**My Objection to the Western Harbour & Warringah Freeway Upgrade EIS** 21/02/20

I strongly object to this project (and to the NBL). I am a medical oncologist of 37years experience and am particularly concerned with the high carcinogenetic potential of vehicle exhaust emanating from the innumerable diesel vehicle trips in the construction phase (on suburban streets) and from tunnel traffic and the undoubted increased surface traffic re-filling transiently de-congested roads. I am concerned with other health impacts of exhaust on children and worsening of climate change. Even current levels of exhaust injure vulnerable children and cause 600+ adult deaths each year in Sydney. Recent research confirms that children (including unborn foetuses) will suffer severe respiratory illness (eg asthma, infection and reduced lung development), potentially diminished brain/intellectual development, cardiovascular concerns and, vitally, psychological impacts (absorbing adult anxiety at home and at school, reduced activity, a diminished environment during and after the construction).

The actual level, danger and distribution of toxic vehicle exhaust chemicals is only now becoming clear. Earlier "safe" limits are likely too high for young children (and vulnerable elders). Personal measurement studies indicate higher exposure with travel through the city, at school drop off/pick up points, near main roads and often indoors. This will only worsen as more cars, particularly diesel powered, enter our traffic nightmare, travelling longer distances as the city expands, but at slower pace. Recent evidence that public transport is not coping will divert customers into their cars, often 7 days a week.

Of the many toxic constituents of vehicle exhaust (especially diesel, even with exhaust modification), perhaps the most concerning are PM 2.5 and ultrafine particles (<0.01 microns), with a core of back carbon, carrying a payload of adherent noxious poisons. Black carbon itself is a known carcinogen, as are PAHs and many volatile substances. These particle flow into the alveoli of children and babies (plus adolescents and adults) causing dangerous immunological events, leading to acute illness or chronic (unmonitored) lung function damage or delayed serious morbidity. UFPs and some displaced chemicals are absorbed into the circulatory system leading to systemic toxicity, particularly cardiovascular and cerebrovascular (brain). Children may therefore be unable to reach their full- potential physical and mental development.

But this not all! There is more unattended catastrophe - climate change, which will exacerbate the countless consequences of vehicle pollution, rendering the lives of most citizens particularly hazardous, again especially, the unborn, babies, children and the increasing number of our elderly folk. We will be exposed to more toxic wildfire smoke, recently at internationally alarming levels, but to return regularly, as temperatures rise further, with past weather patterns in disarray. The future we are consigning to our children is abominable. Life will become increasingly indoors. With the vast loss of forest and our native animal population, on land in our rivers and at sea the psychospiritual impact will become intolerable for many, if not most. Thus, the infliction of the malignant freeway/motorway infrastructure including the WHT, WFU and NBL is inexcusable. We should be steadily reducing private vehicle and other petroleum fuel use, aiming radically to halve current consumption by 50% by mid-decade. Obviously other specific and powerful measures are required urgently to drawn down CO2 and the wide array of other greenhouses gases.

It is important, indeed vital, that we awaken from our collective trance.

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