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**SUBMISSION OF THE FRIENDS OF BANKS PENINSULA INCORPORATED  
TO THE AKAROA TREATED WASTEWATER IRRIGATION SCHEME  
(CHRISTCHURCH CITY COUNCIL)**

**7 AUGUST 2024**

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To Consents Hearings  
Environment Canterbury  
PO Box 345  
Christchurch 8140

1 This is a submission made on behalf of the Friends of Banks Peninsula Incorporated (**FBPI**), and is made in opposition to the following applications for resource consent lodged by the Christchurch City Council (**CCC**) seeking to authorise the Akaroa Treated Wastewater Irrigation Scheme comprising:

1.1 Applications to Canterbury Regional Council (**CRC**)

1.1.1 CRC235038 – Land use for community wastewater

1.1.2 CRC235039 – Land use for earthworks

1.1.3 CRC2235040 – Discharge permit for contaminants to air

1.1.4 CRC235041 – Discharge permit for stormwater

1.2 Applications to CCC

1.2.1 RMA/2023/1347 – To use land for construction and operation of the Akaroa Treated Wastewater Irrigation Scheme and associated structures.

(collectively referred to as the **Application**).

2 The FBPI **opposes** the Application in its entirety.

3 The FBPI **does** wish to be heard in support of this submission at the hearing.

4 The FBPI is **not** a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (**RMA**).

#### **Submitter Details**

5 The FBPI was established as an Incorporated Society in 1990 with a mandate to protect and enhance the environmental heritage of Banks Peninsula and safe guard the environment for future generations. The listed purpose of FBPI is to promote environmental sustainability, and to preserve and protect the natural and historic resources of Banks Peninsula and its surrounding marine area.

6 The FBPI is active in promoting marine conservation. The FBPI initiated the extensive consultation which led to the Akaroa Marine Reserve application and played a leading role in

the successful community opposition to large mussel farms proposed for Akaroa Harbour in 2001.

- 7 FBPI has also played a long-standing role in advocating for safer waste management across Bank Peninsula, including having established recycling facilities for Akaroa in the 1990s (which were then handed over to the Council once successfully established).
- 8 Throughout District Plan review processes, FBPI has advocated strongly for the protection of the ecological values, natural character, and landscape and amenity values of Banks Peninsula. This was particularly prominent through the 2008 landscape appeals under the Banks Peninsula District Plan review. The FBPI has also appealed or participated in successful Environment Court cases preventing intrusive residential development around Akaroa harbour.
- 9 FBPI also acts as an umbrella group supporting individuals and groups involved with environmental issues around Banks Peninsula.
- 10 FBPI is a voluntary society and relies on active membership, subscriptions, and donations to continue its work. FBPI membership is not static, and presently sits at 66 members.
- 11 FBPI has engaged throughout CCC's lengthy journey to develop an alternate wastewater scheme for Akaroa to replace the existing harbour outfall. FBPI has a mandate from its membership to advocate for a community supported solution to manage Akaroa's wastewater needs. The Application will not deliver this outcome, and notwithstanding an attempt to reduce the existing treated wastewater discharge to the marine environment, lets the community down.

## **Background**

- 12 CCC has applied for resource consents to authorise its proposed new wastewater scheme for Akaroa and surrounding bays, which comprises the construction of a new wastewater treatment plant (**WWTP**), and associated infrastructure including a new terminal pump station, extensive pipework to convey wastewater, storage facilities (for both raw and treated wastewater) and the development of several 'irrigation fields' (notably not deficit irrigation) to discharge treated wastewater to land (the **AWTIS**).
- 13 The FBPI considers that any new wastewater system for Akaroa (and potentially other inner harbour communities) must be safe, sustainable and resilient, and as a minimum (so as to avoid adverse environmental effects), it should:
  - 13.1 Avoid raw and treated wastewater overflows into the environment, including to land, freshwater resources, including wetlands, and the coastal marine area.

- 13.2 Minimise nutrient, perfluoroalkyl and polyfluoroalkyl substances (**PFAS**) and biological pollution to the receiving environment, and manage these substances to protect human and ecosystem health.
- 13.3 Minimise risk of catastrophic failure by ensuring adequate storage, treatment and disposal methods are supported by robust technical (scientific) assessment, and include headroom for unforeseen eventualities.
- 13.4 Manage community needs for wastewater treatment in a way that preserves amenity and contributes to the social, economic, and cultural wellbeing of the residents of Akaroa and surrounding bays.
- 13.5 Comply with the RMA, Local Government Act (**LGA**), and other relevant statutory obligations, and all relevant National/ Coastal Policy direction, and Regional and District Plan provisions.

#### **General comments**

- 14 The wider site/ zone of influence of the AWTIS holds high ecological value, including areas of identified Significant Natural Conservation Value (the Robinsons Bay tidal flats) and High Natural Character (Hammond Point), natural wetlands, high value freshwater resources, including one stream that runs through a proposed irrigation field, and is habitat for a number of indigenous flora and fauna, including the At-Risk – Declining Canterbury grass skink. These values require protection that is not afforded by the Application.
- 15 The Application lacks important detail and contains errors and many contradictory statements. It fails to adequately and comprehensively assess the potential and actual environmental effects likely to be generated by the activity, undermines and ignores the complexity of the AWTIS and maintenance measures (including operational costs) that will be required to run it and is inconsistent with governing objective and policy direction.
- 16 Many of the conclusions in the Assessment of Environmental Effects (**AEE**) and accompanying Appendix W Statutory Policy Assessment are not supported by the CCC commissioned technical reports. One example is that the AEE repeatedly refers to the AWTIS as being a “100% land-based scheme”. For reasons set out below, this reference is unsupported and entirely inaccurate.
- 17 FBPI understand that the CCC intend to introduce the Duvauchelle wastewater stream to the AWTIS. The AEE fails to adequately consider this fundamental change, specifically as it relates to environmental impacts resulting from pressure on storage and capacity.
- 18 FBPI are concerned that if granted, the AWTIS will leave Akaroa more vulnerable to climate change, will be expensive and complex to run, falls well short of the critical capacity

requirements to deal with anticipated wastewater flows, will lead to frequent overflows of raw and treated wastewater, fails to appropriately manage the irrigation fields, does not address potable water shortages, has no expansion capacity, and uses untested methods with no contingency (Plan B) in case of scheme/ network failures.

- 19 FBPI requests, that in line with the 2022 grant of consent to continue to utilise the existing harbour outfall to discharge treated wastewater over the immediate short term (until 2030), CCC should be directed to undertake further due diligence and feasibility investigations (including cost/ benefit assessment) to come up with a more efficient and effective solution to manage Akaroa's wastewater.
- 20 FBPI considers that the Application fails to deliver on several of CCC's mandatory statutory obligations, including the provision of a safe and sanitary sewerage network and wastewater treatment under the Health Act and the LGA. The proposed consent conditions lack certainty and fail to impose response mechanisms (including ceasing irrigation if necessary) where environmental effects are identified over the life of the consent. They are woefully inadequate for a scheme of this complexity. An eight-year lapse date will also contribute to unnecessary delays.
- 21 FBPI consider that a decision cannot be made on the Application as it fails to satisfy s104(6) of the RMA in that it contains inadequate information to determine the application<sup>1</sup>. The Application has been subject to numerous and iterative updates over time, leading to uncertainty about the specifics of the AWTIS and confusion as to its environmental impact.

### **Shortfalls in scheme design**

#### *Capacity / overflow concerns*

- 22 The AWTIS does not achieve its primary objective of removing wastewater from the harbour and diverting it to land.<sup>2</sup> This is largely due to the identified Inflow and Infiltration (**I&I**) problems within the existing Akaroa network, and the proposal's failure to build sufficient storage and irrigation capacity to the scheme design.
- 23 The Design Flow Basis Update Report prepared by Beca and dated 8 April 2024 (the **Design Flow Report**) highlights matters of great concern to FBPI. The Design Flow Report confirms that resulting from revised/ increased wastewater flows (including the impact of the identified I&I volumes), there will be predictable and frequent overflows of both untreated/ raw wastewater and nutrient-rich treated wastewater at various locations – most likely at the

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<sup>1</sup> FBPI also consider the application should have been rejected under s88(3).

<sup>2</sup> Akaroa Treated Wastewater Irrigation Scheme - Application and Assessment of Environmental Effects, dated May 2023, page 7

terminal Pump Station (into the coastal marine area) or at the irrigation fields. The overflows are not accounted for in the Application/ AEE.

- 24 CCC's failure to adequately consider and assess the actual and potential effects of the AWTIS are compounded by the sensitivity of the receiving environment – freshwater streams within the various application sites, and the downstream coastal marine area(s), including several locations that are popular for swimming and other recreational activities. Pathogens and viruses are of particular concern if ingested.
- 25 The I&I problem impacts the modelled storage capacity of the AWTIS. The Application acknowledges that *“reducing I&I is critical to the proposed scheme in respect of managing inflows into the WWTP, the ability to provide sufficient storage for raw and treated wastewater and providing sufficient infrastructure and land area needed for irrigation”*.<sup>3</sup>
- 26 The AWTIS is highly susceptible to overflow at the various pumping and storage locations, and overload at the WWTP. The proposed storage infrastructure will be inundated at times of heavy rainfall, this generally occurring in winter, when land is saturated and the opportunity to irrigate is severely constrained.
- 27 This is not a new issue, and CCC have been driving towards upgrades to the Akaroa wastewater / stormwater network for some time, but works to date have not sufficiently mitigated the issues. Although the Council resolution (CNCL/2020/00176) approving the Inner Bays scheme recommended that I&I be reduced to below 20%, the Application is predicated on a reduction of 20%. This is a significant difference. Regardless, status quo figures identify I&I remains as high as 70% - demonstrating non-compliance with condition 6(a) CRC204086, which requires an I&I reduction below 50% by October 2022.
- 28 I&I is a significant challenge to the AWTIS, and FBPI considers this must be addressed as a priority. The extensive work programme needed to repair the historic wastewater / stormwater network will take some years and will carry a significant price tag. In the interim the Akaroa community is being asked to absorb an AWTIS that is designed to manage predominantly not wastewater, but stormwater and groundwater inflows.
- 29 FBPI considers that resource consent RMA92026256 which authorises the use of land for the terminal pump station and the wastewater treatment plant relied on inaccurate wastewater flow data (due to a confirmed faulty flow meter), which will have resulted in an undersized capacity, including pump capability and live buffer storage. A new consent, or variations to the earlier suite of consents will likely be required and should be considered alongside the Application.

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<sup>3</sup> Ibid at 7.1.1, page 43.

30 CCC has not applied for any resource consent(s) to authorise overflows (raw or treated and emergency or otherwise). It is not appropriate for the AWTIS to rely on the emergency provisions for discharge in the RMA (S330A) as the overflows are predicted based on known rainfall patterns and will be reasonably frequent based on the workings in the Design Flow Report.

31 The Canterbury Land and Water Regional Plan (**CLWRP**) prescribes that overflows of this nature are to be treated as a non-complying activity, in need of consent:

*Rule 5.87*

*The discharge of untreated sewage onto or into land in circumstances where a contaminant may enter water or into surface water, a wetland or groundwater, as a result of a spill, overflow, or equipment failure, is a non-complying activity*

32 CCC has acknowledged that additional consents for treated wastewater overflows are required, however it intends to apply for these in due course as part of a separate application for Duvauchelle<sup>4</sup>. FBPI consider this matter to be intrinsically linked to the Application, as the AWTIS cannot operate without the discharge component for this, or without consent for the predicted raw wastewater overflows. Consent processing must be suspended under s91 of the RMA so that all additional consent applications are lodged and assessed alongside the Application. It would be appropriate for the activities to be “bundled” and assessed as a non-complying activity.

*Treatment bypass*

33 Bypassing treatment during times of heavy flow was an extremely controversial issue when it first came to the community’s attention in 2016. By the time CCC formally consulted with the community in 2017, it committed that all wastewater to be irrigated would be fully treated. As a result, a raw wastewater buffer storage tank was added to the design and forms part of the Application.

34 FBPI is concerned that the proposed inclusion of the Duvauchelle wastewater stream to the AWTIS may result in CCC again exploring options to include a high flow treatment bypass to manage increased flow volumes. This is unsatisfactory for a number of reasons, including, but not limited to:

34.1 Impact on human and ecosystem health as a result of untreated wastewater being discharged to land;

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<sup>4</sup> Email from Janan Dunning to Kelly Walker, attached to Design Flow Report, dated 15 April 2024

- 34.2 High nutrient and heavy metal loading at the irrigation fields leading to accumulation in soils and poor water quality outcomes downstream; and
- 34.3 Serious potential for odour issues, of particular concern for neighbouring properties to the irrigation fields and storage facilities.

*Treatment process to be confirmed*

- 35 Throughout the community engagement and consultation undertaken between 2016 and 2020, CCC assured the public that the treatment process would include an ultrafiltration membrane bioreactor to treat the wastewater to a very high standard<sup>5</sup>. FBPI understand from the Application however, that the treatment process is “*yet to be confirmed*”<sup>6</sup>. Given the variance in residual pollutants that treatment processes will deliver, there is significant uncertainty as to what the potential effects of the proposal are. FBPI understand from documents obtained from CCC through LGOIMA requests, that a membrane bioreactor solution has in fact been ruled out<sup>7</sup>.

*Irrigation and natural hazards*

- 36 The Application identifies 35.7ha of land considered suitable for irrigation across two sites – 31.9ha on the Upper Robinsons Bay land (within the Robinsons Bay Valley) and 3.8ha on Hammond Point (the headland between Takamātua and Robinsons Bay). Some of the proposed areas have not been included for assessment in Appendix Q Geotechnical Investigation Report.
- 37 As the final irrigation design (including application rates and how to deal with any problems that arise from over-saturation) remains to be confirmed, there is a risk that some of the land identified for irrigation will not be suitable. Due to land constraints, the Application lacks any realistic headroom, should any areas within the proposed irrigation areas prove unsuitable or require lower irrigation rates than planned; the only feasible solution will be for CCC to turn to areas, which have already been identified as less desirable for irrigation due to soil composition, rocky nature, and other terrain constraints. The less desirable areas lack geotechnical assessment (and potentially also other critical environmental assessment(s)), which is unacceptable.
- 38 The proposed irrigable areas do not align with the guidance from the U.S. Environmental Protection Agency (**USEPA**)<sup>8</sup> design manual. The Design Flow Report identifies this

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<sup>5</sup>Beca Report, July 2020: Akaroa Wastewater Summary of Disposal and Reuse Options, CH2M Beca Ltd 17 July 2020, table 9-2 (p109), 0.04µm hollow fibre ultra-filtration filter specified.

<sup>6</sup> Beca Report, April 2024: Design Flow Basis Update Report, p22.

<sup>7</sup> GDH Limited Report, February 2023: Akaroa WWTP Preliminary Process Design Report, p9.

<sup>8</sup> Process Design Manual for Land Treatment of Municipal Wastewater, USEPA (2011)



guidance as an important step in determining suitability for municipal wastewater discharge. Key USEPA recommendations include:

- 38.1 Exclude land with a slope of greater than 19 degrees unless a site-specific geotechnical assessment confirms the land as suitable.
  - 38.2 Exclude land with a slope of greater than 15 degrees for land downslope to the coastline.
  - 38.3 Exclude land with identified instability within or downhill of the area.
  - 38.4 Exclude land that, if it became unstable, could pose a risk to downslope residences and infrastructure.
- 39 FBPI are concerned that many of the identified suitable irrigation areas will be deemed unsuitable following further detailed assessment. Desktop geotechnical assessment is inappropriate, particularly as areas are identified as High Soil Erosion Risk Areas defined in the CLWRP planning maps.
- 40 The irrigation application rates at both irrigation sites have been increased by 12% above what was previously considered to be acceptable for land stability.<sup>9</sup> This appears to have come about from a reduced irrigable area than that originally considered – 35.7ha as compared to 40ha. As above, the CCC modelling/ technical assessment has not been updated and/ or the uplift in wastewater justified as being appropriate for site characteristics/ soil conditions.
- 41 The increase in wastewater to be applied via irrigation has the potential to result in soil saturation, landslips, nutrient and heavy metal accumulation in soils, surface water run-off into waterways and wetlands (located within and close to the irrigation fields), and the coastal marine area.
- 42 The increased irrigation rates appear to be calculated on a seasonal average, and do not factor in that the ability to irrigate will be significantly reduced in wet winter months, this is a common problem for primary sector and industrial discharges within the region. Soils become waterlogged and surface water ponding can persist for lengthy periods. The Application makes no provision for stand-down periods where irrigation cannot occur, despite the Flow Design Report recognising that:

*The Akaroa network demonstrates a long “tail” of increased flow following rainfall events due to an elevated groundwater table and subsequent increased groundwater infiltration. This*

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<sup>9</sup> Outline of PDP Akaroa Wastewater Irrigation Model, Pattle Delamore Partners Ltd 2019

*effect is pronounced in winter when rainfall is more frequent and the effect of multiple events in succession is cumulative.”<sup>10</sup>*

- 43 FBPI agree with Mahaanui Kurataiao, on behalf of the Papatipu Rūnanga (Ōnuku), that the wastewater discharge to land needs to be appropriately managed so as not to cause over-saturation and ponding which would in turn result in run off or seepage into groundwater and other nearby waterways in the area.<sup>11</sup> In contrast, CCC appear to have adopted an approach of maximizing the irrigation application rates without due consideration for the resulting environmental impacts. FBPI acknowledge that imposing irrigation stand down periods will inevitably result in system overflows – a direct result of insufficient storage capacity.

## **Environmental effects**

### *Soils*

- 44 Nitrogen (**N**) and heavy metals can significantly alter the soil profile over time if not carefully monitored and/ or adaptive management imposed (including a cease of irrigation when soils are at their limits). Failure to adequately manage nutrient accumulation in soils can lead to significant adverse environmental effects, particularly for water quality. The Application acknowledges this – *“elevated nutrients may substantially alter freshwater outcomes”*. The Application confirms that the groundwater table beneath the irrigation fields is high which elevates the risk of contaminants leaching to groundwater.
- 45 The irrigable areas are to be planted entirely in kānuka. There is a precedent of wastewater being applied to forestry blocks, a natural source of fertiliser to increase growth rates, but application to indigenous species is a novel and untested method. It lacks scientific support, particularly whether kānuka will uptake (and survive) elevated nutrients.
- 46 The lack of reliable data, and limited literature referenced in Appendix V Nitrate Assessment suggests the N loss that could occur through denitrification is significantly overstated. Given the potential for significant adverse effects, particularly on water quality, FBPI considers that a precautionary approach must be adopted until more reliable data can be obtained.

### *Climate Change*

- 47 The AWTIS is less resilient to the effects of climate change than the current system because of the capacity issues (including I&I and undersized key infrastructure components like the terminal pump station and storage facilities). There is very little headroom (if any) for the proposed system to manage increased wet weather, storm surges, inundation, flooding and

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<sup>10</sup> Design Flow Report, p15

<sup>11</sup> Mahaanui Kurataiao, Cultural Advice Report, J6067 – Akaroa Treated Wastewater Irrigation System (CRC235038 – CRC235041), February 2024 p11

sea level rise. In addition, the location of key infrastructure i.e. the terminal pump station, is on the coast. This is poor planning as this asset has no longevity in its proposed location.

- 48 Increased (frequency and severity) wet weather events, or other natural hazard events such as fire or earthquake, pose additional concerns. There is no fall-back/ Plan B/ contingency option for disposal (other than presumably an emergency discharge to the coastal marine area) where the AWTIS network is damaged.
- 49 The effects of climate change are already being felt around the world, and the Banks Peninsula is no exception. For example, in December 2021 a localised rain event caused catastrophic slips and damage to infrastructure in the eastern bays just over the ridgeline from Robinsons Bay, including in the forest clad Hinewai Reserve.
- 50 In July 2023, a record amount of rainfall was recorded in a single day in the Akaroa area. The resultant land instability above the Duvauchelle WWTP further prompted CCC to change direction on its plans for the proposed new Duvauchelle wastewater system, now proposing to send the raw wastewater stream to be processed by the Akaroa WWTP and stored at Robinsons Bay.
- 51 The AWTIS does not contribute to sustainable management and is inconsistent with emissions reduction targets. Its power consumption to pump wastewater up large hills and along the many kilometres of pipework proposed to convey wastewater to the irrigation fields will be significant.
- 52 Critically, the Application fails to factor in climate change (more frequent and extreme wet weather events) to its capacity modelling.

#### *Amenity*

- 53 The ten storage tanks in Robinsons Bay are proposed to be 9 x 23m, each substantially exceeding the Christchurch District Plan's permitted standards for height and footprint of buildings, and together the maximum permitted site coverage. The tanks are proposed to be erected at 150m elevation, and will be very visible from many private and public locations. The screening proposal with plantings will take time to establish, and is unlikely to mitigate effects. The Application makes no mention of the consequences of potential tank failure due to slips, earthquakes, fire etc.
- 54 Whilst the Appendix Q Geotechnical Report<sup>12</sup> warns of slope instability around the tank platforms, no assessment has been provided of the risks associated with irrigating around these areas, of the tank platform failing, or of the risks to downslope infrastructure including the irrigation field, archaeological areas, and downslope residences.

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<sup>12</sup> Geotechnical Desktop Study and Preliminary Investigations, dated March 2023 (Appendix Q), p 21

- 55 FBPI consider the visual impacts of the storage tanks, and the associated earthworks have been substantially underestimated in the Application<sup>13</sup>. The cluster of, and industrial nature of the proposed structures are out of character with the surrounding landscape, and will have a more than minor impact on natural character. This will be particularly evident to residents of Robinsons Bay and from the many other viewpoints such as the summit and main roads into Akaroa.
- 56 The terminal pump station in Akaroa is proposed to occupy a highly frequented public area at the boat ramp. The Application states that the terminal pump station will be fully enclosed, but as noted above, overflows in proximity to the pump station are anticipated based on existing weather patterns and I&I volumes.
- 57 Pump stations will be required to pump the treated wastewater up to the storage tanks and to the irrigation fields above the tanks. However, the Application provides no description of the location(s), or an assessment of the visual or other associated effects such as noise, odour or emergency discharges.

#### *Biodiversity*

- 58 The Application involves irrigation to a monoculture of kānuka. This plant currently thrives on Banks Peninsula in the current climatic conditions, and without irrigation. Kānuka is known to be intolerant of wet conditions<sup>14</sup>, so whether it will tolerate or thrive under continuous irrigation with a high nutrient load is not known and not supported by evidence.
- 59 Myrtle rust is a serious fungal disease that affects plants in the myrtle family, including kānuka. It is now prevalent in the North Island and upper South Island<sup>15</sup>. Although it is not currently affecting kānuka on Banks Peninsula to a significant degree, as the climate warms, it is likely to move further south. Having the irrigation field planted with a single species makes it more vulnerable to complete failure should a disease such as myrtle rust take hold. The Application fails to adopt the recommendations in the Appendix B Terrestrial Ecology report.
- 60 Kānuka is also one of the most flammable native trees giving rise to fire risk.
- 61 The Application identifies several areas of indigenous flora, mostly within the irrigation area – “*dense remnant and secondary indigenous forest*” present, along with significant habitat

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<sup>13</sup> DCM Urban Design Ltd memo, November 2023: Landscape Visual Impact Assessment Addendum of Effects Memo D, p2

<sup>14</sup> *Forest succession and regeneration, Mānuka, kānuka and gorse*, Te Ara The Encyclopaedia of New Zealand <https://teara.govt.nz/en/forest-succession-and-regeneration/page-4>

<sup>15</sup> *Managing native plants susceptible to myrtle rust, Guide for large-scale planting and restoration programmes*, Biosecurity New Zealand (July 2018) <https://www.myrtlerust.org.nz/assets/Uploads/Planting-and-managing-native-myrtle-species-Landowner-advice-PDF-July-2018.pdf>

(coastal and freshwater) for indigenous fauna, including endangered seagrass within the harbour. This species already suffers the effects of climate change, with beds reducing, and sewerage as a known stressor – its growth is limited by nutrients.

- 62 As directed by the National Policy Statement for Indigenous Biodiversity (**NPS-IB**) a precautionary approach must be adopted where the effects on indigenous biodiversity are uncertain and unknown, and those effects have the potential to cause significant irreversible damage to indigenous biodiversity, including ecosystems.
- 63 The AWTIS fails to meet clause 1.7 of the NPS-IB – at least no overall reduction in the size of populations, the properties and function of, and the resilience and adaptability of ecosystems. Streams traverse the proposed irrigable area and provide habitat for freshwater taxa – fish and invertebrates. The planting of kānuka is not the golden ticket and fails to have regard to effects on existing indigenous biodiversity, which may be displaced by the construction and operation of the AWTIS.
- 64 The Application fails to meet Policy 11 of the National Coastal Policy Statement (**NCPS**). The Appendix W Statutory Assessment concludes that the environmental effects of the AWTIS will be minor. FBPI reject this for the reasons detailed in this submission and consider that conservatively the effects will be more than minor, and potentially significant.
- 65 The insignificant irrigation setbacks proposed (5-20m) fail to protect identified ephemeral and permanent watercourses and natural inland wetlands, and are inadequate to protect amenity for neighbouring landowners.

#### *Water quality*

- 66 As noted above, the risk of system overflow, the untested application of wastewater to land on steep slopes, the high groundwater table, and the insufficient irrigation setbacks give rise to a high probability of the AWTIS generating significant adverse effects on water quality. This outcome is inconsistent with the directives in the National Policy Statement for Freshwater (**NPS-F**), including the impact on natural inland wetlands. The AWTIS also proposes to install pipes beneath streams. FBPI do not understand how this is compatible with freshwater outcomes.
- 67 An adequate assessment of the AWTIS against the relevant provisions of the NES-F has not been undertaken by CCC, including but not limited to a consideration of the effects that the proposed earthworks may have on identified wetlands.
- 68 The Appendix W Policy Assessment suggests that the values of the harbour will be enhanced by the AWTIS. The FBPI acknowledge that whilst the removal of the ongoing and constant discharge of treated wastewater via the Harbour outfall could be seen as positive, the reality

is that this will be replaced with frequent raw and treated wastewater overflows from key infrastructure, likely into the coastal area or freshwater bodies.

- 69 As acknowledged in the Application, private water supplies in Robinsons Bay may be affected by the AWTIS. As mitigation, CCC proposes to extend the Duvauchelle potable supply and offer connection for affected groundwater users. This does not mitigate environmental impacts from groundwater contamination or effects on those who rely on this resource. The Duvauchelle water supply is poor in both quality and quantity, and level 3 and 4 restrictions are imposed regularly. Water is often transported in from elsewhere via tankers during wet weather, and during most summer seasons.

#### *Odour*

- 70 No consents are held by CCC to authorise a discharge to air from the irrigation fields. Odour from the discharge of wastewater on the steeper slopes of the Robinsons Bay valley will carry in the prevailing winds, and although the dripper irrigation will be low lying i.e. not small air borne particles, any ponding and surface run-off (anticipated due to application rates) creates odour risk, as do the regular system overflows and storage facilities - the wet-weather storage tank (to contain raw sewerage), and the large storage tanks clustered in Robinsons Bay. Wastewater can easily become anaerobic when held in storage.

#### *Heritage*

- 71 As stated in an independent archaeological report conducted by Sunrise Archaeology: *“Robinsons Bay is an important archaeological landscape and cultural resource, and places such as this are increasingly rare on Banks Peninsula.”* The CCC Concept Landscape Plans fail to include the heritage sites, and the proposal will not adequately preserve them for the public.
- 72 The Application<sup>16</sup> states that the impacts on archaeological values and heritage will be minimal. FBPI disagrees. CCC has already shown great disrespect for the heritage and archaeological values of the site. Large vehicles and equipment have driven over, parked, and operated on the Sawmill site itself, the Tramway is to be planted over, and the 1860s cottage is to be planted on three sides (completely destroying the view shafts to it from the Robinsons Bay valley). These values must be protected and retained for future generations.

#### **Alternatives and urban growth**

- 73 FBPI consider that the Application’s consideration of alternatives is inadequate and that some options (or a combination of options) were discounted at an early stage – in favour of the

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<sup>16</sup> Akaroa Treated Wastewater Irrigation Scheme - Application and Assessment of Environmental Effects, dated May 2023, page 78

tāngata whenua endorsed solution – despite them presenting as viable alternatives to the CCC preferred AWTIS.

- 74 The assessment of alternatives is elevated by Policy 23 NCPS, which requires CCC to not allow discharges of untreated wastewater to the coastal environment unless there has been adequate consideration of alternative methods, sites, and routes, for undertaking the discharge, and this is informed by an understanding of tāngata whenua values and the effects on them. This is a critical consideration when assessing CCC's consent application with its anticipated frequent overflow discharges.
- 75 Further, it has long been the FBPI view that the “purple pipe” should be extended through the length of Akaroa and terminate at the existing harbour outfall. This would provide a mechanism to distribute treated wastewater for re-use in the future, and at the same time offer a safe plan B for treated wastewater overflows and issues with the irrigation system. This option has not been adequately considered.
- 76 FBPI considers there is no scope within the Application to add the Duvauchelle wastewater stream to the ATWIS. Notwithstanding this, the Application fails to provide an adequate assessment of the potential and actual environmental effects resulting from the increased wastewater volumes.
- 77 In addition, there is simply no available headroom to add other communities such as Takamatua and Robinsons Bay to the ATWIS. This demonstrates poor planning, and the identified capacity shortfalls make no provision for future population growth – the AWTIS does not deliver on CCCs RMA and LGA fundamental statutory duties.

### **Statutory considerations**

- 78 FBPI considers that broadly, the Application fails to meet relevant statutory assessment criteria (including assessment of environmental effects), fails to have regard to and is inconsistent with the provisions of several key planning documents, and fails to deliver a wastewater treatment and disposal solution for Akaroa that embodies the RMA concept of sustainable management.
- 79 Several non-exhaustive concerns are detailed below<sup>17</sup>. For the avoidance of doubt, the identified matters are not intended to constrain the broad reach of FBPI's submission in the preceding paragraph.

### *Inadequacy of information*

- 80 Section 104(6) provides that a consent authority (or their delegated decision makers such as a Commissioner in this instance) may decline an application for resource consent on the

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<sup>17</sup> Reference to key National Policy Statements also referred to elsewhere in the submission.

grounds that it has inadequate information to determine the application. FBPI ask that this discretion is exercised, reliant on the numerous and significant miscalculations, material detail missing from the Application, and an inadequate assessment of the effects of the AWTIS on the environment.

#### *Cumulative effects*

- 81 The AWTIS fails to address cumulative effects, including from heavy rainfall events – generating sediment and transportation of surface contaminants, the failing Akaroa stormwater infrastructure which transports run-off from roads and leaks/ leaching to land and water, other industry contributions, and other Akaroa bays community wastewater schemes.
- 82 Section 107 of the RMA provides that consent cannot be granted where the activity (if after reasonable mixing) either by itself or cumulatively gives rise to listed environmental effects – colour change, odour, rendering of freshwater unsuitable for consumption by farm animals, and any significant effects on aquatic life. FBPI considers that there is inadequate information available to determine, when considering the effects of the AWTIS in the round with other discharges, whether the AWTIS will result in the listed effects on water quality. CCC’s compliance track record is poor, and FBPI has no confidence that it will comply with the consent conditions (to manage the above listed effects) were they imposed.

#### *Wastewater Standards*

- 83 In the event that the Application is granted, it is critical that CCC are required to comply with the recent addition to the RMA (s104(2D)) to ensure compliance with the Water Services Act (**WSA**).
- 84 FBPI understands that wastewater performance standards (to be developed under the WSA) have not yet been advanced but note the guide the development of the standards that prescribe four key guiding outcomes:
- 84.1 Efficient networks;
  - 84.2 Reliable networks;
  - 84.3 Resilient networks; and
  - 84.4 Economically sustainable networks
- 85 FBPI considers that the AWTIS fails each of the four listed guidance objectives.



## **Conclusion and relief sought**

- 86 FBPI consider that the AWTIS will result in environmental effects that are more than minor (and potentially significant in some cases). The Application is inconsistent with numerous relevant planning and policy documents, it fails to safeguard the life supporting capacity of water and ecosystems and does not recognise and provide for matters of national importance as required under the RMA.
- 87 Reliant on the concerns identified above, FBPI considers that the Application is not fit for purpose and is incomplete. FBPI seeks that the Application be declined in its entirety (or such other relief that would give effect to this submission), and requests that no component of the AWTIS ought to be considered or consented piecemeal. To do so, risks the Application being assessed with a less onerous activity status, and fails to ensure all relevant matters/ information are considered 'in the round' for decision.

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