



# TLCCG

## Tullamarine Landfill Community Consultation Group

***OUR PURPOSE:** to foster collaboration between the community, Transpacific and EPA Victoria, and ensure community concerns and aspirations regarding the closed Tullamarine Landfill and adjoining land form part of the decision making process.*

## MARCH 2015 MEETING SNAPSHOTS

The March 2015 meeting of TLCCG was a highly technical one. It focussed on the LNAPL Extraction Trial Practicability Assessment Report, being the final report to EPA Victoria that outlines whether it is feasible to further extract Light Non-Aqueous Phase Liquid (LNAPL) from the closed Tullamarine landfill site.

### *Some background...*

**Light Non-Aqueous Phase Liquid (LNAPL)** is a non-water based liquid that is made up of various organic chemicals, including polychlorinated biphenyls (PCBs). At the Tullamarine closed landfill, the LNAPL is an oily substance that resides under the capped landfill, and given its density is less than water, it generally floats on the leachate.

The LNAPL was detected by Transpacific in 2002 whilst undertaking leachate monitoring works, and is the result of licensed liquid waste disposal that occurred at the site during the 1970s and early 1980s.

In addition to monitoring LNAPL at the site, Transpacific also conducts regular monitoring of air quality, ground water, surface water and leachate, to maintain environmental compliance with the landfill's Post Closure Management Plan and Pollution Abatement Notice issued by EPA Victoria.

We were joined by Henry Kerfoot and Randal Bodnar from Civic and Environmental Consultants Inc. Henry and Randal have specific knowledge and experience in dealing with LNAPL in the U.S. and have been appointed to advise TPI on post-closure and after-care management of landfills - as well as operating landfills to best practice.

### **Timeline**

- The March TLCCG meeting – technical questions answered on Final Report
- Further questions can be put to EHS for a further period (one week after distribution of meeting notes)
- Consideration of questions/answers will be incorporated into Final Report (late April).
- Consideration and verification of Report by Independent Review Panel, including responses to questions raised by TLCCG members (by mid May)
- Submission of Report and Verification letter to Community and EPA (late May)

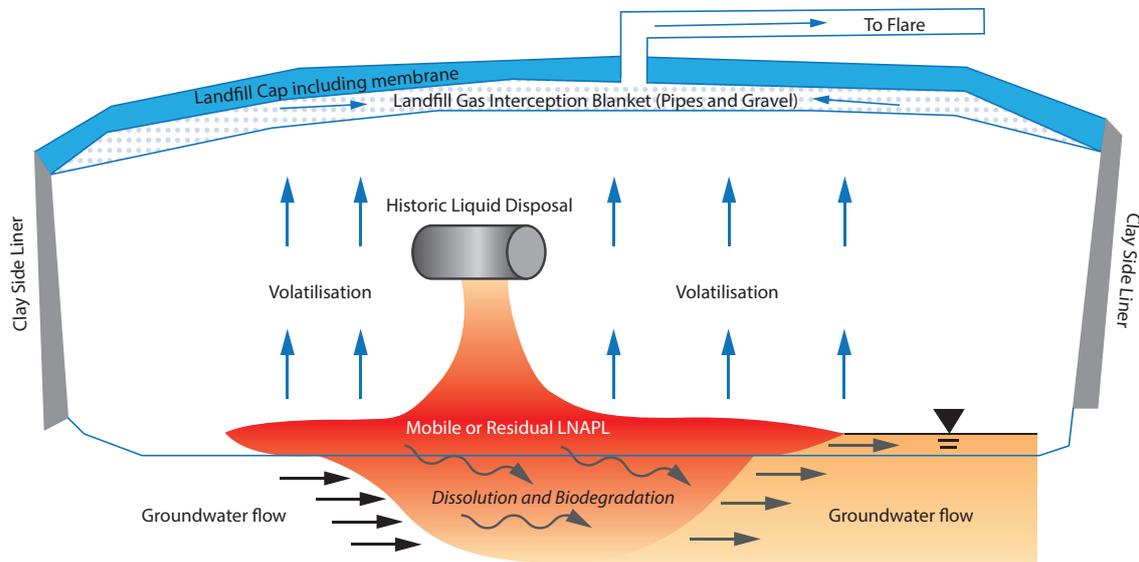
**Nial Finegan (CEO of EPA Victoria)** also attended the meeting, and said that he expected that the Final Report will address community concerns and expectations as comprehensively as possible.



## Key statements from Transpacific and its consultants regarding the LNAPL trial and report included:

The constituents of LNAPL can typically move (and are destroyed) in 3 ways:

- LNAPL can float as a separate layer on top of the water table (in the case of Tullamarine there is no evidence of migration, and in fact the evidence indicates the LNAPL mass is depleting over time, mainly from volatilisation which is gas evaporating from the LNAPL);
- contaminants can dissolve into the groundwater (these are weakened naturally through various processes by microbes); or
- constituents can volatilise (turned into vapour) and move in the gas phase (these are destroyed by the gas flare).



- The decision to not extract further LNAPL from the landfill was made because once a well was empty, LNAPL did not tend to move back into it, and pumping rates could not be sustained. This meant that the volume of LNAPL able to be extracted during the trial was extremely low and would decline even further over time. One community member thought that new trials should be undertaken again in a further 6 months.
- Drilling of new wells will be avoided because of the risks to the integrity of the landfill cap. Penetration could allow vapours to escape and reduce the effectiveness of the landfill gas extraction system (flare). One community member referred to examples in the US that showed that penetration could be undertaken in a contained environment that is sealed effectively; another pointed out that LNAPL investigation and extraction was requested prior to capping. Afterward a community member stated that should EPA insist on additional wells then the cap will be penetrated and the appropriate technologies employed to manage that risk.
- Unless all the LNAPL is removed, the risk profile effectively remains unchanged. Consequently extraction would not change the risk profile at the site as only a very small portion was able to be extracted.

Several community members were concerned that some of the conclusions drawn from the trial were not consistent with statements made in earlier reports. Nial Finegan suggested that further testing and further modelling means that the more recent report is based on a better understanding of the variabilities than the original report.

### There was also discussion about groundwater:

- Groundwater contamination seems to have arisen from oil recovery activity that was operating at the site in the 1980s. It doesn't appear to have come from the LNAPL itself. All the risk assessments relating to the groundwater contamination are showing that the risks are low and not harmful to people or the environment.
- Transpacific has been monitoring the groundwater for a number of years, and there is no evidence of LNAPL contamination moving on the groundwater and out to the buffer land. Community members indicated that they remain concerned about risk of groundwater contamination and that monitoring beyond the existing bores should be undertaken.
- A Groundwater Management Plan will be prepared and discussed at TLCCG in the coming months. It will include monitoring protocols and contingency actions if triggers are met.

One community member stated that there should be a consistent air monitoring regime in place to ensure that all vapours generated by the landfill are destroyed by the flare.

## NEXT MEETING:

26 May 2015 - Next TLCCG meeting

See the meeting notes at [www.transpacific.com.au/content/tullamarine.aspx](http://www.transpacific.com.au/content/tullamarine.aspx) for a full account of discussions at the meeting.

TLCCG is supported by Transpacific in order to support good communication and relations with the community.