DÁIL ÉIREANN

AN COMHCHOISTE UM THITHÍOCHT, PLEANÁIL, POBAL AGUS RIALTAS ÁITIÚIL

JOINT COMMITTEE ON HOUSING, PLANNING, COMMUNITY AND LOCAL GOVERNMENT

Déardaoin, 18 Bealtaine 2017

Thursday, 18 May 2017

The Joint Committee met at 9.30 a.m.

Comhaltaí a bhí i láthair / Members present:

Teachtaí Dála /Deputies

Seanadóirí/Senators

Pat Casey,	Victor Boyhan,
Barry Cowen,	Grace O'Sullivan.
Eoin Ó Broin.	

Teachta/Deputy Maria Bailey sa Chathaoir/in the Chair

JHPCLG

Business of Joint Committee

Chairman: At the request of the broadcasting and recording services, members are requested to ensure that for the duration of the meeting their mobile phones are switched off completely or switched to airplane, safe or flight mode, depending on the device used. It is not sufficient to leave them in silent mode as this will maintain a level of interference with the broadcasting system.

I propose that we go into private session to deal with some housekeeping matters. Is that agreed? Agreed.

The joint committee went in to private session at 9.31 a.m. and resumed in public session at 9.38 a.m.

Breach of EU Urban Wastewater Directive: Discussion

Deputy Pat Casey took the Chair.

Acting Chairman (Deputy Pat Casey): I welcome from Irish Water Mr. Jerry Grant, managing director, and Ms Trudy Higgins, environment strategy lead; from the Commission for Energy Regulation, CER, Dr. Paul McGowan and Ms Sheenagh Rooney; and from the Environmental Protection Agency, EPA, Mr. Dara Lynott, deputy director general, Mr. David Flynn, programme manager, and Mr. Noel Byrne, senior manager. We will engage with them on the recent decision by the European Commission to take Ireland to the European Court of Justice for its failure to ensure urban wastewater in 38 agglomerations across the country was adequately collected and treated to prevent serious risk to human health and the environment

By virtue of section 17(2)(l) of the Defamation Act 2009, witnesses are protected by absolute privilege in respect of their evidence to the joint committee. If, however, they are directed by it to cease giving evidence on a particular matter and continue to so do, they are entitled thereafter only to qualified privilege in respect of their evidence. They are directed that only evidence connected with the subject matter of these proceedings is to be given and asked to respect the parliamentary practice to the effect that, where possible, they should not criticise or make charges against any person or an entity by name or in such a way as to make him, her or it identifiable. The opening statements submitted to the committee will be published on its website after the meeting.

Members are reminded of the long-standing parliamentary practice to the effect that they should not comment on, criticise or make charges against a person outside the Houses or an official, either by name or in such a way as to make him or her identifiable.

I invite Mr. Grant to make his presentation on behalf of Irish Water.

Mr. Jerry Grant: I thank the Acting Chairman. I have circulated some slides and if it is okay, I will take approximately ten minutes to give the committee an overview of our perception of the scale of the challenge of compliance with the EU directive on urban wastewater treatment and the issues in respect of the case before the European Court of Justice and how we are going about dealing with the problem.

Slide three shows that we have more than 1,000 wastewater treatment plants across the country. Some 173 schemes cover areas with a population of 2,000 or more, which qualify under the Urban Waste Water Treatment Directive 91/271 EEC. The 38 locations notified in the case represent a sample from the 173 schemes for more than 2,000 population. This is a significant decrease in the number of cases in recent years as investment has proceeded. This year we expect the number to decrease further, as the schemes have been upgraded in Clonakilty, Clifden and Carrigtouhill. Work on the Carrigaline scheme was recently commissioned and we propose that work will be commissioned on Youghal later this year. There is a lot happening to schemes on this list. However, there are other schemes that will take longer.

I will set out the reasons that these schemes are non-compliant. The effluent standards in Ringsend in Dublin, which is clearly the most significant of all the schemes with almost 2 million population equivalent, is an overloading problem in addition to phosphorous and nitrate levels.

There is no treatment whatsoever in Arklow, where there is discharge of raw sewage into the Avoca River. Work on that scheme has been significantly delayed over the years by the statutory process and court challenges. We have had to start from scratch again. A new site has been selected and that will go An Bord Pleanála later on this year. In Youghal, there is a problem with the bathing water as a result of the lack of treatment of sewage.

There are significant high quality receiving waters, such as the Broadmeadow Estuary, to which effluent from Swords is discharged. We need to have higher standards in those schemes.

All these issues are reflected in the European Court of Justice's argument that has been put forward along with overflows from the networks, which are a much larger problem in the long term for this country to tackle.

In the next slide we set out a number of things we are doing to combat the problem. Irish Water is investing very substantial amounts in new plants and upgrading existing plants. We are also putting a lot of effort into optimising existing plants, improving operations and doing small scale investments that bring them into compliance. This is satisfactory in many cases. We are also looking at source control, because many of our plants are significantly affected by industrial, commercial and trade discharges which can overload the plant and cause it to fail. These three distinct work streams are contributing to solving the problem. Very often high profile incidents arise from emergency overflows and spills when pumps break down and so on. There is a great deal of work going into assessing critical assets from a risk point of view and trying to put in more secure storage and so on, so that it does not lead to fish kills. Members will have noticed that fish kills often featured in prosecutions.

Slide five will give members some sense of the scale of what is being done in the short term. Given the scale of the wastewater challenge, it is important in the first full investment cycle by Irish Water from 2017-2021 to prioritise in particular the ECJ cases and also those 44 plants with no treatment facilities. Under our minor upgrades programme we will spend \in 320 million and the one off larger plants will cost more than \in 1.2 billion, which is more than \in 1.55 billion in the period. We would expect to be very close to completion of all works on those 38 sites by that date. That is something we will be conveying through the Department to the European Commission. Equally, we think we will get the vast majority of those untreated sites dealt with in that period.

The ongoing European Court of Justice case is quite complex because there are three driv-

ers of non-compliance. There were in some cases data issues as the European Commission was not satisfied that it had the necessary evidence to show that there was compliance. There are some situations where we may be able to get schemes addressed through more evidence of the quality of treatment and the receiving water. Cork city is an example where we believe there is evidence that it may not be necessary, for example, to spend a significant amount of money taking out nitrogen and phosphorous. We must provide that evidence to the EPA in the context of a licence review and that would allow that issue to be dealt with, if that evidence is accepted. It is important that when we spend money, we spend it on the back of solid evidence that it will produce an environmental dividend and not simply because there is misinformation or misunderstanding.

As I said, on the area of networks there is a long-term challenge because many of our urban networks leak in and out and spill when it rains. The spills in places such as Athlone, Thurles and Roscrea are the cause of the breaches that we have to address. They are very complex to deal with because one has to go back and survey the networks to find out the information. It can be quite difficult to come up with solutions. There is a problem with the overloaded plants and the plants that were never designed in the first place to meet the standards.

Slide eight shows the distribution of all plants across the country and the places indicated with a brown dot are the treatment plants in this category. In slide nine, one can see the locations that are impacted by the network issues, the basic treatment issues or the nutrient issues. One can see that some of the locations are marked with little green dots, and that is to signify that we think we have done the work there but we have to produce the evidence, the commissioning reports and so on to demonstrate that they are complying.

In slide ten, we have set out that we have spent €179 million on wastewater treatment in the years 2014 to 2016. That will be significantly ramped up in the remaining period. It is fair to say that we invested more money into drinking water in the early years. There was also a factor that these major capital wastewater schemes take a great deal of time to bring through the planning process. Arklow is a very good example of this. When one has to go back to square one, the first thing is that one has to go through a very elaborate site selection process because at the end of the day, one's application will not succeed in An Bord Pleanála unless one has gone through a very rigorous and transparent process around the picking of the site, the environmental studies and so on. One is talking about a very significant lead in time, if there are no plans ready to go to site. That is reflected in the fact that the balance will tilt back to wastewater treatment in the next number of years. At the bottom of the slide one will see a visual representation that we expect to be very close to a full resolution of these issues by 2021. One can also see the sequence over the period since 2012, when this issue first came to light as a pilot case. It has moved on in Europe to a reasoned opinion and it looks like it will go to the European Court of Justice pretty quickly. We expect we will be given a period of time by the court to fix the problem. Obviously, the challenge is to ensure that we comply and deliver on the plan within that period of time.

The four remaining slides illustrate what is going on. In the case of the Ringsend wastewater treatment plant upgrade project Irish Water will have to spend approximately €360 million to completely refurbish the Ringsend plant to bring the capacity from 1.6 million population equivalent up to 2.4 million population equivalent and to meet the nitrogen and phosphorous standards. It is a really massive project within an existing site. The State has already invested €250 million in that site. In the Ringsend plant, we are using a new technology that we identified in Holland, which has been proven on the site in pilot studies and that has saved us about

€150 million because we intend to go to An Bord Pleanála to omit a major tunnel that was intended to be put in beneath the bay. I hope that scheme will be fully approved and we will get it fully delivered. We are at the tender stage for a major part of the scheme, which will bring the basic treatment capacity up to 2.4 million population equivalent for €160 million.

The Cork Lower Harbour was an area that had been neglected to a large extent. The Cork Lower Harbour towns all discharged relatively untreated sewage into the lower harbour. The wastewater treatment scheme is being delivered at a cost of €117 million. The first phase has addressed Crosshaven and Carrigaline and the treatment plant is working. We are now on-site to collect in Passage West, Monkstown and Ringaskiddy. It is a very complex sewerage network project. The last leg will be to bring the waste from Cobh across the estuary and into the treatment plant. It will probably be 2020 by the time that scheme is fully completed.

Ultimately, we will invest €52 million in the Arklow sewerage scheme, because it needs a whole network to collect from the various outfalls to the Avoca River and it needs a substantial new treatment plant.

Irish Water inherited Gweedore as a problem to be addressed in terms of urban wastewater, but it is in fact a very densely populated rural area, with 600 to 700 houses. A traditional scheme would cost in the region of €35 million to €50 million, which is clearly unaffordable and would be very difficult to operate. In that case we have come up with an option based on what we have seen in Denmark and New Zealand, which involves putting small pump systems on every septic tank and having small bore pipelines to connect the system up to a treatment plant. We are doing a pilot project in Gweedore in the next five or six months. We have been talking to the local community and getting very good support for the scheme. That demonstrates that in some cases, it needs quite novel and innovative solutions in order to come up with cost effective ways of addressing these problems.

To summarise, Irish Water is committed to delivering on the plans we have set out to the Environmental Protection Agency, EPA, and to the Commission for Energy Regulation, CER, for the resolution of all these cases together with all the other issues involved. We make the point that there are significant other issues out there, in particular in the networks, that will come to light over time and will have to be addressed in future cycles of investment.

The plans are in place. There are always issues and risks around statutory process. We intend to deliver that programme. I thank the Acting Chairman and members.

Acting Chairman (Deputy Pat Casey): I thank Mr. Grant for his presentation. I now ask Dr. McGowan to make his presentation.

Dr. Paul McGowan: The CER is the economic regulator for Irish Water in the provision of its public water and wastewater services. Our primary role in this regard is to protect the interests of customers of Irish Water. There are a number of routes by which we do that, but of primary relevance to today's hearing is that we approve Irish Water's proposed water charges plan. In that regard, we set Irish Water's revenue, both its capital and operational expenditure, basically, the amount Irish Water is allowed to receive or earn for the services that it delivers. In addition, we also approve Irish Water's codes of practice on how it deals with all the users of its system. Finally, of relevance today, perhaps, we also co-operate with the Environmental Protection Agency. In fact, we have a memorandum of understanding in place which sets out our respective regulatory roles from both an environmental and an economic perspective.

Turning to slide 3 of our presentation, we have carried out two revenue controls in respect of Irish Water to date covering two two-year periods. We are in the middle of the second two-year period, which ends at the end of 2018. We review Irish Water's capital investment plan and we look at a number of issues, including its approach to how it balances and prioritises projects, essentially the order in which the projects will get delivered. We also look at how it manages and governs its projects and at the costing of its submissions. We do an audit of some of its projects to determine that it has, in fact, identified an appropriate solution and that it is appropriately costed in terms of what it will deliver. On that basis, we determine an allowed revenue that Irish Water is permitted to earn for a set of defined targets and outcomes during the same period. This amount of money that we allow it also incorporates an efficiency challenge, both in terms of its operating expenditure and capital expenditure.

I turn to slide 4, specifically of relevance to the infringement. The CER allowed a total capital expenditure for 2017-2018 of €1.152 billion to Irish Water. We noted that, as part of its capital planning process, it had identified all the agglomerations that are the subject of this case as being mandatory. It knew it had to do these. Based on the evidence we received, 29 of those were still requiring work at the end of 2016. Based on the submission from Irish Water in terms of its costings, it has allowed €243 million in 2017 and 2018 as part of an overall €1 billion programme to address the issues in relation to wastewater treatment.

As part of our overall function, we will continue to monitor Irish Water's delivery of this capital programme against its targeted outcomes over the two-year period and beyond. That is all I propose to say at this stage but, obviously, I would be happy to answer any questions members may have.

Acting Chairman (Deputy Pat Casey): I thank Dr. McGowan for his presentation. I now invite Mr. Flynn of the EPA to make his presentation.

Mr. David Flynn: I thank the Acting Chairman and the committee members for the opportunity to present to them today. I am accompanied by Mr. Dara Lynott, deputy director general of the EPA, and Mr. Noel Byrne, senior manager in the wastewater enforcement area.

The EPA has been the regulator for wastewater treatment since October 2007. Initially, we supervised the 34 local authorities. Since Irish Water came in in 2014, we have been its environmental regulator for both wastewater and drinking water. On wastewater, we have assessed and licensed 1,047 sites and there are a further 21 currently at assessment stage. In our role as environmental regulator, we work closely with our colleagues in the CER and we have a memorandum of understanding with the CER in that regard.

I distributed some copies of the presentation to the members. Our role involves the monitoring and supervision of urban wastewater services, as I stated, for 1,000 villages, towns and cities. These are called agglomerations under the urban wastewater treatment directive.

Our regulatory system comes from the 1991 urban wastewater treatment directive and the 2000 water framework directive, so it has been in place for quite a while. The objectives include the appropriate treatment, such as second-level treatment for most wastewater treatment plants and more stringent treatment for environmentally sensitive areas. Generally, these are coastal estuarine areas that require higher levels of treatment.

Where the EPA detects significant non-compliance with the regulations or conditions on licences, it takes enforcement action in line with its policy. This can include court actions. We

have taken 13 such cases since we became regulator.

On public reporting, we publish an annual report each year. In our most recent report published in the autumn of last year, we again called for appropriate capital investment in wastewater treatment. That is primarily the issue here, that sufficient money is made available. Very significant sustained funding is required to improve the wastewater systems if these pollution and health risks are to be avoided in the future. In 2015, the latest year for which we have a full set of reporting data, 142 large towns and cities complied with the EU's wastewater treatment standards, while 29 failed. The preliminary data we have for 2016 show there is no significant improvement in this rate of compliance.

While new sewage treatment plants have been built in many areas, for example, at Ardmore, Dunmore East and Ballylongford, as the committee heard in the earlier presentation, raw sewage continues to be discharged from 45 different areas across the country. The planned delivery of treatment plants at half of these areas has now been delayed by more than two years.

In comparison with the European averages, our national treatment performance has improved a lot over the past decade and a half. However, we still perform poorly, when compared with other European countries in terms of the 26 year old directive which brought in strict deadlines for the upgrade of treatment, and these are now between 12 and 19 years behind these deadlines. The overall compliance with the basic standards was 51% in Ireland in 2015 while the EU average was 92%. As one can see, significant improvement is required. Most of this non-compliance is down to Dublin city's Ringsend treatment plant. There are plans to upgrade the plant and that would bring us nearer to the European average. For sensitive areas, it is worse again, with Ireland at 25%. In comparison, the EU average is 88%. One will see those figures on slide 6 in the pack.

In terms of the present ECJ case, there are 38 sites listed by the European Commission. Of these, the EPA considers that 27 agglomerations remain to be resolved. The other agglomerations have largely been addressed, either by the local authorities or by Irish Water since it has taken over. There is one further situation, which Mr. Grant mentioned, which is Gweedore. This is currently not regulated by the EPA. Our assessment of the case is that most of the outstanding 38 sites can be resolved by 2021, given the application of sufficient funding and resources across that period of time. Our latest information from Irish Water is that there will be three sites remaining beyond 2021, at Cork city, Thurles and Roscrea.

In terms of the EU list, however, I would highlight to the committee that there are wider problems beyond these 38 sites and the 27 that remain to be resolved. One will see on slide 8 that there are 100 further sites listed on the EPA's national priority list, that is, 127 sites overall that the EPA is prioritising. The list highlights significant issues to be addressed to avoid environmental risks, such as the raw sewage, which I mentioned, discharges near bathing water which the committee would have heard about this morning in the latest bathing water report, and areas threatening shellfish areas or pollution of rivers. The assessment of collection systems is also continuing and we anticipate a significant bit of work will arise out of that assessment, as we learn more about the networks and the impact of discharges from combined sewer overflows.

In short, the pace of resolving wastewater needs to improve. The EPA analysis has found that better operational practices could resolve approximately one fifth of the problems. However, it is simply the case that most of the existing infrastructure is not capable of meeting the standards required. In order to meet these standards, we need increased capital investment,

improved efficiencies and the delivery of outstanding infrastructure needed to protect rivers, lakes and coastal waters. I thank the committee.

Deputy Eoin Ó Broin: I thank the witnesses for their presentations. This meeting stems from a previous appearance by representatives of the Environmental Protection Committee at the Committee on the Future Funding of Domestic Water Services on 15 February, the day on which the European Commission announced it was initiating a court action. This issue has been ongoing for a long time with little Oireachtas scrutiny of the underlying causes and progress or otherwise in addressing them. Members considered it important, therefore, to bring all the relevant stakeholders before the joint committee to scrutinise and highlight this issue and add to the pressure the EPA is exerting as it seeks to have these issues addressed.

I am disappointed that officials from the Department are not in attendance. The original request from members sought to have officials attend this meeting alongside representatives of the relevant organisations. The Department has key responsibilities in this area. Perhaps the matter will be rectified before the next meeting.

Acting Chairman (Deputy Pat Casey): Officials from the Department were not invited.

Deputy Eoin Ó Broin: When I requested this meeting I asked that officials be invited to attend. It is regrettable that officials are not in attendance. They should be present at the next meeting we have on this issue because it is vital that the Department is part of this conversation.

One of the frustrating aspects of this issue is that, as Mr. Flynn stated, it is 26 years in the making and is clearly not a new problem. The directive was issued in 1991 and the compliance date for the relevant agglomerations was 2000. My understanding is that this is not the first enforcement action. I have some questions about previous enforcement actions, on which I will seek an update. Will the Environmental Protection Agency outline how the enforcement procedure operates? It commenced in 2013 when notices were issued, after which warnings were issued in 2014 and 2015, with court actions ensuing subsequently. I understand the European Commission does not come in with a sledgehammer threatening court action and fines but seeks to work with the member state in question to try to resolve problems that have arisen. If it is the case that the Commission seeks to work with member states to resolve problems, why is it taking Ireland to court? Notwithstanding Mr. Grant's views on progress, the Commission's view is that progress has been too slow or is not being made in the correct manner. I am interested in hearing the EPA's view on the reasons for this.

I am very concerned by the graphs presented by the EPA, both in terms of the level of non-compliance and the number of priority sites. The 127 priority sites identified by the EPA include the 38 sites on which legal action may be taken and fines imposed. If the focus is on the 38 sites, will some of the other sites fall behind by the time the 38 sites have been addressed and will we end up in difficulty with some of the remaining sites because they have not all been addressed at the same time? What is the EPA's view on that?

I am also interested in the EPA's warnings to the Department and Irish Water. I understand the EPA produces an annual report in which it publishes data on the sites. What level of engagement did it have with the Department and Irish Water in terms of flagging these issues before enforcement commenced in 2013 and subsequently? Members of the public have a right to know how often the EPA has been raising the alarm in this area with the Department and Irish Water.

I note media commentary indicating there is a disagreement over funding levels for both the 38 agglomerations and the remaining 89 locations on the priority list. Is funding increasing annually, in other words, was more money spent last year than in the preceding years? How is funding tracked? This is an important measure on which I ask both the EPA and Irish Water to provide details.

My next question is a difficult one. The Committee on the Future Funding of Domestic Water Services focused considerable attention on fines arising from breaches of the water framework directive. Infringement proceedings have not commenced under that directive. How seriously should we take the issue of fines? Are the witnesses aware of similar cases in other member states that would give members an idea of the level of fines member states may face for significant levels of non-compliance?

In September 2008, the European Court of Justice issued judgment C-3I6/06 in an earlier enforcement action taken following breaches of the urban waste water directive. Will the EPA provide an update on the judgment? I understand it related to a set of agglomerations or sites different from the 38 sites at which breaches have been identified? If so, have the problems at these sites been resolved or do they remain?

On the national inspection plan, the EPA provided a series of detailed inspection reports. One of the figures that caught my eye was the number of non-compliant inspections, of which there were 489 in total. Will the EPA explain the significance of this figure and how it relates to the list of 127 priority sites and 38 agglomerations?

Mr. Grant's statement that some of the non-compliance is related to data rather than actual problems in treatment plants is worrying. One would expect data to be the easiest issue to sort out and Irish Water would be able to notify the Commission of such problems at an early stage. Why were data issues not resolved by the time the Commission got fed up and decided to take Ireland to the European Court of Justice? Is it a complicated issue or is it straightforward? How does Mr. Grant explain it?

In terms of cost, the European Commission, in an environmental implementation report, estimated the cost of tackling the problem in the 38 agglomerations at approximately €443 million. More recent figures from Irish Water provided by the Minister put the cost at €1 billion. The figures from the Commission and Irish Water were given about one year apart. Will Mr. Grant explain the difference between them?

We raised the Shannon to Dublin pipeline previously with Mr. Grant. If and when the project proceeds, it will deliver a significant increase in the treated water coming into the Dublin water region and, therefore, a significant increase in the amount of sewage being produced. In the context of significant levels of non-compliance to date, will Mr. Grant provide an assessment as to how or why any of us should be reassured that even more compliance problems will not arise given that the level of water and sewage discharge will increase significantly in the Dublin region? This is not an argument against water being piped to Dublin from the River Shannon. What assurance can Mr. Grant provide in this regard?

A graph in the Irish Water document projects a significant decline, from approximately 30 to roughly five, in the number of agglomerations with problems between 2020 and 2021. Compliance in earlier years is projected to improve at a much slower pace. What is the reason for the projected dramatic improvement in compliance? Is this a deliverable target?

Senator Victor Boyhan: I thank the witnesses for coming before the joint committee. They set out their stall very well. It is clear we have an infrastructure deficit and it will cost €1 billion to remedy the problems. I will focus for a few moments on the Ringsend treatment plant. It has been known for a long time that capacity issues would arise as economic development progressed throughout the country but specifically in Dublin. During my time as a member of Dún Laoghaire-Rathdown County Council, Mr. Grant made presentations to councillors on capacity in which he stated that planners had to stop granting planning permission. This was a profound statement, particularly during a housing crisis. While I am in favour of economic development, the plant in Shanganagh cannot even pump out waste.

We are hearing stories about capacity in the Ringsend treatment plant, including about solids occurring in the attenuation tanks and water being released, albeit on a tidal basis. We heard on "Morning Ireland" today about conditions on Merrion Strand. We know where the problem lies given that the beach is right beside the Ringsend plant.

We are discussing a serious case being brought before the European Court of Justice for breaches to the urban waste water directive. In simple terms, the case relates to the failure to ensure that urban waste water at 38 locations across the country is adequately collected and treated to prevent serious risk to human health and the environment. That is the essence of the case. In setting out their stall, the witnesses made clear that significant investment is being made in this area. Ringsend has a projected budget of €363 million, of which costs of approximately €51 million has so far been incurred. There is a huge amount of money to be spent there. How will it be funded? Is funding holding back the roll-out? I know there are some planning issues. They are complex, they too must be addressed and they are stringent and strict. I am fully aware of all of that but are necessary funding and resources preventing a speeding up of the process of addressing all the problems Mr. Grant outlined? That is the kernel of it all.

I echo what my colleague, Deputy Ó Broin, said about the Department. It would be important to have the Department before the committee for some future debate and hear what it has to say. I would like to hear more about how the witnesses engage with the Department and *vice versa*, that is, how the Department responds to them. That is very important if we are to analyse forensically what is happening and what constraints are being put on the witnesses. I would like an honest exchange with them. What is the big issue? All of this can be addressed. Is it simply down to the money? Is it simply down to specific planning issues in some of the specific issues which have been referred to? Mr. Flynn has told us that our rate of compliance with basic standards is 51%. That is a disgrace. It is factual and it is not a criticism of Mr. Flynn but it is a disgrace and it clearly needs to be addressed. I will keep it simple. Can Mr. Flynn explain what the constraints and frustrations and other things are that are holding the EPA back on delivering on what he has clearly identified as major problems? How can we get on track again regarding compliance with the directive?

Senator Grace O'Sullivan: I echo the points made by both of my colleagues on the lack of a Government representative from the Department of Housing, Planning, Community and Local Government at today's meeting. In the end, the buck of compliance stops with the Government. As the Government is ultimately responsible, it is a bit of a failure that someone from the Department did not attend today.

In general, when do the witnesses expect a judgment in the current action being taken against Ireland? If the court finds against Ireland, which seems inevitable, how long do they anticipate Ireland will have to comply based on other, similar cases?

I note that Irish Water's presentation proposes full compliance by 2024. The Irish Water 25-year water services strategic plan proposed 99% compliance by 2027 and 100% compliance by 2040. Does Irish Water have a better idea now of what exactly is needed, and is the 2024 projection of 100% compliance accurate? Senator Boyhan referred to the Irish Water funds. Are they guaranteed? Does Irish Water have sufficient funds to achieve its targets and objectives? If not, how much extra do Mr. Grant and Ms Higgins think is required to meet the water framework directive deadline by 2021? It seems that we are, at best, 24 years late, which is shocking. There must be a sense of urgency regarding compliance.

How soon do the witnesses envisage daily fines? It is important to point out that the urban wastewater treatment directive is an old directive and is essentially the bare minimum to prevent the worst of sewage pollution. The water framework directive requires discharge standards that will bring us to a modern level of safe, healthy, clean water, and according to the water services strategy plan, only 60% of discharges will be compliant by 2021.

I echo the comments of my two colleagues. There really is a sense of urgency that Ireland comply for multiple reasons - environmental, health and economic - in terms of the cost of fines, so I hope we can move as fast as possible to ensure better standards.

Acting Chairman (Deputy Pat Casey): I wish to clarify again the position of the Department so everyone is clear. The Department was not invited to today's meeting, and that is why it is not here. However, there are some members of the Department in the Public Gallery taking notes of today's meeting. At the private meeting next week we will ensure we invite them to the meeting the next time.

I will call the witnesses in the order in which the presentations were made, starting with Mr. Grant.

Mr. Jerry Grant: I will try to make sure I capture the various points that were raised, starting with those of Deputy Ó Broin. He raised the number of sites defined by the EPA as priority sites. This is the bigger canvas we must address. All these sites are within the work programme. Not all of them will be delivered in this period but much other work will be delivered along with the 38 ECJ cases. For every one of those projects, we now have a plan and a programme, but some of them extend quite some time. I acknowledge what David Flynn said, that some of them have been delayed in the programme information to the EPA because when we inherited all of these projects, many of them had to be rescoped, many had to go through statutory process, and what we have tried to do is put realistic and deliverable dates on them. There are plenty of trips and falls along the way that can happen and we try to notify the EPA of any of these - for example, statutory or court objections - so that we keep the dates realistic. I think we are getting better at that. We probably were not very good at it to begin with. Some of these sites are being tackled. Mr. Flynn also mentioned, very fairly, that there are plants that fail for operational reasons, and we are working our way through those cases. We send in a process team, we have a minor capital programme that goes in behind it and we have brought a number of plants into compliance. Shannon town is not necessarily compliant but it has improved significantly through controlling industrial discharges and upgrading the plant, and we have much more work to do there. Birr needed a big upgrade. We have been able to get it compliant again by examining the discharge coming in and carrying out a €600,000 or €700,000 upgrade of the plant, so there is much happening at that level as well.

Deputy Ó Broin talked about data. This is very interesting because many of these schemes did not have working flow measurement or sampling equipment, which is the prerequisite for

data. One of our current programmes is to retrofit across our plants flow measurement and sampling equipment and then to collect data. Of course, a decent interval of data is needed. One needs a 12-month period of data to have any meaningful information. This is all in hand and we are improving and investing in the information systems that will track all this information. We are modelling this on the EPA's systems so that we can become better at communicating in a systematic way in delivering data.

Deputy Ó Broin asked the very interesting question what we need to do if we bring the Shannon pipeline to Dublin and so on if we have more capacity. It is a much bigger question, but to deal very quickly with it, we will need to spend, between water and sewerage for the greater Dublin area, about €2.5 billion in order to secure the region for the long term - say, the 20-year horizon. On the wastewater side, the priority in the very short term is to increase Ringsend's capacity by 50%, or from 1.6 million population equivalent to 2.4 million, and make it compliant at the same time with the higher standards. However, that is not enough. We also must increase the capacity of a number of sewers. For example, the Blanchardstown sewer must be duplicated - a very big scheme of almost €50 million - so that we can get the sewage into Ringsend. At the same time, the committee may be aware that we are planning a later scheme to follow, hopefully to be in place by the mid-2020s, namely, the greater Dublin drainage project. This involves a new treatment plant in north County Dublin, at Clonshaugh, and an outfall to the Irish Sea. This scheme will probably go to An Bord Pleanála in 2018. It is another very significant investment and is designed to pick up from the situation whereby Ringsend will be limited to as much as it can deal with in the long term. There are medium-term and longerterm plans and they must all fall into line in a proper sequence.

The big improvement in the latter end of the current investment plan largely arises from the fact that many of the schemes had to go through both rescoping and redefinition and then planning. Arklow is one example where we had to go back to square one, but many of these schemes had to be rescoped and then taken through the tender process so that many of them will be on site. This is why the wastewater spend in particular will rise significantly in the immediate years to come, from 2018 into 2019 and 2020. There will be a significant bulge at that point.

Picking up on Senator Boyhan's questions about the deficit, the point here is that we are only talking today about a subset of a much bigger problem because when we did the water services strategic plan, WSSP, we estimated the total deficit across the infrastructure, water and wastewater, to be approximately €13 billion. We will review that as we do reviews of WSSP every five years and that will take account of the river basin management plans, which will undoubtedly drive further investment needs.

Senator Boyhan referred to the Ringsend plant and the scale of the work required. That plant is currently trying to manage an overload of approximately 25%, which obviously puts pressure on it. We have spent approximately €50 million on this already and we have made significant improvements in the process, which are helping. The next stage of expansion will be to build the new capacity. That will get us into a much better position from the point of view of capacity and will also get us very close to compliance, but we will then have a number of years of retrofit work in the older part of the plant to fully complete the job. We hope to be compliant before that, but we need to complete all the work so that we have a sustainable scheme. I referred to the greater Dublin drainage to follow. Ringsend cannot be the long-term enduring solution for Dublin, growing as it is expected to grow, and therefore the further greater Dublin drainage scheme is an important part of the longer term infrastructure.

The Senator referred to Shanganagh, but Shanganagh as a wastewater treatment plant is

very comfortable on capacity. It has a lot of spare capacity to deal with the whole Carrickmines area and I am very comfortable with both the performance and the capacity of that plant. The Senator also mentioned Merrion Strand. This really illustrates how complex these issues are, because there is no evidence that the Ringsend discharge is actually having any impact on beaches in Dublin Bay. In fact, Dollymount is safe. What is hurting Merrion Strand and many other places - I notice Clifden, for example, failed today even though there is a new treatment plant - is the fact that there are storm water discharges that are pollutives. For example, the Elm Park stream, which comes into the sea there, is picking up an awful lot of pollution which is then discharged on to the strand when it rains. That is what is causing the problem. When one starts digging into that, of course, it is a much bigger, longer-term problem.

With regard to funding, we have set out a business plan up to 2021 and we have Government support for that. The money has been committed and I expect that it will come through because the commitment has been given. We are working on the basis that money will be available. People sometimes ask if one had an extra billion or two if one could spend it next year or the year after. The reality is that we should really should have three or four years' sight of additional funding, and it will be critically important that in the next cycle, beyond 2021, that the necessary level of funding is committed. It really is down to sustained funding. That is crucial. There may be other one-off costs, like the Shannon pipeline, for example, which would come in as a significant one-off generational investment that may have to be specifically dealt with.

We engage on a continuous basis with the Department but it expects us to deliver the programme. There is a clarity now about the way these projects are carried out that is a big improvement on what it was, because we have the responsibility to deliver the work, our regulators have oversight of us and the Department's job is to provide the policy. However, the Department also, of course, provides the interface with the European Commission. We simply provide information to the Department and it, in turn, provides it to the Commission, so there is continuing engagement. The Department asks us to account for how we are performing on the various programmes because it does not want give false information to the Commission either.

To address Senator Grace O'Sullivan's questions, which are linked to those, I can give the Senator no indication of the timelines of the judgment or, indeed, of fines. I have no information on that at all. What I can say is that I believe that the Commission has to be convinced that we have credible plans. It has to see evidence that we are delivering on those plans within the timeframes that we say. When this matter goes to court and the court makes a decision, it will be critical at that point that we can show the court that we have a plan and that we will look for a period of time. The courts in general are reasonable if they consider the plans coherent and fully-funded, and that they are being delivered. That is as much as I can say on that.

Senator Grace O'Sullivan referred to various compliance targets in the WSSP and compared them with what we outlined today in respect of this particular case. We are relating there to the broader compliance challenge across all of these sites. This has to do with the river basin management plans and more particularly to the licences we have been given for all the plans, which are consistent, not with the urban wastewater treatment directive, necessarily, but with the broader range of requirements from the river basin plans. One can have all the numbers in the world talking about this, but sometimes one is comparing apples and oranges.

I have covered the question of funds. The joint committee has obviously done its work on that, and there should hopefully be a lot of security there for citizens. There is a basis there for committing funds. This is really a question of consistent funding at the right levels over the long term, which is really three or four investment cycles.

Dr. Paul McGowan: I appreciate that none of the questions was directly directed at the Commission for Energy Regulation but it is worth pointing out, just to pick up on Mr. Grant's point, that stable revenue is a prerequisite for a future investment programme. One of the things we do as part of our scrutiny of Irish Water is that when it puts forward its proposal for its investment programme, we ensure the efficiencies can also be achieved while delivering the outputs. That frees up additional moneys, whether it is for operational or capital investment. That is part of our function. In addition to that, we have a performance assessment framework which we have now published. We will now be working with Irish Water to gather the data so that there is visibility around Irish Water's ability to deliver against a series of ten performance metrics. Similar to what happened in England, Wales, Scotland and Northern Ireland, that will demonstrate whether and how Irish Water is delivering against its obligations. The final thing to point out is that, from our assessment, Irish Water has a very significant capital investment programme in comparison to other utilities. It is carrying out a huge capital expenditure investment programme in comparison to the English and Welsh utilities, and it is probably worth noting that in the overall context here.

Mr. Dara Lynott: I will deal with some of the European Commission matters that Deputy Ó Broin brought together. The relationship around infringements is directly with the member state and the Department deals directly with those. This is carried out through correspondence, package meetings and so forth. The EPA then comes in to support with the evidence and its regulatory role on it. It has to be said that the 2007 legislation that was brought in to license all these wastewater treatment plants was itself also a result of an infringement. At that point the negotiations included a period of time by which all the wastewater treatment plants would be licensed. That was completed in late 2016. From that were set out the timeframes within which the upgrades had to happen and what we are hearing about today are the delays in meeting those timeframes.

Like in every court case, it obviously has to come to court, it has to be argued, it has to be decided on and then, depending on guilt or innocence, fines have to be dealt with. Senator Grace O'Sullivan asked a question about fines and timeframes. We do not know but obviously we will put forward all the evidence we have collected through our annual reports as part of any submission that goes through to the member state. Regarding our experience of fines, I was involved with the septic tank regulation and that resulted in fines of about €15,000 a day. These continued until the Commission was satisfied that the appropriate legislation had been put in place and that it included national inspection plans. To reiterate what other speakers have said, there is a need to get proof that there are valid and sustainable plans of action in place. I imagine the same process will be gone through here.

Deputy Eoin Ó Broin: What was the cost of the fines in that particular case?

Mr. Dara Lynott: I do not have a figure, but we can provide that to this committee. It was $\[\in \] 15,000$ a day and it went on for a number of months. That pales into insignificance, however, when compared to some of the fines that have been levied against other countries, including Greece, which had a $\[\in \] 10$ million fine, which increases by $\[\in \] 3.64$ million every six months if its compliance-----

Deputy Eoin Ó Broin: Was that for urban wastewater treatment directive infringement?

Mr. Dara Lynott: Yes. Spain faced a fine of €46 million. It is quite substantial, depending on the level. That is all I have to say on that. The Deputy also asked about a number of our processes around enforcement. I would now ask Mr. Flynn and Mr. Byrne to respond to that.

Mr. David Flynn: There were quite a few questions there, so please come back to me if I miss any. Regarding our priority sites, we are regulating just over 1,000 different sites. Of those, we have identified 127 as the most important sites that we feel need to be addressed upfront. That is not to say there are not issues with the other sites. We see all those sites but obviously some sites within that number are more important than others. The reasons for highlighting the 127 is to ensure that there is equal funding. That is not to say there are not issues in the broader population of sites. Some of those sites are more important than others. We are highlighting the 127, some of which have an impact on bathing water, which we are hearing about today, shellfish areas and so on, to ensure equal funding and effort is put into them and not just into the 27 EU cases. Our efforts cover a broad range, rather than focusing on the EU Commission cases as outlined earlier.

In terms of setting out the need for action, and going back to reports in 2006 at least and probably further, the EPA has consistently said what level of investment is needed in this area. The move from 34 local authorities to one utility has made responding to cases such as this easier in that we are dealing with one central planning and investment. Part of the issue we had previously was dealing with the varying capabilities and funding capacity of individual local authorities.

Deputy Eoin Ó Broin: I asked were the investment levels going up or down. What is Mr. Flynn's reading of the picture?

Mr. David Flynn: In the early 2000s when we saw the most improvement in urban wastewater we were investing in or around €330 million a year. That dropped off in the intervening years. It has recovered since 2013 up to approximately €200 million. The plans set out here are back up to €300 million a year. Irish Water or CER are probably better placed to talk about the individual figures. It is important from our point of view in the EPA that those plans are delivered on and that money is made available at that level because the solution for the 27 by 2021 is extremely ambitious and needs sustained financial and human resources applied to it.

In respect of the inspection plans, the monitoring data from all Irish Water sites are submitted to us annually. We also conduct inspections of approximately 100 sites a year and then we take samples of 250 sites in addition. We are out on the ground visiting the sites and getting information back on that. We also publish every one of those reports. All those inspection reports are publicly available.

Other witnesses have dealt with the situation at Ringsend.

In response to Senator O'Sullivan's question about the standards, she is right to say the Urban Waste Water Directive deals with a very basic standard of treatment. EPA licences take into account wider aspects covered by the Water Framework Directive, which brings in a broader set of standards, and other directives, such as the Shellfish Waters Directive and the Bathing Water Directive. The EPA licence sets out the conditions required to meet all of those. That is the primary tool we use as our engagement with Irish Water on any individual plant.

Deputy Eoin Ó Broin: One of the frustrating things for us, and more so for the EPA, is that if we were talking about water charges, as we have spent many hours doing, and the Water Framework Directive, and there was a discussion of fines, it would be on the front page of most of the newspapers tomorrow. I would be amazed if we get any coverage of this, or it will be very limited coverage, despite being in the middle of court proceedings facing a potential fine of thousands if not millions of euro.

Could Mr. Flynn for the committee's benefit talk us through an infringement process, from the initial communication from the Commission, through to the warnings and the court? It is important for that to be on the record so that people have a sense of it. As he explains that, can he tell us how frequently the EPA raises the concerns before and during the enforcement proceedings with the Department? I think the public will want to know how much notice a relevant Department or Minister have prior to the different stages of enforcement. My understanding is that the EPA does a six-month review or report because we are in the infringement proceedings. It might be useful for this committee to schedule a six-monthly review meeting. We could invite the various players in after the EPA has done that review to give us updated information.

In respect of Irish Water, Mr. Grant says plans are in place for all 38 agglomerations. Is it his understanding that the European Commission is not satisfied with the plans or with their implementation or speed of their implementation? Does Irish Water have plans for the other 127 EPA priority sites, even though they are not part of a court action?

He has said before that even if Irish Water had more money it might not be able to spend it. If we go back to what he said about data and flow meters, planning permission is not needed for those. I would have thought that for many of the smaller agglomerations that is an area of capital expenditure where Irish Water could do with more money in the short term. If current investment is between €200 million and €300 million I would have thought relatively small increases in that, particularly in terms of flow meters and assisting with data collection, could make quite a big difference but I would be interested to hear what Mr. Grant has to say about that.

Could he outline the year-on-year capital investment expenditure in this area of Irish Water's capital investment programme 2017-21? If he does not have it in front of him could he send it to the committee because we would all be interested in that?

Acting Chairman (Deputy Pat Casey): I would like to make a few points before the witnesses respond. First, do we know what impact the surface water accessing wastewater treatment plant has on the plants? If it is having a significant impact is there any way of mitigating it?

The witnesses mentioned a wastewater treatment plant in my constituency, Arklow. I suppose they are right, that was not a result of lack of investment. It was a result of a process dragged through the national and European courts. It begs a question because that case has gone on for 20 years. One individual has held up the common good of Arklow because the person has the financial resources to drag a wastewater treatment plant through the national and European courts. I appreciate Irish Water has moved the site and is now entering a new process which we hope will be submitted to An Bord Pleanála at the end of this year but that individual is sitting there and I live in fear for the people of Arklow that the common good is not outweighed by the rights of an individual. I have some reservations.

We mentioned sustainable funding a few times. With the loss of domestic water revenue, there are two other sources available: commercial water in and out and connection fees for connection to wastewater treatment plants. We know there are multiple tariffs for them because Irish Water inherited the local authority regime. Is there any proposed harmonisation process whereby there will be a national tariff for commercial water in and out and one for connection fees to wastewater treatment plants?

In respect of the EPA, we mentioned Gweedore not being under its control because they

are individual septic tanks and we mentioned the national inspection plan. Who monitors that plan? Is it monitored by the local authority? Does the EPA have any role in seeing how it is rolled out and kept up to date?

While, rightly, we focussed attention on the 127 non-compliant plants, are we monitoring the remaining 870-odd wastewater treatment plants? Do we have warning systems to ensure another ten, 15 or 20 are not added to that list annually because we are not investing in mitigation?

Mr. Dara Lynott: To start on the infringement process, I suppose it is no surprise to anyone. This directive came in many decades ago. The legislation in 2007 on licensing these wastewater treatment plants was the direct result of an infringement against this directive. As regards communications, it is important to state the EPA is an independent agency. It provides its own independent data and reports. Those reports, along with periodic requests from the Commission directly to the member state, quite often form the basis of the source of data it would use to determine whether or not the directive is being complied with.

Deputy Eoin Ó Broin: Are they annual reports that the EPA produces?

Mr. Dara Lynott: Annual reports are produced which are publicly available on our website. As we meet, through the Department, with the Commission, they go directly into our website and the data can be accessed.

Deputy Eoin Ó Broin: Therefore, between 2007 and 2013 when the current infringement proceedings started, there would have been annual reports to the Department telling it there were problems with the levels of compliance.

Mr. Dara Lynott: Those reports are published publicly every year. Once an infringement case starts - it tends to start, as one would expect, through a letter - there is not so much an ongoing correspondence but rather, as an independent agency, we provide independent data to support any arguments that are being made by the member state to the Commission on that. We also regularly attend package meetings with the Commission to provide that data, but we are there as an independent agency whose role is to collect those data and publish them.

Mr. David Flynn: I will turn to some of the questions we had on monitoring the national inspection plan. The current national inspection plan for septic tanks was written by the EPA. It is then given out to local authorities to conduct the inspections. We do an annual review of that inspection plan each year. Later on this year we will be starting the next version of the national inspection plan. We will monitor its implementation and will take the results and use that learning in the development of the next national inspection plan for septic tanks.

As regards the 127 sites and remaining ones, we get all the monitoring data back from Irish Water. Irish Water is monitoring at an operational level each of its plants. There are requirements in the licence in terms of environmental monitoring that Irish Water has to provide back to us once a year. We also conduct our own monitoring. On a one in three-year basis we will be across every single licence site in the country, of which there are currently approximately 505.

As was rightly pointed out, because Gweedore does not have a network at the moment, it does not come under the EPA until the network is in place. Once it does, it will become an agglomeration under the regulations, will require a licence and will become part of the normal process.

Ms Sheenagh Rooney: I will address the query about non-domestic tariffs. As the economic regulator, the CER oversees the approval of Irish Water's tariffs for non-domestic customers and also their connection charges. At the moment we are operating under a business as usual process, as has been indicated, so we are currently living with the existing local authority charges. However, we have commenced a project with Irish Water which involves a lot of stakeholder engagement. Irish Water is working on proposals for an enduring non-domestic tariff regime in future. The timing for that has been slightly delayed because it is linked somewhat to the joint committee's deliberations. We would hope to receive proposals from Irish Water on its non-domestic plans perhaps by the end of this year. We would seek to consult on those in 2018.

We currently have approximately 500 different tariff categories for non-domestics in the country, which is not ideal in terms of transparency, simplicity or equity. That major project will involve much stakeholder engagement.

On the revenue side, Deputy Ó Broin referred to funding for capital over the years. We see capex investment ranging from €562 million in 2016 upwards to €629 million in 2018. It is, therefore, increasing somewhat.

Deputy Eoin Ó Broin: That is across all the areas of capital investment.

Ms Sheenagh Rooney: That is across all the particular areas.

Deputy Eoin Ó Broin: Is the same consequent increase applicable to investment in wastewater treatment facilities?

Ms Sheenagh Rooney: Out of a total investment of $\in 3.5$ billion, approximately $\in 600$ million of that is the subject of this particular infringement we are now talking about.

Deputy Eoin Ó Broin: Over what period of time?

Ms Sheenagh Rooney: That is in the latest capital investment plan from 2017 to 2021.

Deputy Eoin Ó Broin: How does that \in 600 million relate to the Minister's and Irish Water's estimate that it will cost \in 1 billion to bring us into compliance with the directive? That is obviously \in 400 million short.

Ms Sheenagh Rooney: That would be for this venture beyond, I would imagine.

Deputy Eoin Ó Broin: No. The substantive compliance is up to 2021. If Irish Water is saying that up to 2021 it is \in 1 billion and Ms Rooney is saying it is \in 600 million, surely that means there is going to be a problem, unless I have misunderstood the figures.

Ms Sheenagh Rooney: It is €623 million in the five-year period from 2017 to 2021 for this particular infringement.

Deputy Eoin Ó Broin: So that means it is €400 million less than what the Minister has told us he needs.

Ms Sheenagh Rooney: It is €286 million in the period post-2021. They were the figures we presented, but there could be pre-2017 expenditure which is not included in that figure.

Acting Chairman (Deputy Pat Casey): We will move on to Mr. Grant and will come back if Deputy Ó Broin wants to.

Mr. Jerry Grant: We will come back to the committee with expenditure profiles year-on-year for wastewater because they are helpful. The figure of €623 million is 2017 to 2021, specifically on these projects.

Ms Sheenagh Rooney: Yes.

Mr. Jerry Grant: There will be a cash spend on these projects. For example, Ringsend will go on for at least another year or maybe two years. The cash tends to come behind the project, so we are projecting the cash as well as the build-out cost. We will have a number of schemes that will run beyond 2021, but we expect to be compliant in Ringsend by 2021. The best thing for us to do is to set it out year-on-year and provide that to the committee.

I want to start at the end by agreeing with Ms Rooney on the commercial tariffs but also on the connection charges. We will be making a proposal on connection charges earlier than that, in the coming months, because there is a programme on that. We think it is extremely important because we have a huge variety of charges across the country, so this will bring about a standard set of connection charges. It will go through the same process of submission and consultation that Ms Rooney outlined. It will certainly regularise that.

I will now pick up on the questions. There are plans in place for all the priority sites. If one takes, for example, the 44 that had no treatment, they had to start with feasibility studies. We appointed consultant engineers to put them together. We put them out in bundles of five to ten so we could get a much quicker delivery of solutions. We have a number of constraints and the supply chain is part of the issue as well. We plan on putting out some of that work to what we call early contractor involvement. In other words, we will put it out early and get the contractors to support the design, or offer design solutions, and then go for planning on the basis of those solutions in the hope of fast-tracking delivery. We expect to be letting contracts with five to ten schemes in a single contract, as part of the future supply chain management approach. That is very different from what we have been doing up to now where, by and large, we have been tendering individual projects. We are in the process of engaging with the contracting industry around how that will happen, as well as looking at the contracts arrangement and models for all that.

As regards the question of money, I would not suggest for a minute that we would not take all the money we could get. However, given the time it takes to get projects through, one needs to look at the profiling. The real challenge for this country will be to sustain the level of funding and keep the graph going up, and keep the plans and programmes behind that. There are limitations on the supply chain and even on the planning system as to how many projects one can take through at a time. Nevertheless we are actively trying to spend as much money as we can on doing the right things.

If one turns on the tap and then turns it off again that will ruin value. One can really destroy value and delivery by doing that. Therefore, one has to plan capital delivery in order to make it efficient. That is where the regulatory model as applied to utilities in other countries has demonstrated value. By having that sort of programmed approach, one can do things such as clustering projects, having early contractual involvement, and supply chain relationship management approaches. With the money and a five-year certainty, one can do those kinds of things. If there is any doubt about that, one is unlikely to get value, efficiency and timeliness of delivery. Surface water is an interesting and challenging issue. I will take the example of Cork city but it can be applied to most urban areas. In Cork city we have a modern treatment system which treats to a very high standard and a lot of money was put into collecting all the foul sewers.

What we have in the centre of Cork in the Lee Estuary is the discharge out of sewage whenever it rains and we take in saltwater on high tides, which wrecks or complicates the treatment process. To address and figure out what the problem is and its scale, we have to spend a number of millions of euro on CCTV cameras, surveys and models to investigate where it is coming from because we are speaking not about pipe sewers but old stone culverts and brick culverts. It is a very big problem. It is likely to result in probably tens of millions and maybe hundreds of millions of investment in a city such as Cork. In Dublin it will be similar. Throughout the country it will involve huge investment in the period beyond 2021, and for the next 20 years in fact.

This is a great example of something we cannot solve today with money because we do not know what the answer is. We do not even know what the problem is. What we are trying to do is build these models that will define the rainfall response and track back through CCTV and investigation. We will end up relining a lot of the culverts using glass-reinforced plastic, GRP, liners and so on. It would be really helpful if we could remove stormwater altogether because it adds costs and complications to the treatment process. In central town areas it is extremely difficult to do and, frankly, it would be very disruptive if we had to try to separate out the pipes.

There is also a missed connection issue because we have foul sewers going into storm sewers. The resolution of this type of issue will take years. Such issues have an impact, which is why Thurles and Roscrea networks will take a little bit longer because we are preparing the surveys that will lead to the works. It will just take that bit longer. If we went in and tried to solve it now without the information we would waste money and we probably would not get the answer or the right result.

As for Arklow, we have a number of schemes and I will not go into specifics. Certainly, if we look back over the past 20 years a number of schemes stopped dead in their tracks because of objections. An Bord Pleanála and the strategic infrastructure Act have streamlined the process a bit but recourse to the courts and to Europe is something to which citizens are entitled.

Deputy Eoin Ó Broin: In reply to a parliamentary question on 21 March the Minister, Deputy Coveney, stated "With regard to the 38 agglomerations identified in the current EU infringement process, Irish Water estimate that investment of \in 1bn in waste water treatment plants is necessary to ensure adequate treatment of waste water from these urban areas." My interpretation of this is it will cost \in 1 billion to ensure compliance. If we are talking about a figure of \in 620 million from 2017 to 2021, that is \in 124 million a year. I appreciate Mr. Grant will send us more detailed figures but I am worried if these figures are accurate-----

Mr. Jerry Grant: €180 million of the €1 billion has already been spent.

Deputy Eoin Ó Broin: It has been spent already.

Mr. Jerry Grant: Yes. The Minister was giving the figure from 2014 to 2021, which is the total period.

Deputy Eoin Ó Broin: Perhaps he did not understand that when he was answering the question because it is not clear from the answer. This still leaves Irish Water significantly short, if its annual investment is $\in 124$ million. The EPA stated that in the early noughties, it was approximately $\in 300$ million a year and then fell to $\in 200$ million. Now Mr. Grant is speaking about $\in 124$ million a year over the next five or six years. I would really like to see the figures over a longer period of time, if they could be provided to the committee, because I am concerned by this.

The EPA representatives have been very diplomatic, as was its spokesperson on "Morning Ireland" this morning, but I am looking for a straight answer if possible. If the programme as outlined in Irish Water's capital investment programme is implemented, is the EPA satisfied we will be in compliance with the directive by the end of the programme? Does it not get very frustrating whereby year after year prior to infringement proceedings the EPA warns the Government the system is not working and does not meet the legal obligations of the State, infringement proceedings then start and the EPA continues to warn it? Here we are, facing potentially thousands if not millions of euro of fines and there still is a question mark over whether levels of investment are adequate.

Senator Grace O'Sullivan: The Commission initiated the infringement against Ireland in September 2013, followed by warnings in September 2015 and September 2016. The witnesses must be frustrated because the warnings have been made but the action is not happening.

Acting Chairman (Deputy Pat Casey): Before we go back, just to clear things up, is Deputy Ó Broin willing to receive written answers on the funding?

Deputy Eoin Ó Broin: That is what I am asking for, absolutely.

Acting Chairman (Deputy Pat Casey): We will get it back to the committee rather than going backwards and forwards here trying to find €100 million.

Mr. Jerry Grant: Most of the overhang cost has to do with networks and what we think will be major investment in Cork city drainage networks. The treatment plant expenditure will be largely completed. A total of &24.5 million or &25 million is still to be spent in Ringsend, which I indicated because it will continue, but the rest of it is almost entirely with regard to pipe-laying work in cities and towns. We will go through the detail and provide a written response, which is even better.

Mr. David Flynn: In response to Deputy Ó Broin, starting from this point in time the programme is laid out to 2021. Given, as Mr. Grant outlined, the supply chain issues in Ireland and the capacity available to do this type of work, it is an ambitious programme to 2021. It will bring us largely into compliance, apart from the three or four sites left beyond 2021. Be under no illusion: it is an ambitious programme. It will need to be funded and resourced and the supply chain issues will need to be sorted out. It assumes no significant planning risks coming into the process. As for our continued warnings, our job is to bring these issues to light with regard to water, wastewater, climate change and other issues, and we will continue to do so until the issues are resolved.

Senator Grace O'Sullivan: With regard to climate mitigation, stormwater and the projected costs, can Mr. Grant provide us with information on how Irish Water is preparing for this?

Mr. Jerry Grant: I can but I certainly cannot predict accurate costs at this point. The studies I referred to regarding the Dublin and Cork main drainage schemes use various models to predict how rainfall intensities might increase. We have clear evidence that intensities are increasing and we have what are called pluvial summer storms that are causing flooding. We are trying to factor in these. We are also factoring in changes in tide levels because they impact on our overflows. It is clear huge investment will be driven and we believe this will happen at the back end of the water services strategic plan. Quite frankly, we will not have the capacity to do it earlier and we probably will not have much of the information because of the amount of work that needs to be done. We also have to look at our sites, particularly many of our wastewater

plants, because naturally enough, they tend to be proximate to rivers and the coast. We think we will have to spend quite a bit of money on the defence of our infrastructure over the period but it is a significant cost for which we have put in a notional figure. In time I have no doubt it will become a very big challenge.

Deputy Eoin Ó Broin: Am I right in saying six-month reviews are done on the progress on this work or did I just invent this from somewhere?

Mr. David Flynn: There are a couple of things we do. We do a six-month update on the 127 sites on the priority site list. We do the annual wastewater report in the autumn of each year. In terms of the European Commission case itself, the Department does updates on a regular basis or on a timetable.

Deputy Eoin Ó Broin: When the six-month update on the priority sites is done, would be possible to send it directly to the committee clerk?

Mr. David Flynn: That is no problem.

Deputy Eoin Ó Broin: That would then alert us and we could set in train the invitation to come back to this discussion. It would be useful for us to do it with this frequency.

Mr. David Flynn: For information, in terms of timing, it has just been completed so it will be in approximately six months' time.

Deputy Eoin Ó Broin: Perfect.

Acting Chairman (Deputy Pat Casey): With regard to surface water, I am more focused on smaller towns and villages where we probably will not see capital investment for a significant number of years as the focus will be on larger projects. From the few I have dealt with over the years, one could say capacity of the plant has been reduced by approximately 30% because of surface water entering the system. Is there any way that surface water in smaller towns and villages that do not come under the capital programme and review can be addressed?

Mr. Jerry Grant: Realistically, in the majority of cases we will end up installing, and we are installing, storm balancing tanks at the inlet of our works so that we can get the plant to cope better with the flows. We consider opportunities whenever there is a road reinstatement project or a road surfacing project by a local authority, for instance. It is very expensive to take storm water out of the sewer system. In general, it is not economic to do so. Our response, in most cases, is to try to deal with it at the plant by installing a storm balancing tank. It means that the tank temporarily overflows when it rains and the water is brought back into the system. That was not typically provided until relatively recently in most plants. It is required in order to deal with Irish conditions.

Acting Chairman (Deputy Pat Casey): I thank all of the witnesses for attending today and engaging with the committee. We look forward to meeting them all again in the near future. We will ensure that we invite the Department to attend on that occasion.

The next meeting of the joint committee will take place at 9.30 a.m. on Wednesday, 24 May 2017. The meeting will be held in private.

The joint committee adjourned at 11 a.m. until 9.30 a.m. on Wednesday, 24 May 2017.