

Planning Application Information Session TPA/53477 9 March 2022

Questions and responses

Sterling Global, in conjunction with its team of engineers, provides responses to questions relating to technical matters at the site/as part of this permit application.

1. Will there be any soil compression work?

The stockpiling works for preloading involve the importation of clean fill to the site, pushed in to place with a Compactor or Bulldozer to achieve the required design level. Wheel-rolling (Compactor) or track-rolling (bulldozer) of the fill is the only means of compaction that will be used when placing the fill material. The types of machinery used, and type earthworks proposed (handling of fill material), are typical of earthworks projects adjacent to residential areas.

Dynamic compaction or impact rolling (requiring specialised heavy equipment) is not required. It is the dead weight of the placed preload fill over the underlying soil that causes the settlement and ground consolidation over a period of time.

2. Where will the fill material come from? What checks occur to ensure it is safe?

At this stage the exact source sites for the fill material cannot be confirmed however previous stockpiling works have sourced fill from freeway upgrades, level crossing removals and basements of new development projects.

All importation will occur in accordance with the 'Site Backfilling Protocol' which is a report prepared by Tetra Tech Coffey setting out the testing, reporting and acceptance criteria for fill to be imported and used on site. Importation works must also be in accordance with the Construction Environmental Management Plan (CEMP) prepared by Tetra Tech Coffey for the site redevelopment. These documents were reviewed and verified by the independent environmental auditor and compliance is a requirement of the Statements of Environmental Audit.

3. How much soil will be required?

Approximately 24,000 cubic metres of fill material is required to undertake the preloading works in Domains 2A, 3A, 3B & 5 as outlined in the design plans for TPA/53477. Approximately 50,000 cubic metres of soil is required for preloading works in Domain 1 (TPA/53179).

4. Have the swales been designed to consider climate change (increased rainfall and stormwater)?

Our swale design calculations are based on Australian Rainfall and Runoff (ARR) being a nationally recognised data and guidance document applicable for the estimation of design flood characteristics in Australia. More specifically, design storm rainfall intensities obtained from the Bureau of Meteorology website and are derived from ARR 2019 were utilised to confirm the swale geometry will convey the 1 in 100 year storms and at least 50% increase in flow to allow for future climate change. ARR2019 is an update to the 2016 release with a key update being to reflect current understandings in relation to climate change information and practice.

The swale capacity meets and exceeds projections of up to 30% more intense rainfall events by 2030 due to climate change, as per VicRoads document "Climate Change Adaptation Strategy, Section 6.3 Rainfall, 2015."

5. Does the preloading need to occur so close to the boundaries? Can it be set back further?

When excavation occurred during the original quarrying, offset distances from the pit edge to the eastern boundary is generally between 8m to 14m with a smaller offset (2.5 to 8m) along the northern boundary. To minimise differential settlement, it is important to preload as much of the quarry pit as practicable. The design of the extent of preload has taken in to consideration to small quarry setback distances with the top of the stockpile being generally 10-15m from the boundary in domains 2A, 3A and 5 with setbacks of between 8m and 10m along domain 3B.

Further information explaining the preload design can be found in the application documents on Council's website.

6. Residents are concerned about noise impacts from the proposed works. Is there some reason sound barriers would not be erected during this process to reduce the impact on residents?

All works will be conducted on site in compliance with all relevant Occupation Health & Safety and EPA regulations. The types of machinery used, and type earthworks proposed (handling of fill material), are typical of earthworks projects adjacent to residential areas, in particular in new, staged master planned communities. Details of methods of compliance will be resolved with the contractor prior to works commencing in preparing a construction management plan to be approved by Council.

7. How many truck movements are expected during the stockpiling? What times are these expected? Concern is raised with respect to safety of cyclists.

It is expected that between 500-750 cubic metres to be imported per working day. This would equate to between 45 to 70 truck and trailer loads per day (on average 6 to 10 per hour) with between 6 -15 trucks circulating throughout the day.

The frequency of truck movements is variable based on: amount of material available for import from a source site; speed they can load it at the source site; number of trucks available on any given day; cartage routes and travel times between source site and fill site.

Fill cartage operators generally aim to avoid peak traffic hours 8-9am and 5-6pm as best as possible. They would normally finish at approximately 3.30pm – 4.00pm to avoid the afternoon peak. Typically, trucks would arrive onsite with their first delivery after 7am following loading at the source site/s and travelling to site.

The entry/exit point to the site would be via the existing Huntingdale Road access point that is proposed to be widened to better cater for safer truck manoeuvrability and visibility. Appropriate traffic management controls will be established in conjunction with permit applications to VicRoads to ensure appropriate public safety.

8. How long will the heavy vehicle earthworks take because the traffic management plan shows the road is required for 6 years? What happens during bad weather, supply issues, will this time frame be blown out? If so, won't the community be exposed to many years of dust, noise, and other amenity impact issues.

As part of this permit application the works are expected to occur over a 3-month period. Whilst weather and supply of fill may extend the program of works it is not expected to be significant. The 6-year period indicated in the traffic management plan is a current approximation of the earth works program for the site which includes backfilling.

9. What is happening to zone 2A which was a high to moderate LFG area and falls within domain 5?

As part of the environmental audit, Zone 2A was classified as an area of moderate to high landfill gas risk and treated the same way as Zone 1 (former landfill area) in the environmental audit with particular LFG management measures required as part of the site redevelopment. It is important to understand that the landfill gas risks in Zone 2A are considered to be associated with an area of high permeability subsurface conditions located immediately adjacent to the former, unlined landfill in Zone 1, rather than a separate source of LFG generating materials in this area.

No stockpiling or preloading works are proposed in the Zone 2A area of domain 5 as part of this permit application

10. What is the impact of pre-existing and proposed stockpiling to LFG emissions re all domains?

No instances of unacceptable off-site migration of LFG were identified for the duration of the environmental audit (including during the previous stockpiling works in 2017-2018), or since completion of the audit during post audit monitoring.

Considering the LFG conditions in Zones 2, 3 and 5, it is unlikely that the preload stockpiling works proposed in this area would have any measurable negative affect on LFG migration at the site and pose a risk to off-site receptors (either to properties immediately adjacent to the works or in other areas surrounding the site). Preloading works may have a positive effect in this area, by reducing the permeability of the ground below the preload.

There is potential that preloading works in Zone 1 may have an effect on LFG migration at the site. Tetra Tech Coffey, the environmental auditor and EPA (Environment Protection Authority) have considered that this is appropriately addressed in the SoEA and associated monitoring and management requirements to be implemented during these works (e.g. landfill gas venting trench adjacent to residential properties). Further detail is provided in those application documents.

11. Where are the biannual results of the biannual LFG and groundwater monitoring post the environmental audit?

Ongoing LFG and groundwater monitoring is undertaken by Tetra Tech Coffey in accordance with the Construction Environmental Management Plan and EPA Clean Up Notices. The Notices require that reporting is verified by an appointed environmental auditor and provided to EPA on an annual basis.

12. Has there been any engagement or provision of environmental offsets? Ie as a result of removal of trees and additional pollution.

Sterling Global has made its applications, and proposes its contractor undertakes the works, in accordance with all relevant laws, regulations, and policy both at Council and State/Federal government levels. No offsets have been considered at this stage of the application process.

13. Did Sterling Global or Council consult with traditional owners to see how it really could be improved?

Sterling Global has not consulted with the traditional owners of the land to identify options for site improvement.

14. If any proposed future rezoning application for residential development isn't successful, then are not all these staged permit applications redundant as they are based on housing proceeding?

It is important to note that 40% of the site is currently zoned for residential use. Rezoning would not be required to develop this part of the site. Domain 1 is partially zoned for residential use.

In any case, whilst Sterling Global's intention is to regenerate and develop the site for a master planned, residential led community, the ground improvement works proposed as part of the permit applications apply to other future uses of the site, including open space or a sports park.

The environmental audit requires that prior to use of the site for the permitted uses the landfill cap and landfill gas venting trenches must be installed. Preloading is required in advance of this. Preloading across the site is also required to minimise differential settlement during its future use.

15. How can you have a high confidence that you will succeed?

The site has been issued with statements of environmental audit by the independent environmental auditor stating the site is suitable for sensitive uses (such a residential) subject to provision of appropriate environmental management controls. Following 20 years of geotechnical investigation, the overall geotechnical development strategy for the site identifies feasible ground improvement and structural solutions for urban development. Use of the site for urban purposes is also supported by strategic state and local planning policy including the remediation of contaminated land, Plan Melbourne and local housing strategies.

16. If the site was to be used for open space, would preloading still be required? Is this a "cart before the horse" scenario? Would you still require a LFG trench?

Preloading and LFG trenches are required. Refer above.

17. Could the land just be "left as is" ?

Whilst an option for the site is to leave it in its current state as an open quarry pit and areas (including landfill) capped with uncontrolled fill, a more appropriate future for the site is regeneration for urban purposes and integration with the surrounding community. Sterling Global proposes to redevelop the Talbot Village site, to shape a true village that has a defined centre supporting local living and interaction, framed by residential quarters and connected to the surrounding community.

18. Was Zone 1/domain 1, absent of any stockpiling and LFG trench, safe?

The environmental auditor has considered that in current condition LFG conditions at the site are stable. Any redevelopment works will be undertaken in accordance with the requirements of the statements of environmental audit.

The former landfill in Zone 1 was filled in the early 1970s (is an old landfill) whilst some LFG is still being generated, gas production from the waste would have peaked several decades ago and will continue to decline over time (typical LFG life cycle is recognised as 35 years but can be longer in the Australian environment). No unacceptable LFG risks off-site were identified during the environmental audit. Any redevelopment works must be undertaken in accordance with the requirements of the statements of environmental audit including the management of any potential LFG risks.

19. What was the outcome of the developer's fast track application in October 2021 to the Minister to rezone the site for residential development?

The Department of Environment, Land, Water and Planning determined that the rezoning application did not satisfy the criteria for fast tracking. Its decision was not based on the merits of rezoning or the proposed development plan.