Recreation Aotearoa

Managing for mitigation

Recreation providers can positively impact on climate change through how they consume energy.

Understanding the carbon footprint of your organisation through monitoring energy use can identify areas for change, increase energy efficiency, and reduce costs.

Responses to Climate Change

Remediation and adaptation to the impact of climate change through recreation infrastructure and management are important responses and covered elsewhere. The focus of this Insights is on mitigation; developing an awareness of our organisation's greenhouse gas emissions and finding ways to reduce them.

Kia whakatōmuri te haere whakamua
I walk backwards into the future with my eyes fixed on my past

This report is part of a series on Managing for climate change. For previous Insights

- **#14 Retrofitting Facilities**
- **#33 Beating the retreat; recreation and climate change**
- **#9 Aquatic Facility Design in the 21st Century**

Reduce emissions

Environmental stewardship and kaitiakitanga is an important role for our sector; and playing our part in reducing emissions is essential.

The Greenhouse Gas Protocol (GHG Protocol) is the most widely used framework for greenhouse gas accounting. It helps organisations set reduction targets, track progress over time, and communicate their emissions performance transparently to stakeholders.

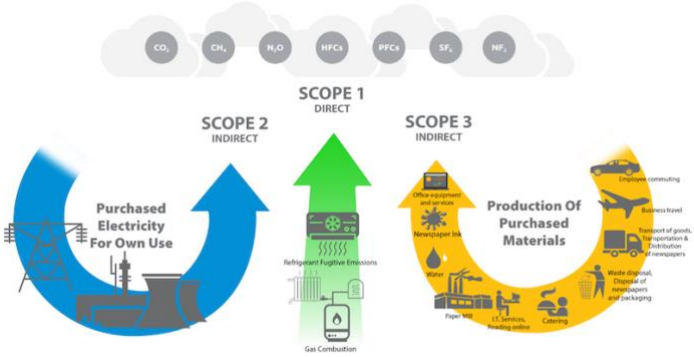

Figure 1 GHG Protocol, Scopes 1, 2, and 3 emissions. Adapted by Compare Your Footprint accessed from https://www.compareyourfootprint.com/difference-scope-1-2-3-emissions/

The GHG Protocol identifies three main types of emissions:

- Scope 1 – Direct emissions – heating/cooling
- Scope 2 – Indirect energy for own use
- Scope 3 – Indirect energy costs of producing purchased materials.

The key step organisations can take at the start is to **build an understanding of the carbon footprint of your organisation and learn where you can make the most impact.** Understanding the types of scope and then setting a baseline to allow for target setting is a critical step toward long term emissions reductions; high emissions activities can be identified and addressed.

Gather information on your Scope 1 and 2 emissions – these are easier to control and reduce. In the long run, review Scope 3; it will likely form up to 70% of your total emissions profile.

Monitor and manage energy

Monitoring and reporting energy usage consistently can identify areas of waste and issues, to enable management responses to minimise and address this.

Sources of energy, and its generation are key – the use of renewable energy including reducing demand at peak times has a positive impact across the grid.

The emissions required to capture, treat and pipe water can be reduced through **onsite capture,** use and reused of grey water, and reduced consumption.

A report on **energy efficiency options for swimming pools can be viewed here.**

A carbon neutral activity is where the carbon footprint is zero**. More information is available here.**

Greening the green

Reducing emissions through not mowing grassed parks or verges can **enhance biodiversity,** and reduce maintenance time and costs.

With careful management and communication, it can also meet customer expectations and create alternative play opportunities.

Case Study 1: Wildflower and no-mow trial

Hamilton Parks and Recreation team trialled growing wildflower meadows and not mowing at selected sites (totalling 13 ha) across the city during 5 months of spring/early summer.

The objectives were:

- Enhance biodiversity in Hamilton Kirikiriroa
- Create spontaneous play opportunities
- Reduce emissions from mowing and related activities.

Seeds including cornflowers, poppies and daisies were sewn into ploughed land with soil and sand.

Biodiversity data collected showed vegetation, insects, fruit and **flowers increased in abundance in the no-mow areas compared to regularly mowed areas.** There was a 6,000% vegetation increase in these parks.

Reduction in tractor usage totalled around 7 hours per week, amounting to around 1,500 kg of reduced Co2 emissions.

Despite initial misgivings, overall feedback from the public was positive. And, the trial sites received more visitors.

Figure 2 Mangaiti Park in Huntington. Photo: Libby Kirkby-McLeod / RNZ accessed from

https://www.rnz.co.nz/news/national/511868/data-shows-how-no-mow-trial-in-hamilton-parks-helped-biodiversity

Case Study 2: CLM Energy

CLM's Sustainability Projects Manager, Emmett Feeley has a remit to work with facilities to influence change towards greater sustainability. All CLM centres are tracking and reporting in weekly on water, gas and electricity usage, with readings taken daily. All teams within facilities are involved and kept up to date.

Energy and water readings provide hard evidence of changes in usage. Staff can identify issues (such as leaks), make comparisons within their own and against other facilities, and share different ways of doing things. They review reasons for variations in usage and make a conscious effort to make change.

The focus on sustainability has made a significant impact on utilities usage across the network. From July-December 2023, 230,000kWh of energy was saved across 10 sites through eco-conscious practice. **For more info on CLM's Sustainability Projects, click here.**

Insights into Action

Principle	Action
Manage energy, water and waste	Reduce energy (ie power and gas) and water usage through systematic monitoring Critically analyse usage of materials (eg chemicals, paper, seeds, fertiliser, etc)
Modify services	Change practices that generate emissions (eg mowing frequency) Increase biodiversity
Work together	Ensure team is engaged in the process, and aware of positive change in usage Communicate with stakeholders including the community

References

For detailed information about sustainable design, build and use of facilities, refer to the SNZ Environmental Sustainability Guide
Ritchie, Hannah. Not the end of the world: how we can be the first generation to build a sustainable planet.
Hamilton no-mow trial, https://www.rnz.co.nz/news/national/511868/data-shows-how-no-mow-trial-in-hamilton-parks-helped-biodiversity