I am a lifelong resident, and practising Environmental Consultant who is actively involved in local environment and community groups (such as the Hunter Community Environment Centre and Climate Action Newcastle); and I have been the Environmental Representative on the Newcastle Consultative Committee for the Environment (NCCCE) since it began in November 2011. I, like thousands of Newcastle and Hunter residents, am strongly opposed to a fourth coal loader being built in Newcastle. There are many very good reasons why T4 should not be built, even as per the revised (reduced) scope in the Preferred Project Report (PPR) release by the NSW Department of Planning and Environment in 2013. Some of these reasons are summarised under the following subheadings.

**Climate Change**

T4 will have a peak capacity of 70 megatonnes per year; at full capacity this will represent close to a doubling of the current peak export capacity in the port of Newcastle. When the coal is burnt overseas, more than 174 million tonnes of carbon dioxide will be emitted, which is more than NSW's annual emissions and approximately 30% of Australia's emissions. These Scope 3 emissions represent more than 17% of the 1000 MT global carbon budget that PWCS itself acknowledges that must be kept if the world has a hope of limiting warming to less than 2°C. 17% of global emissions from just one development is a colossal contribution, not acknowledged by PWCS in the PPR. While Scope 3 emissions are not specifically the responsibility of the source country, government and business should be taking them much more seriously. There will come a time in the near future when making money will have to take a back seat to saving the climate.

I also note, that the PPR states that "the project's design allows for future expansion within the T4 project area, for example additional stockyard capacity and rail tracks, to achieve a nominal capacity of 120Mtpa when required, and subject to future assessment and approval under the relevant legislation." (Executive summary p. E.2, T4 Preferred Project Report, 2013).

On this basis, the potential global greenhouse gas emissions that could result from the project are the same as could occur under the original proposal for a 120Mtpa terminal - i.e. 288 million tonnes each year. If T4 were a country, its greenhouse gas emissions would be ranked 30th in the world.

In 2013, when the PPR was released, several major reports about climate change were released, including, but not limited to:
This year, more sobering reports follow. Including the Bureau of Meteorology's State of the Climate Report 2014, the Climate Council's Angry Summer 2013-2014 and, importantly, the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5).

I presume that relevant NSW public servants, including Planning Assessment Commissioners and senior staff at the NSW Department of Planning and the Environment, have read at least the summaries of these reports. If you haven’t, the above are hyperlinked in the digital version of this submission. I hope you have already grasped, or are capable of comprehending the fact that climate change is a critical threat to life on earth as we know it.

This is not an over-dramatisation of the situation, as these reports clearly show. The coming devastation not be felt by yourselves, commissioners, but it will be by your children and grandchildren. It is already wreaking havoc on the world’s poorest people, not to mention the voiceless natural world.

The severity and consequences of accelerating climate change is very well documented by the CSIRO, the Bureau of Meteorology, the International Panel for Climate Change and countless science academies and centres of learning worldwide. Many of these organisations are in concurrence that it is happening faster than previously predicted and the impacts will be far more serious than most people realise - potentially threatening the capacity of the planet to sustain human civilisation in its current form. To further contribute to climate change by approving - nay, actively encouraging - a development such as T4 - is grossly irresponsible act of governance and will be met with censure and dismay by everyone who thinks about the sustainability and future of our society.

**Health Impacts of the Coal Loader, Stockpiles and Trains**

Dust emissions from coal trains, coal stockpiles and coal loading operations have serious health impacts, particularly the fine particles (PM2.5 and finer). I have many friends who live in Tighes Hill, Maryville, Carrington and Mayfield East and they almost constantly have fine, black particulate matter coating their houses, in their backyards and by inference in theirs and their children's lungs. The amount of dust generated by the existing three coal loaders is clearly already too much; and there are already far too many coal trains travelling through port-side suburbs.

I welcome the EPA investigating the chemical make-up of these particulates, through the Lower Hunter Particle Characterisation Study and the Dust Deposition Study. However, it will be twelve months before we see meaningful reports on what the fine black dust is made of. In the meantime, to approve a development that will dramatically increase coal train movements, and the subsequent amount of dust and diesel emissions that would occur at peak T4 capacity is totally unthinkable and the proposal should be rejected on these grounds alone, let alone all the other key reasons briefly outlined in this submission. At the very least, the decision should wait until these studies are completed and also peer-reviewed to verify their accuracy.
Environmental Health Impacts of the Development

The site has been a dumping ground for a cocktail of highly toxic contaminants for many decades. These contaminants are in the soil and groundwater and will almost certainly be release during dredging, earthworks and construction; and furthermore the colossal weight of the infrastructure will effectively ‘squeeze’ the soil and sediments beneath it, exacerbating the leaching of contaminants into the groundwater and subsequently into the Hunter River estuary. This is a ludicrously risky thing to do and port-side communities will not stand for it. It is now the 21st century, and citizens of a wealthy, first-world country such as ours demand first class environmental management which does not include contamination of groundwater or off-shore dumping of contaminated dredge spoil.

With regards to biodiversity off-sets - if there was a better site for these birds and frogs to be living in, they would be living there already.

Expansion of Mining in NSW

70 million tonnes of coal is the equivalent of 6 or more new mega pit coal mines in NSW, the majority or all of which will be located in the Hunter Valley and the Liverpool Plains. These communities are already feeling the negative health and environmental impacts of excess levels of open-cut coal mining. The extent of irreparable destruction wrought by open-cut coal mining is already becoming too much for human and ecological communities in the Upper Hunter; another 70 million tonnes worth of new mining activity is almost inconceivable.

The devastating environmental impacts of open-cut mining has been well documented in recent years; and despite the mining industries' claims of 'best practice' remediation and rehabilitation of mine sites, the depth of extraction, total removal of living flora and fauna years of stockpiling soils means that no site can ever be the same again. Coal mining uses vast quantities of water for coal processing, dust suppression and equipment wash-down, sourced from local river systems such as the Hunter River in the Hunter Valley. Furthermore, open-cut mining substantially disrupts and contaminates regional groundwater systems, which are relied upon for ecosystem health as well as indirect and direct agricultural supply.

Any government that could countenance this is grossly irresponsible and thinking only of very short-term and short-lived economic gains at the expense of future generations and other species. People will look back in a few decades time and will be shocked at the greed and short-sightedness that effectively robbed future generations of choices and options. Since 1992 Australian and NSW planning laws have paid lip service to the Precautionary Principle and Intergenerational Equity. Approving T4 is a slap in the face of all and any who hope to call the Hunter Valley, and beyond, 'home' into the future.

The world's largest coal port is large enough - we don't want or need a fourth coal terminal, of whatever size.

Yours sincerely,

Zoe Rogers