

19 December 2025

Kaikōura District Council  
PO Box 6  
96 West End, Kaikōura  
New Zealand  
**7300**

**Customer Services**  
**P. 03 353 9007 or 0800 324 636**  
**200 Tuam Street**  
**PO Box 345**  
**Christchurch 8140**  
**[www.ecan.govt.nz/contact](http://www.ecan.govt.nz/contact)**

Dear Planning Team,

### **Canterbury Regional Council submission on Private Plan Change 6 – Ocean Ridge Development**

Canterbury Regional Council (**CRC** or the **Regional Council**) appreciates the opportunity to provide a submission on the notified private plan change request.

Overall, the Regional Council is neutral on the application; however, as it currently stands, the application is inconsistent with the natural hazards objectives and policies of the Canterbury Regional Policy Statement (CRPS), particularly with the proposed development of the 'Farm Area'. If the applicant proposed to avoid or where not practical, mitigate the natural hazards identified, CRC would be generally supportive of the proposal.

In the absence of a geomorphic assessment and the identification of high hazard areas, the proposal does not demonstrate the avoidance of increased hazard risk, nor that any adverse effects can be appropriately mitigated, as required by the CRPS. Further detail is provided in the submission below and in Appendix A, which is attached to and forms part of this submission.

If there are any questions regarding our submission, please contact Victoria Watt [Victoria.Watt@ecan.govt.nz](mailto:Victoria.Watt@ecan.govt.nz) and she will be happy to assist.

Yours sincerely,



**Amanda Thompson**  
Team Leader, Strategy and Planning.

# Notice of Submission on a Private Plan Change – Kaikōura District Council

*Submission made by electronic means*

## 1. SUBMITTER DETAILS

**Name of Submitter:** Canterbury Regional Council

**Physical Address:** 200 Tuam Street

**Postal Address:** PO Box 345

**Email Address:** regional.planning@ecan.govt.nz

**Telephone:** 027 262 6439

## 2. APPLICATION DETAILS

**Name of Applicant:** Cargill Station Limited

**Application Site Address:** Ocean Ridge Development Area, Ocean Ridge Boulevard, Kaikōura Flat, Kaikōura 7371.

**Description of the Proposed Activity:** The plan change involves the modification of objectives, policies, rules and other provisions in the Plan relating to the subdivision, use and development of land in Ocean Ridge. The focus is mainly on the provisions applying to those parts of Ocean Ridge which have not been developed in any of the four subdivision stages advanced there to date.

The existing Plan envisages nearly 340 houses at Ocean Ridge, along with community facilities and a small mixed-use area with provision for visitor accommodation and commercial activities. The plan change proposes to add a further 150 houses, and to expand the dedicated mixed-use area. It also proposes the creation of additional reserve areas and the continued commitment to restoration planting in wetland, stream and dryland areas.

Spatially, the plan change proposes changes to the nature, intensity and distribution of land use activities anticipated in the existing Outline Development Plan (ODP) bespoke to Ocean Ridge. The ODP is organised into various sub-areas, each of which anticipate a unique environmental outcome.

## 3. SUBMISSION DETAILS

This is a submission on the private plan change request by Cargill Station Limited to the Kaikōura District Council.

We submit a neutral submission on this proposed plan change.

The Canterbury Regional Council could not gain an advantage in trade competition through this submission.

**The reasons for our submission are:**

- 3.1. Overall, the Canterbury Regional Council (**CRC**) is neutral on the application. However, we note that based on the information provided by the applicant, the proposal is inconsistent with the natural hazards objectives and policies in the Canterbury Regional Policy Statement (**CRPS**).

**Canterbury Regional Policy Statement**

- 3.2. The CRPS provides the high-level planning framework to ensure integrated, sustainable, and consistent management of Canterbury's environment and resources across all local authorities. It plays a central role in shaping how natural and built environments are protected, used, and developed in the region.

*Natural Hazards*

- 3.3. The application notes that the Ocean Ridge Development Area includes land that may be susceptible to the effects of natural hazards. These natural hazards include fluvial flooding, tsunamis, land instability and liquefaction. I consider the following objectives to be relevant to this proposal.

Objective 11.2.1

- 3.4. Objective 11.2.1, regarding the avoidance of new subdivision, use or development which increases risk of hazards to people, property or infrastructure – or where avoidance is not practicable, mitigation to minimise risks.
- 3.5. Dr Michelle Wild, Senior Scientist in the Natural Hazards Science team at the Regional Council reviewed the application and has provided an assessment which can be found in Appendix A below. In her assessment, Dr Wild indicates that the proposal does not clearly demonstrate either avoidance of hazard risk or adequate mitigation where avoidance is not practicable. Specifically:
- Development is proposed in areas subject to potential fluvial flooding from the Kowhai River during a 500-year ARI event. Specifically, the proposed development labelled the 'Farm Area'.
  - The assessment relies on computer modelling alone, without geomorphic input to understand the dynamics of a Kowhai River avulsion or stopbank breach (including scour, erosion or high-velocity flow behaviour across the alluvial fan).
  - Floor levels are the primary mitigation measure, but Dr Wild notes that this approach:
    - May not identify appropriate mitigation for high-hazard flow paths, and

- Could allow isolated dwellings surrounded by fast-flowing floodwaters, increasing risk to people and property.
- 3.6. Given the acknowledged moderate degree of risk and uncertainty, the proposal does not demonstrate that risks are avoided or sufficiently minimised and is therefore I consider it inconsistent with Objective 11.2.1.

#### Objective 11.2.2

- 3.7. Objective 11.2.2, that adverse effects on people, property, infrastructure and the environment resulting from hazard mitigation measures are avoided where possible or mitigated where not possible.
- 3.8. The proposed mitigation relies on minimum finished floor levels derived from computer modelling, without a broader assessment of the dynamics of a Kowhai River avulsion or stopbank breach – including how flood flows interact with development platforms and surrounding land. Dr Wild notes:
- Raised platforms may result in fast-flowing water around dwellings, increasing hazard to people and property.
  - There has been no assessment of the dynamics of a Kowhai River avulsion or stopbank breach (including scour or foundation stability), which could lead to adverse effects during extreme events.
  - Future flood protection decisions upstream may be constrained by development of The Farm area, potentially shifting or exacerbating flood risk elsewhere.
- 3.9. Because these potential adverse effects have not been adequately assessed or addressed, the proposal does not meet the intent of Objective 11.2.2.

#### Objective 11.2.3

- 3.10. Objective 11.2.3, that the effects of climate change on sea level rise and frequency and severity of hazard events are recognised and provided for.
- 3.11. The proposal recognises climate change effects by applying a 30% increase in river flows for the 500-year ARI event and considering sea level rise (although this is likely to have minimal effect on the site). Dr Wild concludes that the climate change allowances are within standard practice, but not conservative.
- 3.12. The modelling does not adequately account for climate-driven geomorphic change, such as sediment mobilisation and changes to flood flow paths.
- 3.13. Given these limitations, the proposal does not fully “provide for” the effects of climate change as required by Objective 11.2.3.

#### Policy 11.3.1

- 3.14. Policy 11.3.1, to avoid new subdivision, use and development of land in high hazard areas unless certain criteria are satisfied.
- 3.15. Dr Wild's advice states that High Flood Hazard Areas have not been identified, due to the absence of geomorphic assessment. Without identification of high hazard areas, it is not possible to demonstrate avoidance or assess whether any exceptions under the policy apply. The proposal therefore fails to implement the policy framework required by Policy 11.3.1 and is not consistent with it.

#### Policy 11.3.2

- 3.16. Policy 11.3.2, to avoid new subdivision, use and development of land otherwise subject to inundation in a 0.5% AEP event unless certain criteria are satisfied.
- 3.17. Although the proposal seeks to enable development subject to minimum floor levels above the 500-year ARI flood extent, Dr Wild advises that floor levels alone may not be sufficient mitigation in areas subject to inundation. Other hazards, including the dynamics of a Kowhai River avulsion or stopbank breach, have not been assessed.
- 3.18. The proposal may enable development in areas where avoidance or additional mitigation would be more appropriate. As a result, the proposal does not adequately demonstrate that the criteria for development in a 0.5% AEP inundation area are satisfied.

#### Policy 11.3.4

- 3.19. Policy 11.3.4, to locate new critical infrastructure outside high hazard areas unless no reasonable alternatives exist.
- 3.20. Because high hazard areas have not been identified, the proposal does not provide a robust framework to ensure that critical infrastructure is located outside high hazard areas, or that no reasonable alternatives exist where this is not achieved.
- 3.21. The uncertainty identified by Dr Wild means the proposal cannot be said to give effect to Policy 11.3.4.

#### Policy 11.3.8

- 3.22. Policy 11.3.8, to have particular regard to the effects of climate change which considering natural hazards.
- 3.23. While climate change is acknowledged in the modelling inputs, Dr Wild concludes that the compounded conservatisms applied are overstated, and key climate-related risks associated with geomorphic response and extreme events remain insufficiently tested.

- 3.24. Given the acknowledged uncertainty and potential consequences, the proposal does not demonstrate the level of “particular regard” required by Policy 11.3.8.
- 3.25. Based on the technical advice provided by Dr Michelle Wild, the proposal is not consistent with the natural hazards objectives and policies of the Canterbury Regional Policy Statement. While the proposal recognises flood risk and incorporates modelling and minimum floor levels for a 0.5% AEP event with climate change allowances, significant uncertainty remains regarding flood behaviour, geomorphic processes, high hazard areas and the adequacy of proposed mitigation. In the absence of a geomorphic assessment and identification of high hazard areas, the proposal does not demonstrate avoidance of increased hazard risk, nor that adverse effects can be appropriately mitigated, as required by the CRPS.

#### *Contaminated Land*

- 3.26. Part of the site has been identified as potentially contaminated on the listed land use register (LLUR). CRPS Policy 17.3.1 seeks identification of sites historically or presently used for an activity that could have, or has, resulted in contamination, and where appropriate the verification of the existence and nature of that contamination. CRPS policy 17.3.2 requires a site investigation to be undertaken on potentially contaminated land to determine the nature and extent of contamination prior to new subdivision, use or development to ensure any actual or potential adverse effects of contaminated land can be avoided, remedied, or mitigated.
- 3.27. The Applicant has undertaken a preliminary site investigation (PSI) carried out by a suitably qualified professional in accordance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NES-CS). The PSI notes that no hazardous activities were observed across much of the site. However, some areas may have been used for activities associated with potential sources of soil contamination.
- 3.28. The applicant has noted that a detailed site investigation will be required for these areas at future subdivision and earthworks stages in accordance with the NES-CS. If any soil contamination is discovered during those future investigations, recommendations will be made by the qualified expert(s) responsible for the investigations as to measures required to avoid, mitigate or remediate the contamination to protect human health and the local environment.
- 3.29. We expect that KDC should get in contact with CRC when the subdivision application is received as the site would still be subject to the NES-CS and CRC can assist them in interpreting their reports.

#### *Other Matters*

- 3.30. The Regional Council considers Objective 5.2.1 *Location, Design and Function of Development (Entire Region)* and Policy 5.3.1 *Regional Growth (Wider Region)* to be relevant to this proposal. The Regional Council supports the proposed urban development being integrated with the existing Ocean Ridge development, as this promotes coordinated development patterns and consolidated growth. The proposal

also supports the providing for a range of housing options to meet the growing demand within the Kaikōura District.

3.31. Additionally, the proposal is generally consistent with the objectives and policies within the Canterbury Regional Policy Statement, in particular:

- Objective 5.2.2 Integration of land-use and regionally significant infrastructure (Wider Region);
- Objective 5.2.3 Transport Network (Wider Region);
- Policy 5.3.3 Management of development (Wider Region);
- Policy 5.3.5 Servicing development for potable water, and sewage and stormwater disposal (Wider Region).

### **Flood Hazard Assessment**

3.32. Dr Michelle Wild, Senior Scientist in the Natural Hazards Science team at the Regional Council has completed an assessment of flood hazard effects on the proposed site. This assessment is included as Appendix A below and forms part of this submission.

### **Regional Council - Resource Consent Requirements**

3.33. CRC notes that within this private plan change application, there is not sufficient information to determine whether activities proposed to be undertaken will be provided for as permitted activities under relevant regional plans and national environment standards.

3.34. The application notes that consideration has been given to the relevant regional plans and notes the plan change will not introduce any inconsistencies with the regulatory requirements.

3.35. I note that the applicant currently has the following consent applications under consideration by the regional council:

- CRC262672 - to discharge construction phase stormwater to land, and to discharge of water into water within 100m from a natural inland wetland (NES-F), and;
- CRC261673 - to undertake earthworks and vegetation clearance adjacent to wetlands and within High Soil Erosion Risk area, and to undertake earthworks and vegetation clearance within 10m from a natural inland wetland (NES-F)

3.36. At the time this submission was lodged, no decisions had been issued on these applications.

### **Water Supply and Sewage**

3.37. The application notes that the increased residential yield will result in additional demand on wastewater and water supply infrastructure. The necessary upgrades are identified in the Outline Development Plan and include a new water supply source,

additional water storage, and a new wastewater pump station, along with connections to the existing reticulated network. Wastewater from the site will be treated at the Kaikōura Wastewater Treatment Plant

- 3.38. The Kaikōura District Council Long Term Plan identifies a planned water main upgrade from the urban supply to the ORD area in the 2033 financial year. This upgrade is assumed to be funded through a combination of the Infrastructure Acceleration Fund and private funding mechanisms.
- 3.39. Should the proposed development proceed in advance of this upgrade, a water take and use consent may be required from the Regional Council. In this circumstance, the Regional Council recommends that a pre-application meeting be sought to confirm whether sufficient water is available to service the additional capacity required.

### **Changes to National Direction**

- 3.40. Significant changes to national direction under the resource management reform programme are scheduled to take effect on 15 January 2026. These changes may introduce new or amended national policy instruments and statutory frameworks that could have implications for regional planning documents, including the Canterbury Regional Policy Statement (CRPS). As these reforms are not yet operative and their final scope and effect are still being confirmed, this submission has not assessed the proposed changes or their potential implications for the CRPS or the matters raised in this submission.

### **Conclusion**

- 3.41. In summary, the Regional Council is neutral on the application but notes that the proposal is inconsistent with the natural hazards objectives and policies in the CRPS as the application has not identified High Flood Hazard Areas due to the absence of geomorphic assessment and as such, does not demonstrate the avoidance of increased hazard risk, nor that any adverse effects can be appropriately mitigated, as required by the CRPS. The Regional Council requests that the concerns identified above be addressed as part of the PPC.

## **4. SUBMISSION AT THE HEARING**

We **do** wish to be heard in support of our submission

## **5. SIGNATURE**

**Team Leader Strategy and Planning**

**17/12/2025**



Amanda Thompson

## Appendix A – Flood Hazard Assessment

I have reviewed the “Private Plan Change 6 – Ocean Ridge Development Area Amendments” document and have the following comments.

The Farm area is currently classified as “Open Space/grazing” in the operative outline development plan (ODP). It is proposed that The Farm area “*provide for suburban-scale allotments towards the centre of the area, with larger ‘lifestyle’ blocks adjacent to the southern and northern boundaries.*” Development may include multi-unit housing and/or retirement villages.

The Plan Change seeks to amend the Natural Hazards chapter for the Ocean Ridge Development Area that is within the Urban Flood Hazard Assessment Overlay. This would allow development in The Farm area to have a Permitted Activity Status if the floor level of the building is at or above the applicable ‘500-year design scenario minimum floor level contour’ as defined on the map NH-Appendix 1.

### **Baseline flood hazards**

The Ocean Ridge Drive Flood Mitigation Summary (2025) model indicates that baseline flood hazards at the site are minimal and largely confined to existing wetlands and topographic depressions.

This is based on modelling of existing conditions:

- Current Kowhai River bed levels
- Present-day Kowhai River 200- and 500-year average recurrence interval (ARI) design flows (no allowances for climate change)
- No stopbank failure (stopbanks have a ~20-year ARI level of protection)

Because of the noted “*relatively high morphological complexity, inclusive of potential bed aggradation over time should gravel reserves in the upper catchment be released*”, residual risk was considered by modelling various scenarios. The most conservative modelled design scenario that was adopted is discussed below.

### **Design scenario flood hazards**

The most conservative modelled scenario was selected as the design scenario. Although I consider some of the model components conservative, most are standard good practice or are likely to have only a small (or no) impact on the flood inundation at The Farm area. The various components of the design scenario are described below.

Two metres of riverbed aggradation – physically this would be a relatively extreme scenario. However, the dynamics of channel avulsion and scour are not included in the modelling so aggradation may help to account for these processes by allowing more overflows on to the floodplain (i.e., may help represent localised sediment deposition in the Kowhai River that

leads to sudden changes in river flow direction – an expected but unpredictable process during flood events). A geomorphic expert should be able to better determine how realistic floodplain flows generated from the modelled 2 m of riverbed aggradation are.

Kowhai River 500-year ARI design flow increase of 30% (to account for climate change) – this is within the range considered standard practice when projecting climate change impacts for a flood assessment. Using the High Intensity Rainfall Design System V4 (HIRDS), climate change is estimated to increase design rainfall depths. Based on the Kowhai at Snowflake Ridge rainfall record and HIRDS, a present-day 12-hour 250 year ARI design rainfall depth of 264 mm is estimated to increase to 333 mm (climate change scenario RCP-8.5), 308 mm (RCP6.0), or 297 mm (RCP4.5). This represents a 13 to 26% increase in rainfall. It is unlikely that there is a linear relationship between rainfall increases and flow increases, so the percentage flow increase could be higher due to less water being absorbed as the catchment becomes saturated. I do not consider the 30% flow increase to account for climate change to be a conservative component of the design scenario.

Complete removal of the true left stopbank – this may be comparable to a partial stopbank breach with scour of the ground levels in the vicinity of the breach (i.e., a stopbank breach may allow the same or more Kowhai River flood flow onto the alluvial fan as a 'banks fully removed' scenario). I do not consider the complete removal of the true left bank to be a conservative component of the design scenario.

A 1.5 m increase in sea level (coupled with a spring tide coinciding with flood peak) – this should have no influence on breakout flows, or flood levels at The Farm area where development is proposed. The Kowhai riverbed has an elevation of ~17 m NZVD 2016 at the breakout location, The Farm area varies from ~17 m NZVD 2016 (near the breakout) to 7.4 m NZVD 2016 (south-east corner of the property), and SH1 is ~6 m NZVD 2016. Given the steep nature of the Kowhai River and alluvial fan (floodplain), sea level rise of 1.5 m will not influence the Kowhai River breakout area, or The Farm area. There may be some impact on flood levels around SH1 but that is not the area of concern regarding floor levels for development. I do not consider this to be a conservative component of the design scenario.

No Kowhai River breakout upstream of the development - given the flood protection works along the Kowhai River only have a ~20-year ARI level of protection, and consideration of a 500-year ARI flood event is required, there is a strong possibility of a breakout upstream of the development.

A breakout upstream of the development would reduce the Kowhai River flow reaching the development. However, given true left bank breakouts between The Bluff and Middle Ford have historically resulted in significant flooding to the Kaikoura commercial area (West End), as well as the Kaikoura Fan (floodplain), any possible future flood protection works undertaken to reduce flooding upstream of the development will consequently increase the likelihood of all Kowhai River flood flows reaching the Ocean Ridge development area. Therefore, developing The Farm area will make any future 'trade-off' between which area to provide additional protection for more difficult. I consider "no Kowhai River breakouts upstream of the development" to be a conservative component of the design scenario based on the present Kowhai River flood protection.

### **Proposed design standard**

A design standard is proposed which sets minimum floor levels 300 mm above the 500-year ARI flood scenario based on what the applicants consider to be the most conservative design scenario (discussed above). The minimum floor level contours are provided by a map (NH-Appendix 1). This includes parts of The Farm area where floor levels can be based on existing ground levels if the model shows no inundation.

Although having one flood assessment for The Farm area is advantageous, basing all floor level/mitigation requirements on the proposed floor level contour map, when it is based purely on computer modelling (albeit incorporating some conservative aspects):

- may not identify an appropriate recommended floor level. The proposed floor level contours are only based on a series of computational hydraulic model runs and have not adequately considered the dynamics of a Kowhai River avulsion or stopbank breach. No geomorphic assessment has been undertaken to ‘reality check’ the model and the interaction between 500-year ARI flood flows and resulting scour, erosion and/or aggradation of the alluvial fan (floodplain) that the flood water is flowing over.
- will not identify any High Flood Hazard Areas, due to the same reasons as above (no assessment is included of High Flood Hazard Areas).
- does not allow for any additional mitigation measures (e.g., mitigation against possible scour of building foundations where fast moving water is flowing around building platforms).
- will allow development in areas that are not part of the proposed main raised platform. This will potentially result in isolated, individual dwellings surrounded by fast flowing (potentially High Hazard) flood water during a 500-year ARI flood event. Other mitigation measures besides raised floor levels may be required in this area – or avoidance.

### **Assessment of environmental effects – Fluvial flood effects**

The application notes that existing (Environment Canterbury) modelling “*currently informs the identification of ‘High Hazard areas’ ...*”. For areas impacted by Kowhai River or Mt Fyffe watercourse breakouts we often use models to identify the likely flow paths and/or areas of flood inundation. This may lead to a recommendation that a geomorphic assessment be undertaken to provide further clarification and to determine whether mitigation measures (e.g., raised floor levels, bunds, etc.) are feasible. As noted in the plan change application, The Farm area is a location where we have already made this recommendation.

### **Scale & significance evaluation**

For the criteria “Degree of risk and uncertainty”, the scale/significance has been determined in the application to be ‘Low’. I do not have enough information to determine whether this classification is appropriate but do note:

- Kowhai River flood protection works only have a ~20-year ARI level of protection while a 500-year ARI flood event is assessed.

- a fixed bed computational model has been used without expert input from a specialist geomorphologist to 'reality check' the chosen design scenario and the modelled extent and severity of flooding experienced on the alluvial fan (floodplain). The dynamics of a Kowhai River avulsion or stopbank breach have not been adequately considered

### **Risk of acting or not acting**

I consider the '*compound conservatisms applied to the design scenario used to inform finished floor levels*' to not be as conservative as suggested, and not adequate to override the need for a geomorphic assessment to 'reality check' the computer modelling and identify any high hazard areas or required mitigation options for a 500-year ARI event.

Michelle Wild  
18/12/2025