



GUERNSEY

WATER

ANNUAL

REPORT

2012



GuernseyWater

A DIVISION OF THE PUBLIC SERVICES DEPARTMENT

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foreword

2012 has proven to be another successful year for Guernsey Water, with a number of highlights that have been achieved thanks to the commitment and abilities of the team. On behalf of the Public Services Board and the whole community, **I thank them all.**

After the government elections of 2012, I was delighted to take on the role of Minister for the Public Services Department (PSD), and **I was excited with the prospect of working alongside the staff that provide lifeline services for the islanders of Guernsey.** A year into this role (at the time of writing) and it has indeed been an enjoyable challenge, and it has been fascinating to work on large-scale issues that engender such passionate reactions from the public.



The **official amalgamation of the wastewater function with Guernsey Water has been successful**, and I believe we will see further benefits and efficiencies from the joint body as time goes on. The PSD Board is always keen to see its business units operate in a **commercial and self-sufficient manner**, and we are pleased when we see innovation in operations and working methods such as those at Guernsey Water.

It is planned that my Board will soon be bringing our revised report to the States of Guernsey on the **future governance of the business units** under the umbrella of PSD. Discussions have been ongoing with the individual units about the pro's and con's of different governance models, and it's safe to say that **there is no 'one size fits all' model** that will accommodate all units. Ultimately we are looking to move the units in a direction that will allow them to operate to the best of their abilities **while providing the best possible service to our customers**, the Guernsey public.

I am delighted to report on the successes of Guernsey Water during 2012, including important capital projects, high water quality and storage levels, low number of burst mains and the reduction in cesspit loads due to wastewater network extensions.

We are fortunate in Guernsey that **our water storage infrastructure is strong**, and that Guernsey Water is proactive in ensuring that there is plenty of storage capacity for rainwater and that pumping stations are optimised so as to catch as much precipitation as possible. This has helped towards the fact that **there have been no water supply restrictions in recent years.**

Results from the customer satisfaction surveys continue to tell a very positive story - **the overall customer satisfaction rating recorded in 2012 was 93%.** This is the result of the business' efforts to be as customer-focused as possible, including specialist staff training and the increasing use of electronic communications. **The next 12 months promise to be exciting and challenging in equal measure** both for Guernsey Water and PSD as a whole.

I am pleased to be associated with such a successful undertaking as Guernsey Water and I look forward to its continued success in the future.

PAUL LUXON
MINISTER, PUBLIC SERVICES DEPARTMENT

“ We are looking to move the business units in a direction that will allow the provision of the best possible service to our customers. ”

introduction

This annual report you are holding in your hands (or reading on a computer screen!) is a little bit different from the previous ones issued by Guernsey Water. For the first time, we have also reported on the performance of the wastewater arm of our business after the **amalgamation of the clean water and wastewater functions in January 2012**.



It has taken a bit of time to align the working processes between the two functions, but we are starting to see the benefits of putting the two entities together and completing the water cycle. Throughout this report **Guernsey Water** should be taken to mean clean water and wastewater functions.

In looking back on 2012, a number of challenges spring to mind when combining the clean and wastewater functions. The first of these was to try and **communicate the message to the public that we are now one and the same**. Staff who have experience in wastewater have started to work on clean water projects and vice versa, **but it will take time for the utility to work homogeneously and to the best of its abilities**.

Dealing with the **wastewater charge** has also been a challenge, and we have worked hard to communicate why the charge is in place, and how the income from it will contribute towards the improvement and upkeep of the wastewater network, which in certain places needs **significant investment**.

On the subject of significant investment, the development of our new **Wastewater Centre at Belle Greve** represents the largest capital project undertaken for either clean water or wastewater in modern times. 2012 saw the commencement of the project, and work continued throughout the year on the development of key elements of the project such as the **stormwater tank** (*below left*) and **inlet works**.



On the clean water side, I am delighted to report that our **water quality figure for 2012 reached an all-time high**, with 99.89% of all analyses taken passing the strict guidelines set by the UK's Drinking Water Inspectorate. This excellent result is testament to our staff, who show great skill and application in ensuring that the water that comes out of customer taps is of the highest quality possible.

2012 was an **extremely wet year**, with the highest yearly precipitation figure recorded since 2000. This helped us to record very good storage figures and ensured that **water restrictions were not needed**.

Despite this, we are constantly keeping a close eye on the latest developments regarding **water supply in the future**. This takes into account a number of factors including climate change, population levels, patterns in water demand and our water storage capabilities. While we can do little about climate change and population levels, we can still continue to be vigilant enough to **act proactively**, rather than reacting when the challenge hits us.

ANDREW REDHEAD, DIRECTOR OF WATER SERVICES
ON BEHALF OF THE MANAGEMENT TEAM, GUERNSEY WATER

“For the first time, we have reported on the performance of the wastewater arm of our business.”

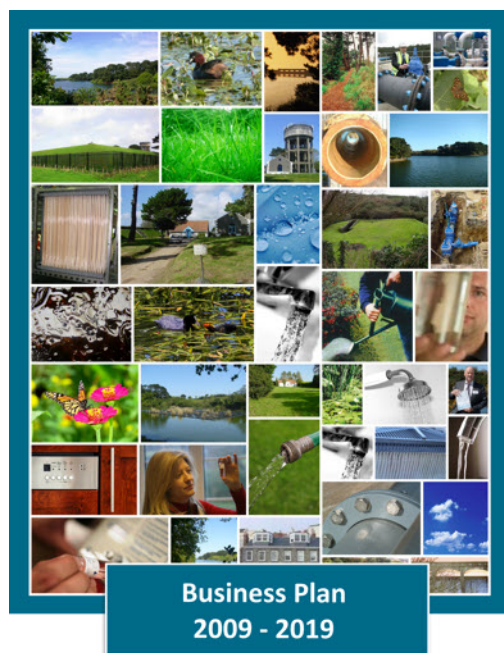
vision & key policies

Guernsey Water is a trading entity with its own set of externally-audited accounts. Although under the 'umbrella' of the Public Services Department (who act as a 'holding' or 'parent' company) **Guernsey Water is accountable for its actions, operations and resources**. Having recently taken on the responsibility for the wastewater function in addition to the clean water function, **a new mission statement has been formulated** as shown in the centre circle of the diagram below. As a result of this, a new set of key policies have been created as shown:



2012 review

A review of our progress against the objectives set for Guernsey Water in 2012 can be found over the proceeding pages. These objectives are **taken from our clean water and wastewater Business Plans**, shown below.



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This annual report represents the first time that the Wastewater Business Plan has been measured for performance against objectives, while we have been reporting on clean water since 2003. This means that while **we have plenty of clean water data to make comparison with, this will not be the case with wastewater**. However, data will improve in future years, and we are still able to measure performance against our own set targets.

All objectives are split into the Key Policies described on the previous page. Each Policy has an introduction of the type of work carried out by that section and a general review of 2012, including key events and the measurement of performance against set targets.

A detailed list of all the objectives that were carried out under each Key Policy, and whether they were achieved or not, can be found in **Appendix B** on page 30.

key policy 1 - operational maintenance

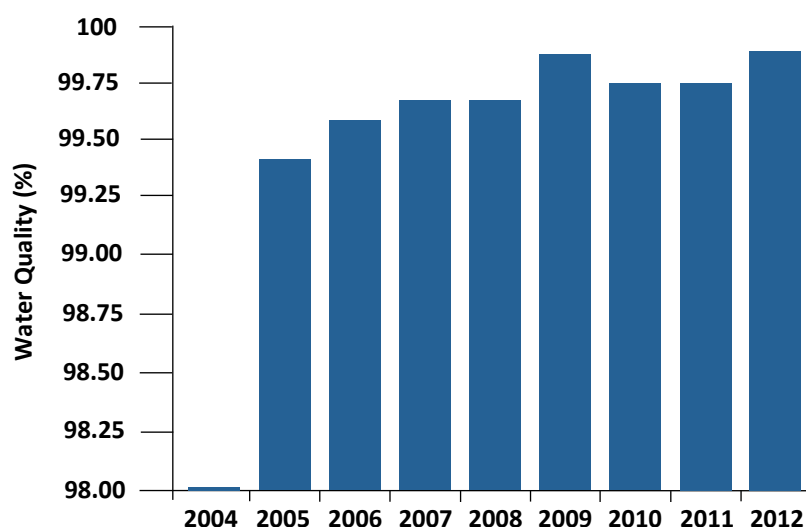
We will ensure that the operational efficiency of the business meets the expectations of customers. We will also ensure that best value is being achieved in order to provide the best possible service.



• Clean Water

It is essential that our clean water operations are efficient, provide value for money, and enable us to **create the highest standard of service for our customers** i.e. high quality drinking water. We review our operations on a regular basis, which includes looking at our chemical usage for water treatment, analysing our water sampling regime, and making sure that mechanical and electrical equipment and plant is fit for purpose.

For any water company, the production of high quality drinking water is fundamental, and Guernsey Water is no different. It is therefore pleasing to report that our **drinking water compliance for 2012 was the highest on record for Guernsey Water**, with 99.89% of analyses meeting the stringent water quality standards set by the UK Drinking Water Inspectorate. In total, 7,278 samples were taken over the 12-month period, and these were tested against over 140 bacteriological and chemical parameters. The graph below demonstrates how 2012 water quality compares against previous years:



Achieving value in terms of **operational efficiency** is very important to us, and we have set targets to meet which will demonstrate our ongoing commitment to best value. The targets concern the cost to produce and distribute water, and are shown below alongside our performance for 2012:

Section	Target Cost	2012 Performance
Water Production	Less than £410 per ML	£447 per ML*
Water Distribution	Less than £30.60 per service	£29.00 per service

**Increases in chemical costs of around 10% per annum and electricity costs by 15% have been balanced to some extent by reduced manpower costs but it has not been possible to achieve the high target that we set ourselves for water production.*

• Wastewater

The whole of the sewerage system is designed to carry 'liquid flows', and **blockages** can arise because something has been put down the toilet or drain that should have been disposed of via an alternative route. **The only things that should be flushed down the toilet are human waste and toilet paper.** Cooking oils and fats which solidify in the pipes can also cause huge problems as blocked pipes and pumps often lead to sewage flooding. The costs of removing fats, oils and grease from the system and attending to blocked sewers and pumps caused by items such as **baby wipes** are significant.



To try and mitigate the risk of blocked sewers, we have in place an SLA (Service Level Agreement) with States Works who use **jetting equipment to keep the sewers clear**. This takes the form of a planned jetting programme, but they also have the ability to jet reactively when an incident arises. In addition to this, Guernsey Water has sent letters to various eating establishments to **warn them of the dangers of sewers becoming blocked** with fats, oils and grease (FOG). An advert was placed in Les Tortevalais magazine with a similar picture to that on the left, to draw people's attention to the damage that can be caused by flushing unsuitable things into the drain.

In addition to the sewer jetting SLA, Guernsey Water also has agreements in place with States Works for **wastewater collection, maintenance of pumping stations and rising mains, and maintenance of the foul and surface water networks**. These SLA's are reviewed on an annual basis to ensure that the highest level of service is being provided for Guernsey Water and our customers, at the best possible price.

"The number of cesspit tanker loads was reduced by over 1,000 during 2012."

A new SLA is being developed with States Works which will cover all of the operational maintenance requirements for the new **Wastewater Centre** which is being built at our Belle Greve site. The centre is scheduled to be operational in August 2013.

The table below shows some of the wastewater KPI's (**Key Performance Indicators** - set targets for the business to ensure that performance is of a good standard) set up to measure the performance of the SLA service provided by States Works and the overall performance of our assets.

Serviceability Indicator	2012 Events
Number of sewers cleaned	187
Number of blocked sewers	4
Third party damage caused	1
Pumping station blockages	140
Known surcharging of sewers	1
Discharge of foul wastewater to water courses/surface water sewers	0
Discharge through CSO's (Combined Sewer Overflows) or auxiliary sea outfall*	35
Miscellaneous incidents	130

**only two CSO's were monitored for the full year*

As these indicators have only recently been set up, we cannot compare them with previous data. However, we will be able to start comparisons in next year's Annual Report.

key policy 2 - capital maintenance

We will maintain clean water and wastewater infrastructure to an acceptable and efficient standard in order to ensure the continued resilience of key assets.

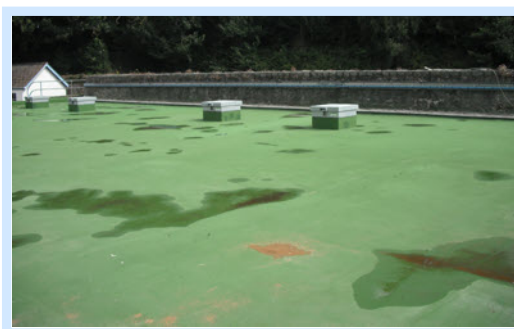
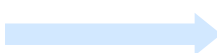


Guernsey Water has a **Capital Development Programme (CDP)** which shapes how funds are spent on large-scale projects throughout the business, whether they are one-off projects or rolling programmes. The CDP is controlled by our **Capital Investment Board (CIB)** which looks at business cases for projects and makes decisions as to whether they should go ahead, and if they do, their priority relative to other projects. This is especially important given that Guernsey Water is now dealing with both clean water and wastewater capital projects. The CIB allows us to make evidence-based decisions using a transparent process.

Our infrastructure has a replacement value of around £700million at today's prices, so it is vital that **assets are maintained and improved in a planned and structured way**, to an acceptable standard.

• Clean Water

2012 saw a number of key capital projects take place, including the upgrading of the Kings Mills WTW (Water Treatment Works) to modern-day standards. **Kings Mills WTW** is the only plant currently in use that utilises the traditional sand filtration method of water treatment, as opposed to the more modern membrane filtration used at St Saviours/Longue Hougue WTW's. The combined output of the membrane-equipped treatment plants is 20ML/day of drinking water at full capacity. However, given that water demand in summertime has **previously peaked at 23ML/day**, it is clear that a third WTW is needed to cover the potential shortfall. However, for Kings Mills WTW to do this, it had to be upgraded to be able to create a consistent supply of high-quality drinking water. As well as providing for peak demand supplies, Kings Mills production will allow **the opportunity for essential maintenance to be carried out** at the other WTW's.



The main aspects of the project to upgrade Kings Mills WTW are:

- Installation of a **new automated mechanical screen** to ensure that inlet pumps do not become blocked with stream debris
- Accommodation of **new improved liquid coagulation**, which means demolishing the existing chemical building and installing new equipment into a purpose built arrangement
- Re-engineering of four rapid gravity filters including the replacement of all plenum floor nozzles, gravel/sand beds and the addition of an anthracite layer for **improved mineral removal**
- General replacement of corroded pipework and equipment
- Poly-urea coating of the contact tank to **prevent ingress of rainwater** from the roof (see 'before and after' photos above)

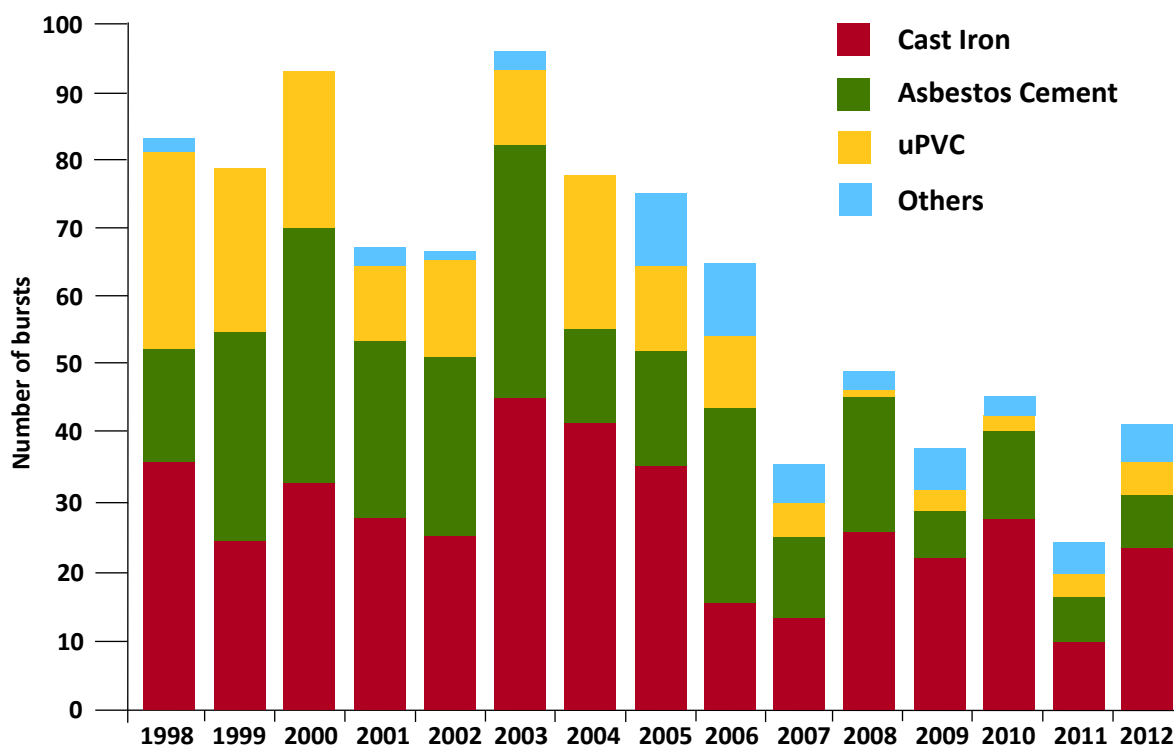
- Replacement of the high-lift pumps (from the 1930's) which enable the works to feed both the St Saviours and Longue Hougue systems
- A new computer control system to **give the whole plant greater reliability** and to link back via SCADA (Supervisory Control and Data Acquisition system) to the control room at Brickfield House, St Andrews

The project commenced in August 2012 and is due for completion in June 2013 at a cost of around £1.2 million. These works have been **engineered and project managed by our team** of experienced craftsmen and engineers.

A key element of capital maintenance for Guernsey Water is the rolling programme to keep the 500km of clean water mains in the best possible condition to **transport high quality drinking water throughout the Island reliably and efficiently**. To measure how reliable the clean water network is, we look at the number of **burst mains** and the level of **leakage**.

The graph below shows the number of burst mains each year, categorised by type of main. The mains categorised under **'Others'** are HPPE (High Performance Polyethylene) and MDPE (Medium Density Polyethylene) mains. The strategy behind the investment in mains replacement is to replace **the ageing cast iron, asbestos cement and uPVC** (unplasticised Polyvinyl Chloride) mains with the more modern and resilient HPPE/MDPE mains.

"The 2012 leakage performance was 628ML against our Business Plan target of 650ML."



The graph clearly demonstrates that **the investment has been targeted effectively**, as the number of bursts in the older mains has reduced gradually throughout the years. In addition, the total number of bursts has also reduced as time has gone on, with the number of bursts recorded for 2012 being 41. To put this figure in perspective, we experienced 82 bursts per 1,000km of water main - an average UK water company experiences nearly 200.

The graph also shows that the 2012 figure was higher than 2011 - this is mainly due to last year being much wetter, which **affects ground conditions and can create more bursts**.



Other capital projects progressed during 2012 included the upgrading of the pumping station at **Moulin Huet**. This involved constructing a new valve chamber, replacing pipework and pumps, and installing a **new state-of-the-art mechanical screen**. The new screen, which is the same design as the screens already installed at other stations such as Mare de Carteret (*shown left*) and Douit du Moulin, revolves on a conveyor belt and collects twigs and leaves before they can get into the station itself, **which could lead to blockages**.

If the station is blocked, then it cannot collect the raw (untreated) water that is so vital for our water supply. The new mechanical screens are **much more reliable** than the existing static screens, which need to be cleaned by hand when they get blocked.

Additional projects included the installation of a new PACI (Poly Aluminium Chloride Liquid) bulk storage tank with new associated pumps at **St Saviours WTW**. PACI is a coagulant that is used for water treatment - a coagulant 'sticks' smaller materials in water together to make larger particles of flocculant, which are then easier to remove through membranes or sand filtration. For more information on the water treatment processes that we use, please visit our website at www.water.gg.

● Wastewater

The most significant capital project during 2012 was the commencement of the development of the new **Wastewater Centre at Belle Greve**. This site initially had a pumping station on site which received **99% of foul liquid flows** from pumping stations around the Island. The flow would then be macerated here before being discharged to sea through a long-sea outfall. The outfall stretches out over a mile into the fast-moving body of water known as the Little Russel.

It was decided to upgrade the station as **the existing plant was 40 years old**, with obsolete equipment making spare parts very difficult to obtain. There have also been issues with odour nuisance to neighbours as a result of the inlet chamber being open, and the plant being unable to cope with storm events which lead to unscreened discharges being released to sea through the short-sea outfall

The new plant will be housed inside a building with full odour control, and will consist of **modern industry-standard screens and grit removal equipment**.

The mechanical screens (*right*) are similar to the clean water screens and remove grit and non-biodegradable material larger than 6mm in any two dimensions. Washed, compacted screenings will be transported to local landfill sites for disposal and the grit will be washed and taken to the Longue Hougue disposal facility.



Once the non-biodegradable content has been removed from the flows, the **remaining biodegradable elements are quickly broken down through natural processes** in the receiving waters without detriment to the natural environment. The scientific evidence behind this can be found in the **Intertek METOC scientific study of the receiving waters which was approved by the States of Guernsey** in 2012. It was agreed that wastewater could be discharged to sea providing that the mechanical screening was in place at the new Wastewater Centre.

The **stormwater storage tank** (stormwater is a combination of wastewater and surface water) will also **increase the capacity of wastewater that can be held** during peak flows (when heavy rainfall combines with high tides), preventing the need to discharge through the short-sea outfall.

The new storage capacity has been created to cope with a situation of **three times the normal dry weather flow for two hours**. The image on the right shows the storm tank in mid-construction, which will hold approximately 4,000m³.



Work commenced on site in March 2012 under the management of Guernsey Water and their appointed consultants, Atkins Ltd. The contract is scheduled for **completion in August 2013**, with a total project cost of around £11m.

Other capital projects during 2012 include manhole chamber and cover refurbishments in Les Palloteries and Longfrie (St Peters), Route des Landes (Forest) and La Rochelle Road (Vale). Manholes offer access points to sewers which are utilised for monitoring and maintenance purposes. It is essential that the **manhole chambers and covers are kept in good condition** to prevent problems with the sewer and the road structure.



Another important strategic programme for wastewater is the **separation of foul and surface water flows** which is vital to the future of the wastewater infrastructure (*example project shown left*).

Apart from the risk of flooding, having excessive combined flows means that the costs incurred through having to pump the surface water along with the foul water flow are elevated.

To this end, a programme of surface water separation has been ongoing as seen in the Vauvert/New Place area in St Peter Port over the last couple of years, and 2012 saw another six-weeks worth of work completed during the school summer holidays.

The next major capital project on the wastewater side is to carry out a **sewer rehabilitation programme** to ensure that the wastewater network is as resilient as possible. Sewer condition is measured through an **Internal Condition Grade of 1 - 5**, with the highest numbers being those sewers that are most in danger of failing or collapsing.

In 2012 **work started on rehabilitating the sewers** through the use of relining. This is similar to sliplining clean water mains in that a smaller diameter pipe is slid inside the existing pipe to increase its resilience, which is much cheaper than replacement. The Business Plan target was to reline 2.5km of sewer during 2012, but due to the relining contract having to be re-tendered during the year, this target was not attainable. However, in future years **the aim will be to reline between 1.5 - 2.5km of sewer each year**.

“Over 15 manholes were refurbished in 2012 – more than the Business Plan target.”

key policy 3 - demand management

We will mitigate the risk of flooding by maximising the foul system capacity. We will expand wastewater infrastructure services where funds permit. We will ensure that potable water resources are sufficient to meet reasonable demand.

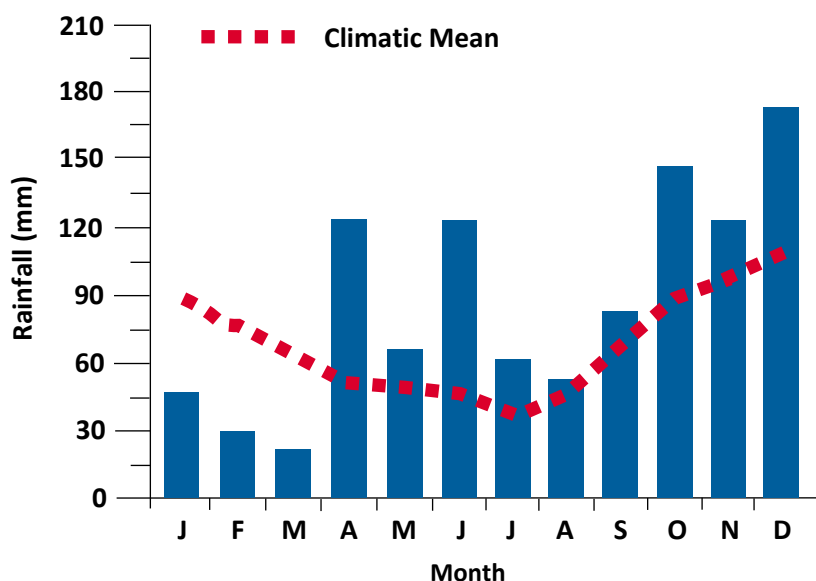


• Clean Water

The **collection and storage of precipitation** represents the first step in the treatment and distribution process for potable water. Given the uncertainty regarding climate change and its potential effects on rainfall levels, it is vital that Guernsey Water captures as much rainwater as possible.

The latest expert advice suggests that in future there will be fewer wet days but **rainfall will be heavier and more intense**, putting additional pressure on pumping stations and streams. Data from the Island's Meteorological Office demonstrates that **average annual rainfall figures have decreased over the last 150 years**, so the continuation of this trend in the future is a pressing concern, especially when coupled with predicted higher temperatures leading to greater levels of evaporation and transpiration of water.

Guernsey's storage infrastructure holds nearly a full year's capacity of stored water. With virtually no underground sources, we are almost entirely reliant on the water stored in our reservoirs.

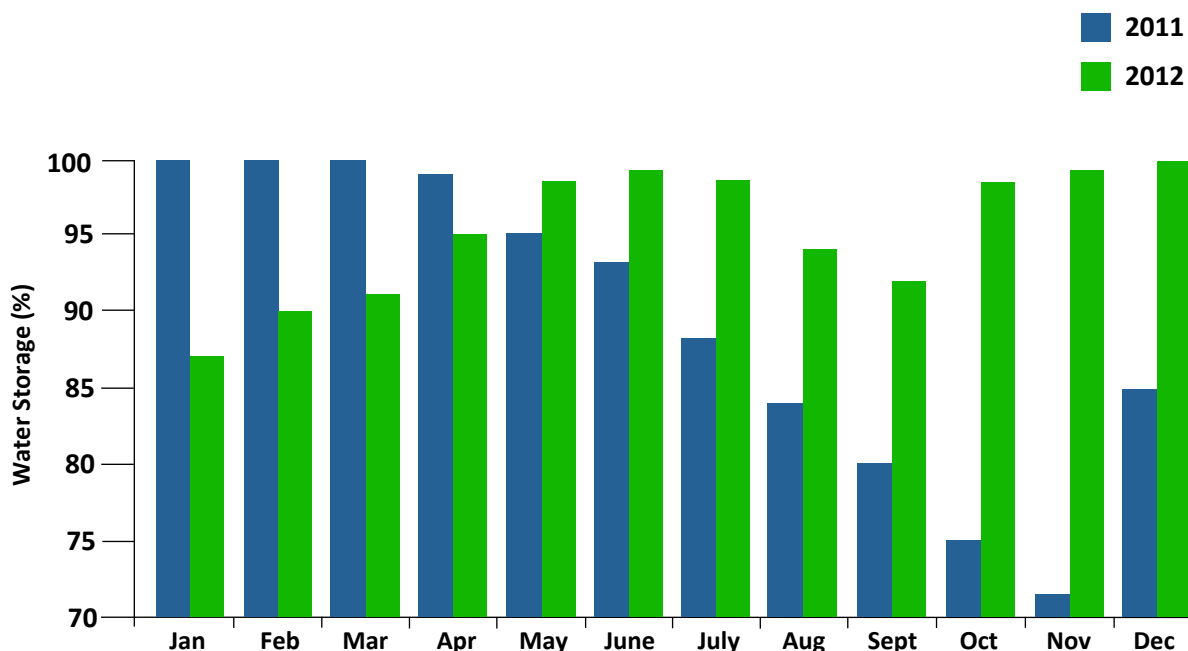


As shown on the graph, rainfall during 2012 showed some **unusual patterns** when compared to the climatic mean of rainfall in Guernsey taken from between 1970 and 2001. The early winter months were very dry, while April and June were unseasonably wet. The final three months of the year were extremely wet and contributed 42% of the rainfall for the whole year. Total rainfall for the year was 1049.4mm, which is **the highest annual figure recorded since 2000**, and is 27% above the climatic mean.

For comparison, we recorded 727.5mm of rainfall in 2011, some 31% less than the 2012 figure.

In terms of **water storage**, the graph overleaf shows our monthly water resources during 2012, compared to 2011. It is an interesting comparison to make, because the storage trend **differs significantly** between the two years. 2011 showed the expected storage pattern, with high levels early in the year before peak summer demand diminished reserves. The high rainfall in December then replenished supplies before the start of 2012.

Once in to 2012, the dry early months meant that storage was lower than usual, but as the year went on, the levels generally got higher. The last few months of the year were very wet, allowing our **reservoirs to be more or less full**.



• Wastewater

The main aspects of demand management for our wastewater function are to **maximise the capacity of our foul system** for customer connections, and **mitigate the impact of rainfall** by separating surface water connections and reducing infiltration (sea or ground water entering sewers through cracks etc). Our **Capital Maintenance** section explains more about our programme of **separating foul and surface water flows** (page 13).

It is considered appropriate to **reduce the Island's reliance on cesspits**, which would reduce the rate of deterioration (and cost) of the wastewater network and protect the environment from pollution. We can alleviate these problems by connecting as many properties as possible to the public sewer.

There are two routes through which we can get customer properties connected to the public sewer. Firstly, we work closely with the Environment Department to promote policies which ensure **new build properties are automatically connected** to the public sewer. Secondly, we continue to roll out our **network extension programme**, which prioritises the areas of the Island which need to be connected to the public sewer.

“During 20/2 we made 85 public sewer connections available to the public.”



However, network extensions are very expensive, and Guernsey Water is **proposing modest growth** of the sewerage system.

In order to effectively manage the wastewater network, it is essential to have a computerised **hydraulic flow model**, and we worked with consultants Clear Ltd during 2012 to improve the existing model. The model allows us to understand which areas of the network are prone to high storm flows and thus **where surface water separation will be most effective**. This work is continuing in 2013.

We can see areas where evidence of tidal ingress is recorded, and also use it to predict the **impact of rainfall overflow events on bathing water quality** (see **Environmental Protection** on page 16).

key policy 4 - environmental protection

We will manage our impact on the environment, particularly concerning the protection of the Water Catchment Area, the quality of bathing water and the elimination of inappropriate wastewater discharges.



• Clean Water

Guernsey Water has an obligation to ensure that by rigorous enforcement, **all streams are capable of being used for the public water supply**. We also have a responsibility to ensure that we conserve and enhance the **Water Catchment Area's natural environment**.

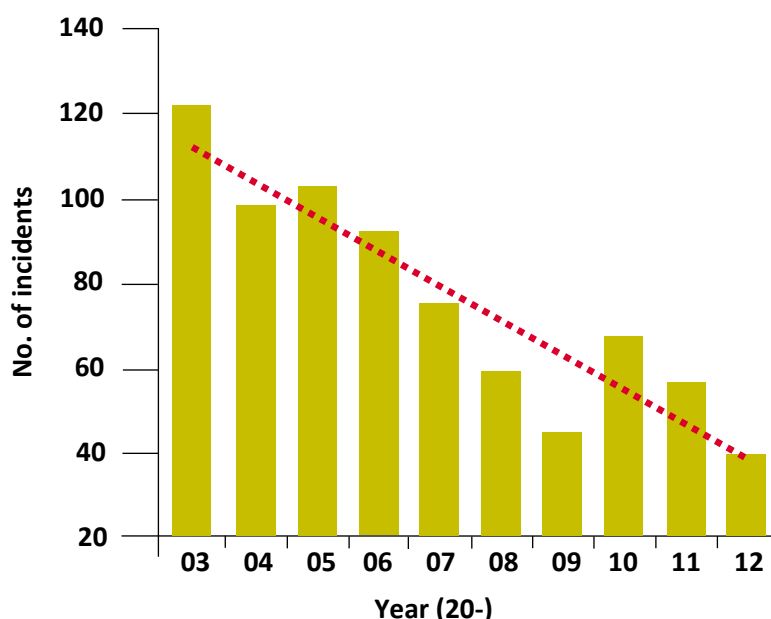


The Catchment Area (measuring 43km² and incorporating 20 streams) is the area where precipitation collects and flows into reservoirs, or is pumped in from one of the 13 stations dotted around the Island. Catchment protection is a **fundamental step in the water treatment process**, and given the size of the area it is a major task to ensure that it remains pollution-free.

Our staff work in liaison with farmers, industrial companies, the Environment Department, the office of EHPR (Environmental Health and Pollution Regulation) and the Guernsey Fire & Rescue Service to minimise contamination of the Catchment Area. We carry out site inspections throughout the Island in order to prevent the Catchment Area becoming polluted and to **ensure that pollutants are being stored and disposed of correctly**.

While we have the means to instigate prosecution in the event of water pollution incidents, we prefer to liaise with and educate potentially contaminating organisations and **build positive relationships** with them in order to **prevent pollution incidents occurring in the first place**.

The graph below shows the number of **pollution incidents** over a ten-year period. It is clear that the number of incidents has **decreased significantly**, and this can be largely attributed to the proactive approach taken by our Quality and Risk Assurance team. The red dotted line represents the linear trend over the 10 years.



The breakdown of the 2012 figures shows that the biggest incident types are due to **cesspit leakage (foul effluent)** and **fuel spillages/leakage (mainly oil)**. These two make up over 70% of reported incidents, hence why Guernsey Water puts so much time into inspecting sites and giving out guidance to people regarding cesspits and oil installations.

Also, by being amalgamated with the wastewater function, we are able to get better information on potential cesspit issues, which we can act upon quickly to mitigate any pollution.

• Wastewater

The three main aspects of environmental protection for wastewater are:

- to proactively seek regulation of our discharges to the environment
- to ensure that the impact of our discharges on stream and bathing water quality is understood and any improvements required supported by a firm evidence base
- to work with the office of the EHPR to protect and improve our bathing waters and to respond with the highest priority to any potential deterioration in water quality



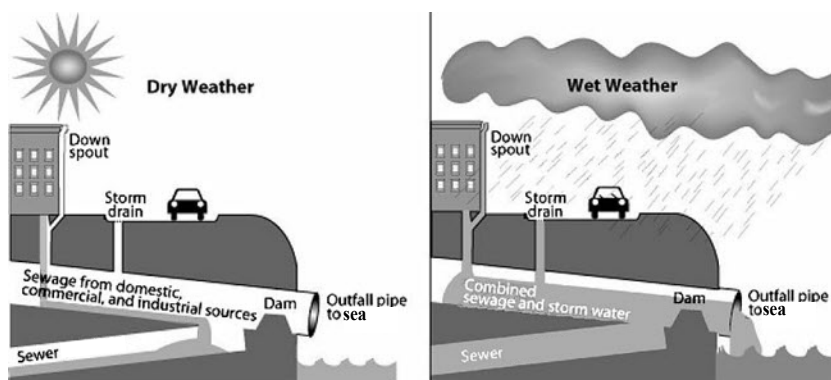
All of these aspects fed into the bathing water study carried out by global experts Intertek METOC in 2011-12, which was commissioned to provide the evidence for the States of Guernsey's decision on what level of **sewage treatment** should be provided, if any. The report was clear in recommending that **no further treatment was required** apart from the grit and non-biodegradable litter removal that the new Wastewater Centre at Belle Greve (left) would provide.

The report acknowledged that the receiving waters for Guernsey's wastewater discharge, the Little Russel, was a **unique body of water** with fast flowing currents. The evidence showed that with improved dispersal, the mass dilution of the wastewater meant that **bathing water quality standards could be met without any additional sewage treatment**. The States of Guernsey accepted this recommendation.

Carefully designed diffuser ports will be included on a new **long-sea outfall** which will discharge the wastewater over a mile out to sea. Investigations of the existing outfall have ascertained that repairs are not possible and that it would be necessary to **replace the outfall in its entirety** - this will be a major capital project. A copy of the Intertek METOC report can be downloaded from our website at www.water.gg.

"Monitoring equipment has been installed at 4 CSO's. Another 15 will follow in 2013."

Significant progress has been made **installing monitoring equipment** at a number of CSO's (Combined Sewer Overflows) around the Island. When foul and surface water combine to create stormwater, often the capacity of a **sewer can be overloaded**. CSO's are essentially safeguards that usually consist of a weir which drains off the excess stormwater and discharges it to sea. **If CSO's are not in place, flooding would occur in low lying areas**. A model of how a CSO works is shown below.



However, in accordance with our Environmental Protection policy, we will monitor all CSO's so that we know **when spills occur and how often**. This will enable us to better understand the performance of our wastewater network and its effect on bathing water quality, and **provide evidence** for the basis of future capital and operational improvement works.

key policy 5 - levels of service

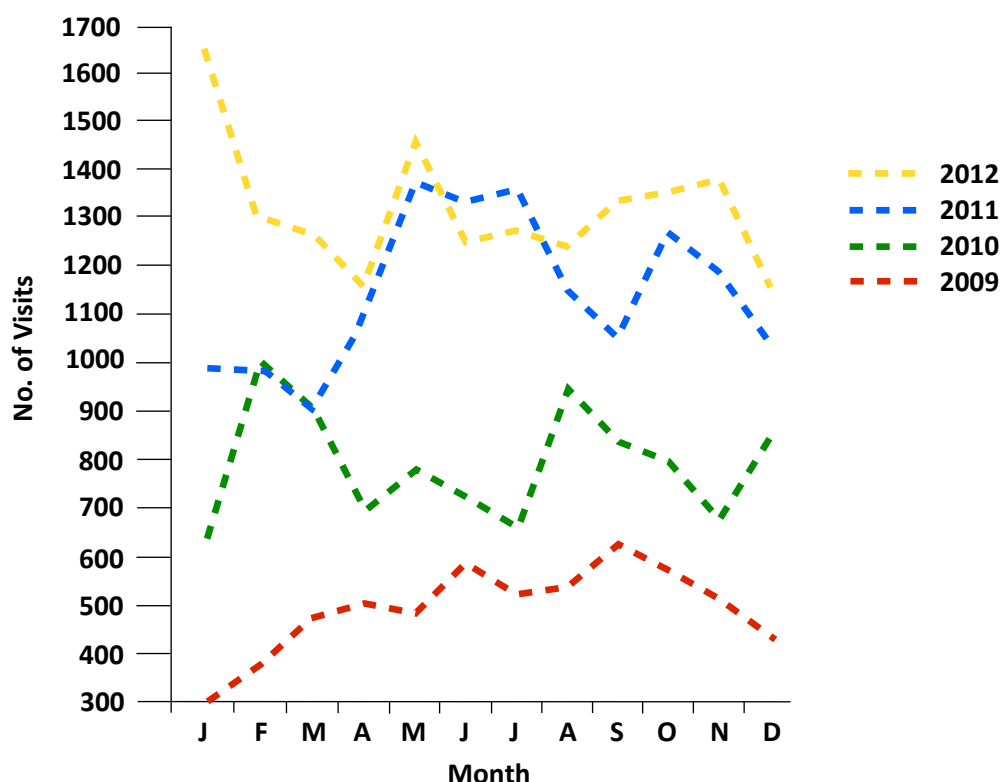
We will strive to ensure that customers receive a high quality product and service. We will fund our capital and operational programmes in such a way that provides value for money for our customers.



• Clean Water and Wastewater

At Guernsey Water, we believe that **customer service** is at the centre of all of our operations and processes, and we are always looking for new and improved ways of communicating with and serving customers.

2012 saw work progressing on our new **website** at www.water.gg, which provides an interactive and intuitive portal for customers to learn all they need to know about water bills, water treatment, how to save water, and much more. The site was developed by local web company Indulge Media (www.indulgemedia.com), and is one of the few websites hosted locally to have a **responsive layout**. This means that the site layout will 'respond' and adapt depending on how it is viewed i.e. on a desktop computer, a smartphone (e.g. iPhone) or a tablet (e.g. iPad). The site was launched in April 2013.

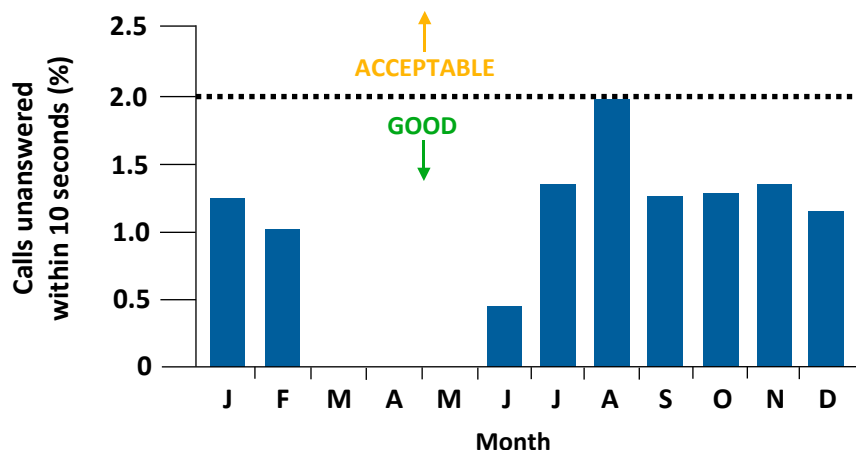


The graph above shows **website visits** since the site's inception in 2009. The graph clearly shows that the number of visits have **improved year on year**, but it is noticeable that the latter half of 2012 saw a levelling off of visitors. This could be explained by the fact that the original website was a few years old, and had limited functionality. Our new website will hopefully counter these issues, and will help see **visitor numbers rise** further over the next few years.

Our new site links in to our **social media channels** (Twitter and Facebook), which will help provide a useful two-way communication process with customers. At the time of writing, we have over 160 followers on our Twitter account, and **we have 'tweeted' over 170 times**.

Guernsey Water aims to provide **an excellent service for customers**, so in order to measure how we are progressing towards this aim we have set up some KPI's. One of these measures how our customer service staff respond to **telephone calls** from customers. By using a call logging system, we are able to record how many incoming calls are answered, and what proportion of calls are unanswered within ten seconds.

“Our 2012 customer satisfaction result was 93% against our Business plan target of 80%.”



The graph above shows the **percentage of incoming calls** on Guernsey Water's main switchboard number that were unanswered for over 10 seconds for each month (the system was down for the months March - May). The black dotted line represents the transition between 'Good' and 'Acceptable' performance as set by **Ofwat** (the UK water industry economic regulator). The results demonstrate that Guernsey Water's performance was **'Good'** for the whole year.

• Wastewater

During 2012, we started to utilise specialist computer software such as InfoNet to manage the **geo-coding of data** in combination with our InfoWorks hydraulic model. This means that any time an operational incident occurs somewhere on our wastewater network we can link it in with our hydraulic model. We have also started to include all of our **CCTV data** from sewer investigations, which will help to drive our capital maintenance programme as well as **our operational response to customer complaints**.

We can also use this data to update the Digimap system on a regular basis in order to ensure **other companies and utilities have access to our asset location data**. This project will continue into 2013. Learn more about our systems in the **Information Technology** section on page 21.



The development of our hydraulic model which started in 2012 (as mentioned on page 15) in combination with rainfall analysis will help to determine **the level of protection our sewers give during storm events**. The UK standard for protection from sewer flooding is for the intensity and duration of rainfall experienced in a **1 in 20 year statistical return period event**.

Once our hydraulic model is fully operational, we will know which parts of our sewerage system have fallen below this standard (if any). We can then assess the return period of any rainfall event which causes surcharge of our system, **reducing the risk of our customers experiencing flooding**.

key policy 6 - management & general

Guernsey Water is run as a commercial entity with an emphasis on efficiency, financial transparency, safety and good people management.



PEOPLE

Guernsey Water currently employs 87 staff with a **range of skills and disciplines**, located at our operational depot at Brickfield House, St Andrews.



At Guernsey Water, **people are our most important asset**. Staff at all levels are encouraged to participate in business improvement initiatives and are appreciated for their contribution. We are keen to ensure that all staff are challenged and stimulated in their jobs. In order to achieve this, we have initiatives such as **quarterly staff forums** in which representatives from each business section meet up and discuss current issues around the business and suggest improvements.

We also distribute our **monthly internal newsletter**, 'Pipeline', which keeps staff up to date with important matters and offers them an opportunity to feedback ideas and feelings.

The most significant event during 2012 was the **wastewater function**, formerly under PSD, being **officially amalgamated with Guernsey Water** in January 2012 with the approval of the States of Guernsey. This has allowed the business to **complete the water cycle**, and has already identified areas of synergy where either savings can be made or service improvements and efficiencies enabled. An example of this is the closer working between the Risk and Assurance team and wastewater staff who monitor cesspit issues. This has helped identify those cesspits that are potentially at risk of leaking, so staff have **more accurate information to decide** whether to action investigations.

"Quality & Risk Assurance Manager Nathan Silk became Vice-President of GOSHA."

Guernsey Water continues to prepare for its future through a number of initiatives such as **succession planning** and the support of **apprenticeships** throughout the business. We have a few young apprentices who are developing through the College of Further Education, and we have also recently appointed young members of staff who we hope can develop within the business.

Active steps have been taken to ensure **vital knowledge and experience is passed down** to potential managers of the future, and that staff fully understand their colleagues' roles and responsibilities should they be required to provide cover - this has helped to create a **multi-skilled operational team**.

We also understand the importance of **helping younger members of the community** to understand life in the workplace, and to this end a number of management shadowing and work experience placements took place during 2012 (*work experience student from the College of Further Education, Chelsea Bourgaize, pictured above right*).



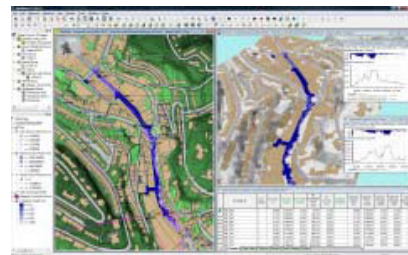
INFORMATION TECHNOLOGY

Information technology plays an essential role in everyday operations at Guernsey Water, so it is vital that the hardware and software **provide a reliable and user-friendly platform**. Without resilient information technology systems, Guernsey Water would not be able to function as a water supply company.

Here is a rundown of our key systems:

InfoNet™ - computer software application which stores information graphically and analyses CCTV data taken from the inside of sewer pipes.

InfoWorks® CS – computer software application for running a **computerised hydraulic model** to represent flows in the sewerage system and predict responses to varying scenarios (*screenshot right*).



InTouch - a SCADA (Supervisory Control and Data Acquisition) computer system which allows us to **remotely monitor key sites** from the Brickfield House control room, and ascertain whether clean water/foul water pumping stations and water treatment works are operating correctly. The plants can also be controlled remotely if any changes need to be made quickly e.g. turning pumps on/off.



- computerised billing, accounting and job costing system.



- computerised mapping system which allows accurate positioning of our assets.

“Work in 2012 saw clean water and wastewater systems merged together on Digimap.”

Work on the Digimap system (*mentioned on the right*) also included the commencement of ensuring that CSO's and EO's (Emergency Overflows - a system whereby wastewater is discharged into the sea without treatment due to an **emergency situation** e.g. a power outage, major system failure etc.) were monitored through the SCADA system.

As previously mentioned, work on the hydraulic modelling system progressed well during 2012, and will be finished in 2014.



2012 was a key year for information technology in the business. The official amalgamation with the wastewater function meant that there were a number of systems that needed to be **integrated together**, and the consideration of what the ramifications of this were in terms of cost and operational efficiency.

Both functions utilise the SCADA system, so a decision was made to utilise the clean water's system as it was more developed. All **wastewater assets will have to be migrated onto this system** in the coming years.

PROPERTY

Guernsey Water's varied portfolio of assets **provides the basic infrastructure** for collecting, treating and distributing potable water to the population of Guernsey, then collecting the resulting wastewater and discharging it to the environment.

Our assets include an impounding dam, water treatment works, storage reservoirs (Carteret reservoir shown right), pumping stations (clean, foul and surface water), service reservoirs, a water tower, wells, an operational depot, a Wastewater Centre and other various pieces of property and land.



Given the size of this portfolio and the cost to maintain all of these assets, we are always looking to **rationalise property** in order to make the most efficient use of the infrastructure. A good example of this is our water storage reservoirs - the business currently owns 16 of these reservoirs, but some of them are very small and would not be easily useable in the event of a very dry summer.

Disposing of these assets will **save maintenance expenditure and free up capital** that could be better used elsewhere.



2012 saw the development of a new **wastewater storage building** at the Brickfield site in St Andrews (*left*). This is an important asset as it allows us to keep clean water and wastewater assets stored separately, which is of course **essential for the maintenance of hygiene**.

Work started on site in June 2012, and the building was officially handed over to Guernsey Water by contractors Harbour View Construction Ltd in January 2013.

The ever-popular **Millennium Walk** had its usual programme of maintenance during 2012. The 3 kilometre walk circling the St Saviours reservoir is monitored by wardens from Environment Guernsey, an arm of La Société Guernesiaise, and they worked to keep the path clear for walkers by cutting back foliage, removing tree branches and clearing litter.

Some of the existing wooden benches that were past their useful life were replaced with **recycled plastic items** procured from States Works. These benches look similar to the wooden ones, but are much more resilient and will last longer.

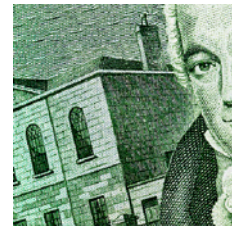
The Millennium Walk (*right*) can be investigated further by logging on to www.water.gg and studying our interactive map.



2012 also saw the further development of the Brickfield site in St Andrews, with the **old Brickfield House building** (residences) at the front of the site sold by Guernsey Water to property developers. The developers demolished the building and have created a row of three houses in its place. The rest of the site, which is **currently earmarked for light industrial units**, is with the Treasury and Resources Department as they investigate the most appropriate way to utilise the land belonging to Guernsey Water.

FINANCE

Guernsey Water is run as a commercial entity with an emphasis on **efficiency and financial transparency**. We are funded entirely from water charges (clean water and wastewater) which are **kept separate from the States' general revenue**. The only exception to this is the forthcoming Belle Greve long-sea outfall replacement project, which was included in the previous capital prioritisation process for the States while the wastewater function was under the direct responsibility of PSD.



Our aim is to keep water charges **as low as possible** while meeting international water quality and environmental standards and generating enough revenue to maintain the Island's clean water and wastewater infrastructure. Income is used for the implementation of the **Capital Development Programme (CDP)**, which ensures that our infrastructure is of a high standard and is as resilient as possible.

A list of the work carried out on the CDP for 2012 can be found on page 28, with a **Financial Statement in Appendix A** on page 29.



The biggest challenge of 2012 was combining the financial aspects of clean water with wastewater after the official amalgamation. The difficulty that this challenge presented was that the clean water function is funded solely through water charges, while the wastewater function was funded through a combination of income from charges and **revenue from the States central 'pot'**. Therefore, the process began whereby the wastewater 'take' from the States was reduced to the point where **wastewater became fully self-funding** (apart from the outfall project as mentioned above).

The next challenge is for Guernsey Water to raise enough funds to cover revenue and capital costs for both clean water and wastewater functions for 2013 and beyond. While there is some income from the wastewater charge, **it is some way below the amount needed to fund capital requirements**, particularly on the wastewater side where there are a number of important projects that need to be carried out.

The two options open to Guernsey Water are: a) **increase water charges**, or b) **seek private borrowing**. It is clear in the current climate that the first option would not be acceptable. However, it is unclear whether Guernsey Water would be able to borrow funds privately in its current governance as a business unit of PSD.

At the time of writing, PSD is preparing a paper to go to the States of Guernsey on the governance arrangements of its business units, for which Guernsey Water has put together a detailed paper. The decision on Guernsey Water's future governance will have a big impact on the strategic direction stated by the first combined **Guernsey Water Business Plan**, which will be published later in 2013.

"20/2 saw our operational surplus target exceeded and cashflow & operational cost targets met."

PERFORMANCE MONITORING & PR

Guernsey Water places a strong emphasis on **monitoring and measuring its performance**, which allows the organisation to improve working practices and provide the best possible service to customers.



Guernsey Water monitors and reports on its performance in a number of ways - through Annual Reports like this, monthly Business Plan updates, KPI's, data from customer questionnaires, and a user group which meets up quarterly to give feedback on business initiatives and key issues. **Full details of our performance against our 2012 targets** can be found on pages 30 - 35.

We also measure our performance against the indicators set by Ofwat (the economic regulator for all water and sewerage companies in the UK). The business is not obliged to do this as we do not come under UK economic regulation, but we feel that **the indicators represent best practice**. Data from the 2012 Ofwat indicator performance is detailed on page 27.

We have been in close liaison with Jersey Water and the Isle of Man Water Authority, and we have agreed to exchange key performance data in order to set benchmarks for each other's performance. These are useful jurisdictions to benchmark with as they are similar to us in terms of population and infrastructure:

WATER QUALITY - Overall drinking water quality figure for 2012:

Guernsey - 99.89%
Jersey - 99.99%
Isle of Man - 99.97%

LEAKAGE - Overall network leakage in 2012:

Guernsey - 1.70ML per day
Jersey - 3.35ML per day
Isle of Man - 6.81ML per day

Overall leakage per supply in 2012:

Guernsey - 66 litres/supply/day
Jersey - N/A
Isle of Man - 163 litres/supply/day

SUPPLY INTERRUPTIONS - Percentage of properties experiencing unplanned water supply interruptions in 2012:

Guernsey - 0.16%
Jersey - N/A
Isle of Man - 0.30%

BURST MAINS - Number of burst mains per 1,000km of network in 2012:

Guernsey - 82
Jersey - 36
Isle of Man - 98

“Our performance in 2012 shows improvement over 2011 for all the indicators bar one (burst mains).”

During 2012, Guernsey Water sent out a total of 20 **media releases** and provided another 15 statements and responses to various media enquiries. Media release topics included:

- The Sewage Treatment Investigation Charge being dropped from the wastewater charge
- Details of manhole repair works throughout the Island
- Millennium Walk information
- The release of our Health & Safety Handbooks
- Updates on the Belle Greve Wastewater Centre development
- Road closures/traffic management arrangements during various Guernsey Water projects

In addition to this, **articles and adverts were written and supplied for parish magazines** in Torteval and St Martins, and sponsorship and an image were provided for Living Streets' 2013 Country Walks Calendar.

Guernsey Water was also involved in a number of community events during 2012, including our continued involvement with **Water Aid**, whom we have supported since 2004. Water Aid is a global charity that uses practical solutions to provide clean water, safe sanitation and hygiene education to the world's poorest people (*right*). They carry out work in 27 countries in Africa, Asia, the Pacific region and Central America. **Our customers have raised nearly £150,000** for the charity since we began our support. This is an excellent reflection of the generosity of the Guernsey public and we are proud to continue supporting the charity.



Guernsey Water once again supported the **ITEX Walk** (*left*) in 2012, by supplying a number of standpipes so that walkers could rehydrate during the 38.5 mile route. In previous years, we have also supplied reusable water bottles for walkers to use during the event. The ITEX Walk **raises money for a variety of local charities**; in 2012 more than £50,000 was raised for charities including the MS (Multiple Sclerosis) Society, Guernsey Cheshire Home and the Guernsey Sailing Trust.

Every year, Guernsey Water draws up a **PR Strategy**, which contains key messages on how the business will utilise PR, advertising, web and social media to achieve its aims. These key messages are backed up by specific objectives. In reviewing our 2012 strategy, it is clear that 2012 **was a successful year for us** in terms of PR and the media, with a number of positive articles in the Guernsey Press and plenty of mentions on local radio stations.

16 of the 21 objectives were completed, and of the remaining five, four were cancelled due to other developments and one was deferred until 2013. Apart from these objectives, **other PR initiatives included:**

- Reprinted a batch of the popular Millennium Walk leaflets
- Advert printed in the Guernsey Police Crime Prevention Handbook
- Donated use of emergency water tank for GSPCA event along St Peter Port seafront
- Held a public presentation prior to the States debate on sewage treatment
- Launched our Health and Safety Handbooks for employees and contractors (electronic versions)

HEALTH & SAFETY

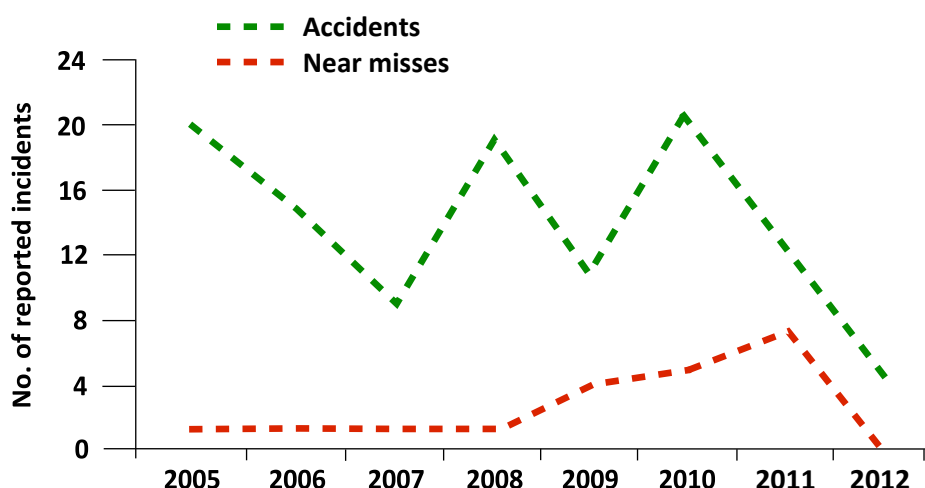
“Nothing that we do in Guernsey Water is so important that we cannot find the time to do it safely. We recognise that good safety performance, and the safety of everyone who works for us or is affected by our work, is critical to the success of our business.”

The issue of health and safety is particularly important for an organisation like Guernsey Water where staff are dealing with **dangerous chemicals, automated machinery and outside working in all weather conditions** on a daily basis.

Hygiene standards are continually maintained through staff workshops and the implementation of best practice procedures in order to achieve high standards. Regular health and safety meetings are scheduled to proactively assess situations which may have an impact on staff.



The graph below shows the number of near misses and accidents recorded by Guernsey Water in the last few years:



The graph shows that 2012 had the **lowest number of reported accidents**, which is positive, but also **no near misses**. Near miss reports can be seen as positive, as it shows that staff are becoming more aware of the need to report avoided incidents in order to prevent a repeat of the incident which could have serious consequences.

Guernsey Water's Health and Safety Policy was updated in 2012, and under the umbrella of this policy are a number of documents including the Health and Safety Handbooks, Safe Working Procedures Manual and Confined Spaces Procedures.

All of these documents can be viewed on our website (www.water.gg) in the **Health and Safety** section.

Guernsey Water picked up **two awards from GOSHA** (Guernsey Occupational Safety & Health Association) during their awards evening in December 2012 (*right*). The first was for our **performance in handling hazardous chemicals** and the second was the main award for **health and safety excellence in a large organisation**.

We are proud to receive these awards, which demonstrate our staff members' attitude towards a **healthy and safe working environment**.



ofwat 'director general' indicators

In 2009, Guernsey Water adopted performance indicators set by Ofwat (see box below right) known as the 'Director General' indicators. These KPI's are used by all water companies in the UK for reporting to Ofwat and are the benchmark for measuring performance.



Note: The indicators marked with an *asterix have not been reported on for 2012, as we require a Contact Management system to do so. This should be in place in 2013.

The indicators (which have been slightly amended in order to reflect Guernsey Water's circumstances) are:

- **GW1 - Inadequate Pressure**
- **GW2 - Supply Interruptions**
- **GW3 - Billing Contacts***
- **GW4 - Written Complaints***
- **GW5 - Written Complaints Requiring a Site Visit***
- **GW6 - Bills for Metered Customers**
- **GW7 - Ease of Telephone Contact**

Ofwat is the economic regulator for all water and sewerage companies in the UK. They set targets and benchmarks for companies to achieve in order to provide the best possible service to customers.

Details of the business' performance in 2012 is noted below against each indicator:

GW1 - INADEQUATE PRESSURE

GOOD <0.05% / ACCEPTABLE 0.05 - 0.5% / NEEDS IMPROVEMENT >0.5%

RESULT - **Good - 0% - there were no instances of low pressure caused by Guernsey Water during 2012.**

GW2 - SUPPLY INTERRUPTIONS

GOOD <0.5% / ACCEPTABLE 0.5 - 2.0% / NEEDS IMPROVEMENT >2.0%

RESULT - **Good - 0.16% - there were a low number of supply interruptions over the course of 2012.**

GW6 - BILLS FOR METERED CUSTOMERS

a). GOOD >99.5% / ACCEPTABLE 98 - 99.5% / NEEDS IMPROVEMENT <98%

RESULT - **Good - 100% of metered customers received a bill based on an actual reading at least once in 2012.**

b). GOOD >0.15%

RESULT - **Good - 0% of meters were unread in 2012 by Guernsey Water.**

GW7 - EASE OF TELEPHONE CONTACT

a). GOOD <2.0% / ACCEPTABLE 2.0 - 4.0% / NEEDS IMPROVEMENT >4.0%

RESULT - **Good - 1.02% - this represents the number of calls abandoned (rang off) during 2012.**

b). Our current phone logging system does not record the percentage of calls lost due to all lines being busy.

c). GOOD >85% / ACCEPTABLE 75 - 85% / NEEDS IMPROVEMENT <75%

RESULT - **Good - 92% - this represents the % of 4/5 or 5/5 results from Question E in 'General' questionnaire.**

capital development programme



The Capital Development Programme (CDP) controls how Guernsey Water spends its money on major projects and equipment/systems that **add value to the business**. Much of the work carried out on the CDP improves the efficiency and reliability of the Island's clean water and wastewater infrastructures through the **creation or enhancement** of pumping stations, treatment works and the mains/sewer network. For a project to be considered for the CDP, it must have been approved by the Capital Investment Board (CIB), and be either:

- Part of the Business Plan which has been approved by the PSD Board, or
- A project that has been put before the Board separately and approved.

The CIB looks at the proposed project and must consider its importance and value compared to the other capital requirements that Guernsey Water has. A justifiable business case must be put together to prove that value for money will be achieved. The commercial test applied to any project that will require capital investment must be: **"Would a greater return on investment be achieved if the money was invested elsewhere?"**

The table below lists the major capital projects that were carried out during 2012 and the capital spend during that 12-month period:

Section	Project	Timeframe	2012 Costs
Capital Maintenance	Water mains renewal/replacement	Ongoing	£320k
Capital Maintenance	Kings Mills WTW upgrade	2012 - 13	£635K
Capital Maintenance	Longue Hougue quarry slope stabilisation	2011 - 12	£527k
Capital Maintenance	Marais Stream clean water pumping station refurb.	2011 - 13	£460k
Capital Maintenance	St Saviours reservoir bypass main installation	2012	£310k
Capital Maintenance	Belle Greve Wastewater Centre development	2012 - 13	£5.7m
Capital Maintenance	Forest Road West Tank remedial works	2012	£69k
Capital Maintenance	Moulin Huet clean water pumping station refurb.	2012	£63k
Capital Maintenance	Les Landes foul water pumping station refurb.	2012 - 13	£86k
Capital Maintenance	Northside penstock refurbishment	2012	£268k
Capital Maintenance	Les Palloteries manhole chamber refurbishment	2012	£165k
Capital Maintenance	Vauvert foul/surface water separation project	2011 - 13	£141k
Property	GW Wastewater store building development	2012 - 13	£521k
Environmental Protection	Metoc water quality monitoring	2012 - 13	£71k
General	Site security implementation (various sites)	2009 - 13	£71k

appendix a - financial statement

FINANCIAL SUMMARY

	Accounts 2012 (unaudited)		Accounts 2011*		Change
INCOME	£'000		£'000		%
Unmeasured water	3,585		3,577		+0.2
Measured water	6,550		6,153		+6.5
Unmeasured wastewater	959		784		+22.3
Measured wastewater	1,734		1,379		+25.7
Other trading (net)	316		238		+32.7
Cesspit emptying income	1,225		1,244		-1.5
Grant received	1,270		1,655		-30.3
Total Operating Income		<u>15,639</u>		<u>15,031</u>	<u>+4.0</u>
EXPENDITURE					
Operating	7,612		8,478		-10.2
Management	2,347		2,065		+13.6
Total Expenditure		<u>9,959</u>		<u>10,544</u>	<u>-5.5</u>
<u>OPERATING SURPLUS BEFORE DEPRECIATION</u>		<u>5,680</u>		<u>4,487</u>	<u>+26.6</u>
Surplus on sale of fixed assets and properties	14		1,518		
Net interest received	350		117		
Depreciation	(3,187)		(2,871)		
<u>SURPLUS FOR THE YEAR</u>		<u>2,857</u>		<u>3,251</u>	
GROSS TOTAL CAPITAL EXPENDITURE	10,345		4,702		

*The 2011 figures are restated due to the merger of the clean water and wastewater functions.

appendix b - complete objectives list

A number of objectives (set out in our Business Plans) cascade from the six Key Policies outlined on page 6 and these are reviewed below and over the next few pages. Each individual objective is measured against its allotted timeframe and financial resources to give an 'at a glance' view of exactly how Guernsey Water is progressing. The following colours are used to demonstrate the progress of each objective:



Objective has been completed, or is on course for completion within time and on budget



Objective will not be completed within original timeframe and/or budget, but will be completed in due course without any negative operational consequences



Objective has either failed or will not be completed at all, and needs to be reconsidered

Guernsey Water considers all of its objectives to be SMART-compliant (**S**pecific **M**easurable **A**chievable **R**ealistic **T**ime-based) and our philosophy is to 'measure what can be measured' rather than relying on soft, anecdotal data which can be entirely subjective.

Out of the 72 stated objectives, 60 of them were classified '**Green**', 12 were '**Orange**', and none were '**Red**'. This gives an overall objective success rate of 83%. However, it should be noted that some of the '**Oranges**' were prevented from being completed due to reasons outside of Guernsey Water's control.



key policy 1 - operational maintenance

Objective	Timescale	Comments	Progress
Taking a minimum of 4,000 water quality samples, achieve 99.5% compliance for Maximum Admissible Concentrations (MAC) at WTW's	Annual	4,767 samples taken, 100% compliance - achieved	
Taking a minimum of 750 water quality samples, achieve 98% compliance for MAC at service reservoirs	Annual	788 samples taken, 99.62% compliance - achieved	
Taking a minimum of 1,800 water quality samples, achieve 99% compliance for MAC at customer taps	Annual	1,723 samples taken, 99.71% compliance - mostly achieved	
Ensure that the cost to produce water remains below £410 per ML	Annual	£447 per ML - target not achieved due to rising chemical/ electricity costs	
Ensure that the cost to distribute water remains below £30.60 per service	Annual	£29 per service - achieved	
Improve reporting on serviceability to mirror the UK's regulated water industry in order to provide hard data for the performance of our wastewater infrastructure	2012	KPI's created which can be benchmarked with other jurisdictions - achieved	

Objective	Timescale	Comments	Progress
Reduce the number of cesspit tanker loads by 1,000 each year	Annual	Achieved for 2012	
Review existing SLA's in order to achieve the highest level of service and value for money	2012	Achieved	
Develop Preliminary Treatment SLA	2012	Awaiting commissioning of Wastewater Centre	



key policy 2 - capital maintenance

Objective	Timescale	Comments	Progress
Continue quarry stabilisation works	2012	Slope stabilisation at Longue Hougue quarry - completed	
Rebuild Marais Stream clean water pumping station	2011 - 13	Work progressing to budget and schedule	
Make improvements to Moulin Huet clean water pumping station	2012 - 13	Work substantially complete	
Carry out upgrades at Kings Mills WTW	2012 - 13	Work progressing to budget and schedule	
Replace membranes at St Saviours WTW	2011	To commence in 2013	
Continue with rolling uPVC water mains replacement programme	Ongoing	6.1km of main replaced during 2012	
Carry out clean water mains extension work for properties not yet on the main supply	Ongoing	292m of water main installed during 2012	
Continue to split common services to enable more water meters to be fitted	Ongoing	2 common services split during 2012	
Proactively manage leakage to ensure that 'unaccounted for' water remains below 650ML a year	Annual	628ML recorded in 2012	
Endeavour to repair 75% of mains bursts within 24 hours	Annual	100% of burst mains repaired within 24 hours during 2012	
Replace raw water transfer main from Juas to Longue Hougue	2011 - 12	Moved to 2014	
Rehabilitate sewers using relining where suitable in order to improve reliability of wastewater network	Ongoing	1.6km relined in 2012 v target of 2.5km	
Assess condition of manholes and consider refurbishment	Ongoing	50 assessed v target of 100	
Refurbish assessed manholes where necessary	Ongoing	More than 15 refurbished v target of 15	



key policy 3 - demand management

Objective	Timescale	Comments	Progress
Keep raw water storage reservoirs as full as possible each year	Annual	Storage level of 95% on April 1st v target of 95% - achieved	
Extend the wastewater network in order to get properties onto the main sewer (finances permitting)	Annual/ Ongoing	85 connections to the public sewer made available v target of 144	



key policy 4 - environmental protection

Objective	Timescale	Comments	Progress
Remediate defective oil storage installations in liaison with oil suppliers and the Environment Dept	Ongoing	Progressing	
Utilise streamflow and nitrate monitoring data to determine the nutrient loadings of streams and to assist with water resource planning	Ongoing	Progressing	
Conduct biannual benthic surveys to monitor freshwater invertebrates as indicators of water quality of all streams within the Catchment Area	Biannual	Achieved	
Remediate defective drainage systems, cesspits, private sewers and pumping stations in liaison with the sewage department (run by States Works)	Ongoing	Progressing	
Continue to promote the safe use of pesticides and herbicides	Ongoing	Progressing	
Visit all commercial sites within the Catchment Area to conduct pollution prevention audits	Annual	100% of sites visited - achieved	
Ensure all CSO's are monitored for spills	2014	Work should be completed in 2013	
Improve the existing hydraulic model	2012	Work will be ongoing until 2014	
Ensure that at least 10/13 of local bathing waters are measured as 'Good' or 'Excellent' water quality	Annual	10/13 achieved in 2012	



key policy 5 - levels of service

Objective	Timescale	Comments	Progress
Monitor compliance to the GW Customer Charter	Ongoing	Progressing	
Monitor complaints policy and identify trends	Ongoing	Progressing	

Objective	Timescale	Comments	Progress
Purchase and implement document management system	2012	Planned for 2013	
Achieve a customer satisfaction rating of 80% through the distribution of feedback questionnaires	Annual	93% in 2012 - achieved	
Manage all CCTV data through InfoNet	2013	Progressing	
Geocode all operational issues in order to find trends and patterns	Ongoing	Progressing	
Monitor and reduce the number of discolouration complaints on a yearly basis	Annual	34 complaints recorded in 2012 v target of 34	
Monitor and review the Guernsey Water User Group	Ongoing	Progressing	
Implement a Water Safety Plan (WSP) to ensure a water supply that is safe for human consumption and meets health-based standards and regulatory requirements	2011 - 13	Progressing	



key policy 6 - management & general

PEOPLE

Objective	Timescale	Comments	Progress
Implement a succession planning arrangement within Guernsey Water	Ongoing	Progressing	
Put together a set of organisation 'values' for Guernsey Water that could be used as a recruitment tool	2012	Achieved	
Continue to support CPD within the organisation, including the support of apprenticeships	Ongoing	Progressing	
Manage sickness levels in Guernsey Water using the Bradford Factor, and use as an indicator of morale	Ongoing	Progressing	
Improve communications within Guernsey Water through the use of data gathered through repeatable employee satisfaction surveys	Biennial	Progressing - next survey due in 2013	
Incorporate an extra three posts into the wastewater function	2012	Achieved	
Investigate using term contractors to provide design and construct services for sewer rehabilitation programme	Ongoing	Progressing	

INFORMATION TECHNOLOGY

Objective	Timescale	Comments	Progress
Roll out SCADA's 'In Touch' system and make appropriate modifications to instrumentation	2012 - 13	Progressing	
Develop a new Guernsey Water website which incorporates the clean water and wastewater functions	2012 - 13	Achieved	
Merge clean water and wastewater systems together on Digimap	2012	Achieved	
Migrate wastewater asset data onto SCADA system	2012 - 14	Progressing	

PROPERTY

Objective	Timescale	Comments	Progress
Dispose of unused assets and review usage of current properties	Ongoing	Progressing	
Decommission Juas WTW and use as a storage reservoir only	2012	Will take place in 2013 once Kings Mills WTW is commissioned	
Build a light industrial park at St Andrews site	2012 - 13	Decision on land use is with Treasury & Resources Dep't (GW own the land)	
Build a wastewater storage building on St Andrews site to prevent cross-contamination between clean water and wastewater assets	2012 - 13	Achieved	
Install and maintain surveillance cameras and other security measures at Guernsey Water sites	Ongoing	Progressing	

FINANCE

Objective	Timescale	Comments	Progress
Ensure cashflows are produced, managed and targets achieved	Annual	Achieved	
Minimise Guernsey Water's bad debts wherever possible	Ongoing	Progressing	
Ensure that the operating surplus remains above £4.2m	Annual	2012 operating surplus - £4.8m - achieved	

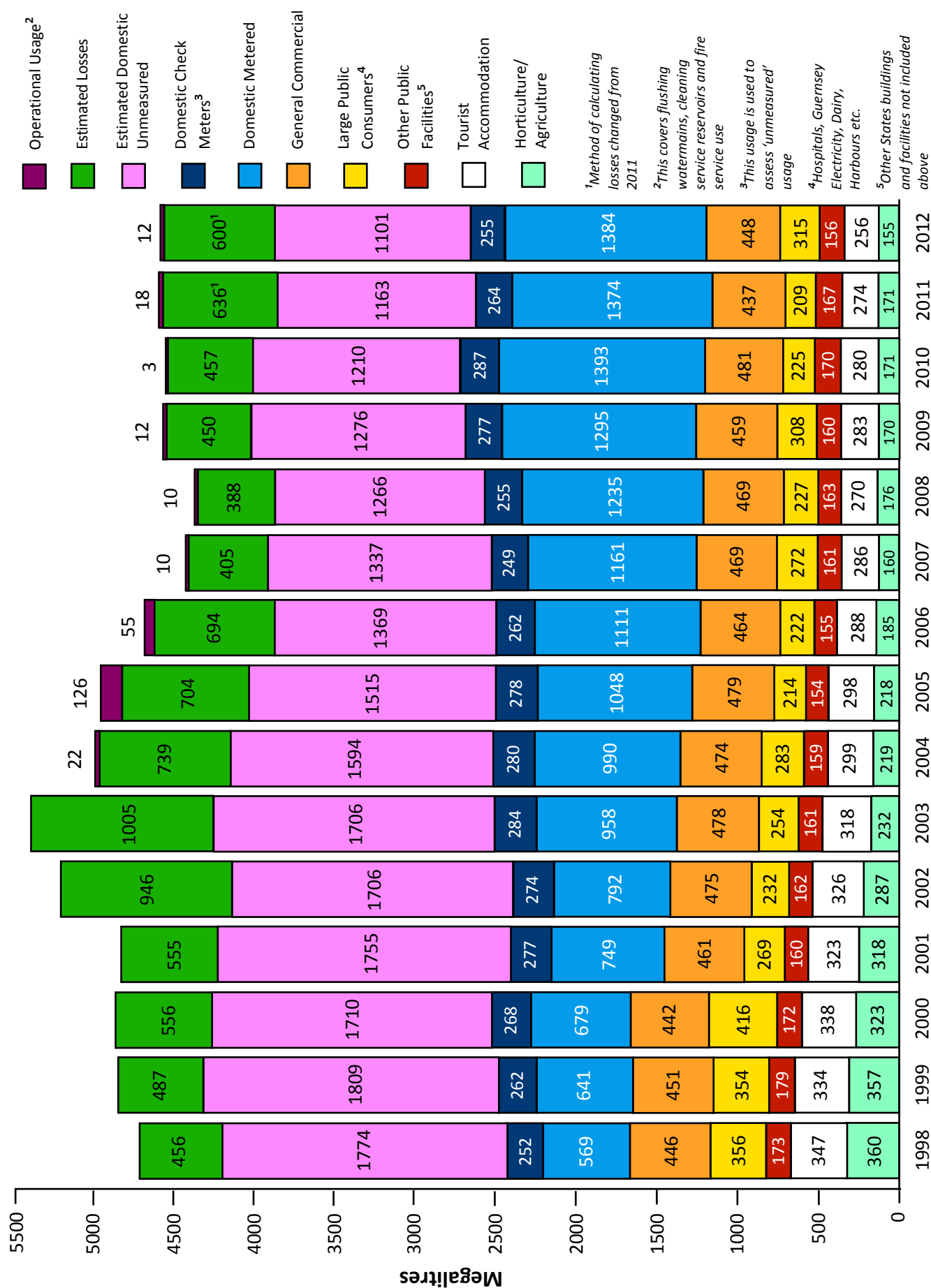
PERFORMANCE MONITORING & PR

Objective	Timescale	Comments	Progress
Maintain and review Guernsey Water's set of KPI's and continue to benchmark against similar jurisdictions	Ongoing	Progressing	
Produce a series of Annual Reports	Annual	Achieved in 2012	
Review and update a set of internal procedures	Annual	Progressing	
Review and update Guernsey Water's PR Strategy and ensure its objectives are actioned	Annual	2012 objectives - mainly achieved (see page 25)	
Keep the Guernsey Water website content relevant and up-to-date	Ongoing	Progressing	
Monitor Guernsey Water's social media channels and ensure that their use is maximised for two-way communication purposes	Ongoing	No. of tweets - 177 No. of followers - 159	

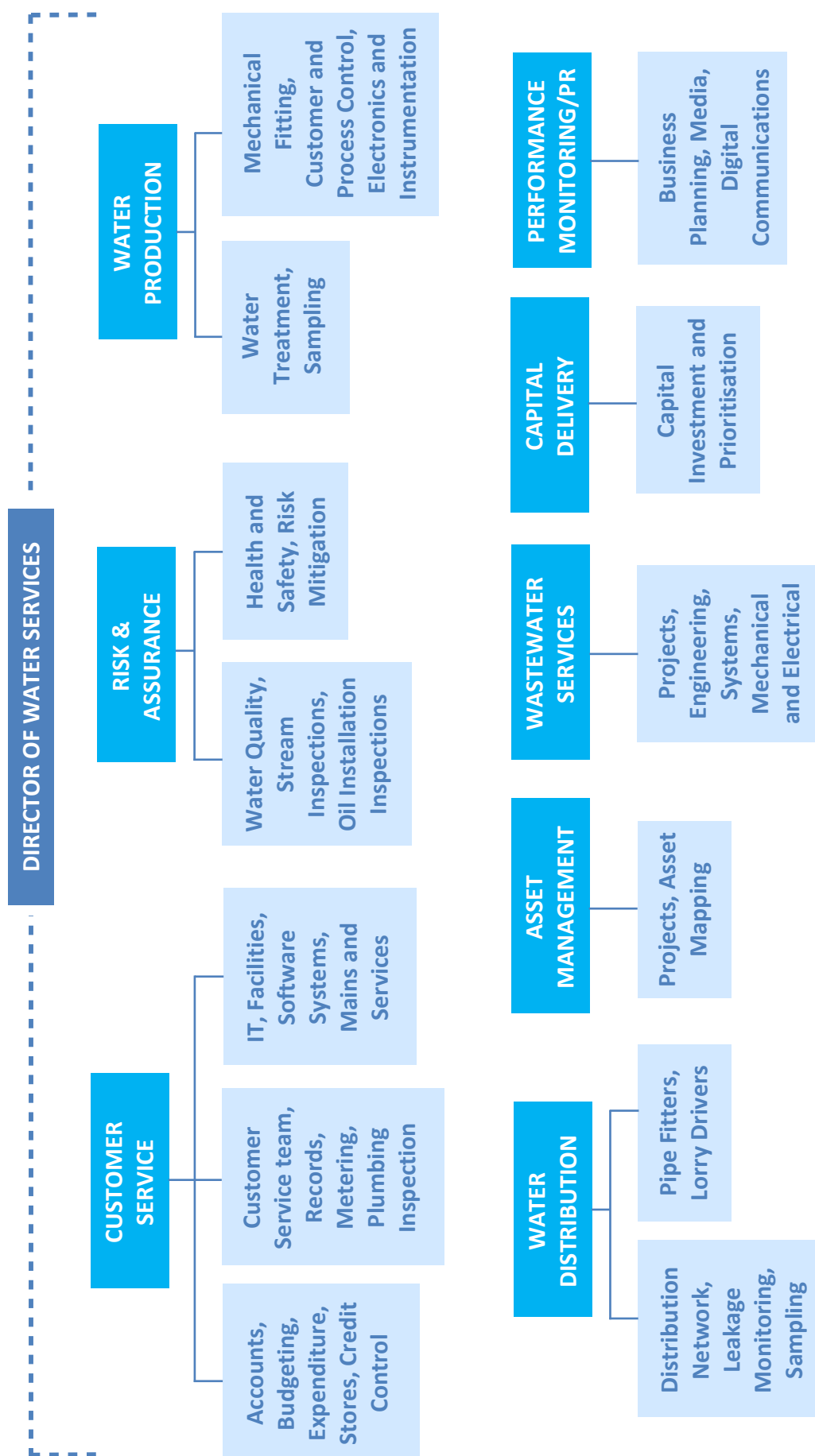
HEALTH & SAFETY

Objective	Timescale	Comments	Progress
Carry out annual reviews of Guernsey Water's Health & Safety documentation	Annual	Progressing	
Ensure that four Health & Safety meetings are held per annum	Annual	Achieved - 4 meetings held	
Continue to improve and benchmark accident statistics in order to provide a safe working environment for all staff, with appropriate facilities in place	Ongoing	Progressing	
Carry out reviews of assets in liaison with H&S consultants Coppolo & Coyde	Biennial	Progressing	

appendix c - water consumption



appendix d - business structure



appendix e - glossary

CDP	Capital Development Programme
CIB	Capital Investment Board
Coagulation	The 'sticking together' of small particles to make larger particles, which are easier to remove during the treatment process
CPD	Continuing Professional Development
CSO	Combined Sewer Overflow - a system whereby stormwater is automatically discharged to sea without treatment due to excessive flows, in order to prevent flooding
Desalination	The removal of salt from sea water in order to turn it into raw water
EO	Emergency Overflow - as with CSO, but caused by an emergency situation (e.g. power outage, system failure)
EHPR	Environmental Health and Pollution Regulation (the office of)
Flocculant	The name given to the larger particles which are formed by coagulation
GWUG	Guernsey Water User Group
Infiltration	Ground water ingress through defects in the sewer
KPI	Key Performance Indicator
MAC	Maximum Admissible Concentrations
ML	Megalitre/s (1,000,000 litres or 1,000 cubic metres)
Potable	Treated (drinkable) water
PSD	Public Services Department
Raw water	Untreated water
SCADA	Supervisory Control and Data Acquisition (remote monitoring system)
SLA	Service Level Agreement - a contracted agreement which lays out in detail how a service will be delivered from one organisation to another
Sliplining	A method of inserting a smaller-diameter pipe into an existing pipe instead of replacing it
Stormwater	A combination of wastewater and surface water
Surface water	Rainwater which enters the sewerage system through direct connections
Transpiration	The evaporation of water from leaves and other parts of plants/flowers
uPVC	Unplasticised Polyvinyl Chloride
Wastewater	Water which contains foul effluent from toilets, sinks, baths and showers
WTW	Water Treatment Works

appendix f - acknowledgements, contact us

ACKNOWLEDGMENTS

As always, I am indebted to the hard work and dedication of Guernsey Water staff, many of whom have to work in difficult situations during unsocial hours in order to ensure that we are able to provide continuous and high quality water services to our customers. Guernsey Water would not have been able to achieve the success that it did during 2012 without the commitment and skills shown by staff, so I am very grateful to them, and hope for a successful 2013!

As always, we value your feedback, so if you wish to get in touch with us either call us on 239500, or e-mail us at customer.service@water.gg. We are also on Twitter and Facebook - please come and follow us!

ANDREW REDHEAD, DIRECTOR OF WATER SERVICES

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