

OPTION 5 (Preferred) - Weekly Kerbside Sort (including food waste), 4-weekly residual, AHP service

Well-being Impact Assessment Report

This report summarises the likely impact of the proposal on the social, economic, environmental and cultural well-being of Denbighshire, Wales and the world.

Assessment Number:	407
Brief description:	This assessment was originally produced to support the decision to change the way we collect household waste to improve recycling in the County as part of strategy to meet Welsh Government 70% recycling target by 2024/25. The new service has replaced the blue 240l wheelie bin for comingled recycling with a TrolliBocs System, where residents present sorted waste into separate stackable containers. The Trollibocs and the food waste caddy are collected weekly on the same vehicle. Residual waste is collected every 4 weeks in a 240l black bin (as opposed to fortnightly in a 140/180l bin previously). This is projected to reduce the amount of waste going in the residual waste bin that could have been recycled (currently calculated that 51% of waste in the black bin could have been recycled on our other kerbside services). An optional weekly Absorbent Hygiene Product (AHP) service is now offered to remove this waste stream from the residual bin, and the aspiration in the long term would be to recycle this waste stream. New recycling waste streams have been targeted, including batteries, small electrical, electronic equipment (WEEE) and textiles and collected on the same day as the recycling, but every fortnight.
Date Updated:	19/09/2024

Completed by:	Tony Ward / Paul Jackson
Responsible Service:	Highways & Environmental Services
Localities affected by the proposal:	Whole County,
Who will be affected by the proposal?	All Residents / Households in Denbighshire; Operational Waste Team
Was this impact assessment completed as a group?	Yes

IMPACT ASSESSMENT SUMMARY AND CONCLUSION

Before we look in detail at the contribution and impact of the proposal, it is important to consider how the proposal is applying the sustainable development principle. This means that we must act "in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs."

Score for the sustainability of the approach









(3 out of 4 stars) Actual score : 27 / 30.

Implications of the score

Implementing the new waste & recycling collection model has enabled DCC to become compliant with the Welsh Government blueprint for waste collection services, meaning that we are operating in a manner consistent approach to other Welsh LA's in order to maximise the quantity and quality of recyclable household waste we collect. The new model also restricts residual capacity in order encourage recycling. The Welsh Government have carried out relevant sustainability and economic appraisals on their blue print (Independently reviewed in March 2016 by Eunomia) to determine it to be the most economically and environmentally practical approach to managing household waste.

Summary of impact

Well-being Goals

A prosperous Denbighshire

A resilient Denbighshire

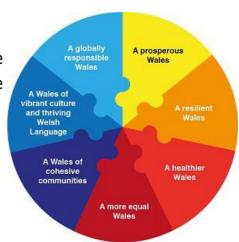
A healthier Denbighshire

A more equal Denbighshire

A Denbighshire of cohesive communities

A Denbighshire of vibrant culture and thriving Welsh language

Positive Positive Neutral Neutral Neutral



A globally responsible Denbighshire

Positive

Main conclusions

Overall, the new waste collection model should have positive impacts in terms of a prosperous and resilient and a globally responsible Denbighshire as the new service is projected to enable the council to increase recycling performance by at least 3%. The higher quality recyclable stream will support the adoption of EU Circular Economy measures and the Welsh Economic Action Plan. The model is also the most financially sustainable option for the future because it removes a significant risk around the cost of processing co-mingled recycling, and it also brings in a new income stream.

There is a neutral impact on equality, although it does introduce a new service to deal with hygiene waste sometimes produced by young families and the elderly. We have reviewed our waste policies to ensure exemptions can be awarded to households that struggle to participate fully in the recycling service for genuine physical or mental health reasons. There are no health implications for the new service. Residual waste is collected less frequently but waste that can produce an unpleasant smell if left for 4-weeks (i.e. AHP and food) is collected weekly.

There is a neutral impact on vibrant culture and Welsh language, and all communications have been (and will be) available in Welsh and English. There was a significant focus on community engagement prior to implementation. There is a neutral impact on cohesive communities as the new waste model supports and strengthens a social enterprise operating model for the collection and re-use of textiles, and the service changes are supported through a new household waste collection policy, to support the regulation of the new operating model.

Evidence to support the Well-being Impact Assessment

- $\ \square$ We have consulted published research or guides that inform us about the likely impact of the proposal
- We have involved an expert / consulted a group who represent those who may affected by the proposal
- ₩ we have engaged with people who will be affected by the proposal

THE LIKELY IMPACT ON DENBIGHSHIRE, WALES AND THE WORLD

Overall Impact	Positive
Justification for impact	The new waste service will secure the long-term future of the service and associated jobs and importantly contribute to increasing recycling rates in the County which will minimise residual waste generated by the County's residents. It will also help us to improve the quality of recyclable material, and higher quality recycling which will help stimulate growth in the manufacturing industry within the UK.
	Not only has the service change created additional jobs within the waste service, but it has also enabled the creation and protection of many local private sector jobs. We worked with 4 important local businesses in Denbigh to unlock and develop employment land to enable those 4 businesses to remain in Denbigh and expand their operations, leading to employment opportunities and economic growth.
Further actions required	Maximising the positive impacts from higher recycling rates will be dependant on undertaking a comprehensive and ongoing communication campaign that provides both instructional and motivational information to encourage people to take the extra effort to recycle more and separate their household waste items into various containers. A YouGov Survey stated that 70% of people want to know what happens to their rubbish and 32% would be more likely to separate their materials if they knew what happened to them. the Viridor Recycling Index 2017 (consumer survey) showed that only a quarter of people believed their waste was properly recycled and showed a clear need for better education, with seven in ten (69%) people feeling frustrated about not having enough education materials on recycling. There is an opportunity to re-engage with Denbighshire citizens to provide the information that will inform and influence pro-environmental behaviours.

A low carbon society

Application of the waste hierarchy, enhanced opportunity for closed loop recycling, greater quantities of waste recycled, less vehicle passes to each households over a 4 week period, vehicle haulage movements as recycling is bailed locally - so overall greater environmental benefits. Increased in recycling performance of at least 3% projected. There is a wide evidence base to show that Kerbside Sort yields a lower carbon footprint than co-mingled collections. The carbon impacts of different methods of collection and post collection sorting were shown by the ADAS report for London Borough of Camden which stated that: "The carbon footprint of the whole process for the co-mingled collection, transfer and MRF is 77% greater than for the kerbside sorted recyclate collection system."

High quality materials are more likely to be used in closed loop recycling where glass bottles and jars are recycled into similar products, paper into paper and so on. The carbon benefits of the closed loop recycling of glass were demonstrated in a 2006 paper "The impact of the carbon agenda on the waste management business", Grant Thornton, Oakdene Hollins. The reduced carbon impact of kerbside sort vehicles compared to large Refuse Collection Vehicles currently used to collect recycling in DCC are considerably lower, as supported by the following paper "Kerbside Recycling in Wales: Environmental Costs, Waste and Resources action Programme (WRAP).

Quality communications, infrastructure and transport

All new waste collection rounds were subject to route optimisation analysis to reduce unnecessary mileage and optimise efficiency, as well as round risk assessments to avoid traffic congestion where practical. The changes were supported by a communications plan, to include face to face public engagement, and revised instructional material. The project resulted in significant capital investment in our council-owned depot infrastructure, and new waste containers.

Collected recycling will be of adequate quality to be reprocessed in the UK (as opposed to being shipped oversees), encouraging home grown manufacturing industries to develop/expand. Collecting high quality recycling through source segregation is a priority for Welsh Government as they recognise the opportunities the EU "Circular Economy" package brings to helping Wales grow its own economy, and in a more sustainable way (www.gov.wales news article "Wales leading the way towards becoming a circular economy" 28th June 2018. Positive impacts of the circular economy on economic growth are also recognised in the Welsh Government's Economic Action Plan.

Economic development

The paper by the Resources Association "Putting quality recycling at the heart of a circular economy" August 2015 concludes that mandatory source separation of recyclables, including biowaste, would reduce recycling contamination and create new economic opportunity. By example, an article by Simon Weston (LetsRecycle.com 17th July 2017) director of raw materials (Confederation of Paper Industries) states "Recent work conducted by the Confederation of Paper Industries (CPI) estimates that an increase of one percentage point in contamination would increase costs by about £8 million per annum across the entire UK mill system. For a large paper reprocessor this could equate to as much as £1.25 million per percentage point increase for each 100,000 tonnes of raw material procured. These sorts of additional costs undermine the viability of domestic re-processors when compared with foreign competitors using other material streams, and could lead to plant closures and job losses."

Kerbside Sort systems yield very low contamination rates (1% Friends of the Earth, compared to Commingled recycling schemes that rarely achieve contamination rates below 5% and often in excess of 10%.

AHP waste can be collected separately in the new model. It is possible that this waste stream could be recycled in future, and discussions with Welsh Government are anticipated over the possibility of a re-processing plan in North Wales. This would create further jobs through the construction and operation of a new facility.

Quality skills for the long term

Waste operatives have received enhanced manual handling training. In addition, the service is being modernised to closely monitor recycling habits of individuals through enhanced data capture of weight based information. Team members have been trained to use route optimisation software. DCC's waste technical team will be required to deliver behaviour change messages to a wide range of audiences, including to school groups and private/social landlords. Increased procurement skills and experience will also be required. The service change is supported through the adoption of an environmental enforcement policy which the team will be required to adopt. Whilst the existing enforcement team have all existing knowledge and skills, wider adoption by the rest of the team will be required. Opportunities have already been created for existing staff to up-skill and progress into more skilled and better paid roles, e.g. loaders becoming LGV drivers.

Quality jobs for the long term	All waste operatives are now required to become "recycling ambassadors" as their acceptance/rejection of presented material is fundamental to providing weekly feedback to the residents about what can and cannot be collected on the kerbside sort scheme. The service works with Working Denbighshire to support people who are often the further away from employment to gain the skills and confidence to become "work ready". Full-time employment opportunities are also available for people via this route.
Childcare	There are no known increased benefits arising from changing the model.

Negative impacts identified:

A low carbon society	Approx. 35,000 wheelie bins became redundant as a result of the change, but recovered bins are being collected for recycling. Recovered plastic is often recycled into new waste containers. The procurement of new containers also specified some recycled content (whilst maintaining strength / life expectancy of the container). A study was commissioned to determine the projected carbon footprint of the new model compared to the previous waste collection model. That study showed a positive outcome. However, it would be helpful to re-visit and review that study now that the number of proposed recycling rounds has increased since that study was commissioned.
Quality communications, infrastructure and transport	No negative impact identified.
Economic development	No negative impact identified.
Quality skills for the long term	No negative impact identified.
Quality jobs for the long term	The manual handling implications of the kerbside sort system may present as a barrier to older operatives or operatives with pre-existing conditions that limit repetitive lifting operations. The Service has already identified the Council's Career Pathways programme as a strategy to deliver succession planning and develop skills of existing employees. They are also proactively engaged in promoting career opportunities externally, such as attending job fairs.
Childcare	There are no known increased implications arising from changing the model

A resilient Denbighshire

Overall Impact	Positive
Justification for impact	Despite the issues we have seen following the rollout, with negative feedback received from disgruntled residents who either didn't support the change or who have had problems with missed collections, overall, it is felt that (long term) the messages about the importance of recycling will succeed and the majority of residents support the campaign to increase recycling rates

Further actions required

Continued negative behaviour (after the new service has settled down) will be tackled through targeted communications on the benefits of the change to try to get all residents on board. As far as is possible, any new collection vehicles will be the most fuel efficient models affordable to reduce fuel consumption and emissions as far as practical.

Positive impacts identified:

Biodiversity and the natural environment	This option enables the reprocessing industry to operate closed loop recycling solutions, saving the need to use virgin materials extracted from the natural environment across the world. More recycling will be recovered than the previous model. Evidence suggests that people adopting pro-recycling behaviours on a kerbside sort system become more supportive of wider environmental issues.
Biodiversity in the built environment	Previously, around 10,000 households were receiving a sack collection for residual/recyclable waste. Sacks were often ripped open by scavenging animals (seagulls, rats and foxes) providing an unnatural source of food, leading to unhealthy increases in populations of some species that may displace other species. The new model has reduced the number of households on a sack collection and provided those remaining on sack collections with sturdier hessian sacks to provide some additional protection for the contents.
Reducing waste, reusing and recycling	The new model will help us to improve and increase domestic recycling performance and produce cleaner material more suitable for closed loop recycling.
Reduced energy/fuel consumption	Food waste is now co-collected on the same recycling vehicle as dry material (instead of on a separate vehicle), and the number of residual collection passes per month have been reduced. Overall this results in fewer vehicle movements.
People's awareness of the environment and biodiversity	The new collection model will further raise awareness of issues around recycling. An ongoing communications strategy is required to reinforce the messages about the benefits of recycling.
Flood risk management	No impact identified.

Negative impacts identified:

Biodiversity and the natural environment	redundant. These are being collected for recycling into new bins. To partially offset the environmental impact, new containers contain the optimum recycled content whilst maintaining durability. We gave residents the option of retaining their bigger blue wheelie bin for non-recyclable waste to remove the need to issue new wheelie bins to most residents, so as to reduce wastage and cost.
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As a result of the service change around 35 000 wheeled hins become

Biodiversity in the built environment	Development of a new waste transfer station was carefully managed, with input from the DCC Ecology and Biodiversity Officers and NRW. Our ability to secure a permit from NRW to operate from the site required significant work to be undertaken to deal with any potential ecology and biodiversity impacts and risks.
Reducing waste, reusing and recycling	There was always a risk of negative behaviour from disgruntled residents who take against new arrangements and deliberately reduce recycling efforts. However, this doesn't appear to have happened on a large scale. It will be necessary to continue to support this service changes with the fair but firm application of the household waste collection policy, and to resource enforcement activities adequately to ensure that dumping of rubbish and deliberately cross contaminating waste streams is appropriately regulated.
Reduced energy/fuel consumption	Initially, households may have made additional journeys to our household waste recycling centres (HWRCs) to dispose of excess waste. However, the new model has provided residents with an increase in their weekly capacity for managing their waste. Therefore, as long as waste is segregated appropriately, there should be no need for residents to make any additional journeys to our HWRCs. The household waste collection policy will specify that households will qualify for additional capacity as long as they can demonstrate they recycle all they can, and capacity is a regular issue. Residents taking "black bag" type waste to the HWRCs are asked to segregate recyclables or the bags will be rejected. This encourages the correct behaviours at home, negating the need for additional journeys.
People's awareness of the environment and biodiversity	May encourage negative behaviour from disgruntled Residents who take against new arrangements and deliberately reduce recycling.
Flood risk management	No impact identified.

A social and physical environment that encourage and support health and well-being	This new model requires the householder to do more to manage their waste responsibly. More support will be offered to residents to comply and a sustained and focussed environmental campaign will offer opportunities for social norming and intergenerational learning, where schools and their pupils encourage their communities to recycle more.
Access to good quality, healthy food	NONE

People's emotional and mental well-being	Engaging people further in the activity of increasing recycling will engage them in a positive activity that can improve their sense of participation and doing good. There is evidence that people using a kerbside sort system are more "bought into" recycling as they believe more strongly the material is going to be made into new products. There is also evidence to suggest engaged recyclers are more likely to engage or be supportive of environmental initiatives.
Access to healthcare	NONE
Participation in leisure opportunities	NONE

A social and physical environment that encourage and support health and well-being	There is a risk that a small proportion of residents choose not to engage with DCC's waste collection system, resulting in persistent contamination and/or fly-tipping. The role of the waste enforcement function and communications is therefore critical to mitigate these risks.
Access to good quality, healthy food	NONE
People's emotional and mental well-being	Possible issues with the change upsetting residents and affecting their well being due to change and the need to adapt to new arrangements which they may feel antagonism towards, or be fearful they will not be able to cope with the new system.
Access to healthcare	NONE
Participation in leisure opportunities	NONE

A more equal Denbighshire

Overall Impact	Neutral
Justification for impact	Most protected groups should be unaffected by the new waste model as households already presented and segregated their rubbish. There may be a negative impact on residents with disability or who are elderly/infirm but variants to the main system will be put in place to recognise and manage this. Exemptions can be made in exceptional circumstances for genuine cases.
Further actions required	Recycling rates in areas with poor economic circumstances are often lower than in other areas. More targeted communications may be required to ensure residents in these areas fully understand the new system and take care to store their waste and recycling containers on their own properties so they are not abused or stolen.

Improving the well- being of people with protected characteristics. The nine protected characteristics are: age; disability; gender reassignment; marriage or civil partnership; pregnancy and maternity; race; religion or belief; sex; and sexual orientation	The new Service will include a free separate collection of nappy/incontinence waste (AHP) upon request, helping households with young children, or residents with medical needs cope better with the Waste Collection Service. This is an improvement to the previous service. Where possible discreet but accessible collection points from inside the household property boundary may be requested for those requiring the services due to medical conditions.
People who suffer discrimination or disadvantage	NONE
Areas with poor economic, health or educational outcomes	All trollibocs and new waste containers will be provided free of charge during the service change, even though the Council has a right to charge for them. The new waste model will increase the opportunities for employment and "ready to work" schemes.
People in poverty	People in poverty often produce more waste - especially food waste and packaging waste. The new model provides greater capacity overall, on a 4 weekly basis to manage and contain waste.

Improving the well- being of people with protected characteristics. The nine protected characteristics are: age; disability; gender reassignment; marriage or civil partnership; pregnancy and maternity; race; religion or belief; sex; and sexual

People with some disabilities may find the new way of presenting waste more challenging, due to the need to separate waste into more containers, and due to the fact that they may need a larger residual bin, which could be heavier to manoeuvre. Consultation with disability user group representatives has also identified that the new Trollibocs system requires more "bending" that could prevent or put off some infirm residents from using the service. For this reason a range of container options can be offered to infirm or disabled residents and the Trolliboc design took account of feedback received through consultations. DCC operate an assisted collection service so if a household find their residual bin too heavy due to size can either be given a smaller bin (subject to having capacity) two smaller bins, or may apply to be on the assisted collection list where we collect the bin from the curtilage of their property.

The new DCC waste enforcement policy will allow for households to be listed as exempt from recycling some or all materials if a disability and/or lack of support genuinely prevents them from doing so (e.g. sheltered accommodation with occupants with dementia).

Trollibocs can be provided with braille stickers where needed and all associated instructional material can be provided in appropriate mediums for sight impaired occupants.

Opportunities for upskilling and redeployment will be provided to employees who are unable to manage the new manual handling requirements of the collection service

People who suffer discrimination or disadvantage

If a household has suffered discrimination from sections of their community in the past, they are more likely to be reported to us if they struggle to comply with the new system.

The DCC enforcement policy will always include an initial educational step before enforcement action is taken to help residents to adjust to the new requirements.

Areas with poor economic, health or educational outcomes

Recycling rates in areas with poor economic circumstances is often lower than in other areas.

People in poverty

The Council has the right to issue a fixed penalty to residential occupants for failing to recycle, or dumping black bag waste. In order for the new scheme to work longer term, it will be necessary to monitor activities of non-compliant households more rigorously, that could lead to FPN's being issued. However, the revised Council enforcement procedure will ensure that every household will be given the opportunity to correct behaviours first. In addition, an early payment option with a reduced fine level can also be included.

A Denbighshire of cohesive communities	
Overall Impact	Neutral
Justification for impact	Overall positive impact as new collection model offers opportunities to raise awareness of need to increase recycle for residents and benefit this may bring to engagement and reducing littering. However, there is also a risk that it may lead to some people feeling that the change is being done to them and an associated problem of littering and fly tipping may result. The new system will be better regulated to identify noncompliance and target behaviour change processes efficiently. There should be fewer abandoned contaminated bins on the streets with the new model. The Recycle More Waste Less Survey showed that households are currently more likely to have space in their residual black bin on collection day than their recycling bins, evidencing that the new model, to increase recycling capacity by 57litres per week and reducing residual capacity by 10litres per week is manageable. This, combined with the fact that on average 51% of the waste in the black bins could be recycled on our existing services supports a move to shift the focus and resources to collecting more recyclable waste.
Further actions required	There is a perception that a reduced residual collection frequency could attract pests. The new model will offer a weekly opt-in service for AHP waste and the weekly food waste service will continue and be expanded to all houses, meaning waste most likely to attract pests and vermin should not be in the residual bin. Households remaining on a sack collection will be provided with gull-proof sacks to contain their disposal pink sacks. This will keep waste and odours contained and enable the Council to regulate the capacity given to sack customers so that recycling behaviours are still incentivised.

Safe communities and individuals	All wheeled bins and Trollibocs will be assigned to individual properties, encouraging ownership so they are not left out on the highway where they pose a fire risk.
Community participation and resilience	All residents have had the opportunity (via a survey) to say what worked and didn't work about the previous model. That information was used to help shape the proposal for the new model.
The attractiveness of the area	With improved recycling it may be that this leads to a reduction in litter / waste as more recyclable material is captured via the new collection arrangements. Sack collections and on street solutions will be phased out wherever possible. Enhanced consultation with HMOs and private landlors will seek to ensure adequate and appropriate provision is made for tenanted properties.
Connected communities	Intention to use social norming as a way to promote pro-recycling behaviours and identify recycling champions.

Safe communities and individuals	Residents who fail to comply with the new system and dump their waste will lower the environmental quality where they live - leading to the broken windows effect. The new waste model, however, will have boosted resources to target those individuals with appropriate education and enforcement action. It is not envisaged, however that these issues will increase in number from the baseline model. Areas causing issues now will be visited to ensure the optimal system is put in place to prevent waste escaping into the environment.
Community participation and resilience	Many residents will not have actively engaged during the proposal phase and provide resistance as the service is rolled out.
The attractiveness of the area	Residents who fail to comply with the new system and dump their waste will lower the environmental quality where they live - leading to the broken windows effect. The new waste model, however, will have boosted resources to target those individuals with appropriate education and enforcement action. It is not envisaged, however that these issues will increase in number from the baseline model. Areas causing issues now will be visited to ensure the optimal system is put in place to prevent waste escaping into the environment. There is a perception that a reduced residual collection frequency could attract pests, but that will not be the case if people manage their waste appropriately.
Connected communities	Initially some recyclers may disengage with the new service if they disagree with the proposals. Mitigate with regular and targeted coms using the Waste Recycling Action Programme's (WRAP's) segmentation research. New scheme must be flexible to address individual needs where appropriate.

A Denbighshire of vibrant culture and thriving Welsh language	
Overall Impact	Neutral
Justification for impact	There will be a lot of communications material produced to provide instructional and motivational information to target audiences and the public in general. Every opportunity to promote the Welsh Language and cultures will be taken during the development of our campaigns.
Further actions required	There are no identified negatives.

People using Welsh	The proposed waste collection system is more aligned to those in the other Welsh authorities. This consistency will assist in general understanding in any language as families and friends communicate beyond County boundaries. All communications, including the survey, media releases and instructional information will be produced in Welsh as well as English.
Promoting the Welsh language	There is an opportunity to display bi-lingual advertisements with simple messages/ catch phrases

Culture and heritage	In the longer term, once kerbside capture of materials is maximised, there is an opportunity to promote re-use of kerbside materials and carry out campaigns to extend the life of items through repair. This will encourage people to learn traditional skills, such as sewing. There is also an opportunity to appeal to target audiences through tying together traditional activities and recycling/re-use behaviours (e.g. A rugby player recycling his old shirt, a sheep farmer recycling his working dogs' food packaging etc
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People using Welsh	NONE
Promoting the Welsh language	NONE
Culture and heritage	NONE

A globally responsible Denbighshire	
Overall Impact	Positive
Justification for impact	Positive overall as aligns with other North Wales LA's - developing common resident experience and producing higher quality resources that can stimulate local and national manufacturing opportunities.
Further actions required	As part of design and communications around collections model change Denbighshire will learn from from all previous service changes in Wales and wider afield, through data held by WRAP (Waste Resources Action Programme)

Positive impacts identified:

Local, national, international supply chains	The previous waste model produced low quality recycling which had limited markets/value. The blueprint model produces better quality source segregated material which can be used by local and national manufacturing companies.
Human rights	NONE
Broader service provision in the local area or the region	By making the change to the new waste collection model, Denbighshire is more closely aligned with others across North Wales, including specifically Conwy CBC therefore making any option for Service collaboration in future a simpler task

Negative impacts identified:

Local, national, international supply	Initially there will be a drop in the volume of some non-target plastic that is currently being marketed but the benefits of producing cleaner material far
chains	outweigh this.

Human rights	To support the introduction of the new scheme, the Council will be reviewing its waste enforcement policies to ensure the scheme is regulated. The Council will, in all cases act in accordance with the Regulators Code (2014).
Broader service provision in the local area or the region	NONE