ESPERANCE CLEANUP AND RECOVERY PROJECT

MINUTES OF STEERING COMMITTEE MEETING

12 NOVEMBER 2009, ESPERANCE

Present:

Mr Michael Jackson	Co-ordinator, Esperance Community Consultations (Chair)
Ms Jenny Brodie-Hall	Community Representative
Mr Paul Clifton	Shire of Esperance
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)
Mr Peter McCafferty	ChemCentre
Mr. Alex Leonard	Esperance Port Authority (EsPA)
Ms Pam Norris	Locals for Esperance Development (LED)
Ms Samantha Parkyn	Esperance Cleanup and Recovery Program (ECRP)
Mr Peter Skitmore	Department Environment and Conservation (DEC)
Ms Christine Smith	Community Representative
Mr Kieron Smith	Esperance Cleanup and Recovery Project (ECRP)
Mr Marcus Tromp	Esperance Chamber of Commerce and Industry (ECCI)
Mr Wayne Winchester	Esperance Cleanup and Recovery Project (ECRP)

Apologies:

Mr Richard Grant	Esperance Port Authority (EsPA)
Mr Martin Matisons	Department of Health (DOH)

1. Opening of Meeting and Review of Agenda

The Chair welcomed Members and noted apologies from Martin Matisons.

It was agreed that the following additional items would be included in the Agenda for discussion:

- Golder Associates Report – need for public meeting?
- Children's exposure to metals in Esperance – Edith Cowan University ECU study.

2. Minutes of Previous Meeting

The Minutes from the previous meeting, 3 September 2009, had been accepted as a true record out of session and had been loaded onto the OnCue Website.

However, Peter Skitmore referred to the actions arising from the report of the meeting of 25 June 2009 with regard to item 13 concerning the DEC Vegetation Monitoring Study. The first dot point read "This data had been overlaid over the map of Esperance and Mr Skitmore had drawn contours where the levels had dropped from significant levels to minimal levels."

Mr Skitmore explained that the levels in the vegetation study had fallen from "something to nothing" and the reference to 'significant' in the report of the last meeting conveyed an incorrect meaning.

It was agreed that the particular sentence should be amended to read "This data had been overlaid over the map of Esperance and Mr Skitmore had drawn contours where the levels had dropped to minimal levels."

Action: Page 5, item 13, of the minutes of the previous meeting, 3 September 2009, to be amended as indicated above.

3. Actions from the previous meeting

i. Blood lead testing

Action: At the last meeting it was suggested that a one off intravenous blood testing program, to be conducted after the cleanup of Esperance is completed, would be useful as a final validation step. All committee members, including DOH, were very supportive of this and it was agreed that the Gantt chart should be amended to incorporate this further action.

Status:

Members noted:

- That the Project Team had inserted a further step in the Gantt chart to include blood lead testing of the Esperance community after the cleanup has concluded.
- DOH officers were committed to implementing such a blood lead survey. Staffing and analytical costs were the most significant costs associated with such a survey.
- Costs for this survey would be acquitted from the 'cleanup' cost centre within the Department of Transport [Transport].
- All employees and contract staff involved in the ECRP were having regular blood lead testing. Levels recorded to date were low.
- DOH officers advised that in response to recent questions from the Esperance Express, the media had been advised of the intention to conduct this further blood lead survey.
- That such a survey would be an important validation step of the effectiveness of the ECRP and, presumably, an important closure point for the Esperance community.
- Dr Douglas reiterated that free blood lead testing was still available to any child of 5 years of age or under, and, any parent who has concerns regarding lead exposure of their child should contact the Esperance hospital.
- DOH should provide an indication of the approximate costs of conducting this survey.

Action: DOH to provide the approximate costs of conducting the community blood lead survey after the ECRP has been completed.

ii. Isotope testing of samples from both the Esperance 21 homes and Albany samples

Action: Summary of isotope testing of Esperance and Albany samples to be circulated OOS.

Status: Members noted that this action had been completed.

iii. DEC Survey on Esperance vegetation

Action: Mr Skitmore to provide the maps showing the DEC surveys on lead and nickel levels in Esperance vegetation to the ECRP Project Team.

Status: Members noted:

- This particular action had been completed.
- The report of the DEC Vegetation Study was currently in the process of final editing and would be released as soon as possible.

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

Action: Prescribed method for the determination of the annualised guideline for nickel emissions to be distributed to Members OOS.

Status: Members noted that the method had been distributed to Members on 5 November 2009. Discussion under item 12(a).

v. **Development of Cleanup Guidelines for Esperance Roof Cavities,**

Action: The ECRP Project Team to develop a 'decision tree tool' for assessment of the cleaning requirements for roof spaces.

Status: Members noted that this action had been completed. Discussion under item 8.

vi. Development of ECRP Sampling Protocols

Action: The Working Group on Sampling to provide a response to the Golder Report. The final report will then be implemented as soon as possible.

Status: Members noted that this action had been completed. Discussion under item 6.

vii. **Update on Esperance Port Authority Environmental Emission Data**

Action: DEC [Peter Skitmore] to provide Members a copy of the latest data on Air Quality Monitoring by the Esperance Port Authority. This presentation to be placed on the OnCue website.

Status: Members noted that this action had been completed.

4. Project Update by ECRP Project Director

Members noted:

- Three ECRP Project Updates distributed since the date of the last meeting, 24 September, 19 October, and 12 November prepared by the Project Director setting out a short summary of the progress on matters regarding the ECRP.

- These Project Updates covered the following matters:
  - Stage One Sampling;
  - Stage One Cleaning;
  - Waste Disposal;
  - Stage Two Sampling;
  - Sampling Protocols;
  - Broad Based Soil Sampling (Type "A");
  - Sample preparation and analysis;
  - Data Management;
  - Project presentations;
  - Media;
  - ECRP Staff matters;
  - Plume Dispersion Modelling;
  - Minister's visit to ECRP offices:
- Project Updates are available on the OnCue website [www.oncue.org.au]
- A brief overview of the ECRP progress to date provided by the Project Director as follows.
  - The Project Team has been very busy and good progress is being achieved.
  - Stage One Cleaning – Sampling carried out of 43 homes, 8 have been identified so far as requiring some degree of cleaning, three do not require any cleaning, four homes had been cleaned at the time of the meeting. One home owner did not want his home to be cleaned. An individual file had been created for each home.
  - Generally the feedback from the community had been positive in that the sampling and cleaning has been very good and conducted in a professional manner.
  - The turn around time between taking of samples and returning of results from the laboratory has been about 3 weeks, followed by a further 2 weeks to process by ECRP, this has resulted in an overall time of 4-5 weeks. This needs to be reduced through improved workflow practices. Additional resources will be engaged to reduce the current backlog within the ECRP, which in turn will improve the turn around time. ChemCentre have also been asked to improve turnaround times where possible.
  - Soil sampling (Type "A" sampling) has been completed for all sites that are readily accessible. [Some sample points located in bush sites are considered to be

inaccessible]. This totals about 250 sample points. Data from these samples are currently being assessed. Generally this follows the trend of the DEC vegetation survey where data showed a 'something to nothing effect'.

Members considered:

- Whether details of those homes which had been cleaned under the ECRP, and those which had not been cleaned, should be recorded in the Shire of Esperance property files for future reference or as a memorial on the title of the property. This would enable future owners of properties to establish if the home(s) had been cleaned under the ECRP.
- Advice from some community members that they would not want such details to be retained on Shire property files or as a memorial on the title of the property.
- That home owners could be asked on the consent form if he or she wanted this information to be to be retained in conjunction with details of their property.
- That this matter should be maintained under review and discussed further when more homes had been cleaned and whether further home owners refused ECRP home sampling and cleaning.
- Steering Committee Members had received requests from members of the community asking when their property would be cleaned. This was noted by the Project Director and would be addressed.
- Members expressed concern about delays due to lack of resources and expressed the importance that the necessary resources be made available to keep this project moving forward in a timely manner.

Action: Project Director to consider an appropriate means of informing members of the Esperance community of the ECRP sampling and cleaning program for homes and other premises.

5. **The ECRP Data Base**

Members noted:

- A presentation prepared by Matthew Devenish on the development of the ECRP data base.
- The purposes of the data base are as follows:
    - to store vast amounts of data on a web based system [approximately 100,000 data points].
    - to visibly represent multiple data sets to better inform ECRP decision making;
    - to improve workflow efficiency
    - to generate letters assessments and reports;
    - to show the progress of the ECRP at a glance. The data base will be used to track the daily workflow of the ECRP

program with the following steps - initial engagement, sample booking, sampling and evaluation, pre-cleaning assessment, cleaning booking, cleaning, validation booking, validation, and completion.

- The next steps in building the data base are as follows:
  1. DOH are currently installing the server hardware,
  2. ECRP will sign off on the requirements specification that has been developed with the data base contractor [ESRI]
  3. ESRI will determine the cost of the system and, with approval commence building the customised solution.
- There is no costing for the customisation component of the project at this stage.
- The data base could have wider application to other agencies for similar studies and surveys.

6. ECRP Sampling Protocols

Members noted:

- Golder Associates had developed the "Data Gap Analysis and Sampling and Analysis Plan" in conjunction with the Working Group on Sampling.
- The Data Gap Analysis and Sampling and Analysis Plan includes the following:
  - An assessment of the sampling of 21 homes and advice whether this was scientifically robust and accountable to determine the degree of contamination and the required cleaning;
  - Procedures and protocols for the sampling of the Esperance townsite to determine the extent of contamination – Type "A" Sampling;
  - Procedures and protocols for sampling, to more accurately assess the delineation of contaminated and non-contaminated areas– Type "B" Sampling;
  - Procedures and protocols for the sampling required to assess what cleaning is required of each individual premises [internal and external]-Type "C" Sampling;
  - Procedures and protocols for the sampling required to determine that the cleaning of individual premises [internal and external] has been satisfactorily undertaken –Type "D" Sampling.
- The Working Group recommended the final report to the Steering Committee. The document was circulated to Members of the Steering Committee on 22 October 2009.
- The Project Team has begun implementation of these Sampling Protocols for:
  - Type 'A' - broad soil sampling, and
  - Type 'C' - sampling of homes prior to assessment for cleaning.

Members agreed that the Data Gap Analysis and Sampling and Analysis Plan provided a scientifically robust and defensible method for assessing the extent of the contamination and to verify the cleanup of that contamination. Members further agreed that these Sampling protocols should be loaded onto the OnCue Website.

Action: The ECRP "Data Gap Analysis and Sampling and Analysis Plan" to be loaded onto the OnCue website.

a) Soil Sampling program – Type "A" sampling

Members noted:

- A verbal progress report, on the progress of soil sampling [Type "A" sampling] across the Esperance townsite, provided by Kieron Smith.
- Six sampling officers had been engaged and trained in the procedures for taking of soil and other samples.
- At the time of the meeting 250 soil samples had been taken in accordance with the Golder Sampling Protocols. Golder had recommended that samples be taken from 302 sample points. The outstanding sample points were located in bushland and were difficult to access.
- Sample points with high values will be investigated further at a later stage using AS 4874-2000.
- The highest lead concentration in the samples analysed to date is 120mg/kg which is below the Health Investigation Level of 300mg/kg. Other results to date show considerably lower levels and the 'pattern' to date is showing a drop off from 'something to nothing' as the distance increases from the Port. This observation is similar to the other data sets for the Esperance townsite such as the DEC vegetation study and plume modelling.
- Further samples were being analysed at the time of the meeting. It was estimated all of the 250 samples taken would be analysed in about two months.
- The Type "A" sampling program includes samples taken from children's playgrounds.
- The process for the taking of samples, recording information, subsequent analysis and then linking those results to the sampling point is proving to be very time consuming. This critical pathway requires further support personnel to the existing ECRP team. The Project Director will be addressing this issue.
- Peter Skitmore suggested that a calibration correlation be developed between the results found with the XRF Niton and analytical laboratory results. As more data becomes available such a calibration correlation could improve efficiency.
- Questions from Michelle Crisp regarding soil sampling and potential for re-suspension of material at the Water Corporation storage site in Panorama Place. Peter Skitmore advised that soil samples from this site had been taken previously. Mr Skitmore agreed to provide

details of the results to all Members of the Steering Committee. Wayne Winchester advised that the ECRP team have been given access to the site and it will be sampled as part of the ECRP Type 'A' sampling program.

Action: Peter Skitmore to provide details of the results of soil sampling at the Water Corporation site near Panorama Place, to all Members of the Steering Committee.

b) Sampling from homes and other premises - [Type "C" sampling]

Members noted:

- Samples have been taken from homes as part of the Stage One sampling program. About 25 to 30 samples are taken from each home.
- The average time required to undertake the sampling for each premise is 3-4 hours (including sample preparation time) and depends on the size of the home and complexity of access.
- Comments from Esperance community members with regard to the identification and ongoing monitoring of 'sentinel homes'. This issue had been discussed at earlier meetings of the Steering Committee. It was agreed that a Working Group should be established to consider and further develop this matter. The Working Group would consist of the following members – Wayne Winchester, Michelle Crisp, Peter Skitmore, Lindsay Gillam and Peter McCafferty.

Action: Working Group to be established to consider and further develop the identification and ongoing monitoring of 'sentinel homes'. The Working Group to consist of Wayne Winchester, Michelle Crisp, Peter Skitmore, Lindsay Gillam and Peter McCafferty.

7. Sampling and cleaning of first parcel of homes – Stage one

Members noted:

- A presentation by Matthew Devenish on this item.
- There are about 50 homes in the Stage one 'parcel' [and about 100 homes in the Stage two parcel]. Stage one sampling has been almost completed.
- A team of two samplers [male and female] attended each house for taking samples.
- At the time of the meeting, 43 of the 50 homes had been sampled, 10 homes have been assessed for cleaning, two homes did not require any cleaning, four homes have been cleaned, and one person declined to have their home sampled.
- It is too early to establish how many homes in Stage one will require cleaning or to provide an accurate timeline for the cleaning program.

- Results of sample analysis are currently being returned to the Project Team from the ChemCentre which will enable further assessment of the cleaning requirements to be determined.
- Peter McCafferty advised that the relocation of the ChemCentre had caused some delays in the turn around time for laboratory testing of samples. However, a 10 day turn around time should be possible now that the laboratory has re-established at the new site.
- Two sea containers have been obtained for the temporary storage of insulation materials removed from homes, pending appropriate disposal. Locked and secure Sulo bins have been placed at the Shire waste disposal facility. These are being used for the temporary disposal of dusts and other residues removed from homes. Solubility tests will be carried out on these wastes to determine the appropriate facility for their disposal.
- Water removed from rain water tanks and from the washing of roof surfaces and gutters has been stored as controlled wastes. These controlled wastes will be disposed at a suitable liquid waste facility.
- One rain water tank had been replaced. It was not practical to clean the particular tank as it had a series of 'baffles'. Members considered that if the top and bottom of the existing tank were removed, the shell could be used for raised garden beds or similar purpose.
- Comments from Michelle Crisp that, in her experience, the samplers, Project Team and cleaners had acted very professionally and politely in carrying out the sampling and cleaning program.
- That the disposal of waste water from the cleaning of roof surfaces, gutters and rainwater tanks, requires further consideration. If the waste water is contained in a 'controlled waste' holding tank, then it must be disposed of in a licenced facility.

Action: Project Team to investigate disposal of waste water from cleaning roof surfaces, gutters and rainwater tanks, in consultation with DEC.

8. ECRP Decision Tree Analysis for Roof Space Cleaning

Members noted:

- A presentation by Matthew Devenish on this item.
- The ECRP Project Team had developed a 'decision tree tool' for assessment of the cleaning requirements for roof spaces in accordance with the Steering Committee decision at the previous meeting.
- The decision tree took into consideration such factors as;
  1. Relative lead readings
     a. Actual lead concentration;
     b. Actual lead loading;
     c. Relation of the above lead readings to readings outside the "area of interest.
  2. Location of the premises in relation to the "area of Interest";
     a. Proximity to the port;

   b. Direction from the port (including plume dispersion modelling).
3. Design and construction of the premises;
   a. Roof construction;
   b. Age of house;
   c. Interior pathways from the ceiling down to accessible surfaces.
4. Other related indicators such as soil samples and interior dust values.
5. The amount of data available at the time of the decision (i.e. confidence level).

- Comments made by DEC that where the lead loading concentrations were low, the total amount or mass of accumulated lead [in milligrams/grams] in a roof space was also low. DEC believed this needed to be taken into consideration in the decision making process. Community members noted again that this cleanup was based on an agreed set of guidelines or decision tree methodology to eliminate any health risks and contamination. It was agreed that 'borderline' cases would be referred to the Reference Panel, as agreed at the last meeting, for consideration.
- Several examples, [using data obtained from sampling of roof spaces in Esperance homes] of how the decision tree would be applied in practice.
- The issue was raised by Marcus Tromp that this was all related to lead loadings and what would be the decision if lead was low and nickel was high. The Project Team advised the data was showing that generally if lead was present so was nickel but as nickel was being measured in the sampling that if this case arose it would be referred to the Reference Panel.

A copy of the "decision tree' is set out in Attachment 2.

The Steering Committee endorsed the decision tree approach being taken by the Project Team and supported the application of this approach in the assessment of roof spaces for cleaning.

9. **Awarding of Contracts for Sampling and Cleaning of Esperance Homes**

Although this item was not discussed at the meeting due to lack of time,
the information provided to the Steering Committee in the agenda papers for the meeting is as follows:

Stage One Sampling

The ECRP team has engaged six samplers through a local labour hire firm to undertake sampling in stage one and broad soil sampling across town. There are two samplers per sampling team and, wherever possible, the team comprises a male and a female. There are two contracts in place (1) detailed

house sampling and (2) broad soil sampling. The contracts are low in value and due to expire at the end of November.

Major Sampling Project

The project team has put in place two major contracts for sampling; one for each of the labour hire service providers in Esperance. These contracts give the ECRP team the ability to call on samplers from either of the two providers on an as-required non-exclusive basis. The contracts can be renewed every 12 months and are of sufficient value to meet all of the anticipated sampling requirements for the duration of the project.

Trial Cleaning Project

Esperance Cleaning Services was awarded the contract for the "Trial Cleaning Project" on 5th October 2009. After allowing time for the successful tenderer to gear up for the project, cleaning of the first home commenced on 29th October 2009. The original scope of work was to clean some of the 21 homes that were sampled in February 2009. That scope was subsequently changed to now include premises from Stage One.

Major Cleaning Project

The ECRP team is fast tracking the major cleaning contract as efficiently and expeditiously as possible. Cleaning a sufficient number of homes in the Trial Cleaning project is a pre-requisite and critical to adequately inform the documentation for the major cleaning tender.

10. Dust Plume Modelling

Members noted:

- A presentation by Kieron Smith on dust plume modelling based on the shiploading events and available meteorological data.
- In this modelling, wind data obtained from the Bureau of Meteorology was used to define the main wind patterns during 10 shiploading events which influenced the spread of lead carbonate dust across Esperance.
- A probable estimate of the dust generation rate of the shiploading process was used in Gaussian Plume model and this was combined with the wind data to create a data set from which a visual representation of the combined dust plumes was generated.
- This model did not take into account the micro-climate of the Port and the effects of topography and building downwash across the town. However, the estimated size and cumulative concentration of the plumes further assisted in the identification of the area of interest.
- Members considered that this dust plume modelling provided a further data set which was generally consistent with other data on the area of interest e.g. the DEC vegetation study, rainwater tank studies etc.

11. **Update on Esperance Port Authority Environmental Emission Data**

Members noted:

- A presentation [dated 12 November] by Peter Skitmore which set out the most recent data on lead and nickel emissions from the Esperance port.
- Over the last 12 months there has been a reduction in nickel deposition when compared to historic data.
- Between November 2007 and September 2009, two of the 38 loading events were above the licence target of 0.14 µg/m^3. (This target applied from 6 October 2008).
- In the period March to October 2009 nickel levels from shiploading have shown a reduction from the same period in 2008.
- As a result of the licence target being exceeded in October 2008 the Port revised its bulk nickel ship loading protocol.
- The revised protocol was implemented on 11 December 2008. DEC's licence requires a protocol to be in place pending the short term improvements to loading facilities.
- Since the revised loading protocol was implemented there have been 16 bulk nickel ship loadings, and none of these have exceeded the licence target. The loading rate of 650mt/hour in the Ports' ship loading procedure was exceeded in the last shipment as part of the commissioning process for the improved shiploader. EsPA has now modified its protocol to include loading rates of up to 1000mt/hour given the improvements in shiploader design and no significant dust being detected at the shiploader during the last shipment. DEC has been notified of this change in procedure.
- HiVol Sites 1, 3 and 4 each show numerous 24 hr results where levels of **nickel** less than the annual guideline were recorded.
- HiVol Site 2 has since early June 2009, shown numerous 24 hour levels of **nickel** below the annual guideline.
- New hivol Site 5 (located at the Shire Council offices) has, since it was installed, showed most 24 hour **nickel** levels were 'below detect' with some very low levels.
- Highvol results show very low **lead** levels and in most cases below level of detect.
- These data do not indicate recirculation of lead dust in air is an issue.
- All community deposition gauges show very low levels of **lead** dust or below the limit of detection.
- These data do not indicate recirculation of lead dust in air is an issue of concern.
- However, there was one anomalous lead reading at depositional dust gauge [DG1] in September 2009.
- To improve data on nickel and lead levels within the community, three additional highvols will be established.
- One site has already been established by the port at the Shire offices. This site is showing consistently very low nickel levels. Two

additional highvols will be established west of the port in the community.
- The extra data will enable better assessment of air quality within the town area against the guidelines and outcomes from port upgrades.
- The extra data will also enable better assessment of any lead recirculation via the air.

Members agreed that this data was encouraging and that the presentation should be placed on the OnCue website.

Action: The November 2009 presentation of data on air quality monitoring by the Esperance Port Authority, and as compiled by DEC, to be placed on the OnCue website.

12. Other Business

a) Recommended method for sampling, analysis and calculation of the annualised guideline for nickel emissions in Esperance.

Members noted:

- A document titled "Sampling and Analytical Methodology for the Measurement of the Annualised Guidelines for Nickel Emissions, Esperance, Western Australia" prepared by the ChemCentre.
- This method of sampling and chemical analysis had been developed in order to measure the very low levels for nickel and compare these to the annualised guideline of 0.003 micrograms per cubic metre.
- The method also specifies the PM_{10} fraction of nickel particles rather than the Total Suspended Particulates [TSP] that are currently measured in the hivols located at the 4 sites close to the port.
- The PM_{10} fraction, being smaller particles, can travel a greater distance from the port. This particulate fraction is also of greater concern from a toxicological point of view as the finer particles can penetrate more deeply into the lung tissue than the larger fractions.
- The method enables a determination of total nickel present in the PM_{10} fraction. It does not determine the chemical nature of the nickel i.e. whether it is for example nickel carbonate or nickel sulphide. [Post script: Subsequent advice received after the meeting from the ChemCentre, is that determination of size and speciation of the nickel particles on the filter, is possible].
- It is analytically challenging to determine accurately the very low levels of nickel in the ambient air. Account must be taken of nickel present in apparatus and other equipment. The new premises for the ChemCentre are a 'cleaner' environment to carry out these very sensitive analyses.
- The method is not NATA accredited at this stage. DEC requires the EsPA, under the licence provisions, to use a NATA accredited method.

- The document as tabled did not provide the method for the calculation of the annualised guideline. It was agreed that Peter McCafferty would consult with DOH officers in developing this section of the document.
- It was proposed that the existing hivol sites 1-4 would continue to measure nickel emissions as TSP [this would enable comparison with previously recorded results]. The three new hivols, to be located within the community, would collect the PM_{10} fraction, which would be analysed by this method and determine compliance with the annualised guideline.
- The new community based hivols will be funded by the nickel exporters including the costs of ongoing monitoring for at least 12 months. Management of sites and reporting will be incorporated as part of the EsPA's ongoing environmental monitoring program.
- Community members raised concerns about the location of the hivols and the appropriateness of measuring PM_{10} rather than TSP.
- Comments by Pam Norris that given:
    i. data has always shown us there is a relatively quick drop off in concentrations as distance from the Port increases and
    ii. if only the new community hivols were to used to measure compliance with the WHO standards,
    iii. the location of the new community hivols (several streets back from the Esperance esplanade) created a 'no mans land' in the community between these hivols and the existing hivols on the port boundary. This zone would effectively not be measured for the PM_{10} fraction which as was mentioned earlier. "This particulate fraction is also of greater concern from a toxicological point of view as the finer particles can penetrate more deeply into the lung tissue than the larger" and the most vulnerable area (i.e. in it's closeness to the Port boundary) would also not be taken into account when determining compliance with the WHO standards.
- It was explained by DEC that the existing hivols on the Port boundary needed to be kept without PM_{10} heads to maintain a historical data set and there had been a request from DOH for more monitoring within the community to gauge air quality within the community. Follow up comments were that whilst this is a good thing, it should not be at the expense of not using data collected at the Port boundary to measure the DOH annualised guideline. Pam Norris then asked if existing data had been or could be analysed for particle size. Peter Skitmore advised that for sites 1-4, TEOM data at PM_{10} is available but the amount of nickel in that fraction is unknown. [Post script the ChemCentre has subsequently advised that analysis for particle size is possible].
- Peter Skitmore advised that data from sites 1-4 could be assessed against the annualised target.
- Questions whether the WHO guideline for nickel [on which the annualised guideline recommended by the DOH is based] was

based on the TSP fraction or the PM_{10} fraction. DOH agreed to investigate this matter and to investigate the method which the WHO uses to calculate their annualised guideline. .

- Concerns were raised with regard to the new community Hivols that taking samples every 6 days would not necessarily take into account peak dust levels relating to ship loading or handling of product by the EsPA. The situation in Esperance relates to a point source emission. [This will be addressed in the revised report by the CehCentre].

Actions:

1. DOH to provide advice whether the WHO guideline for annualised exposure to nickel is based on the TSP or PM_{10} fraction and the method which WHO uses to calculate their annualised guideline.

2. DOH to advise the ChemCentre of the method for calculating the annualised guideline for nickel. ChemCentre to incorporate this method into the revised document.

3. ChemCentre to revise the document in light of Members comments and to resubmit to the Steering Committee.

4. DEC/ChemCentre to investigate the possibility of particle size analysis of the current hivol samples being taken at the Port boundary.

b) Golder Associates Report – need for public meeting?

Members noted:

- Advice from Peter Skitmore that since the legal proceedings between the DEC and the EsPA had been finalised, the report by Golder Associates on "Esperance Town-Site Human Health and Ecological Risk Assessment" could be released. This release was subject to an Appeal period of 30 days.
- It had previously been proposed, in April 2009, to hold a public meeting in Esperance where the findings of the 'Golder Report' could be presented to the community. Mr Skitmore sought advice from the Community members on the Steering Committee whether they considered such a public meeting was now appropriate.
- Advice from Community members that in view of the lapse in time since the report was written and the ECRP progress since that time, it was no longer appropriate to convene such a public meeting and in fact it would not be helpful to the broader community.
- The report will be placed on the DEC website. Members agreed that a link should be placed on the OnCue website to that report.

Actions:

1. DEC to advise Golder Associates that a public meeting on the Report "Esperance Town-Site Human Health and Ecological Risk Assessment" is not necessary in view of the delay in publication of this document.

2. A link to the Golder Associates Report on the DEC website to be placed on the OnCue website.

c) Children's exposure to metals in Esperance – Edith Cowan University ECU study.

Members noted the report on Children's Exposure to Metals in Esperance which sets out results of chemical analysis of urine, hair and dust samples. The report was carried out by Edith Cowan University in April 2009.

d) Community feedback from ECRP stand at Esperance Agricultural Show

Jenny Brodie-Hall congratulated the ECRP Project Team on the presentation and community interaction at the Esperance Agricultural Show on 16-17 October 2009. Community members considered that this had provided a personal interface with the Esperance community.

The Project Director expressed appreciation to Steering Committee Community members for their participation on the ECRP stand during the Show.

e) Ensuring the ECRP is completed in a timely manner

Members discussed the need to complete the ECRP in a timely manner and with the aim of completing the majority of the cleaning by the end of 2010. Community members advised that the Esperance Community as a whole was keen to have the lead contamination issue 'behind them'. In order to achieve this aim it was recognised that both the ECRP Project Team and cleaning contractors would require increased resources.

Action: Department of Transport to provide additional support for the ECRP Project Team to increase the efficiency of sampling and cleaning operations.

13. Next meeting

It was agreed that the next meeting would be convened in early February at a date to be determined.

Attachment 1

ESPERANCE CLEANUP AND RECOVERY PROJECT

STEERING COMMITTEE MEETING

12 November 2009, ESPERANCE

SUMMARY OF ACTIONS

1. Minutes of Previous Meeting

Action: Page 5, item 13, of the minutes of the previous meeting, 3 September 2009, to be amended as indicated above.

2. Community blood lead survey

Action: DOH to provide the approximate costs of conducting the community blood lead survey after the ECRP has been completed.

3. Program of sampling and cleaning Esperance homes

Action: Project Director to consider an appropriate means of informing members of the Esperance community of the ECRP sampling and cleaning program for homes and other premises.

4. Development of ECRP Sampling Protocols

Action: The ECRP "Data Gap Analysis and Sampling and Analysis Plan" to be loaded onto the OnCue website.

5. Soil Sampling program – Type "A" sampling

Action: Peter Skitmore to provide details of the results of soil sampling at the Water Corporation site near Panorama Place, to all Members of the Steering Committee.

6. Sampling from homes and other premises [Type "C" sampling]

Action: Working Group to be established to consider and further develop the identification and ongoing monitoring of 'sentinel homes'. The Working Group to consist of Wayne Winchester, Michelle Crisp, Peter Skitmore, Lindsay Gillam and Peter McCafferty.

7. Sampling and cleaning of first parcel of homes – Stage one

Action: Project Team to investigate disposal of waste water from cleaning roof surfaces, gutters and rainwater tanks, in consultation with DEC.

8. Update on Esperance Port Authority Environmental Emission Data

Action: The November 2009 presentation of data on air quality monitoring by the Esperance Port Authority, and as compiled by DEC, to be placed on the OnCue website.

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

Actions:

1. DOH to provide advice whether the WHO guideline for annualised exposure to nickel is based on the TSP or PM_{10} fraction and the method which WHO uses to calculate their annualised guideline.
2. DOH to advise the ChemCentre of the method for calculating the annualised guideline for nickel. ChemCentre to incorporate this method into the revised document.
3. ChemCentre to revise the document in light of Members comments and to resubmit to the Steering Committee.
4. DEC/ChemCentre to investigate the possibility of particle size analysis of the current hivol samples being taken at the Port boundary.

10. Golder Associates Report – need for public meeting?

Actions:

1. DEC to advise Golder Associates that a public meeting on the Report “Esperance Town-Site Human Health and Ecological Risk Assessment” is not necessary in view of the delay in publication of this document.
2. A link to the Golder Associates Report on the DEC website to be placed on the OnCue website.

11. Ensuring the ECRP is completed in a timely manner

Action: Department of Transport to provide additional support for the ECRP Project Team to increase the efficiency of sampling and cleaning operations.

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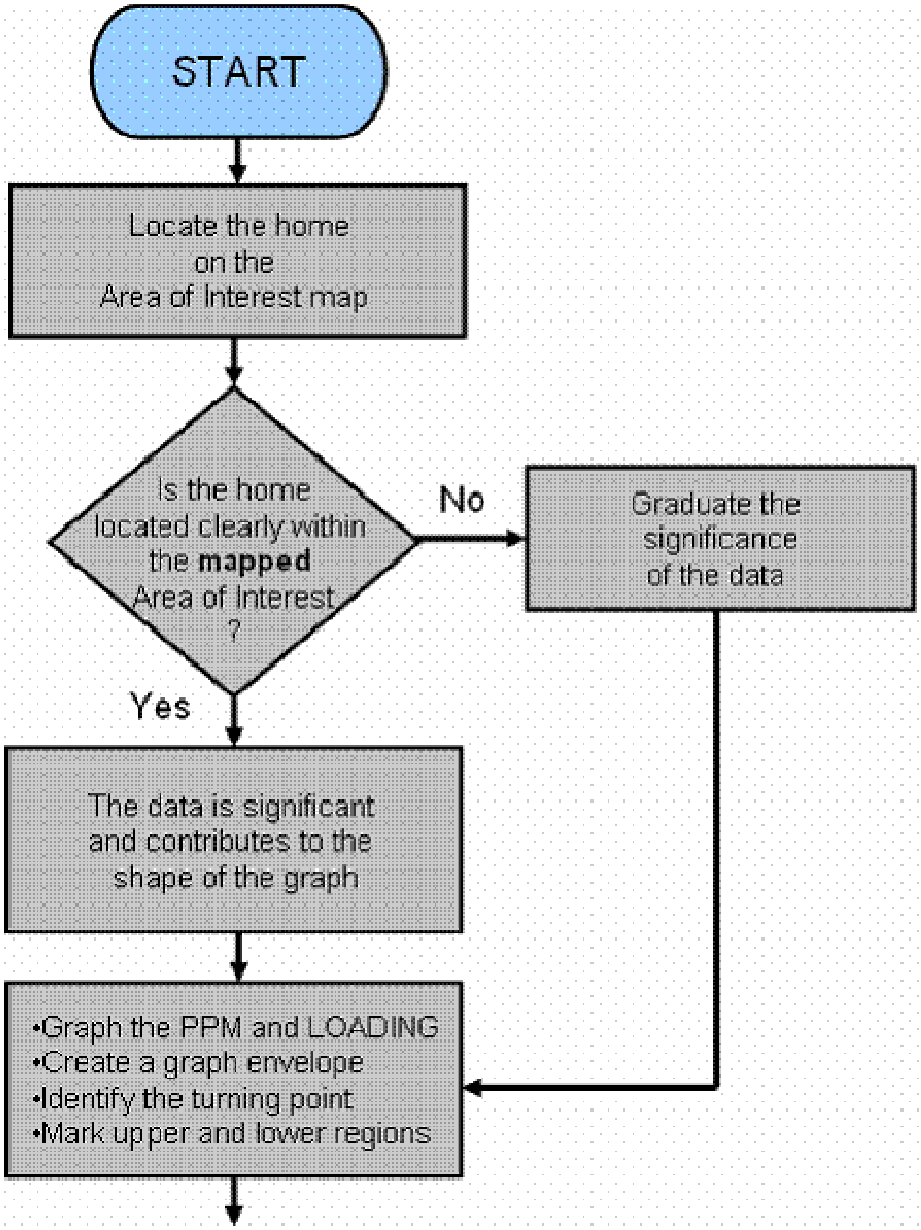
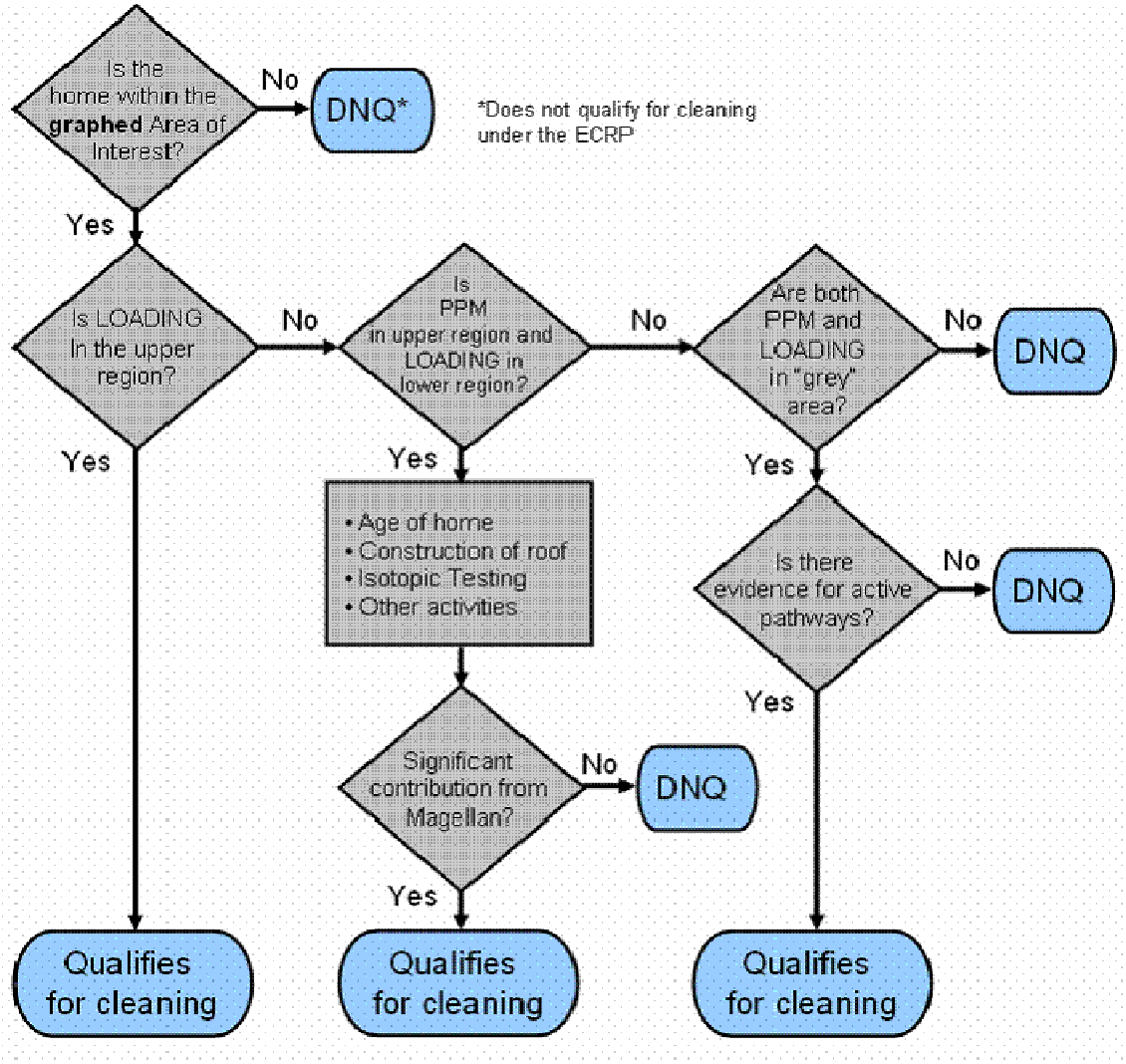
Attachment 2

ECRP Decision Tree Analysis for Roof Space Cleaning





Note: 'DNQ' indicates "does not qualify for cleaning".