



2019 WATER QUALITY REPORT

Date: October 2019

Photo by Mike Lacey



IN 2019, AT LEAST 10% OF DAYS IN THE UK'S SUMMER BATHING SEASON HAVE BEEN LOST DUE TO THE IMPACT OF THE SEWAGE POLLUTION.

UP TO 80% OF SEWAGE POLLUTION EVENTS TAKE PLACE OUTSIDE OF THE BATHING SEASON (BETWEEN OCTOBER AND MAY), WHEN MANY PEOPLE STILL USE THE WATER ACTIVELY, PARTICULARLY SURFERS, KAYAKERS, AND KITE SURFERS.

DESPITE THE RECENT FINES, SOUTHERN WATER WAS STILL RESPONSIBLE FOR THE MOST CSO DISCHARGES IN 2019, WITH 571 EVENTS

SURFERS AGAINST SEWAGE IS CALLING FOR YEAR ROUND REAL-TIME WATER QUALITY DATA FOR ALL COASTAL AND RIVERINE AREAS USED FOR RECREATION AND WELLBEING.

SURFERS AGAINST SEWAGE IS CALLING FOR A 75% REDUCTION IN SEWAGE DISCHARGED INTO OUR RIVERS AND SEAS BY 2030, WITH A COMPLETE CESSATION OF EFFLUENT DISCHARGED INTO AREAS USED FOR RECREATION.

AS THE UK LEAVES THE EUROPEAN UNION, SURFERS AGAINST SEWAGE WILL CAMPAIGN TO ENSURE THAT WATER QUALITY LEGISLATION IS STRENGTHENED TO MAINTAIN AND IMPROVE STANDARDS WHEREVER POSSIBLE, AND TO ENSURE SEWAGE POLLUTION IS TACKLED.



EXECUTIVE SUMMARY

This year has seen the issue of poor water quality returning to public consciousness and highlighted at a national level. Recent reports have shown that water companies are performing consistently badly, with pollution events increasing and causing damage to local environments, wildlife, and putting human health at risk. Southern Water received record fines of £126 million for serious failures in their sewage treatment works and for deliberately misreporting its water quality performance. One of our primary mandates is to keep people safe when using the water – wherever possible people should not face elevated risks of illness due poor water quality of rivers and the ocean. Where there is an unavoidable risk, people should always be made aware of sewage and other water pollution in real time.

Analysis of data provided by the UK's only real time water quality service, the Safer Seas Service (SSS), has shown that the discharge of sewage into our ocean remains a serious issue. This year, the coastline has suffered 1,784 Combined Sewer Overflow (CSO) discharges during the official 'summer' bathing season; and that's just what's reported voluntarily by major water companies. This equates to at least 10% of bathing days lost to sewage discharge around the UK. Southern Water, despite the recent fines, was still responsible for the most sewage pollution events in 2019, with over 571 discharges. Without a significant step change, greater levels of precipitation, in combination with the predicted changes in rainfall intensity and an increase in heavier 'extreme' rainfall events, is likely to see combined sewer overflow discharges increase even further as a result of global heating. **Surfers Against Sewage is calling for a 75% reduction in sewage discharged into rivers and seas by 2030, with a complete cessation of those discharges that impact areas important to recreation and wellbeing, including designated Bathing Waters.**

Alongside this, it is critical that accurate, transparent, and reliable information be given to the public to allow water users to remain safe. It is now widely recognised that use of rivers and coastal waters play an important part in human physical health and wellbeing. With a significant proportion of water recreational activities being undertaken throughout the year, it is more important than ever to provide water quality information year-round, not just during the official Bathing Season. Of course, it's not just coastal waters affected by these sewage discharges but also inland rivers and waterways where a massive 89% of the UK's of sewer overflows discharge. It is becoming increasingly critical that all water users have the same access to water quality information to help keep them safe, and that includes those that use rivers for their recreation and wellbeing.

It seems increasingly clear from the growing body of evidence that water companies are using rivers and seas to compensate for lack of capacity in sewerage infrastructure. It is time for radical action and investment to ensure that our oceans and rivers thrive with life, and water quality is improved for people's health, wellbeing and enjoyment.



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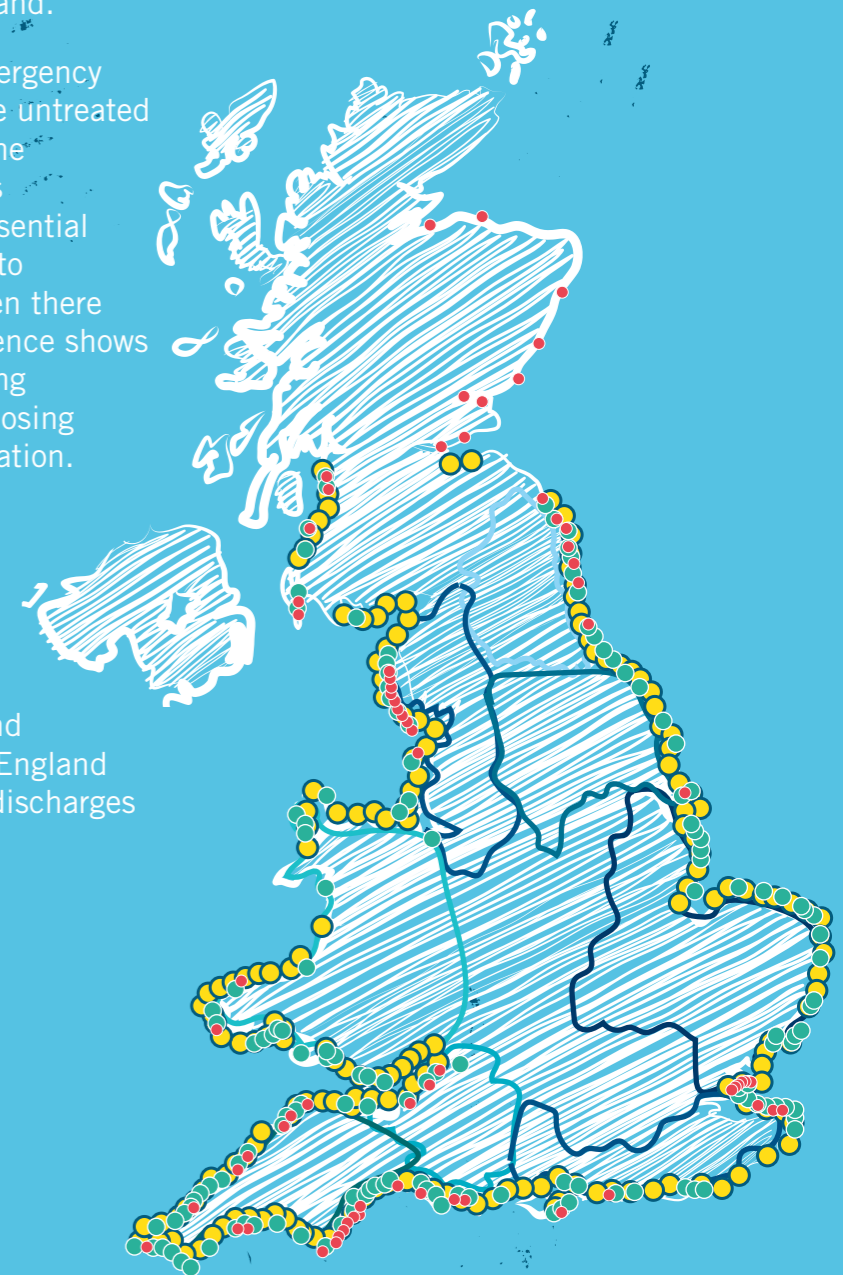


INTRODUCTION

Protecting water quality has been at the heart of the DNA of Surfers Against Sewage (SAS) since its inception in 1990 and as a result, the charity has helped deliver significant improvements in the state of our coastal bathing waters alongside other environmental charities, the Environment Agency, water companies, and other stakeholders. The charity has campaigned consistently and robustly for improved water quality legislation and regulation; and were the first pioneers of real-time combined sewer overflow discharge and pollution risk forecasting reporting for recreational water users, championing the provision of open access water quality data for all with the 'Sewage Alert Service' in 2010.

Fast forward to 2019, SAS's real-time water quality reporting is more sophisticated than ever with the launch of a redeveloped Safer Seas Service (SSS). The pioneering smartphone app alerts water users when both sewer overflows discharge untreated wastewater (Combined Sewer Overflow notifications) and when forecasting systems indicate water quality is temporarily reduced due to heavy rainfall (Pollution Risk Forecast notifications). This information empowers individuals to make informed decisions about how, when and where to use the sea at over 370 locations across England, Wales and for the first time Scotland.

Combined Sewer Overflows (CSO's) are emergency infrastructure assets permitted to discharge untreated wastewater only under periods defined in the original EU Urban Waste Water Directive as 'unusually heavy rainfall'¹. CSO's are an essential part of our sewage infrastructure designed to prevent sewage backing up into homes when there is an extreme rainfall event. However, evidence shows that CSO's are now being used with alarming frequency, polluting the environment and posing elevated health risks to those using the location. This report brings together case studies of individuals affected by sewage pollution events, evidence presented by environmental organisations and regulators, and data on coastal CSO discharges collated through the Safer Seas Service. In 2019, SAS has tracked and reported 1,784 coastal CSO discharges in England and Wales for 265 coastal locations. CSO discharges are not yet provided through the SSS in Scotland.



ALL LOCATIONS COVERED BY THE SAFER SEAS SERVICE

- CSO & PRF NOTIFICATIONS
- CSO NOTIFICATIONS
- PRF NOTIFICATIONS

¹Council of the European Union (1991). Directive 91/271/EEC on Urban Waste Water Treatment.



2019 SEASON ANALYSIS

Information regarding CSO discharges into coastal waters has been provided through the Safer Seas Service (SSS) by eight major water companies operating across England and Wales. In analysing the extent of CSO discharges, it is important to note that water companies adopt a different approach in triggering CSO discharge notifications through the SSS. It should also be noted that not all water companies share information on combined sewer overflow discharges outside the official bathing season which runs from 15th May-30th September. Table 1 provides a summary of the methodologies adopted by each water company for triggering notifications and coverage outside of the bathing season. This variation in approach to notification triggers is likely to have resulted in some water companies issuing notifications at lower threshold than others with a risk of distorting the results. It also highlights the need for **greater transparency and consistency** in the methodologies adopted in reporting releases.

TABLE 1: CSO DISCHARGE NOTIFICATION TRIGGER METHODS

WATER COMPANY	CSO DISCHARGE NOTIFICATION TRIGGER METHODS	OUT OF SEASON COVERAGE
Anglian Water	Based on modelling which determined whether it could affect bathing water quality	No
Northumbrian Water	>30 mins	Yes
South West Water	When the discharge meets an 'agreed (with the EA) significance criteria'	No
Southern Water	>15 mins	No
United Utilities	>10 minutes of cumulative discharge in a 12 hour period	Yes
Dwr Cymru	>15 mins	Yes
Wessex Water	Between 2 - 60 mins depending on location	Yes
Yorkshire Water	Specific values based on modelling each individual asset	Yes

In addition, it should be noted that, in the majority of cases, water companies only provide CSO discharge notifications where a CSO location is within close proximity to a classified bathing water. ²Not all CSO discharges will therefore be reported through the SSS and therefore will not be reflected within this report.

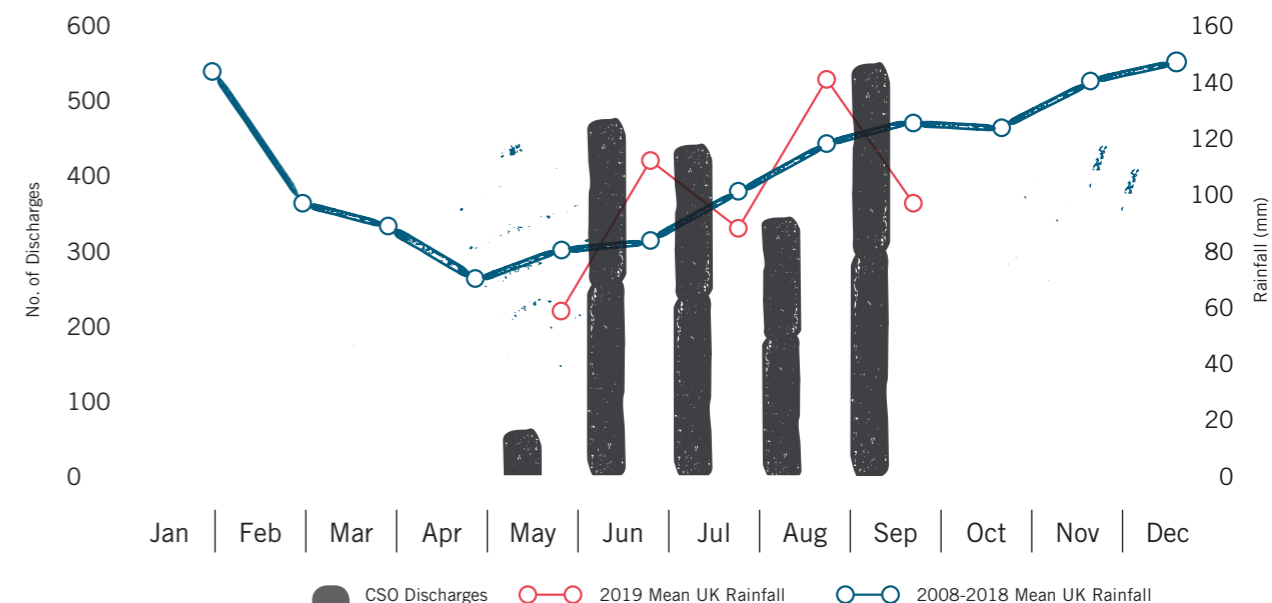
²Any beach or inland water meeting the criteria for designation as defined by the EU Bathing Water Directive.



CSO DISCHARGE ANALYSIS

Over the course of the 2019 bathing season a total of 1,784 CSO discharge notifications were issued. Figure 1 shows the number of notifications issued for each month during the bathing season plotted against both 2019 mean rainfall and 2008-2018 mean rainfall. As expected, this suggests a trend for increased rainfall to correlate with a greater number of CSO discharges. However, the number of discharge notifications issued in August fell by almost 100 incidents compared to July despite a greater average rainfall.

FIGURE 1: CSO DISCHARGE NOTIFICATIONS BY MONTH

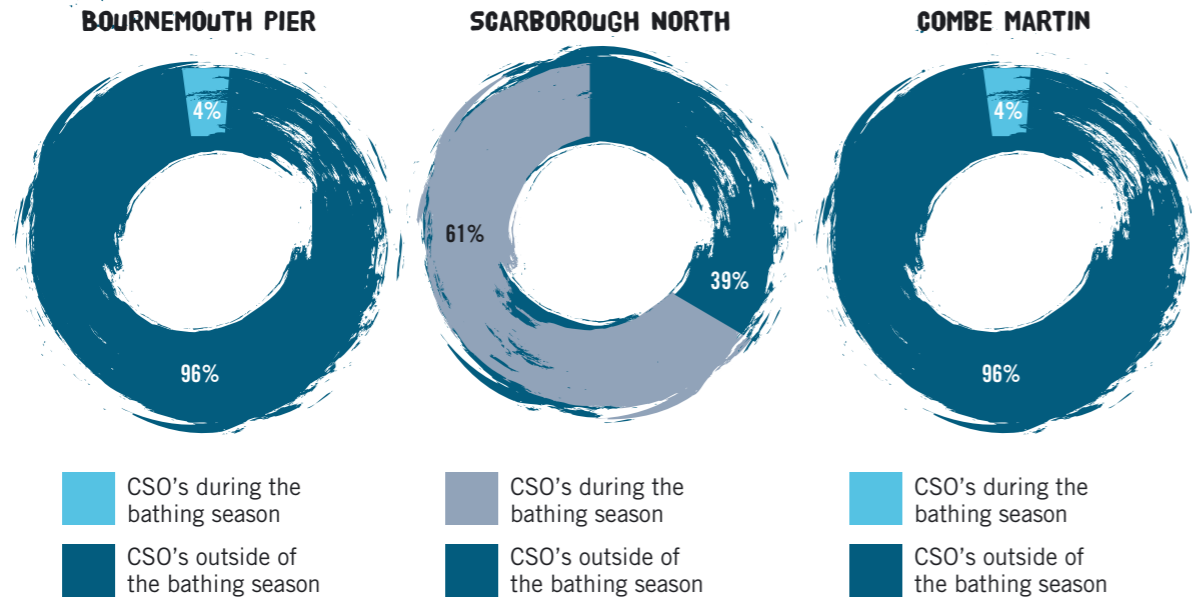


Looking at average rainfall figures for the last 10 years, it is clear to see the greatest rainfall occurs during the months of October, November, December and January. Given the fact that CSO infrastructure is designed to relieve pressure on the sewage infrastructure during periods of increased rainfall, as well as the possible correlation seen in discharge notifications issued by the SSS and mean rainfall figures; it is reasonable to assume that CSO discharges will be at their most frequent during months with most rainfall. However, data is only provided to the SSS for 128 of the 265 CSO locations all year round. Considering that estimates place the number of UK beaches which receive CSO discharges at over 500³, there is, therefore, a considerable risk that a major proportion of CSO discharges are currently unreported to the public outside of the bathing season. This is further evidenced when looking at a number of case study locations where reliable, year-round data is available. At both Bournemouth Pier and Combe Martin 96% of discharge notifications were issued outside the official bathing season, with 61% of discharge notifications issued outside the season at Scarborough North. Bournemouth Pier is a popular surfing location that sees the majority of 'surfable days' occurring outside of the bathing season, with high numbers of surfers, bodyboarders and stand-up paddleboarders using the water in the autumn, winter and spring.

³Marine Conservation Society (2011). Combined Sewer Overflows: Pollution Policy and Position Statement. [online] Available at: <https://www.mcsuk.org/downloads/pollution/CSO%20policy.pdf> [Accessed 28 Oct. 2019].



FIGURE 2: OUT OF SEASON CSO DISCHARGE CASE STUDIES



This presents a real risk to human health with a huge number of water users not having access to water quality information that will allow them to stay safe in their recreational activities. In a recent social media poll undertaken by SAS, it was found that 89% of water users responding to the poll continue to use UK waters outside the official bathing season. A 2018 study based on large scale surveys of the public (n=326,756) estimated that 59 million visits are made to the coast annually in England specifically for water-based recreation.⁴ The same study also found 56.1% of all recreational water sport visits to the coast occurred outside of the summer season. Wetsuit technology now allows people to use the ocean and other blue spaces year-round, and water sports are some of the UK's fastest growing sports.⁵ **It is therefore vital that year round real-time water quality information is provided to protect the health of water users.**

Looking forward, the changing climate could compound the challenges our already struggling sewer systems face in meeting the demand of growing populations and urbanisation. Recent findings suggest that co-occurrence of rising sea levels, storm surges, and increased precipitation will lead to an increase in 'compound flooding' and increased pressure on sewer systems, and therefore the likelihood in the need to use CSO infrastructure.⁶ Recent studies have also shown that climate change has already increased the risk of floods in England and Wales by at least 20% and perhaps up to 90% in some areas.⁷ The Met Office has shown that an extended period of extreme winter rainfall in the UK, similar to that seen in winter 2013/14, is now about seven times more likely due to human-induced climate change.⁸ Despite predictions of overall wetter winters and drier summers due to global heating, future summer rainfall is expected to occur in heavier, more intense bursts.⁹ This is likely to have huge implications for water quality as the increased pressure on the sewage network at times of heavy rain will likely increase the need to trigger CSO discharges.¹⁰ Simulations run in Norway predicted that under climate scenarios of increased rainfall, CSO discharge frequency would increase at 1.5 – 3 times the rate of increased precipitation.¹¹ Numerous studies have linked climate change predictions to drastic increases in combined sewer overflow events.^{12,13,14} Furthermore, the combined pressures of urbanization and population growth are placing a heavy burden on a system already running at, or over, full capacity. Projected population figures alone suggest a 44% increase in sewage load in England and Wales since 1961 to 2039, equivalent to an extra 3 billion litres per day.¹⁵

⁴Elliott, L.R., White, M.P., Grellier, J., Rees, S.E., Waters, R.D. and Fleming, L.E., 2018. Recreational visits to marine and coastal environments in England: Where, what, who, why, and when? Marine Policy, 97, pp.305-314.
⁵<https://inews.co.uk/inews-lifestyle/london-commute-paddle-boarding-athleticism-fastest-growing-sport-637533>
⁶Bevacqua, E., Maraun, D., Voudoukas, M.I., Voukouvalas, E., Vrac, M., Mentaschi, L. and Widmann, M., 2019. Higher probability of compound flooding from precipitation and storm surge in Europe under anthropogenic climate change. Science advances, 5(9)



LOCATION ANALYSIS

Figure 3 shows that of the 265 locations for which CSO discharge notifications are issued through the SSS, only 34% of locations received zero discharge notifications. Of course, this does not mean that no discharges took place at these locations as the threshold for notifications to be issued may not have been reached.

The World Health Organisation advises against entering the water for 48 hours following a pollution event.¹⁶ The Safer Seas Service uses this advice to keep any CSO discharge notification active for 48 hours after the discharge has ceased. Based on this advice, this accounts for 3,568 bathing days lost due to CSO discharges into coastal waters, not including the duration of the discharge itself. **That's at least 10% of all bathing days lost during the official bathing season!**

FIGURE 3: LOCATIONS WITH ONE OR MORE DISCHARGES

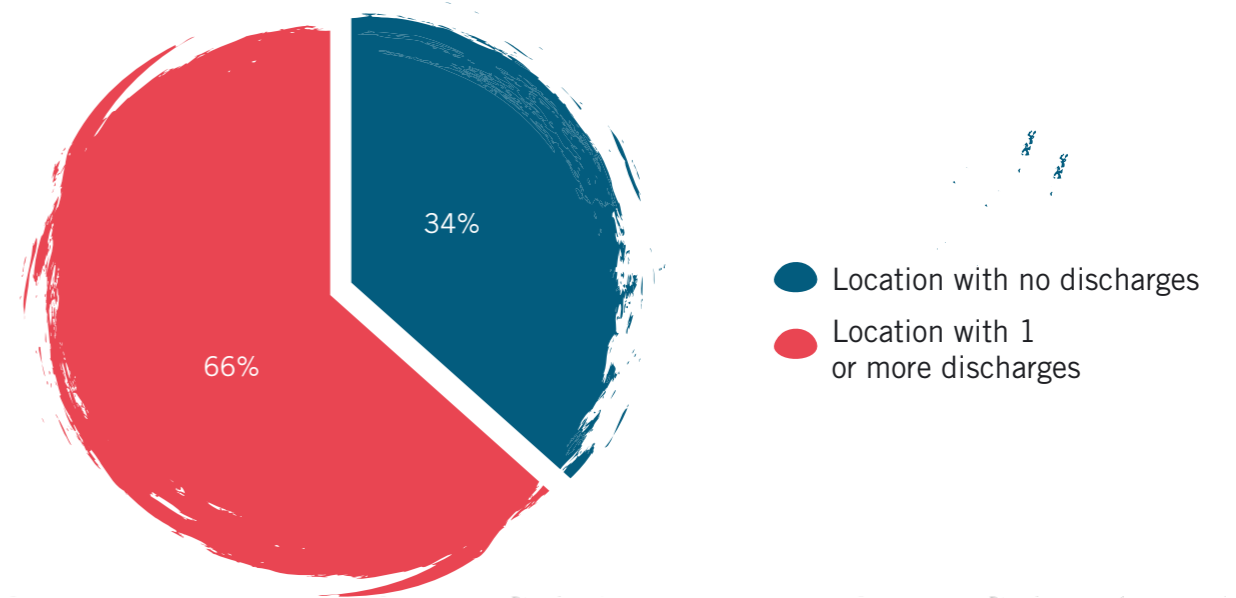


Photo by Nick Pumphrey

⁷Pall et al. 2011. Anthropogenic greenhouse gas contribution to flood risk in England and Wales in autumn 2000. Nature 470, 382-385
⁸Christidis et al. 2015. Extreme rainfall in the UK during winter 2013/14: The role of atmospheric circulation and climate change. Explaining Extreme Events of 2014 from a Climate Perspective.
⁹MetOffice UKCP18
¹⁰Kendon et al. 2014. Heavier summer downpours with climate change revealed by weather forecast resolution model. Nature Climate Change 4, 570-576
¹¹Nie, L., Lindholm, O., Lindholm, G., & Syversen, E. (2009). Impacts of climate change on urban drainage systems – a case study in Fredrikstad, Norway. Urban Water Journal, 6(4), 323-332. doi:10.1080/15730620802600924
¹²Nilsen, V., Lier, J. A., Bjerkholt, J. T., & Lindholm, O. G. (2011). Analysing urban floods and combined sewer overflows in a changing climate. Journal of water and climate change, 2(4), 260-271.
¹³Fortier, C., & Mailhot, A. (2014). Climate change impact on combined sewer overflows. Journal of Water Resources Planning and Management, 141(5), 04014073.
¹⁴Tavakol-Davani, H., Goharian, E., Hansen, C. H., Tavakol-Davani, H., Apul, D., & Burian, S. J. (2016). How does climate change affect combined sewer overflow in a system benefiting from rainwater harvesting systems?. Sustainable cities and society, 27, 430-438.
¹⁵WWF (2017). Flushed Away: How sewage is still polluting rivers. [online] Available at: https://www.wwf.org.uk/sites/default/files/2017-12/Flushed%20Away__Nov2017.pdf [Accessed 28 Oct. 2019].
¹⁶World Health Organisation (2013). Guidelines for safe recreational water environments. Volume 1: Coastal and fresh waters. [online] Available at: https://www.who.int/water_sanitation_health/publications/srwe1/en/ [Accessed 28 Oct. 2019].



NUMBER OF DISCHARGES PER LOCATION



NORTHUMBRIAN WATER
CSO locations with high numbers of discharge notifications in this area are: Spittal with 44 discharges, Warkworth with 21 discharges, Seaham Hall Beach with 31 discharges, and Seaton Carew North with 23 discharges.

As well as providing positive benefits to our physical health, there is consistent evidence showing that coastal and inland waters are vital for human mental health and wellbeing.¹⁷ The use of 'blue space' is now regularly being used for therapeutic purposes for individuals with mental health issues with many studies now showing that 'blue care' can have a direct benefit for health, particularly mental health and psycho-social wellbeing.¹⁸ The loss of bathing days due to the release of sewage into rivers and seas could, therefore, have serious implications not just for the health

of river and marine environments, but also for human health and wellbeing. As highlighted, the impacts of global heating are likely to result in an increase in CSQ discharge frequency unless significant changes are made to sewerage infrastructure. **By 2030, we want to see a 75% reduction in sewage discharge into rivers and seas with a total cessation of discharges impacting waters important to recreation and wellbeing.**

¹⁷Gascon, M., Zijlema, W., Vert, C., White, M.P. and Nieuwenhuijsen, M.J., 2017. Outdoor blue spaces, human health and well-being: a systematic review of quantitative studies. *International journal of hygiene and environmental health*, 220(8), pp.1207-1221.
¹⁸Britton, E., Kindermann, G., Domegan, C. and Carlin, C., 2018. Blue care: a systematic review of blue space interventions for health and wellbeing.

UNITED UTILITIES
CSO locations with high numbers of discharge notifications in this area are: Walney Biggar Bank, Walney Sandy Gap, Walney West Shore each with 24 discharges.

YORKSHIRE WATER
CSO location with high numbers of discharge notifications in this area is: Scarborough North Bay with 26 discharges.

DWR CYMRU
CSO location with high numbers of discharge notifications in this area is: Dee River with 25 discharges.

ANGLIAN WATER
CSO locations with high number of discharge notifications in this area are: Southend Jubilee Beach with 15 discharges plus Southend Thorpe Bay and Southend Three Shells, each with 12 discharges.

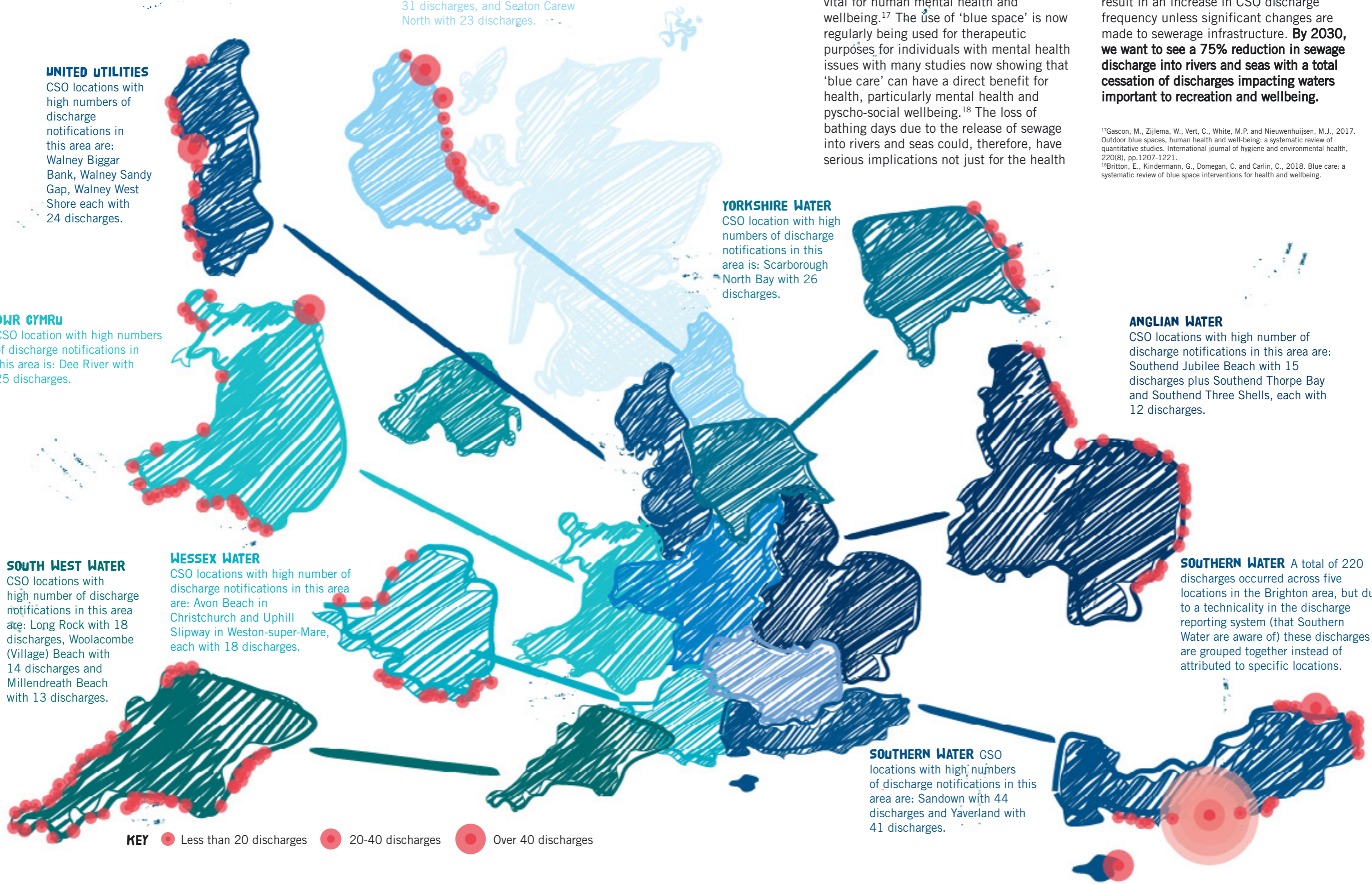
SOUTH WEST WATER
CSO locations with high number of discharge notifications in this area are: Long Rock with 18 discharges, Woolacombe (Village) Beach with 14 discharges and Millendreath Beach with 13 discharges.

WESSEX WATER
CSO locations with high number of discharge notifications in this area are: Avon Beach in Christchurch and Uphill Slipway in Weston-super-Mare, each with 18 discharges.

SOUTHERN WATER A total of 220 discharges occurred across five locations in the Brighton area, but due to a technicality in the discharge reporting system (that Southern Water are aware of) these discharges are grouped together instead of attributed to specific locations.

SOUTHERN WATER CSO locations with high numbers of discharge notifications in this area are: Sandown with 44 discharges and Yaverland with 41 discharges.

KEY ● Less than 20 discharges ● 20-40 discharges ● Over 40 discharges





WHAT ABOUT RIVERS?

The link between rivers and the ocean simply can't be ignored. The health of rivers will have a direct impact on the health of the ocean and the water quality of coastal bathing waters. Rivers also provide highly valuable recreational space, particularly for those who live inland with limited access to the coast for water-based activities. There are 17,684 licensed sewer overflows across England and Wales, 89% of which discharge into rivers.¹⁹ Findings recently published by WWF found that only 14% of English rivers (30.8% for the whole UK) currently fail to meet 'good ecological status', far short of the 100% target which the UK has committed to achieve under the EU Water Framework Directive by 2027 at the latest. 55% of all rivers in England and Wales failing to reach the required good ecological status are polluted by wastewater¹⁹. The Safer Seas Service does not currently include CSO discharge notifications for river locations (other than a single location provided by Dwr Cymru) so it is therefore not possible to provide an analysis of discharges into UK rivers. **We would like to see water quality information provided for rivers in the same way as marine locations in order to allow all water users to stay safe in relation to sewage discharges.** There are of course a number of inherent risks using waterways for recreation, however sewage pollution can be easily tracked and monitored with appropriate investment from water companies to provide the public with this vital health and safety information.

NEWQUAY - JACK

“ In early June last year I went for a dawn surf at North Fistral on a Saturday morning. Conditions were perfect, low tide, 6ft swell and the sun was out after some stormy weather the previous day. There were no signs or warning of any pollution, even in the water. As usual when bodysurfing in hollow conditions, I ended up ingesting a fair bit of water. My throat started to inflame almost immediately after getting out. We checked the Safer Seas Service in the carpark and sure enough, an alert had gone out whilst we were in the sea. I ended up having three days off work with severe gastroenteritis and a throat infection. ”



¹⁹WWF (2017). Flushed Away: How sewage is still polluting rivers. [online] Available at: https://www.wwf.org.uk/sites/default/files/2017-12/Flushed%20Away_-_Nov2017.pdf [Accessed 28 Oct. 2019].
²⁰Environment Agency (2019). Water and sewerage companies' performance: 2018 summary. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815129/Water_company_performance_report_2018.pdf [Accessed 29 Oct. 2019].



WATER COMPANY PERFORMANCE

In July 2019, the Environment Agency issued a report highlighting the poor performance of nine major water companies in England.²⁰ This showed that the performance of all but one water company had deteriorated with pollution incidence increasing, threatening wildlife and putting the public at risk. We have also seen unacceptable practices of water companies brought to light with Southern Water issued with a fine of £126 million for serious failings in its sewage treatment works and for deliberately misreporting its performance. Our analysis looks more specifically at water company performance in relation to sewage discharges released through combined sewer overflow infrastructure to provide an additional perspective on how water companies are performing.

Eight major water companies around the coast of England and Wales voluntarily provide CSO discharge notifications to the Safer Seas Service. The level of coverage is at the discretion of the water company but primarily focuses on official bathing waters. Table 2 shows the number of locations provided by each water company.

TABLE 2: NUMBER OF CSO ASSETS WATER COMPANIES PROVIDE NOTIFICATIONS FOR THROUGH THE SSS

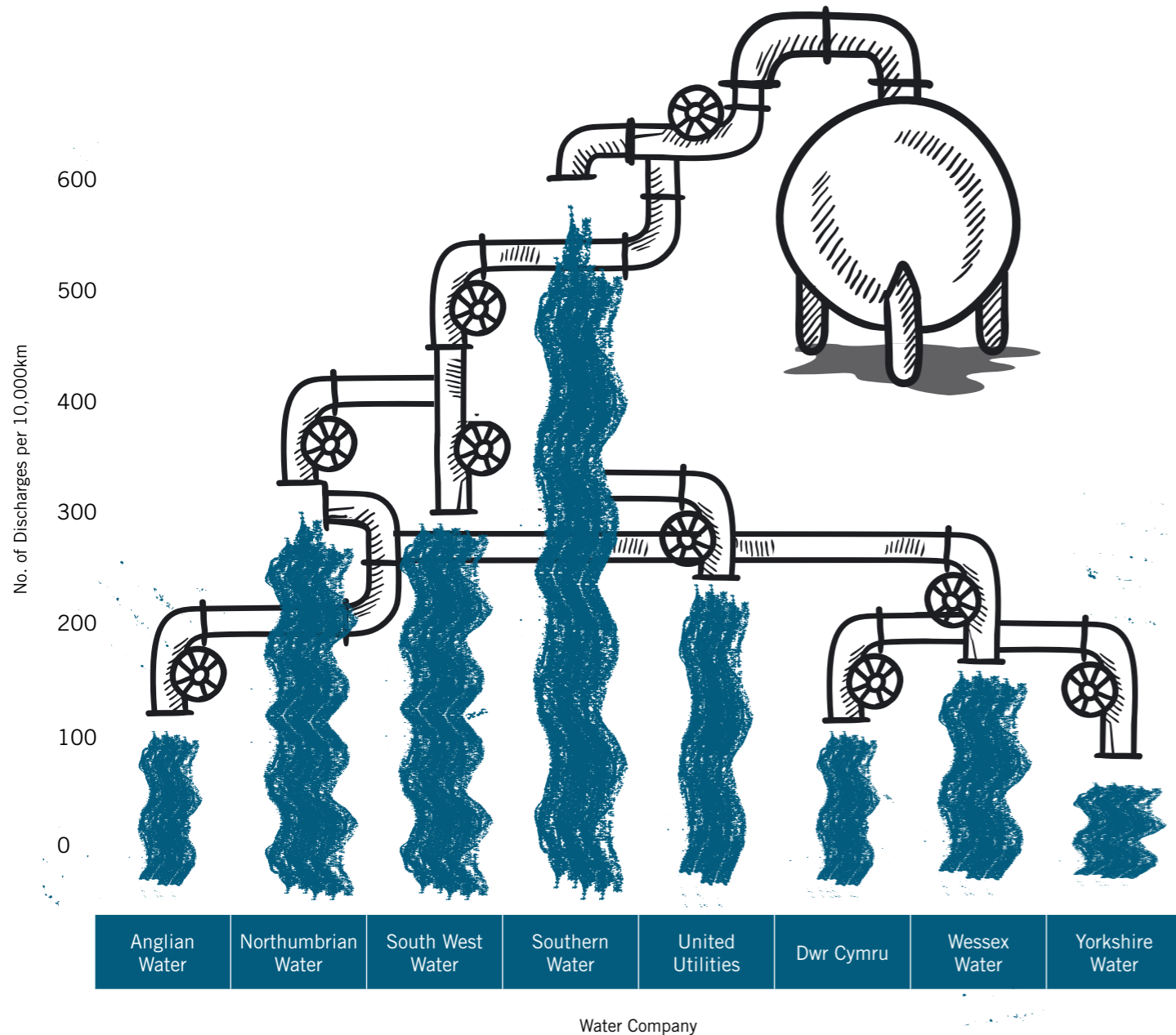
WATER COMPANY	NO OF CSO ASSETS LINKED TO SSS
Anglian Water	46
Northumbrian Water	31
South West Water	62
Southern Water	29
United Utilities	23
Dwr Cymru	30
Wessex Water	32
Yorkshire Water	12





Figure 4 shows the total number of discharge notifications issued for each water company during the 2019 official bathing season. Southern Water stands out with 574 notifications, over twice as many as the next highest of Northumbrian Water with 282. South West Water (273 notifications) and United Utilities (247) showed similar totals. The companies with the least alerts were Yorkshire Water (54 notifications), Anglian Water and Dwr Cymru (both 104 notifications), and Wessex Water (146 notifications).

FIGURE 4: TOTAL DISCHARGES PER WATER COMPANY



However, totals alone bias against water companies that provide notifications for more locations. To get a more accurate picture of the relative performance of water companies, a range of other metrics have been assessed.



Photo by Chris Vevern



SCARBOROUGH - STEVE

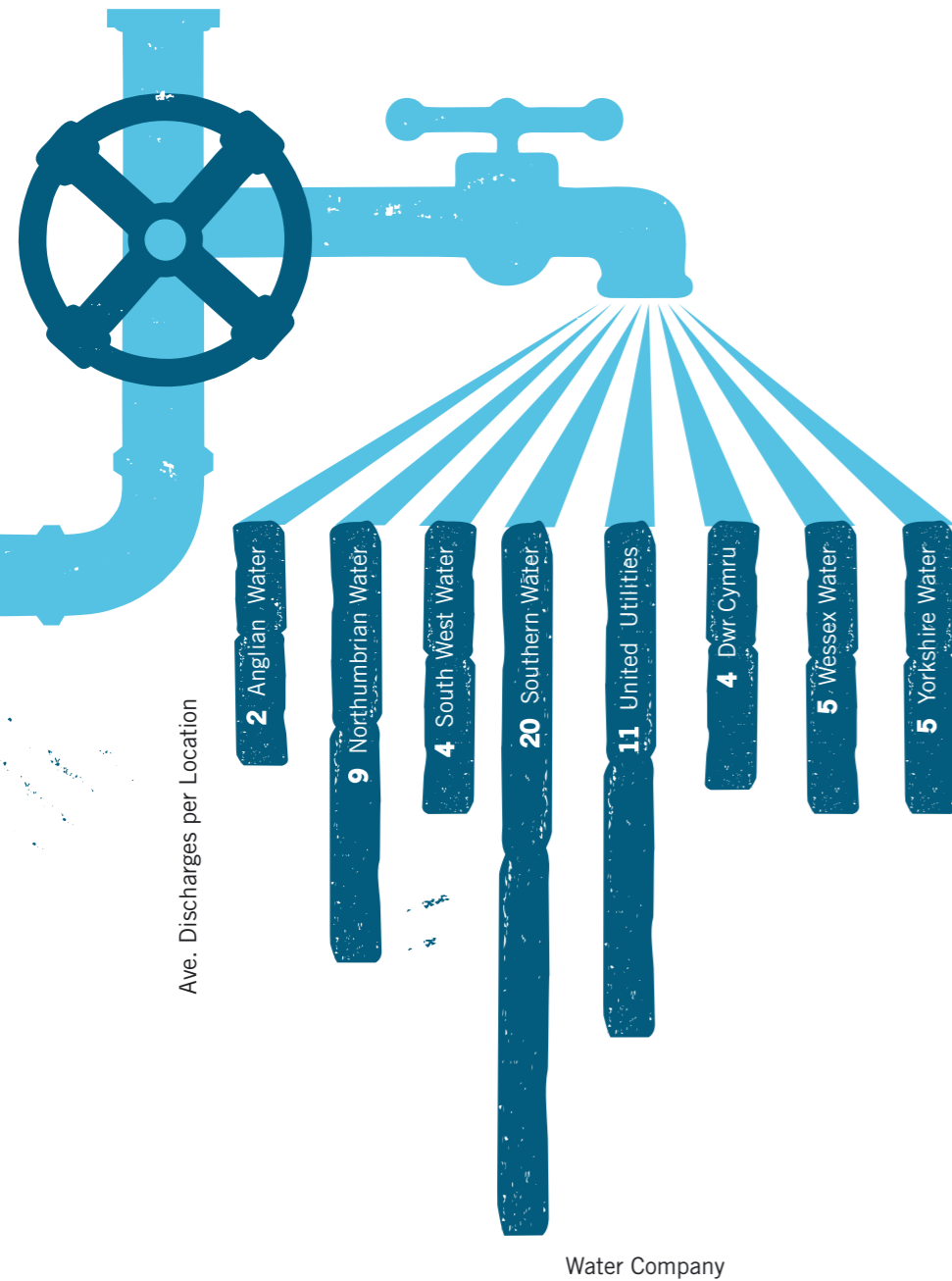
“ Scarborough has 7 pipes close to surfing beaches, one trade waste pipe from the McCain’s factory and the added fact that Yorkshire water spent £50 million to improve the problems with sewage discharge in town (which really hasn’t worked in my opinion). The beach I teach on, South Bay, is classified as ‘poor’ so bathing is not advised. As I’m typing this, one of them, just north of North Bay is discharging into our surfing beach.

As one story I’ll choose a recent one: My Friend, Sally, runs a women’s surf school and I help her out with lessons when she does Scarborough camps. We’d planned an afternoon lesson but I was running late. As I was heading over I noticed a discharge warning. By the time I’d arrived they were in and the discharge was full flow.....so what do you do? Head in and drag them out? Leave it be and hope for the best? It’s not a choice you should have to make. ”



Figure 5 shows the average number of discharge notifications issued per location for each water company. Again, Southern Water stands out with a mean average of 19.7 notification issued per location, considerably greater than the next two highest ranking water companies, United Utilities and Northumbrian Water, with a mean average of 10.7 and 9.1 notifications issued per location respectively. Anglian Water, South West Water, Dwr Cymru and Yorkshire Water all issue fewer than 5 discharge notifications per location.

FIGURE 5: WATER COMPANY AVERAGE DISCHARGES PER LOCATION



Of course, it must be noted that water companies are responsible for sewage infrastructure both in coastal and inland areas. Water companies with greater inland area coverage may therefore require a larger infrastructure network and therefore more CSO assets from which to discharge sewage to relieve the pressure on the network.



OXFORDSHIRE - NICK

“ I was Windsurfing on Famoor reservoir which is fed from the Thames below as it approaches Oxford. A gust knocked me off my board and I swallowed some water. That night I was painfully sick for several hours.

There are several sewage plant outfalls upstream of where the Windrush river joins a few miles away. Windrush used to be clear and visibly full of trout at Newbridge just before joining the Thames. Now you hardly see any fish and Windrush is now permanently brown for at least the last 15 miles where it used to be sparkling! ”





BOSCOMBE - CLIFF

“ I was surfing the pier a couple of days before my birthday in February 2018. It was a beautiful day that had cleared following a storm a couple of days before. I remember paddling to sit out wide to the west of the pier, only to feel a warm current on my legs which in February instantly struck me as not right.

The effects hit within 20 minutes of getting out of the water, starting with stomach cramps and escalating to severe diarrhoea and vomiting. It wiped me out for 48 hours and was not fun. I know multiple people were affected this day too.

I think it's crazy that the information which would enable us to make informed decisions on whether the water's safe is withheld out of season, and instead I have to gamble with my health. I volunteer for the Wave Project and have a duty of care for vulnerable people, we need this information all year round. ”



Following the same methodology as the recently published Water Company Performance Report by the Environment Agency, Figure 6 shows discharge notifications issued per 10,000km of sewerage network. South West Water and Southern Water are the worst performing with South West Water issuing 175 discharge notifications per 10,000km of sewerage network and Southern Water issuing 144 discharge notifications per 10,000km of sewerage network.

FIGURE 6: WATER COMPANY DISCHARGES PER 10,000KM SEWERAGE NETWORK

No of Discharges per 10,000km

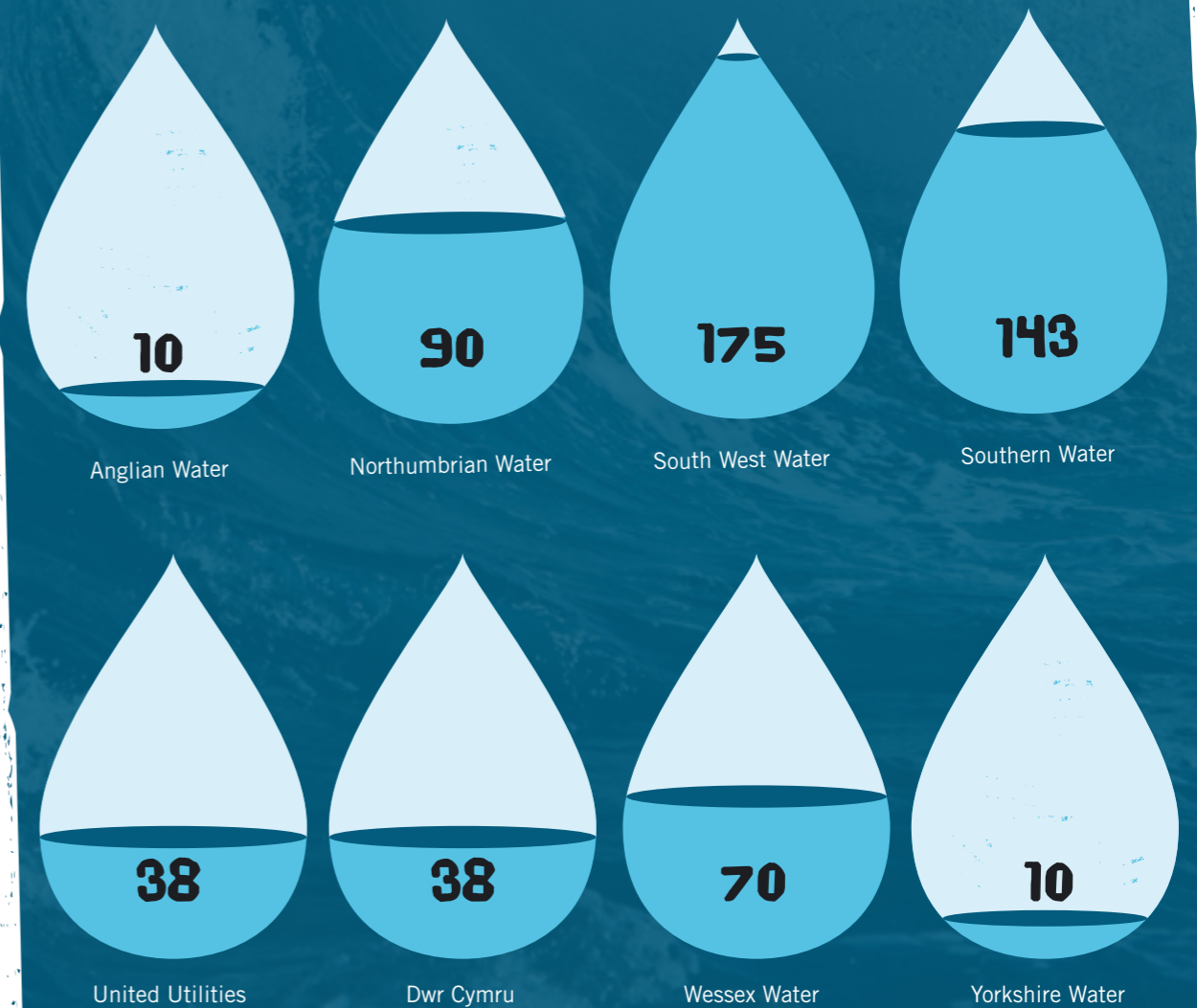
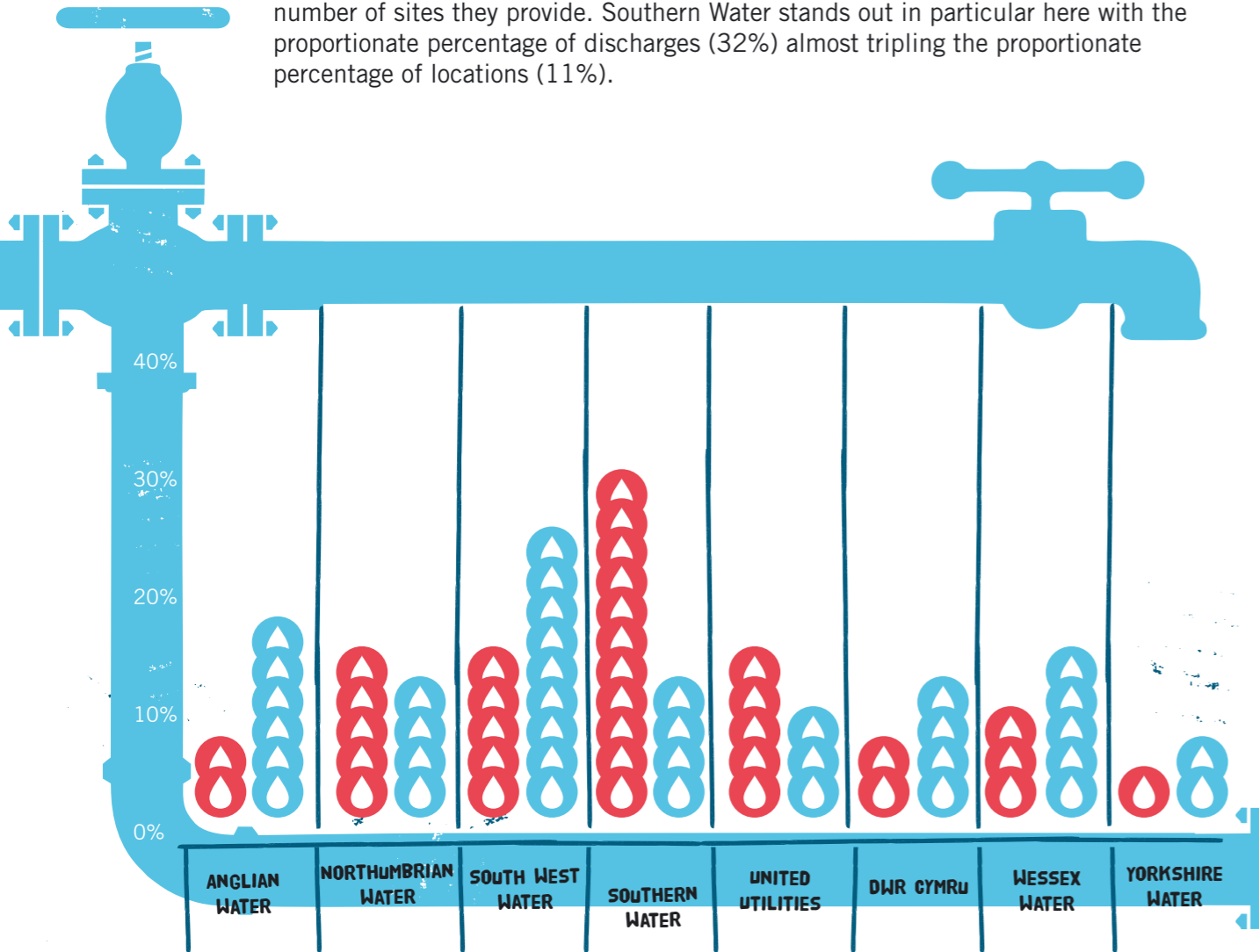






FIGURE 7: PERCENTAGE OF DISCHARGES VS PERCENTAGE OF CSO LOCATIONS PER WATER COMPANY

Figure 7 shows the proportionate percentage of total locations attributed to each company, alongside the proportionate percentage of total discharge notifications issued. Broadly speaking, we would expect these two proportionate percentages to be roughly equal for each water company. Northumbrian Water, Southern Water and United Utilities all had a greater contribution to the total number of discharges than would be explained by the number of sites they provide. Southern Water stands out in particular here with the proportionate percentage of discharges (32%) almost tripling the proportionate percentage of locations (11%).



 Percentage of Discharges
  Percentage of Sites

It is clear that Southern Water and Northumbrian Water perform consistently amongst the worst performing water company across the range of metrics considered. South West Water and United Utilities also have relatively poor performance. It should be noted that there may be a range of other influences on the relative performance of water companies, most notably regional rainfall patterns. These have not been considered within this analysis. It is hoped that this data could be included in future further analysis. Regardless of this relative performance, it is critical to the health of both river and marine environments as well as human health that water companies seek to reduce the number and frequency of sewage discharges into the environment. WWF recently concluded that **Water Companies are relying on CSOs to compensate for lack of capacity in sewer infrastructure and this is simply unacceptable.**²¹

²¹WWF (2017). Flushed Away: How sewage is still polluting rivers. (online) Available at: https://www.wwf.org.uk/sites/default/files/2017-12/Flushed%20Away__Nov2017.pdf [Accessed 28 Oct. 2019].



MID WALES - CHLOE

“ I live by the coast in Mid Wales and have been surfing for nearly 10 years. I grew up in the area, moved away for a bit but have recently moved back. I'm an assistant reserve manager at the Dyfi National Nature Reserve which is next to my local surf spot - Ynyslas beach. Being an assistant reserve manager in the area I am aware that the water in the estuary of the reserve becomes polluted with slurry, sheep poo and the adjacent caravan park sewage works.

I went surfing, the winter surf was quite big and we had recently had some rough weather in terms of wind and lots of rain. There was no sign/ warning of noticeable pollution/ poor water quality.

I began feeling really unwell the following day. I went to the doctors and was told that I had gastroenteritis and the doctor asked if I had been near any contaminated water etc. My partner also became ill and a friend that had surfed on the same day became ill too - we put it down to the surf. I was ill for nearly 4 weeks. I wasn't working at the time, but I would have required a significant period of sick leave if I had been employed.

As a conservationist I think this needs to be much more strictly regulated. It is unacceptable that in this day and age our seas/ waters are being so dangerously polluted by sewage overflow and livestock waste. ”





OUR CALLS FOR ACTION

The water quality in rivers and the ocean is critical both for a thriving natural environment but for human health and well-being. We simply can't continue to treat our waterways and ocean as dumping grounds for sewage and waste.



WE ARE CALLING FOR:

A 75% REDUCTION IN SEWAGE DISCHARGED INTO OUR RIVERS AND SEAS BY 2030, WITH A COMPLETE CESSATION OF EFFLUENT DISCHARGED INTO AREAS USED FOR RECREATION

YEAR ROUND REAL-TIME COMBINED SEWER OVERFLOW & WATER QUALITY INFORMATION FOR ALL COASTAL AND RIVERINE AREAS USED FOR RECREATION

GREATER TRANSPARENCY AND CONSISTENCY IN COMBINED SEWER OVERFLOW DISCHARGE NOTIFICATION REPORTING



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