

Episode 7: Infrared Cameras detect illegal wood burners in Rotorua, New Zealand

RAWSEP View: On June 7, 2022 an article was published in New Zealand called “Infrared camera tech to smoke out illegal wood burners across Rotorua (New Zealand)”. New low-cost hand-held infrared cameras are being used to identify illegal residential wood burning and subsequently identify wood burning occupants. The new thermal imaging camera technology detects thermal energy on chimneys and flues which show unlawful use of wood burners. If use of illegal wood burners is identified, compliance officers will follow up with the occupants. The cameras do not see-through walls or glass, nor show any human activity within houses. The move comes in the wake of the 2017 Air Quality Control Bylaw. It is part of continued efforts in improving wintertime air quality in Rotorua, New Zealand.

RAWSEP View: Technology that helps to stop residential wood burning is getting low-cost and hand-held or portable. This type of infrared camera could be used in the United States in conjunction with low-cost, portable, largely resident-owned Particulate Matter PM 2.5 monitors which detect particulates of size 2.5 microns, the perfect size to infiltrate the human lung. PM 2.5 causes a cascade of health problems. Wood smoke is 90% PM 2.5. Low-cost, portable PurpleAir PM 2.5 monitors owned by near neighbors of wood burners are now used on United States AirNow Fire & Smoke Maps alongside data from \$100,000 EPA monitors, after PurpleAir data is correlated with EPA data using a simple mathematical formula. These maps are now used for wildfire smoke detection, but in the future could be used for monitoring and regulation of compliance with PM 2.5 levels that comply with EPA or W.H.O. standards.