LEAD Action NEWS

LEAD Action News vol 10 no 4, June 2010 ISSN 1324-6011
Incorporating Lead Aware Times (ISSN 1440-4966) & Lead Advisory Service News (ISSN 1440-0561)
The journal of The LEAD (Lead Education and Abatement Design) Group Inc.
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Heavy Metal Poisoning in an Australian Lead Mining Town – the View from the Trenches

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Poisoned Rosebery Residents protest outside Parliament House, Hobart, July 2009



.1. Toxic Sludge Taints the White House

by Jill Richardson, The Weekly Spin, March 31, 2010, *CMD Reports*
[Source: PR Watch, Center for Media and Democracy, Madison, Wisconsin, USA] Reprinted with kind permission.

When First Lady Michelle Obama decided to plant a vegetable garden at the White House, she faced a problem that many new homeowners in America run into. Previous residents of her house had applied sewage sludge to her lawn, but left no warnings to alert her about the potential toxicity of her soil as a result of the sludge application. When the Obamas tested the soil in preparation for planting their garden, they found some lead in the soil. At 93 parts per million (ppm), the lead showed that the soil was probably contaminated by something, even though at 93 ppm the lead itself was not necessarily a danger. Still, the Obamas took precautions to further lower t he lead level to 14ppm, and make the lead unavailable to plants by adding soil amendments that diluted the lead and changed the pH of the soil.

Sludge Politicized

Unfortunately for the Obamas, and for the entire nation, once the story hit the news, it became politicized. While the issue was initially raised as a comment on the safety of using sewage sludge as fertilizer -- an issue that has no political party -- the right soon grabbed a hold of the story as a way to make fun of the Obamas. Some on the left fiercely defended the Obamas in return. But the Obamas are not the villains in this story; they are the victims. They are among many other Americans whose yards and gardens are contaminated with sewage sludge without their knowledge and who, as a result, are exposed to toxic contaminants in the soil. And lead is just a fraction of the overall problem.

To read the rest of this article, visit http://www.prwatch.org/node/8982

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2. Editorial

This newsletter is a case study of just how drawn-out, complicated, frustrating and distressing it is to try to get government bureaucracies and mining companies to investigate what is making the residents of a mining town – and their pet animals – sick. The local rivers have also been affected, with an alarming reduction in aquatic life.

The residents of Rosebery, a small mining town in the west of Tasmania, have taken on the task. Some of them have formed themselves into the Toxic Heavy Metals Taskforce Tasmania (THMTT), known locally as “The Taskforce”. They have to deal with the local council, the State Department of Health and Human Services, the Environment Protection Authority and the company. The struggle continues. [Please note: The Mayor of West Coast Council was asked but did not have time, on very short notice, to reply to criticism of him. We have invited him to do so in a future newsletter, if possible.]

LEAD Action News Volume 10 Number 4 brings together the work of the Taskforce up to June 2010, but that work includes some important earlier web-publications on this issue by the Taskforce so please also see:

- **REDUCING YOUR EXPOSURE TO HEAVY METALS IN ROSEBERY: Health Risks and Heavy Metals YOUR RIGHT TO KNOW**, at http://www.lead.org.au/Rosebery_Heavy_Metals_Taskforce_pamphlet_Reducing_your_exposure_in_Rosebery_20091102.pdf

- **CRITIQUE of the 'Investigation into Concerns Regarding Seepage Water in a Critique of the Rosebery locality - Final Report from the Project Team' (DHHS, EPA 2009),** at http://www.lead.org.au/Toxic_Heavy_Metals_Taskforce_Tasmania_Critique_of_DHHS_EPA_Seepage_Report_200911.pdf

- **Group Proposes Terms of Reference for the 'First' Tasmanian Integrity Commission Inquiry into the Health Department and EPA Investigations in Rosebery: INTEGRITY COMMISSION OF INQUIRY INTO DHHS. EPHS and EPA ROSEBERY INVESTIGATIONS 2008/2009/2010**, at http://www.lead.org.au/mr/Medrel_20100219_Toxic_Heavy_Metals_Taskforce_Tasmania.pdf

- **Proposals For Action On Heavy Metal Contamination And Health Risks In Rosebery: Submission to Rosebery Technical Advisory Group Meeting Hobart, 17th March 2010,** at http://www.lead.org.au/Toxic_Heavy_Metals_Taskforce_Tasmania_Proposal_for_Action.pdf

Please see the **Acknowledgements** near the end of this newsletter. If you would like to contact the Taskforce, please email Kay Seltitzas

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3. Arsenic and Lead Contamination in Tasmanian West Coast Mining Town



By Kay Seltitzas, Marsha Stejskal, Huw Carson, Dr David Leaman and Isla MacGregor, Toxic Heavy Metals Taskforce Tasmania (THMTT)

*"**Rosebery** is a town on the west coast of Tasmania, Australia. It is situated at the northern end of the West Coast Range, in the shadow of Mount Black and adjacent to the Pieman River now Lake Pieman.It lies on the Murchison Highway, 25 kilometres north east of Zeehan and is part of the Municipality of West Coast Council. At the 2006 census, Rosebury had a population of 1,032" [Source:*



http://en.wikipedia.org/wiki/Rosebery,_Tasmania]

Maps from: http://www.tchange.com.au/regions/west.html

The small west coast mining town of Rosebery has become the focus for the most critical and important public health and environmental regulation issue in Tasmania's recent history.

In October 2008 several Rosebery residents realised that their chronic health problems and those of their pets was probably caused by the effects of toxic heavy metals in the environment. This realisation has led to one of the most appalling cases of Government mismanagement of a public health crisis in Tasmania to date.

Government response to residents' claims of contamination and poisoning

In October 2008 three residents of Rosebery contacted the Rosebery mine owner Oz Minerals after they had received results from testing for heavy metals of ground water and soil by a Government laboratory. The residents asked Oz Minerals to relocate them away from Rosebery to similar standard homes in a safe environment. After Oz Minerals refused to relocate or compensate them the residents were contacted by the Department of Health and Human Services (DHHS).



[**Ed's note**: Later articles in this newsletter refer to MMG as the owner of the Rosebery Mine. This is explained by the following news item from the Sydney Morning Herald *June 16, 2010*, AAP, entitled**:**
"**China Minmetals Corporation's Australian arm, MMG, says it is on the hunt for acquisitions:** The unlisted Melbourne-based MMG was formed after its parent company bought all but one of OZ Minerals Ltd's assets for $US1.386 billion ($A1.6 billion) a year ago."]

[Photo: Kay Seltitzas and Marsha Stejskal outside the Tasmanian Department of Health and Human Services.]

Subsequently the DHHS and Environment Protection Authority (EPA) commenced an investigation into five Rosebery residents' claims of heavy metal contamination of their properties with arsenic, lead, cadmium, copper and manganese etc., and of their numerous chronic health problems. High levels of various metals were found in soil on three properties. These results included Lead, 4,590mg/kg – 16 times the Health Investigation Levels (HILs), and Arsenic, 646mg/kg – over 6 times the HILs. In ground water samples, Manganese levels were as high as 15,100 ug/L; all Manganese measurements over 3 times the HILs. Three more Rosebery residents who were ill applied to the DHHS to be included in the investigation. The DHHS rejected them. By this stage the blood and urine tests of nine residents (only five of whom were in the investigation), showed various high levels of heavy metals.

The DHHS appointed Professor Brian Priestley from Monash University as the toxicologist to provide expert advice concerning the investigation. Professor Priestley's PhD is in Pharmacology. The residents were very angry that the Government had appointed an expert in pharmacology only and who was not a medical doctor. The investigation was somewhat complicated by the DHHS appointment of a Specialist Physician (Internal Medicine), who only examined two of the residents from a medical point of view. For some reason, this doctor did not release his reports on these two patients nor was he named in the Final Report.

On 2nd April 2009, the Confidential *Public and Environmental Health Service and Environment Protection Authority* Final Report: "*Investigation into Concerns Regarding Seepage Water in a Rosebery locality 2008-2009"* was released. In essence, the recommendations from the Final Report can be summarised:

- The three residents' properties involved were not contaminated
- The chronic health problems of five residents could not be attributed to heavy metal poisoning
- That no further medical examinations, biological testing or environmental testing relating to heavy metals was required

Professor Brian Priestly stated in his Final Report:

"Recommendation 1. My recommendation is that any further environmental sampling around the properties in question is not warranted…that further biological monitoring would not necessarily be helpful to resolve the issue of whether significant exposure to heavy metals has occurred from sources related to soil and water on these properties".
Recommendation 2. My recommendation is that these health concerns be pursued by appropriate consultation with medical practitioners and that DHHS do whatever it can to facilitate this health follow-up. However, this follow-up should be based on the premise that the strongly held beliefs of the residents that their health problems are related to heavy metal exposure is not supported by the empirical evidence gathered in this investigation".

The residents were appalled with this prejudicial recommendation. In effect, Prof Priestley appeared to be giving advice about the psychological status of the patients to any medical practitioner treating them.

Residents' response

The five residents involved in the investigation categorically rejected the findings in the DHHS/EPA Final Report, and called on the Health Minister, Lara Giddings, to establish an independent population-based public and environmental health survey into heavy metals in Rosebery. The Minister rejected this call. Several of the affected Rosebery residents joined forces with other concerned Tasmanians and medical and environmental professionals to form the Toxic Heavy Metals Taskforce Tasmania (THMTT – the 'Taskforce'). With the assistance from an expert on contaminated sites, the Taskforce released the ***Critique of the 'Investigation into Concerns Regarding Seepage Water in a Rosebery locality - Final Report from the Project Team' (DHHS, EPA 2009),*** which outlined serious flaws in the DHHS/EPA methodology, analysis and conclusions.

Qualified medical specialist

Several people, including the original five, sought further medical advice from the most appropriate and qualified specialist in Tasmania: Dr Andreas Ernst, an Occupational Health and Musculoskeletal specialist with many years of experience in the mining industry both in Tasmania and elsewhere. Dr Ernst formally assessed ten patients in detail and made a diagnosis of heavy metal poisoning. He subsequently provided a confidential medical/'occupational health' report to Dr Roscoe Taylor, Director of Health.

Since the release of the DHHS/EPA Final Report in April 2009, the revised recommendations for residents on reducing their risks of heavy metal exposure in Rosebery were not made publicly available. Taskforce members could not find any copies of these recommendations from a number of community facilities in Rosebery, including the library and the hospital. In November the Taskforce produced a pamphlet "***Reducing Your Exposure to Heavy Metals in Rosebery – Health Risks and Heavy Metals - Your Right To Know",*** which included the sixteen precautionary measures outlined in the Final Report. This pamphlet provided nine additional precautionary measures to those outlined in the Oz Mineral's pamphlet "*What you should know about Lead*". The Taskforce letterboxed all residences in Rosebery, as well as a broad distribution in other towns on the West Coast.

Legal action flagged and further investigations commence

The residents sought the advice of law firm Slater and Gordon. By late December 2009 Slater and Gordon announced that they were representing several residents from Rosebery. At the same time the DHHS announced it would conduct an assessment of the diagnosis by Dr Andreas Ernst. Additionally, Minerals and Metal Group (MMG), the new mine owner, announced that Gutteridge Haskins and Davey (GHD), their environmental consultants, would conduct another environmental sampling program in Rosebery, and that MMG would also conduct a biological testing program for mine workers and their families.

In early January 2010 the Rosebery Community Reference Group Committee was established. Represented in this group are government departments, the mine, local council, unions and selected members of the community. The Committee was established to act in an advisory capacity and provide input for the environmental and biological investigations underway. As the design and planning phase for these investigations had already been decided upon by MMG and the DHHS, and because of the condition of confidentiality, the Taskforce declined to participate on the Committee. Later in February, the Taskforce was contacted by a representative of the Rosebery Technical Advisory Group (TAG), an

additional body established to advise the reference group. The Taskforce was invited to join this Committee, but again declined, because of the confidentiality requirement. Nevertheless, the Taskforce did provide the TAG with a detailed submission on "***Proposals for Action on Heavy Metal Contamination and Health Risks in Rosebery.***" The Taskforce was very concerned about the independence of the DHHS and GHD investigations and the testing and assessment methodologies being used. In late February the Taskforce publicly released proposed "***Terms of Reference***" for an "***Integrity Commission Inquiry into the DHHS, EPA and EPA Rosebery Investigation 2008/2009/2010.***"

At the first Community Reference Group Meeting held in Rosebery, the Taskforce circulated information updates for Rosebery residents including the ***THMTT Rosebery heavy metals Table 2008*** which included the data from biological tests from 8 residents and and environmental test results from 4 properties. Also included was an information sheet on "***The Need for Expert Clinical Assessments in Diagnosis of Heavy Metal Poisoning.***"

DHHS appoints toxicologists

In February 2010 the DHHS appointed two clinical toxicologists, Professor Frank Daly and Professor George Braitberg. Significantly, the DHHS did not require them to conduct patient consultations and clinical examinations of any of the people diagnosed by Dr Ernst. Based on the information provided only by the DHHS, Professors Daly and Braitberg concluded that the ten patients health problems could not be caused by heavy metal poisoning.

In collaboration with eight patients diagnosed by Dr Ernst, the Taskforce produced a "*Critique of Toxicology Reports from Professor Frank Daly and Professor George Braitberg",* [see http://www.lead.org.au/mr/THMTT_Critique_Of_Toxicology_Reports%20.pdf] dealing with each patients' assessment by Professors Daly and Braitberg. On the 14th April 2010, before Professors Daly and Braitberg's "*Summary Findings*" were released by the DHHS, the Taskforce publicly rejected the conclusions of Prof's Daly and Braitberg.

Failure to provide previous environmental test results

Previous Rosebery mine owner Oz Minerals, and the current owner MMG, have not released any data from their tests of soil, water or dust from their environmental sampling programs since 2007/08. Numerous properties tested for heavy metals in Rosebery from several investigations over a period of years have returned very high levels of heavy metals (especially lead and arsenic). Despite this, MMG are conducting more tests.

Slater and Gordon have been conducting their own investigations into the presence of heavy metals in the environment and their effect upon the residents. The law firm believes that it will be in a position to commence legal proceedings in the near future.

The need for urgent change

Several residents have felt it necessary to evacuate from their heavily contaminated homes in Rosebery but continue to suffer from serious chronic health problems. Those people diagnosed with heavy metal poisoning by Dr Ernst who remain in Rosebery have steadily deteriorating health problems. Tragically, for economic reasons, they are unable to leave their homes.

The Rosebery case highlights the need for urgent reform of State-based legislation relating to Health Department regulations on blood/urine metal levels and Contaminated Sites. In addition, there is an urgent need for updating and reviewing national guidelines for Health Investigation and Remediation Levels, especially for arsenic, lead and levels of metal mixtures. There needs to be a shift within the National Health and Medical Research Council (NHMRC) and State Health Departments' attitudes concerning the issue of synergism and chronic health effects from low levels of complex chemical or heavy metal mixtures. This concept of the synergistic effect of more than one toxic agent is now well accepted in scientific literature. Many of the heavy metals in question are linked to cancer. The President's Cancer Panel's recent statements about the need to act on environmental causes of cancer needs to be acted on in Australia as a matter of urgency. Rosebery is an example where thinking and action on preventative health strategies needs an immediate response.

A Note about the NHMRC

"The National Health and Medical Research Council was first constituted in September 1936. The current legislative basis of the Council is the *National Health and Medical Research Council Act 1992* (*NHMRC Act*). The NHMRC is responsible to the Commonwealth Minister for Health and Ageing.
NHMRC's functions come from the statutory obligations conferred by the *NHMRC Act*. The Act provides for the NHMRC to pursue activities designed to:

- *raise the standard of individual and public health throughout Australia;*
- *foster the development of consistent health standards between the various States and Territories;*
- *foster medical research and training and public health research and training throughout Australia ; and foster consideration of ethical issues relating to health.*

It is hoped that the outcome of future legal action by Slater and Gordon will lead to establishment of an independent, population-based public and environmental health survey in Rosebery and for just compensation to those people whose health has been so severely affected. None of the people diagnosed with heavy metal poisoning knew about the potential health risks of living in Rosebery when they first purchased their homes through real estate agents.

Serious issues concerning children's health

Considering the history of high lead levels reported in children since 1992, and the severe health consequences for health and learning ability, it is vital that **effective preventative measures** are taken to minimise potential harm to children in the future. Information on public health risks from heavy metals in Rosebery needs to be made available to potential new residents of Rosebery, so that people will have the right to choose to live or work in Rosebery based on a right to know the real facts available.

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4. Health Statistics in West Coast Mining Towns

Compiled by Isla MacGregor

Tasmania's cancer rate at 443.9 cases per 100,000 people is the highest in Australia

On 10 November 2000 the report "Health Needs Assessment of the Communities of Rosebery, Zeehan and Tullah" prepared by Alberton Consulting in partnership with Di Hollister released some shocking health statistics for these West Coast towns. The Report highlights some of the significant health problems for people living in West Coast mining towns. It found that "54% more West Coast residents died from cancer compared to Tasmanians in other non-metropolitan areas of the state" and "admissions to public acute hospitals for treatment of bronchitis, emphysema and asthma... was elevated by more than 35%" and "from circulatory disease (heart disease and stroke mainly)....66% more deaths than would normally be expected."

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5. Is Rosebery a Health Hazard?

By Frank Campbell

Source: http://www.crikey.com.au/2009/07/10/is-rosebery-a-health-hazard/

Posted Saturday, 11 July 2009 at 10:41 am Permalink - Copyright © 2009 Private Media Pty Ltd, Publishers of Crikey. All Rights Reserved. Reprinted with kind permission of Crikey.com.

"As a boy growing up in Rosebery I played in "Lake Bull". This was a semi-liquid tailings dump where grey sandy mine muck accumulated over decades. It formed a kind of quicksand, and more than once kids had to rescue each other with ropes or sticks as they sank. The Rosebery mine extracts silver, lead and zinc, and dates from the 1890s. Last time I looked (1992) Lake Bull was still there.

Rosebery was and possibly still is a dangerous and brutal environment. We had the run of the mine. Nothing could keep us out and no one tried. An overhead cableway from the Hercules mine at Williamstown ran over the town. At a certain point we could climb into the buckets and steal ore. If the damned thing started again we would have trundled off to the crusher. We were fascinated by ores, especially the crystalline ones such as Galena, which was mostly lead. These heavy lead ores were ideal for rock fights, which were conducted like trench warfare. Injuries were common. We also commandeered railway ore trucks inside the mine. One boy lost his thumb when he couldn't escape from the ropes tying him to the track quick enough. This "game" was derived from the Superman serials at the local cinema. Original we were not.

Exposure to heavy metals was inevitable. We knew nothing about pollution. The entire place is impregnated with heavy metals. Mining in those days was entirely underground, but as I said above, it was standard practice to pump mine waste out and dump it above ground, where it polluted the Stitt River. Remember that Rosebery is one of the wettest places in Australia. Some time in the 80s (I think), mining by chemicals began. This entails pumping liquid solvents into mines to separate metals from ores. Where did/does this waste go?

You won't read anything about all this in Geoffrey Blainey's "Peaks of Lyell" (1954), his first book, which launched his career as a paid corporate historian.

The residents of Rosebery today are living on a heavy metal waste site. The brutal macho days of mining may (or may not) be over, but the legacy lives on. Rosebery is a place few Australians have heard of. Tasmanians regard it as primitive, god-forsaken and best not mentioned in polite company. You can be sure that government has never conducted a single study into the health of miners or residents. Many are now dispersed as employment at the mines shrank due to technological innovation. Is there any interest in a health study of the West Coast mining towns? Or an audit of current mining practices? Or is the West Coast still dispensable, beyond the pale of civilisation?"

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6. Cats and Dogs – the Canaries Down the Mine

"Kuba" and "Storm"

By Isla MacGregor



On the 14th of February 2008 Marsha Stejskal brought her cat Kuba (photo at left) to Rosebery. Within a few days he came down with severe flu-like symptoms and developed serious breathing difficulties. It took Kuba four weeks to recover. During that time he started showing signs of abnormal and sometimes violent behaviour. He developed diarrhoea which was constant but Marsha thought it was possibly just his diet.

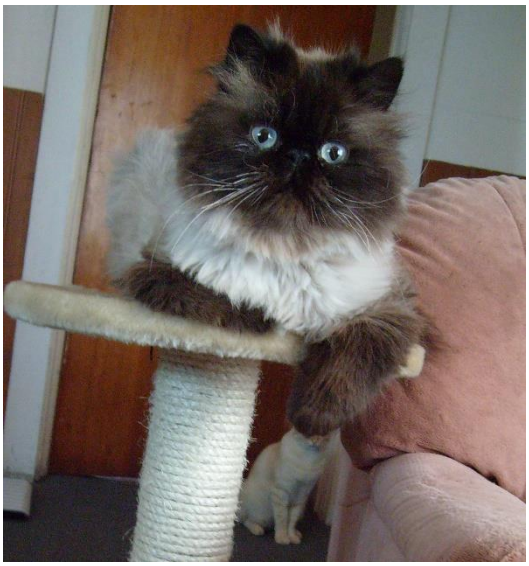
In mid September 2008, Marsha saw Kuba drinking the water seepage lying in her garden. She took him away immediately. Two hours' later Kuba could not walk properly, began vomiting violently and developed terrible diarrhoea.

Marsha suspected that there was something terribly wrong with the water seepage. She decided to send samples of the seepage water to be tested in Hobart at the Analytical Services Tasmania laboratory. The results that came back were very alarming:

Arsenic - 482 ug/L (acceptable level 70 ug/L)
Lead -1530 ug/L (acceptable level 100 ug/L)
Manganese - 15100 ug/L (acceptable level 5000 ug/L)
Chromium - 98 ug/L (acceptable level 50 ug/L)

In early October, when Marsha received the results from the laboratory, she showed them to her neighbours Kay Seltitzas and Lindsay Phillips, and they all decided to immediately go the mine to raise their concerns.

In response to Kay Seltitzas' high copper blood levels, the water results and Kuba's illness, the DHHS/EPA commenced their investigations in November 2008. By February 2009 Marsha had also become extremely unwell with arsenic poisoning, and decided to take her cat and leave Rosebery.



In June 2009, Marsha returned to Rosebery to collect some of her possessions, and a friend, Wonita Arnold, gave her a cat named Storm (photo at left). Storm was also suffering symptoms of heavy metal poisoning. After he was 4 days' out of exposure from Rosebery, Marsha took Storm to the vet and had blood tests taken. The results showed an Arsenic level of 1.1 umol/L. The vet was very concerned because the level of Arsenic in a cat's blood should be zero.

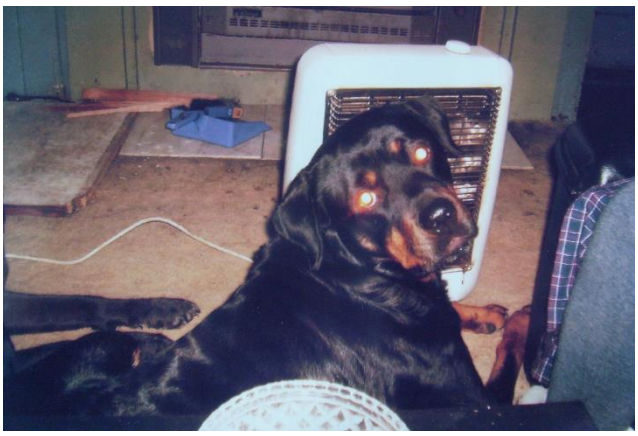
Marsha sent some hair samples from Kuba and Storm to Dr Gloria Dodd, a Californian Veterinarian with 34 years' experience with heavy metal poisoning. Results showed that Kuba and Storm had severe electrolyte imbalance and were chronically poisoned with Arsenic, Lead, Cadmium, Mercury and other heavy metals.

Kuba and Storm continue to suffer from intermittent paralysis, diarrhoea, extreme lethargy, tooth decay and bizarre violent behaviour.

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7. A Family of Dogs and the Tragedy of Rosebery

by Kay Seltitzas



We purchased two Rottweiler female sister pups named Vasco and Bandit (pictured) in 1999.

Whilst living in 21 Clemons Street, Rosebery, they became ill with what I now know were symptoms of heavy metal poisoning. They were vomiting and unable to stand up. The Vet said they had definite symptoms of poisoning and suggested we give them salt water to induce vomiting. They recovered after a week but I was terrified that they would die as they had suffered so much during that week. They could not walk as their back legs could not support them, and we had to hold them up and be their legs so they could drink water or go to the toilet.

In 2004 Vasco became ill and could not eat or lie down. We took her to the visiting Scottsdale Vet and she told me to give her smaller meals more often, which I was already doing. I was so frightened for her because I knew something was terribly wrong because when a Rottie won't eat you know it is serious. There was some improvement for a month, we were so careful and watched everything we gave her. One day I gave her a medium-sized meal and she enjoyed it but in my heart I knew that it was a turning point. Immediately the same

symptoms returned – she wandered around the house 24 hours a day, only able to drink a lot of water but unable to eat. I tried to give her little treats, just morsels of ham or steak, foods she had loved but she just could not eat it. On a Sunday morning a few weeks later, after I had been up with her all night as usual, she came into my room and cuddled me and then suddenly collapsed and died on the floor. I believe that not being able to sleep, sit or lie down had finally caused her heart to give out and it broke mine with it. She was a truly gentle and kind dog and she did not deserve to suffer so much.

Ninja was Bandit's female pup born in 2003. She suddenly started to lose weight in April 2004 and could not eat or lie down. The Vet called in to see her for a home visit and suspected stomach cancer. It is important to understand that we had no understanding or knowledge of heavy metal contamination in Rosebery at that stage. Ninja became extremely thin and so ill that she couldn't move much, but was unable to be still at the same time. She died a month later in extreme pain like her aunt Vasco had. We tried to give her titbits and were as unsuccessful as we had been with Vasco. We kept believing that she would get better and could not accept that the same thing was happening again- we were in denial.

Bandit was diagnosed with copper poisoning in late 2005 by the Devonport Animal Hospital. Eventually she could not eat and could only drink water. The Vet prescribed ZINC DRINK to treat the copper poisoning. This time we were hopeful that the supplement would help her, as we could not face the possibility that she would die also.

On January 29, 2006 I was admitted to Burnie Intensive Care Unit with what I would later learn had been severe symptoms of heavy metal poisoning. When I came home at the end of the following month Bandit was still unable to eat and could only drink water. On 19 February I watched as she vomited blood. We rang the emergency vet in Burnie and we took her in the car to travel to Burnie but she died in Lindsay's arms when we reached Tullah. All three beloved dogs are buried on the property at 14 Murchison Street, Rosebery. **The irony is not lost on us that the place that killed them became their graves.**



Since moving away from Rosebery in August 2009 there have been some improvements for our surviving dogs Sam and Assasin (pictured). They still have intermittent vomiting and diarrhoea even though we have made major changes to their diet. We can now let them out of the house without worrying that they might drink seepage water or get covered with heavy metal dust from the yard. Unfortunately, in May 2010 Sam had to have two fist-size malignant cancers cut from her abdomen with smaller ones yet to be removed. Assasin also has several small lumps, which are going to be removed in the near future.

If I had known about the extreme toxicity people and pets are exposed to in Rosebery I would not have purchased two properties there and I certainly would not have subjected innocent animals to such short and painful lives and violent deaths.

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8. Background on MMG Rosebery Mine

By Isla MacGregor

The small town of Rosebery is situated in the remote west coast of Tasmania and is surrounded by the most beautiful, rugged mountains and impenetrable temperate rainforest. Since 1936 Rosebery has been a mining town with the processing operations of the polymetallic underground mine occurring at the mine facility within the Rosebery township. The China Minmetals Non-ferrous Co., Ltd, Min Metals Group (MMG) took over operations in July 2009 from Oz Minerals. The mine processes zinc, lead, copper, silver and gold on site with crushing and concentrating of the base metals and gravity separation and smelting of the gold being done at the processing facility. (1) MMG also has a two year agreement with Bass Metal to process 120,000 tonnes of ore from the Que River Base Metal Project(2). Additionally, in January 2010 MMG submitted a Development Proposal and Environmental Management Plan to the EPA to redevelop the nearby South Hercules Mine for open cut mining and potential possible underground mining and waste rock dumps.(3) The average annual rainfall in Rosebery is 2186mm.

1. http://www.mmgroupltd.com/pages/847.aspx
2. http://www.mmgroupltd.com/pages/847.aspx
3. http://www.epa.tas.gov.au/index.aspx?base=23511

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9. Demographics from the Bureau of Statistics

At the 2006 Australian Census Rosebery had a population of 1032, 55% of whom were male and 45% female. 34.3% of employed persons aged 15 and over worked in Metal Ore Mining and 11.2% of the population were unemployed. 8.1% (84) of children were aged between 0-4 and 15% (155) were aged between 5-14.

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10. Links to Other Important Information on Rosebery

- **For Further Information see the Toxic Heavy Metals Taskforce Tasmania Website:**
  http://www.sourcewatch.org/index.php?title=Toxic_heavy_metals_in_Tasmania

- **For ABC Stateline program on Rosebery from 5th February 2010:**
  http://www.abc.net.au/news/video/2010/02/05/2811177.htm?site=hobart
  "Three generations in the Arnold family have been diagnosed with heavy metal poisoning and speak about their symptoms and deaths of over 14 pets."

11. Toxic Heavy Metals Taskforce Tasmania (THMTT) Rosebery Heavy Metals Table 2008 (updated 12/5/10) Biological and Environmental Results

Metals	HIL (mg/kg) soil	House 1			House 2			House 3		House 4	
Arsenic	100	6	67	427	646	146	23	115	202	46	84
Cadmium	20	4	5	5	7	34	6	11	1	<1	3
Chromium	120000	3	41	8	8	30	21	55	24	34	20
Copper	1000	219	99	12	120	219	171	543	72	34	180
Manganese	1500	2550	2010	540	1190	4010	770	1240	1060	234	1230
Lead	300	342	558	92	182	4590	935	604	2560	171	525
Strontium	not set	not sampled	not sampled	not sampled	4	35	20		3		
Zinc	7000	500	1840	200	491	5950	2190	1910	283	242	1380

	recreational contact guidelines ug/L (water seepage)									
Arsenic	70	170	431	482	178	65		370		2	
Cadmium	20	10	2	3	6	3		21		0.9	
Chromium	50	98	13	13	16	10		23		<1	
Copper	20000	170	26	23	180	78		617		29	
Manganese	5000	15100	2940	5790	819	175		2130		1810	
Lead	100	1530	248	146	721	297		1300		13.3	
Strontium	not set	not sampled	not sampled	not sampled							
Zinc	not set	2370	339	460	1770	570		7680		212	

	There is no residential guidelines for house hold dust – (mg/kg)									
Arsenic		76	31		93	20		18		
Cadmium		5	9		5	4		2		
Chromium		27	31		87	5		78		
Copper		84	146		195	293		311		
Manganese		7040	9430		2780	717		499		
Lead		625	298		612	502		567		
Zinc		3170	2070		2080	1490		2160		
Nickel		17	69		28	19		57		

	Urine 24 hour ref range	Resident 1	Resident 1	Resident 2	Resident 2	Resident 3	Resident 4	Resident 6	Resident 7
Arsenic Excr	0-1.10 umol/d	1.10	<0.19	<0.10	0.90	0.56	0.12	<0.24	1.89
Arsenic/Creat	0-0.060 umol/mmol	0.096	<0.030	<0.015	0.096	0.069	0.012	<0.029	0.125
Cadmium Excr	0-30 nmol/d	<7	1257	232			5	<9	
Copper	<1.6 umol/d	1.14			0.10	0.21	0.26	0.46	4.65
Lead	0.00-0.48 umol/d	<0.02	<0.02	<0.01			<0.01	<0.02	<0.02
Zinc	8.0-18.0				13.2		2.4	<1.2	1.6
Nickel	0.010-0.100 umol/d	<0.071			<0.67		0.101		

	Urine spot – Ref range	Resident 1
Arsenic	0.0-35 ug/L	<50
Cadmium	0.0-2.6 ug/L	<5
Chromium	0.0-5.0 ug/L	7
Lead	0-23ug/L	<35

	Blood ref range	Resident 1	Resident 1	Resident 2	Resident 2	Resident 2	Resident 3	Resident 4	Resident 4	Resident 5	Resident 6	Resident 7	Resident 8
Arsenic	0.00-0.70 umol/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	0-40 nmol/L	<4	<4	29	29	27	7	63	59	<4	<4	<4	<4
B-lead	0-0.72 umol/L	0.10	0.10	0.13	0.10		0.17	0.23	0.25	0.11	0.04	0.12	0.07
Copper	13-25 umol/l		16.7	29.6	26.6	29.3	19.6	22.6	28.1	14	27.2	13.2	31.3
Manganese			<7						47		<7	<7	10
B- Lead	0-14 ug/dL	2	2	3	2		4	5	5	2	1	2	1
Zinc	12-28 umol/L		19.4		22.1			22.3	22.7	30.7	11.8	14.4	10.5

	Hair analysis acceptable range	Resident 1	Resident 2
Arsenic	<0.08	0.04	0.037
Cadmium	<0.15	n.d	nd
Chromium	0.23-0.9	0.598	0.299
Cobalt	0.02-0.105	0.18	0.054
Copper	9 – 30	41.654	41.605
Manganese	0.18-0.8	0.47	0.901
Lead	<1	0.891	0.152
Strontium	<5	5.408	1.745
Zinc	100-200	131.16	128.29

12. The Need for Expert Clinical Assessments in Diagnosis of Heavy Metal Poisoning

By Toxic Heavy Metals Taskforce Tasmania (THMTT)

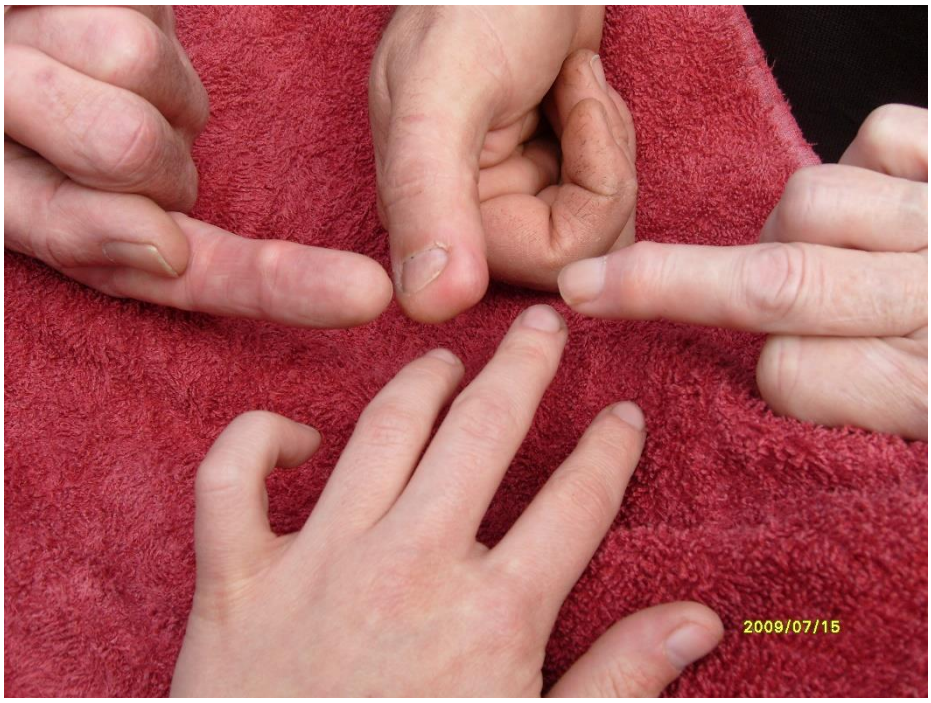


Photo: Four residents show symptoms on hands of lumps and curling fingers

With considerable research and advice from several medical and specialist experts, the Toxic Heavy Metals Taskforce Tasmania has developed an understanding of the importance of the need for thorough expert clinical assessments with patients to confirm the diagnosis of heavy metal poisoning.

Many elements and heavy metals are quite toxic to humans even in low doses. However, the "metabolism" of the element or heavy metal in the human body depends on the type of element or heavy metal. In particular, some metals are “excreted,” mostly by the kidney, whereas others are metabolized (or detoxified), mostly by the liver.

In the case of arsenic, there is evidence that this element passes through the body on a single exposure reasonably quickly (i.e. 1 -4 days). So in the case where there has been low dose but repeated exposures, simply measuring the urine (usually the most successful option) or blood measurement, does not necessarily tell the full story unless the exact time of exposure is known.

In the case of Rosebery, the problem is that, whilst it is probable that there is repeated exposure of low to moderate dose metals such as arsenic, the exact time of the exposure is difficult to ascertain in an individual case.

Hair analysis is helpful in identifying whether there has been exposure to a particular metal or element, but the time of exposure is more difficult to interpret.

The clinical signs of arsenical poisoning also have a peculiar feature in that some people react in different ways despite very similar exposures. This may well account for the fact given similar exposure, some patients appear to show more advanced clinical signs.

The term 'toxicologist' is often used in problems where there has been pollution in the environment which is affecting human health. Unfortunately this term 'toxicologist' is in fact quite confusing because there is always a tendency to assume that the 'toxicologist' has experience and training in the medical and clinical aspects of poisoning in humans. This is not always the case. For example, many toxicologists have training in non-medical fields such as pure chemistry or pharmacology. Whilst the analysis of chemicals from a scientific point of view is important, the disease pattern, or more specifically, the effect on human health, must have input also from an expert in clinical medicine with hands-on experience with heavy metals.

However, clinical medicine can be just as important, if not more important in diagnosing the type of poisoning that has occurred in Rosebery. In this instance, clinical medicine would include: taking a careful history of "occupational exposure and lifestyle history", past history of previous medical conditions, a careful, thorough and full examination of the patient, and, where required, further examination of the patient. This further examination would include, for example, general tests such chest xrays, non-specific blood tests such as full blood counts, and where appropriate, referral of the patient to a specialist such as a neurologist, dermatologist or gastroenterologist.

Finally, long-term clinical effects of metals such as arsenic are known to have specific and identifiable clinical manifestations: for example, with arsenic, the patient may show a peculiar staining of the skin and patterns of tumors, some of which are cancerous. Damage to the nerves also shows a typical pattern of injury to the sensory and motor components of the nerve.

Without doubt, a specialist doctor with hands-on experience with heavy metals is absolutely essential, to be able to recognise these signs and symptoms.

Even then, the specialist may have to rely on a sophisticated examination such as a nerve biopsy.
In overseas cases, especially when many people have been shown to have exposure to a toxic heavy metal such as arsenic, it was not possible to carry out full chemical testing for each patient.
Despite this, the doctors involved were confident of the diagnosis. The pattern of exposure, the history of the onset of the symptoms in the person and the signs observed by the doctor are then "diagnostic" in themselves.

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13. Critique of Toxicology Reports carried out by Professors Daly & Braitberg

By Isla MacGregor

Editor's note: The full text of the Critique, with an explanation of the deficiencies in each patient's assessments by Professors Daly and Braitberg is at http://www.lead.org.au/mr/THMTT_Critique_Of_Toxicology_Reports%20.pdf

The following is a revised version of the original summary.

Professors Frank Daly and George Braitberg based their assessments on ten patients from information provided by the Department of Health and Human Services (DHHS) from previous investigations, medical reports, data, test results and files. The conclusions in their reports, based on the information provided, show numerous errors of fact and incorrect assumptions:

- **Conclusions drawn were made from incomplete, flawed and deficient DHHS and EPA investigations**
- **Assumptions on possible diagnosis were made without patient consultations or examinations**
- **Assumptions on possible diagnosis were made without access to up-to-date medication lists, accurate medical reports, documentation, correct data and specialist/ diagnostic test results**
- **Incorrect attribution and analysis of data**
- **Conflicting findings between Professor Daly's and Professor Braitberg's Reports.**



Other than problems described in our patient-specific analysis of the reports there are general examples in the reports that point to inconsistencies and flawed analysis:

Photo: a Rosebery resident develops leg Rash after landscaping work in back garden.

- Prof Braitberg states on Page 44 in relation to *"methodological concerns regarding the way Dr Ernst has reached his conclusions…iii) He has not examined the patients and therefore is unable to provide objective clinical correlations with observations"*. This assertion also needs to be applied to Professors Daly and Braitberg regarding the conclusions they have drawn in assessing Dr Ernst's diagnosis of the ten patients, especially given the paucity of additional information provided to them about patients from the DHHS.

- Professors Daly and Braitberg did not adequately assess the commonality and the patterns of symptoms in the patients. For example, most patients have experienced sudden-onset and severe dental problems in the past two years, yet this is not discussed in any depth except for patient C, where smoking is suggested as a cause for poor dentition. All patients have experienced abnormal hair loss, concurrent with dental problems and musculoskeletal problems, regardless of age. Had Professors Daly and Braitberg conducted patient examinations, the

pattern of the symptoms, which is what caused Dr Ernst to notify the DHHS, would have been clearly apparent, and could have assisted with their assessments.

- Professor Daly states in relation to patients A, B, C, F, G and H that *"The presence of multiple symptoms in multiple organ systems without any associated objective medical signs or pathological abnormalities suggests a functional somatic disorder, which occurs in up to 4% of the population".* Professor Braitberg states that *"the first step is to overcome the currently held belief that the residents have been poisoned by heavy metals. However, belief, no matter how strong; where there is no evidence, does not serve the best interests of these patients."* This diagnosis is given in the absence of any comprehensive objective clinical medical or psychological assessment or reports based on patient consultations, examinations and test results.

- Although no thallium testing was done by the EPA or DHHS, Prof Daly's comments on Page 25, on the effects of thallium poisoning, refer only to effects of severe poisoning, not to long term low level exposure, which can in fact result in gradual loss of hair.

- Prof Braitberg on Page 43 incorrectly states that *"None of the patients have had skin biopsies"*. Three patients have had excisions of lumps and these were tested for cancer. Although testing was requested for heavy metals on these biopsies, this testing was not done.

In Prof Braitberg's Executive Summary he states *"while there is some evidence of low level soil concentration elevation of some metals,"* and in Professor Daly's Summary he also states *"Rosebery has demonstrated elevated levels of several metals"*. This is incorrect considering that properties had some very high levels, including a soil lead level of 4,590mg/kg - up to 15 times the Health Investigation Level (HILs); an arsenic level of 646mg/kg - up to 6 times the HIL's. These levels are not just 'elevated' - they are very high.

The information provided to the toxicologists from the DHHS on data from the EPA investigations did not include critical information needed for a thorough toxicological assessment:

- **No biological or environmental tests were conducted by the DHHS or the EPA for thallium or any radioactive elements**

- **No roof cavity dust testing was conducted by the EPA, and dust monitoring/sampling was either not done or incomplete**

- **Arsine gas testing was inadequate and conclusions drawn erroneous.**

- **The instruments used for Hydrogen Sulphide testing had insufficient resolution**

- **The Toxic Heavy Metals Taskforce Tasmania Critique of the EPA investigation including: sampling methodologies, data interpretation and presentation and conclusions drawn were not assessed**

Because of the failures in the EPA investigation and failure of the DHHS to provide accurate information, Professors Daly and Braitberg were unable to address the major issue of

potential exposure pathways for dust and gas and instead focused on those for water and soil.

The Department of Health and Professors Daly and Braitberg have failed to adequately take into account the importance of complex mixtures of toxic substances at even low levels and their effects on human health. In the context of discussion on low level exposure synergism, Profs Daly and Braitberg cite the US Agency for Toxic Substances and Disease Registry (ATSDR) Interaction profiles for: arsenic, cadmium, chromium and lead; and lead manganese, zinc and copper, from 2004. There is no referencing to more recent relevant research from the US National Institute of Environmental Health Sciences (NIES) and the National Toxicology Program. In a recent article in Environmental Health Perspectives, Linda Birnbaum, Director of NIES and NTP states:

"There are several recent examples of how research supported by the NIEHS is leading to a paradigm shift in understanding how environmental toxicants – even at very low-level exposures – can have significant consequences including dysfunction and disease".

The conclusions from a recent survey in the US on lead exposure and kidney disease have shown ***" increasing epidemiologic evidence indicating an adverse effect of low-level environmental lead exposure." Blood Lead Level and Kidney Function in US Adolescents*** from the Third National Health and Nutrition Examination Survey by Jeffrey J. Fadrowski, MD, MHS; Ana Navas-Acien, MD, PhD; Maria Tellez-Plaza, MD, MPH; Eliseo Guallar, MD, DrPH; Virginia M. Weaver, MD, MPH; Susan L. Furth, MD, PhD Arch Intern Med.2010;170(1):75-82. http://archinte.ama-assn.org/cgi/content/abstract/170/1/75

A new study published in the ejournal *evisa* on 23-2-10 by Chris Newcombe, Andrea Raab, Paul N. Williams, Claire Deacon, Parvez I. Haris, Andrew A. Meharg, Jörg Feldmann: ***Accumulation or production of arsenobetaine in humans?*** J. Environ. Monit., 2010, outlines important research on inorganic sources of arsenobetaine and metabolism of arsenic by the human body.
http://www.rsc.org/publishing/journals/EM/article.asp?doi=b921588c

Can humans metabolize arsenic compounds to arsenobetaine?, by W. Goessler, C. Schlagenhaufen, D. Kuehnelt, H. Greschonig, K. J. Irgolic,Appl. Organomet. Chem., 1997, 11, 327–335.
http://www3.interscience.wiley.com/user/accessdenied?ID=9015&Act=2138&Code=4719&Page=/cgi-bin/fulltext/9015/PDFSTART adds to this body of research and in relation to potential exposure pathways for Rosebery residents there is a need for further investigations.

The provision of comprehensive specialist assessments and data along with consultations and examinations of patients is essential for toxicological assessment relating to long term low-level exposure to complex mixtures of heavy metals. In summary, due to the serious deficiencies in the documentation provided to Professor Daly and Professor Braitberg by the Department of Health and lack of patient examinations, we are unable to accept the findings in Professor Daly and Professor Braitberg's Reports.

14. West Coast Council Mayor Darryl Gerrity Backflips on Responsibility

By Isla MacGregor

When the Rosebery contamination issues were first reported in the media, West Coast Mayor Darryl Gerrity supported the residents in their quest for an investigation into their concerns and for relocation from their homes by the State Government.

Mayor Gerrity had previously supported the Oates family from Gormanston in the lead poisoning outbreak in Queenstown in 2000.

[Gormanston is south of Rosebery and to the east of Queenstown – see map of the Municipality of West Coast, of which Mr Gerrity is the mayor, in the leading article.]

This was reported in detail by Elizabeth O'Brien in LEAD Action News *Worst Case of Lead Poisoning and Tasmanian Government Inaction* LAN Vol. 8 No 3, http://www.lead.org.au/lanv8n3/lanv8n3.html. It therefore came as a surprise to see Mayor Gerrity's attitude on lead poisoning issues dramatically change and eventually lead him to publicly attack poisoned residents from Rosebery in the media.

Since 2006, three neighbouring residents, later to become involved in the Department of Health and Human Services/Environment Protection Authority (DHHS/EPA) investigation, had considerable problems with West Coast Council over drainage issues on their properties. The work that Council carried out in 2006 in an attempt to remedy the drainage problems was not effective, and led to increased drainage problems on all properties. In 2008 Council returned to put a pit and more drains on one property, which failed overnight.

In December 2008 Mayor Gerrity met for an hour with three of the residents involved in the DHHS/EPA investigation. After the investigations commenced and the Final Report was released in April 2009, Mayor Gerrity's support for the residents dramatically changed into a major backflip.

Interestingly, the issue of Council responsibility for drainage had been raised by Professor Brian Priestly on Page 17 of his Preliminary Report:

"During my site visit, I noted that the Council had installed some drains in the properties in question, in an attempt to collect and re-direct the water flow. In some cases, this appeared to direct water flow near to and possibly underneath the houses on these properties. I formed an impression that the installed drains had failed to fully resolve the problems of water seepage on these properties, although they may have been partially successful in re-directing some of the water flow". [see Arsenic and Heavy Metals…" article, above.]

When, in June 2009, the residents wrote to Dr Roscoe Taylor calling for the findings in the Final Report to be quashed, they made repeated attempts to meet with Mayor Gerrity to have further discussions. Eventually Mayor Gerrity agreed to meet with them in January 2010, but this meeting was cancelled due to ill health of one of the residents.

Earlier Media reports/statements from Mayor Gerrity and the West Coast Council

from ***The Advocate 7-11-08: 'Gerrity backs push to move fearful residents'***
"*If the people feel that way then I'd support it,.....The Government would have to help them (financially) and if the EPA (Environment Protection Authority) and the Health Department have to do a long- term study on this issue it may be prudent to move them.*
I will go and have a look during the week and see what we can resolve on drainage issues."

from ***The Advocate 13-11-08 'Council may shift residents'***
'The West Coast Council may temporarily move three Rosebery residents away from seepage they believe is making them sick.
The Council will look at moving the three while it undertakes works in their yards in a bid to fix the metal-laden seepage.....'

from ***The Advocate 19-11-08 'Murchison St area 'poisoning hot spot'***
'West Coast Mayor Darryl Gerrity is also coming to believe the small area of Murchison St and Clemons St is a "hot spot"..... *"I'm saying yes, but I'm qualifying that (because) I'm still finding it hard to put the jigsaw together.....It needs getting base data that is there now and ongoing tests to see if the base data fluctuates."*
He said the State Government should continue testing and start treating residents.
He said he would support the Government if it decided to move the three residents who own the homes as they are disability pensioners and say they cannot afford to move.....'

Backflip after.....

from ***ABC Stateline 5-2-10 Extract Transcript***
'DARRYL GERRITY, CHAIRMAN, ROSEBERY COMMUNITY REFERENCE GROUP: Who are concerned that their lifestyle, their image, their future is being tarnished by accusations without substance from afar and they want it all put to rest one way or the other.'

from ***The Mercury 18-3-10 'Toxicity warning sought Rosebery claims probed'***
'West Coast mayor Darryl Gerrity said it was deplorable that one group of former residents was trying to scare other Rosebery residents, potential residents and tourists without scientific proof to back their toxicity claims'

from ***The Mercury 10-6-10 Rosebery rated investor poison***
'The report has West Coast mayor Darryl Gerrity fuming. He said those who claimed to be sick had triggered investigations which still had not proved the town is contaminated.'

from ***The Advocate 15-6-10 Toxins Taskforce aims at council***
"Because I don't agree with wild claims. Their claims are getting wilder and they're fast loosing their credibility."

West Coast Council fails to act – Mayor Gerrity should stand down

Kay Seltitzas and Marsha Stejskal made three requests to West Coast Council Aldermen to have their numerous concerns dealt with by Council. West Coast Council failed to address these concerns; instead, they *passed the buck* to the DHHS in relation to requests sumitted in October 2009/January 2010 and then passed the buck to the Rosebery Community Reference Group Committee for questions submitted to Council in June 2010. On 10th June 2010, the Taskforce put out a Media Release *'Mayor Darryl Gerrity a Disgrace to the West*

Coast', calling on Mayor Gerrity to stand down from his position as Chairman of the Community Reference Group and Mayor because of his bias and appalling public statements.
http://www.lead.org.au/mr/20100610 Toxic_Heavy_Metals_Taskforce.htmlf

The following correspondence was emailed to the General Manager of West Coast Council Peter Harder and all Aldermen:

October 2009
Re: Application for completion of drainage works, or declaration of a drainage district at 12 to 14 Murchison Street, Rosebery.

General Manager and Environmental Health Officer,West Coast Council.
We write to request West Coast Council (WCC):

9 Provide appropriate drainage to: 1) prevent seepage onto our properties, 2) protect our health, 3) ensure our safety and 4) prevent environmental nuisance.

We also request that WCC:

10 Make application to 'The Minister' David Llewellyn to declare: 12 and 14 Murchison Street, Rosebery (specifically) and the Rosebery Township (generally) a 'drainage district' in accordance with Section 169(2) of the *Water Management Act 1999*.

Chronology of events leading to this request

October 2008 - Council attempted to remedy some of the drainage issues at these two properties by installing an agricultural drain from 12 to 14 Murchison Street and connecting this into a drainage line located in the backyard of these homes. It failed shortly after the works had been carried out.

On the 9th of December 2008 Warren Jones (Director EPA) provided Kay Seltitzas with results of EPA sampling program conducted on her property and along Murchison / Primrose Streets nature strips.

The results showed that:

> *'lead results exceeded the HIL in three samples, arsenic results exceeded the HIL in two samples, and manganese exceeded HILS in one sample.....I note that sample 'S08" collected in the rear (northeast) corner of your property has the highest levels. The surface soil at this site appeared to be influenced by runoff down a drainage line from the northwest.'*

[Investigation levels provide a trigger to assist in judging whether a detailed investigation of a site is necessary.
http://www.health.gov.au/internet/main/publishing.nsf/Content/66E7D805C1C1AD69CA2573CC0013EA68/$File/env_soil.pdf]

It is noteworthy that:

- Surface soil sample S08 (collected from the northeast corner of backyard) had a lead level of 4580mg/kg. This is15 times the recommended Health Investigation Level (HIL) of 300mg/kg;
- A subsurface soil sample (S07, collected from the front yard had an arsenic level of 649mg/kg. This is 6 times the recommended HIL of 100mg/kg

On the 15th July 2009, we (the owners of 12 and 14 Murchison Street, Rosebery) sent a written submission to the Mayor. The following points were made:

- Kay Seltitzas had received injuries as a result of slipping in seepage water, flowing over the path which lead directly to her front door;
- WCC should remedy the long standing drainage issues and associated health risks at both our properties;
- WCC's failure to remedy the drainage problems emanating from Murchison Street and runoff down the drainage line at the rear of the properties had caused material environmental harm and environmental nuisance;
- Council's failure to remedy seepage water problems on our properties as a result of drainage problems has caused and is likely to pose a public health risk.

We were dissatisfied with the response to our request from Council's General Manager (Mr. Peter Harder) of 24th July 2009, which stated:

> *"Water is now the responsibility of Cradle Mountain Water due to the recent State Government reforms".*

Whilst, we accept Cradle Mountain Waters' newly acquired jurisdiction over water / sewage treatment facilities and associated reticulation infrastructure. Water ingress into our property is primarily a drainage issue and thus falls outside the water boards' jurisdiction. It remains Councils' responsibility.

During a media release on the 2nd October 2008 Oz Mineral's spokesperson (Mr. Stuart Gula) stated that:

> '*He understood that the issue of seepage water at these two properties had been an issue for some years…'* and that *'OZ Rosebery was working closely with WCC on the issue'.*

Oz Minerals Pty. Ltd. Subsequently contracted 'Environmental Service and Design Pty Ltd' (the consultant), to:

- Sample water issuing into two residences at 12 and 14 Murchison Street;
- Investigate possible water sources; and
- Discuss the nature of the water emanation.

The report stated that:

- '*The problem results from water entering the residences from the south and southwest, from Councils' roadway and kerb';*
- *'A survey of groundwater levels, perched water table levels and surface levels would be required to prove this conclusively;*
- *'There is some potential for this water to be sourced from Councils' subsurface service lines, either from leaking stormwater pipes, (but unlikely to be water supply), or from service line trenches becoming conduits'.*

Three potential solutions to the drainage issues were identified. Adoption of recommendation number three was proposed by the consultant. Namely;

> *'Collect the subsurface water from the roadway using drains, and direct it to the existing stormwater system…this option…obviates any contact between the residents and the water, and is the cheapest option. Drains should be installed along the frontage, and sealed where possible from surface infiltration. Collected water could be piped to the rear drains, to preclude access. Council should address the problem using a licensed plumber.'*

West Coast Council failed to adopt this measure.

We would like to remind Council that there are several Government Acts that need to be applied in consideration of our requests:

- Councils are required to: "provide such common drains as may be necessary for effectually draining its municipality for the purpose of preserving the healthy of the inhabitants of its municipality" (ss3 & 14, Drains Act 1954);

- Councils are required to: "provide for the health, safety and welfare of the community" (s.20(1)(a). Local Government Act 1993);

- Councils are required to develop and implement strategies to promote and improve public health in their municipal area (s27, Public Health Act 1997);

- Any public authority managing water must manage the water "in a manner that does not pose a threat to public health (s128, Public Health Act 1997); and

- A Council must "use its best endeavours to prevent or control acts or omissions which cause or are capable of causing pollution" (s.20A, Environmental Management and Pollution Control Act 1994).

We look forward to your response to our requests.

Marsha Stejskal and Kay Seltitzas

3 January 2010
ROSEBERY - Heavy Metal Poisoning

Dear Alderman,

We are writing to seek your support for the Rosebery heavy metal poisoning matters to be placed on the Agenda for the next West Coast Council Meeting and would like to have the opportunity to address Council in person about these issues. These issues relate to heavy metal poisoning of residents and pets in Rosebery, the relevant responsibilities that Council has to be involved with community and address some of these issues and the new Public and Environmental Health investigations into heavy metal poisoning being conducted in Rosebery, commencing in January this year.
We want the next Meeting of Council to discuss and resolve to take action on:

1. On the 21st December 2009 John Lamb,General Manager of MMG's Rosebery Mine

announced that the mine would be conducting its own Environmental Investigation into heavy metal contamination in Rosebery and invited residents who wished to be involved in the environmental sampling program to contact the mine by the 22nd January 2010. On the 23rd December 2009 the Director of Health, Dr Roscoe Taylor, Department of Health and Human Services announced that the DHHS will be reopening an investigation into heavy metal poisoning in Rosebery as a consequence of Dr Andreas Ernst's diagnosis of several Rosebery residents heavy metal poisoning particularly with arsenic and lead. Media at the time also reported that the national legal firm Slater and Gordon were representing several Rosebery residents. Dr Ernst has diagnosed both of us with heavy metal poisoning and we have both evacuated from our homes in Rosebery. We are only two of many people we know who are extremely ill with heavy metal poisoning.

REQUEST FOR WCC ACTION: WCC needs to play a pro-active role in liaison and public meetings with affected or participating residents of Rosebery, MMG Rosebery Mine, DHHS and the EPA about the scope and conduct of the new Public and Environmental Health investigations into heavy metal contamination and poisoning in Rosebery.

2. In October 2009 we wrote to West Coast Council requesting that West Coast Council remedy drainage problems on our properties in Murchison Street, Rosebery, and that West Coast Council make application to the Minister David Llewellyn, to declare the township of Rosebery as a "Drainage District" in accordance with Section 169(2) of the Water Management Act 1999. The response we received from Peter Harder, General Manager WCC was completely unacceptable.

REQUEST FOR WCC ACTION: WCC, in light of recent developments, remedy the outstanding drainage problems on our properties that Council has responsibility for and reconsider our request for application to the Minister David Llewellyn for declaration of Rosebery as a Drainage District. The letter included as an Attachment below provides a chronology to the issues and that this be tabled for discussion at the next WCC Meeting.

3. In late December 2009 we were both issued with WCC Abatement Notices to cut "fire hazard growth" on our properties. Having evacuated our properties we advised John Devlin, Environmental Health Officer at WCC that we were unable to do this and that anyone who did would need to be trained to do so and would need to wear protective clothing. On the 28th December 2009, the public holiday, two men arrived on our properties to cut the fire hazard growth and then failed to remove the cuttings. They had no protective equipment. In January 2009, Dr Chrissie Pickin, DHHS arranged with WCC for DHHS to pay for the costs of Council cutting fire hazard growth on three properties in Rosebery, including our own; all residents at these properties have now been diagnosed with heavy metal poisoning and are extremely ill.

REQUEST FOR WCC ACTION: WCC to rescind the Abatement Notices issued to us and arrange with Dr Chrissie Pickin for DHHS to reimburse Council for any costs incurred for cutting of fire hazard growth on our properties.

We want to give a presentation and speak in person to Council about the seriousness of the above issues and we look forward to your response and support.

Yours Sincerely
Marsha Stejskal and Kay Seltitzas

8 June 2010
Questions on Notice

Dear Alderman,
The Toxic Heavy Metals Taskforce Tasmania would like to have the following Questions on Notice included in the AGENDA and answered at the next West Coast Council meeting:

1. As Chair of the Rosebery Community Reference Group, what action has Mayor Gerrity taken to make publicly available on the West Coast Council or other website Minutes of Meetings from the Rosebery Community Reference Group?

2. What information has Council received or follow up taken as a result of Council's decision in 16th May 2000 requesting: "That Council instructs the General Manager to write to the Minister for Health, the Department of Health, the Mines Department ..... requesting information on contaminated sites and on the testing for contamination of heavy metals throughout the West Coast area."?

3. Is the Council aware of any current general environmental sampling programs currently being undertaken throughout the West Coast area by the EPA or environmental consulting firms to assess for contamination by heavy metals and if so are Council providing any input into the design and implementation of these programs?

4. Is the Council selling or has it sold properties for outstanding rates, that are in Rosebery or other areas of the West Coast that are currently being tested or known to have very high levels of contamination from heavy metals, especially lead or arsenic, and if so, what information is being provided by Council with Certificate 337's to purchasers to advise about potential health risks?

5. Is the Council aware the EPA failed to require MMG Rosebery mine to:
1. Monitor for arsenic in the Environmental Protection Notice issued to the mine in August 2009
2. Monitor for Arsenic in the Permit Conditions for the new open cut mine at South Hercules, and what action will the Council take to ensure that this failure is remedied, given that Arsenic is classified as an A Grade carcinogen and is one of the emissions estimated in the National Pollutant Inventory for the Rosebery mine, and that levels up to six times the Health Investigation Levels have been found in soil in Rosebery?

6. The deaths of 30 dolphins in the Pieman River was reported in The Hobart Mercury on 14th April:

"CSIRO marine ecologist Chris Wilcox happened to be holidaying in the area when he came across the dolphins.
"They were happy and frolicking and very robust on Friday but then when we saw them while we were kayaking on Sunday they were very sick," Dr Wilcox said.
"I initially thought they had been caught in a rope of some kind so we stopped to try and help them and they were very sick.
"From my observations they appeared to be suffering from some sort of toxin poisoning."
"Parks spokeswoman Penny Sale said while she had not received any report of a toxic spill "every option would be investigated".
She said it was understood some of the dolphins would undergo an autopsy which would look at poisoning as a possible cause of death."

PHOTO: Parks and Wildlife officers work to rescue one of the stranded Dolphins on the Pieman River. Picture: Tasmanian Parks and Wildlife. Reprinted with kind permission – courtesy of the *Mercury Website*, Hobart.



What action has the Council taken to seek information from Penny Sale, Parks Service or Warren Jones, EPA in relation to the investigation and results of autopsies and what further action will Council take in relation to supporting effective EPA/Parks monitoring programs for heavy metals and the effects on riverine and marine species in the Pieman or at the mouth of the Pieman River?

7. Is Council aware of any publicly available information from any Government authority or private company about heavy metal testing for fish, lobster etc caught or being farmed in Macquarie Harbour or on the west coast, and if so, where can this information be accessed?

We look forward to Council's response to our questions.
Yours Sincerely,
Marsha Stejskal and Kay Seltitzas
Toxic Heavy Metals Taskforce Tasmania

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15. Mineral Resources Tasmania Review Reveals Alarming Effects from Mine Discharge on Aquatic Fauna Communities

The following two paragraphs are from the *Review of Mineral Sector Operations, Base Metals, Minerals and Metals Group (MMG) Rosebery Mine*, Annual Review 2008-2009, at
http://www.mrt.tas.gov.au/pls/portal/docs/PAGE/MRT_INTERNET_PAGE_GROUP/MRT_ABOUT_MRT/MRT_ANNUAL_REVIEWS/MRT_ANNUAL_REVIEW_2009.PDF

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'*Biological monitoring of aquatic fauna communities has been carried out for seven years at the operation's three discharge receiving environments. At the main discharge point, Bobadil Outflow, monitoring indicates that there is a localised influence at the mixing zone on Lake Pieman, with faunal diversity reducing 20% since 2005 and abundance reducing 30–50% since 2006. These trends appear to be ongoing, and are related to the presence of the effluent. Monitoring at the Stitt River receiving environment suggests moderate to significant impairment, with a decline in macro-invertebrate diversity by 40% compared to reference streams. The Ring River remains in a severely degraded*

state with reduced levels of diversity and abundance due to the impacts of historical mining operations in the region. Biological monitoring of the three sites will be continued in 2009/10.

An increased focus has been placed on dust monitoring for the mine site and Rosebery township. A detailed dust characterisation survey involving 31 passive sampling sites was completed over twelve months in 2008. Results from the survey indicated that two of the 31 sites experienced fugitive dust levels beyond recommended guidelines. These sites are located at the main ore stockpiling area within the operational footprint of the mine. Dust management strategies specific to these sites have been implemented and dust deposition is continuing to be monitored.

See this link for limited background information on environmental monitoring at the Rosebery mine, the Stitt, Ring and Pieman Rivers: http://www.mrt.tas.gov.au/portal/page?_pageid=35,830861&_dad=portal&_schema=PORTAL

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16. Acknowledgements

Isla MacGregor has done a remarkable job putting together all the articles for this newsletter. Isla would also like to thank Kay Seltitzas for all her contributions to articles for the newsletter and special thanks to Dr Ellen Naef for her generous support and encouragement. Thanks to many unnamed others who have helped produce reports, provided professional advice and helped with editing. Special thanks go to Elizabeth O'Brien, a 'mine' of information, patient teacher and rock.

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