Dear Andrew

SITE MANAGEMENT PLAN – FORMER DALYELLUP WASTE RESIDUE FACILITY

Thank you for your correspondence of 7 February 2018 requesting the Department of Health (DoH) to provide comment on the updated SMP and whether additional management is required.

Relevant officers from the Environmental Health Directorate have reviewed the following reports:

- Interim Audit Advice – Former Waste Residue Facility CSA – Site Management Plan (Senversa, January 2018)
- Cristal Pigment Australia Ltd, Former Dalyellup Waste Residue Facility CSA, Site Management Plan (GHD, January 2018)
- Interim Auditor Advice: Proposed Approach to DER Dalyellup – Approach to DER Letter Response (Senversa, 18 December 2015)
- Figure 2: Revised Local Structure Plan (Shire of Capel)

Separate advice has been sought from the DOH through the development application process regarding the Revised Local Structure Plan. The DOH response is attached. However it is noted that information regarding the history and classification of this site was not included in the application. DOH recommends further stakeholder engagement to understand any conflicts that may arise from the proposed rehabilitation and remediation work and management of this site that may impact on the proposed adjacent residential redevelopment.
Should the proposed redevelopment proceed as planned, the DOH recommends the following updates to the Site Management Plan:

- Inclusion of a comprehensive stakeholder engagement process to manage the amenity of nearby users during rehabilitation and revegetation of the site.
- Development of a community consultation and engagement strategy that includes owners/occupiers of proposed residential properties adjacent and in close proximity to the site.
- Reconsideration and further detailed specification of site access controls during any works undertaken at the site.

The DOH supports DWERs proposal to recommend that groundwater monitoring bores DM9R (S) and (D), currently located within the proposed residential development, be relocated as a boundary groundwater monitoring bore on the site.

Please do not hesitate to contact Pierina Otness on 9388 4977 if you need further information.

Yours sincerely

[Signature]

Jim Dodds
EXECUTIVE DIRECTOR
ENVIRONMENTAL HEALTH DIRECTORATE

19 February 2018

18214op Dalyellup - Former Tailings Facility

GOVERNMENT OF WESTERN AUSTRALIA
Mr Paul Sheedy  
Chief Executive Officer  
Shire of Capel  
PO Box 369  
CAPEL WA 6271

Attention: Matthew Wansborough, A/Manager Planning, Engineering and Development Services

Dear Mr Sheedy

STRUCTURE PLAN MODIFICATION – LOTS 9105, 9076 AND 8019 MAIDMENT PARADE, DALYELLUP (PLAN No. 11453P-SP-04B)

Thank you for your letter of 15 January 2018 requesting comment from the Department of Health (DOH) on the above.

The DOH has no objection to the proposed modification as aspects referred to in our letter dated 16 March 2017 are still relevant and applicable.

Should you have queries or require further information please contact Vic Andrich on (08) 9388 4999 or vic.andrich@health.wa.gov.au

Yours sincerely

Jim Dodds  
EXECUTIVE DIRECTOR  
ENVIRONMENTAL HEALTH DIRECTORATE  
2 February 2018

Please note that the Environmental Health Directorate is in the process of developing an electronic submissions system and nominate the following email address for future submissions: EH.eSubmissions@health.wa.gov.au

The DOH will still continue to receive hard copy submission until further notice.
Mr Paul Sheedy  
Chief Executive Officer  
Shire of Capel  
PO Box 369  
CAPEL WA 6271

Attention: Kim Muste, A/Manager Planning, Engineering and Development Services

Dear Mr Sheedy

PROPOSED STRUCTURE PLAN – LOTS 9105, 9076 AND 8019 MAIDMENT ROAD, DALYELLUP (PLAN No. 11453P-SP-04B)

Thank you for your letter of 11 November 2016 requesting comment from the Department of Health (DOH) on the above proposal. The DOH provides the following comment:

1. Water Supply and Wastewater Disposal
   The proposed development is required to connect to scheme water, reticulated sewerage and be in accordance with the draft Country Sewerage Policy.

   The proponents should be advised that approval is required for any on-site waste water treatment process (by DOH or local government) with such proposals being in accordance with DOH publications which may be referenced and downloaded from:
   http://ww2.health.wa.gov.au/Articles/N_R/Recycled-water

2. Medical Entomology
   A Mosquito Management Plan should be developed for the whole site with the proviso that individual subdivisions within the strategic area comply with the Plan thus ensuring consistency across the industrial area. Details for mosquito management may be downloaded from:

3. Public Health Impacts
   DOH has also a document on ‘Evidence supporting the creation of environments that encourage healthy active living’ which may assist you with planning elements related to this structure plan. A copy is attached or may be downloaded from:
4. **Toxicology Programs and Services**

The DOH notes the proximity of the proposed residential development site to the water treatment plant located to the Northwest. It is recommended that public health risks are assessed for gaseous, noise, and odour exposures and any findings be considered for inclusion or addressed into the structure plan.

The structure plan is to be consistent with the Office of the Environmental Protection Authority Guidance Statement No 3. ‘Separation Distances between Industrial and Sensitive Land Uses 2005’. The Guidance Statement takes into account protection of human health and the environment with a focus on protecting sensitive land uses from unacceptable impacts on amenity that may result from industrial activities, emissions and infrastructure.

Should you have queries or require further information please contact Vic Andrich on (08) 9388 4999 or vic.andrich@health.wa.gov.au

Yours sincerely

Jim Dodds
DIRECTOR
ENVIRONMENTAL HEALTH DIRECTORATE

16 March 2017
Dear Jason

FORMER DALYELLUP WASTE RESIDUE FACILITY, SITE MANAGEMENT PLAN

I refer to your submission of ‘Interim Auditor Advice’, dated 29 January 2018, to the Department of Water and Environmental Regulation (DWER) regarding review and endorsement of the Site Management Plan (SMP)¹ for the site known as the former Dalyellup waste residue facility.

DWER and the Department of Health (DoH) have reviewed the information provided and advise that changes are required in order for the SMP to be considered suitable for the ongoing management of the site in accordance with the Contaminated Sites Act 2003 (CS Act).

DWER considers that the overarching objective of the SMP is to demonstrate that potential risks to on and off-site ecological and human health receptors remain acceptable, and that remediation and rehabilitation of the site has been successful in returning the former waste residue disposal facility to its intended end use as endemic bushland.

The SMP should provide management strategies to ensure ongoing compliance with the restrictions on use imposed through the site’s classification under the CS Act. In this context, it is considered outside of the scope of the SMP to consider other scenarios, such as a change in land use, or the abstraction of groundwater when the existing site classification restricts it. The SMP should include detailed specifications for each management action triggered by any specific activity anticipated to occur at the site.

DWER concurs that the SMP is required to be implemented until such a time that DWER considers ongoing management measures are no longer required.

Further detailed comments are provided in Attachment 1. The SMP has been provided to the Radiological Council for review and comment, however, a response has not yet been received. DoH comments are included as Attachment 2.

DWER looks forward to receiving a revised version of the SMP in due course.

¹ Former Dalyellup Waste Residue Facility CSA – Site Management Plan (GHD, January 2018)
If you have any further queries, please contact Contaminated Sites Officer, Melanie Nunn, on 6364 7096

Yours sincerely

Andrew Miller
SENIOR MANAGER
CONTAMINATED SITES

5 June 2018

c.c. Cristal Pigment Australia Ltd - Peter Allen
     Shire of Capel
     Department of Health
     Radiological Council

Attachment 1: Detailed DWER comments
Attachment 2: Department of Health Advice dated 19 February 2018
Attachment 1: Detailed DWER comments on the SMP

STAKEHOLDER ENGAGEMENT

Further detail should be included regarding the frequency and method that stakeholders (including community members) will be engaged and how this will be documented.

DWER recommends that electronic copies of the annual reports are made publicly available, such as via the Shire of Capel website.

GROUNDWATER MANAGEMENT

A detailed sampling, analysis and quality plan (SAQP) should be included in the SMP to ensure consistency in sampling methodology and analysis over time. The SAQP should be prepared in accordance with guidance specified in the 'National Environment Protection (Assessment of Site Contamination) Measure 1999' (the NEPM).

Further comments on the proposed groundwater monitoring program are noted below.

Primary Issues

DWER recommends that this section is removed as it does not adequately discuss groundwater quality and risk. However, a section outlining the objectives of the groundwater monitoring program should be incorporated into the SMP.

Groundwater Monitoring Network Integrity

An inspection of the groundwater monitoring bores should be undertaken prior to each monitoring event. A contingency plan should be included in the event that wells are destroyed or require decommissioning and/or replacement, such may be the case if the proposed redevelopment of the adjacent land occurs. The construction of replacement groundwater monitoring wells should be undertaken in accordance with the NEPM.

Analytical Suite

The suite of chemical parameters currently monitored in groundwater near the residue containment cell does not adequately cover the range of chemical constituents that could be leached from mineral sand processing residues.

DWER recommends that the following parameters are also included in the analytical suite for groundwater monitoring at the site in both the Superficial and Yarragadee Aquifer:

(i) Contaminants that form stable oxyanions (arsenic, selenium, and uranium)
(ii) Radionuclides (radium-226, radium-228)

Assessment Criteria Adopted

Given the potential use of groundwater up and cross hydraulic gradient for non-potable uses, DWER recommends that the non-potable use of groundwater assessment criteria as specified in ‘Assessment and management of contaminated sites’ (Department of Environment Regulation, 2014) are adopted for screening risk assessment purposes.

Other

DWER recommends that references to future groundwater abstraction for beneficial use, such as “GHD notes that the duration of monitoring should be reviewed in the event that any irrigation scheme or abstraction bore is proposed to the site” be removed from the SMP. If groundwater abstraction is proposed in the future, further investigations, risk assessment and, if required, specific management measures will be required. Any such proposal would require an amendment to the site’s classification under the Contaminated Sites Act 2003 and would require consultation with DWER, Department of Health and the Radiological Council.

DWER recommends that the phrase “the groundwater monitoring program will be performed over a period of 5 years to gain an understanding of any potential contaminants present within the groundwater beneath the Site” be removed. As already noted, the SMP (including groundwater monitoring), will remain in place until such as time that DWER considers that ongoing management
measure is no longer required. However, DWER considers that it would be appropriate for a detailed review to be completed after a suitable period of monitoring which would inform the revision of the SMP and potential changes to the ongoing monitoring requirements.

**DUST MANAGEMENT**

**Primary issues**

Dust management should refer to activities that may occur at the site based on its current land use and restrictions on use, such as ongoing rehabilitation works, dune stabilisation and or capping management and how exposure to site workers and offsite users will be minimised.

Dust management strategies for the ‘redevelopment of the site for other purposes’ is outside the scope of the SMP. DWER recommends that references to monitoring and management strategies for ‘future redevelopment’ be removed.

Dust management strategies should be developed with regard to ‘A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities’ (Department of Environment and Conservation, March 2011) and/or other relevant best management practice guidance documents.

**SITE ACCESS MANAGEMENT**

The SMP states that signage along the access road will require approval by Main Roads. Approval from Main Roads should be sought and included in the SMP, along with the proposed wording/design and placement of the signs.

**CAP INTEGRITY**

DWER recommends that the integrity of the capping layer is maintained and monitoring in accordance with best practice management and/or as required by the Radiological Council. Further information is required regarding the methodology proposed, such as ground penetrating radar, for monitoring of the capping layer.

It is recommended that where disturbance of the capping layer is required, such as during rehabilitation works, on completion of these works the capping layer be re-instated where necessary to ensure that 2m of clean fill remains across the site. This should be demonstrated through appropriate methods, such as ground penetrating radar, and included in the annual report.

A contingency plan should be provided for the potential unintended disturbance of ‘treated solid residue’ (TSR) in order to mitigate any potential risks to on and offsite receptors.

**DUNE STABILISATION**

No consideration has been given to the management of the dunal complexes that are located along the western boundary of the site, between the TSR ponds and the beach. DWER recommends that management strategies are included to ensure the stability and integrity of these dunes are managed.

**REPORTING REQUIREMENTS**

Further detail in the SMP is required regarding the reporting requirements.

Reporting should be undertaken in accordance with relevant guidance and/or best management practice for each monitoring requirement. For example, reporting of groundwater results should be in accordance with reporting requirements specified in ‘Assessment and management of contaminated sites’ (Department of Environment Regulation, 2014) including an assessment of groundwater flow and quality, and reported changes, seasonal variation and a comparison with historical results and emerging trends.

A risk assessment should be included based on the results of ongoing groundwater and radiation monitoring to assess potential risks to ecological and human health receptors.
REVISION OF THE SMP

The SMP should be reviewed and updated regularly in order to remain compliant with best practice management and changes to relevant regulatory guidance.

DWER recommends that details are included in the SMP regarding the periodic review and revision of the SMP.

RESPONSIBLE PARTY COMMITMENT

The SMP should include a statement from each of the key stakeholders acknowledging and accepting their obligations under the SMP.