumes large amounts of energy which contributes to greenhouse gas emissions and creates challenges in meeting climate-related targets.<sup>229</sup>

This sector's emissions of CO<sub>2</sub> in 2015 (11.8 million tonnes of CO<sub>2</sub> equivalent) was 4.2% higher than the 2014 level following three consecutive years in which emissions rose. At 19.8%, the transport sector is the second largest contributor to national greenhouse gas emissions and projected to rise by 11.3% over the time frame 2020-2015 due to projected population increases and a rise in car kilometres driven. Private car use accounted for 52% of CO<sub>2</sub> emissions in 2015 while goods vehicles made up 24%. Fuel tourism accounted for 12%.<sup>230</sup>

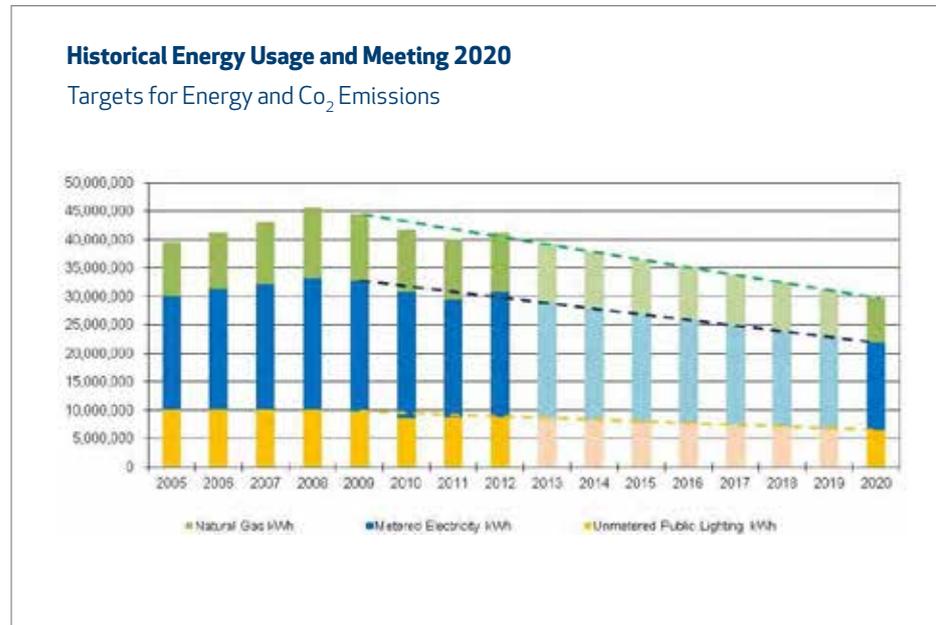
Data for Greenhouse Gas Emissions or energy use is not available for Cork City, but based on the national per capita statistics (EPA, CSO, SEAI & CER), Cork City emits the following CO<sub>2</sub> levels annually.<sup>231</sup>

Table 174: **Approximated Annual CO<sub>2</sub> Emissions for Cork City**

	Cork CO <sub>2</sub> emissions (incl. agriculture), 2012	Cork CO <sub>2</sub> emissions (excl. agriculture), 2012
Total CO <sub>2</sub> emissions (City)	1,520,956 tCO <sub>2</sub>	1,036,059 tCO <sub>2</sub>
Per capita (119,230, CSO 2011)	12.76 tCO <sub>2</sub>	8.69 tCO <sub>2</sub>



**Figure 65:**  
HISTORICAL ENERGY USAGE AND MEETING 2020 TARGETS FOR ENERGY AND CO<sub>2</sub> EMISSIONS



**232 -**  
Application to European Green Capital Award, 2017.

**233 -**  
[http://www.cfram.ie/pdfs-downloads/CFRAM\\_Study\\_Stage\\_II.pdf](http://www.cfram.ie/pdfs-downloads/CFRAM_Study_Stage_II.pdf).

**234 -**  
The River Lee stems from mountains to the west of Cork City and flows into Cork harbour at Cork City. It is partly controlled by the Inniscarra and Carrigadohid hydro-electric dams.

'Cork City Council's own CO<sub>2</sub> emissions for the year of 2009 amounted to approximately 22.5ktCO<sub>2</sub>, with a breakdown of the sources below. By 2020, Cork is obliged to reduce this by 7.4ktCO<sub>2</sub> though energy efficiency projects, awareness campaigns and utilising the latest technologies.'<sup>232</sup>

→ **FLOODING**

Management of flood risk in Ireland has historically been addressed through the use of structural or engineering solutions and been reactive in nature. In 2004 the Irish Government, in line with international best practice and to meet EU Floods Directive requirements, shifted emphasis towards risk assessment and non-structural and flood impact mitigation measures.<sup>233</sup>

→ **FLOODING IN CORK CITY**

The Lee Catchment,<sup>234</sup> located in the South West of Ireland covering an area of approximately 2,000 square kilometres (Lee CRFAM Study 2014), has a history of floods caused by fluvial and tidal mechanisms which cause damage to farmland, properties, businesses and public roads. Recent significant floods occurred in August 1986, November 2000, November 2002, October 2004, December 2006, November 2009 and the summer of 2012. This flooding challenges an area of significant environmental importance in terms of its biodiversity, social, habitat, archaeological, cultural and landscape value.

235 -

EPA, National Waste Report, 2012.

236 -

EPA, National Waste Report 2012, Appendices, page 94.

237 -

<https://www.lgma.ie/en/publications/performance-indicators/performance-indicators-in-local-authorities-2015.pdf>.

## → WASTE

Household waste, commercial waste and other waste, which is similar to household waste, is classified as 'Municipal Waste' in Ireland. In 2012 2,692,537 tonnes of municipal waste was generated which was 4.6% lower than the 2011 amount. Most of this waste (2012) went to landfill (41%), which is 24% less than in 2011, 33% was recycled, 17% went to incineration, 6% to composting and digestion and 2% to 'other recovery'. The 'Recycled, Composting and digestion' classified as 'recycling' rate of 39% was below the EU average of 42%. In 2012 34% of municipal waste managed in Ireland was exported for recovery (including energy recovery and recycling) representing an increase of 36% over 2011.<sup>235</sup>

In Cork City in 2012 41,945 tonnes of household waste was collected representing 3.1% of national collected waste (1.36 million tonnes). The 2011 figure was 3.3%. In Cork County, 7.5% (102,551) of the Country's household waste was collected, the same proportion as 2011.

Table 175 indicates the type of waste collected from households in 2012 in Cork City and nationally.

Table 176 presents data on the number of households availing of a three bin collection service.<sup>236</sup>

Table 175: **Percentage of Permanent Private Households on Various Kerbside Collection Services 2012**<sup>237</sup>

Area	Percentage of permanent private households on a household service that are serviced with:			
	Residual collection only	Residual and mixed dry recyclables collections	Organic collection	Glass collection
Cork City	8%	92%	0%	10%
National	2%	98%	37%	3%

Table 176: **Number of Households Availing of a 3 Bin Collection Service**

Local Authority Area	Number of households availing of a 3 bin service at 31/12/15 (based on 2011 census)	% of Households availing of a 3 bin service (based on 2011 census)
Cork City	39,100	83

# 7.5

## Fire Service

### 238 -

Anglesea St. has 112 fulltime personnel with 28 on each 'watch' and Ballyvolane has 28 fulltime personnel with 7 on each 'watch'.

### 239 -

<http://www.housing.gov.ie/search/archived/current/sub-type/fire/type/statistics?query=>

There are two fire stations in Cork City, Anglesea Street Fire Station and Ballyvolane Sub-station<sup>238</sup> and there are 21 fire stations in Cork County. Table 177 shows the number of turnouts by each fire service in 2016. Cork City responded to 1,156 fires and the County responded to 1,118.<sup>239</sup>

Results from the following table (178) indicate that the fire services in the City and County deal with largely different causes of fire. In 2016 the known cause of most fires in Cork City was from cooking and heating, electrical equipment and fires started maliciously. Whereas the vast majority of fires in the county are associated with chimneys followed by fires started maliciously and from burning rubbish.

Table 177: **Fire Station Turnouts, 2016** (Source: Housing.gov.ie)

Area	Stations	Turnouts to Fire	Turnouts to Special Service incidents	Turnouts to False Alarms	Turnouts
Cork County	21	1118	1123	246	2487
Cork City	2	1156	931	689	2776

Table 178: **Causes of Fires Attended by Fire Brigades, 2016** (Source: Housing.gov.ie)

<b>Causes of Fires Attended by Fire Brigades in, 2016</b>	<b>Cork County</b>	<b>Cork City</b>
Chimneys/Flues/Soot/Hot Ashes	285	6
Smoking Materials	20	4
Matches/ Cigarette Lighters	5	1
Rubbish Burning	55	7
Using Fuels to Kindle Fires	3	0
Cooking and Heating	29	34
Electrical Equipment	16	20
Other Equipment	17	0
Electrical Wiring Installations	27	9
Explosions	1	0
Malicious	91	19
Other Suspected Causes	13	35
Unknown Causes	477	1021
Total	1039	1156

Table 179: **Number of Special Service Incidents Attended by Brigades, 2016** (Source: Housing.gov.ie)

<b>Number of Special Service Incidents Attended by Brigades, 2016</b>	<b>Cork County</b>	<b>Cork City</b>
Road Traffic Accidents	283	170
Water Pumping/Flooding	34	103
Rescue/ Removal of Persons from Water	15	33
Other Non-Fire Rescues	80	27
Hazardous Substances in transit not involving fire	0	8
Miscellaneous	187	590
Total	599	931

Table 179 illustrates the numbers of Special Service Incidents attended in 2016 by Cork City and County Fire Services. Other than 'Miscellaneous' the most Turnouts were to Road Traffic Accidents and the Cork City service also dealt with a large number of Water Pumping/ Flooding incidents.

Cork County experienced a greater proportion of malicious false alarms in 2016 with 28.8% compared with 24.2% in the city.

Table 180: **Number of False Alarm Incidents Attended, 2016**

(Source: Housing.gov.ie)

<b>Number of False Alarm Incidents Attended, 2016</b>	<b>Malicious</b>	<b>Good Intent</b>	<b>Total</b>
Cork County	67	165	232
Cork City	167	522	689

# 7.6

## Road Safety

### 240 -

187 is 'Provisional' as reported in Transport Trends 2017.

### 241 -

<http://www.dttas.ie/sites/default/files/publications/corporate/english/transport-trends/transport-trends-2017.pdf>.

### 242 -

<http://www.rsa.ie/RSA/Road-Safety/Our-Research/Deaths-injuries-on-Irish-roads/>.

### 243 -

<http://www.rsa.ie/RSA/Road-Safety/Our-Research/Deaths-injuries-on-Irish-roads/>.

Over the long term the number of fatalities on Irish roads has significantly reduced. The number of fatalities peaked in 1972 at 640 decreasing to 387 in 1986. Numbers began to reduce significantly after 2005 falling to 163 in 2012. In 2016 there were 187<sup>240</sup> fatalities which is an increase of 25 (15%) since 2015.<sup>241</sup> In 2017 there were 159 fatalities on Irish roads, 15% fewer than in 2016. Of these, 68 were drivers, 26 passengers, 30 pedestrians, 20 motorcyclists and 15 pedal cyclists.<sup>242</sup> Most fatalities (33) were aged 16-25 and 66+ (33 also). 75% were male.<sup>243</sup> Table 181 illustrates the numbers of those killed and injured in Cork from 2012 and 2016. There were 21 fatalities in 2016, reduced to 14 in 2017 (33.3%).

Table 181: **Number of Persons Killed or Injured Through Road Traffic Incidents, 2012-2016**  
(Source: CSO Transport Omnibus 2016/Road Safety Authority)

County	Persons killed					Persons injured			
	2012	2013	2014	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2012	2013	2014 <sup>(2)</sup>	2015 <sup>(1)</sup>
Cork	21	18	19	15	21	742	707	816	717

(1) Provisional

(2) Revised

Table 182: **Number of Penalty Point Offences by County (Cork)**

(Sources: Department of Transport, Tourism and Sport and The Road Safety Authority, CSO Transport Omnibus)

Number of penalty point offences <sup>1</sup> by county as at 31 December 2015 and 2016			
County	2015	2016	% Change 2015-2016
Cork	79,327	77,920	-1.8

### → PENALTY POINTS

Speeding was the most common offence committed by males and females for which they received penalty point endorsement notices. Of the top 10 issuances for males, 65.3% were for speeding and for females it was 75.0%. The second dominant offence was driving while holding a mobile phone. For males the proportion was 16.2% and 12.9% for females.

Table 183: **Top 10 Penalty Point Enforcement Notices Issued for Males in Cork in 2016**

(Source: Transport Omnibus, 2017)

Top 10 Penalty point endorsement notices issued for males, Cork, 2016		
Total no. of penalty point endorsement notices issued	12,684	100.0%
Speeding	8,277	65.3%
Driving a vehicle while holding a mobile phone	2,050	16.2%
Use vehicle without NCT certificate	402	3.2%
Adult failing to wear safety belt cat. M1 vehicle	296	2.3%
Driving without reasonable consideration	230	1.8%
Fail to obey traffic lights	241	1.9%
Learner driver unaccompanied by a qualified driver	286	2.3%
No insurance - (user)	75	0.6%
Non-display of L Plate (learner driver)	93	0.7%
Cross continuous white line/broken white line	122	1.0%

Table 184: **Top 10 Penalty Endorsement Notices Issued for Females in Cork in 2016**

(Source: Transport Omnibus 2017)

<b>Top 10 penalty point endorsement notices issued for females, Cork, 2016</b>		
Total no. of penalty point endorsement notices issued	7,111	100.0%
Speeding	5,332	75.0%
Driving a vehicle while holding a mobile phone	918	12.9%
Use vehicle without NCT certificate	230	3.2%
Learner driver unaccompanied by a qualified driver	134	1.9%
Driving without reasonable consideration	62	0.9%
Fail to obey traffic lights	113	1.6%
Adult failing to wear safety belt cat. M1 vehicle	57	0.8%
Non-Display of L Plate (Learner Driver)	40	0.6%
No insurance - (user)	25	0.4%
Fail to comply with prohibitory traffic signs	13	0.2%