

ESPERANCE CLEANUP AND RECOVERY PROJECT

MINUTES OF STEERING COMMITTEE MEETING

29 July 2010

Present:

Mr Michael Jackson	Co-ordinator, Esperance Community Consultations (Chair)
Ms Jenny Brodie-Hall	Community Representative
Ms Michelle Crisp	Locals for Esperance Development (LED)
Mr Matthew Devenish	Esperance Cleanup and Recovery Project (ECRP)
Dr Charles Douglas	Department of Health (DOH)
Mr John Fischer	Department of Transport (DOT)
Mr Lindsay Gillam	Department of Health (DOH) from 3.30pm
Mr Thad Hobbs	Esperance Cleanup and Recovery Project (ECRP)
Mr Martin Matisons	Department of Health (DOH)
Mr Peter McCafferty	ChemCentre
Ms Samantha Parkyn	Esperance Cleanup and Recovery Project (ECRP)
Ms Pam Norris	Locals for Esperance Development (LED)
Mr Grant Shipp (ECCI)	Esperance Chamber of Commerce and Industry
Mr Peter Skitmore	Department Environment and Conservation (DEC)
Ms Christine Smith	Community Representative
Mr Wayne Winchester	Esperance Cleanup and Recovery Project (ECRP)

Apologies:

Mr Paul Clifton	Shire of Esperance
Mr. Richard Grant	Esperance Port Authority (EsPA)
Mr. Alex Leonard	Esperance Port Authority (EsPA)
Mr Marcus Tromp	Esperance Industry

1. Opening of Meeting and Review of Agenda

This meeting was conducted by video-conference and teleconference from several locations. Those Esperance based Members participated from the Curtin University conference room in Esperance. Perth based Members participated from the DEC conference room in Perth and Dr Charles Douglas participated from Kalgoorlie. Jenny Brodie-Hall participated by teleconference from Karratha and Pam Norris participated by teleconference from Northam.

The Chair welcomed Members to the 10th meeting of the Steering Committee and particularly welcomed Thad Hobbs as the ECRP Project Manager - Sampling and Grant Shipp as the CEO of the Esperance Chamber of Commerce and Industry (ECCI).

Members noted apologies from Richard Grant, Alex Leonard and Marcus Tromp.

Members noted that the former CEO of the ECCL, Marcus Tromp had indicated a willingness to continue on the Steering Committee. Members agreed that Mr Tromp had been a valuable contributor to the Committee and that he would be welcome to continue as a member of the Steering Committee. Because the Terms of Reference and the Membership of the Steering Committee had been approved by the Minister for Transport, it was agreed that endorsement by the Minister for this change should be made accordingly.

Action : Department of Transport to seek the endorsement of the Minister for Transport to the inclusion of Grant Shipp as a Member of the Steering Committee and the continued membership of Marcus Tromp.

P.S. Following the meeting the question of raising this matter with the Minister was discussed. It was noted that the Terms of Reference, as approved by the Minister, did not specify the names of persons but specified the names of the agencies and other groups and the number of representatives of those organisations. This included a representative of the Esperance Chamber of Commerce and Industry. With the appointment of Grant Shipp as CEO of the ECCL, it is appropriate that he attend the Steering Committee as a member. In view of the previous contribution which Marcus Tromp has made to the Committee, it is appropriate for him to be invited to attend the meetings as required.

2. Minutes of Previous Meeting

The Minutes from the previous meeting, 20 May 2010, had been accepted as a true record out of session and loaded onto the OnCue Website accordingly.

3. Actions from the previous meeting – 20 May 2010

i. Soil Sampling program – Water Corporation site near Panorama Place

At the March 2010 meeting, Members noted lead and nickel levels as detailed in the DEC document “Esperance Sampling - Old Water Corporation Reservoir and Discharge Channel 3 September 2008 Report” prepared by the Pollution Response Unit. The levels were all below National Health Investigational Levels for Residential Properties and the ECRP cleanup guidelines of 300mg/kg for lead and 600mg/kg for nickel. The highest concentration of lead found was 210mg/kg. Other lead levels found ranged from 13 to 130mg/kg. The higher concentrations were found in a localised drainage ‘sump’ area adjacent to the railway.

At the May 2010 meeting, Members noted:

- Advice from Peter Skitmore that he had assessed the levels of lead and nickel at the site. Although these levels did not warrant remediation from an environmental perspective, he recommended that the soils with higher lead and nickel levels [i.e. particularly the sump area] should be removed as part of the ECRP. This work should be carried out during the summer season when sediments are dry. Remediation of the site would enable the catchment facility to be utilised in the future, if required.

- The Project Director advised that this remediation could be carried out within the ECRP budget.

The Steering Committee supported this recommendation and it was agreed that Peter Skitmore to liaise with the Water Corporation with regard to remediation of the Panorama Place site and the Project Director would include remediation of the Panorama Place Water Corporation site as part of the ECRP.

Current status:

Members noted:

- Advice from Peter Skitmore that he had not addressed this item at the time of the meeting. He committed to follow through on this matter as soon as possible.

Action [outstanding]: DEC [Peter Skitmore] to liaise with the Water Corporation with regard to remediation of the Panorama Place site.

ii. Report on Soil Sampling program – ARG works at the Nulsen rail marshalling site

At the March 2010 meeting, the Steering Committee noted that ARG and Cliffs were proposing to undertake works at the Nulsen rail marshalling site. Although the lead levels in this area were within the Health Investigational Level, it was agreed that it would be advisable if dust control measures were employed during these works to ensure that lead in dusts is not redistributed.

The Department of Transport advised ARG in correspondence [dated 26 March 2010] to ensure that effective dust control strategies are employed during works at the Nulsen rail site.

Current status:

Members noted:

- A copy of correspondence from Mark Lambert, Group General Manager Australian Railroad Group who advised that “dust control is a standard operating requirement for site developments such as those proposed in the Esperance railyard and..... ARG will ensure that mobilisation of any dust associated with the development is managed in such a way that there will be no adverse impact on neighbouring properties”.
- That the application for works at the site had already been approved.
- A suggestion from Pam Norris that ARG should be requested to undertake before and after monitoring for lead and nickel concentrations at the site.
- That it would be valuable if there was liaison between the ECRP team and ARG in order to ensure that these works were carried out so that there is no adverse impact on neighbouring residents.

Action: ECRP team [Wayne Winchester] together with ChemCentre to follow up with ARG and provide advice on the ECRP, on dust control strategies and to recommend before and after monitoring at the Nulsen site.

iii. ECRP Monitoring of sentinel homes

At the March 2010 meeting the Steering Committee requested the Subcommittee on Sentinel Homes to address outstanding issues on the use of Petri Dish methodology and the integration of the sentinel monitoring program into the broader context of ongoing environmental monitoring programs.

Current status:

A report of the discussion of this matter is under item 8.

iv. Golder Associates Report on Human Health and Ecological Risk Assessment for the Esperance Townsite

At the March 2010 Steering Committee meeting, Members noted a request by Pam Norris for feedback on the adoption and implementation of recommendation 4 of the Golder Report. Recommendation 4 reads:

“The Western Australian Government adopt a partnership approach with Esperance Stakeholders and community representatives for the design and implementation of environmental monitoring and management in relation to Port operations”.

At the May 2010 meeting, Members noted

- That this matter had been referred to the EsPA for action as it was considered that this recommendation was outside of the scope of the Terms of Reference of the ECRP Steering Committee and was more appropriately addressed by the Esperance Port Authority [EsPA].
- Comments from Community Members that it would be desirable if an independent group was responsible for the environmental monitoring program at the Esperance port, and because the Golder report was commissioned by the DEC, that agency should take some responsibility in addressing this recommendation.
- DEC advised that it was normal practice for the licensee to undertake such environmental monitoring programs.
- It was appropriate for this recommendation to be addressed by the EsPA Port Consultative Committee [PCC].
- Advice from Richard Grant that the membership of the PCC includes representatives from government agencies, including DOH and DEC.

The Committee concluded that the Golder recommendation required further consideration by DEC, EsPA and Transport.

Current status:

Members noted:

- Email advice from Alex Leonard that “the EPSL concurs that this matter was outside the Terms of Reference of the ECRP Steering Committee and was more appropriately addressed by the Port. The PCC is the appropriate forum for engagement with stakeholders and the community for port related activities such as bulk nickel exports and community monitoring programs. To ensure that the PCC can function in a timely and effective manner EPSL intends to confirm with the group that meetings will

be held every quarter with special (out of session) meetings to occur on an as needed basis.”

- Advice from Community members that they considered the current PCC was not functional or effective. Further, they advised that the PCC does not meet regularly. They considered that the membership of the PCC should include representatives from government agencies such as DEC and Transport. Community Members considered that Golder Recommendation 4 was at the ‘core’ of the relationship between the Esperance community and the EsPA.
- Advice from John Fischer that Transport had proposed a series of recommendations to the Minister for Transport to address Golder Recommendation 4 and the concerns of Community members.

Members considered that this was an appropriate course of action and agreed to await government consideration of this matter.

v. Potential sources of lead around the home

At the May 2010 meeting the Steering Committee agreed that papers prepared by the Project Team, on potential sources of lead, should be published on the OnCue website to assist the community to understand other potential lead sources within the community.

Current status:

Members noted that this action had been completed.

vi. Update on Esperance Port Authority Environmental Emission Data

At the May 2010 meeting the Steering Committee agreed that the presentation of data on air quality monitoring by the Esperance Port Authority, and as compiled by DEC, be circulated to Members and placed on the OnCue website.

Current status:

Members noted that this action had been completed.

vii. Statistics on the number of premise owners who did not wish to participate in the ECRP

At the May 2010 meeting the Steering Committee requested the Project Team to provide statistics on the number of premise owners in each zone who have refused to participate in the ECRP

Current status:

Members noted advice from the Project Director that approximately 3% of premise owners [about 30 owners in 1000] had refused to participate in the ECRP. There were various reasons why owners had refused to participate, the main one being that the owners considered that they had already cleaned their premises and further cleaning was not necessary.

It was agreed that this matter required further consideration. The Project Team was requested to conduct a risk assessment to determine if this level of non participation impacted on the overall effectiveness of the ECRP.

Action: The Project Team to conduct a risk assessment on the non participation of premise owners to determine if this level of non participation impacted on the overall effectiveness of the ECRP.

viii. Prescribed method for the determination of the annualised guideline for nickel emissions

At the May 2010 meeting the Steering Committee agreed that Peter McCafferty should assess the comments received on the 'nickel method' and that a revised and final document should be prepared and distributed to stakeholders.

Current status:

Members noted:

- Peter McCafferty had prepared a final document and circulated this to Members and stakeholders on 22 June 2010.
- Comments by Pam Norris with regard to inconsistencies with regard to Sections 4 and 9 of the document. In particular references to "comparison" and "compliance with regulatory guidelines". Ms Norris requested clarification on the role of the HiVols at Sites 1 to 4 and the community HiVols.
- A response by Peter McCafferty that the existing HiVols at Sites 1 to 4 would be used to measure nickel emissions and these would be carried out on the basis of TSP determinations. Further it was intended that the new HiVols placed in the community would measure the PM₁₀ fraction of emissions. However, the one community based HiVol currently operating on the premises of the Shire was measuring on the basis of TSP and no detectable nickel emissions had been recorded. In view of this it was likely that PM₁₀ filters would not be placed on the community HiVols. Data from the HiVols at Sites 1 to 4 and those placed in the community would be compared with the annual guideline.

It was agreed that Pam Norris and Peter McCafferty should discuss the specific concerns with respect to the 'Nickel Method'.

Action: Pam Norris and Peter McCafferty should discuss the specific concerns with respect to the 'Nickel Method'.

ix. DEC Report on Lead and Nickel Levels in Esperance Vegetation

At the May 2010 meeting of the Steering Committee it was agreed that Peter Skitmore would provide a copy of the DEC Report on the Survey of Lead and Nickel in Esperance Vegetation to Steering Committee Members, when the report is available.

Current status:

Members noted advice from Peter Skitmore that sampling for 2010 had been completed and results were available, which meant that three sets of data for the years 2008, 2009 and 2010 were now available for analysis and reporting. As the 2009 survey sample points had been changed significantly from 2008, it had proved difficult to write a report on that year with single data points. The report currently being prepared by DEC would include analysis of all data together. The report has been drafted and is in the final stages of preparation. Mr Skitmore anticipated that it should be available for distribution to Members within 3 weeks of the date of this meeting.

Action: Peter Skitmore to provide a copy of the survey of lead and nickel in Esperance vegetation conducted by DEC to Steering Committee Members as soon as possible.

4. Summary of the current status of the ECRP

Members noted:

- A report by the Project Director on the current status of the ECRP.
- Monthly Project updates, generated in the first week of every month, provide regular details of project status. The next update is due in early August 2010.
- The ECRP has now entered into the major cleaning phase of the project. The major cleaning contractors have been appointed and are operational in Esperance.
- There are now approximately 50 Esperance based personnel currently working on the ECRP. These include samplers, data analysers, cleaning supervisors, and the cleaning contractors.
- The sampling program is over half way through the “area of interest”.
- Validation sampling and waste sampling is ramping up.
- Results are showing significant decline in lead and nickel levels as samples are taken in the range of 1.5 to 2 km away from the Port.
- The amount of cleaning required at individual premises is reducing in the outer stages and sampling of many premises in the outer areas is showing that minimal, if any, cleaning will be required.
- Monthly monitoring of blood lead levels for all personnel involved in the project has not indicated any readings above acceptable guidelines to date.
- An excellent working relationship has been established between the ECRP Project Team and the ChemCentre.
- A recent negative media article in the Sunday Times [18 July 2010] did not appear to be representative of the views of the wider community (based on the direct contact that the ECRP has had with customers).
- The total project expenditure to the end of June was \$3,627,000. The costs of the specific core components of the project were as follows:
 - Sampling \$1,600,000
 - Cleaning \$ 291,000
 - Admin and consultancies \$1,736,000

In response to the media article in the Sunday Times of 18 July 2010 entitled 'Esperance lead clean-up leaves families in fear', the Chair sought feedback from the Community Members on the Committee whether this was an accurate report.

Community Members advised that the points raised in the article were not generally representative of the views of the community but of a very small minority. The majority of the community were pleased that the cleanup is now underway and progressing systematically through the town. Some comments had been received that the actual cleaning phase was slower than anticipated, but Community Members on the committee had advised those persons that the Steering Committee as a whole [including Community Members] had insisted on conducting the cleanup in a systematic and stepwise basis with appropriate procedures, confidentiality and reporting. Community Members commented that they considered the cleanup had a more negative image in Perth than in Esperance.

It was also acknowledged that the ECRP had "broken new ground" as there were no other precedents which could be used to assist in many facets of the clean-up in Esperance. The ECRP had established procedures and cleanup guidelines for premises which are considered to be 'world's best practice'.

5. Progress report on sampling of homes and other premises

Members noted a report on the sampling of homes and other premises by Thad Hobbs, ECRP Project Manager Sampling as follows:

i. Sampling

At the time of the meeting, approximately 1050 premises had been sampled, which is ahead of target by approximately 80 premises. On average, eight premises are sampled each day, a total of 40 premises per week. Over 36,000 samples had been sent to the ChemCentre and 30,000 had been analysed. Sample volumes will be restricted to 1200 samples per week to meet the capacity and turn around times for the ChemCentre of 7 to 10 days. Sampling had been completed for stages 1-5 and sampling in stage 6 is very near completion.

ii. Specialist Sampling

Two Specialist Sampling teams had been formed to fulfil a need to cover the following daily activities:

- XRF soil surveys to determine excavation area
- Validation sampling on completion of cleaning
- Difficult access sampling
- Asbestos roof sampling
- Waste sampling
- Isotopic sampling
- COC administration

These specialist activities are outside the scope of work for samplers and required specialist training in areas such as radiation awareness, working at heights, elevated work platform training as well as additional training on specific pieces of equipment, sampling techniques and administration.

iii. Validation Sampling

Validation samples had been taken from all premises on completion of cleaning. At the time of the meeting, 68 samples had been taken from 20 cleaned properties. Out of the 20 cleaned properties, 11 of these returned results that were still in excess of the ECRP guidelines. Where a second validation sample was required after re-cleaning, the lead or nickel levels were generally lower than the original sample and generally below the respective ECRP guideline.

The cleaning of carpets in order to meet ECRP cleanup guidelines continues to be problematic.

iv. Staff

A supervisor had been appointed to coordinate the daily activities of the sampling teams. The Data Analysis team are now part of the sampling group and this had delivered an overall improvement in communication and information flow between each team.

v. Training

Two separate training courses were held for all sampling staff, supervisors and managers from the 14th to 16th of July. The first session "Defensive Driving" was a half day course aimed at ensuring all sampling staff understood safe driving techniques. The second session "How Rude" was a team building course which encouraged the team to understand how they communicate and to challenge any unproductive communication styles or habits that have developed within the team over time.

vi. Playgrounds

A total of 22 playgrounds around Esperance were sampled for lead (Pb) and nickel (Ni) contamination after the emissions from ship loading events at the Esperance Port during 2005-2007. Surface wipes from children's slides at some of the playgrounds showed elevated levels of surface Pb. Various wipe samples were taken to identify the source, including wet and dry samples.

In August 2009 a field portable Niton X-Ray Fluorescence Analyser (XRF) was used at a number of these playgrounds to determine the Pb levels of the soil and playground equipment. Soil Pb levels were below the National Environmental Protection Measure Health based Investigation Guideline (300ppm Pb/kg in residential soil - NEPM HIL 1999) although an interesting anomaly was found in regards to some of the playground equipment.

Results of playground equipment taken in-situ with the XRF showed that yellow fibreglass equipment contained significant amounts of Pb, well above the expected range for general environmental depositional/surface Pb levels.

The results of the XRF analysis showed that high levels of Pb in the fibreglass equipment coincided with elevated levels of chromium (Cr). This is consistent with the use of lead (II) chromate (PbCrO_4) as a colouring pigment for paints and coatings. Lead chromate is a vivid yellow colour.

The children's slides found to be high in Pb were yellow fibreglass and estimated to be at least 10 years old. Other pieces of yellow fibreglass playground equipment were also found although the risk of exposure of these items is considered much lower than the slides. Newer (<10yrs old) yellow plastic playground equipment was also tested by the XRF, and there were no discernable Pb levels present in these pieces of equipment.

There were 4 playgrounds out of 22 that showed play equipment with elevated levels of Pb under Portable XRF Analysis. A small piece of fibreglass (1-2cm diameter) was subsequently drilled out of the equipment and sent to the ChemCentre for analysis. The results confirmed that lead levels were high and that lead (II) chromate (PbCrO_4) is highly likely to be the base for the colouring pigmentation on these pieces of equipment. The equipment is suspected of leaching lead (II) chromate as the physical sealant on the exterior surface breaks down over time.

Results of elevated lead levels were found on painted surfaces of older style playground equipment. Cleaning the surface of this equipment reduced the concentrations only slightly. It is probable that these pieces of equipment have a Lead (II) chromate (PbCrO_4) base in the paint applied to the surface.

In conclusion, the 22 playgrounds in the area of interest have undergone a thorough and complete sampling process. The results of sampling give confidence that no lead contamination exists in the playgrounds as a result of the ship loading events at the Esperance Port during 2005-2007. Preliminary results of the playgrounds investigation have been forwarded to Paul Clifton at the Shire of Esperance and a full report will follow.

Members considered:

- That a formal report on the work carried out under the ECRP program on the identification of the source of lead in fibreglass playground equipment should be referred to the Shire of Esperance so that this could be taken into consideration in the program of playground equipment replacement. A formal response from the Shire stating that this matter would be addressed should also be sought.
- Since lead chromate was likely to have been used in fibreglass playground equipment and that such equipment was most likely to have been installed by many other local authorities, this matter should be brought to the attention of WALGA so that appropriate action could be taken by local authorities throughout the state.

Action: ECRP to provide a formal report to the Shire of Esperance on the sampling and analysis of lead in playground equipment and in particular to provide details of the research which shows the source of lead chromate in yellow pigmented fibreglass equipment. A formal response from the Shire should be requested.

Action: A copy of the ECRP report on sampling and analysis of lead in playground equipment and in particular to the research which shows the source of lead chromate in yellow pigmented fibreglass equipment should be referred to WALGA with the recommendation that WALGA advise all local authorities accordingly.

vii. Isotopic Sampling

The ECRP team had taken a total of 45 samples from 14 premises and sent these for isotopic analysis by the ChemCentre. Isotopic samples are generally ordered where initial results are inconsistent, given the results of surrounding premises or where premises located on or outside the outer boundaries of the ECRP "Area of Interest" show an unusual result that cannot be readily explained. The majority of results show that the source is not Magellan lead, with only 2 samples showing a Magellan lead signature.

viii. Asbestos Rooves

A formal audit of all the asbestos rooves in the ECRP "Area of Interest" had been completed. 106 asbestos rooves were identified. The majority of these are in stages 7 and 9, where it is unlikely that lead and nickel levels on rooves will exceed ECRP guidelines. Results from 26 asbestos roofs that have been sampled so far show that only one roof surface was above the ECRP guidelines.

ix. Sampling Equipment

A "Smog Eater" Dust catcher had been purchased to assist in the safety of samplers whilst sampling waste in the containers at Wylie Bay.

6. Disposal of Wastes from the ECRP – Leachability testing trials

Members noted a progress report on disposal of wastes by Thad Hobbs Project Manager Sampling:

- The waste materials from the ECRP (carpets, underlay, insulation, PPE and dust) are being stored and sampled at the Wylie Bay refuse facility in locked shipping containers. All waste is double bagged at the cleaning premise before being moved out to Wylie Bay in enclosed, fully sealed trailers.
- The storage area has 4 groups of containers each comprising one 40ft waste container and a corresponding 20ft sampling container. There is a storage container for equipment, PPE; and first aid supplies. There is also a container for any material that is different from the general waste type eg: sharp tiles or colourbond. For sampling purposes, one in every three bags is retained in a 20ft container while all others are placed in the corresponding 40ft container for the waste batch. Sampling is carried out at the Wylie Bay site.

- All waste is treated as hazardous. Air filtering equipment has been installed in the sampling container at the cost of approximately \$12k. Staff undertaking sampling of waste materials work on a rotational basis to minimise personal exposure.
- That the Wylie Bay site is not lined and therefore disposal of wastes at the site would have implications to ground water.
- Because the lead and nickel contamination is primarily on the surface of the wastes, such as insulation materials, the ECRP team is using a tumbled acid method to determine the leachability of the wastes. Tests to date show that the insulation materials are either Class 3 or 4. This would require disposal at the Red Hill Waste Management Facility in Perth. Such transport to Perth and subsequent disposal has significant cost implications to the ECRP.

Members questioned if the contaminated wastes could be transported back to the Magellan site in Wiluna for disposal. Members considered that this option should be explored.

Action: Project Team to explore the option of disposal of the contaminated wastes from the ECRP to the Magellan site near Wiluna.

7. Update report on the Major Cleaning Project

Members noted:

- A report on the Major Cleaning Project by Matthew Devenish ECRP Project Manager Cleaning.
- The successful tenderers for the major cleaning contractors Bay of Isles Mini Excavators and PRC Services commenced cleaning activities in and around Stage 1 on 28th June, 2010. Bay of Isles Mini Excavators are responsible for roof surface, gutter, down pipe and rainwater tank cleaning. PRC Services are responsible for cleaning of internal and external surfaces and roof space cleaning.
- There have been no injuries, health issues (e.g. elevated blood lead levels) or accidental environmental releases at the time of the meeting. However; there were a number of unsafe work practices and unsafe work areas created by Contractors identified and changes immediately made. Three ECRP cleaning supervisors ("Principal's Representatives") have been engaged to monitor the quality and safety of the project. All three supervisors are highly experienced contract supervisors and one is also a fully qualified Safety Adviser and Instructor.
- The ECRP has numerous policies and procedures in place, including an independent auditor, to ensure the safety of all project personnel, especially when considering the risks associated with roof space cleaning and the installation of insulation.

- The following is a summary of progress at the time of the meeting:
 - cleaning has commenced at 49 premises;
 - 28 premises of the 49 have been partially invoiced (many are waiting on multiple contractors to complete their cleaning activities);
 - \$218,000 has been invoiced to date (but this is not indicative of the final cost of those 28 homes as we are still waiting on a number of major invoices);
 - 20 premises have been sampled for validation; and
 - 9 premises have results returned from ChemCentre for analysis.
- The Project Team is taking a precautionary approach in those cases where rainwater in tanks is below the ADWG but if the residual sludge in the bottom of rainwater tanks was to be stirred, the levels in rainwater would exceed the ADWG. In these cases the tanks are cleaned.
- The Project Team has been most concerned as to how the community perceive the cleaning crews. In view of the fact that these crews have a high profile in the community, the crews have been trained and provided with uniforms.
- The process of cleaning roof spaces has proven to be problematic. Whilst being technically straight forward, roof space cleaning has proved to be logistically complex. Cleaning some roof spaces in homes has taken up to 3 days.
- The cleaning of carpets to meet the ECRP guidelines, as mentioned earlier in this report, is proving to be the most difficult aspect of internal cleaning of homes. Re-cleaning of carpets is frequently required.

Members acknowledged the challenges of the cleaning program and appreciated the progress report to date.

8. Recommendations of the Working Group - Sentinel Monitoring Program

Members noted:

- A report on the Sentinel Monitoring Program prepared by the Working Group established to consider this matter. This report is set out in Appendix 2 of this report.
- That the Working Group had taken into consideration the previous comments of the Steering Committee at its March 2010 meeting and in particular that the sentinel monitoring program should incorporate the following:
 - The use of Petri Dish methodology in undisturbed areas inside and outside homes,
 - The integration of the sentinel monitoring program within the broader context of ongoing environmental monitoring in Esperance.
- That the Working Group had proposed that 'during the course of the 2 year monitoring period, sample results will be assessed, reports will be prepared, and action taken if required at the end of each 3 month sampling period. A final report and recommendations will be prepared at the end of the 2 year period. The ECRP (or consultant as appointed by the

ECRP) will prepare the required reports and will make associated recommendations. These reports will be presented to a panel comprising members of the current ECRP Steering Committee for review and action as required.' The Steering Committee considered that these matters needed to be actioned after the ECRP is finalised.

Members agreed to the recommendations of the Working Group and therefore requested the Project Team to initiate the sentinel monitoring project.

Action: Project Team to implement the recommendations of the Working Group on the ECRP sentinel monitoring program.

9. ECRP Administrative Matters

i. Methodology and Process Audit of the ECRP

Members noted:

- A report prepared by GHD which had been contracted to conduct a Methodology and Process Audit of the ECRP.
- GHD had made a series of recommendations which had been implemented by the Project Team.
- The following conclusion taken from the audit report:

“The entire Project Team demonstrated a strong commitment to achieving the aims of the project, and appeared to work together in a cooperative and supportive fashion.

In general the procedures are based on recognised standard procedures. In accordance with normal industrial practise and guidance, the individual procedures have been modified to suit the local conditions found in Esperance and the particular circumstances of the exposure scenarios.

It is the Auditor’s opinion that the procedures are well written, concise and suitable for use by non-specialised field personnel.”

- The Steering Committee endorsed the conclusions of the GHD report.

ii. ECRP Record Keeping Audit

Members noted:

- A report on the record keeping aspects of the ECRP conducted by the Record Keeping Co-ordinator of the Department of Transport.
- The following excerpt from the Audit report –
“A high level of recordkeeping is maintained by all staff with impressive attention to detail and commitment to the project.”
- Recommendations from the review have been implemented and there is compliance under the State Records Commission (SRC) Principles and Standards.

The Steering Committee considered that there is no need for these reports to be loaded onto the OnCue website.

10. Other Business

i. Installation by EsPA of two additional HiVol monitors in Esperance Community

Members noted:

- A progress report provided by Alex Leonard on the installation of the two additional HiVol monitors to be located within the Esperance Community.
- [Site 1 is already operational on the site of the Esperance Shire offices in Windich Street.]
- Site 2 has been selected on the corner of Taylor and Corry Street [this site is on the property of Pam Norris]
- Alex Leonard and Kieron Smith had inspected several possible sites for the third monitor, prior to the departure of Kieron Smith from Esperance.
- As a result of this inspection, the recommended site for the third HiVol is on the corner of Giles Street and Twilight Beach Road. This is a private property. The EsPA had since obtained verbal approval from the owners to use this site for the HiVol station. The EsPA had subsequently written to the owners to confirm this approval and to make appropriate arrangements. It was intended that once this approval had been confirmed, the EsPA would contact all PCC members by email seeking endorsement of this location.
- A map provided by Alex Leonard showing the proposed location of the Giles Street site and a further map showing other alternative sites considered.

The Steering Committee considered that the proposed site on the corner of Giles Street and Twilight Beach Road was too far to the south of the town. This site was not acceptable to DEC, DOH and community members. It was suggested that the site for the third HiVol would be more appropriately situated closer to the transport corridor/train line, for example in Hardy Street.

The Steering Committee requested Wayne Winchester to work with Alex Leonard in determining a more appropriate site for the third community HiVol monitor.

Action: Wayne Winchester to work with Alex Leonard in determining an appropriate site for the third community HiVol monitor.

ii. Update on Esperance Port Authority Environmental Emission Data

Members noted:

- A presentation by Peter Skitmore, from the Department of Environment and Conservation, on the most recent compilation of data on lead and nickel air quality in Esperance. [The presentation was dated 29 July 2010.]
- Results from community dust depositional gauges show that over the last 24 months there has been a general reduction in nickel deposition when compared to historic data. A minor but progressive increase in nickel levels at DG1 has been recorded since December 2009.

- However, most significantly DG9 which is located within the port area, has shown an increasing trend in nickel deposition over the last 6 months with a slight decrease from April 2010.
- The EsPA attributed the elevated levels at DG9 to the unloading of kibbles from trucks which was occurring in close proximity to DG9. EsPA was encouraging clients to use containers for both product entering the port and for export. EsPA advised that bulk nickel exports are likely to reduce considerably from June 2010.
- Results from the four HiVol monitors located at the port boundaries over the period November 2007 to date show that the daily target of $0.14\mu\text{g}/\text{m}^3$ (which applied from 6 October 2008) has only been exceeded on two occasions during the 51 ship loading events. DEC confirmed that a loading protocol was a requirement of the licence.
- There have been 20 bulk nickel ship loadings since the revised shiploading protocol [which capped loading rates and only allowed shiploading in offshore winds] was implemented and none of these exceeded the daily target.
- With regard to the annual guideline of $0.003\mu\text{g}/\text{m}^3$, recommended by the Department of Health, Sites 1, 3 and 4 each show numerous 24 hr results where levels less than the guideline were recorded. However, Site 2 has since October 2009 shown only 22 days where levels were below the guideline. Site 5 (at the Esperance Shire Offices) has since it was installed (July 09), showed most levels below detection with others at very low levels.
- HiVol results all show very low lead levels and in most cases below the level of detection.
- All community deposition gauges show very low levels of lead dust or below the limit of detection and in many cases for 24 months.
- These data indicate recirculation of lead dust in air is not an issue.

Action: The July 2010 presentation of data on air quality monitoring by the Esperance Port Authority, and as compiled by DEC, be circulated to Members and placed on the OnCue website.

11. Next meeting

Members noted that the next meeting of the Steering Committee would be convened on 9 September 2010. It was contemplated convening this meeting in Esperance. A decision on this matter would be made prior to the meeting and Members informed accordingly.

12. Close of meeting

The meeting closed at 4.20 pm.

ESPERANCE CLEANUP AND RECOVERY PROJECT

STEERING COMMITTEE MEETING

29 July 2010

SUMMARY OF ACTIONS

1. Membership of the Steering Committee

Action: Department of Transport to seek the endorsement of the Minister for Transport to the inclusion of Grant Shipp as a Member of the Steering Committee and the continued membership of Marcus Tromp.

2. Soil Sampling program – Water Corporation site

Action: Action [outstanding]: DEC [Peter Skitmore] to liaise with the Water Corporation with regard to remediation of the Panorama Place site.

3. Report on Soil Sampling program – ARG works at the Nulsen rail marshalling site

Action: ECRP team [Wayne Winchester] together with ChemCentre to follow up with ARG and provide advice on the ECRP, on dust control strategies and to recommend before and after monitoring at the Nulsen site.

4. Statistics on the number of premise owners who did not wish to participate in the ECRP

Action: The Project Team to conduct a risk assessment on the non participation of premise owners to determine if this level of non participation impacted on the overall effectiveness of the ECRP.

5. Prescribed method for the determination of the annualised guideline for nickel emissions

Action: Pam Norris and Peter McCafferty should discuss the specific concerns with respect to the 'Nickel Method'.

6. DEC Report on Lead and Nickel Levels in Esperance Vegetation

Action: Peter Skitmore to provide a copy of the survey of lead and nickel in Esperance vegetation conducted by DEC to Steering Committee as soon as possible. Update on Esperance Port Authority Environmental Emission

7. Sampling and analysis of Esperance playgrounds

Action: ECRP to provide a formal report to the Shire of Esperance on the sampling and analysis of lead in playground equipment and in particular to provide details of the research which shows the source of lead chromate in yellow pigmented fibreglass equipment. A formal response from the Shire should be requested.

Action: A copy of the ECRP report on sampling and analysis of lead in playground equipment and in particular to the research which shows the source of lead chromate in yellow pigmented fibreglass equipment should be referred to WALGA with the recommendation that WALGA advise all local authorities accordingly.

8. Disposal of Wastes from the ECRP – Leachability testing trials

Action: Project Team to explore the option of disposal of the contaminated wastes from the ECRP at the Magellan site near Wiluna.

9. Recommendations of the Working Group - Sentinel Monitoring Program

Action: Project Team to implement the recommendations of the Working Group on the ECRP sentinel monitoring program.

10. Installation by EsPA of two additional HiVol monitors in Esperance Community

Action: Wayne Winchester to work with Alex Leonard in determining an appropriate site for the third community HiVol monitor.

11. Esperance Port Authority Environmental Emission Data

Action: The July 2010 presentation of data on air quality monitoring by the Esperance Port Authority, and as compiled by DEC, be circulated to Members and placed on the OnCue website.

**Recommendations of the Working Group - Sentinel Monitoring
Program**

1. Background

The ECRP Steering Committee has appointed a sub-committee, comprising Wayne Winchester (Chair), Michelle Crisp (Community), Peter Skitmore (DEC), Lindsay Gillam (DoH), and Peter McCafferty (ChemCentre), to investigate the opportunity to undertake Sentinel Monitoring for Lead and Nickel Deposition across the Esperance townsite.

At the March 2010 meeting, the Steering Committee noted a proposal for sentinel monitoring of homes developed by the Sentinel Homes Sub-committee. Members agreed that the proposal should be reviewed to include consideration of the following:

- i. The use of Petri Dish methodology in undisturbed areas inside and outside homes,
- ii. The integration of the sentinel monitoring program within the broader context of ongoing environmental monitoring in Esperance.

This revised paper sets out the new proposal incorporating the views of the ECRP Steering Committee.

2. Issue

Members of the ECRP Steering Committee raised the importance of ongoing monitoring to ensure that the work undertaken by the ECRP has been effective and to identify if recontamination from lead or nickel of the Esperance townsite is occurring. Ongoing monitoring would also provide a measure of any accumulation of lead and nickel dust over time.

Community members, DEC and DoH have therefore suggested the use of sentinel premises to achieve the following objective.

“The Sentinel Monitoring Program is to ensure that the ECRP has been effective in its cleanup operations, identify if recontamination has occurred and report findings for action as required during the 2 year monitoring period.”

3. Proposed Methodology

To address the required objective of the Sentinel Monitoring Program, the Sub-Committee proposes a “whole of system” approach to monitoring, measuring and reporting of data from locations across the townsite.

This approach would use a combination of;

- Validation sampling
- Petri dish methodology and
- Analysis of data from existing (and proposed) HiVol and dust deposition monitoring equipment.

In addition, results from DEC’s 5 year vegetation monitoring program will also provide relevant data on the state of the environment in relation to lead and nickel. This data should also be incorporated into the Sentinel Monitoring reports as part of Government’s overall sentinel program.

3.1 Validation Sampling

Validation sampling at sentinel premises would be used to ensure that the ECRP has been effective in its cleanup operations and to identify if recontamination is occurring.

The proposal for validation sampling of sentinel premises would involve the periodic repeat of validation sampling that was undertaken by the ECRP team at the end of premises cleaning by the project.

The same locations within the premises would be sampled using identical methodologies as those previously used by the ECRP team.

To ensure consistency with previous testing, ChemCentre would undertake all sample testing during the Sentinel Monitoring Program.

3.2 Petri Dishes (air-fall deposition monitor)

Studies undertaken by the NSW Department of Health have concluded that “the Petri dish method can be used as a measure of recontamination, allowing individuals and health authorities to assess the effectiveness of abatement strategies”. It should be noted that these studies related to Petri dishes placed indoors.

To satisfy the requirements of the Sentinel Monitoring Program, it is proposed that a Petri dish is placed in 3 separate previously cleaned locations at each of the sentinel premises.

1. roof space
2. internal location away from disturbance
3. external area away from disturbance.

The dishes would be sent to the ChemCentre for lead and nickel analysis.

The results would be shown as mg/m² per month, which is a recognised unit of measurement and is also consistent with existing dust deposition gauges around the townsite.

A recommended “Protocol for Collection of Air-Fall Samples” is at Attachment 1.

3.3 HiVol dust monitoring gauges

The environmental monitoring program at the Esperance port required under its operating license is the most sophisticated of any port in Australia. Any potential dust emissions from shiploading activities are independently monitored by a series of high volume and depositional dust gauges in and around the port.

The existing program will be further enhanced with the placement of an additional two or three HiVol gauges, to be located in the community.

The port provides monthly reports of the results of its environmental monitoring program to DEC and posts these on its website. DEC provides a summary of these reports to each ECRP Steering Committee and these reports are posted on the OnCue website.

Data from these reports will form a key component of the Sentinel Monitoring Program.

4. Cost

It is proposed that initial set-up costs for both the Petri dish and ongoing validation sampling would be funded from within the ECRP budget. Once the ECRP team is disbanded however, funding would need to be provided for external consultants to complete the work, possibly from ECRP funds held over for this purpose.

5. Location of sites

It is recommended that 8 sites be selected across the townsite for validation sampling and Petri dish monitoring. *Refer to Attachment 2.*

Six of these sites should be within the “area of interest” identified by the ECRP as the likely area of contamination from the Port. Premises, and surfaces sampled within these premises, should be those previously identified as having high levels of contamination and in areas facing the Port. The premises will also need to be carefully chosen to ensure a stable environment for the duration of the project.

The two remaining sites should be located well outside the identified ECRP “area of interest”, and will be representative of background levels. These areas have been deemed to be in areas that have not been impacted by the port and will provide a comparative dataset for baseline monitoring.

All sites would be selected by the ECRP team (in consultation with the Sentinel Monitoring sub-committee). Selected sites are to provide a variety of

roof constructions and be represented by at least 6 sites that showed elevated levels of lead and/or nickel (above the guidelines) during the ECRP sampling program.

6. Timing

The project is to have a 2 year timeframe, commencing in time for the November 2010-January 2011 monitoring period.

Validation sampling would be undertaken at 6 month intervals over a period of 2 years.

Petri dish sampling would be for 90 day cycles over a period of 2 years, providing coverage of the periods February-April, May-July and August-October and November-January. The selection of these 3 month monitoring periods will allow for seasonal variability of wind patterns and will be long enough in duration to provide a measurable sample volume.

Data analysis from the HiVol and deposition dust monitors will be undertaken on a 6 monthly cycle over a 2 year period, to coincide with the validation sampling.

The need or otherwise for continued sentinel monitoring would be reviewed subject to the findings of the Sentinel Monitoring Program Report and taking into account the potential change in operations and products handled at the Port.

7. Sentinel Monitoring Program Report

During the course of the 2 year monitoring period, sample results will be assessed, reports will be prepared, and action taken if required at the end of each 3 month sampling period.

A final report and recommendations will be prepared at the end of the 2 year period.

The ECRP (or consultant as appointed by the ECRP) will prepare the required reports and will make associated recommendations.

These reports will be presented to a panel comprising members of the current ECRP Steering Committee for review and action as required.

8. Recommendation to ECRP Steering Committee

The ECRP Steering Committee provides endorsement of the Sentinel Monitoring Program as outlined in this paper and instructs the ECRP team to initiate the project.

Proposed Protocol for Collection of Air-Fall Samples

A protocol for the collection and testing of samples has been developed in conjunction with Kieron Smith (adapted from methodology used in Port Pirie) and Peter McCafferty from the ChemCentre, based on their experience.

Introduction

The chemical characterisation of air-fall material is an important link used to assess the ongoing accumulation of lead and nickel dust over time. As such, the use of sentinel air-fall deposition monitors at various locations across the Esperance townsite will play a crucial role in evaluating the success of the Esperance Cleanup and Recovery Program and may be used to assess the evidence of any ongoing contamination. The ECRP Steering Committee also acknowledges the community's requirement for ongoing quantitative assurance of resolution of the problem and faith that it won't reoccur.

Sampling Duration

The sampling period for the eight selected sites across the Esperance townsite should be for 90 day cycles over a period of 2 years, providing coverage of the periods February-April, May-July, August-October and November-January. The use of longer sampling times is to:

- Coincide with seasonal wind patterns
- Provide time for accumulation of adequate sample material to enable characterisation by multi element chemical analysis.

Deployment

Cleaned Petri dishes are to be supplied by the ChemCentre, ready for use

- Dishes to be placed in sampling locations
- Remove lids and return them to ECRP lab
- Record start exposure date in sample data book.

Recovery

- Record the end exposure date
- Record number of days samples collected
- Cover dishes with lid, tape shut and transport to ChemCentre for sample recovery and testing.

Testing

- ChemCentre will follow established procedures to undertake the required testing for lead and nickel.

Indicative locations of Sentinel premises

