

Community Information

1-3 HIGH STREET YARRAVILLE AND SURROUNDS

Publication 787

October 2001

There has been significant community interest in the condition of the arsenic contaminated site at 1-3 High Street Yarraville and what commercial development of the site will mean for the safety of local residents.

This community update has been prepared by EPA Victoria. It contains information for local residents about contamination and remediation options at 1-3 High Street and the surrounding land.

1-3 HIGH STREET YARRAVILLE

What is the source of contamination at 1-3 High Street?

An agricultural chemical manufacturing plant operated on land bounded by Severn Street, Castle Street, Williamstown Road and High Street Yarraville until the mid 1950s. This factory manufactured arsenic based chemicals for agricultural and horticultural uses, as well as other chemicals for domestic cleaning and medicinal purposes.

The site at 1-3 High Street was formerly a quarry for basalt rock, later it formed part of the agricultural chemicals manufacturing site.

1-3 High Street was contaminated through historical waste disposal practices at the site. The quarry is known to have received waste from the manufacturing of agricultural chemicals and anecdotal information suggests that when the factory was closed, the buildings were demolished and some of the material deposited in the quarry.

Following initial proposals to develop the site in the mid 1980s, EPA investigations confirmed that the site was contaminated and needed to be made safe before it could be developed.

What has been done to ensure the safety of 1-3 High Street?

1-3 High Street is listed on EPA's Priority Sites Register. The Register lists sites which require clean-up or management action in relation to land or groundwater issues. The Register exists to provide assurance to local residents that these sites cannot be developed unless stringent measures are taken to address environmental and safety issues related to the site. Currently there are around 130 sites on the Priority Sites Register.

Since confirming contamination at 1-3 High Street, EPA has worked closely with stakeholders to ensure the site is managed appropriately to protect the environment and local community. Interim protection measures include stormwater containment, site security, and dust and gas monitoring.

Victoria has developed one of the most robust systems in the world for establishing the safety of sites through its independent environmental audit process. An environmental audit has been conducted on the Yarraville site and a Statement of Environmental Audit was issued on 10 February 1999.

What is an environmental audit?



An audit is an independent assessment of the condition of a site and its suitability for use. If a site is suitable for any use the auditor will issue a Certificate of Environmental Audit. If a site is suitable for restricted use, subject to conditions, the auditor will issue a Statement of Environmental Audit to this effect.

Auditors are appointed by EPA after going through a rigorous process, including an independent panel of experts, to assess their competence and expertise. Auditors are subject to penalties of up to \$240,000 and or 2 years imprisonment for providing false information.

EPA established the environmental audit system to give planning authorities, site owners and members of the public an authoritative, independent evaluation of a particular section of environment and its suitability for use. This audit system has been adopted or is in the process of being adopted in several other States in Australia.

What was the outcome of the environmental audit?

The Statement of Environmental Audit for 1-3 High Street Yarraville, issued on 10 February 1999, indicated that both soil and groundwater at the site are contaminated by a range of chemicals including arsenic, sulfate and iron. As a result, the site is not suitable for use in its current condition.

The audit concluded, however, that the site would be suitable for use as a shopping centre if remediated and managed in accordance with plans attached to the Statement.

A second environmental audit will be conducted on the site following completion of the development,

prior to use of the site as a shopping centre. This audit will ensure that the remediation works have been completed as agreed and that the site is safe for use as a shopping centre.

EPA has reviewed the audit and is satisfied the proposed capping of the site will make the site safe and will protect public health.

Was community health considered as part of the audit of 1-3 High Street, Yarraville?

Protection of public health is one of the most important considerations of any audit, including this one.

The environmental audit included an evaluation of the condition of 1-3 High Street and the risk posed by the site to the health and welfare of site users, the public and workers. Having assessed the risk to health, the auditor concluded that the proposed capping of the site would make it safe for use as a shopping centre.

What other consideration was given to the site ?

In addition to the independent environmental audit, a panel of environmental and planning experts was appointed in 1999 as an Advisory Committee to consider an application for development at the site.

The Advisory Committee process provided the community with an opportunity to voice any concerns about aspects of development at the site. The Committee heard extensive evidence from both the applicants and objectors.

The Advisory Committee was presented with information on a number of remediation options including physical barrier (such as site capping),

separation and concentration, chemical immobilisation, vitrification and bioremediation.

The Advisory Committee concluded that capping of the site (physical barrier) was the best remediation option and would prevent further rainfall and drainage into the quarry. The committee also expressed concern over the considerable site disturbance that would occur with other remediation methods.

How will development make the site safe?

The development will include a cap, or barrier, that will seal the site, preventing local residents from coming into contact with any contaminated land. This barrier will also prevent rain from infiltrating the site which, in the past, has caused contaminants to leach into groundwater.

Development at the site will be approached in a stringent and conservative manner to ensure that public safety is not put at risk. The capped area will extend at least 5 metres beyond the quarry edge onto solid land and special attention will be given to securing the integrity of the quarry edge.

The cap will greatly reduce the leaching of contaminants from the quarry to the underlying groundwater. Eliminating rainfall and other water from entering the quarry means that over time the seepage of arsenic contaminated water from the quarry to the underlying groundwater will effectively be stopped.

An Environmental Management Plan (EMP) for the development has been prepared to minimise any off-site impact and the development will be monitored in line with the EMP.

The site cannot be used as a shopping centre until a second Statement of Environmental Audit is issued. This Audit will ensure that remediation works have been completed as required and that the site is safe.

EPA and the City of Maribyrnong will work with site owners to ensure the site is managed in accordance with an Environmental Management Plan into the future.

EPA's priority is to make sure the site is safe for the local community. Residents of Yarraville can be assured that sealing the site through development will provide certainty about the safety of the site which has been of concern for over 40 years.

Why not chemical immobilisation?

EPA considered chemical immobilisation as an option for making 1-3 High Street safe, but this method was rejected for the site due to the associated hazard that the works would present to the community. The nature of the material in the former quarry, including material from the demolition of the former chemical plant, would also make current immobilisation techniques impracticable.

Chemical immobilisation has been used on some sites to reduce the risk from arsenic and other metals on site. Generally this has occurred by excavating waste and contaminated soil and mixing it with chemicals to immobilise the arsenic and metals.

At 1-3 High Street this approach would pose a number hazards that could affect nearby residential areas including the generation of contaminated dust from excavation works. The risk to residents and

the public during this remediation work would outweigh any benefit of the immobilisation process.

In addition, chemical immobilisation would not recover arsenic that has already leached into basalt.

Other techniques for immobilisation that would avoid the need for excavation of contaminated soils are being developed, but these have not been demonstrated at a site such as 1-3 High Street. The nature of the material in the quarry at 1-3 High Street would make any attempt to treat the waste without excavation very difficult and the success of any treatment would be highly uncertain.

An independent environmental auditor, a panel of environmental experts and EPA Victoria are satisfied that capping the site is the best way to make the site safe for the Yarraville community.

How is EPA going to ensure the works are completed safely?

Development of 1-3 High Street is conditional on the site being made safe for Yarraville residents.

EPA has issued a notice that requires any work at the site to be done in accordance with a management plan that ensures the community and environment will be protected. Should the developer fail to meet the conditions required to make the site safe, the development will not go ahead.

EPA will monitor the works closely to ensure that they are completed in line with the management plan so that the community and environment are protected.

There will be a second independent environmental audit conducted on the site following completion of the development, prior to the use of the site as a

shopping centre. This audit will ensure that works have been completed as agreed and that the site is safe. The auditor's statement will be a public document.

EPA will also require the effectiveness of the site remediation to be monitored for the life of the development to protect the community, users of the facility and the environment.

The site at 1-3 High Street Yarraville will remain listed on the EPA's Priority Site Register. This means that the history of the site is on permanent record and must be taken into account if any re-development of the site is contemplated in the distant future.

What community consultation has occurred?

Following initial proposals to develop the site in the mid 1980s, EPA has worked with local government and the local community to identify a solution for contamination at 1-3 High Street that will ensure the safety of the surrounding community.

An extensive planning process, concluded in 1999, involved a Ministerial Advisory Committee which conducted a number of public hearings in the local community.

A consultative committee has also been established to ensure that accurate and transparent information about the site is readily available to the local community. Committee members include representatives of the local community, Maribyrnong City Council, EPA, the developer and the CFMEU.

LAND SURROUNDING 1-3 HIGH STREET, YARRAVILLE

Why is the area surrounding 1-3 High Street Yarraville contaminated?

1-3 High Street Yarraville, whilst the most severely contaminated site in the area, was only one part of the former agricultural chemical manufacturing plant. As outlined earlier, the plant operated on land bounded by Severn Street, Castle Street, Williamstown Road and High Street Yarraville until the mid 1950s.

Contamination of the surrounding area was caused by past agricultural chemical manufacturing on those properties as well as through the deposit of polluted sediment from surface run-off mainly during the plant's operation.

What has been done to ensure the safety of the surrounding area?

In 1992/93, EPA conducted a sampling program of potentially affected properties where residents permitted access. This program was carried out with the support and involvement of the Department of Human Services (DHS) and the local council.

Individual property owners were informed of the results of sampling on their properties. DHS advised the results do not suggest any imminent or long term health risk for residents on properties sampled and there is no imminent danger to children on the basis of available results.

What can I do if I am concerned about the condition of my site?

Some people now living in the area were not involved when EPA last sampled in the area and DHS provided advice on public health issues. These residents may now want some further information or advice.

A Technical Advisory Committee is now being established to help provide advice to residents about contamination on their properties and what can be done to manage this. This advice will be available to residents at no charge.

The Committee will provide interpretation and advice in confidence to individual property owners about the results of any sampling. Information about the extent of contamination shown by sampling will be managed to protect individual privacy whilst improving awareness of measures required (if necessary) to deal with any contamination of concern.

Where can I get more information?

Information about the EPA's role may be obtained from: EPA Information Centre – telephone: 9695-2722.

To register your interest in seeking advice from the Technical Advisory Committee, please contact Jodi Whitehurst from the Maribyrnong City Council on (03) 9688 0200.