

**BEFORE THE INDEPENDENT HEARINGS COMMISSIONER
APPOINTED BY THE INVERCARGILL CITY COUNCIL**

UNDER the Resource Management Act 1991
IN THE MATTER of Part 8 of the Act
BY **SPACE OPERATIONS NEW
ZEALAND LIMITED**
Requestor

OPENING LEGAL SUBMISSIONS

Dated: 28 September 2026

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MAY IT PLEASE THE COMMISSIONER:

Introduction

- [1] These submissions are presented on behalf of Space Operations New Zealand Limited (**SpaceOps**, or the **Requestor**) in support of notice of requirement MIC/2025/20 for a designation over land and airspace surrounding the Awarua Satellite Ground Station (**Awarua SGS**) at 721 and 781 Colyer Road, Invercargill (**NoR**).
- [2] In brief, the NoR seeks a designation with two components:
- (a) an Airspace Limitation Surface, consisting of a horizon mask of 5 degrees, measured from 2 metres above the boundary of the Awarua SGS site and extending 3 kilometres in all directions (**Horizon Mask**), requiring further assessment and approval of protrusions into this Horizon Mask; and
 - (b) an Electromagnetic Interference (**EMI**) Limitation Area extending 2 kilometres from the boundary of the Awarua SGS site, which limits terrestrial emissions greater than –154 dBW/MHz at the frequencies used for the reception of radio signals from spacecraft as set out in the Table of Radio Spectrum Usage in New Zealand (PIB 21).
- [3] Conditions are proposed in respect of the Horizon Mask component which prescribe the process and decision-making components for the case-by-case assessment of any proposed penetration of the Horizon Mask. The conditions reflect the Requestor's intention, and the supporting evidence, that the Horizon Mask can be characterised as a 'trigger point' for further consideration as to whether a proposal would materially compromise the operation of the Awarua SGS to acquire, track or communicate with spacecraft.¹

¹ Evidence of Mr Dunn at Appendix A (proposed conditions) and summary statement, at [26].

- [4] Neither component of the NoR applies within the coastal marine area or over public conservation land.²
- [5] These submissions are intended to:
- (a) provide an overview of the legal framework applicable to the Commissioner's consideration of the NoR;
 - (b) respond to issues raised in the Council's s 42A Report and by submitters;
 - (c) Introduce the Requestor's expert evidence in support for the NoR and in response to matters arising from the Commissioner's Minute 4.
- [6] The key provision applying to the Commissioner's consideration of the NoR is s 171 of the Resource Management Act 1991 (**Act**). This section requires that, subject to Part 2, the Commissioner consider the effects on the environment of allowing the requirement, having particular regard to the matters in s 171(1)(a) to (d). Those matters include:
- (a) the relevant provisions of any national policy statement, regional policy statement and district plan;
 - (b) whether adequate consideration has been given to alternative sites, routes or methods;
 - (c) whether the designation is reasonably necessary for achieving the objectives of the requiring authority; and
 - (d) any other matter the Commissioner considers reasonably necessary.
- [7] The SpaceOps position is that its evidence establishes that the NoR proposed is reasonably necessary to achieve its objectives,

² Notice of Requirement for Designation, updated 24 March 2026; Evidence of Mr Dunn at [38].

that adequate consideration has been given to alternatives, and that, having particular regard to the matters contained in s 171(1)(b)(i), subject to Part 2 of the Act, the NoR it is an overall appropriate mechanism. This conclusion takes into account the effects of the requirement, the revised conditions, the continued ability to use and develop surrounding land, and the benefits of protecting established, nationally and internationally significant infrastructure³.

[8] Summarising these components, SpaceOps says:

- (a) The objectives against which reasonable necessity is tested are the requiring authority's own objectives, not objectives the decision-maker or submitters may prefer it to have. The evidence of Mr McNeill and Mr Dunn explains the reasonable necessity of the NoR to achieve SpaceOps's objectives, which include ensuring its ability to deliver modern, efficient and reliable antenna infrastructure to the space community in unique location that is important to the international space community.⁴ The Horizon Mask protection angle combined with the assessment criteria for penetration approvals are necessary mechanisms for protection of the requiring authority objectives. They are not merely desirable or ideal.⁵
- (b) The s 171(1)(b)(i) inquiry is directed at the adequacy of consideration given to alternative sites, routes, or methods of undertaking the work, not to whether the decision-maker or submitters would have selected the same option. The evidence of Mr McNeill and Mr Dunn traverses extensive alternative options considered to achieve reasonably necessary protection of the Awarua SGS.⁶ Mr McNeill also traverses the unique aspects of the established Awarua SGS

³ Summary statement of Mr Dunn, at [63], [81], [124], [454].

⁴ Evidence of Mr McNeill at [14] -15].

⁵ Evidence of Mr McNeill at [91]-[95].

⁶ Evidence of Mr McNeill at [91]-[95], Evidence of Mr Dunn from [302].

site itself, noting that finding any other equivalently suitable site has been 'close to impossible.'⁷ Having considered a range of alternative protection options, including different ground station sites, onsite mitigation / attenuation, alternative elevation angles and extent of airspace restrictions, exemptions and exclusions, SpaceOps has clearly demonstrated adequate consideration of alternative options.

- (c) Finally, the matters in s 171(1) are matters to which particular regard must be had; they are not thresholds. A key contested area of this hearing is with respect to the adverse economic impacts on the Industrial 4 zoned land primarily owned by Stewart Family Assets (**SFAL**). SpaceOps says the approach to such economic effects should not be in terms of competing allocation of resources, but rather, this is a matter particularly relevant to s 171(1)(a)(iv), namely, the extent to which the NoR is not consistent with the District Plan's Industrial 4 Zone. That enquiry requires looking holistically at the zone, not just enabling objectives and activities (but also constraints on built form that already exist).

[9] This key issue of contention is the focus of the SFAL evidence. However, SpaceOps says in response to this:

- (a) The extent to which any Industrial 4 zoned land is impacted by the NoR must be considered in light of the receiving environment as it exists or might be modified under permitted or consented activities likely to be implemented.
- (b) On this basis, the extent of impact on such activities is far more limited than described in the SFAL evidence. Much of

⁷ Evidence of Mr McNeil at [102], [361].

the Industrial 4 zoned land will not be restricted to the degree that SFAL claims.

- (c) There is nothing unorthodox in the requirement for a new activity seeking to establish itself in an environment having to demonstrate that its effects on an existing established activity are appropriate. The proposed NoR will provide a greater level of certainty and oversight to parties seeking to establish future activities as compared with the status quo situation under the Act.

[10] SpaceOps seeks confirmation of the NoR in full, subject to amended conditions offered as attached to the evidence of Mr Dunn. SpaceOps is willing to facilitate constructive discussions on the proposed conditions.

Requiring authority status and effect of designations

[11] In 2024, SpaceOps was approved as a requiring authority for its network utility activities of *constructing, upgrading, maintaining and operating the Awarua SGS* to the extent that the station undertakes radiocommunication activities defined in s 2(1) of the Radiocommunications Act 1989. This includes structures, works and activities ancillary to the transmission or reception or signs, signals, writing, images, sounds or intelligence of any nature by radio waves.⁸ Notably, the Ministers approval of SpaceOps as a requiring authority was attached to its activities at the Awarua SGS site.

[12] A separate NoR for the Awarua SGS land at 721 and 781 Colyer Road has been confirmed and incorporated into the District Plan as Designation 97. This provides for further expansion of the Awarua SGS

⁸ “The Resource Management (Approval of Space Operations New Zealand Limited as a Requiring Authority) Notice 2024” (10 March 2025) *New Zealand Gazette* No 2025-go1421 <<https://gazette.govt.nz/notice/id/2025-go1421>>.

and Mr McNeill in his summary statement will provide more context on plans for the same.

- [13] Requiring authority status is held by a few limited entities, including Ministers of the Crown, local authorities and approved network utility operators (**NUOs**). In practice, a requiring authority occupies a uniquely powerful position under the Act, enabling it to undertake activities without resource consent and, in some cases, to restrict development that may affect the safe or efficient operation of works on land that it does have an interest in. Parliament has conferred special statutory powers on requiring authorities as such authorities typically deliver public works, infrastructure or network utility projects that serve broader public purposes. The evidence of Mr McNeill traverses the uniqueness of the Awarua SGS. Its importance to the international space community and international operational relationships mean the benefits of maintaining functionality extend beyond the district and region.⁹
- [14] However, the statutory power conferred on requiring authorities is not unconstrained and is subject to checks and balances. Before approving an application to become a requiring authority, the Minister must be satisfied that the approval of the application is appropriate for the proposed works and that the applicant is likely to satisfactorily carry out all its responsibilities as a requiring authority under the Act.¹⁰
- [15] Further, in the case of a requiring authority approved under s 167, a notice of requirement for designation is limited by s 168(2) to a project or work carried out by a requiring authority, or a restriction reasonably necessary for the safe or efficient functioning or operation of such a project or work.¹¹

⁹ Evidence of Mr Dunn at [27]; Evidence of Mr McNeill at [52]-[76].

¹⁰ Resource Management Act 1991, s 167(4).

¹¹ Resource Management Act 1991, s 168(2).

- [16] Where a designation is sought by a requiring authority, statutory protections for landowners and submitters lie principally in s 171, which requires the consideration of environmental effects, having regard to the adequate consideration of alternatives and consideration of the reasonable necessity of the sought designation to achieve the requiring authority's objectives.
- [17] Where a designation is confirmed by the requiring authority and included in a district plan, it does not prevent land use subject to the designation. Rather, it restricts the use of that land subject to the designation where it would prevent or hinder a project or work to which the designation relates. The prior written consent of the requiring authority may be obtained to use the land subject to the designation.¹² Where written consent is refused by the requiring authority, appeal rights are available.¹³
- [18] When considered in this way, the designation sought on the terms set out in Appendix A to Mr Dunn's evidence is essentially providing for a more certain, regulated and transparent mechanism for all parties affected by the designation compared with the status quo:
- (a) It is an orthodox principle under the RMA that a local authority must assess the effects on the environment of an activity that an applicant is seeking to establish as appropriate in the circumstances. That environment includes other established activities.
 - (b) The approval pathway proposed in the revised conditions¹⁴ provides a certain and clear mechanism for managing potential conflicts between established activities and subsequent development. The fact that written consent may

¹² Resource Management Act 1991, s 176(1)(b).

¹³ Resource Management Act 1991, s 179.

¹⁴ Attached to the evidence of Mr Dunn.

be required from SpaceOps is a feature of the statutory regime for designations itself.

- (c) Potential effects on SpaceOps (as part of the existing environment) would be evident from the outset. A case specific assessment pathway provides a more proportionate and visible planning response than excluding the Industrial 4 Zone entirely.¹⁵

Legal framework for the Notice of Requirement

- [19] SpaceOps as a requiring authority approved under s 167, has submitted the NoR under s 168(2) of the Act. The NoR falls within the purpose of the requiring authority as set out in the Ministerial notice gazetted in March 2025.
- [20] The Commissioner's function is to make a recommendation to SpaceOps, as the Requestor, under s 171, with reasons. A decision whether to confirm or reject the recommendation in whole or in part is then made by the Requestor under s 172.
- [21] Section 171 was amended by the Resource Management (Consenting and Other Systems Changes) Amendment Act 2025.¹⁶ The NoR was lodged prior to the commencement date of s 57 of that Act and the amended s 171 does not apply to the NoR.¹⁷ As such, the following version of s 171 (prior to the Resource Management (Consenting and Other Systems Changes) Amendment Act 2025) applies to the Commissioner's consideration of the NoR:

¹⁵ Summary statement of Mr Dunn, at [64].

¹⁶ With effect from 21 August 2025. The NoR was lodged with ICC on 29 July 2025, and confirmed as received by ICC on 4 August 2025.

¹⁷ Resource Management Act 1991, Schedule 12, cl 55. The amendments to s 171 apply to a notice of requirement under s 168 given or issued on or after the commencement of the Resource Management (Consenting and Other Systems Changes) Amendment Act 2025 on 21 August 2025. The NoR was lodged on 29 July 2025 and updated on 24 March 2026.

171 Recommendation by territorial authority

(1A) When considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition.

(1) When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to—

(a) any relevant provisions of—

(i) a national policy statement:

(ii) a New Zealand coastal policy statement:

(iii) a regional policy statement or proposed regional policy statement:

(iv) a plan or proposed plan; and

(b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if—

(i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or

(ii) it is likely that the work will have a significant adverse effect on the environment; and

(c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and

(d) any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.

(1B) The effects to be considered under subsection (1) may include any positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from the activity enabled by the designation, as long as those effects result from measures proposed or agreed to by the requiring authority.

(2) The territorial authority may recommend to the requiring authority that it—

(a) confirm the requirement:

(b) modify the requirement:

(c) impose conditions:

(d) withdraw the requirement.

(2A) However, if the requiring authority is the Minister of Education or the Minister of Defence, the territorial authority may not recommend imposing a condition requiring a financial contribution (as defined in section 108(9)).

(3) The territorial authority must give reasons for its recommendation under subsection (2).

- [22] In considering effects on the environment, the Commissioner is required to “have particular regard to” each of the matters. In contemplating the meaning of this phrase in s 171(1), the High Court in *New Zealand Transport Agency v Architectural Centre Inc* reflected on a number of authorities that considered “having particular regard to” conveys a stronger direction than merely “having regard to”.¹⁸ It requires the relevant matter to be considered specifically and separately from all other relevant considerations. Further, many of the matters listed in s 171(1) are not findings on environmental effects but are findings that may inform an effects assessment.¹⁹
- [23] A consideration of effects under s 171 differs from an assessment of effects under s 104. Designations frequently involve adverse effects (with the trade-off of enabling the operation of a requiring authority’s work). The inquiry under s 171 is not directed at whether adverse effects exist, but whether those effects are justified by reasonable necessity, available alternatives and the broader purpose of the Act:²⁰

[36] In accordance with the traditional guidelines, proof of a need for the designation must be weighed against consideration of alternative sites, routes, or methods of achieving the objective. However, these matters are to be considered in light of whether it would be unreasonable to expect other alternatives to be adopted. The question of unreasonableness implies consideration of financial costs as well as environmental issues. *Matters of compromise and necessity are implicit in the differing guidelines. By nature, many requirements for public works and designations, are likely to lead to, or cause a degree of environmental detriment, in line with population increases and the development of natural and physical resources.* The principle of sustainable management is sufficiently broad to incorporate necessary

¹⁸ *New Zealand Transport Agency v Architectural Centre Inc* [2015] NZHC 1991 at [62]-[68].

¹⁹ *Remarkables Park Ltd v Queenstown Airport Corporation Ltd* [2019] NZEnvC 34 at [36].

²⁰ *Laws of New Zealand* (online ed, LexisNexis) at [91] (emphasis added).

impacts on the environment provided the minimum objectives of sustainability and avoidance of adverse effects are achieved.

- [24] The following submissions step through each of the considerations listed in s 171(1), before summarising the effects on the environment.

Planning context – s 171(1)(a)

- [25] Section 171(1) requires that the Commissioner have regard to relevant provisions in national policy statements, the New Zealand Coastal Policy Statement, the Southland Regional Policy Statement and the Invercargill District Plan.
- [26] Most relevantly, the National Policy Statement for Infrastructure (**NPS-I**) provides strong policy direction from central government relating to infrastructure activities as a matter of national importance.²¹ The NPS-I applies to the operation of the Awarua SGS as an infrastructure activity. Decision-makers are required to give effect to the NPS-I from 15 January 2026.
- [27] The SpaceOps site, and activities undertaken by SpaceOps, is not only nationally significant infrastructure, but significantly critical infrastructure to the wider international space communications community.²²
- [28] Mr Dunn has undertaken a comprehensive assessment against the NPS-I, identifying that the objective and policies of the NPS-I provide important policy direction. This includes recognising the wider benefits of infrastructure, and its operational and functional requirements; making effective use of existing infrastructure; assessing effects having regard to technical constraints; ensuring conditions are proportionate; and enabling the efficient operation

²¹ Resource Management Act 1991, s 45.

²² Evidence of Mr Dunn, at [27].

of existing infrastructure, with compatibility and proportionality being central themes.²³

- [29] Mr Dunn concludes that the NoR is consistent with the objective of the NPS-I.²⁴ The same conclusion was reached by Ms Spalding in the s 42A Report.²⁵ However, Mr Dunn and Ms Spalding differ in their view of the consequences of this finding on the Industrial 4 Zone. The NPS-I is not addressed in the evidence of Ms Bonisch for SFAL.
- [30] Submitter evidence has identified the potential application of the National Policy Statement for Renewable Energy Generation 2011 (**NPS-REG**) to the Industrial 4 Zone, citing the permitted activity status of renewable energy generation with reference to a proposed wind farm.²⁶ As outlined by Mr Dunn,²⁷ there may be some tension between the NPS-REG and the designation. However, the proposed designation does not prohibit renewable electricity generation; rather any protrusion into the Horizon Mask from potential future turbines sought to be consented would require the prior written approval of SpaceOps. Such approval must be given where there would be no material compromise on the Awarua SGS operations.²⁸
- [31] Mr Dunn and Ms Spalding also agree that the NoR is generally consistent with the Southland Regional Policy Statement (**SRPS**),²⁹ while Ms McMillan notes that there is conflict under the SRPS, given that SpaceOps's operation and renewable energy generation are both identified as nationally and regionally significant infrastructure.³⁰ While renewable energy generation

²³ At [180]– [181].

²⁴ From [127].

²⁵ At [150].

²⁶ See Evidence of Ms Bonisch at [48].

²⁷ Evidence of Mr Dunn at [185]– [189].

²⁸ Appendix A conditions, at 2.3.

²⁹ Evidence of Mr Dunn at [247]; Section 42A Report of Ms Spalding at [158].

³⁰ Evidence of Ms McMillan at [47].

might be an enabled activity, there is no such approved activity on the SAFL site. To the extent that consent has been sought for the same as a non-complying activity (after the NoR Was lodged), Mr Dunn's summary statement will further address the requirements of that consenting process and the need for consideration of effects on the Awarua SGS.³¹ Mr Kyle speaks to the various challenges of consenting large industrial activities and windfarms. It is unclear whether the SFAL proposal will be consented and built.

[32] The fundamental issue in these proceedings is the effect of the NoR on the Industrial 4 Zoning under the Invercargill City District Plan (**District Plan**), and this is where planning evidence diverges:

- (a) Mr Dunn considers that the Infrastructure Chapter of the District Plan provides support for protecting the established operational environment of the Awarua SGS.³² Mr Dunn identifies that the Horizon Mask component of the NoR will generate some tension with IND and IND4Z provisions.³³ However, having regard to the existing constraints on industrial development in the IND4Z, the scale and extent of the horizon mask constraint, and the practical operation of the approval conditions in his Appendix A, the NoR is not contrary to the IND4Z provisions.³⁴
- (b) Ms Spalding similarly considers that the NoR is consistent with the Infrastructure Chapter and that the EMI component is consistent with the IND4Z provisions.³⁵ Ms Spalding considers the Horizon Mask component is contrary to IND4Z provisions as it will restrict the height of buildings within this zone.³⁶

³¹ Summary statement of Mr Dunn.

³² At [256].

³³ At [263].

³⁴ Summary statement of Mr Dunn.

³⁵ At [165], [172].

³⁶ At [173].

(c) Ms McMillan agrees with Ms Spalding's assessment.³⁷

- [33] In response, SpaceOps notes the evidence of Mr Dunn, who does not regard this tension as critical, given that the Plan itself contains numerous controls within the Industrial 4 Zone.³⁸ Furthermore Ms Spalding's assessment does not appear to take into account the actual extent of the Industrial 4 Zone, where permitted height may interact with the Horizon Mask, and mischaracterises the application of the Horizon Mask as prohibiting development within the permitted height. Appendix C of Mr Dunn's evidence identifies the area within the Industrial 4 Zone where development exceeding the permitted 35-metre height would require SpaceOps's written consent before proceeding. That equates to 4ha.
- [34] 4ha of SFAL land is equivalent to about 0.7% of the approximately 590 ha Industrial 4 Zone and about 0.8% of the approximately 493ha SFAL site. On Ms McMillan's mapped examples and, subject to wetland constraints, approximately 97.2% of the Zone remains geometrically available below the horizon mask for a 56m dryer and approximately 82.7% for a 146m chimney. While a chimney or a wind turbine are examples of exceptionally tall structures possibly to be pursued by SFAL, to the extent those are considered to be anticipate by the Plan (and the designation materially contrary to the same) they are in the order of 280% - 470% higher than the zone's maximum height limit.³⁹
- [35] His summary statement succinctly sets out the problems with Ms Spalding's assessment and the risks in adopting Mr Balingall's estimates and misapplying them. The area of industrial zoning (and SFAL land) affecting the 35m height plane is actually very modest and beyond this, the increasing height of the horizon mask

³⁷ At [45]–[46].

³⁸ At [263].

³⁹ Summary statement of Mr Dunn, at [25].

allows for extensive industrial uses without interacting with the horizon mask. Any planning assessment of the Industrial 4 Zone must be on the basis of a proper understanding of the extent of the horizon mask influence *vis a vis* realistic industrial buildings and land use.⁴⁰

- [36] To the extent there is an adverse economic outcome of the proposed NoR that is in consideration of future development not permitted or consented under the plan, this is relevant in terms of assessment against the district plan and policy context. That in turn should involve a consideration of the Industrial 4 zone as a whole, not just enabling objectives and policies, but also the extent to which the permitted activities' spatial location and built form are curtailed by rules and standards. On this basis, the industrial zoning is impacted by the proposed NoR at less than 1%. Exceptionally taller opportunities are also affected to a small degree.⁴¹ Heavy industry can locate according to the zone's objectives over the significant majority of the land without interacting with the proposed Horizon Mask.

Adequate consideration of alternatives – s 171(1)(b)

- [37] Consideration of alternatives is obligatory as SpaceOps does not have an interest in the land sufficient to undertake the work.⁴²
- [38] The relevant threshold is whether consideration of alternatives has been 'adequate.' The Environment Court in *Re New Zealand Transport Agency* determined that:⁴³

- The focus is on the process, not the outcome; whether the requiring authority has made sufficient investigations of alternatives proposed,

⁴⁰ Summary statement of Mr Dunn.

⁴¹ Summary statement of Mr Dunn.

⁴² Resource Management Act 1991, s 171(1)(b).

⁴³ *Re New Zealand Transport Agency* [2022] NZEnvC 161, adopting the approach taken in the *Final Report and Decision of the Board of Inquiry* at [804]–[805]; see also *Boulder Trust v New Zealand Transport Agency* [2015] NZEnvC 84.

rather than acting arbitrarily, or giving only cursory consideration to alternatives;

- Adequate consideration does not mean exhaustive or meticulous consideration;
- The question is not whether the best route, site or method has been chosen, nor whether there are more appropriate routes, sites or methods;
- That there may be routes sites or methods which may be considered by some (including submitters) to be more suitable is irrelevant;
- The Act does not entrust to the decision maker the policy function of deciding the most suitable route; the executive responsibility for selecting the site remains with the requiring authority;
- The Act does not require every alternative, however speculative, to have been fully considered; the requiring authority is not required to eliminate speculative alternatives or suppositious options.

[39] The available alternatives in this particular case are limited due to the existing and designated operation of the Awarua SGS. The requiring authority approval Gazette Notice is specific to this Awarua SGS site.⁴⁴ To that end, consideration of moving the established site elsewhere is of limited relevance given the inquiry into alternatives is in respect of the available NoR options (which in turn are limited to this site).

[40] In any event, Mr McNeill details why the Awarua SGS site was selected, namely, due to its low horizon, its rural aspect and the absence of discernible EMI in the frequencies of interest.⁴⁵ Those attributes are the reasons why the Awarua SGS is located where it is, and they are the attributes the NoR seeks to preserve. More recent searches to identify suitable sites into which to expand

⁴⁴ <https://gazette.govt.nz/notice/id/2025-go1421>
⁴⁵ At p. 18 [31]–[32].

operations have not been successful.⁴⁶ It would not be feasible for the Awarua SGS to simply relocate.

- [41] Alternative parameters within the NoR approach are further limited by the operational requirements of SpaceOps while achieving its objectives. The safe and efficient operation of the Awarua SGS requires unobstructed radio paths, the ability to transmit at low elevations / horizons, and management of EMI.⁴⁷
- [42] Mr McNeill outlines SpaceOps's consideration of the proposed Horizon Mask angle, taking into account SpaceOps's operational requirements and the impact of various angles between 0 and 5 degrees. Ultimately, the proposed 5-degree angle adopts a worldwide industry expectation.⁴⁸ Mr McNeill's summary statement will further address Minute 4 in respect of the interrelationship between customer requirements and the physics underpinning the needs.
- [43] The s 42A Report concluded that adequate consideration was not given to alternatives in respect of the Horizon Mask, essentially because the peer reviewer would have preferred an assessment based on Awarua SGS's directional sensitivities rather than a uniform envelope.⁴⁹ Respectfully, this misapplies s 171(1)(b)(i), which asks whether adequate consideration has been given to alternatives. It does not require that the requiring authority adopt the alternative preferred by the reviewer, nor does it convert the inquiry into a comparison of the merits of the method selected by SpaceOps and that method advanced by another party.
- [44] There is a need to also future proof the protections reasonably necessary to the planned and permitted expansion of the Awarua SGS under the land designation SpaceOps's Awarua SGS

⁴⁶ Evidence of Mr McNeill at p. 7-9 [38]-[45] and [101]-[107].

⁴⁷ Evidence of Mr McNeill at p.4 [17]-[18] and p.18-20 [30]-[36].

⁴⁸ At [91]-[93].

⁴⁹ Section 42A Report of Ms Spalding at [177] and [184]-[185].

customer base and mission profile changes continually. The summary evidence of Mr McNeill will provide greater detail in respect of planned growth of the Awarua SGS provided for under the land designation.

- [45] Mr Dunn’s summary statement will also address the greater detail set out in respect of alternatives considered at the stage of evidence as compared to the initial NoR application. This is not critical in determining a finding of adequacy. The Environment Court has previously accepted that an assessment of alternatives can be undertaken during the iterative process of RMA proceedings.⁵⁰ It is open to the Commissioner to conclude that SpaceOps has adequately considered alternatives based on the process leading up to, and during, the hearing.⁵¹ Clearly, the proposed NoR was based upon highly technical needs, which continue to hold true in respect of the evidence provided by Space Ops.

“Reasonably necessary” – s 171(1)(c)

- [46] The test of reasonable necessity under s 171(1)(c) is objective but qualified and linked to achieving the objectives of SpaceOps.⁵² In assessing reasonable necessity, the focus is not on whether those objectives are themselves necessary or reasonable. Rather, the assessment should be directed at whether the designation is reasonably necessary to achieve SpaceOps’s stated objectives.
- [47] SpaceOps’s objective is to provide modern, efficient and reliable antenna infrastructure to the space sector.⁵³ The proposed designation seeks to achieve that objective by protecting the

⁵⁰ *North Eastern Investments Ltd v Auckland Transport* [2016] NZEnvC 73 at [182].

⁵¹ *Queenstown Airport Corporation Limited v Queenstown Lakes District Council* [2013] NZHC 2347 at [132]; *North Eastern Investments Ltd v Auckland Transport* [2016] NZEnvC 73.

⁵² *Gavin H Wallace Ltd v Auckland Council* [2012] NZEnvC 120 at [183].

⁵³ Evidence of Mr Dunn, at [368] and application to become a Requiring Authority

operational integrity of the Awarua SGS. As outlined in the evidence of Mr McNeill:⁵⁴

SpaceOps' primary objective, as stated in its request to become a requiring authority, is to deliver modern, efficient and reliable antenna infrastructure to the space community. To achieve this ultimate objective, SpaceOps' objectives for this designation are as follows:

(a) Ensure that the satellite Ground Station can continue to run in an efficient manner by sending and receiving radiotelecommunications as defined in the Radiocommunications Act 1989;

(b) Ensure that activities on surrounding land do not interfere with the already established (RSM) protection zone for space research, space operation and Earth exploration-satellite services; and

(c) Ensure that the District Plan is aligned with the RSM [Radio Spectrum Management] protection zone.

[48] The inclusion of the word 'reasonably' recognises that a requiring authority is not required to demonstrate that the designation is indispensable or that no other option exists to achieve SpaceOps's objectives. What is 'reasonably necessary' has been described as lying between what is expedient or desirable on one hand, and what is absolutely essential on the other. The inclusion of 'reasonably' qualifies 'necessary' to allow some tolerance.⁵⁵ The statutory test allows a degree of latitude and judgment.

[49] The test is not answered by observing whether the Awarua SGS could continue to function in a degraded state without the protection sought. SpaceOps is not required to establish that the Awarua SGS would immediately cease operating in the absence of the designation. Rather, it must demonstrate that the designation is reasonably necessary to ensure the efficient and

⁵⁴ At [14].

⁵⁵ *Gavin H Wallace Ltd v Auckland Council* [2012] NZEnvC 120 at [183]; *Queenstown Airport Corporation Ltd v Queenstown Lakes District Council* [2013] NZHC 2347 at [94].

reliable operation of the Awarua SGS and to protect the established RSM zone from interference.

- [50] Ms Spalding and Mr Dunn are aligned in their view that the designation will achieve SpaceOpss objectives and that some degree of Horizon Mask is reasonably necessary.⁵⁶ Opinions, however, diverge as to the appropriate extent of the Horizon Mask across the full extent of the area proposed in the NoR.
- [51] Low-elevation visibility is fundamental to SpaceOps's operations. Low and unobstructed horizons enable data transmission immediately after a spacecraft appears over the horizon, until it disappears over the other horizon.⁵⁷
- [52] Spacecraft signals are also extremely weak. EMI can desensitise receivers, overpower spacecraft signals, and make communications impossible.⁵⁸ SpaceOps's customers also expect operations to be unaffected by EMI.⁵⁹ SpaceOps has operational experience at its Warkworth site where performance of antennas was degraded by EMI.⁶⁰ The proposed EMI Limitation Area reflects the protections available under the RSM rules and makes these protections visible to potential development under the District Plan. The application of the EMI restriction area and Horizon Mask would be readily identifiable and clear, providing landowners with certainty regarding its application and triggering a case-by-case approvals process.

⁵⁶ Evidence of Mr Dunn, at [62], [80]-[81]; Section 42A Report of Ms Spalding, at [190].

⁵⁷ Evidence of Mr McNeill, at [34]-[36].

⁵⁸ Evidence of Mr McNeill, at [96].

⁵⁹ Evidence of Mr McNeill, at [18]-[19].

⁶⁰ Evidence of Mr McNeill, at [44].

Other relevant matters – s 171(1)(d)

- [53] The existing environment includes the lawfully established Awarua SGS and the RSM protections that attach to it. Mr McNeill will also provide more context in his summary statement as to the intended expansion plans as enabled under the land designation.
- [54] There is no requirement in the Act for a Requiring Authority to seek a designation protection at the time of establishing operations. Ms McMillan is critical in this regard, noting that: ‘SpaceOps could have intervened at a much earlier opportunity in the plan change process in 2008 and again in the District Plan Review process in 2019’.⁶¹ This is not a relevant matter, as the Act does not prescribe any particular time limits as to a requiring authority seeking to pursue a NoR.
- [55] In any event, space operations commenced at Awarua SGS in 2004 and SpaceOps did record its interests in the wider Awarua area with the Chief Executive of the Invercargill City Council on 1 August 2007, contemporaneously with the Council’s consideration of development in the area.⁶² It is for Council to consider the appropriate zoning in terms of the established environment and compatibility of activities in its section 32 assessment under any plan review. It is also for any purchaser of its land to consider effects of its intended commercial endeavours in light of established activities in the vicinity. Notably, the Industrial 4 Zone also expressly requires consideration of the avoidance of reverse sensitivity effects of controlled buildings on established activities in the Industrial 4 Zone as well as surrounding land.
- [56] Seeking protection from surrounding development via designation is not unique to the current proceedings. Many designations are proposed in response to threats encroaching on operations of a

⁶¹ Evidence of Ms McMillan, at [60].

⁶² Evidence of Mr McNeill, at p. 4-5 [20]-[21].

requiring authority. For instance, the Wellington International Airport's transitional side surface designations in the Wellington District Plan.⁶³ It is anticipated in the Act that a Requiring Authority might seek the protections necessary in response to an evolving environment.

- [57] The availability of existing protections under extraneous legislation is not a reason to recommend the withdrawal or narrowing of the NoR, nor is it a matter that should bear on the s 171 assessment. The inclusion of RSM protections in the District Plan can equally be seen to have a positive effect: it will create consistency and certainty for landowners by bringing these protections to the attention of persons proposing development and will prevent investment into investigating potential developments and preparing plans for resource consents that ultimately may not be able to proceed⁶⁴.

Effects on the environment

- [58] Section 171(1) directs the Commissioner to consider the effects on the environment of allowing the NoR, having regard to the matters discussed above.
- [59] In terms of the receiving environment upon which effects should be considered, case law has accepted that the principles outlined in *Queenstown Lakes District Council v Hawthorn Estates Ltd* apply to a consideration of effects on the environment under s 171.⁶⁵ In *Hawthorn*, the Court of Appeal stated that:⁶⁶

... the word "environment" in s 104(1)(a) of the Act embraces the future state of the environment as it might be modified by the utilisation of rights to carry out permitted activity under a district plan. It also includes

⁶³ Wellington City 2024 District Plan, WIAL 1.

⁶⁴ Summary statement of Mr Dunn.

⁶⁵ *Queenstown Lakes District Council v Hawthorn Estates Ltd* [2006] NZRMA 424, applied in *Villages of NZ (Mt Wellington) Ltd v Auckland City Council* ENC A023/09 at [32] in relation to considering the effects of a notice of requirement on the environment under s 171.

⁶⁶ At [84].

the environment as it might be modified by the implementation of resource consents which have been granted at the time a particular application is considered, where it appears likely that those resource consent will be implemented.

- [60] Applying the orthodox *Hawthorn* approach, given that the SFAL wind farm resource consent application has been lodged but not decided (and remains subject to RFIs), the activity proposed in the application does not form part of the receiving environment against which effects must be considered under s 171. The receiving environment does, however, include effects on permitted activities within the Rural and Industrial 4 Zones, or those consented and likely to be implemented.
- [61] Ms Spalding and Mr Dunn are aligned in their view that effects of the NoR on the Rural Zone are minor and acceptable. Rural activities anticipated within the Zone may continue and ordinary rural development remains possible.⁶⁷
- [62] The substantive issue remains effects on the Industrial 4 Zone. It is submitted that Ms Spalding and evidence for SFAL overstate the impact of the NoR on this Zone. Too great a weight has been placed on the geographical extent of the Horizon Mask, and insufficient consideration has been had on its actual effect on potential development within the Zone as a whole.⁶⁸
- [63] As outlined by Mr Dunn, while the extent of the NoR expands across a substantial part of the Industrial 4 Zone, the actual impact on the Zone's controlled activities is minimal (less than 1% in area)⁶⁹. The Horizon Mask does not represent an absolute prohibition, it is progressive – not a flat restriction, and the significant proportion of the Zone can still be developed for industrial purposes.⁷⁰ Contrary to Ms McMillan's characterisation

⁶⁷ Evidence of Mr Dunn, at [195]-[196] and [298].

⁶⁸ Evidence of Mr Dunn, at [266].

⁶⁹ Summary evidence of Mr Dunn

⁷⁰ Evidence of Mr Dunn, at [66]-[67], [74]-[76], [267]-[269].

of the Horizon Mask, the Industrial 4 Zone will not be subject to a 'blanket limitation' that would constrain future use of land.

Assessment “subject to” Part 2

- [64] An assessment of effects under s 171(1) is expressly subject to Part 2 of the Act. The High Court in *New Zealand Transport Agency v Architectural Centre Inc* directly considered the significance of the “subject to” drafting in s 171.⁷¹ The Court found that *King Salmon* did not change the import of Part 2 regarding the consideration of effects on the environment within the scope of a notice of requirement, and said that the drafting of s 171 creates a specific statutory direction to consider and apply Part 2 in making a determination under that section.⁷²
- [65] In considering s 5, ‘sustainable management’ must be addressed as a whole and whether the NoR manages the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety.
- [66] The key issue to be considered, relevant to Part 2, is whether the NoR enables the sustainable and efficient use of the Awarua SGS and surrounding land affected by the NoR.⁷³
- [67] While the Horizon Mask will impose an additional constraint on development of land within the designation, particularly within the Industrial 4 Zone this does not mean the NoR is inconsistent with the purpose of the Act.⁷⁴
- [68] As outlined previously in these submissions, the impact of the NoR on surrounding land has been mischaracterised and overstated in

⁷¹ *New Zealand Transport Agency v Architectural Centre Inc* [2015] NZHC 1991 from [83].

⁷² At [118].

⁷³ Evidence of Mr Dunn at [448].

⁷⁴ Evidence of Mr Dunn at [449].

particular by the SFAL evidence. When properly understood, the NoR is aligned with the purpose of the Act – both the Awarua SGS and surrounding landowners are able to provide for their social, economic, and cultural well-being.⁷⁵ SpaceOps’s position is that:

- (a) The proposed conditions for the NoR mitigate effects on surrounding land that would be impacted by the designation. The proposed approval pathway appropriately balances industrial and renewable energy development opportunities, while managing development that would materially compromise the efficient operation of the Awarua SGS.⁷⁶
- (b) As such, development within the area subject to the Horizon Mask and EMI Limitation Area may proceed where it is compatible with the operational requirements of the Awarua SGS.⁷⁷
- (c) Decisions in relation to potential penetrations have to be made reasonably and swiftly. A designation does not confirm an unconstrained power of veto on a requiring authority.

[69] The potential benefits of a requiring authority’s work cannot be ignored in considering s 5 of the Act.⁷⁸ The Awarua SGS is a significant strategic infrastructure asset with regional, national, and international significance. Regionally, the Awarua SGS has attracted significant overseas investment and skilled employment to Southland.⁷⁹ The value of the Awarua SGS arises not just from physical infrastructure located on site, but from its unique physical and radio-frequency characteristics of the location itself. Nationally, it is one of just three recognised ground stations that are an essential component of New Zealand’s space capability

⁷⁵ Evidence of Mr Dunn, at [454].

⁷⁶ Evidence of Mr Dunn, at [450].

⁷⁷ Evidence of Mr Dunn, at [450]; Resource Management Act 1991, s 176(1)(b).

⁷⁸ *Takamore Trustees v Kapiti Coast District Council* [2003] NZLR 496.

⁷⁹ Evidence of Mr McNeill, at [111]-[113].

and launch support infrastructure.⁸⁰ Internationally, the Awarua SGS provides an important strategic location within global networks.⁸¹

- [70] The significant majority of the Industrial 4 zoned land and the SFAL landholding will be able to establish industrial activities to the maximum height regime in the Industrial 4 Zone, and indeed much higher structures. Exceptionally tall structures may interact with the horizon mask and require further assessment on a case-by-case basis.

Response to issues raised in the s 42A Report

- [71] Ms Spalding's recommendation to exclude the Industrial 4 Zone from the Horizon Mask relies upon the expectation that it would constrain development opportunities, reduce investment certainty, undermine the strategic purpose of the zone, and that the resulting economic effects outweigh the benefits of applying the mask.⁸²
- [72] In this respect, the s 42A Report overstates the impact the NoR would have on the Industrial 4 Zone. To briefly reiterate points made earlier in these submissions:
- (a) First, the mask is a recession plane measured at 5 degrees from 2 metres above the Awarua SGS boundary. The height it permits (without development requiring written approval from SpaceOps) should be identified precisely to determine adverse effects, rather than generally as described in the s 42A Report. Mr Dunn has identified the area of the Industrial 4 Zone where permitted height limits could be impacted by the Horizon Mask.⁸³ Mr Dunn's summary statement will speak to this point further; he concludes that less than 1% of the Industrial 4 zoned land and the SFAL

⁸⁰ Evidence of Mr McNeill, at [20]-[27] and [63]-[73].

⁸¹ Evidence of Mr McNeill, at [52]-[68].

⁸² Section 42A Report of Ms Spalding at [208].

⁸³ Evidence of Mr Dunn, Appendix B and C.

landholding would be constrained to this degree. It is also important to consider the full picture of constraints on the Industrial 4 zoned land, including setbacks, site coverage, wetlands and other overlays which Mr Dunn's summary statement will refer to.

- (b) Second, the designation does not prohibit development that protrudes into the Horizon Mask. Development would require the written approval of SpaceOps under s 176(1)(b) of the Act, and the condition offered by the SpaceOps provides for that approval to be assessed technically, against stated criteria, rather than arbitrarily. Any decision made by SpaceOps would also be subject to appeal rights.⁸⁴ Mr Hulston supports the technical assessment pathway in the proposed condition and agrees with the criteria list.⁸⁵ The practical effect of the mask within the Industrial 4 Zone is therefore an assessment trigger, not a prohibition on development throughout the extent of the designation.
- (c) Third, the economic effects must be weighed against the effects of removing protection where it matters most. The obstructions of greatest concern in the evidence, including wind turbines and tall industrial structures, are contemplated in the sector Ms Spalding's recommendation would exclude. Excluding the Industrial 4 Zone would remove the protection from the land where it is most 'reasonably' necessary.
- (d) Where the protection is not so critical, on the rural zoned land, Ms Spalding appears satisfied with the proposed regime for assessing potential penetrations.

⁸⁴ Resource Management Act 1991, s 179.
⁸⁵ Evidence of Mr Hulston at [28].

Response to issues raised by SFAL

Effects on Industrial 4 zoned land

- [73] The principal planning disagreement between SpaceOps and SFAL is the scale and character of the effect of the NoR on the Industrial 4 Zone. Ms McMillan considers that the NoR will curtail and constrain development throughout SFAL land subject to the designation.
- [74] While SpaceOps accepts that a future penetration of the Horizon Mask would require additional approval per s 167(2) of the Act and may result in development needing to be redesigned, relocated, or declined, this approval process does not equate to an overall prohibition on development throughout the Zone.
- [75] On this issue, the planning evidence for SpaceOps considers that the rule framework of the Zone is less enabling than perceived in the evidence of Ms McMillan. Mr Dunn and Mr Kyle will set out in more detail in their summary statements, the extent of future consenting hurdles applying in the Industrial 4 Zone, including in respect of renewable energy, that has been understated in the SFAL case.

Elevation of the 'reasonable necessity' test to 'absolute necessity'

- [76] Ms McMillan states that the NoR should be carefully assessed against the s 171 tests of the Act including whether the proposed restrictions are reasonably necessary to achieve the requiring authority's objectives.

- [77] She does not however once set out in her evidence what the stated objectives are. She also considers alternative options in respect of the ability to relocate the Awara SGS itself. This gives no consideration to the fact that the gazettal of the Requiring Authority is limited to this particular site, and the assessment of alternatives in respect of s 171 for this NoR are therefore equally constrained.
- [78] In respect of reasonable needs, Ms McMillan also assesses those against a benchmark of whether alternative horizon mask options would be appropriate with respect to whether outcomes would 'prevent the Ground Station from functioning'. That approach raises the bar towards absolute necessity which overstates the statutory regime by a considerable margin.
- [79] In terms of this consideration, along with the alternatives, it is submitted that it is not relevant to suggest the NoR as notified was deficient given case law accepts an iterative assessment process and the evidence on the same is comprehensive.

Economic effects of the NoR

- [80] Ms McMillan's characterisation of the effect of the Horizon Mask and the enablement of development within the Industrial 4 Zone has underpinned economic evidence produced by Mr Ballingal.
- [81] Mr Ballingal's evidence rests on assumptions presented to him by his client and fails to engage in the actual effects of the NoR as set out in more detail in the planning evidence of Mr Dunn and summarised above. Mr Ballingal accepts his modelling does not show that the direct effect of the NoR cause the gap between his scenarios presented. To this end, his evidence does not particularly assist the assessment of effects of the NoR on the environment.

- [82] Mr Ballingal also overstates an unconstrained development scenario of the SFAL land – without regard to realistic constraints and interactions between activities (including onsite mapping constraints such as wetland, setback and operational requirements of wind turbines, and site coverage restrictions).
- [83] Much of these conclusions potentially come back to the significant overstatements on the effects of the proposal summarised in Mr Jones' evidence. For example, at his [7a] while he refers to the physical restrictions of the NoR on permitted activities under the zoning, this fails to provide the context that this is only a restriction on 4ha (or less than 1%) of controlled buildings heights, on land that is already constrained in other respects.
- [84] SFAL evidence is critical of SpaceOps not providing independent economic analysis of the impacts on Industrial 4 zoned land. Economic effects are one component of environmental effect and are considered with particular regard to the planning and policy framework. To the extent such analysis is based upon the orthodox receiving environment, it is submitted that Mr Dunn has undertaken a more accurate assessment of impact of such effects than SFAL evidence, given future plans, master planning, wider economic benefits, have not been based upon a permitted or consented realistic outcome for the SFAL site.
- [85] Mr Ballingal takes an efficiency of 'resource allocation' perspective, essentially comparing economic costs of the NoR compared to benefits Space Ops expanding operations.⁸⁶ He states, at [68] that the relevant comparison is the additional regional economic benefit associated with SpaceOps applying the horizon mask and EMI limitation over the Site, against the additional regional economic cost associated with constraining development of the Site. Aside from the issues above in respect

⁸⁶ Evidence of Mr Ballingal, at [27] - [29].

of the accuracy of the 'costs' scenario, it is submitted this allocation approach is not reflective of the s 171 decision making criteria relevant for a requiring authority seeking the reasonably necessary protections it is afforded to do so under legislation. The opportunity resource allocation questions he addresses are more relevantly reserved for questions of allocation of resources in terms of a planning process under s 32 of the Act.

Requiring Authority approvals process

[86] The evidence of Mr Jones, for SFAL suggests that it is not appropriate for SpaceOps to be the arbiter of case-by-case decisions and that landowners should not bear the burden of proving proposed development is not going to materially affect the Awarua SGS. In response, it is submitted that the legislation provides for this specific pathway for requiring authorities under s 176(1)(b).

[87] Further, the criticism that the proposed approval pathway leaves consent in the hands of SpaceOps overlooks the significance of SpaceOps's approval as a requiring authority. Before obtaining requiring authority status, SpaceOps was required to satisfy the Minister that it could satisfactorily carry out the responsibilities of a requiring authority and that it would give proper regard to the interests of persons affected and to those of the environment.⁸⁷ There is no basis to assume that SpaceOps would exercise its approval functions arbitrarily or without regard to the interests of affected landowners, particularly where the statutory framework expressly contemplates that requiring authorities will undertake this role.

[88] As outlined earlier in these submissions, requiring authorities have been afforded recognition under the Act to enable the provision and operation of works with public benefit. They are enabled to

⁸⁷ Resource Management Act 1991, s 167(4)(b).

define their objectives, determine what will have a material effect on the same and to allow land use where this would not prevent or hinder a project or work to which the designation relates. If the legislature had intended to separate these powers differently, it would have done so. Instead, it has conferred this responsibility under s 176, and there is a right of appeal to oversee such determinations. In addition, the revised conditions provide more certainty for landowners affected by the designation.

SpaceOps is already established in the environment and now its future growth is also permitted by designation in the District Plan. It is entirely orthodox and appropriate that any other entity looking to establish a potentially conflicting proposal would have the onus of demonstrating the compatibility of the same under an environmental effects assessment. The NoR has the effect of making this process more certain, and with greater oversight and efficiency for both parties, and for Plan users generally, to plan.

- [89] Finally, the corporate evidence of SFAL raises issue with the cost and uncertainty that could be involved in this process, for instance Mr Jones suggests it could take ‘years of detailed feasibility work and several millions of dollars before a proposal could be put to Space Ops NZ, only for it to not provide approval for the same⁸⁸. Mr McNeill will address this point and considers that a reasonably high level of information only is required for making the assessment proposed in the NoR conditions. While the SFAL evidence notes that at least one party expressed it does not intend to commit capital until the designation is resolved, it is not clear where that proposal related to, to what extent it conflicted with the NoR, or the extent to which communications were had with SpaceOps with a view to understanding approval likelihood.

⁸⁸ Evidence of Mr Jones, at [8].

[90] Much of the SFAL evidence discusses the potential wind farm opportunities at SFAL land, however it must be noted that:

- (a) Such a proposal is only at the stage of application for resource consent. Subject to continuing RFIs with Council, it is yet to proceed to any stage of notification.
- (b) The application is non-complying and Mr Kyle will talk to his experience in the hurdles of consenting such projects. The proposal was also declined to be listed in the Fast-track Approvals Act, including due to potential significant adverse effects on the environment – noting construction activity may impact wetlands onsite and nearby (sediment discharge and dewatering the high water table during construction).⁸⁹

[91] While Mr Jones suggests SpaceOps would have no incentive to approve requests under the condition regime, it must be noted that:

- (a) The test proposed requires that SpaceOps must provide approval unless there is material operational effect. SpaceOps would need to demonstrate this in its decision making, and this is subject to oversight through an Environment Court appeal process. It would be incentivised to provide a robust and defensible decision to reduce such costs.
- (b) Mr McNeill also addresses the lack of ability for onsite mitigation options for SpaceOps NZ.

⁸⁹ https://environment.govt.nz/assets/what-government-is-doing/Fast-Track-Unlisted/Awarua-Quadrant-Windfarm/064.06-Awarua-Quadrant-Windfarm-Sch-2B-MfE-assessment-form-Stage-1_Redacted.pdf?v=17473bc5874f4d4e04a7725936097e16a485577e

Technical points of disagreement between Mr McNeill and Mr Morley

[92] Mr McNeill will provide more detail in his summary statement in response to the technical evidence of Mr Morley as well as in response to Minute 4.

[93] In summary, Mr McNeill retains the position that the NoR restrictions as sought are reasonably necessary to achieve the stated objectives of the Requiring Authority.

Other submissions

[94] Other submitters⁹⁰ reference acquisition of their land or compensation for loss of development potential or land value. It is submitted that this relief is not available on a recommendation under s 171.

Conclusion

[95] The Awarua SGS is an established facility of national and international significance which depends on the surrounding area possessing two attributes: a low horizon and a quiet radio environment. Neither attribute can be recreated elsewhere, nor can they be created or protected by engineering works carried out on the SapceOps' site at the Awarua SGS.

[96] The controls sought in the NoR are the least restrictive that will enable the safe and efficient functioning and operation of the Station.

[97] Adequate consideration has been given to alternative methods and sites for the purposes of s 171(1)(b), that the work and designation are reasonably necessary to achieve SpaceOps's objectives for the purposes of s 171(1)(c), and that confirming the requirement in full, subject to the conditions offered, will best

⁹⁰ Jarvis Ag [1]; Herman Thys [7].

achieve both the purpose SpaceOps's objectives as a requiring authority and the Act.

[98] The Commissioner is respectfully asked to recommend to SpaceOps that the requirement be confirmed, subject to the conditions offered by the Requestor and as may be refined at the hearing.

[99] The Requestor calls four witnesses:

- (a) Mr Robin McNeill, Chief Executive of SpaceOps, who will provide a mix of corporate and non-independent expert evidence on the history, operation and international significance of the Awarua SGS and on the operational basis for the Horizon Mask and EMI protection sought;
- (b) Mr Graham Hulston, radio engineer, who will give evidence on diffraction, Fresnel zone clearance and the effect of physical obstructions on the station's satellite links;
- (c) Mr Alex Dunn, planner, who will give planning evidence on the notice of requirement, the assessment of effects and the proposed conditions; and
- (d) Mr John Kyle, planner, who will give evidence reviewing the planning framework and assessment by Mr Dunn and as to his personal experience of protective designation processes and the consenting large scale industrial activities in the context of questions posed by Minute 4.

Dated: 28 September 2026



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I M Gordon / R E M Hill
Counsel for the Requestor