

Tackling climate change and its impact on health



In January 2020, Manningham Council declared a climate emergency to acknowledge we are in a state of serious climate and environmental change and that this climate emergency requires urgent action by all levels of government, including local government. This declaration is in recognition of the threat that climate change represents to Manningham and the importance of a sustained response.

Energy (CO² emissions)

The Manningham municipality's annual CO² emissions increased by 45,000 tonnes or 3.9% from 2017/18 to 2018/19; from 1,140,800 tonnes to 1,185,800 tonnes. Two-thirds of the increase was due to commercial (gas) emissions and approximately one-third due to residential gas and electricity increases as illustrated overleaf in **Table 1. Municipal CO² Emissions**.

Transportation (petroleum, diesel) accounts for the largest proportion of emissions (35.5%) followed by residential consumption (gas, electricity) at 33.0%.

Annual commercial CO² emissions accounted for 25%, with gas consumption nearly doubling from 40,900 in 2017/18 to 80,100 tonnes in 2018/19. Municipal wide electricity emissions were twice that of gas emissions (41.8% and 19.9% respectively). However, there have been decreases in electricity emissions (commercial and industrial).

Annual residential CO² emissions per capita increased from 3.01 tonnes in 2017/18 to 3.10 tonnes in 2018/19, with two-thirds of the change due to increased gas consumption.



Interpreter service **9840 9355**
普通话 廣東話 Ελληνικά Italiano العربية الفارسية

Municipal CO² Emissions

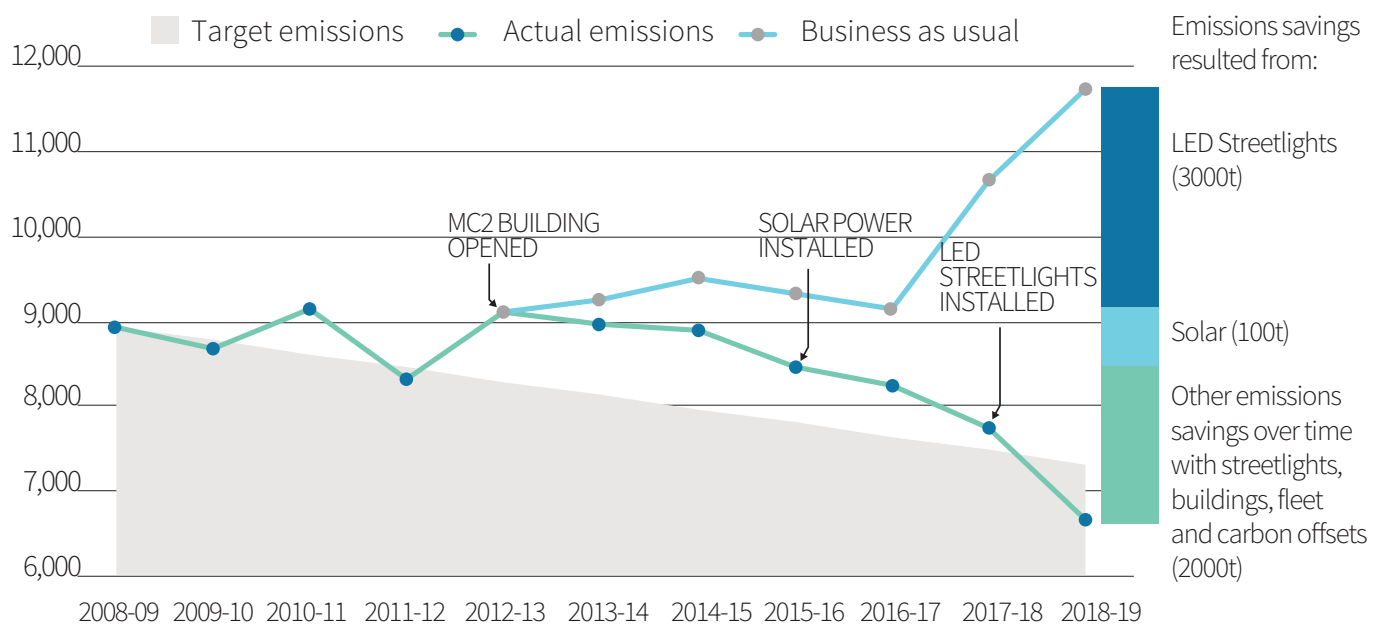
Source	Sector	2017/18		2018/19		Change
		CO ² tonnes	%	CO ² tonnes	%	CO ² tonnes
Electricity	Residential	239,200	21.0%	244,000	20.6%	4,800
	Commercial	225,000	19.7%	216,300	18.2%	-8,700
	Industrial	36,700	3.2%	35,300	3.0%	-1,400
Gas	Residential	137,300	12.0%	147,300	12.4%	10,000
	Commercial	40,900	3.6%	80,100	6.8%	39,200
	Industrial	6,700	0.6%	8,800	0.7%	2,100
Transport	On road	419,800	36.8%	420,500	35.5%	700
Waste	Landfill	22,400	2.0%	19,600	1.7%	-2,800
	Water	12,800	1.1%	13,900	1.2%	1,100
Total		1,140,800	100.0%	1,185,800	100.0%	45,000

Source: Snapshot (snapshotclimate.com.au)

Council

Council has reduced its emissions by 25% (2008/09 baseline) through the installation of solar power generation capacity; energy efficient streetlighting; and, hybrid vehicles as illustrated below in **Figure 1. Manningham Council, emission reductions by year.**

10 YEARS OF ACTION - OUR EMISSIONS REDUCTION JOURNEY



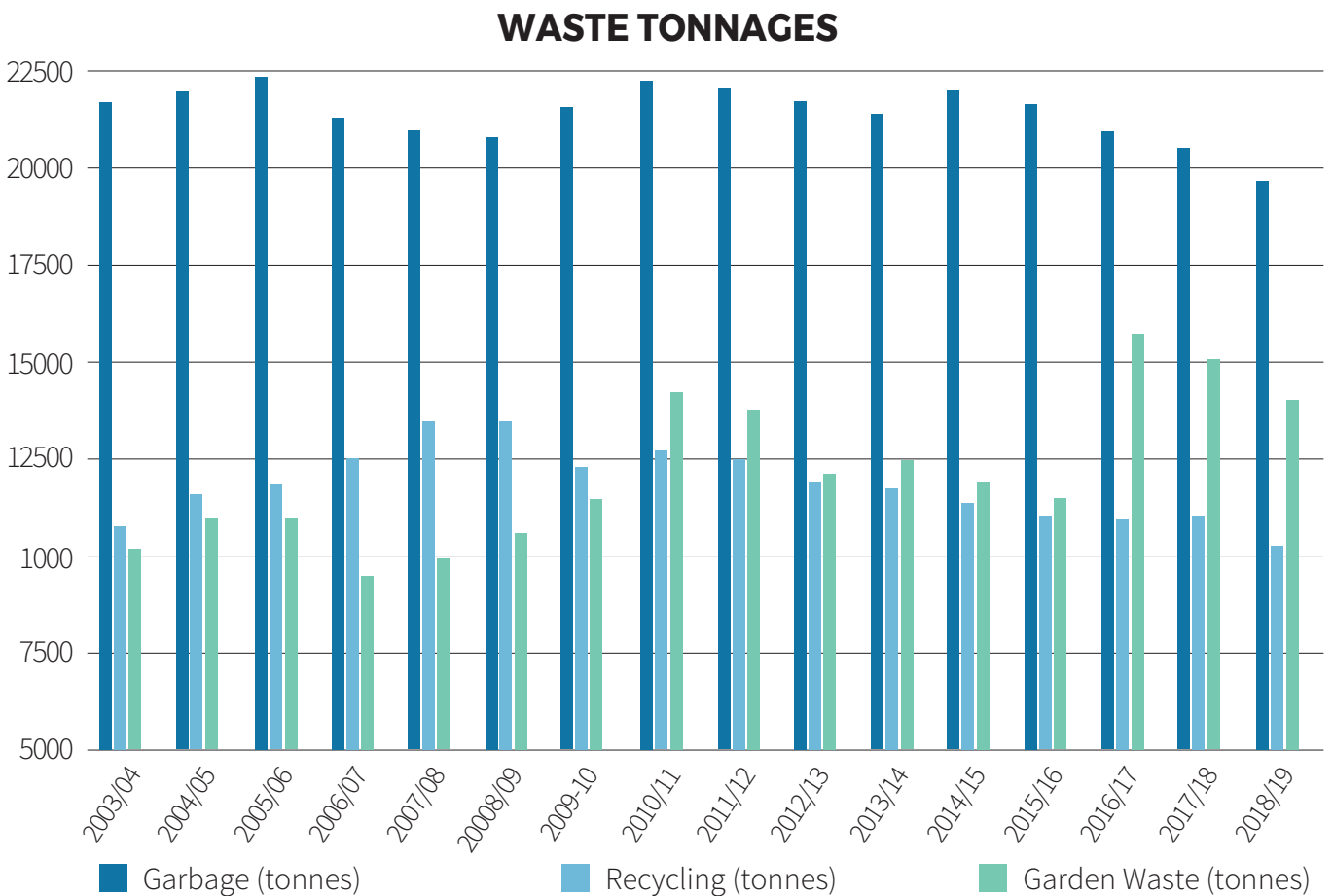
Source: Manningham Environment Report 2018/19

Waste

Since 2014/15, landfill has reduced year-on-year. In 2018/19, 55% of waste (24,310 tonnes) was diverted from landfill, with the lowest level of waste sent to landfill since 2001/02 (19,648 tonnes).

In addition, green waste as a proportion of all waste increased significantly in 2016/17. Since then it has remained at a relatively high level though is trending down in line with landfill.

The data suggests a significant shift in the awareness and behaviour of Manningham residents around waste with these positive changes occurring despite population growth, as illustrated below in **Figure 2. Waste tonnage by year.**



Source: Manningham Environment Report 2018/19

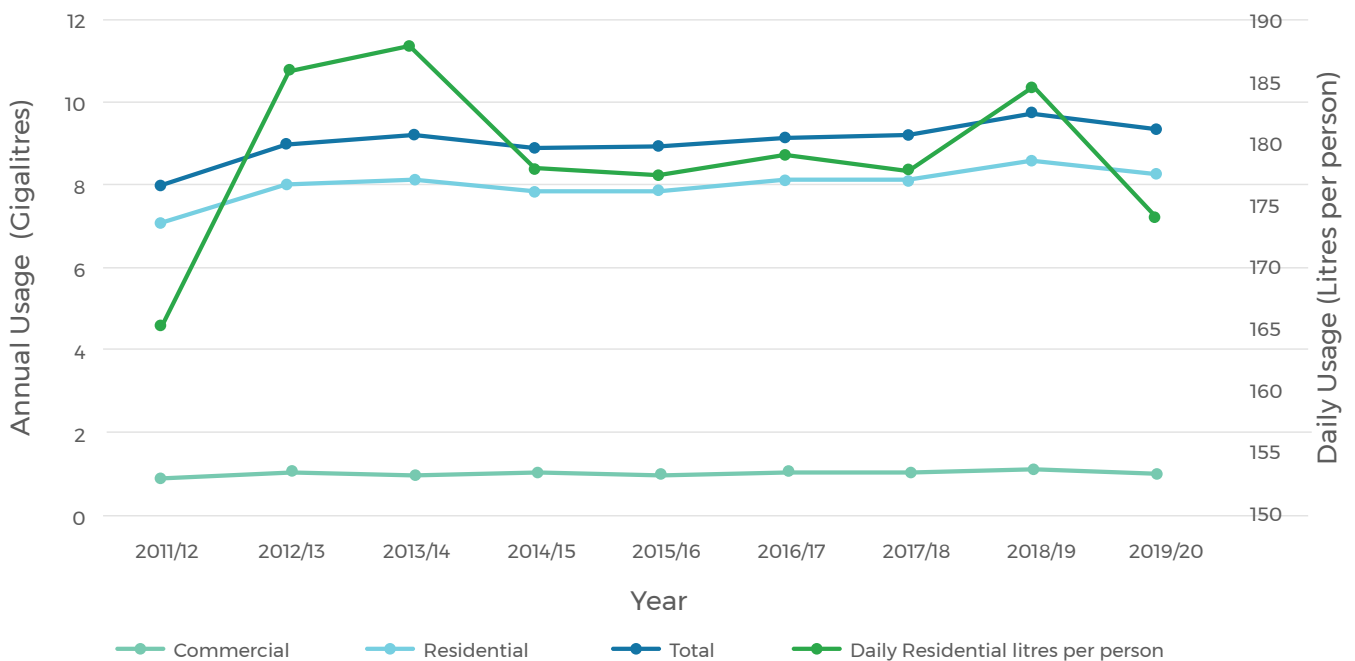
Water

Total annual water consumption in Manningham increased by 9.0% from 2014/15 (8.84 Gigalitres) to 2018/19 (9.64 Gigalitres), before decreasing by 3.7% in 2019/20 (9.28 Gigalitres). In 2019/20, residential water consumption accounted for 89% of all water consumption in Manningham.

In the same year, the average daily consumption per person of potable water was 174 litres – the lowest level since 2011/12 – though significantly higher than Yarra Valley Water’s target of 155 litres per day. See **Figure 3. Potable water usage by year** below.

Recycled water is reticulated to 462 residential properties and one business, and accounts for 0.4% of all annual water consumption in Manningham.

Manningham – Potable Water – Total usage and daily usage per person (2011/12 to 2019/20)



Source Yarra Valley Water, Profile .id and Forecast .id

Health impacts

Some of the health impacts of climate change are already known, while others are undoubtedly yet to emerge. Climate change health impacts intersect with a range of other priorities in The Victorian Public Health and Wellbeing Plan 2019 to 2023. Some of its potential impacts include:



Reducing injury

Elevated temperatures may lead to increased heat stroke among vulnerable cohorts (e.g. older people). Injury resulting from more frequent and severe extreme weather events such as bushfires and floods.



Healthy eating

Drought, extreme weather events and other factors may result in reduced affordability and accessibility of healthy food – particularly for vulnerable cohorts – and increased incidence of obesity and disease and reduced mental wellbeing.



Active living

Elevated temperatures and extreme weather events may impact upon participation in recreation, sport and active transport, resulting in an elevated risk of obesity and disease and reduced mental wellbeing.



Mental wellbeing

Existential stress regarding the future; financial stress due to economic dislocation caused by climate change, and the impact of extreme weather events may take a significant toll on mental health.



Sexual and reproductive health

Uncertainty – economic and existential – may reduce fertility rates as people become less willing to bring children into a world grappling with climate change. This, in turn, will have significant economic and social impacts as the population ages and less young people are entering the workforce.



Other impacts

Tobacco harm, harmful alcohol and drug use, and violence may increase due to the economic challenges created by climate change and the toll it takes on mental health.

WHAT'S HAPPENING AROUND CLIMATE CHANGE AT A NATIONAL, STATE AND LOCAL LEVEL

National approach

The Australian Government's policy primarily focuses on emission reduction whilst ensuring energy security, and adaptation. Most relevant is the *National Climate Resilience and Adaptation Strategy* which identifies the health and wellbeing impacts of climate change as heatwaves, droughts and an increased risk of food and water borne diseases, and their potential disruptive effect on health services, food, water and sanitation systems. Climate change is identified as likely to impact the affordability and availability of agricultural products which are essential to a healthy diet; and potentially altering the prevalence of bacteria, parasites and viruses. Key areas of strategic focus include to:

1. consider the risks of climate change across health services from a national to a local level
2. address climate risks in workplaces and, in particular, consider heat-related illnesses in the design and organisation of work
3. support adaptation in other sectors that provide services which improve our health, wellbeing and food security such as agriculture, water resources, emergency services and infrastructure.

State approach

This priority has been designated a focus area in the Victorian Public Health and Wellbeing Plan 2019 to 2023.

Victoria's *Climate Change Framework* outlines the overall architecture of the state's approach to climate change and the goal of achieving net zero emissions by 2050.

The *Climate Change Act 2017* provides the legislative basis for action, including:

1. A long-term emissions reduction target of net zero by 2050.
2. The requirement for five-yearly interim targets, to keep Victoria on track to meet this long-term target.
3. The introduction of a new set of policy objectives and an updated set of guiding principles to embed climate change in government decision making.

4. A requirement for the government to develop a Climate Change Strategy every five years, which will set out how Victoria will meet its targets and adapt to the impacts of climate change.
5. A requirement that Adaptation Action Plans (AAPs) be prepared for key systems (e.g. primary health care) that are either vulnerable to the impacts of climate change or essential (from 2021)
6. The establishment of a pledging model to reduce emissions from government's own operations and from across the economy (from 2020)
7. The establishment of a system of periodic reporting to provide transparency, accountability and ensure the community remains informed.

In preparation for the AAPs, the Department of Health and Human Services is running the *Pilot Health and Human Services Climate Change Adaptation Action Plan 2019–21*. The Plan indicates that increased exposure to more frequent and intense extreme weather events will increase the vulnerability of our health and human service system to a range of risks, including:

1. More frequent surges in client demand
2. Disruption of workforce attendance at their workplace (e.g. health centres, hospitals)
3. Psycho-social impacts on staff
4. Damage to built assets from, for example, floods, storms, and bushfires
5. Disruption or failure of service infrastructure such as telecommunications, transport, electricity, and water supplies
6. Disruption of supply chains.

It includes 21 actions across the following domains:

1. Governance and regulation
2. Communication and engagement
3. Knowledge building
4. Asset readiness

Action #7 is to survey councils to assess the extent to which actions to address the health impacts of climate change have been included in their municipal public health and wellbeing plans in accordance with their requirements under the *Climate Change Act 2017*.

Local approach

COUNCIL VISION: A liveable and harmonious city

MISSION: A financially sustainable Council that listens, consults and acts with integrity, value and transparency.

Manningham Council reports on progress made with regard to energy consumption, waste, water and biodiversity through its annual Environment Report.

In January 2020, Manningham Council declared a climate emergency in recognition of the threat that climate change represents to the area and the importance of a sustained, effective response. A Climate Emergency Response Plan is to be included in the next Environment Report.

The *Manningham Council Plan 2017-2021*, under the theme of Resilient Environment, includes the goal to *reduce our environmental impact and adapt to climate change*.

The *Healthy City Strategy 2017-2021* identifies climate change as both a chronic stressor and an acute shock (e.g. bushfire, flood), and defines disaster resilience as an action area under the priority of a *Resilient Community*.

While this data reflects many aspects of our community, we recognise that it is not comprehensive and does not reflect everyone's experience in Manningham. We commit to identifying these gaps and seeking data, as it becomes available, to fill them. If you are aware of data, not included here, that better reflects your community, please email manningham@manningham.vic.gov.au with the subject heading 'new data information'.