

Appendix Three - Andrew Craig Landscape Architect Ltd (*'Craig'*)

- Photographs
- Landscape Advice – Visual Effects



Photographs taken early August 2016 showing visual effects arising from the ocean outfall discharge.



Photograph 1 *Relatively minor discharge with light colour effect*



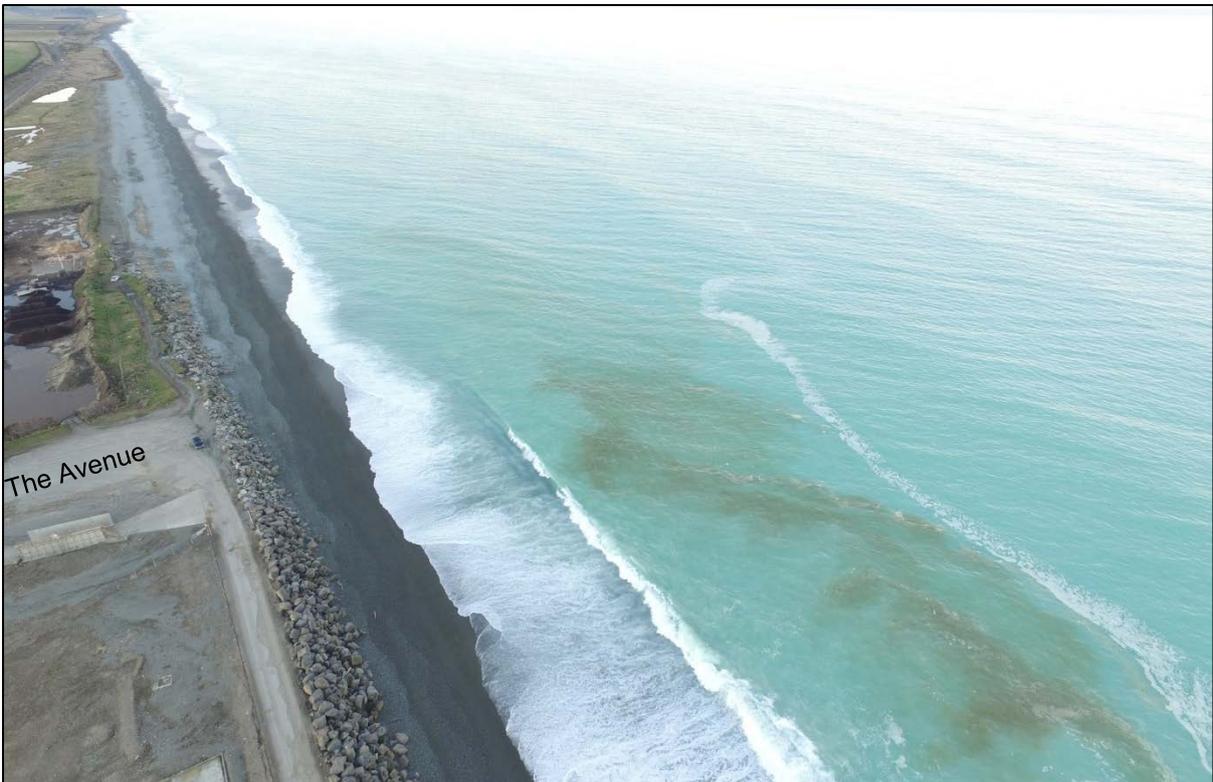
Photograph 2 *Note that the breaking waves do not appear to be affected by colouration.*



Photograph 3 *Moderate discharge with little apparent visual effect*



Aerial Photograph 1 *Of the ocean outfall showing the northward drift of discoloured water.*



Aerial Photograph 2 *Looking north from above the outfall the long-shore current carries discolouration to a point opposite 'The Avenue' – a distance of around 190 metres.*

For: Silver Fern Farms Management Limited - Pareora
Date: 7 September 2016
Prepared by: Andrew Craig – *Landscape Architect*
Subject: Consent Application – Coastal Permit
Consent Number: CRC071504 – CRC163849

1 INTRODUCTION

The purpose of this landscape advice is to consider the visual effects arising from the discharge of waste water to sea via an outfall pipe – see **Figure 1** photograph.



Figure 1 *Looking south to the ocean outfall pipe as viewed from opposite 'The Avenue'. No water was being discharged at the time the photograph was taken.*

In this landscape advice consideration is given to visual effects of the wastewater discharge. In a letter from the Canterbury Regional Council¹ reference is made to the effects arising from 'any conspicuous change in colour'² of the sea in and around the ocean outfall. It is not clear whether this is a visual amenity concern or an indicator of waste water composition. In any event, the visual amenity effects are considered in this assessment. It is understood that members of the public have expressed concern over visual effects.

By way of background, it is noted that the applicant prefers to discharge waste water to land. That to sea only occurs when the land no longer has the capacity to accommodate the discharge by way of irrigation. It is further understood that this occurs infrequently and for relatively short duration. Due to increased areas and availability of land, discharge to it has increased since this process was introduced some eight years ago.

So overall, even though waste water has been discharged to sea over many decades, thereby informing the existing environment, it is nonetheless decreasing with time. The duration and extent of visual effects will therefore correspondingly decrease.

A site visit was undertaken on Saturday 30 July 2016. The plant appeared to be operating at the time, but no discharge was occurring. Since then the applicant has, at my instruction, supplied me with recent³ photographs. These give a good indication of what the visual effects are over a week long period.

To follow I describe the landscape character and amenity of the setting as this determines whether effects are acceptable or otherwise. I then describe and evaluate visual effects, focussing on water colour in the vicinity of the outfall. Finally I consider any statutory matters of relevance to visual amenity. Of relevance is the Canterbury Regional Policy Statement (the RPS) and New Zealand Coastal Policy Statement (CPS).

2 LANDSCAPE DESCRIPTION

The landscape in the immediate vicinity of the site is dominated by the coastline and meat processing plant. The former is general natural in character while the latter is very much physical. Consequently there exists a high degree of contrast between the two – see **Figure 2** photograph.

While the coastal environment is predominately natural, it is only so up to and within the MHWS. Landward the shoreline comprises very substantial engineered rock rip rap whose obvious purpose is to control coastal erosion. Sequentially beyond is a service road, fence and then the plant complex.

Apart from a macrocarpa tree at the southern plant boundary there is very little or no vegetation. As a result the unmitigated physical character of the plant dominates the setting.

¹ Addressed to Silver Fern Farms Management Limited, Dated 20 November 2015

² Op cit. paragraph 9 (b)

³ Taken since my site evaluation

Reflecting its function, the plant's visual character is pragmatic and utilitarian. Because of this it exhibits little in the way of amenity. The only counterpoint is the relatively higher amenity derived from the adjoining marine environment. But even this is not especially high on account of the homogenous shoreline unrelieved by any significant natural features such as headlands, rock outcrops, inlets, coves, estuaries or marine wetlands. The stony beach also diminishes amenity compared to conventionally and therefore comparatively, more appealing sandy beaches.



Figure 2 *General view of the site looking south. The outfall is evident at the left hand side of the photograph. The rather poor amenity of the site is also evident.*

3 PARTIES WHOSE AMENITY IS POTENTIALLY AFFECTED

While the site is located at the shoreline terminus of a publically accessible road (The Avenue), there is no evidence that it is a significant recreational or amenity destination. It does however provide access to the beach for local Pareora residents. Access to the beach however is not at all facilitated by the rip rap wall which comprises very large boulders.

Nor are there any other significant destination points or facilities, such as picnic areas, camp grounds, play grounds or conservation areas in the vicinity of the site. Immediately north of The Avenue land use is devoted to pastoral activity. It is understood this land is owned by the applicant.

The site is not visible from important key vantage points such as State Highway 1 or significant recreation areas including walkways, parks and reserves. Nor is the site visible from residences including those in nearby Pareora settlement and the surrounding rural environment.

Generally affected parties are likely to mostly comprise local residents who access the shoreline environment. It is apparent few others would encounter the setting as the presence of the site and shoreline are not signalled in any way.

It does not appear that boats are common in the area. None of the photographs have captured them. Further, there does not appear to be any good reason for boats to be

present as there is no safe haven or other points of attraction. Nor are there any launch facilities such as boat ramps or jetties.

In summary it is evident that few people would suffer adverse visual amenity effects arising from the activity. Further, the environment does not convey an expectation that amenity should be high.

As a coastal environment the landscape character and amenity of the site and its immediate surrounds is evidently not especially important or significant. This is particularly so compared to other coastal setting in the area such as the nearby Pareora River mouth and beaches in and around Timaru.

4 VISUAL EFFECTS

To reiterate, the focus here is on the visual effects of the outfall discharge into the sea. The visual effects of the outfall itself are not considered.

The only generic visual effect arising from this is discolouration of the sea. It is evident from the photographs in the **Attachment** that colouration varies. This occurs for various reasons in addition to other possible variables:

- a) Weather conditions which in storms can render colouration invisible due to the churning sediment laden sea; and conversely, in calm periods is the most apparent.
- b) Allied to the above, wind conditions which may affect the direction of colouration.
- c) Diurnal variation where visual effects are going to be most apparent during daylight hours. These in turn will vary in length depending on the time of year.
- d) Natural oceanic sedimentation, where in a disturbed suspended state will discolour⁴ the water.
- e) High or low tide, where colouration for the latter will cause greater proximity to land based observers.
- f) Currents where it is understood that most run northward long-shore.
- g) Colour of the discharge which may vary from time to time depending on its content, concentrations and overall volume – see **Attachment photographs 1 – 3**. It is understood that colour comprises shades of brown and is no longer informed by the presence of blood, thereby resulting in a remedial effect.
- h) Duration of discharge on a daily, weekly, monthly and yearly basis.

Due to the above conditions it is clear that colouration of the sea is not going to be constant over time. In fact, the visual effects are highly variable. Further variables arise from the viewing positions of potentially affected parties. These will include:

⁴ The default preferred colour being clear or blue

- a) Elevation of the viewer in relation to the sea – in this case being either on the beach or above the rip rap embankment. The higher the elevation the more will be seen. At lower elevations the effects of foreshortening occur. This is where views across a surface appear compressed and therefore less extensive than what they would look like in a birds-eye view.
- b) The distance of the viewer from the affected area – where any vantage point more than around 60 metres of the outfall is unlikely to appreciate visual effects. This takes into account that views can only be had from the public road and beach.
- c) The presence of intervening landform. The effect of this as shown in the **Figure 3** diagram demonstrates in principle that views of the affected water will be curtailed by local landform conditions.

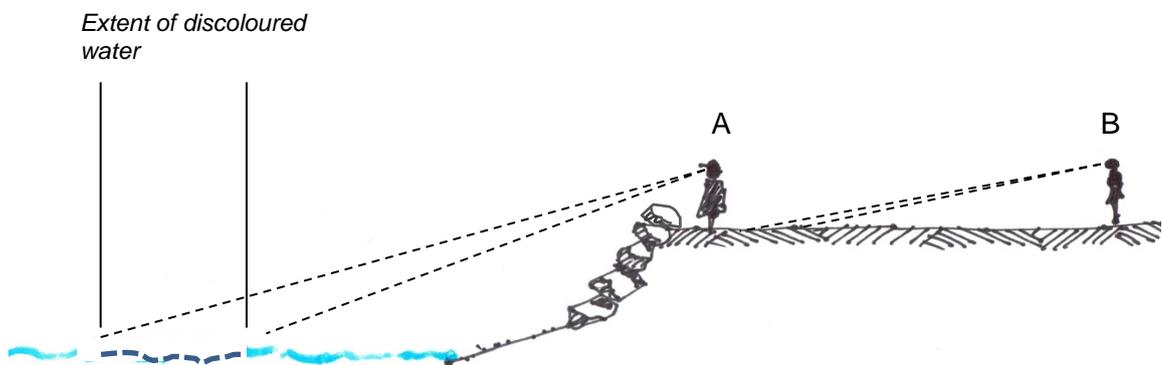


Figure 3 *Schematic cross section diagram showing the effects on views arising from intervening land form at Pareora. Viewer A is able to see the full extent of discolouration whereas viewer B cannot due to intervening landform. This will change as water levels fluctuate with the tides.*

- d) The location of the viewer in relation to the site variables listed earlier – for example, in relation to the direction long-shore currents to or from the viewer – see **Attachment aerial photographs 1 & 2.**

There is no evidence of discolouration of the shoreline itself. The visual effects are therefore entirely water borne.

Key findings

It is evident for the reasons listed above, that visual effects arising from water discolouration are going to be highly variable. Additionally the effects are ephemeral rather than enduring. That is, they come and go over a matter of hours and days depending on the above mentioned variables.

Despite this, it is recognised that the discharge and consequent discolouration of the sea has a negative connotation. This is because the source of discharge is clearly visible as the outfall structure as is the activity it serves. As a result the visual effects

detract from what would otherwise align with peoples' expectations that the marine environment appear natural in character.⁵ Natural discolouration does occur however, particularly where sediment laden water courses discharge into the sea. The effects of this are not altogether too different to what occurs at Pareora – the colour is similar and the variables are the same.

It is apparent that views of the affected area are constrained by the conditions described above. Importantly, there are no residences affected in this regard. The same applies to views from any other significant vantage points such as SH1.

Finally, it is clearly evident that the site is not a sought after marine destination renowned for its character, amenity and recreational value. Nonetheless, there is no doubt that local Pareora residents would access the coast at the site, and it is accepted that their visual amenity will be adversely affected. But as stated, this will be highly variable depending on the aforementioned variables.

5 STATUTORY MATTERS – LANDSCAPE AND VISUAL

It is understood that the relevant statutory document is the *Regional Coastal Environment Plan for the Canterbury Region* (2005 – updated 2011) (the Plan). As stated in the Plan, its purpose is to give effect to the New Zealand Coastal Policy Statement (NZCPS) and ultimately the Resource Management Act.

Within the Plan a number of visual amenity matters are flagged for consideration. These are addressed as follows.

The first matter to note is that the site is not recognised in Schedule 1 as an 'Area of Significant Natural Value.' Nor is it recognised in Schedule 2 as an 'Identified Area of High Natural, Physical, Heritage or Cultural Value.' The Pareora river mouth is however, although not for its scenic values.

Objective 6.1 sets out 'To protect, and where appropriate enhance, the following areas, sites and habitats of high natural, physical, heritage or cultural value:' Of relevance are the following two sites:

- i) *Areas of significant amenity value, including recreational attributes;*
- j) *Areas having high natural character in the coastal environment;*

The latter refers to the aforementioned Schedules where the site is not identified as one of these areas. Therefore clause (j) does not apply as it only concerns areas of 'high' natural character. While the site has natural character, it is evidently not 'high'. Clause (i) also includes a qualifier, this being 'significant'. There is no statutory recognition that the site has significant amenity value. On site evaluation confirms this.

The policies serving this objective stress their application to 'identified' sites, which again are listed in the aforementioned schedules.

⁵ *Regional Coastal Environment Plan for the Canterbury Region – Canterbury wide issues – 3.2 The need to provide for use and development of coastal resources while maintaining the natural character of the coastal environment.*

Of greater relevance perhaps, is Objective 6.3 which states (of relevance):

Enable people to undertake commercial and recreational activities in the coastal environment while:

(b) avoiding, remedying or mitigating the adverse effects of those activities on the natural character of the coastal environment.

Regarding this, Policy 6.4 (b) flags the notion of appropriateness regarding possible mutual exclusivity⁶ – that is, where the presence of one activity precludes the other. The Policy indicates that this will likely involve commercial and recreational activity. In this case, the activity exists as are the visual effects, which is likely to preclude recreational activity. Consequently, the effects are avoided by virtue of existing activity and perhaps more importantly from an amenity point of view; by virtue of a location that has little scenic and recreational significance.

6 CONCLUSION

As is always the case where visual effects are concerned, context is the key consideration. While the discolouration has negative connotations, the significance of visual effects are in large part relieved by the setting and aforementioned variables. The setting is clearly not a premier coastal destination endowed with recreational, aesthetic or generally pleasant attributes. Nor is it particularly accessible.

Being an open exposed oceanic coastal environment as opposed to one that is enclosed, such as a bay, gulf or estuary, means that visual effects are readily dispersed by the rigour of prevailing elements. Thus the effects are necessarily ephemeral and because of this they are not irrevocable. That is, the visual character of the sea is such that it is self-restorative and that this happens reasonably quickly following the cessation of discharge. As a result, visual effects are not permanent or enduring in any way.

Finally, it is apparent that the *Regional Coastal Environment Plan for the Canterbury Region* objectives and policies where relevant are not at all threatened by the visual effects arising from the activity. While the effects are not able to be readily mitigated, it is clear that siting contributes avoidance when considered against more sensitive or significant coastal settings.

Overall, for the foregoing reasons it is concluded that at worse, visual effects are less than minor, subject to a relatively narrow range of variation.

⁶ (b) *Environment Canterbury will undertake a process of investigation and public consultation to identify areas of the Coastal Marine Area where continued commercial or recreational activity is appropriate and where that activity needs protection from other uses of the area.*