



Wastewater Pilot Programme – November 2017 Update

New Zealand's illicit drug environment continues to evolve and expand and with it comes significant harm inflicted on both the user, and the community. Intelligence indicates that methamphetamine and cocaine is becoming increasingly available, and in 2016 and 2017 New Zealand Police and New Zealand Customs Service saw record breaking seizures for both commodities. While not the only substances of abuse in New Zealand, there are growing concerns around the increase in methamphetamine and cocaine seen domestically.

In response to this increase in drug use, New Zealand Police and The Institute of Environmental Science and Research (ESR), piloted a wastewater programme to help better understand the geography of drug use. The 12 month pilot programme began in December 2016 and examined wastewater from two different locations; Auckland and Christchurch. Commodities tested were methamphetamine, cocaine, a-PVP, MDMA and heroin.

Waste water analysis is a widely applied international tool, and has provided Europe with accurate and real-time data for the last 10 years. The results of the New Zealand pilot programme are intended to:

- Inform treatment and enforcement strategies
- Measure the effectiveness of education and enforcement interventions
- Make comparisons with international data

The twelve months of wastewater results show a small fluctuation in the amount of methamphetamine, cocaine, and MDMA detected at both sites, while alpha PVP and heroin were not detected. The level of MDMA detected has informed agencies that actual MDMA is present in New Zealand's ecstasy market, though it is likely many analogues and substitutes are still used. Levels of cocaine have consistently increased at the Auckland testing site since June 2017.

The Results

The following tables outline the key results for the last four months of the pilot programme

Testing Site: Whangārei	Total Grams per Week			
	August 2017	September 2017	October 2017	November 2017
Methamphetamine	262	241	322	360
Cocaine	1.8	1.5	1.4	1.8
MDMA	2	0	2	4.9

Population: 47,000



The Results Continued

The following tables outline the key results for the last six months of the pilot programme.

Testing Site:	Total Grams per Week					
Christchurch	June 2017	July 2017	August 2017	September 2017	October 2017	November 2017
Methamphetamine	640	525	635	636	454	708
Cocaine	40	34	36	46	36	40
a-PVP	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
MDMA	199	218	309	298	426	599
Heroin	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected

Population: 360,000

Testing Site:	Total Grams per Week					
Auckland	June 2017	July 2017	August 2017	September 2017	October 2017	November 2017
Methamphetamine	620	629	583	713	787	687
Cocaine	36	77	87	98	101	95
a-PVP	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
MDMA	85	153	136	73	160	265
Heroin	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected

Population: 240,000

Not detected means the concentration of the drug or metabolite in the wastewater sample was below the method limit of detection.

Commentary

The six months of wastewater results above, show a small fluctuation in the amount of methamphetamine and MDMA detected at both sites, while cocaine has steadily increased in Auckland. Alpha PVP and heroin were consistently not detected. The focus of this programme is to establish a baseline of what consumption looks like among the population covered by the two testing sites.