

Under the Resource Management Act 1991 (**RMA**)
In the matter of The Otago Regional Council Proposed Otago Regional Policy Statement 2021 (excluding parts determined to be a fresh water planning instrument).

Submission by Dunedin City Council

Evidence of James Taylor for Dunedin City Council

23 November 2022

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Qualifications and experience

- 1 My name is **James Douglas Taylor**.
- 2 I hold the qualification of a Bachelor of Planning with first class honours from the University of Auckland. I am a Full Member of the New Zealand Planning Institute. I have practised in the field of town planning/resource management planning since 2004, primarily working for planning consultants and construction contractors on infrastructure projects in Auckland, Brisbane and Dunedin. Currently I am a Senior Planner (Senior Associate) in the Dunedin office of Beca Ltd.
- 3 I have over 18 years' experience in consenting infrastructure projects. The last 6 years of which have been in Otago where I have been part of infrastructure delivery teams that have consented a wide variety of infrastructure projects including:
 - (a) Road reclamations in Otago harbour for Waka Kotahi;
 - (b) Jetty's and pontoons in Otago for Dunedin City Council;
 - (c) Road upgrades for Waka Kotahi and Dunedin City Council;
 - (d) Watercourse stabilisation and culvert upgrades for Dunedin City Council and KiwiRail;
 - (e) Bridge Replacement projects for Central Otago District Council;
 - (f) 3 waters network upgrades for Dunedin City Council and Clutha District Council through contaminated and flood prone sites;
 - (g) Water take consents for Clutha District Council;
 - (h) Wastewater discharge and stormwater discharge for Dunedin International Airport Limited and Dunedin City Council;
 - (i) Coastal access track and carparking for Dunedin City Council and the Department of Conservation; and
 - (j) Identification of potential Wastewater Treatment Plant discharge to land locations for Dunedin City Council;

Code of conduct

- 4 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance

with it and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Scope of evidence

- 5 In this evidence I cover the following topics from the proposed Otago Regional Policy Statement (pORPS), with a particular focus on how they may impact the operation, development and establishment of Dunedin City Council's (DCC's) *Lifeline Utility* and *Regionally Significant Infrastructure*:
- (a) Air Discharges (Policies AIR-P3-P5 and AIR-E1);
 - (b) Infrastructure in the Coastal Environment (Objective CE-05, Policies P04, P09 and P10 and Methods M4(4)a-b)
 - (c) Soil and Land (Objectives LF- LS-O11, O11A and O12 and Policy LF-LS-P17
 - (d) Non-Renewable Energy Generation (policy EIT-EN-P5)
 - (e) Definition of Regionally Significant Infrastructure
 - (f) Locating Infrastructure (Policy EIT-INF-P13)
 - (g) New Contaminated Land (Policy HAZ-CL-P15)

AIR DISCHARGES

- 6 DCC submitted on this topic (reference 139.050), requesting amendments and or new policies so that:
- (a) the use of the word avoid be changed to “avoid or minimise as far as practicable”;
 - (b) provision is made for air discharges from infrastructure;
 - (c) language is changed so that conflicts are reduced; and
 - (d) clarity is improved.
- 7 The section 42A Resource Management Act (RMA) report does not acknowledge DCC's submission on this topic except for the submission on the use of the word “avoid” which is addressed at section 7.10 and then in Ms Goslin's supplementary evidence on the Air Chapter. Ms Goslin maintains that in her opinion, such effects should be avoided and recommends the AIR-P4 be amended to:

“Avoid discharges to air that cause noxious or dangerous effects and avoid, as the first priority, discharges to air that cause offensive, or objectionable effects”

- 8 I do not support this recommendation.
- 9 The reason why I raise this as a concern is that DCC’s existing reticulated wastewater and water networks may incidentally cause or result in air discharges that have the potential to adversely affect amenity, cause offence or be objectional. These include discharges from wastewater treatment plants, wastewater land disposal sites, pump stations and from large scale diesel generators required during power grid outages at all of DCC’s critical asset locations.
- 10 Additionally, it is possible that future electrical load at DCC’s critical plants could require back up diesel generation exceeding 1MW in capacity and given the nature and known possibility of grid outages, s330 emergency provisions of the RMA will not always apply for electrical grid outages.

AIR-P3 – Providing for discharges to air

- 11 Providing for air discharges from *Lifeline Utilities* and *Regionally Significant Infrastructure* is essential in providing for the wellbeing of the community and the pORPS has not delivered this.
- 12 The proposed solution to address this deficiency is to amend Policy AIR-P3 as follows:

“Allow discharges to air provided they do not adversely affect human health, ~~amenity values, mana whenua values, and~~ the life supporting capacity of ecosystems **and they minimise adverse effects on amenity values as far as practicable.**”

AIR-P4 – Avoiding Certain Discharges

- 13 As DCC’s wastewater discharge consents to both air and water expire, alternative treatment and disposal methods will be required to support improved environmental standards that will be required by new consents under the contemporary regulatory framework. These are highly complex decisions that take time and have significant social, economic, cultural and environmental implications.
- 14 A policy that directs avoidance of air discharges from the wastewater treatment process as the first priority would rule out a significant number of treatment and management options that could otherwise reduce potential impacts on other values such as *te mana o te wai* or coastal water quality.

For this reason, I disagree with Ms Goslin in her defence of the use of the word avoid as suitable for air discharges. In many cases, a well located and managed offensive or objectional air discharge is the most appropriate and first priority solution for a complex infrastructure challenge that could result in improved social, environmental and cultural outcomes overall.

15 Additionally, as outlined by Mr Frentz in his evidence AIR-P4 may potentially conflict with the provisions of the NES-AQ and it is not otherwise necessary to repeat higher order policy.

16 Therefore, the proposed solution to address this issue is to delete AIR-P4.

AIR-P5 – Managing certain discharges

17 AIR-P5 does not acknowledge air discharges from *Lifeline Utilities* or *Regionally Significant Infrastructure*.

18 The proposed solution to address this issue is to amend AIR-P5 by inserting new clauses (6) and (7) as follows:

(6) Lifeline Utilities; and

(7) Regionally Significant Infrastructure

AIR-E1 – Managing certain discharges

19 AIR-E1 does not acknowledge the importance of air discharges from *Lifeline Utilities* or *Regionally Significant Infrastructure*.

20 The proposed solution to address this issue is to add a sentence to AIR-E1 that directly links to policies AIR-P3 – P5. This could be by way of a new second sentence within AIR-E1:

...“ Air quality may be affected by a wide range of activities including those that emit dust, contaminants or odour and those activities may include private or public/institutional activities as indicated in AIR-P5, all of which have a role to play in managing ambient air quality and improving degraded air quality within the context of their own function or purpose.”

INFRASTRUCTURE IN THE COASTAL ENVIRONMENT

21 DCC submitted on this topic (reference 139.061, 139.066 and 139.076), requesting amendments or new objectives/policies that:

- (a) provide more specificity in relation to activities in the coastal environment;
 - (b) the use of the word avoid be changed;
 - (c) the relationship of the objectives and policies to the NZCPS be clarified;
 - (d) support policies that recognise the importance of infrastructure in the coastal environment; and
 - (e) amend methods so that they are practical and manageable with respect to mixing zones and emergency municipal wastewater overflows to the coastal environment.
- 22 The section 42A report, in the absence of specific amendments to implement the relief sought, rejects the majority of the DCC submissions – although I do acknowledge the changes proposed at CE-M3(4)(a).
- 23 The reason why this is raised as a concern is that DCC has significant *Lifeline Utility Infrastructure* located within the coastal environment, often in areas of high natural character, that will be impacted by the pORPS. It is critical for the basic functioning of Otago’s coastal settlements that infrastructure currently in the coastal environment can be maintained, upgraded, replaced and that new infrastructure may be installed in the coastal environment, if that is the best practicable option, as settlements grow.
- 24 Consideration must be given to the relevant standards for that infrastructure, such as water quality, seismic response standards and climate resilience, which have the potential to become more prescriptive and onerous over time, thereby requiring new or upgraded infrastructure, often of an increased scale, to ensure the sustainable future of those settlements.
- 25 Whereas the NZCPS provides a balanced policy framework that specifically recognises the importance of infrastructure and sets a framework that outlines how conflicting objectives can be managed. The Coastal Environment sections of the pORPS focus on a smaller portion of objectives and policies and in some cases use inflexible language to the extent they could be in conflict with the provisions of the NZCPS.
- 26 As a consequence of reducing the matters addressed there is a reduced emphasis on, and provision for, essential infrastructure within the coastal environment in the pORPS as compared to the NZCPS.

- 27 I have not suggested remedying this by inserting a more complex policy framework within the pORPS, after all the NZCPS will still be relevant. However, I have suggested making a change that will, in my experience, assist in preventing unintended consequences during infrastructure design and delivery.

CE-O5 - Activities in the coastal environment

- 28 CE-O5(2) requires that activities in the coast are “*of a scale, density and design compatible with their location*”. Infrastructure is often arguably of an incompatible scale within a coastal environment. For example, DCC own a jetty adjacent to Wellers Rock. It is likely to require replacement soon, an argument could be made on the basis of this objective that, due to the sensitivity of the environment any increase in scale necessary to achieve modern climate resilience and seismic engineering standards, any replacement structure will not be compatible with the location. Similarly, a road safety or climate resilience improvement project along a section of coastal road in an area of high natural character that requires a modest increase in footprint into the CMA could be judged to be of an incompatible scale in the context of high natural character.
- 29 In my opinion, an objective that means development that will result in an increase in scale of *Lifeline Utility Infrastructure* necessary to achieve an important resilience or wellbeing standard is limited to where this is “compatible” - even where it has a functional need to be located where proposed (as per CE-O5(3)), is not a suitable objective for the Coastal Environment.
- 30 On this basis I am of the opinion that CE-O5(2) is contrary to Objective 6 bullet 1 of the NZCPS which reads:
- (a) “*the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits*”
- 31 After all, with regard to lifeline infrastructure and Regionally Significant Infrastructure it is likely to be the function of the activity that determines scale density and design rather than the location, notwithstanding that the location may still need to be appropriate and some environmental constraints may apply. If the intent of CE-O5(2) is to manage the potential adverse effects of activities on natural character, this is thoroughly addressed in CE-P4 and the NZCPS.
- 32 Therefore, in my opinion CE-O5(2) should be deleted.

CE-P4 – Natural Character

- 33 DCC has considerable assets located in areas of the coastal environment that will likely be classified as being of high natural character as well as some that may be located in areas classified as being of outstanding natural character. NZPS Policy 13(1)(a) requires subdivision, use and development to avoid adverse effects from activities within areas of outstanding natural character.
- 34 CE-P4(1) however, requires that areas of both high and outstanding natural character be identified. Given the critical difference between these areas, in my opinion the drafting should be clear that this Policy is requiring two separate areas to be identified – both high and outstanding, rather than to identify an area that contains either. My suggested amendment to CE-P4(1) is listed below:

*“...identifying areas and values of high **natural character** and of outstanding natural character (**as two separate categories**), which may include matters such as...”*

- 35 Additionally, CE-P4 refers to avoiding significant adverse effects in all areas. This has the potential to be used as a way to seek to prevent reclamations and other associated works associated with building climate and seismic resilience into coastal *Lifeline Utility Infrastructure*. Lifeline utility infrastructure has the potential for significant adverse effects on natural character that should certainly be minimised but that may not be possible to avoid. However, given that CE-P4 is seeking to create a second tier of “high natural character” my opinion is that CE-P4(3) should be limited to this category as follows:

*avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects on natural character outside the areas in (2) above **in areas of high natural character***

CE-P9 and P10 – Activities within the coastal environment

- 36 I support both CE-P9(3) and CE-P10 as modified in the section 42A report and request that they are retained. These provisions acknowledge the importance of the provision of infrastructure.

CE-M3(4)(a) – minimising size of mixing zone

- 37 In response to DCC’s submission, the section 42A report has adjusted the CE-M3(4)(a) to “*minimise mixing zones before water quality standards*

need to be met". However, there are many variables that impact upon what an appropriate mixing zone might be. During large rain events, for example, DCC's stormwater network captures a significant volume of water, including from many natural watercourses that eventually feed into the stormwater network. During these events dilution will be considerable and due to high volume and velocity at discharge to the CMA a larger mixing zone is necessary. This can be a very different scenario to a small point source discharge in a small catchment in dry weather conditions.

- 38 In my experience mixing zones should be determined by a scientific method taking into account the nature and volume of the relevant discharge and the nature and sensitivity of the receiving environment. In preparing discharge consent applications, Beca has often used the Ministry for the Environment 1994 discussion paper by Rutherford and Zuur, "Water Quality Guidelines No. 2".
- 39 The amended pORPS wording has a different focus than Policy 23 1(e) of the NZCPS which requires that when managing discharges to the coastal environment to have particular regard to "*use the smallest mixing zone necessary to achieve the required water quality in the receiving environment*". This acknowledges that the mixing zone must be the smallest necessary to achieve a water quality standard which is quite different to the arbitrary minimisation without reference to what is necessary.
- 40 In my opinion the description of the method for mixing zone minimisation in the pORPS should recognise the variables in the science behind determining the optimal mixing zone by acknowledging the mixing zone should be the "smallest necessary to achieve the required water quality" and to also align with the wording in the NZCPS. I propose the amended wording for CE-M3(4)(a) below:

using the smallest mixing zone necessary to achieve the required water quality standard *minimising the size of the mixing zone before the ~~water quality standards need to be met~~ in the receiving environment and minimising adverse effects on the life-supporting capacity of water within any mixing zone;*

CE-M3(4)(b)– Municipal Wastewater Overflows

- 41 I acknowledge the proposed alteration in the section 42A report to CE-M3(4)(b) in response to DCC's submission on the matter to limit the prohibition of discharges of untreated human waste to "new discharges". However, I foresee two issues resulting from this drafting and address these below:

- (a) Policy CE-P3 addresses water quality and provides for the improvement of water quality. The methods jump from a reasonable “improvement” to prohibition of discharges. In delivering infrastructure this has the potential to result in unintended downstream issues. Given the nature of the issue however, I do support qualified avoidance, which is also better aligned to the NZCPS. I recommend alternative drafting below.
- (b) The second aspect in this proposed method that requires attention is the fact that technically a currently existing yet unconsented discharge could become a new discharge once a consent is granted. Therefore, to make this clearer and to avoid unintended downstream implementation issues I recommend this wording be altered to clarify that this is to apply to discharges from new sections of *Regionally Significant Infrastructure*. My recommended drafting is set out below:

~~prohibiting~~ **avoiding** any new discharge of untreated human sewage directly to water in the coastal environment **from any new or existing activity except for existing Regionally Significant Infrastructure:**

CE-M3(4)(bb) – Municipal Wastewater Overflows

- 42 I acknowledge the proposed new subclause CE-M3(4)(bb) in the section 42A report responding to DCC’s submission. However, it has provided emphasis on only one of the many possible causes of wastewater network overflow issues through “minimising stormwater inflows and infiltration”.
- 43 Identifying optimal solutions for reducing overflow issues from the wastewater network is a complex task, it may include options such as provision of additional downstream hydraulic capacity or relining sections to remove groundwater infiltration. Overflows can occur from periodic blockages, or poor practice from households disposing of non-soluble material in sewers causing blockages. If an ultimate solution is to discharge to land it may be more cost effective to provide a larger irrigation area than to remove stormwater infiltration. These mitigation measures should not be given less prominence by the pORPS Methods.
- 44 Therefore, for consistency I recommend that CE-M3(bb) be replaced with the same wording as was originally notified in LF-FW-P15 being:

Requiring the implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring for existing reticulated stormwater and wastewater systems

SOIL AND LAND

- 45 DCC submitted on this topic (reference 139.118, 139.120 and 139.122), requesting amendments or new objectives/policies that recognise that conversion of rural land to urban use cannot avoid impact on soil quality.
- 46 The Section 42A report rejects this submission on the basis that urban expansion is provided for in the UFD section.
- 47 I anticipate the section 42A author is referring to policy UFD-P4 – Urban Expansion. However, this policy specifically states at clause (5):

Expansion of existing urban areas is facilitated where the expansion manages adverse effects on other values or resources identified by this RPS that require specific management or protection

- 48 It is unclear how either urban or infrastructure expansion into rural land will manage the adverse effects on pORPS soil and land matters insofar as they will likely prevent the safeguarding and enhancement of soil quality as required by LF-LS-O11. In practice, I expect that without amendment, the soil and land objectives and policies referred to below would be used to oppose urban expansion and infrastructure establishment that has been developed in accordance with both the NPS:UD and the NPS:HPL together with the establishment or expansion of Regionally Significant Infrastructure in rural areas. Accordingly, their inflexibility, even when read with other sections of the pORPS, results in them conflicting with both the NPS:UD and the NPS:HPL.
- 49 Another important consideration is the overwhelming policy direction emerging in favour of discharges to land rather than to water. I have been involved in part of DCC's proactive management of its wastewater system by assisting in the identification of suitable rural land for wastewater discharge. Finding a suitable site is very challenging as there are many constraints on site selection including topography, geology, soil type, and physical separation requirements from features such as watercourses or water takes. Suitable rural land at a scale and location necessary for a municipal wastewater discharge is a very scarce resource in Otago. Even the new NPS:HPL at section 3.9 provides for development on highly productive land where it has been or will be established through a designation. However, the land and soil provisions below do not acknowledge this important and emerging matter. They are therefore, in my opinion, inadequate.

LF-LS-O11 - Soil

- 50 With respect to infrastructure location provisions the architecture of EIT–INF–P13 is not suitable for dealing with locating infrastructure in areas where it may adversely affect soil values as avoidance is not appropriate as a first priority for managing the potential conflict between soil values and infrastructure location.
- 51 Soil resources in urban areas and areas required for infrastructure, such as municipal wastewater discharges to land, may not be able to be safeguarded or enhanced.
- 52 Therefore, to provide flexibility to enable urban and infrastructure expansion, as provided for in the NPS:UD, the NPS:HPL and the UFD chapter of this pORPS, flexibility needs to be provided. I therefore recommend the following amendment to LF-LS-O11:

*The life-supporting capacity of Otago's soil resources is safeguarded or enhanced, now and for future generations **as far as practicable when consideration is given to the needs of current and future urban development and the operational needs of infrastructure.***

LF-LS-O11A – Highly productive land

- 53 With respect to the proposed LF-LS-O11A, its suitability in the context of my evidence above is dependent on the definition of highly productive land. However, I could not see a proposed definition of highly productive land within the supplementary evidence, additionally there is no definition within the National Planning Standards. I therefore presume that the definition of highly productive land is “as defined in the NPS:HPL”. On that understanding this means that land rezoned for an urban purpose would cease to be highly productive land, but it also means that there is a gap between this objective and the direction of the NPS:HPL with respect to infrastructure development. The NPS:HPL specifically defines certain development that is not inappropriate in highly productive land. Therefore I recommend that Objective LF-LS-O11A be amended to refer to protection from inappropriate development, this could then rely upon the architecture of the NPS:HPL which defines what is not inappropriate:
- 54 The availability and productive capacity of highly productive land for agricultural and horticultural production is **protected from inappropriate development.** ~~maintained now and for future generations~~
- 55 Given the timing of the NPS:HPL there may be an opportunity for the wording in this section to be reconsidered.

LF-LS-012 – Land and Fresh Water

- 56 I support the revised wording of LF-LS-012 as both urban expansion and infrastructure delivery can be undertaken in a manner that contributes to achieving environmental outcomes for freshwater.

LF-LS-P17 – Soil values

- 57 I disagree with the section 42A analysis of DCC's submission which concludes that policy LF-LS-P17 provides sufficient flexibility. Even if the intent of this policy is to simply set a purpose for a management regime as suggested, in practice the words will be taken at face value and the words are not flexible. This could have an impact on infrastructure provision including the establishment of municipal wastewater discharges to land.
- 58 Therefore, to provide flexibility to enable urban development and infrastructure expansion, as provided for in the NPS:UD, the NPS:HPL and the UFD chapter to this pORPS, flexibility needs to be provided. I therefore recommend the following amendment to LF-LS-P17 Soil Values:

Maintain the mauri, health and productive potential of soils by managing the use and development of rural land in a way that to the extent practical is suited to the natural soil characteristics and that sustains healthy:

- (1) soil biological activity and biodiversity,*
- (2) soil structure, and*
- (3) soil fertility.*

NON RENEWABLE ENERGY GENERATION

EIT-EN-P5 – Non-renewable energy generation

- 59 DCC submitted on this topic at (reference 139.150) seeking that the avoidance of non-renewable energy be limited to “large scale” energy generation given the breadth of energy generation activities this policy will affect.
- 60 The section 42A report rejects this submission on the basis that “*the context of the provision is in relation to development of non-renewable energy generation activities in Otago, and will not capture use of portable power sources, for example*”.
- 61 I disagree with the premise of this analysis; power resilience is essential for a significant number of activities ranging from Marae to industry to hospitals

and other *Lifeline Infrastructure* which need to operate during periods of electrical grid outage. In my opinion a policy preventing resilience that is necessary to underpin community wellbeing is unacceptable.

62 Until such time as large-scale battery technology has progressed to a suitable level and is practicably available, it is essential that back up fossil fuel electricity generation is able to be provided for in order to enable the functioning of *Lifeline Utility Infrastructure* and other community resilience requirements. Without provision for fossil fuel generation in the near to medium-future the wellbeing of the community and the environment is significantly compromised. For example, electricity for critical wastewater treatment and pumping stations, whose operation is necessary to avoid impacts on *te mana o te wai*, is essential during grid outages or other electrical faults. Smaller plants and pumps stations rely on portable generators, however, larger facilities have in-built, permanent, back-up generation available.

63 I therefore recommend the following changes to EIT-EN-P5 - Non-renewable energy generation.

64 **Providing for non-renewable energy generation where it is necessary for the resilience of Lifeline Utility Infrastructure while** facilitating the replacement of non-renewable energy sources in energy generation and avoiding the development of non-renewable energy generation activities in Otago **that feed into the electricity distribution network.**

Definition of Regionally Significant Infrastructure

65 DCC submitted on this topic (reference 139.007) requesting that the Regionally Significant Infrastructure definition utilise the new Waka Kotahi “One Road Network” terminology rather than the “One Network Road Classification” terminology.

66 The section 42A report accepts this change, however it does not make the required consequential adjustment necessary to refer to which of the specific one road network categories are Regionally Significant Infrastructure.

67 The reason why this is raised as a concern is that the definition as drafted is not clear as to which roads are *Regionally Significant Infrastructure*.

68 Not having critical community links such as Coast Road clearly defined as *Regionally Significant Infrastructure* could have unacceptable consequences during project delivery. For example, a reasonably foreseeable future project could be the requirement to adjust Coast Road

due to the significant instability issues present along Coast Road within a Significant Natural Landscape. If this was not *Regionally Significant Infrastructure*, the current drafting of the pORPS could result in a framework where the project is required to avoid the most practical and safe alignments as it is not *Regionally Significant Infrastructure* and therefore must avoid rather than minimise certain adverse effects even when they are minor.

69 Compounding this issue is that the original definition was not clear either. Therefore, in order to make the consequential adjustment to the definition utilising the updated One Network Framework it is necessary to first identify what roads under the One Network Road Classification were included in the *Regionally Significant Infrastructure* definition.

70 The original drafting of the *Regionally Significant Infrastructure* definition referred to roads in the One Network Road Classification that were of “regional importance”. The One Network Road Classification does not define which roads are of regional importance; rather it describes each road type generally. However, my reading of the One Network Road Classification categories is that ‘Secondary Collector’ and each of the higher order roads are regionally important. It is therefore only Access Roads that are not of regional importance. My opinion is informed by the general description of Waka Kotahi’s One Network Road Classification - functional classification document which states:

In the Primary/Secondary Collector and Access road categories we propose that the criteria other than the Typical Daily Traffic, Heavy Commercial Vehicles, Bus Urban Peak can be used to move a road up a category on the basis of local knowledge. For example, an Access road may provide critical connectivity or provide access to a regionally or locally significant tourist destination warranting it moving up a category to Secondary Collector even through it does not conform to the movement criteria for that category.

71 This paragraph suggests that if a road has a regionally important function an Access Road should be “moved up a category” to Secondary Collector Road. It therefore follows that a Secondary Collector Road may have a regional importance.

72 This aligns with my experience as to which roads in Dunedin City should be classified as *Regionally Significant Infrastructure*. For example, Coast Road, which is the sole *Lifeline Utility* link in and out of both Warrington and Karitane is primarily classified as a Secondary Collector under the One

Network Road Classification, and in my opinion, it is a regionally important lifeline function that all settlements in Otago have road communications.

- 73 'Access' roads in the One Network Road Classification are broadly equivalent to 'local urban' and 'rural' roads in the One Network Framework. Therefore, in my opinion all roads other than 'local urban' and 'rural' road categories of the One Network Framework are of regional importance and therefore are *Regionally Significant Infrastructure*.
- 74 However, due to the variability and flexibility of classifications within the One Network Framework it is also possible that some roads that have regional importance are not classified with a sufficiently high road order. Therefore, due to the nature of the classification system, flexibility in *the Regionally Significant Infrastructure* definition should be provided so that lower order roads that also provide lifeline connections to communities can also be considered as *Regionally Significant Infrastructure*. Otherwise, we would have a scenario where roads necessary for emergency vehicles to access a community are not classified as regionally significant.
- 75 I therefore propose the definition for *Regionally Significant Infrastructure* be amended as follows:

Regionally significant infrastructure means:

(1) roads which provide a lifeline connection for a community OR all road categories of the One Network Framework except for the categories 'local urban' and 'rural'... roads classified as being of regional importance in accordance with the One Network Framework ...

LOCATING INFRASTRUCTURE

EIT-INF-P13 Locating and Managing the effects of Infrastructure

- 76 DCC submitted on this topic (reference 139.165), that:
- (a) The relationship of this policy to other parts of the RPS is unclear;
 - (b) The requirement for *infrastructure* to avoid effects on areas of high recreational and high amenity value is overly onerous; and
 - (c) Infrastructure minimises impact on future urban land.
- 77 Other than a new policy to confirm that the provisions of the CE – Coastal environment chapter will apply to managing the effects of Infrastructure, the section 42A report has largely rejected the submission. With respect to the submission on the policy for infrastructure to avoid effects on areas of high

recreational and high amenity value the section 42A report states that this approach has been adopted from Policy 8 of the National Policy Statement for Electricity Transmission and that there is no reason that this should not apply to other types of infrastructure.

- 78 In my evidence I will focus on the submission relating to the use of the word avoid.
- 79 Based on my experience from involvement in high voltage transmission line projects I would suggest that utilising architecture from Policy 8 of the *National Policy Statement for Electricity Transmission (NPS:ET)* to apply to other infrastructure is inappropriate. The high voltage transmission lines of the national grid have very different characteristics and locational demands than most other infrastructure types.
- 80 The national grid connects places over great distances, and while there are specific locational requirements at the point of connection to generation facilities and lower voltage networks, there is often flexibility of alignment in between. Most other infrastructure exists to support a specific activity at a specific location, or needs to locate along, or at least utilise, a road network. Additionally, natural and physical land constraints are much less of an impediment to transmission lines and their towers. Tower footings are relatively small and can be delicately located to avoid areas of instability, rivers and wetlands while easily navigating steep topography and other constraints. Conversely, infrastructure such as a road or an industrial private trade waste pipeline covers a significant footprint that has far more specific locational requirements in order for it to serve its purpose. In my experience roads and other infrastructure with greater in-ground footprint are much less flexible.
- 81 Furthermore, Policy 8 of the NPS:ET does not direct that the planning of delivery of transmission system avoid effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities. It directs instead that the planning for transmission system projects “*seeks to avoid*”. This is quite different to the wording proposed in the pORPS, it effectively establishes an effects management hierarchy and in practice would normally require an alternatives assessment to demonstrate compliance in the many situations where avoidance of effects is not practical. The phrase “*seeks to avoid*” provides flexibility and is appropriate for a policy relating to our national transmission system that often has, by its nature, flexibility in determining an alignment.

- 82 A hypothetical scenario that is not uncommon in Dunedin that illustrates this issue is the requirement to adjust a rural road due to instability within a Significant Natural Landscape. If the road was not able to meet the *Regionally Significant Infrastructure* definition, the current drafting of the pORPS could result in a framework where the project is required to avoid the most practical and safe alignments as it must avoid rather than minimise certain adverse effects even when they are minor.
- 83 The section 42A report elsewhere states that avoid policies don't mean prohibit and that the other policies of the pORPS must be read together. However, in my experience when dealing with infrastructure – including *Lifeline Utility Infrastructure*, the regulatory process will use these conflicting policies to oppose. Avoid has been determined to mean avoid and the theoretical flexibility (that it doesn't mean "prohibition") should not be relied on. Rather than a framework that places significant burden on an applicant and then on those assessing the application, the drafting should be clear.
- 84 In my experience, lower order planning documents are better placed to provide a more detailed framework for managing effects than an RPS.
- 85 Therefore I propose the following:

...

(2) if it is not possible to avoid locating in the areas listed in (1) above because of the functional needs or operational needs of the infrastructure, nationally significant infrastructure and Regionally Significant Infrastructure manage adverse effects as follows:

~~(a) for nationally significant infrastructure or Regionally Significant Infrastructure:~~

- (i) *in significant natural areas, in accordance with ECO-P4,*
- (ii) *in natural wetlands, in accordance with the relevant provisions in the NESF,*
- (iii) *in outstanding water bodies, in accordance with LF-FW-P12,*
- (iii) *(a) in relation to wāhi tūpuna, in accordance with HCV-WT-P2*
- (iv) *in other areas listed in EIT-INF-P13 (1) above, minimise the adverse effects of the infrastructure on the values that contribute to the area's importance,*

~~(b) for all infrastructure that is not nationally significant infrastructure or Regionally Significant Infrastructure, avoid adverse effects on the values that contribute to the area's outstanding nature or significance.~~

NEW CONTAMINATED LAND

HAZ-CL-P15 – New contaminated land

- 86 DCC submitted on this topic (reference 139.217), seeking consistency with LF-FW-P15 (deferred for future consideration), which prefers discharges of wastewater to land over discharges to water.
- 87 The section 42A Report rejects the submission on the basis that the use of the word avoid does not mean prohibit, and when avoidance is not practical the policy provides for minimisation, to the extent practicable, of any potential resulting effects and it further states that a wastewater discharge to land would not result in contaminated land as defined by the RMA.
- 88 Determining potential wastewater disposal solutions is a complex and multidimensional task looking at large ranges of technology, disposal methods and the relevant regulatory framework. While I agree that an avoid policy in the pORPS does not necessarily mean "prohibit", it does provide policy guidance – that is, to avoid where avoidance is practical. When this is compared to the regulatory framework of a coastal discharge for example, Policy 23 of the NZCPS does not require blanket avoidance where practical as a first position. When assessing a long list of wastewater disposal methods the pORPS on the one hand prefers wastewater to be disposed to land in LF-FW-P15(1) but also requires avoidance of new contaminated land where practical, this is a more restrictive policy position than the NZCPS for coastal discharges. On this basis the pORPS would appear to prefer coastal discharge of treated wastewater over discharges of treated wastewater to land contrary to the direction of proposed policy LF-FW-P15(1).
- 89 On the matter of whether a wastewater land disposal site will become *contaminated land*, I disagree with the conclusion of the section 42A report. In my experience, and depending on treatment process, wastewater can contain trace metals that can build up over time that could have ecotoxic properties. While they are unlikely to have a significant effect on the environment in the course of normal operations, they do have the potential for a significant effect during an unlocking event after decades of operation, such as earthworks necessary to replace or reinstall the irrigation network due to the end of its life or failure. Therefore, in my opinion it is not prudent to rely on an assumption that a wastewater discharge to land will not create *contaminated land* as defined by the RMA in all cases. I also highlight that

the MfE HAIL list dated October 2021 includes as a HAIL activity “Waste disposal to land (excluding where biosolids have been used as soil conditioners)”.

- 90 Therefore, I propose the following amendments to HAZ–CL–P15 – New contaminated land:

With the exception of wastewater discharges to land, Avoid the creation of new contaminated land or, where this is not practicable, **and for wastewater discharges to land**, minimise adverse effects on the environment and mana whenua values.

Conclusion

91. My evidence has addressed specific section 42A report responses to the DCC submissions that relate to *infrastructure* as well as some areas where the submissions may have been overlooked.
92. I have provided suggested changes that would, in my opinion, provide greater clarity and direction when considering the establishment and operation of *Lifeline Utility Infrastructure* as is appropriate in a Regional Policy Statement.
93. I would be available to discuss these changes further in expert conferencing if that was directed.



James Douglas Taylor

23 November 2022