

Economic & Environmental Wellbeing Scrutiny (March 2021)

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Interim Head of Highway Maintenance

Presentation Today...

- Litter monitoring and litter bins
 - Methodology for monitoring and trends through Covid-19 lockdown(s)
- Litter Bin Reports
 - Demand trend for full bins & new bin sensors for auto-reporting
- Fly tipping & Graffiti
 - Analysis of trends and reports through lockdown(s)
- Waste and Recycling
 - Black bin (residual waste) trends through lockdown(s)
 - Blue and brown analysis
 - Impact at Household Waste Recycling Centres
 - Other service impacts (green, garden waste bin & bulky waste collections)

KEY DATES 2020

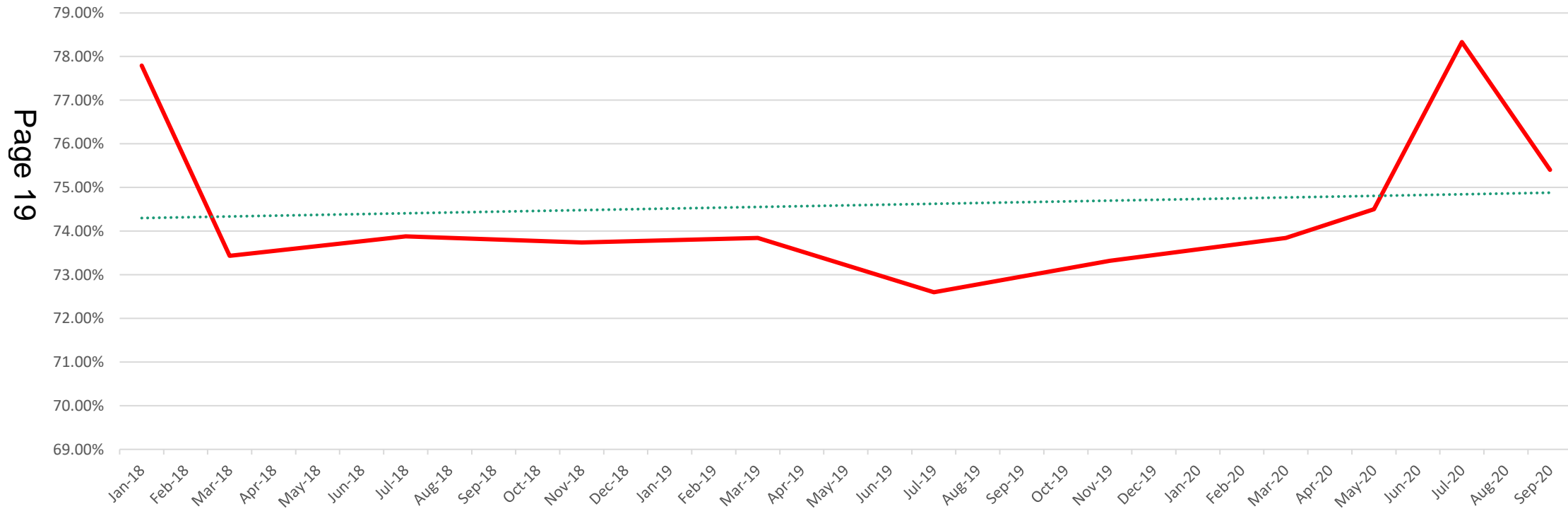
- 16th March 2020 – “Stay at home” instruction
- 18th March 2020 – Schools Close
- 20th March 2020 – Pubs Close
- **23rd March 2020 – First full national lockdown announced on TV**
- 10th May 2020 – First lockdown “eases” – now allowed to sunbathe in parks and exercise more than once per day
- 11th May 2020 – Garden Centres Reopen (notable date maybe because of garden waste etc)
- 28th May 2020 – Groups of up to 6 allowed to meet outdoors – this is the start of the summer litter peaks in parks etc
- 1st June 2020 – Kids Return to School
- 15th June 2020 – High Street Non Essential Retail reopens
- 4th July 2020 – Lockdown finally eased and pubs open
- 24th July 2020 – Face coverings become mandatory in shops etc
- 3rd August 2020 – Eat out to Help out starts
- 22nd September 2020 – 10pm curfew for pubs
- 12th October 2020 – Tier system launches
- **31st October 2020 – Lockdown 2 commences**
- 2nd December 2020 – Lockdown 2 ends, re-resume tier system
- **4th January 2020 – present – Lockdown 3 commences**

Litter Monitoring Methodology

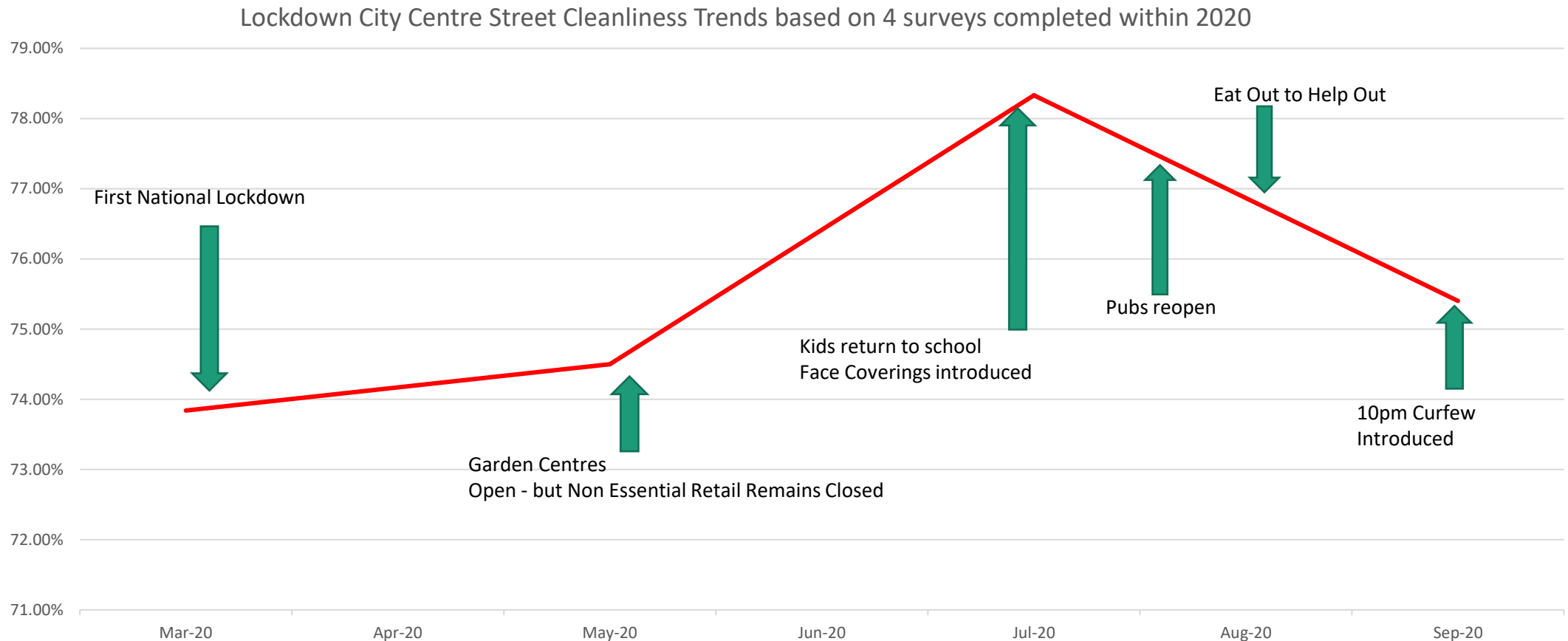
- SCC Client Team routinely monitored street cleansing using a modified version of the NI 195 methodology since 2012.
- Every street is broken down into 50 metre sections (transects).
- Litter accumulations are counted and graded
- This then all compiled into a summary Cleansing Index Score (high = good) and NI 195 Below Acceptable Standard report (low = good)
- Inspections are undertaken multiple times across the whole city centre over the course of a month to capture trends at various times of day, across all days of the week.
- In a typical year this benchmarking is completed 4 times.
- This DEFRA approved process is delivered by fully trained staff and allows us to:
 - Evaluate the efficacy of street cleansing regimes
 - Identify any localised issues (and whether they occur at specific times)
 - Confirm that the contractual input frequencies are being met by Amey
 - Monitor the quality of cleanse undertaken by the operatives
 - Benchmark ourselves with other authorities

Baseline City Centre Street Cleanliness Trends 2018 to Present

Cleansing Index Score (Higher = Improvement in litter levels)



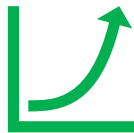
City Centre Litter - Lockdown Breakdown



City Centre Litter Lockdown Trends



Standards were at or around our expected baseline as Lockdown 1 was announced, following a general trend of gradual improvement.



Non Essential Retail and Bars being closed saw an immediate uplift in city centre cleanliness standards as footfall fell and businesses were not producing litter items for consumers to drop

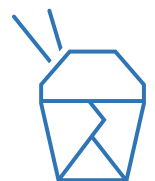
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With less general litter and a number of staff shielding, we shifted the focus onto tasks such as sanitising street furniture and laying out social distancing markings in key city centre retail areas



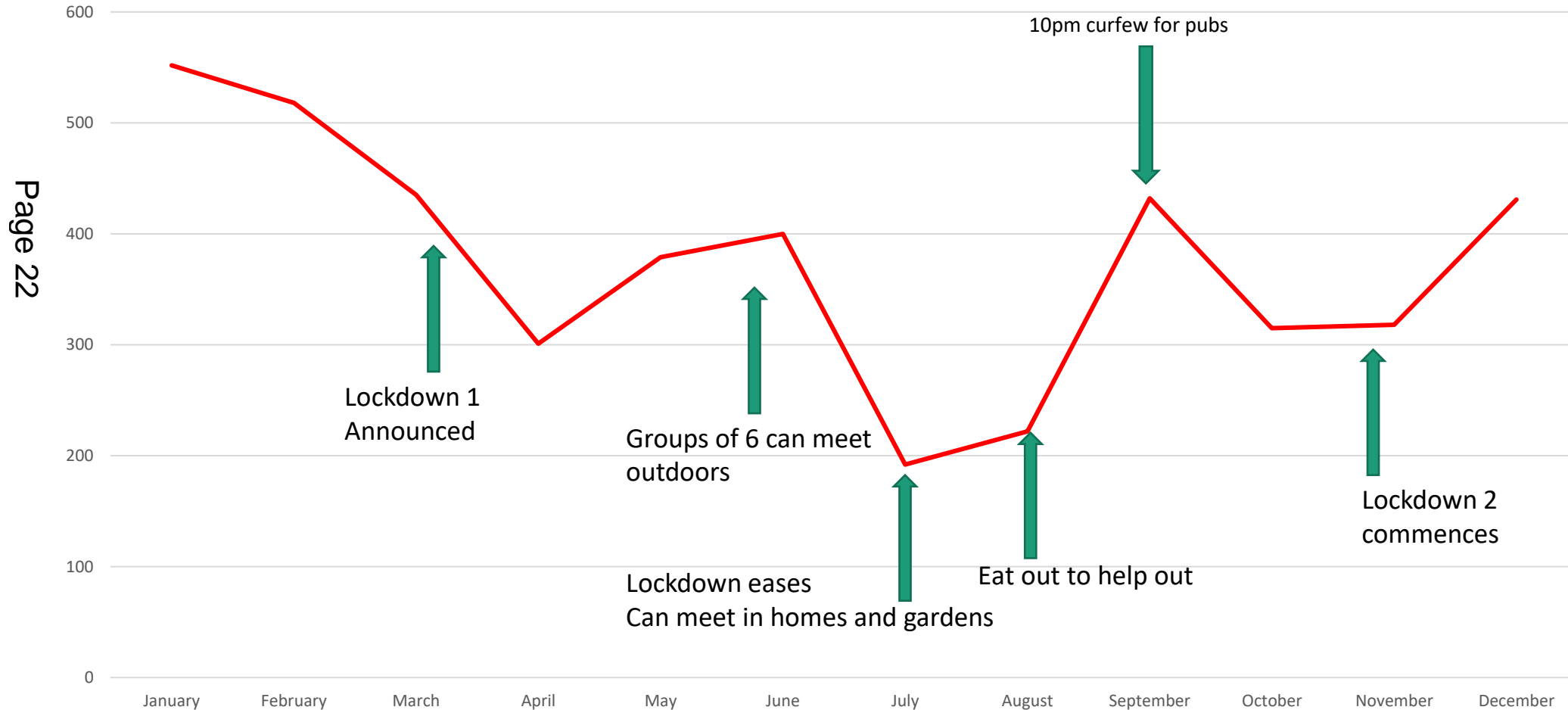
Non-Essential retail remained closed until July, so this combined with the kids returning to school and the “work from home” message being relaxed – putting people back in offices meant that city centre standards continued to stay strong through the early summer months – over a 4% improvement.



Non-Essential retail reopening, followed by Eat Out to Help Out and then the 10pm curfew all led to greater congregation and social drinking / takeaway eating outdoors – leading to a sharp drop in cleanliness standards in September, prior to the Tier system being implemented.

Lockdown Breakdown of City Litter Issues

2020 Litter Citywide

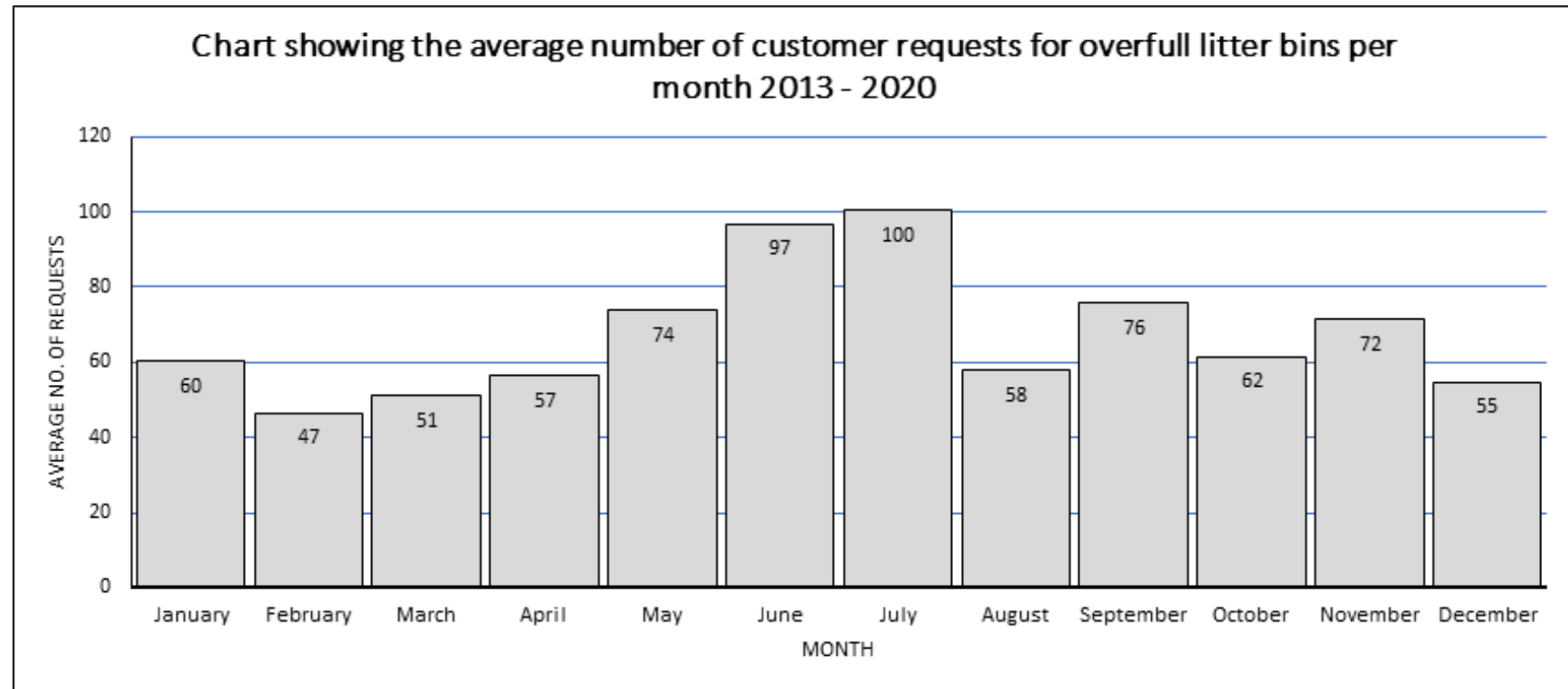


Historical Trend of Overfull Litter Bins

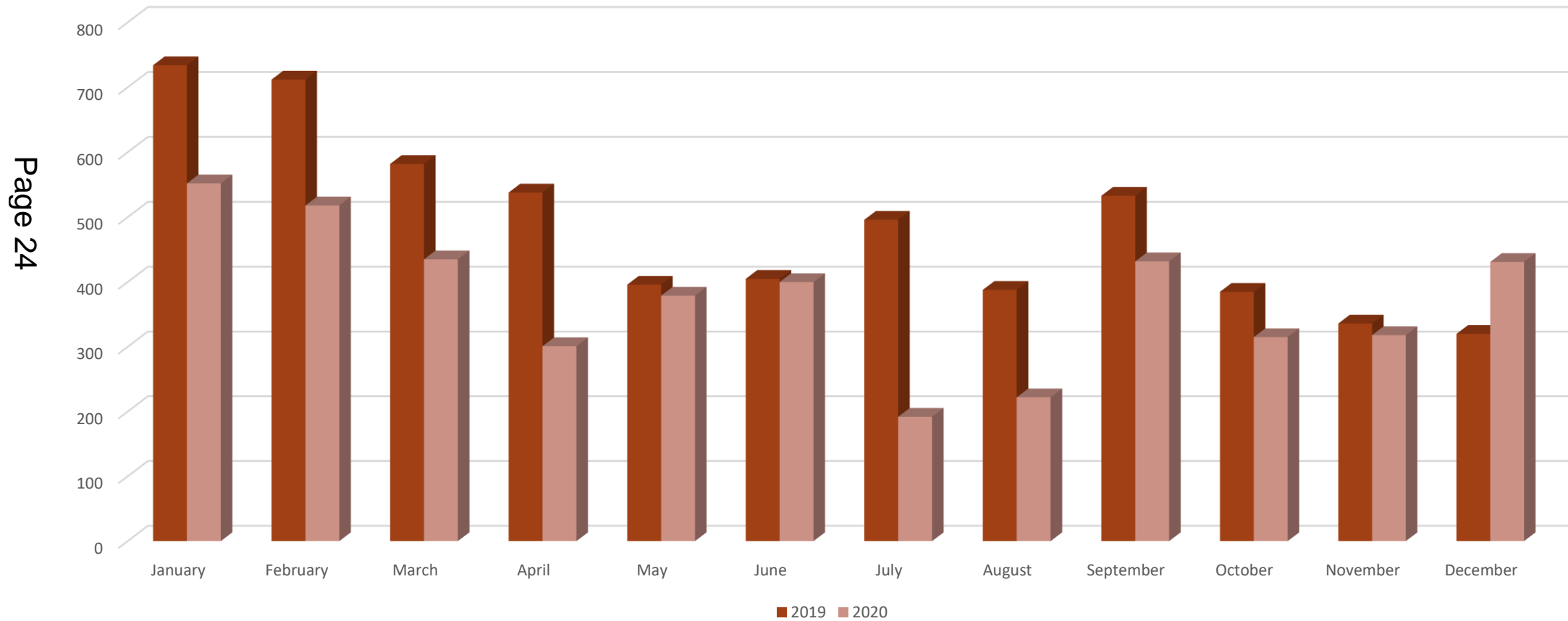
The monthly historical data for overfull bins shows that a “summer spike” is typical – for normal years in June and July

For 2020 we saw this peak come early as the “rule of 6” was implemented – **with over 4 times the average number of jobs in the following month**

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This then tapers off significantly as the first lockdown was eased and people were able to socialise at home – And requests were still running at still **double the typical monthly average**



Litter Complaints (2019 & 2020)



Litter Lockdown Trends



A general trend of **less reports** of litter every month throughout 2020 – **around 77%** of what we would expect in a typical year



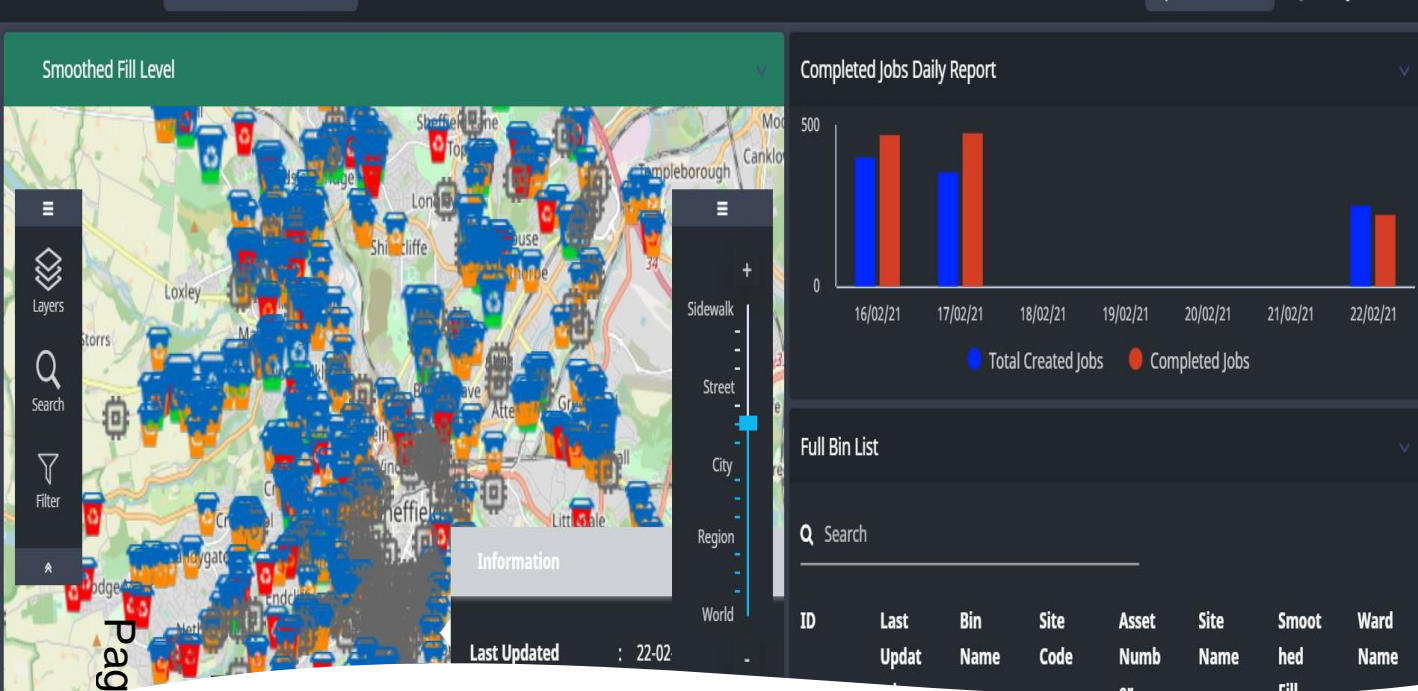
Litter Reports during the height of lockdown 1 were only at **around 55% of usual levels** – suggesting broad compliance with the lockdown led to an overall improvement in street litter levels as people stayed at home.



As per our experience with full litter bins – levels of litter items on the street reduced dramatically in July – coinciding with the relaxation of lockdown 1 and running at only **38%** of our usual expectations for litter at that time of year as people transitioned to socialising and BBQ's with friends in private gardens.



The introduction of Eat Out To Help Out in August meant that people were actively “dining in” in hospitality settings rather than takeaways to capitalise on the discounts offered – meaning litter levels were running at **around 65%** of our typical expectations for that time of year



Overfull Litter Bin Reports

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During 2020 we were the first UK local authority to install a smart bins network - with over 2000 litter bin sensors



Any litter bins which are more than 70% full now automatically “self report” directly into the systems with no need for human interaction – all coordinated via our CityOS platform (image above)



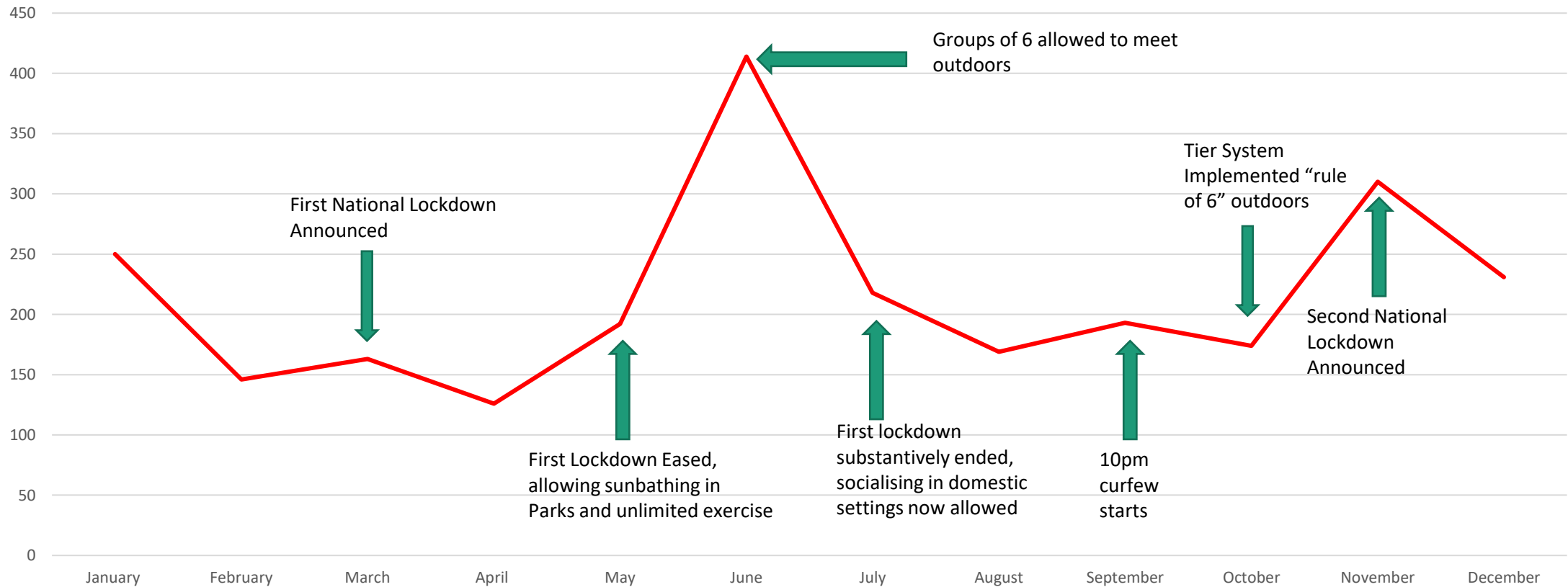
As a result of this system we have been able to devise optimised routes for bin emptying, and trend analyse when bins are likely to become full – and endeavour to get there before they actually do.



We switched to a night shift model for this task – with overnight emptying to ensure bins were empty for the next day rather than chasing around during the day when they were more likely to be used and overflow.

Lockdown Breakdown of Overfull Bin Reports

Lockdown Breakdown of Overfull Bin Reports (City Wide)



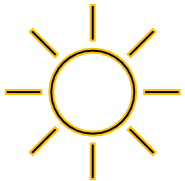
Litter Bin Lockdown Trends



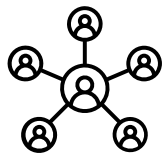
2020 was a unique challenge for highway litter bins – with more litter bin emptying undertaken than in any other year – almost **double the 2019 figure**



Large reduction in bin fill levels during the first national lockdown (**25% down** compared to the weeks before lockdown)



As concessions were made in May allowing sunbathing in parks, fill levels increased (**up 30%** year on year)

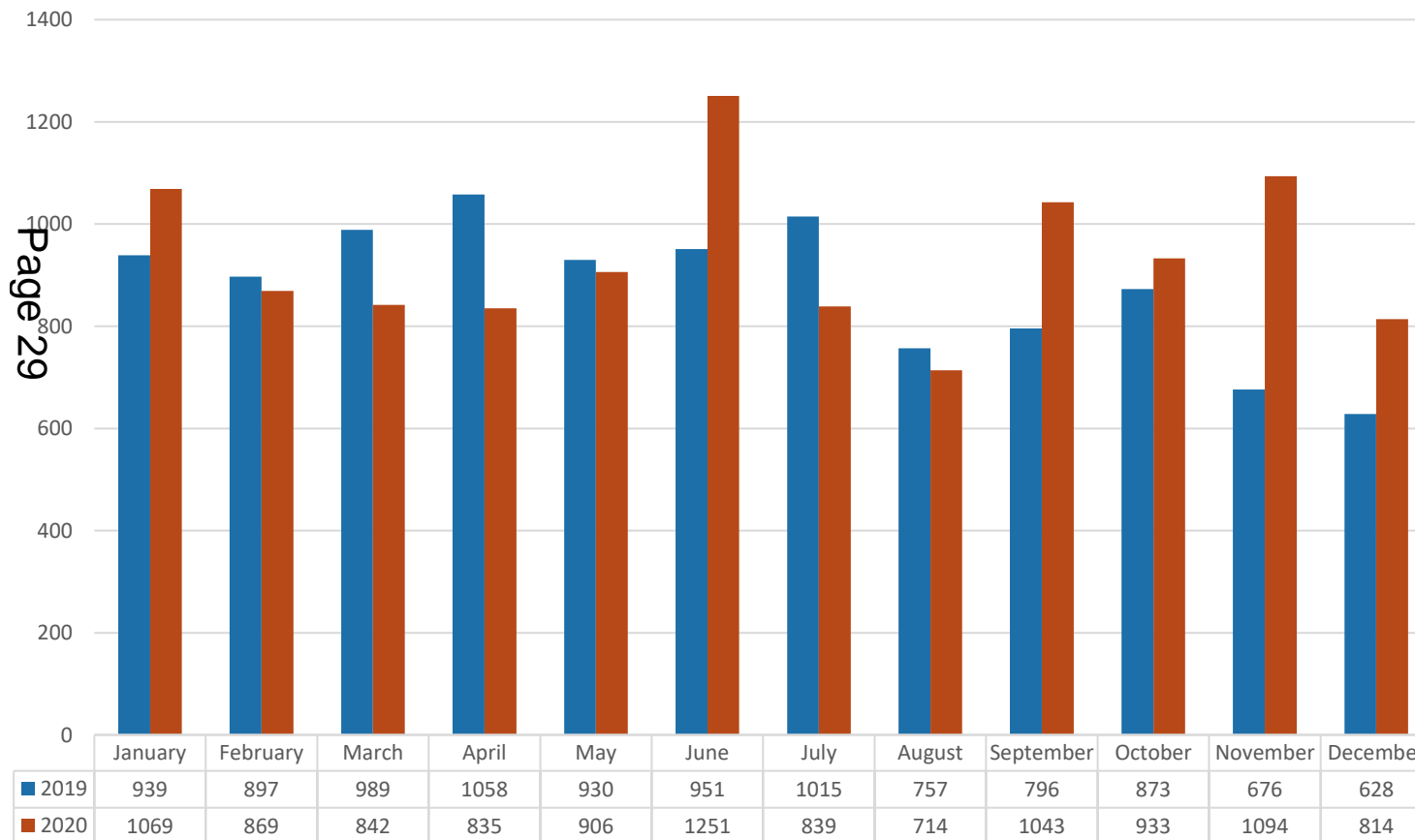


The “rule of 6” allowing outdoor socialising lead to a huge surge in outdoor socialising. Companies such as Uber Eats and Deliveroo were delivering takeaway food and alcohol to public open spaces, meaning a vast increase in the use of highway bins – **4 times the average for this time of year**



As Lockdown 1 was relaxed in July there is a large reduction in bin fill levels as people switch to socialising at each others’ homes and gardens again rather than in public spaces – bin fill levels **halved compared to June** and returned to normal baseline expectations for this time of year

Flytipping Reports (2019 & 2020)



2021 started off with higher than usual fly tipping numbers in January

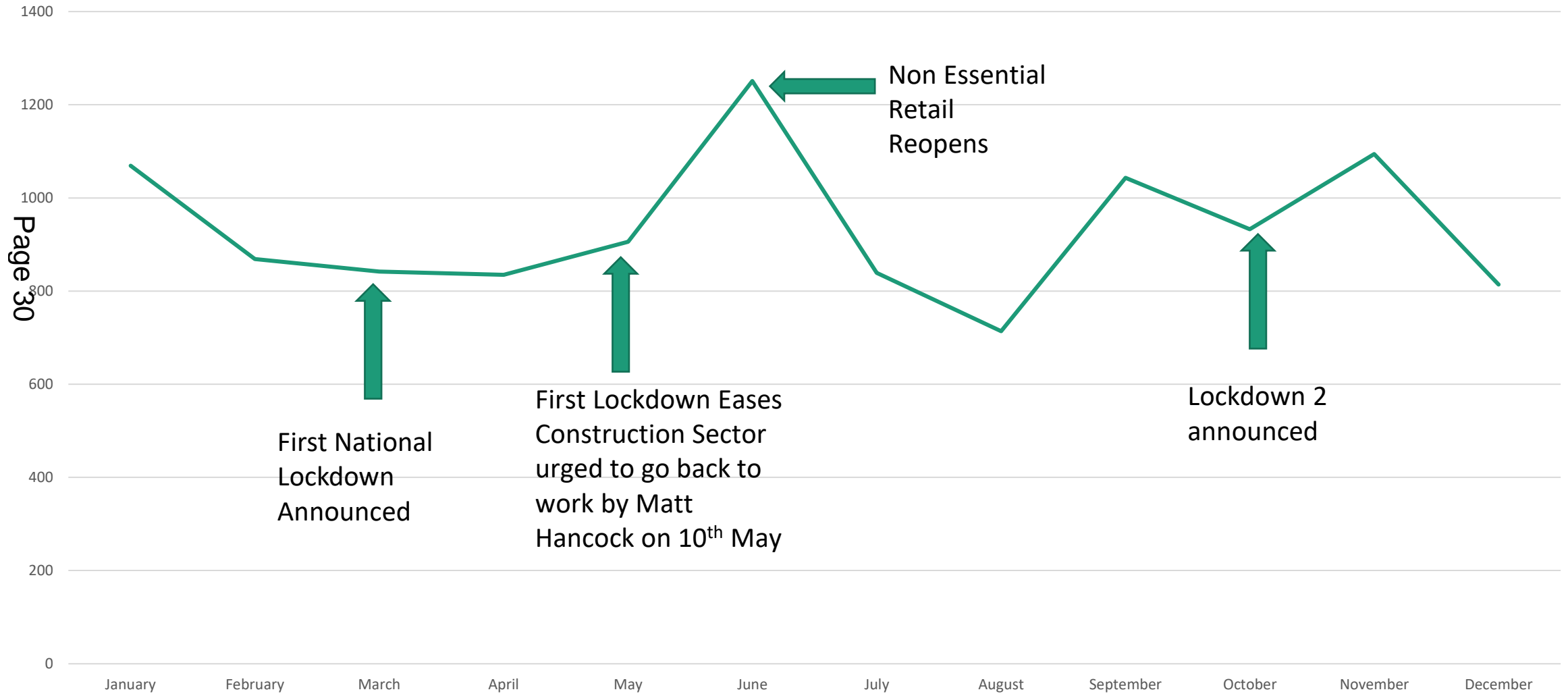
Following the “stay home” instruction issued on the 16th March – a **17.5% reduction** in instances occurred

April showed sustained reductions year on year of almost **27%** whilst the first lockdown was in place

Things equalise in May as construction sector are urged back to work mid Month – returning fly tipping to our yearly average levels for this time of year

The tide begins to turn in June as numbers escalate rapidly

Lockdown Breakdown of Flytipping



Positive Impact of HWRC's remaining open in lockdown 1

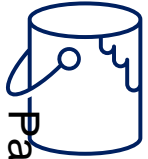
- A key success marker for the Council in Lockdown 1 was keeping Sheffield's Household Waste Recycling Centres open.
- During the first lockdown this allowed us to demonstrate a reduction in fly tipping numbers – over a **20% reduction year on year**.
- Waste tonnage removed by Fly Tipping Teams also **reduced by 66%** for the first month of Lockdown 1.
- Clearly given that tonnage had reduced by 66%, whilst instances had reduced by 20%, then the lack of heavier waste items was a contributing factor – likely linked to a lack of heavy construction waste such as brick rubble etc.
- Almost every other UK Local Authority who did not retain their HWRC's open reported experiencing dramatic increases in fly tipping instances over the same time period.



Lockdown Overall Fly Tipping Data Trends



Sudden reduction in fly tipping instances as lockdown 1 announced – numbers down approx. 20% year on year



Over 300 empty fence paint containers collected during first lockdown

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Upturn in fly tipping instances in May when the construction sector was encouraged back to work. Tonnage of waste removed by street cleansing teams almost tripled from the month prior. Instances of fly tipping over 25% higher than the same period last year.

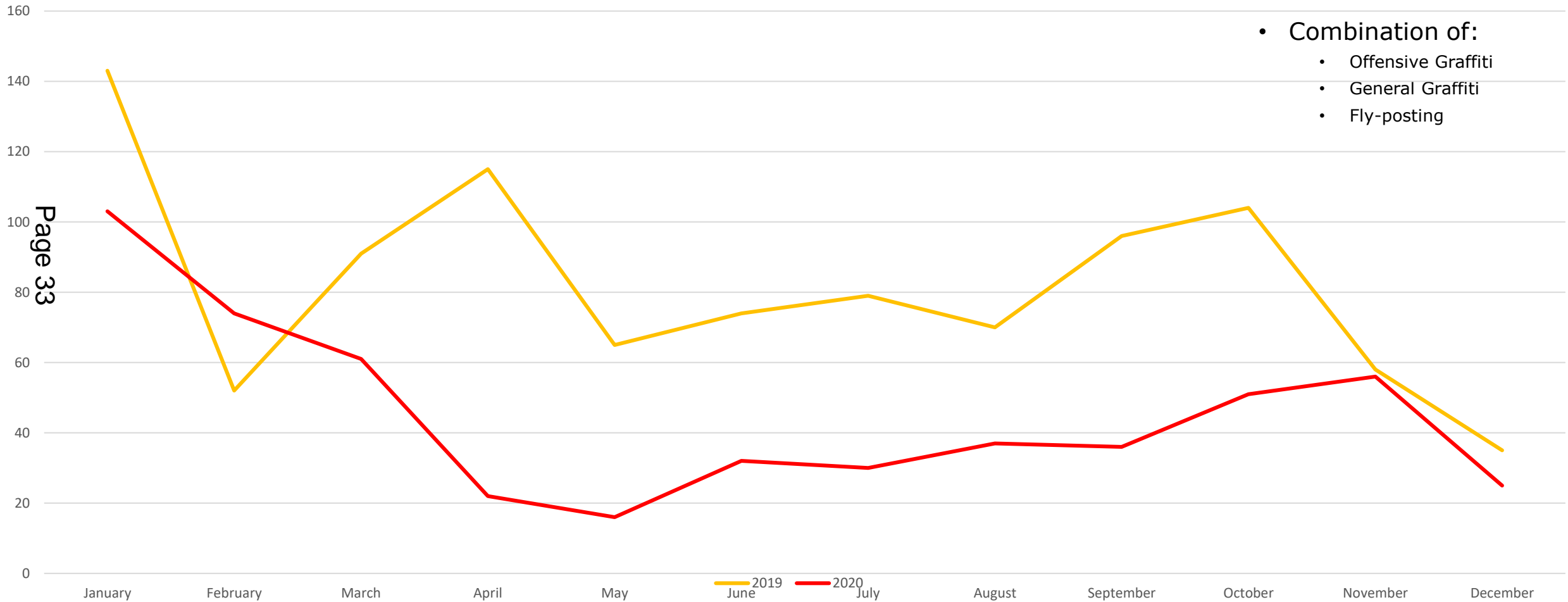


Despite a drop in general fly tipping – numbers of dumped tyres recovered and disposed of by street cleansing teams exceeded 1000 in the month for June as people began using vehicles more frequently.

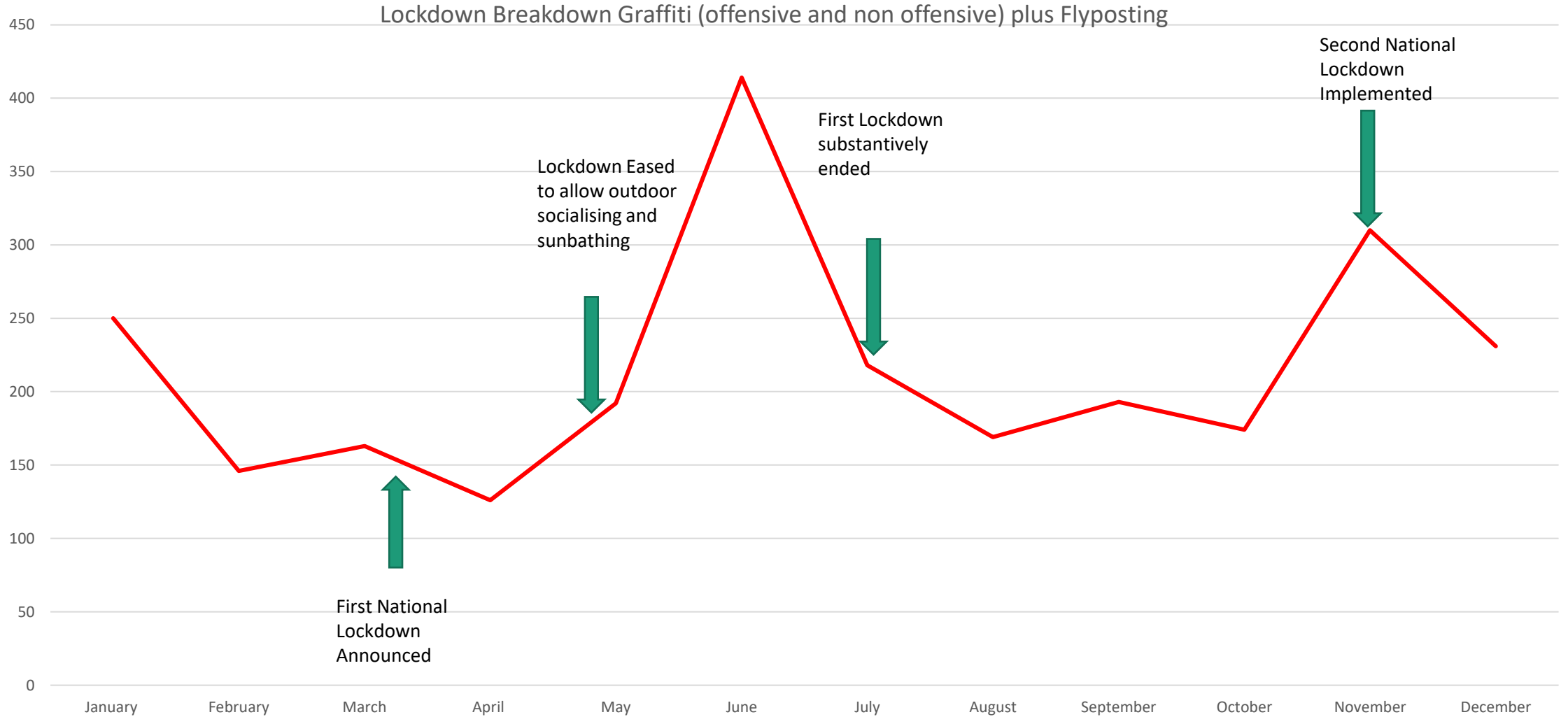


A further spike in fly tipping instances was noted in lockdown 2. Notably the construction industry was not prevented from working during this time.

Graffiti and Fly-posting Reports 2019 - 2020



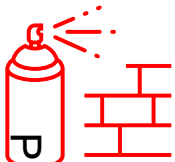
Lockdown Breakdown for Graffiti



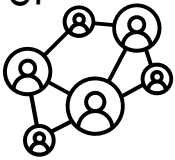
Lockdown Graffiti Data Trends



Notable reductions coinciding with each national lockdown
January 2021 data suggests this trend continuing into lockdown 3



Increases in graffiti were recorded at each “easing” of lockdown regulations
Statistics show that instances typically doubled in the first month after each lockdown was eased



Coordinated flyposting / stickering action by right wing groups such as the “Hundred Handers” was very prevalent during lockdown 1 with material being cascaded to local cells digitally and required coordinated action with police and hate crime leads in the council
Localised extremist, persistent and highly offensive right wing content in the John Street / Bramall Lane area during lockdown 2 (not linked to football hooliganism).

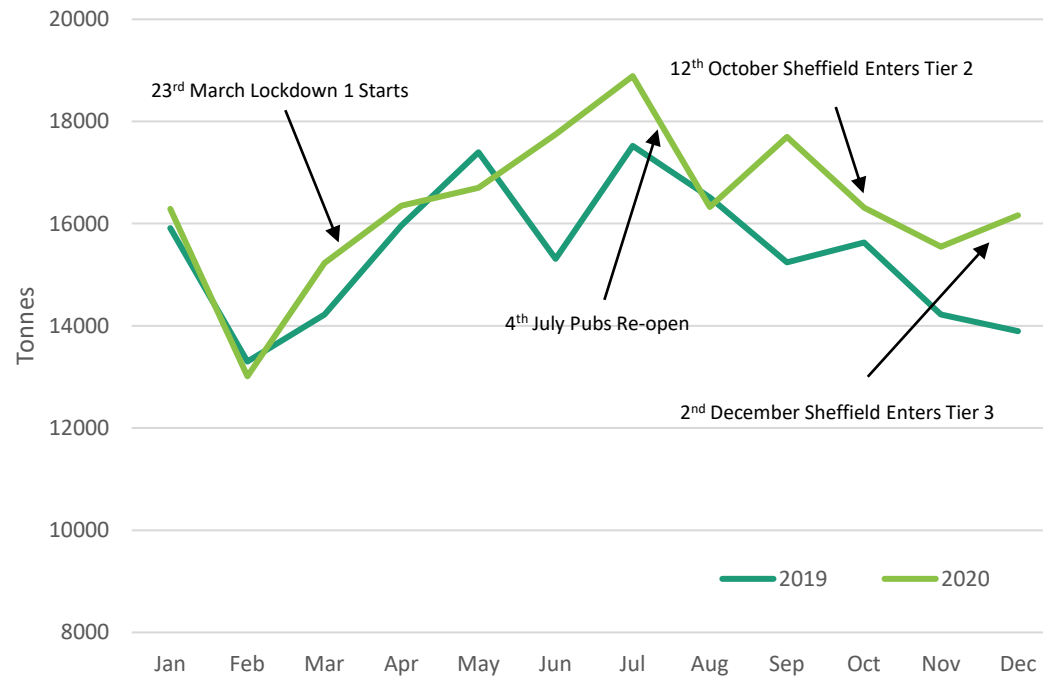


Amey Contract responsible for removal from **highway assets** – i.e. bins, lamp posts, highway walls etc – not privately owned premises. We have maintained a 1 day MAX timescale for removal of offensive material and 5 Business Days MAX for removal of non offensive material throughout the year.

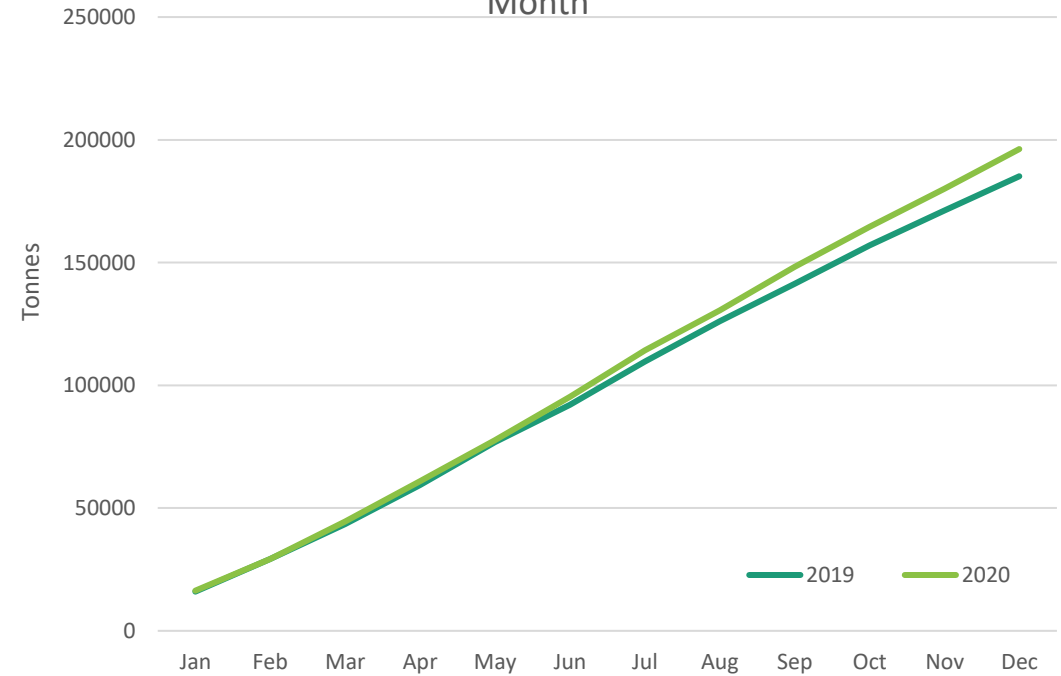
All Waste

- **2020 has seen the amount of domestic waste and recycling processed through all domestic services increase by around 11,000 tonnes or 6% on 2019**

All Domestic Waste Tonnage by Month



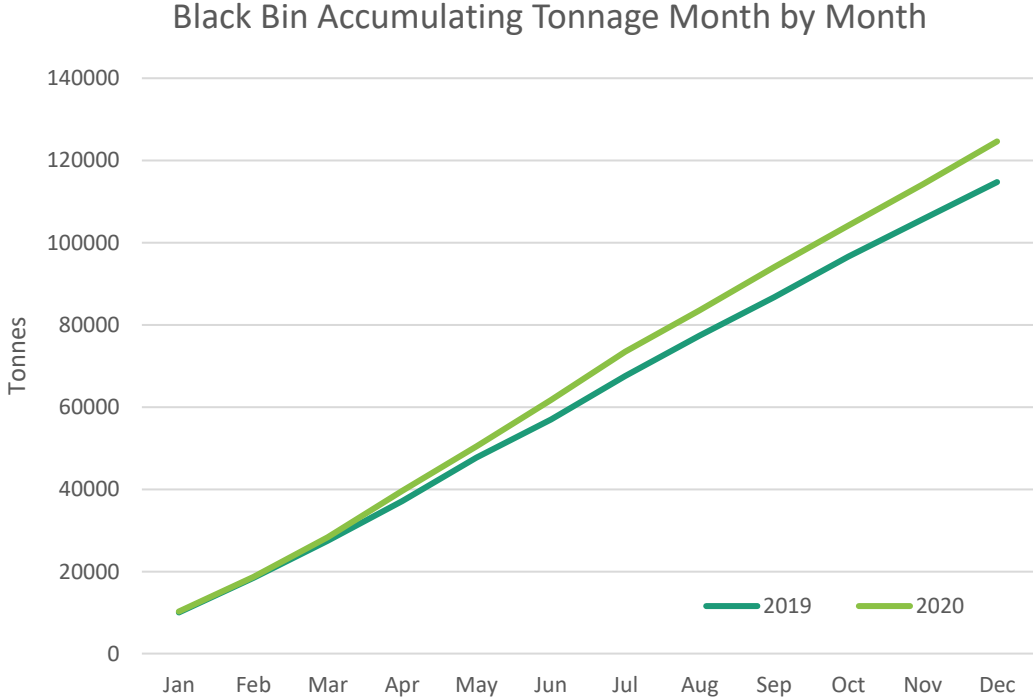
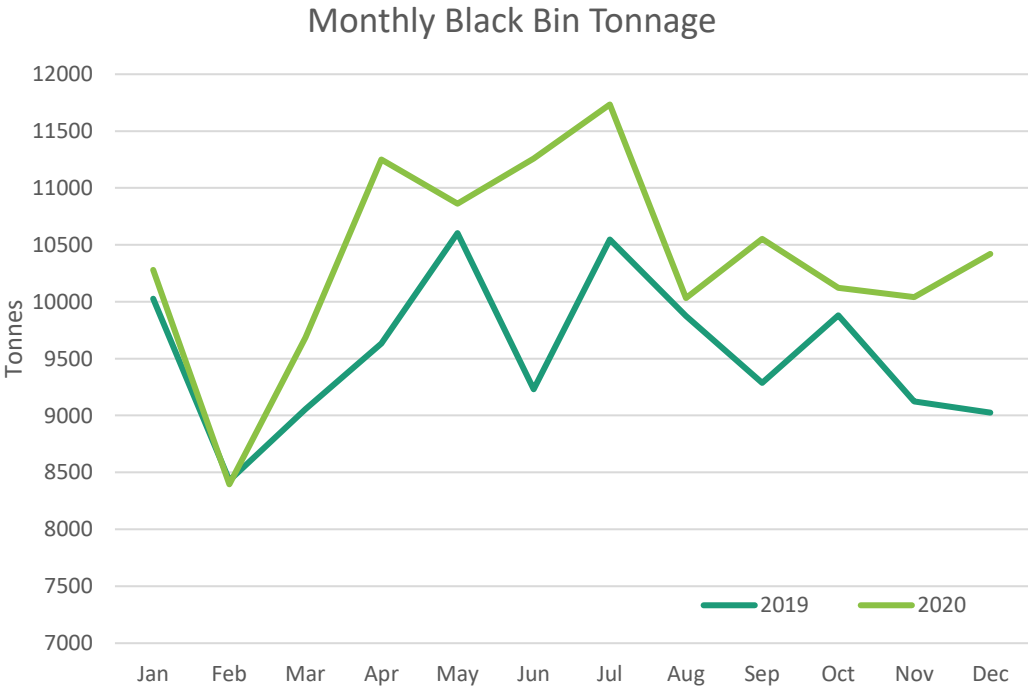
All Domestic Waste Accumulating Tonnage Month by Month



Black Bins

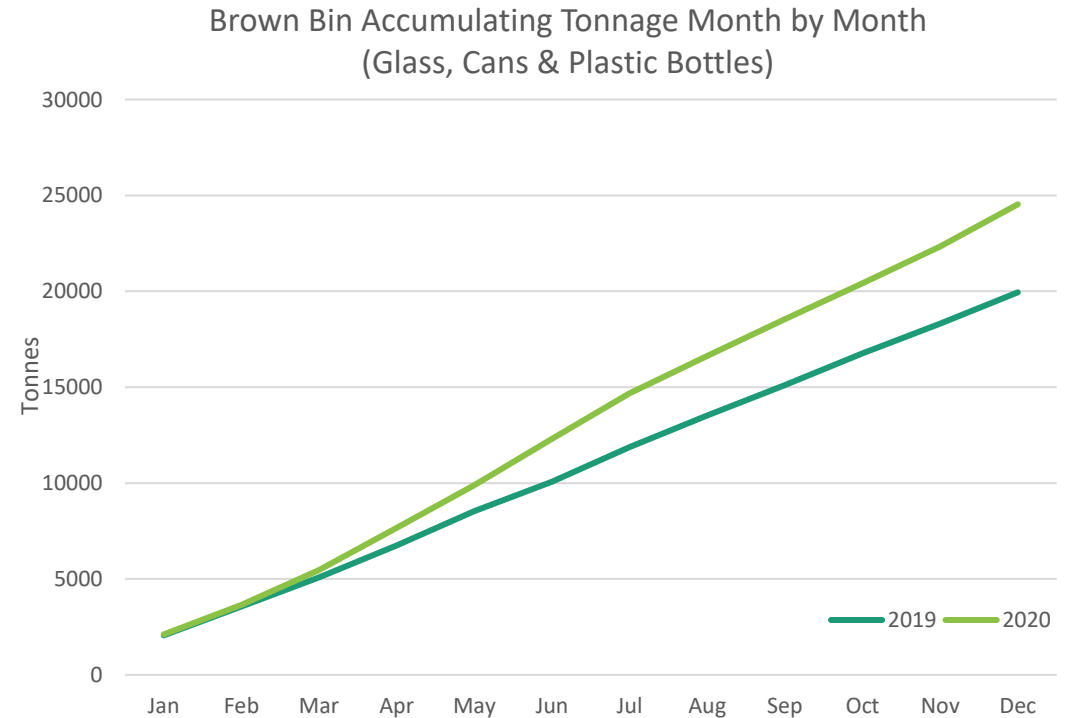
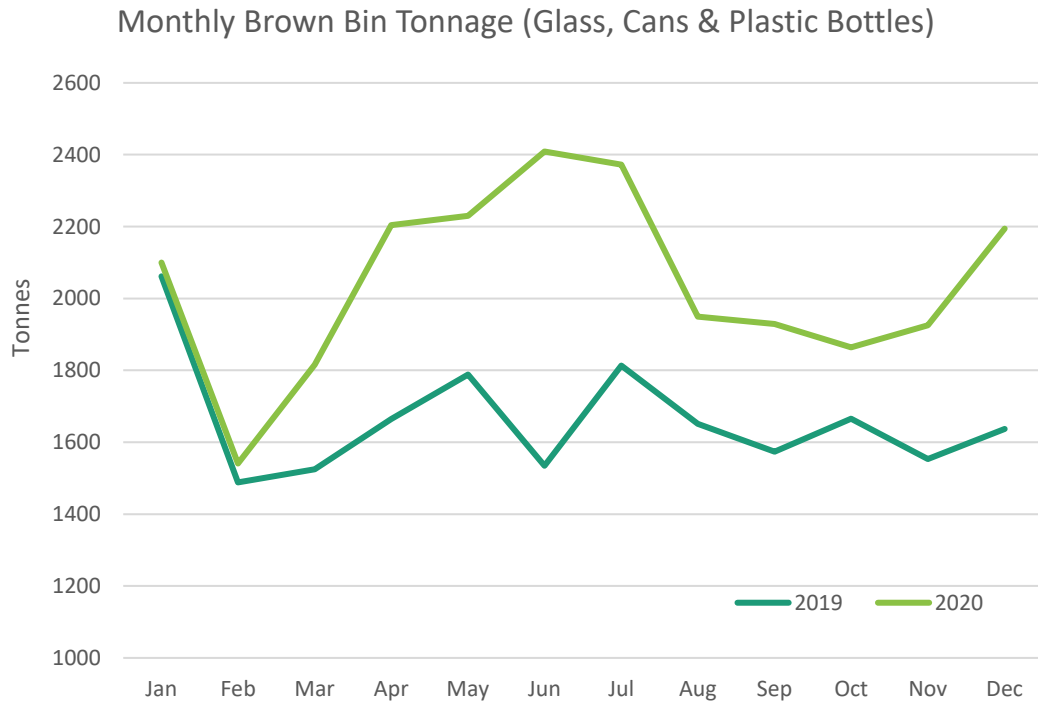
- **No covid related disruptions to collections in 2020**
- **Black bin waste increases significantly in lockdowns**
- **11000 tonnes more collected in 2020 than in 2019 (8% increase)**

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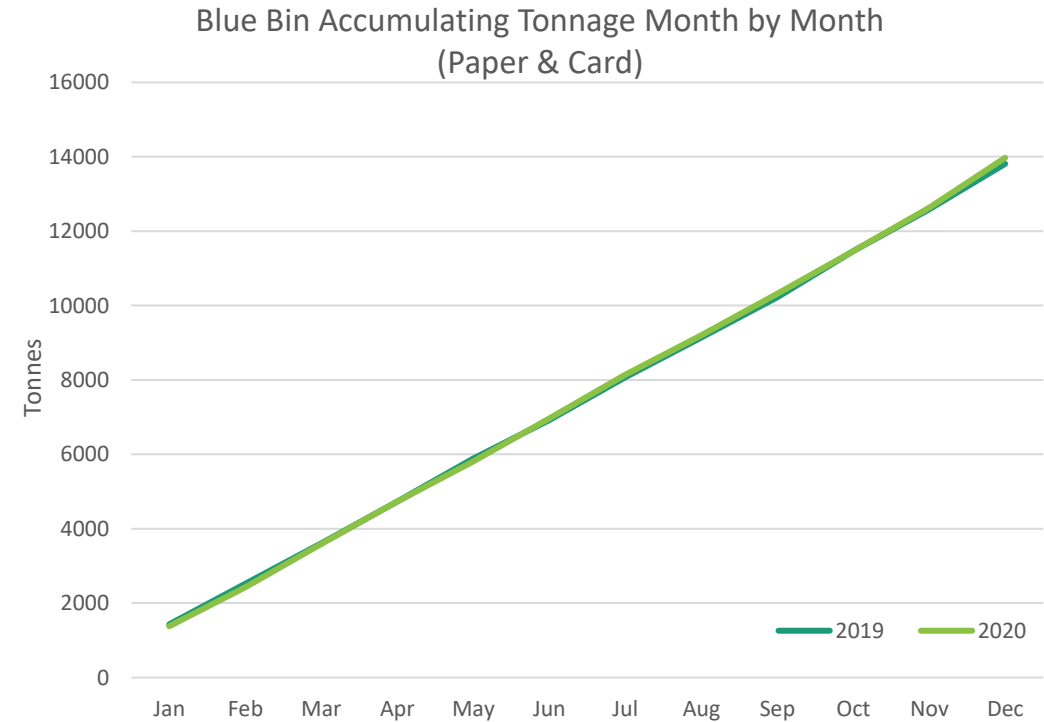
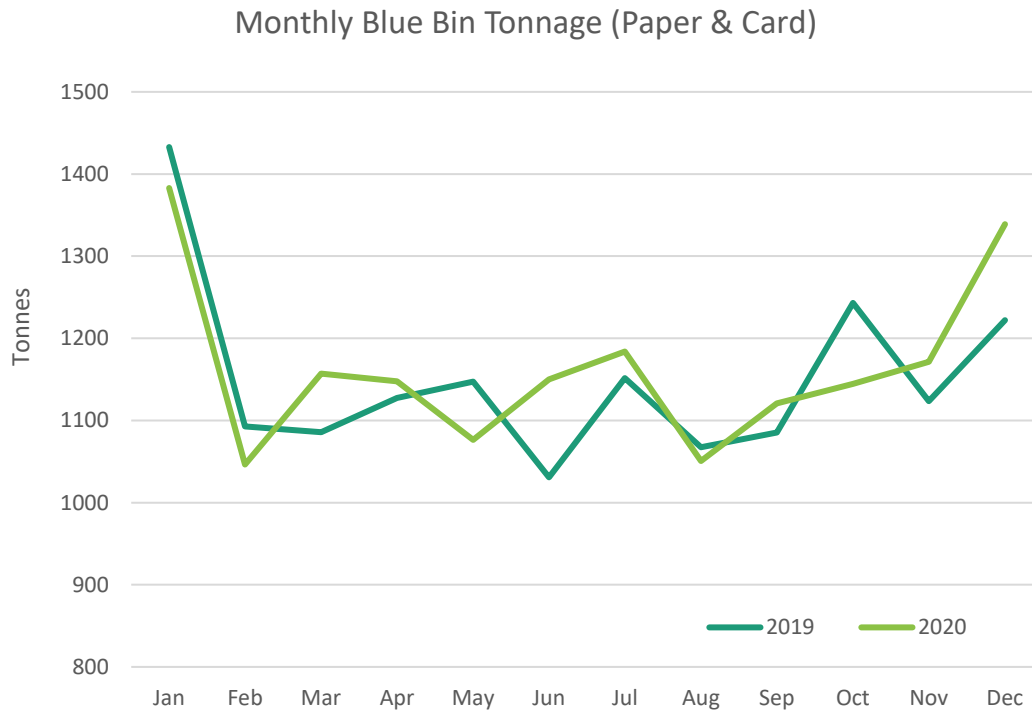
Brown Bins

- **No covid related disruptions to collections in 2020**
- **Significant increase in tonnage through 2020, especially lockdown 1**
- **6000 tonnes more collected in 2020 than 2019 (19% increase)**



Blue Bin

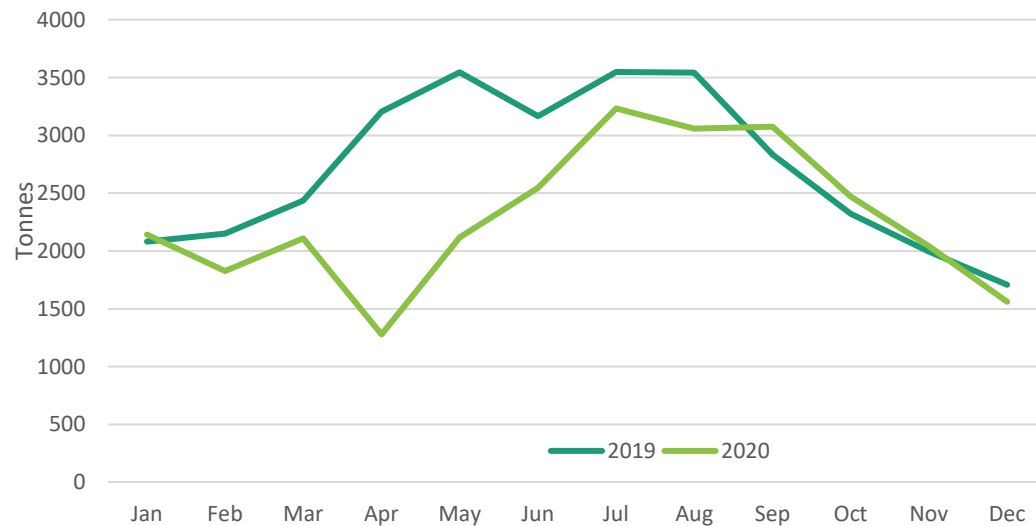
- **No covid related disruptions to collection in 2020**
- **Recent trends have been for lower annual yields of paper & Card**
- **150 tonnes more collected in 2020 than 2019 (1% increase)**



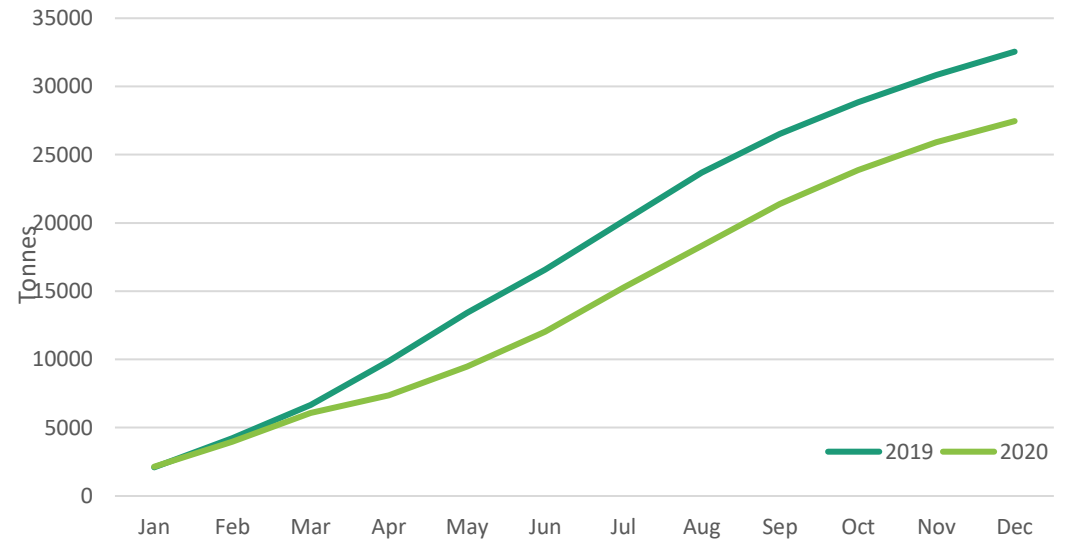
HWRC's

- **HWRC's have remained open throughout the year**
- **Restrictions on numbers on sites to ensure social distancing has presented issues**
- **Additional opening hours have been provided to try and mitigate queues at sites**
- **Temporary traffic measures in place to prohibit queuing outside sites**
- **Lockdown 1 saw significant drop in waste volumes for 2020 through the sites, this is then gradually recovering through the year**
- **5000 less tonnes of material through the sites in 2020 (21% decrease)**

HWRC All Materials

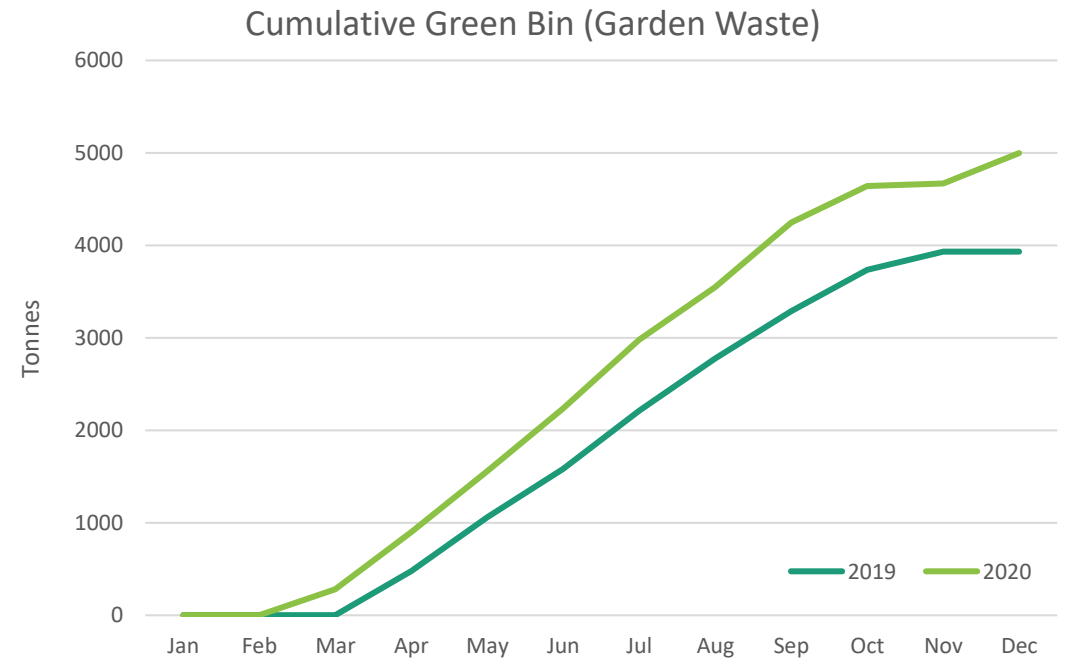
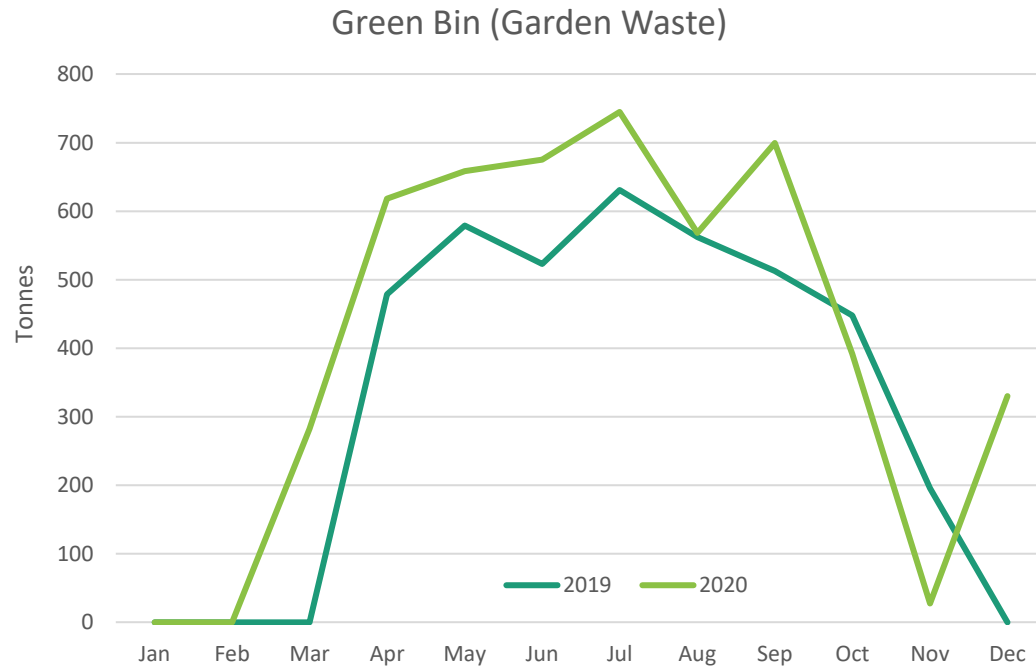


Cumulative HWRC All Waste



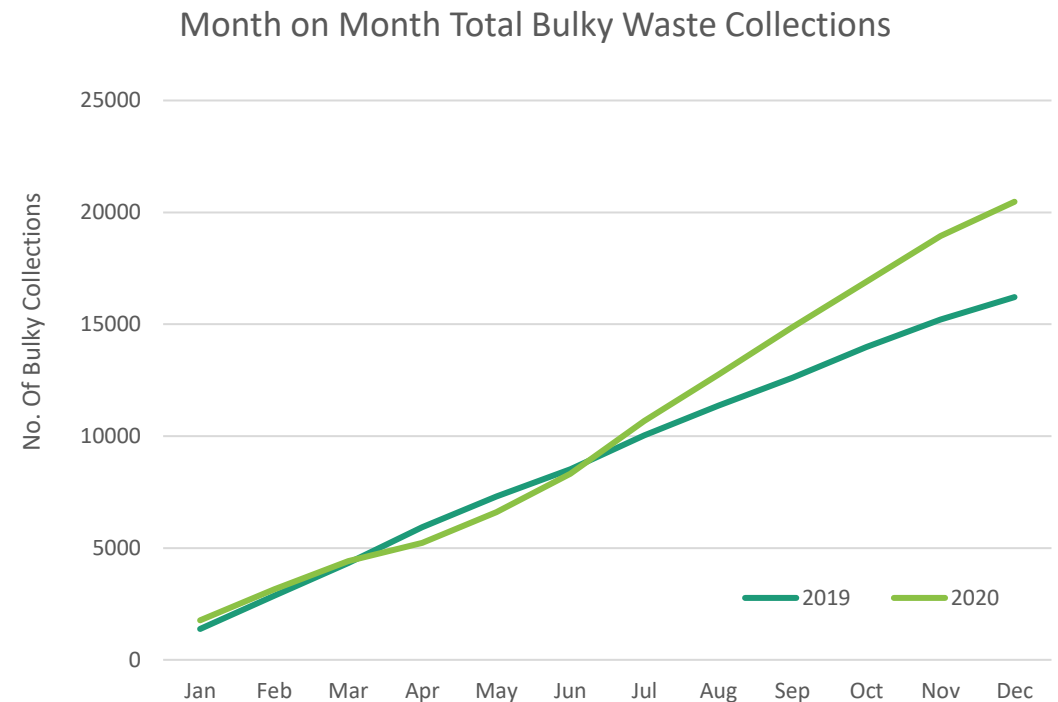
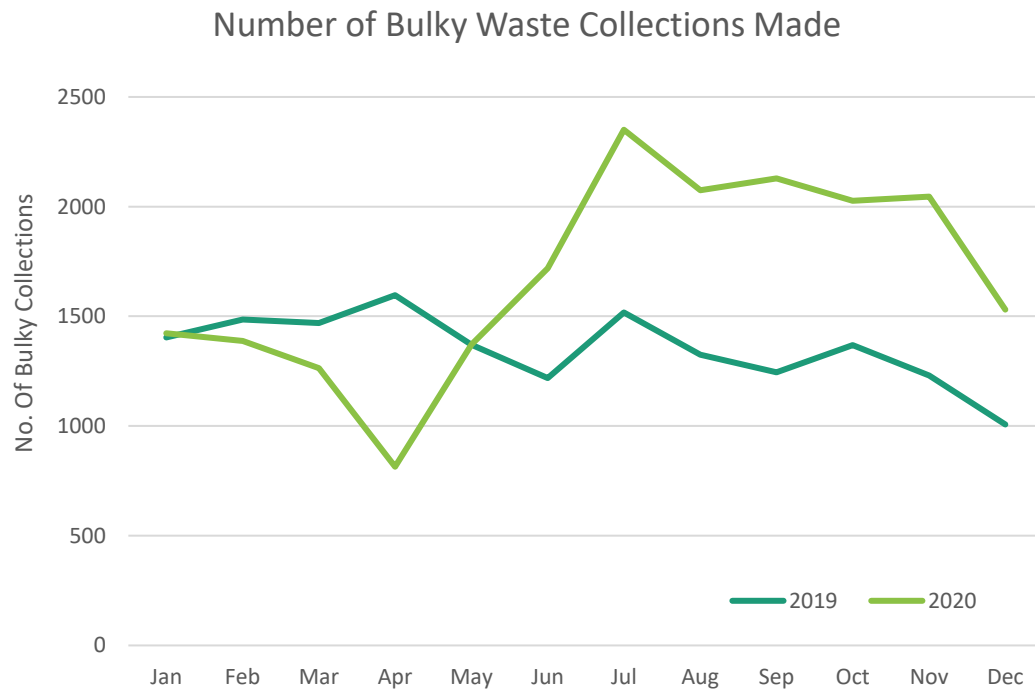
Green Bin

- Service stood down in March (1 collection Cycle) and October/November (2 collection cycles) for covid reasons
- Additional recovery collection undertaken in December and refunds instigated for missed collections. Customers could opt to donate to lord mayors charity instead of refund circa £20k to be donated
- Lockdown 1 saw customer subscriptions rise above previous years levels by around 3000 customers (13k in 2019 16k in 2020)
- 1000 tonnes more collected in 2020 than 2019 (20% increase)



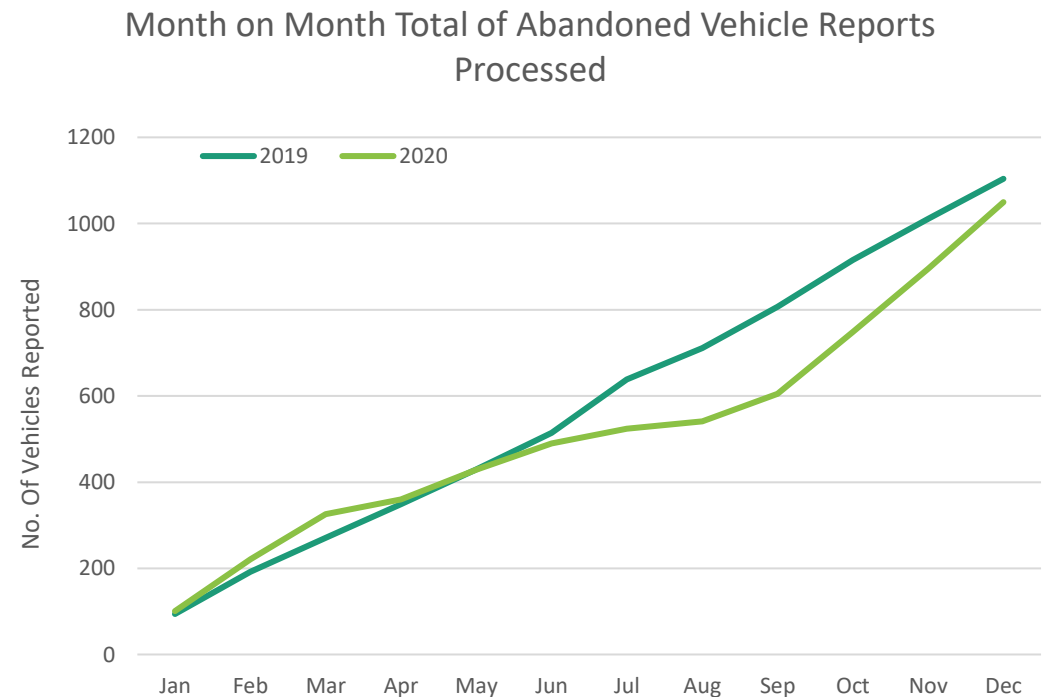
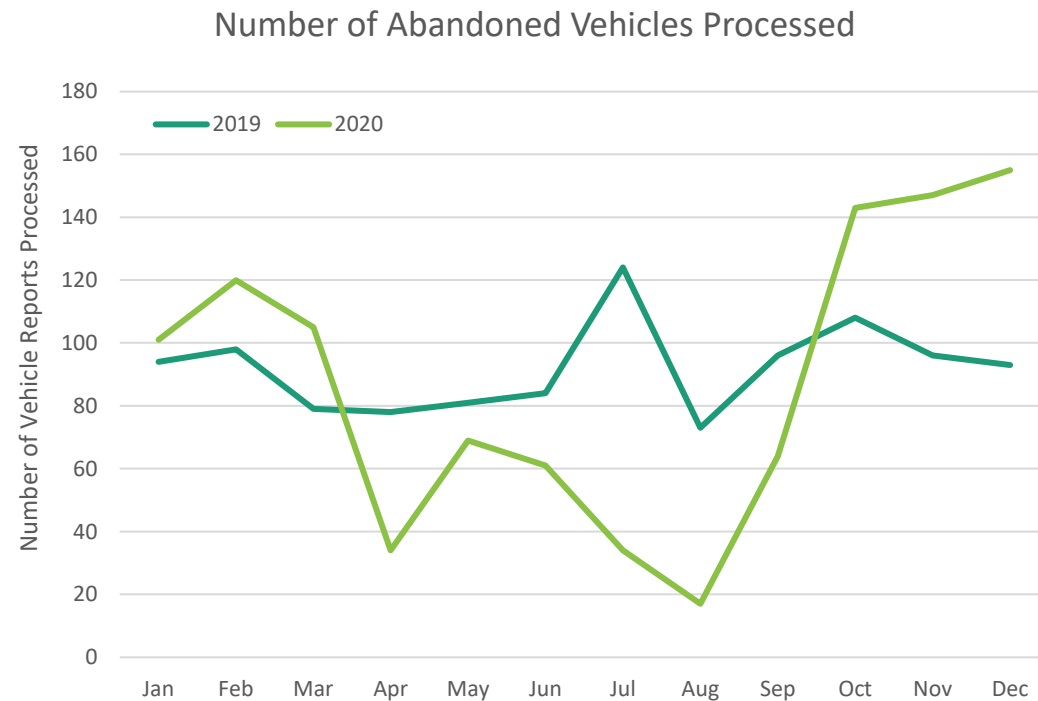
Bulky Waste

- **2020 Bulky waste collections up by around 4000 bookings (25%) on 2019 numbers**
- **Bookings from social landlords remain roughly the same in thee periods but private tenants making bookings is the cause for most of the increase**



Abandoned Vehicles

- **No significant variation in 2020 numbers from 2019**
- **Lockdown 1 period saw a significant drop off in reports**
- **Number of reports have increased significantly since October when a new web form went live enabling easier reporting of abandoned vehicles**



www.sheffield.gov.uk/home/road-pavements

www.sheffield.gov.uk/home/bins-recycling-services

Thank you