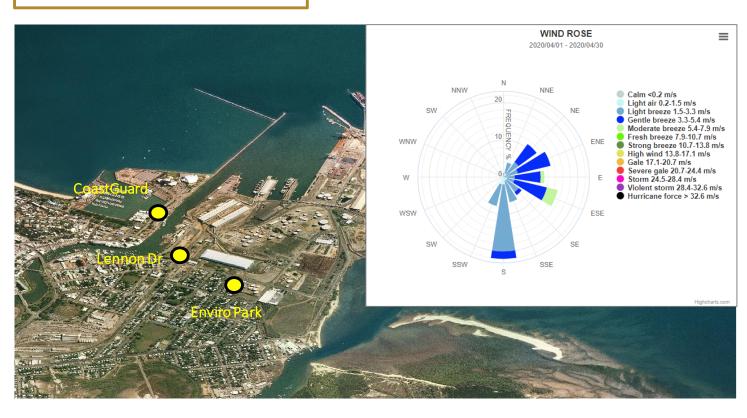
#### AIR QUALITY MONITORING IN TOWNSVILLE

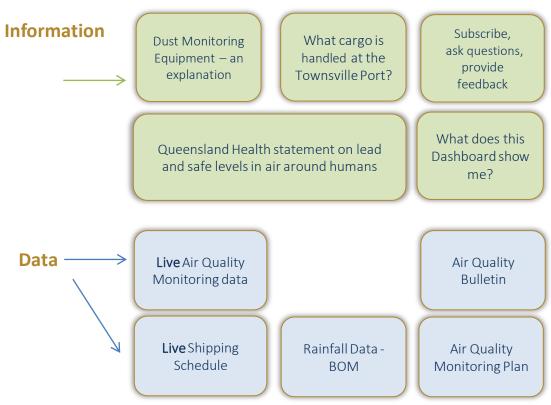
Air Quality Monitoring in Townsville is conducted separately by both the Department of Environment and Science (DES), and Port of Townsville Limited.

Click here to visit the Port of Townsville's monitoring network

Click here to visit DES monitoring network

#### Air Quality Monitoring Locations





#### **Shipping Movements in April 2020**

Date In/Out	Berth	Vessel Name	Cargo	Date In/Out	Berth	Vessel Name	Cargo
27-1	8	AC KATHRYN	Fertilizer	16-16	4	MERCURY LEADER	Motor Vehicles
29-4	3 NTH	ELISABETH OLDENDORFF	Zinc Concentrates	17-17	1	ALPINE MIA	Fuels
31-1	10	DAREEN	Fodder, Cattle	17-19	8	PORTLAND BAY	Fertilizer
31-2	3 NTH	KOTA NIPAH	Containers	18-19	3 NTH	TS GOLF	Zinc Concentrates
1-5	8	AFRICAN QUAIL	Sulphur	19-22	8	SIBULK TRADITION	Fertilizer
3-6	4	EQUINOX	Molasses	19-21	10	CORONADO BAY	Containers
4-5	3 NTH	KYOWA ROSE	Containers	19-20	1	RIVER SHINER	Fuels
5-6	1	ATLANTIC FALCON	Fuels	20-22	4	FLEVOGRACHT	Fodder, Cattle
5-7	9	AFRICAN TEIST	Sugar	20-21	11	YANGTZE BRILLIANCE	Zinc Concentrates
6-11	10	PORT ALICE	Zinc Concentrates	21-22	1	ELANDRA PINE	Fuels
6-8	8	UNI CHALLENGE	Zinc Concentrates	22-23	9	KING CORN	Sugar
6-7	3 NTH	SOFRANA TOURVILLE	Containers	22-23	3 STH	GANADO EXPRESS	Fodder, Cattle
7-9	9	HAMBURG TEAM	Sugar	22-25	4	FLEVOGRACHT	Copper Concentrates
9-9	4	GREYMAN EXPRESS	Fodder, Cattle	22-24	8	QUEEN ISLAND	Zinc Concentrates
11-12	3 NTH	KOTA HARUM	Containers	24-25	8	YANGTZE BRILLIANCE	Zinc Concentrates
11-12	4	JAWAN	Fodder, Cattle	25-26	3 NTH	LUENHO	Lead Ingots
12-12	3 NTH	PMG EMERALD	Break Bulk	25-28	4	AKUNA	Cement
12-13	10	OCEAN DROVER	Fodder, Cattle	26-27	9	MARSHAL GELOVANI	International Navy vessel
13-15	11	TS GOLF	NIL cargo	26-28	3 STH	KOTA HIDAYAH	Containers
13-14	3 NTH	FREMANTLE HIGHWAY	Motor Vehicles	27-29	9	UNI AUC ONE	Sugar
13-15	8	JULIA	Zinc Concentrates				



15-16

3 NTH

HANSA REGENSBURG

Containers

#### **Port of Townsville - Overview**

First established in 1864, the Port of Townsville is operates eight berths handles around \$8 billion in trade; servicing more than 136 ports around the globe.

The 2018-19 year was a significant one for the Port of Townsville, with growth in trade driven by a rebound in the resources sector, a strong net profit of \$15.96 million and the advancement of a number of major infrastructure projects. Total trade throughput of 7.68 million tonnes is a 4.7% increase on the previous financial year. There were increases across a range of export commodities, in particular mineral concentrates, zinc ferrites, refined copper, smelted lead, sugar and cattle. Cruise ship visitation grew with 16 arrivals and a doubling the number of passengers and crew to almost 20,000 people.

Townsville is the number one port in Australia for copper, zinc, lead and sugar exports and services 70% of the Northern Australia population. More than 20 shipping lines operate out of the Townsville Port offering more than 40 different services. Townsville is also a strategic Navy port and facilitates cruise ship visits.

Commodities/cargo that passes over the Townsville Port's berths include:

#### **Imports**

Motor vehicles, shipping containers (general cargo), cement, sulphuric acid, fertiliser, copper, nickel, zinc, copper anode, petroleum products, sulphur, containers, tyres.

#### **Exports**

Sugar, timber, fertiliser, shipping containers (general cargo) cattle, refrigerated meat, magnetite, copper, lead, zinc, zinc ferrites, zinc oxide, silver, molasses, sand, gravel, coke, project cargo.



#### **Subscribe to Dashboard Updates**

Visit our website and subscribe here <a href="https://www.townsville-port.com.au/environment-community/community/newsletter-sign-up/">https://www.townsville-port.com.au/environment-community/community/newsletter-sign-up/</a>

OR

Visit the Port of Townsville Facebook page and click on "Sign up" at the top of the page.

OR

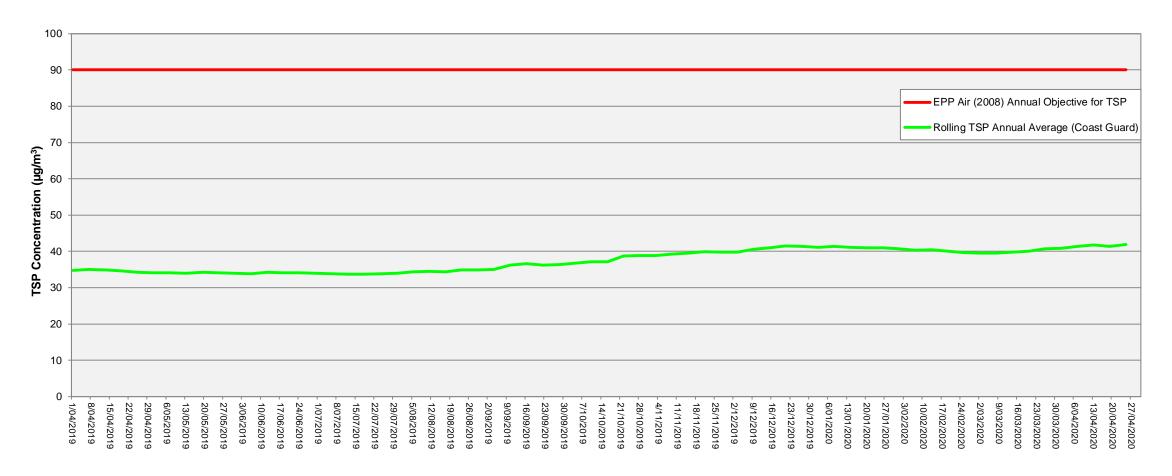
Phone 07 47 811 500 and asked to be added to the list.

#### Ask a Question / Provide Feedback

Send your enquiry or feedback to <a href="mailto:community@townsvilleport.com.au">community@townsvilleport.com.au</a>



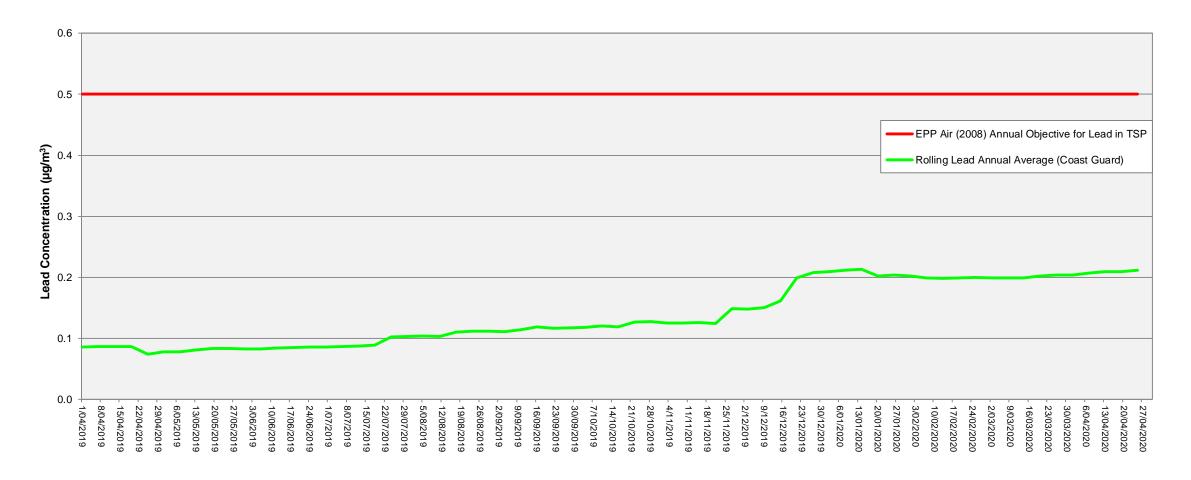
#### Hi-Volume Sampler – General total dust levels (one in six days) at Coast Guard Site APRIL 2019 – APRIL 2020





Note: TSP Concentration units = micrograms per cubic metre per 24 hour period Rolling annual average = the moving average of the previous 11 results and the current result

#### Hi-Volume Sampler – Lead in dust levels (one in six days) at Coast Guard Site APRIL 2019– APRIL 2020

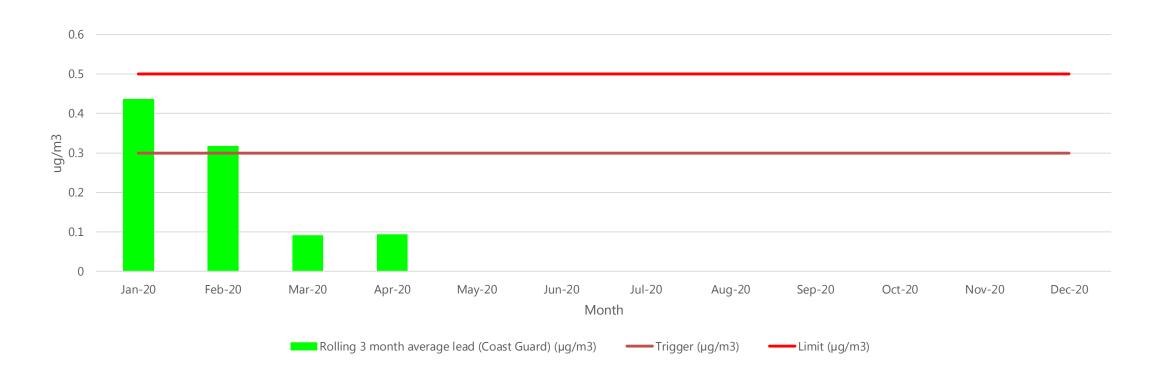


Note:

Lead Concentration units = micrograms per cubic metre per 24 hour period Rolling annual average = the moving average of the previous 11 results and the current result



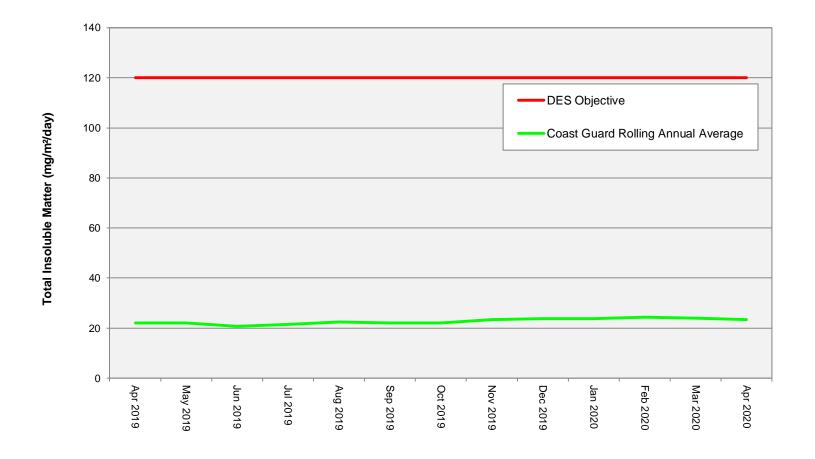
### Hi-Volume Sampler - Lead in dust levels (one in six days) at Coast Guard Site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



#### Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site APRIL 2019– APRIL 2020

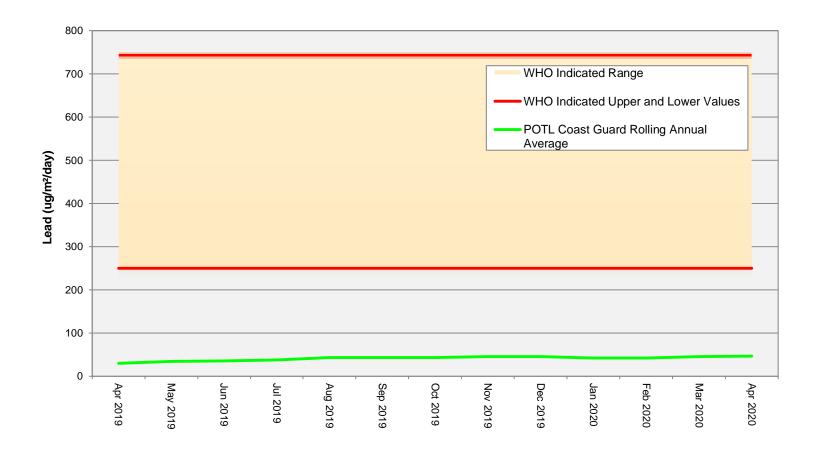


Note:

Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



#### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Coast Guard Site APRIL 2019 – APRIL 2020

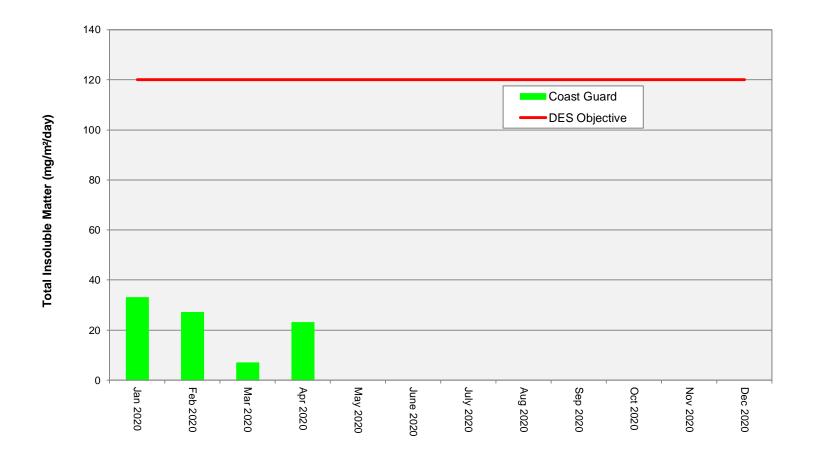


Note:

Lead Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result.



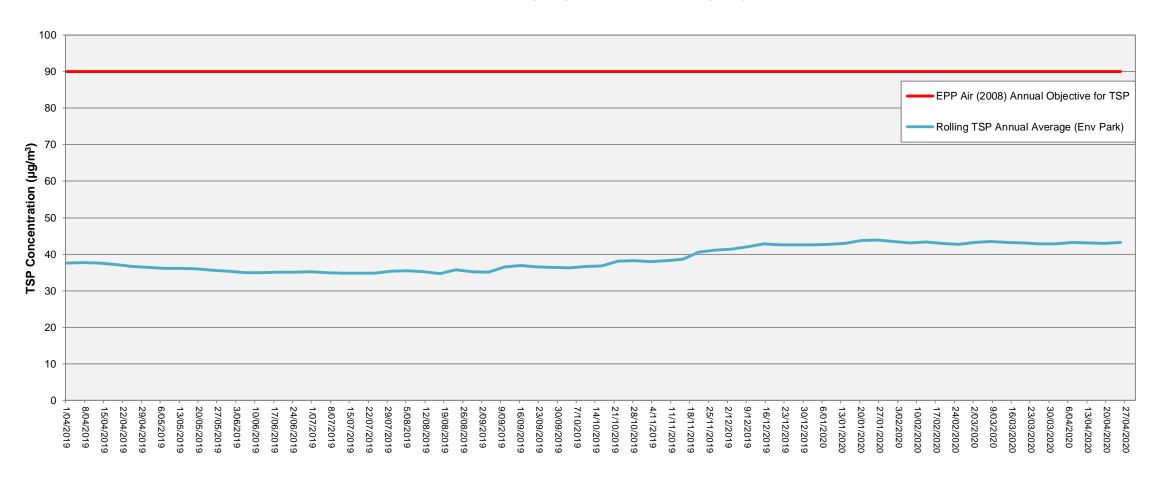
## Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site 2020



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day



#### Hi-Volume Sampler - General total dust levels (one in six days) at Environment Park site APRIL 2019 – APRIL 2020

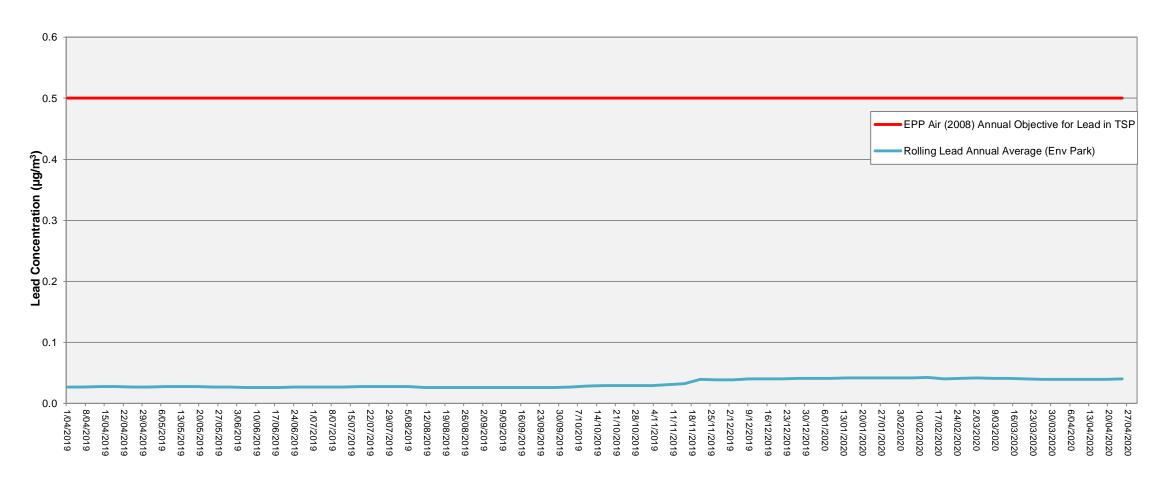


Note:

TSP Concentration units = micrograms per cubic metre per 24 hour period Rolling annual average = the moving average of the previous 11 results and the current result



#### Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site APRIL 2019– APRIL 2020

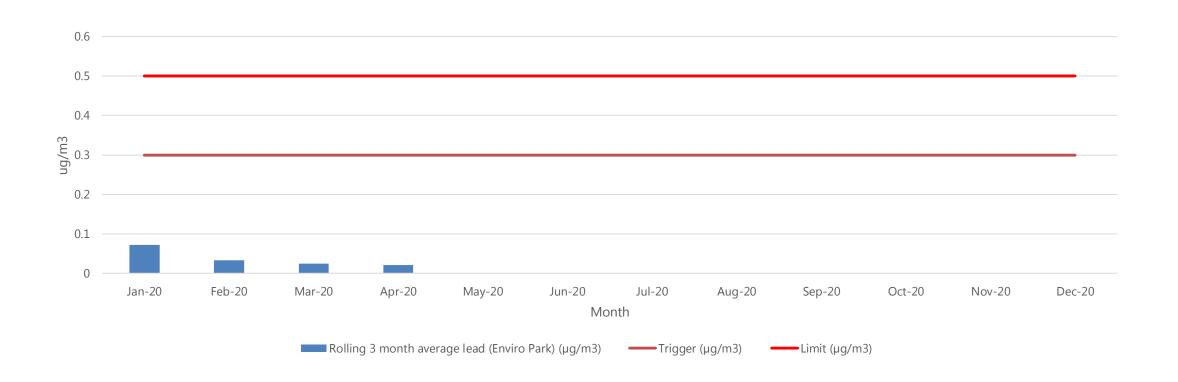


Note: Lead Concentration units = micrograms per cubic metre per 24 hour period

Rolling annual average = the moving average of the previous 11 results and the current result



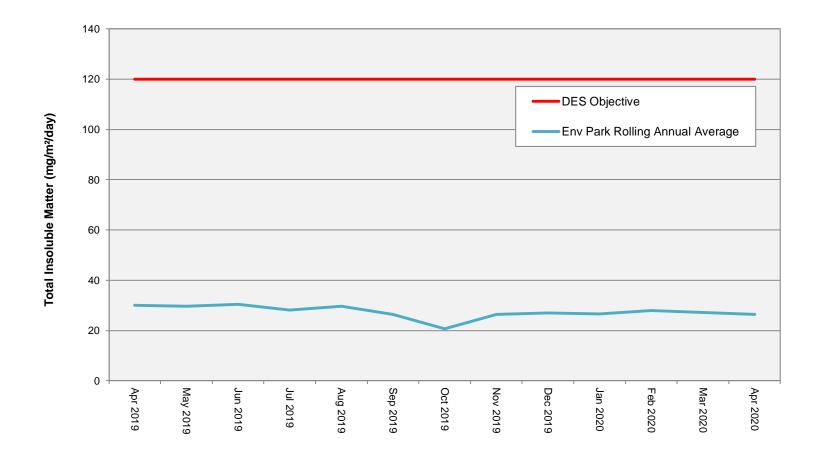
### Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



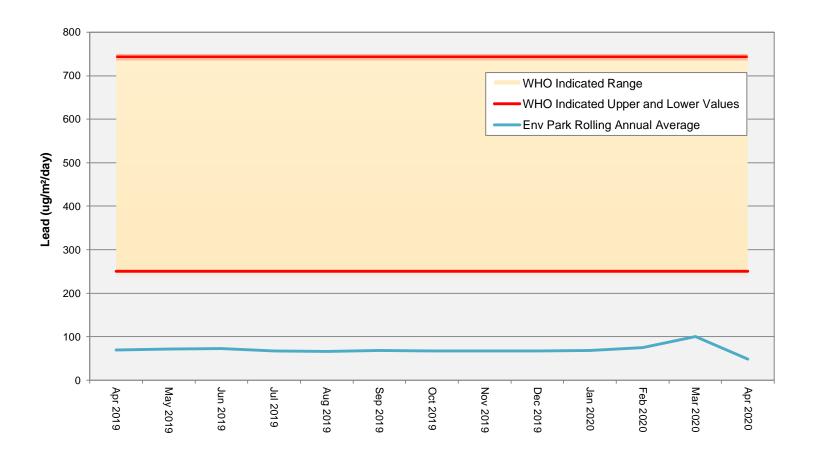
#### Dust Deposition Gauge - General dust deposition levels (monthly) at Environment Park site APRIL 2019– APRIL 2020



Note: Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



#### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Environment Park site APRIL 2019– APRIL 2020

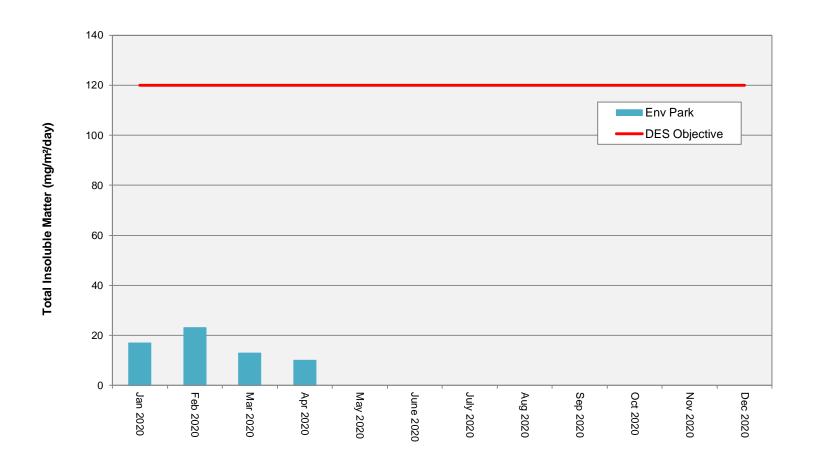




Lead Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



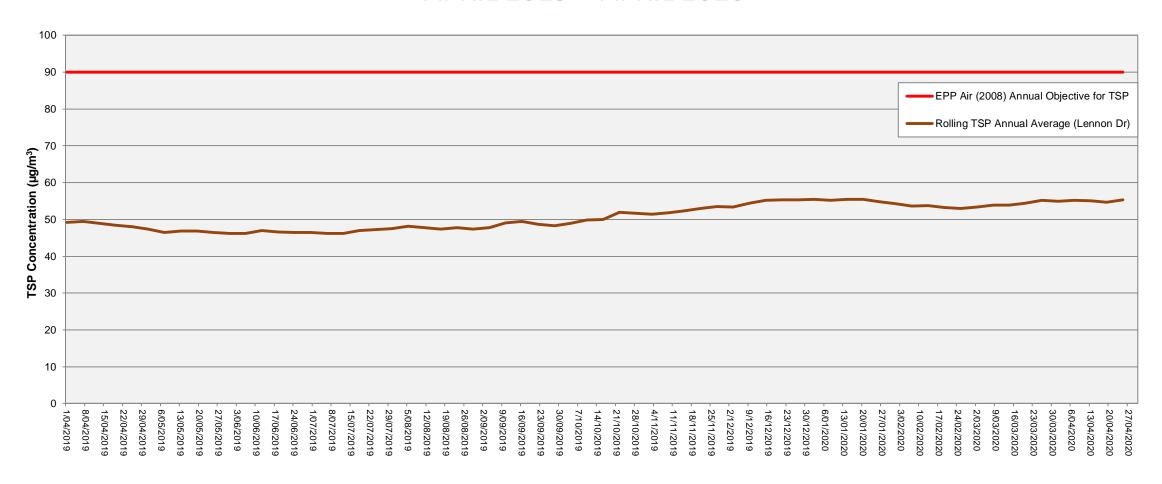
## Dust Deposition Gauge – General dust deposition levels (monthly) at Environment Park Site 2020



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day



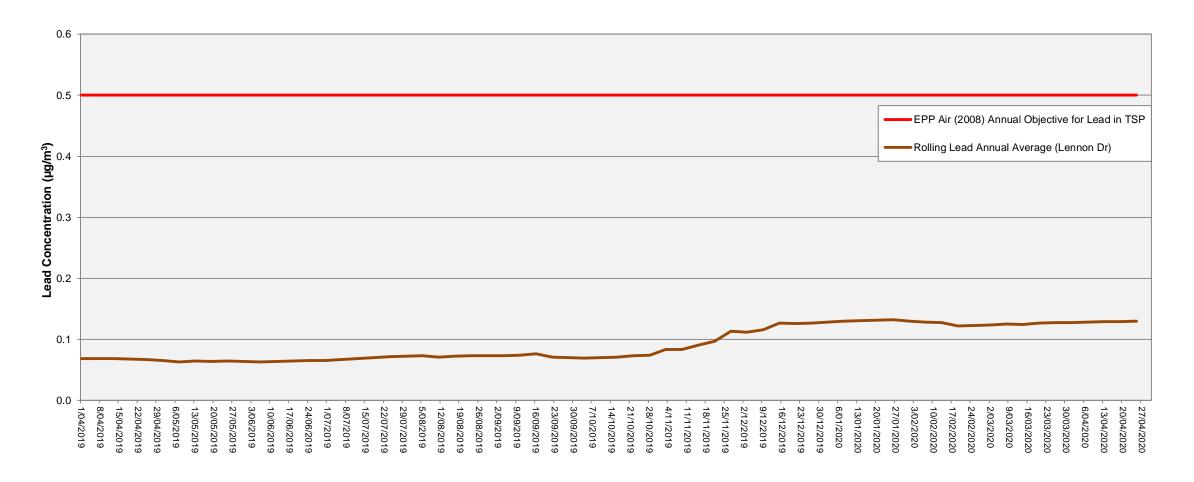
#### Hi-Volume Sampler - General total dust levels (one in six days) at Lennon Drive site APRIL 2019 – APRIL 2020



Note: TSP Concentration units = micrograms per cubic metre per 24 hour period Rolling annual average = the moving average of the previous 11 results and the current result



#### Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site APRIL 2019 – APRIL 2020

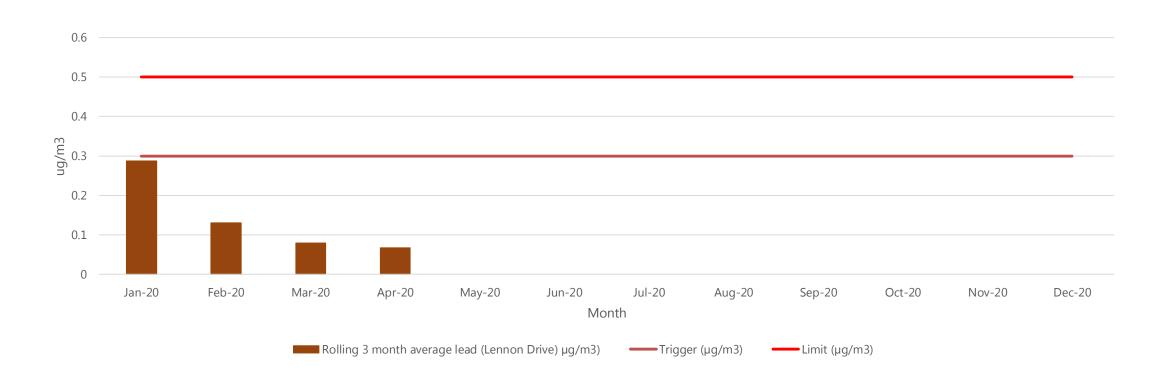


Note:

Lead Concentration units = micrograms per cubic metre per 24 hour period Rolling annual average = the moving average of the previous 11 results and the current result



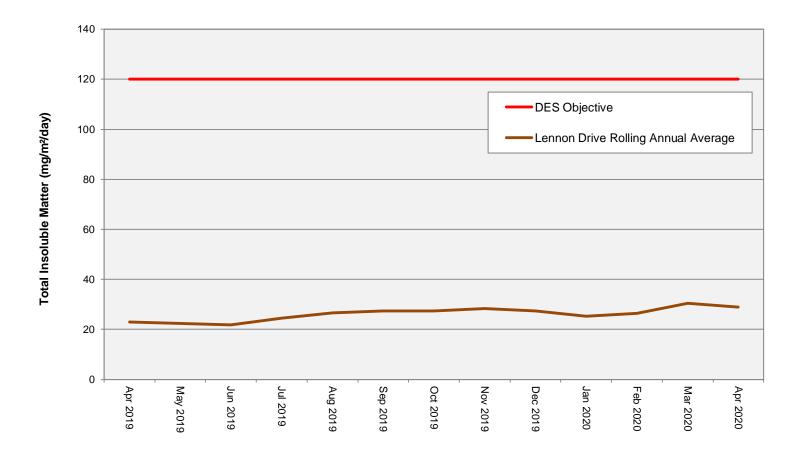
# Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



## Dust Deposition Gauge - General dust deposition levels (monthly) at Lennon Drive Site APRIL 2019 – APRIL 2020

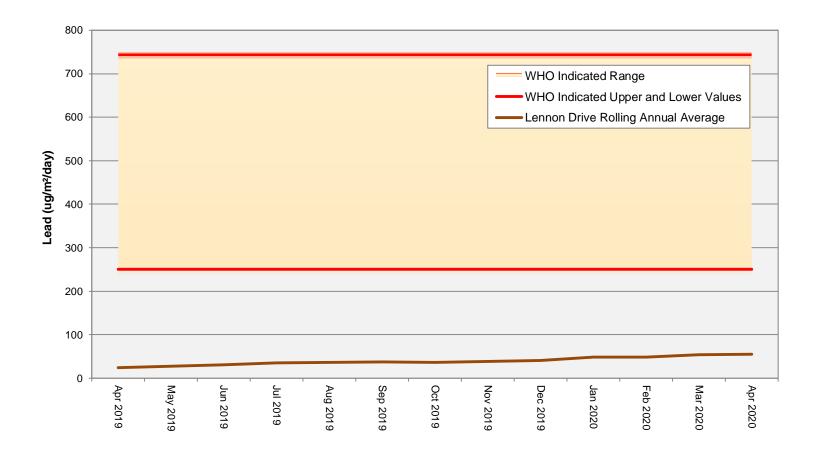


Note:

Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Lennon Drive Site APRIL 2019 – APRIL 2020

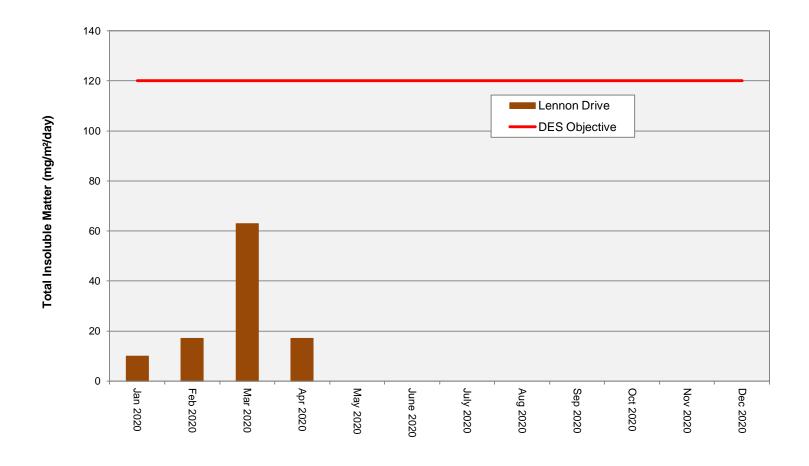


Note: Lead Concentration units = micrograms per square metre per day

Rolling annual average = the moving average of the previous 11 results and the current result



## Dust Deposition Gauge – General dust deposition levels (monthly) at Lennon Drive Site 2020



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day





This statement/advice was provided by Queensland Health in relation to blood lead levels in Townsville in April 2016

Environmental limits for lead are set using a number of possible criteria including potential health effects.

Blood lead level within the Australian population have been decreasing over time as the use of lead – particularly in petrol and paint - has been phased put. The most recent NHMRC guidance document suggests that a blood lead level of less than 5  $\mu$ g/dL is what should be expected in the general population.

Elevated blood lead levels are notified to Queensland Health for investigation. Previously this level was 10  $\mu$ g/dL but since the beginning of 2016 has been reduced to 5  $\mu$ g/dL. This is not an indication of a safe blood level, but is a trigger level that requires investigation into what in the individual's environment is contributing to the level.

Based on studies recognised by the World Health Organisation into the relationship between lengthy exposure to ambient air lead levels and increases in blood lead levels, the current 12 month rolling average for measurements (as at March 2016) at the Townsville Coast Guard Site could be expected to add between 0.36  $\mu$ g/dL and 0.6  $\mu$ g/dL to a person's total blood lead level. This increment is only about 10% of the level that would require further investigation. Along with other normal exposure, this would not be expected to exceed that level, is well within the expected community range, and below the level that would trigger further investigation.

The highest rolling annual average in recent years (recorded in May 2014 at the Townsville Coast Guard Site) yields a predicted result of between 1.14  $\mu$ g/dL and 1.9  $\mu$ g/dL, still well under the level which should trigger concern.