

# Carbon emissions 2021/22

Total emissions have increase by 62,090 tCO<sub>2</sub>e compared with 2020/21.

This is due to the increase in our service provision following lifting of COVID-19 restrictions and increased expenditure as we progress with the transformation of the Core Valley Lines

## Our carbon footprint 2021/22

### Scope 1

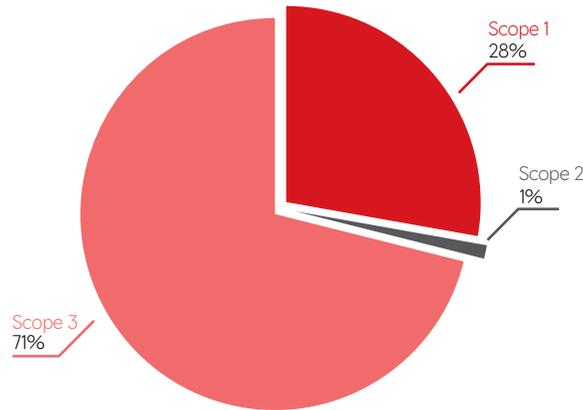
Direct emissions resulting from operations and activities that TfW owns or controls.

### Scope 2

Indirect emissions from grid-supplied energy

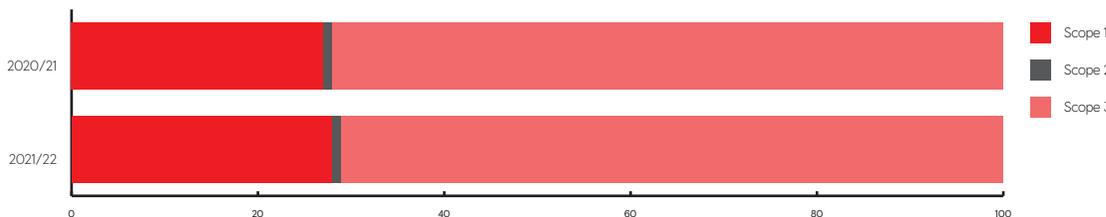
### Scope 3

Indirect emissions resulting from activities related to TfW operations, but not within our direct control



## Changes in 2021/22

- Increased services as Covid-19 restrictions have ended resulted in an increase in our direct emissions (Scope 1)
- Our Scope 2 electricity consumption has increased by 89 tCO<sub>2</sub>e. Again, this is likely due to increased services operating from our stations
- Commuting emissions were previously unreported in 2020/21, due to absence of activity data. We performed a travel survey to obtain an estimate of commuting patterns for 2021/22. 178 colleagues completed the survey which represents 25% of the total workforce in 2021/22. From the results, we estimated the total commuting distances for the total staff headcount, as per Welsh Government's reporting methodology = 144 tCO<sub>2</sub>e commuting emissions and 40 tCO<sub>2</sub>e upstream commuting emission losses.



## Where we're improving

- ✓ Scope 1 gas emissions have **reduced by 23 tCO<sub>2</sub>e** compared to 2020/21 due to efficiencies across our estate
- ✓ Our scope 3 water supply emissions have **reduced by 9 tCO<sub>2</sub>e** and water treatment emissions have **halved** when compared with 2020/21
- ✓ Our estate is estimated to **sequester 702 tCO<sub>2</sub>e**. This has increased by -13 tCO<sub>2</sub>e, which is largely due to an increase in our estate by 176.4ha.

Emitting activity	tCO <sub>2</sub> e
<b>Scope 1 (direct emissions)</b>	
Gas	584
Fuels	84,571
<b>Scope 2 (indirect emissions from grid-supplied energy)</b>	
Electricity	2,736
<b>Scope 3 (other indirect emissions)</b>	
Gas upstream losses	100
Fuel upstream losses	19,393
Waste and recycling	19
Water supply	12
Water treatment	21
Supply chain	196,879
Electricity upstream losses	1,018
Renewable energy generation	0
Business mileage	25
Business mileage (upstream losses)	7
Commuting	144
Commuting mileage (upstream losses)	40
<b>Land use emissions</b>	
Net use emissions from TfW land assets	-702
<b>Total 2020/21 emissions</b>	<b>304,846</b>