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Report of the  
Minister for the Environment  
on the operation of the

# OZONE LAYER PROTECTION ACT 1996

for the period 1 January 2019 to 31 December 2020

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*Presented to the House of Representatives pursuant to  
subsection (2) of section 30 of the Ozone Layer Protection Act 1996*



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# Report on the operation of the Ozone Layer Protection Act 1996 for the period 2019 and 2020

## Executive summary

This report provides Parliament with information on the operation of the Ozone Layer Protection Act (the Act) in 2019 and 2020. Provision of this information is a requirement under section 30 of the Act.

The Act regulates the importation and usage of ozone-depleting gases into New Zealand. These gases were used in heating and cooling appliances and systems historically, but are now mostly used for fumigation and as fire suppressants. New Zealand committed to phase these gases out of use in ratifying the Montreal Protocol to protect the ozone layer in 1988.

Since 2020, the Act has also regulated the importation of hydrofluorocarbons (HFCs) in bulk. Hydrofluorocarbons are not ozone-depleting, but are potent greenhouse gases used in heating and cooling systems (like refrigeration, air-conditioning and heat pumps). They are controlled under the Montreal Protocol because they are a common replacement for the ozone-depleting refrigerants that were previously used.

This report combines information on the operation of the Act in 2019 and 2020. Data for 2019 has been fully validated by the Environmental Protection Authority (EPA). Hydrofluorocarbon and methyl bromide data for 2020 is that reported by Statistics New Zealand and is still subject to verification by the Environmental Protection Authority. Once verified, this data will be reported in full on the website of the Environmental Protection Authority and in the 2021 annual report.

The data shows that New Zealand has largely stopped consuming or producing those ozone-depleting substances that are controlled under the Montreal Protocol. In 2019 and 2020, exemptions were granted to 22 aviation businesses, who collectively received exemptions for 3.9 metric tonnes of recycled ozone-depleting halons for firefighting purposes.

New Zealand's consumption (defined as imports minus exports) of ozone-depleting substances in 2019 was 404 ozone-depleting tonnes. In 2020, consumption was reduced approximately 15 per cent, to 345 ozone-depleting tonnes. This dip is most likely due to the impact of the COVID-19 global pandemic on trade and the forestry industry. New Zealand's consumption of ozone-depleting substances reduced substantially over the period 1994 – 2000 as many substances were phased out. Since around 2000 there has been an overall trend of growth in consumption. This trend continued in 2019 and 2020, despite lowered consumption in 2020.

The vast majority of growth in consumption is attributable to methyl bromide used for quarantine and pre-shipment operations. Quarantine and pre-shipment use is considered 'essential use' under the Act, and is exempt from quantity restrictions. Approximately 90 per cent of quarantine and pre-shipment use of methyl bromide is used to fumigate raw logs prior to export to overseas markets. Methyl bromide is also used in small quantities to meet New Zealand's own biosecurity requirements for imports.

Hydrofluorocarbons replaced ozone-depleting refrigerants as the latter were phased out and also have some niche uses in the medical industry. In 2018, New Zealand signed the Kigali Amendment to the Montreal Protocol, agreeing to phase down their consumption. Hydrofluorocarbon consumption is measured in carbon dioxide equivalent tonnes, as this allows us to compare their impact on the atmosphere with other greenhouse gases.

Recorded data shows that 516,742.5 carbon dioxide equivalent tonnes of HFCs were consumed in New Zealand in 2020. This is significantly below the limit on consumption mandated under the Act for 2020. It is likely that the total quantity is higher, as most HFC blends (mixtures of different types of HFCs) are not included in Statistics New Zealand data. The Environmental Protection Authority will contact importers over 2021 to identify the makeup of these blends. Updated figures will be reported to the Secretariat of the Montreal Protocol before the reporting deadline of 30 September 2021.

## Background to report

The ozone layer is a layer of stratospheric gas around the Earth that protects life from the sun's harmful ultraviolet radiation. Some substances used by humans can deplete ozone gas. In the 1970s, these were found to be causing holes in the ozone layer.

International concern led to the Vienna Convention for the Protection of the Ozone Layer (the Convention) agreement in 1985. It established global monitoring and reporting on ozone depletion. It also created a framework for the development of protocols for taking more binding action.

The Montreal Protocol (the Protocol) under the Vienna Convention was agreed in 1987. It facilitates global cooperation to reverse the rapid decline in atmospheric concentrations of ozone. Under the Protocol, countries agreed to phase out the production and consumption of chemicals that deplete ozone. Phase out of certain substances is required by specific deadlines.

In 2018, New Zealand ratified an amendment of the Protocol (the Kigali Amendment) to phase down hydrofluorocarbons (HFCs). As ozone-depleting substances like chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) were phased out, they have been replaced in many products with HFCs. While HFCs do not deplete ozone, they are greenhouse gases with global warming potential hundreds of times greater than carbon dioxide.

New Zealand's obligations under the Convention and the Protocol are implemented through the Ozone Layer Protection Act 1996 (the Act) and the Ozone Layer Protection Regulations 1996 (the Regulations).

## Purpose

This report is provided under section 30 of the Ozone Layer Protection Act 1996 to fulfil the requirement to annually prepare and lay before the House of Representatives a report describing the operation of the Act.

Each annual report shall specify the details of any exemptions granted and such other matters as may be prescribed.

The purpose of the Act is to:

- a. help protect human health and the environment from adverse effects resulting, or likely to result, from human activities which modify, or are likely to modify, the ozone layer
- b. phase out ozone-depleting substances as soon as possible, except for essential uses
- c. give effect to New Zealand's obligations under the Vienna Convention for the Protection of the Ozone Layer and the subsequent Montreal Protocol on Substances that Deplete the Ozone Layer.

## Operation of the Act

### Administration

The Ministry for the Environment is responsible for administering the Act and the Ozone Layer Protection Regulations 1996. The Environmental Protection Authority (EPA) has responsibility for enforcing the Act and implementing the permit system for imports and exports under the Regulations. The New Zealand Customs Service enforces the import and export of controlled substances at New Zealand's borders.

This report is different to previous reports in that it combines two years of information on the operation of the Act (2019 and 2020). This step has been taken to hasten the publication of data under the Act.

Data for 2019 has been fully validated by the Environmental Protection Authority. Data for 2020 is that reported by Statistics New Zealand, and is still subject to verification by the Environmental Protection Authority. Once verified, this data will be reported in full on the website of the Environmental Protection Authority and in official reporting under the Montreal Protocol.

### Enforcement

There have been no prosecutions under the Act in 2019 or 2020. The last prosecution made under the Act was in 2008, when two refrigeration engineers were successfully prosecuted under section 13(f) of the Act for reckless discharge of an ozone-depleting substance.

## Controlled Substances

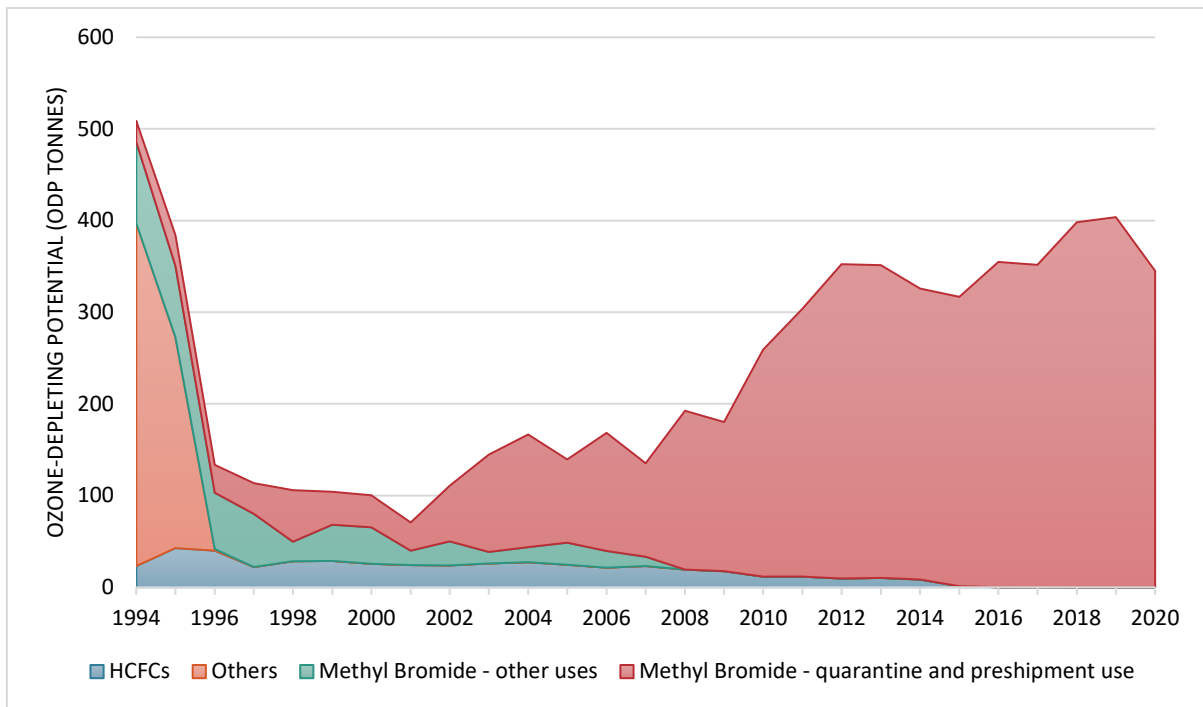
Under the Act, a ‘controlled substance’ means any substance defined as such in Schedule 1 of the Regulations. Controlled substances fall into three categories:

- a. **Ozone-depleting substances already phased out for which permits may no longer be issued:** CFCs halons, carbon tetrachloride methyl chloroform, hydrobromofluorocarbons (HBFCs), HCFCs and all uses of methyl bromide excepting for quarantine or pre-shipment activities. The phase-out of special permits for HCFC ended on 1 January 2015, and the final wholesaler permit provision was revoked by the Ozone Layer Protection Amendment Regulations 2016 that came into force on 1 January 2017.
- b. **Hydrofluorocarbons (HFCs):** From 2020, the Act also regulates the import and export of hydrofluorocarbons. Importers and exporters have require permits for bulk HFCs from 1 January 2020. Data on consumption of bulk HFCs has been collected from 1 January 2020 and will be included in the 2020 report on the operation of the Act.
- c) **Imports of methyl bromide for quarantine and pre-shipment purposes (‘QPS’ use):** these require permits under the Regulations to meet reporting obligations under the Protocol. However, the Protocol does not limit the amount of methyl bromide used for quarantine and pre-shipment fumigation and there is no requirement to phase it out under the Act.

## Consumption of ozone-depleting substances in 2019 and 2020

New Zealand’s consumption of new (not recycled) ozone-depleting substances from 1994 to 2020 is shown in figure 1. Consumption equates to imports minus exports. Ozone-depleting substances that are controlled under the Protocol and under schedule one of the Regulations are shown in blue, green and orange. Methyl bromide for quarantine and pre-shipment use is shown in red.

Figure 1: Annual Consumption of New Ozone-depleting Substances in New Zealand (1994 – 2020)



New ozone-depleting substances controlled under the Montreal Protocol are shown in blue (HCFCs), green (methyl bromide for uses unrelated to quarantine and pre-shipment purposes) and orange (other ozone-depleting substances) have been successively phased out since reporting began in 1994. HCFC use ended in 2015 and methyl bromide for non-quarantine and pre-shipment use ended in 2007. Substances in the 'others' category (halons, CFCs, CCl<sub>4</sub>, methyl chloroform and HBFCs) were rapidly phased out in the 1990s. New Zealand's consumption of methyl bromide for quarantine and pre-shipment purposes (shown at figure 1 in red) continues to rise, although reduced in 2020.

Halons do continue to be imported under exemptions outlined in the appendix. As these halons are recycled and contained within fire extinguishers (and so are considered a 'product' under the Act) they do not count towards total consumption of new ozone-depleting substances.

New Zealand's consumption of methyl bromide for quarantine and pre-shipment purposes (shown in figure 1 in red) continues to rise, and consumption has risen from 23 ozone-depleting tonnes (38.5 metric tonnes of methyl bromide) in 1994 to 345 ozone-depleting tonnes (575.4 metric tonnes) in 2020. This is a decrease of 59 tonnes from the 404 ozone-depleting tonnes (672.8 metric tonnes) consumed in 2019, and represents the largest annual decrease since recording under the protocol began. It is likely that this decrease is due to the impact of the COVID-19 global pandemic on trade, and that consumption will resume at a higher level in 2021.

## Exports of ozone-depleting substances

New Zealand does not manufacture any controlled substances but does periodically export quantities of substances that have been previously imported, mostly to the Pacific. In 2019, 2.8 metric tonnes of HCFCs were exported to Australia for destruction. Exports of methyl bromide totalled 13.3 metric tonnes, with the majority of the exports going to Fiji, and a small quantity (0.8 metric tonnes) to New Caledonia. No exports of controlled substances have been identified in 2020.

## Prohibited substances

Prohibited substances are controlled ozone-depleting substances that have been phased out in New Zealand. The import of certain goods containing these substances is also prohibited. Under Part 5 of the Regulations, certain prohibited substances and goods may be permitted if the Environmental Protection Authority grants an exemption. Section 30(3)(a) of the Act and clause 36 of the Regulations require the details of these exemptions to be published and they are listed in the appendix.

Table 1 summarises the purpose of the 34 exemptions granted in 2019 and the 48 granted in 2020. The majority of these exemptions (all in 2019, and 46 in 2020) were for necessary aerosol/extinguisher use, such as the use of halons in aircraft extinguishers as a fire suppressant. In 2020, the first exemption was made related to HFCs imported without a phasedown permit. This exemption was granted for transshipment (goods moved from one vessel to another in a New Zealand port, and then exported overseas) of 8,932.9 carbon-dioxide equivalent tonnes of HFCs. None of these HFCs were consumed in New Zealand.

Table 1: **Import Exemption Summary**

PURPOSE OF EXEMPTION	EXEMPTIONS GRANTED IN 2019	EXEMPTIONS GRANTED IN 2020
Necessary aerosol/extinguisher	34	46
Replacement of export	0	
Necessary HCFC aerosol	0	
Transshipment	0	2
ODS fire extinguisher	0	
Halon for refrigeration	0	
Essential aerosol/extinguisher	0	
Essential or critical use	0	

## Methyl bromide consumption for quarantine and pre-shipment uses

Methyl bromide usage is classified into two categories under the Montreal Protocol:

- a. quarantine and pre-shipment use subject to permit
- b. all other non-quarantine and pre-shipment uses.

New Zealand phased out all non-quarantine and pre-shipment use of methyl bromide by 1 January 2005, and this use was prohibited from 1 January 2008. The Montreal Protocol exempts quarantine and pre-shipment usage of methyl bromide from its phase-out plan because of its importance to biosecurity, international trade and agricultural sectors.

The majority (90+ per cent) of methyl bromide consumed in New Zealand is used in fumigation of logs for export. Fumigation of other exported and imported goods to manage biosecurity risks account for the remainder. Other products frequently fumigated include timber products for export, both exported and imported fruits and vegetables, contaminated shipping containers, scrap metal consignments, wood products, bamboo, contaminated vehicles, used car parts and stock food.

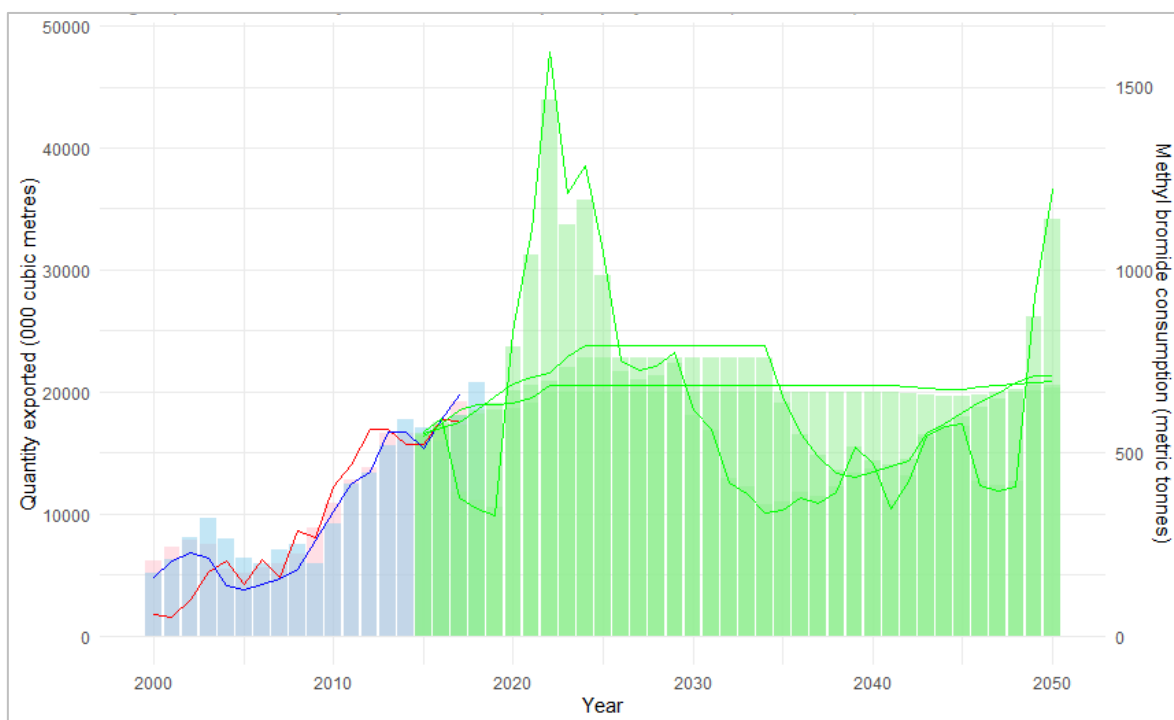
Approximately 20 per cent of all log exports are fumigated with methyl bromide. The remaining logs are either treated with phosphine in the hold of the ship (70 per cent), debarked (8 per cent) or treated at their destination. In 2014, this ratio was 65 per cent phosphine, 25 per cent methyl bromide and 7 per cent debarking, showing some reduction in methyl bromide as a percentage of total consumption.

Consumption of methyl bromide in 2020 decreased significantly from 404 ozone-depleting tonnes in 2019 to 345 ozone-depleting tonnes. This may be a consequence of constraints on the forestry sector and supporting industries stemming from COVID-19 response measures, in New Zealand and internationally. Overall, consumption remains consistent with a long-term trend of increasing methyl bromide usage for quarantine and pre-shipment purposes.

The main driver behind the increase in imports of methyl bromide over recent years is the greater volume of logs being fumigated to meet the biosecurity requirements of export markets. The emergence of new pest threats such as the brown marmorated stink bug associated with imported goods from 37 countries is another driver.

Growth in log exports to date is shown in blue bars in figure 2. Note that this trend is closely mirrored by methyl bromide consumption (blue line). If methyl bromide continues to be used to fumigate logs in the same proportions as today, we can expect continued growth in emissions over the coming decade, as forestry blocks planted in the 1990s are harvested. This relationship is shown in green at figure 2.

Projected methyl bromide consumption is highly dependent on other factors, chiefly the development and use of alternative technologies. This is already visible in the use of phosphine as an alternative fumigant for the majority of log exports to China (76 per cent). Emissions will also drop relative to total methyl bromide consumption on the (delayed) introduction of a recapture requirement.

Figure 2: **Log exports and methyl bromide consumption projections to 2050**

Modelling is extrapolated from New Zealand's Wood Availability Forecasts – 2014 to 2050, prepared for the Ministry for Primary Industries in 2016. Three future harvest scenarios from the Wood Availability Forecasts are shown in green bars, to reflect possible distribution of log exports. Projected methyl bromide consumption in each scenario is shown as a green line. Real log export and methyl bromide consumption data is shown for the years 2000 – 2019 in blue. The projected log export and methyl bromide consumption data for the years 2000 – 2019 is shown in red. The closeness of the blue (real) and red (modelled) data indicates a high degree of confidence in the relationship between the quantity of logs exported and methyl bromide consumption levels.

## The introduction of a recapture requirement after fumigation using methyl bromide

Use of methyl bromide in New Zealand is also subject to controls under the Hazardous Substances and New Organisms Act 1996.

In 2010, the Environmental Risk Management Authority (now Environmental Protection Authority) required, through a Hazardous Substances and New Organisms Act 1996 reassessment decision, that methyl bromide used for quarantine and pre-shipment purposes be recaptured after use by October 2020. Fumigators were to be required to recapture a high proportion of methyl bromide after use, so residual methyl bromide levels do not exceed 5 parts per million.

Due to consideration of an application for further reassessment of methyl bromide, the date for compulsory recapture has now been reset to November 2021. As of March 2021, the recapture control is undergoing a modified reassessment under the Hazardous Substances and New Organisms Act 1996 (on application by industry). The applicants propose that the standard be revised to say: “recapture technology is a system that mitigates methyl bromide emissions from fumigation enclosures such that the residual level of methyl bromide in the enclosed space is at least 80% less than that at the end of the fumigation period”.<sup>1</sup>

<sup>1</sup> STIMBR's application form, p 10: <https://www.epa.govt.nz/public-consultations/in-progress/reassessment-of-methyl-bromide/application/>.

As at the date of this report, modelling is yet to confirm the air quality standard of this proposed approach. The applicant has also proposed that the implementation of the recapture requirement is delayed an additional 10 years for logs fumigated in ship holds. The reassessment decision is expected in late 2021.

## Alternatives to methyl bromide

The Ministry for Primary Industries and research organisations have several ongoing projects to find alternatives to methyl bromide such as hot water dipping of taro from the Pacific Islands and other types of treatment for brown marmorated stink bug. Stakeholders in Methyl Bromide Reduction Incorporated (STIMBR), industry partners and government agencies have invested \$30 million in alternatives since 2010.

Alternative fumigants to methyl bromide, such as ethanedinitrile (EDN), are available, but are not yet able to be used in New Zealand as their use is not registered in New Zealand or agreed with trading partners. The STIMBR and the chemical company Draslovka submitted an application to the Environmental Protection Authority in 2017 for approval of ethanedinitrile in New Zealand. This application is still under consideration.

China and India (New Zealand's main log export markets) have yet to approve ethanedinitrile as a phytosanitary treatment. The Ministry for Primary Industries submitted proposals in 2019 to China and India, with supporting technical data, but they are not expected to approve its use until approval under the Hazardous Substances and New Organisms Act is complete.

Also available are alternatives to fumigation, such as debarking, joule heating, or onshore production of other wood products. These methods may also be a viable solution for long-term reductions in the use of methyl bromide and other hazardous fumigant chemicals:

- a. The forest industry is increasing their investment in debarking facilities. Since 2014 the volume of wood managed by this method increased by nearly 200%.
- b. The Ministry for Primary Industries, STIMBR and the Electric Power Engineering Centre at the University of Canterbury have funded a joule heating project (applying electrical power directly to logs) that has succeeded in quickly heat treating logs. This project has proceeded to the point of having designed a pilot plant that would require \$5 million of funding to build. Heat-treated logs could be exported to India immediately as it is an accepted phytosanitary treatment.

While quarantine and pre-shipment use of methyl bromide is not subject to quantity limits under the Montreal Protocol, there is international interest in removing methyl bromide from use as a fumigant. Experts on the Protocol's Methyl Bromide Technical Options Committee noted at the Meeting of the Parties in November 2020 that reducing emissions from methyl bromide for quarantine purposes would achieve the greatest short-term benefits for ozone recovery.

# Reporting on hydrofluorocarbons commenced in 2020

Hydrofluorocarbons (HFCs) are commonly used refrigerant gases. HFCs replaced ozone-depleting substances like CFCs and HCFCs as those were phased out under the Montreal Protocol. However, they are also potent greenhouse gases, with ‘global warming potential’ (GWP) hundreds or thousands of times greater than carbon dioxide. HFCs contribute to just over 2 per cent of New Zealand’s total domestic global warming emissions.

On 3 October 2019, New Zealand ratified the Kigali Amendment to the Montreal Protocol, which aims to reduce greenhouse gas emissions from HFCs by over 80 per cent by 2047. Parties to the Protocol have committed to phase down HFCs imported in bulk (ie, for insertion into equipment in New Zealand). HFCs ‘pre-charged’ into products overseas (like heat pumps) are not included in our Kigali Amendment phasedown, as they are anticipated to reduce in line with the worldwide phase down in production of HFC gases.

2020 is the first year of New Zealand’s phase down of HFCs under the Kigali Amendment. The phase down is intended to reduce our use of HFCs imported in bulk by 81 per cent in 2036 from the average consumption over 2011-2015. This reduction pathway is shown in blue in figure 3.

HFCs are only able to be imported into and exported from New Zealand with a permit. Permit holders are granted a percentage of the annual limit of HFCs. Eighty per cent of the total quantity available is allocated through ‘grandparented’ eligibility to individuals and companies who had imported HFCs prior to the commencement of the phasedown. The remaining 20 per cent is allocated via ‘special’ permits, which can be applied for by anyone. All applicants must apply annually for a permit to import and export HFCs. As the phasedown continues, the amount each permit holder can import will decrease.

Figure 3: **Historical consumption of bulk HFCs and their phasedown from 2020**

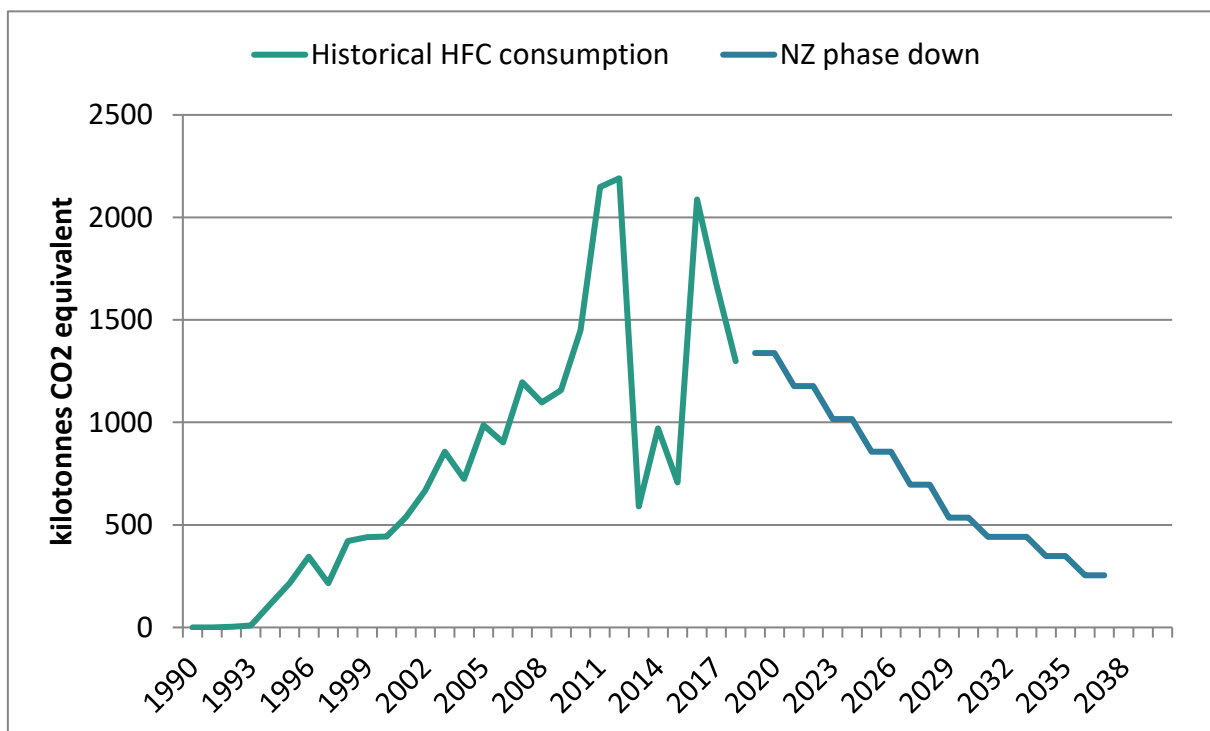


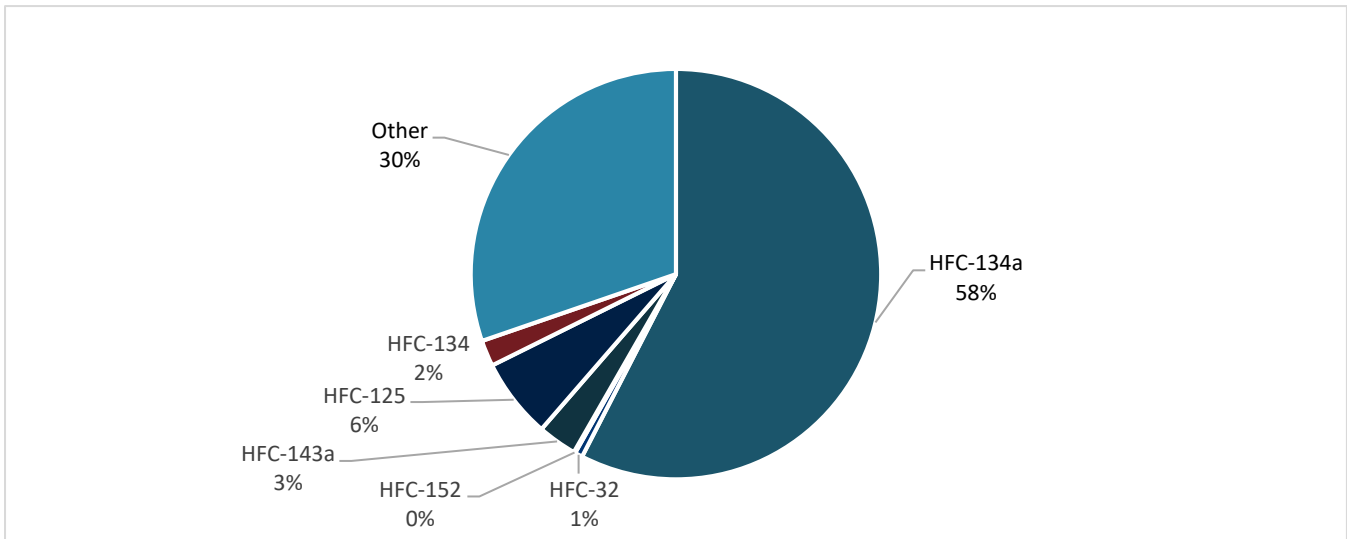
Table 2: Breakdown of HFC imports by type in 2020

HFC	GLOBAL WARMING POTENTIAL	CONSUMPTION (METRIC TONNES)	CONSUMPTION (CO <sub>2</sub> -E TONNES)
HFC-134a	1430	246.2	352,001.7
HFC-32	675	2.6	1765.8
HFC-152	53	0.5	24.1
HFC-143a	4470	13.2	59,097.9
HFC-125	3500	26.9	94,129
HFC-134	1100	8.8	9,724
<b>Total</b>	-	<b>298.2</b>	<b>516,742.5</b>
Other	-	129.5	<i>to be confirmed</i>
<b>Total</b>	-	<b>427.7</b>	-

Tariff data recorded by Statistics New Zealand and broken down in table 2 shows that 516,742.5 carbon dioxide equivalent tonnes of HFCs were consumed in New Zealand in 2020. This figure is significantly below the annual limit of 1,338,000 carbon dioxide equivalent tonnes. The difference between the tariff data and the annual limit means it is not possible to confirm the actual quantity consumed in 2020 without undertaking further data validation.

Statistics data is limited because 30 per cent of HFC imports are unknown. This is because some HFCs are imported as 'blends' of different types mixed together. Blends do not have individual tariff codes for identification when imported or exported. As such, most importers and exporters categorise them as 'other', rather than use a specific tariff code (see figure 4).

The Environmental Protection Authority will contact importers over 2021 to confirm compliance with the Act and capture imports of HFC blends that do not have their own tariff codes. Updated figures will be reported on the Environmental Protection Authority website when available.

Figure 4: **Make-up of bulk refrigerant consumption in 2020**

## Conclusions

New Zealand continues to meet its obligations relating to ozone-depleting substances under the Montreal Protocol. Those ozone-depleting substances controlled by the Ozone Layer Protection Act have been out of usage since 2015. A small quantity of exemptions were made in 2019 and 2020, as in other years, to ensure availability of halons for aircraft fire suppressants. All halons imported into New Zealand during this period were recycled rather than newly manufactured.

The classification of methyl bromide used for quarantine and pre-shipment purposes as an 'essential use' reflects its critical role in international trade and biosecurity, but exempts it from quantity restrictions under the Act. Methyl bromide for quarantine and pre-shipment uses is now consumed in significant quantities and is expected to increase alongside log exports over the coming decade.

As such, the only *new* ozone-depleting substance consumed in New Zealand in 2019 and 2020, methyl bromide, is exempted from the mandate of the Act to 'help protect human health and the environment from adverse effects resulting, or likely to result, from human activities which modify, or are likely to modify, the ozone layer'.

New Zealand commenced phasedown of HFCs in 2020. Further data validation will confirm whether consumption was under the prescribed limit of 1,338,000 carbon dioxide-equivalent tonnes. This validation will occur before New Zealand submits official data to the reporting body of the Montreal Protocol. This data is due by 30 September 2021.

## Appendix: Exemptions granted under the Ozone Layer Protection Act in 2019 and 2020

Table 1: Exemption criteria

*Exemptions are granted based on specific reasons captured in the Ozone Layer Protection Regulations. This table details each exemption reason, and assigns each a number, used to classify each exemption (table 2).*

Note	Shorthand	Reason
1	Necessary aerosol/extinguisher	This exemption is granted under Regulation 31(1) in respect of the importation of any aerosol or fire extinguisher that is to be used only for a use that is necessary for human health or safety. <sup>2</sup>
2	Replacement of export	This exemption is granted under Regulation 32 in respect of any substance or goods that are imported into New Zealand only for the purpose of replacing any substance or goods already transhipped into another ship or aircraft for carriage to a destination outside the territorial limits of New Zealand.
3	Necessary HCFC aerosol	This exemption is granted under Regulation 29(c) for HCFC that is to be used in the manufacture of aerosols that are to be used only for a use that is necessary for human health or safety.
4	Transshipment	This exemption is granted under Regulation 32 in respect of any substance or goods that are imported into New Zealand only for the purpose of being transhipped into another ship or aircraft for carriage to a destination that is outside the territorial limits of New Zealand.
5	ODS fire extinguisher	This exemption is granted under Regulation 29(d) for any bulk recycled substance, or any bulk controlled substance that is not a halon, that is to be used only in the servicing of fire extinguishers in circumstances where the substance cannot be obtained from supplies in New Zealand and where the servicing is required either because the fire extinguisher was used in a fire or as a result of a loss of halon that was outside the control of the applicant.
6	Halon for refrigeration	This exemption is granted under Regulation 29(a) for bulk recycled halon-Halon 1301 that is to be used only for refrigeration purposes and only in circumstances where the use of halon-Halon 1301 for refrigeration purposes is necessary for human health or safety and halon-Halon 1301 cannot be obtained from supplies in New Zealand.
7	Essential aerosol/extinguisher	This exemption is granted under Regulation 29(b) for bulk chlorofluorocarbons (CFC), halon, carbon tetrachloride, methyl chloroform, or hydrobromofluorocarbons (HBFC) that is to be used in the manufacture of aerosols or fire extinguishers for a use determined by the Parties to the Montreal Protocol to be an essential use and that use is necessary for human health or safety.
8	Essential or critical use	This exemption is granted under Regulation 29(e) for any bulk controlled substance that is to be used only for a use determined by the Parties to the Montreal Protocol to be an essential use or a critical use.

<sup>2</sup> These permits are primarily issued for aircraft or sea-vessel/ship fire extinguishers.

**Table 2: Import exemptions for substances controlled under the Ozone Layer Protection Act from 1 January 2019 to 31 December 2020**

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
AAR International, INC. NZ	Aircraft Extinguisher	50.0	Halon 1211	1	12/11/2019
AAR International, INC. NZ	Aircraft Extinguisher	150.0	Halon 1301	1	12/11/2019
AAR International, INC. NZ	Aircraft Extinguisher	200.0	Halon 1211	1	02/12/2019
AAR International, INC. NZ	Aircraft Extinguisher	1000.0	Halon 1301	1	02/12/2019
Advanced Flight Engineering Limited	Aircraft Extinguisher	2.0	Halon 1301	1	08/08/2019
Airbus Group Australia Pacific	Aircraft Extinguisher	2.4	Halon 1211	1	27/06/2019
Airbus Group Australia Pacific	Aircraft Extinguisher	2.0	Halon 1301	1	27/06/2019
Airbus New Zealand Limited	Aircraft Extinguisher	20.0	Halon 1211	1	21/02/2019
Airbus New Zealand Limited	Aircraft Extinguisher	100.0	Halon 1301	1	21/02/2019
Air New Zealand Limited	Aircraft Extinguisher	200.0	Halon 1211	1	15/02/2019
Air New Zealand Limited	Aircraft Extinguisher	1000.0	Halon 1301	1	15/02/2019
Airwork Fixed Wing Ltd	Aircraft Extinguisher	7.5	Halon 1211	1	20/12/2019
Airwork Fixed Wing Ltd	Aircraft Extinguisher	270.0	Halon 1301	1	20/12/2019
Airwork (NZ) Limited	Aircraft Extinguisher	35.0	Halon 1301	1	14/01/2019

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
Air Safaris and Services (NZ) LTD	Aircraft Extinguisher	13.0	Halon 1301	1	15/11/2019
Avcraft Engineering NZ Ltd	Aircraft Extinguisher	10.1	Halon 1301	1	31/01/2019
Aviation Teknology Limited (Avtek)	Aircraft Extinguisher	2.5	Halon 1301	1	01/07/2019
Aviation Teknology Limited (Avtek)	Aircraft Extinguisher	2.5	Halon 1211	1	01/07/2019
Evander Aviation Limited	Aircraft Extinguisher	2.0	Halon 1211	1	26/11/2019
Hawker Pacific NZ Ltd	Aircraft Extinguisher	20.0	Halon 1211	1	05/06/2019
Hawker Pacific NZ Ltd	Aircraft Extinguisher	20.0	Halon 1301	1	05/06/2019
Heli Maintenance (BOP) Ltd	Aircraft Extinguisher	5.0	Halon 1301	1	09/05/2019
HNZ New Zealand Limited	Aircraft Extinguisher	6.0	Halon 1301	1	19/08/2019
HNZ New Zealand Limited	Aircraft Extinguisher	2.0	Halon 1211	1	19/08/2019
Jetstar Airways Ltd	Aircraft Extinguisher	33.6	Halon 1211	1	17/04/2019
Jetstar Airways Ltd	Aircraft Extinguisher	498.6	Halon 1301	1	17/04/2019
MT Cook LTD	Aircraft Extinguisher	50.0	Halon 1301	1	29/03/2019
NASA Armstrong Flight Research	Aircraft Extinguisher	1.4	Halon 1211	1	24/05/2019
New Zealand Defence Force	Aircraft Extinguisher	50.0	Halon 1211	1	21/05/2019

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
New Zealand Defence Force	Aircraft Extinguisher	50.0	Halon 1301	1	21/05/2019
Oceania Aviation Ltd	Aircraft Extinguisher	6.0	Halon 1301	1	04/04/2019
Skyline Aviation Ltd	Aircraft Extinguisher	15.8	Halon 1211	1	08/01/2019
Skyline Aviation Ltd	Aircraft Extinguisher	56.0	Halon 1301	1	08/01/2019
Sunstate Airlines	Aircraft Extinguisher	28.5	Halon 1211	1	18/07/2019
AAR International, INC. NZ	Aircraft Extinguisher	500	Halon 1301	1	1/11/2020
AAR International, INC. NZ	Aircraft Extinguisher	100	Halon 1211	1	1/11/2020
Advanced Flight Engineering Limited	Aircraft Extinguisher	2	Halon 1301	1	21/04/2020
Advanced Flight Engineering Limited	Aircraft Extinguisher	4	Halon 1301	1	23/12/2020
Air Chathams Ltd	Aircraft Extinguisher	22	Halon 1301	1	20/04/2020
Air Chathams Ltd	Aircraft Extinguisher	7	Halon 1211	1	20/04/2020
Air Nelson Ltd	Aircraft Extinguisher	50	Halon 1211	1	1/01/2020
Air Nelson Ltd	Aircraft Extinguisher	50	Halon 1301	1	1/01/2020
Air New Zealand	Aircraft Extinguisher	200	Halon 1211	1	1/01/2020
Air New Zealand	Aircraft Extinguisher	1000	Halon 1301	1	1/01/2020

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
Air New Zealand Aircraft Holdings	Aircraft Extinguisher	500	Halon 1301	1	1/01/2020
Air New Zealand Aircraft Holdings	Aircraft Extinguisher	100	Halon 1211	1	1/01/2020
Airbus New Zealand Limited	Aircraft Extinguisher	10	Halon 1211	1	17/01/2020
Airbus New Zealand Limited	Aircraft Extinguisher	3	Halon 1301	1	17/01/2020
Airwork (NZ) Limited	Aircraft Extinguisher	35	Halon 1301	1	31/01/2020
Airwork Fixed Wing Ltd	Aircraft Extinguisher	318	Halon 1301	1	9/12/2020
Airwork Fixed Wing Ltd	Aircraft Extinguisher	7.5	Halon 1211	1	9/12/2020
Aviation Teknology Limited (Avtek)	Aircraft Extinguisher	2.5	Halon 1301	1	10/08/2020
Fieldair Engineering Ltd	Aircraft Extinguisher	6	Halon 1301	1	16/03/2020
Fieldair Engineering Ltd	Aircraft Extinguisher	12	Halon 1211	1	16/03/2020
Fieldair Engineering Ltd	Aircraft Extinguisher	12	Halon 1301	1	16/03/2020
GCH Aviation Limited	Aircraft Extinguisher	4	Halon 1301	1	19/11/2020
Hamilton Aero Maintenance Ltd	Aircraft Extinguisher	4.8	Halon 1301	1	23/06/2020
Hamilton Aero Maintenance Ltd	Aircraft Extinguisher	14	Halon 1301	1	19/10/2020
Hawker Pacific NZ Ltd	Aircraft Extinguisher	20	Halon 1301	1	20/08/2020

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
Hawker Pacific NZ Ltd	Aircraft Extinguisher	20	Halon 1211	1	20/08/2020
Heli Assist Limited	Aircraft Extinguisher	1.9	Halon 1301	1	14/08/2020
Heli Support New Zealand Limited	Aircraft Extinguisher	3	Halon 1301	1	7/01/2020
HNZ New Zealand Limited	Aircraft Extinguisher	18	Halon1301	1	11/08/2020
HNZ New Zealand Limited	Aircraft Extinguisher	4.4	Halon 1211	1	11/08/2020
INFLITE Charters Limited	Aircraft Extinguisher	3.8	Halon 1301	1	17/12/2020
Jetstar Airways Ltd	Aircraft Extinguisher	33.6	Halon 1211	1	1/07/2020
Jetstar Airways Ltd	Aircraft Extinguisher	498.6	Halon 1301	1	1/07/2020
Mt Cook LTD	Aircraft Extinguisher	50	Halon 1211	1	1/01/2020
Mt Cook LTD	Aircraft Extinguisher	50	Halon 1301	1	1/01/2020
NAC Holdings	Aircraft Extinguisher	2.2	Halon 1211	1	7/10/2020
New Zealand Defence Force	Aircraft Extinguisher	50	Halon 1211	1	22/07/2020
New Zealand Defence Force	Aircraft Extinguisher	50	Halon 1301	1	22/07/2020
Northland Emergency Services Trust	Aircraft Extinguisher	9	Halon 1301	1	3/09/2020
PHI International New Zealand Limited	Aircraft Extinguisher	6	Halon 1301	1	9/10/2020

Company	Product name	Exempted quantity (in Kgs)	Substance	Exemption (note #)	Issue date
PHI International New Zealand Limited	Aircraft Extinguisher	2	Halon 1211	1	9/10/2020
Refrigerant Recovery Operating Company New Zealand	Aircraft Extinguisher	250	HCFC mixture	4	21/09/2020
Schenck's Deer Farm Ltd	Aircraft Extinguisher	0.6	Halon 1211	1	20/08/2020
Skyline Aviation Ltd	Aircraft Extinguisher	81	Halon 1301	1	31/01/2020
Skyline Aviation Ltd	Aircraft Extinguisher	27.5	Halon 1211	1	31/01/2020
Taharoa Ironsands Ltd	Aircraft Extinguisher	3.4	Halon 1211	1	22/06/2020
Taharoa Ironsands Ltd	Aircraft Extinguisher	9.6	Halon 1301	1	22/06/2020
Wilhelmsen Shipping Service Ltd	Transshipment of HFCs	8,932.90 carbon dioxide equivalent tonnes	Various HFCs	4	16/03/2020