Thesis Statement: There is validity to the concerns that the Castlereagh Waste Disposal Depot (CWDD) is affecting the health of the surrounding residents, livestock and environment, despite assurances from government bodies to the contrary.

Many controversies have been voiced concerning the ongoing use of the Castlereagh Waste Disposal Depot (CWDD) and its possible effect on the surrounding community and environment. The Depot situated at Londonderry in Sydney’s outer west is managed by the Waste Service New South Wales which despite the independent findings commissioned by the residents living on the periphery and factual information available through records of its operation denies that the health of the surrounding residents, livestock and the environment is compromised. However, there is validity to the concerns voiced by the residents as demonstrated by the apparent misuse of the landfill and the poor record keeping of the waste disposal at this depot.

The depot comprises an area of 350 hectares. Over the last 23 years it has accepted 1,500,000 tonnes of Sydney's worst toxic waste (Barton 1997). The opening of the Liquid Waste Plant (LWP) at Lidcombe, NSW in 1988 was to reduce the volume of toxic liquid waste sent to CWDD. Though there was a reduction, the CWDD then started receiving 90% of partly treated residues and 10% of the industrial waste that could not be processed at LWP which exponentially increased the toxicity of the Depot. A further burden was placed on the CWDD when the Waverly/Woollahra Waste Incinerator was closed in 1996 resulting in the CWDD laden with 270 tonnes per week of quarantine waste. Incidentally, quarantine waste is normally incinerated at 900 degrees as it consists of agricultural and human viruses, bacteria and insects and it warranted a heavily guarded security escort through Sydney streets to establish a safe route to the Castlereagh Depot (Sydney Morning Herald 1997). Yet this toxic cocktail was merely dumped into a shallow trench at the Depot.
The practice of digging a trench – 20m x 5m x 5m deep, unloading the waste from its transportation drum, pouring it into the open clay trench and covering it with clay, soil and vegetation has been commonly adopted by the Waste Service NSW since 1974 (CWDD Management Record 1994). This controversial practice has been challenged by some environmentalists as unsafe and a health risk. However, in 1994, the government rising to this challenge commissioned the Woodward-Clyde Stage Two Audit of the CWDD which confirmed the theory that as Londonderry is a heavy clay area, the ‘natural barrier’ it provides would allow seepage via groundwater at such a slow rate that it would take 100 years to reach the Depot’s boundaries by which time the residue will be neutralised and absorbed.

Ironically, the presence of 9 000 of such trench like cells in the vicinity and the lack of proper record keeping of the exact quantity and composition of chemicals dumped at the Depot raised apprehension at the assurance the government hoped the Audit would accomplish. It was discovered that proper record keeping was not introduced until 1988, 14 years after the Depot’s opening. Prior to this period a truckload of waste was simply recorded as ‘oily water’ (Bell 1996). Also, shortly after the Audit, residents living in the periphery of the Depot began to experience health and environmental problems and as a result of these concerns, the Residents Action Group for the Environment (RAGE) was formed in 1989. The group began to compile case studies ranging from birth deformities in humans and livestock, noting a high than normal incidence of brain cancer in the area to complaints of livestock suffering burns when in contact with groundwater. There were 97 of these cases (RAGE 1990).

The agitation by RAGE eventually forced the government to commission a number of studies; the first of these were conducted by the Waste Service NSW who determined if chemical contamination of the peripheral areas had occurred by testing various bore holes on the site. It eventually concluded that there has been no chemical contamination of the area and none had left the
boundaries of the Depot. Another study undertaken by the NSW Environment Protection Authority (EPA) included the 1995 NSW Agricultural Animal Health Study and Soil Report and the Western Sector Public Health Unit 1995 Human Health Study of the area. The conclusions of these studies were finally published in the 1995 NSW State of the Environment Report which claimed that “… no evidence [was found] to support concerns over adverse health effects as a result of the Castlereagh Depot” (NSW EPA Report 1996).

Unconvinced by these findings, RAGE consulted the Toxic Chemicals Consultancy Unit and commissioned them to investigate the validity of the assurances by Government bodies that the Castlereagh Depot site is safe for humans, livestock and the environment. Dr Fred Bell, an associate of the Toxic Chemical Consultancy Unit which is an arm of the Total Environment Centre analysed the 1994 Woodward-Clyde Report using the predictive mathematical modelling method and concluded that the conclusions drawn in this report were “significantly flawed” (Bell 1996). The Woodward-Clyde Report essentially concentrated on groundwater movements and Dr Bell asserted that the calculations used to determine leakage were inaccurate as several variables were not taken into consideration. Variable one was the use of incomplete data regarding the composition and mass of waste deposited in the landfill and accurate data was only recorded 14 years after the government began waste management operations at this site. Variable two was the consideration that Londonderry becomes a flood plain in times of heavy rain. The absence of these two variables in the Government studies meant that instead of the 100 years predicted for eventual leakage, Dr Bell estimated it would take only five to seven years for toxic chemicals combined with the groundwater movement to leave the site’s boundary. He also identified five potential groundwater pathways through the clay, sand and gravel that were already carrying contaminants beyond the Depot’s parameters.
These findings eventually alerted the Minister for the Environment, Pam Allan to concede to RAGE’s demand that the Depot be closed and subjected to ongoing health surveillance. The concern over residual effects is however yet to be allayed as no infrastructure has been established to monitor the safe storage of waste, the prevention of contaminated groundwater movement beyond the site’s boundary and the formulation of policies to safeguard the health welfare of the affected residents, their land and livelihood. Also, the fallacies of the government bodies on going studies of the area need to be severely condemned and the victims of the government’s bungling be adequately compensated.

The CWDD debacle means future waste management operations must adopt stringent occupational and health measures to ensure innocent residents and the associated environments are not unnecessarily subjected to health risks. It is paramount that the Waste Service NSW conducts on going testing of bores and groundwater of existing landfills so the public can be kept informed. Moreover, the perpetrators of waste must be educated in areas of composting, recycling and reusing and the government should look at other forms of waste management operations rather than just landfills.