1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name:	Auckland Surf Park - Stage 2 - Fast Track project
Fast-Track application number:	FTAA-2606-1246
Council application number:	BUN60467823

2.0 Technical Specialist Memo – Economics

To:	Warwick Pascoe (Principal Project Lead) and Brooke Dales (Planner)
From:	Rodney Yeoman, Director, Formative
Qualifications & Relevant Experience:	I hold the qualification(s) of: Bachelor of Commerce and Bachelor of Laws from the University of Auckland and Postgraduate Honours in Economics from the Australian National University and have 20 years of experience in economics e.g. policy assessment, industry and markets research, the form and function of urban economies. I am a full member of New Zealand Association of Economists, Population Association of New Zealand, and New Zealand Association for Impact Assessment**.** I have prepared expert evidence and technical assessments for resource consent applications, plan changes, and Fast-track Approvals Act (**FTAA**) applications, and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions.
Preparation in Accordance with the Code of Conduct:	I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (**Code**), and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.
Signature:	
Date:	9 October 2026

3.0 Executive Summary / Principal Issues

- This specialist response reviews the Economic Assessment and Economic Peer-review provided in support of Auckland Surf Park Stage 2. Overall, I consider that the proposal is likely to produce a net positive economic outcome and, when assessed as an integrated development, generate benefits that are significant at the Auckland regional level. I therefore support the proposal on economic grounds.

- The Economic Assessment explains that the development comprises two stages with material crossover and "potentially symbiotic" benefits and therefore assesses the development as a whole. Stage 1 is already consented and includes the surf lagoon, ecolodge accommodation, associated amenity, data centre, and solar farm. Stage 2 proposes changes to the scale and form of the surf lagoon and associated amenities, replacement of the ecolodge with a hotel, expansion of the data centre and solar farm, and the addition of land for residential (486 units), commercial and industrial activities.

- I broadly agree that the surf park and its associated tourism activities would be unique within both the Auckland region and New Zealand, creating a niche attraction for domestic and international visitors. However, most of the activity responsible for these tourism benefits is already enabled under the Stage 1 consent.

- Auckland Surf Park Stage 2 would primarily make incremental changes to the scale and form of the consented surf park activities while introducing residential, commercial and industrial activities of a more conventional urban nature. These additional activities are not shown to be functionally dependent on the surf park and could generally be accommodated elsewhere in Auckland. Accordingly, the Economic Assessment should distinguish the marginal tourism and other economic benefits attributable to Stage 2 from those already enabled under the consented Stage 1 baseline.

- I consider that the Economic Assessment contains material information gaps that limit the extent to which the scale and attribution of the claimed benefits can be independently verified:

    - Activities already authorised under the Stage 1 consent could proceed regardless of the present application. Their costs and benefits should not be attributed to Stage 2 unless their dependence on Stage 2 is demonstrated. The assessment should provide results for Stage 2 separately from Stage 1 and, where practicable, for each principal component of the proposal.

    - A construction programme of this scale would compete with other developments for labour, materials, finance and demand. Transfer and displacement effects are therefore likely to be material, and the reported gross impacts should not be treated as net regional benefits. An assessment equivalent to that directed by the panel during the Sunfield fast-track process should be undertaken.

    - The proposal would generate substantial ongoing economic activity, but these operational effects are not quantified in the Economic Assessment. Some may be regionally significant and should be assessed:
        - **Surf park:** The surf park would be a nationally distinctive tourism attraction and may attract additional international and domestic visitors to Auckland. The previous Stage 1 assessment provided an indication of the potential scale of this benefit, including estimated visitor origins and tourism expenditure. The current Economic Assessment

provides only a brief qualitative discussion and does not quantify the incremental tourism benefit attributable to Stage 2.

- **Hyperscale data centre**: If the stated 120MW data centre represents operating capacity, the data centre would be exceptionally large and potentially significant at both the regional and national levels. Based on publicly disclosed capacities, it could be Auckland's largest data-centre development and the second largest proposed nationally, behind only the proposed Datagrid campus in Southland. If operated continuously at 120MW, it could consume electricity equivalent to over 10% of Auckland's current annual electricity consumption. The scale and continuous nature of this demand could affect electricity prices and require material investment in generation, transmission and distribution infrastructure. These potential effects are not discussed in the Economic Assessment.

- **Solar farm**: The 6.5MW solar would be relatively large in the context of Auckland's existing electricity generation. Based on publicly disclosed operating capacities, it could be the region's second-largest solar installation (behind the Ardmore Solar Farm) and rank among Auckland's five largest operating generation facilities. Nevertheless, its expected annual output would represent only approximately 0.1% of Auckland's annual electricity consumption. The Economic Assessment does not discuss this component's operational contribution or economic significance. Its variable/intermittent generation profile, together with the need for grid supply or storage when solar generation is unavailable, should also be considered.

  - Furthermore, the proposed integration of the surf lagoon, data centre and solar farm is globally unique. However, the Economic Assessment does not examine the business model, potential efficiencies or operational interdependencies between these components. Further information would provide greater confidence that each component is appropriately scaled and capable of delivering the stated outcomes.

- I agree that the integrated proposal is likely to generate benefits that are regionally significant for the purposes of section 22(1)(a) of the FTAA. However, addressing the identified information gaps would likely reduce the construction benefits attributable specifically to Stage 2. The enduring regional significance of the proposal may instead depend substantially on its ongoing tourism activity at the surf park and the operation of the hyperscale data centre (largest in Auckland) and solar farm (second largest in Auckland).

- The Economic Assessment also identifies a range of wider economic benefits, and I agree that some such benefits are likely to arise within the regional economy. However, most noted in the Economic Assessment are primarily of local importance in Dairy Flat or North Shore and the Economic Assessment does not provide evidence demonstrating that they would be material or regionally significant.

- The Economic Assessment does not quantify the proposal's costs and instead relies on other technical experts to assess potential adverse effects, including noise, environmental effects and other externalities. Its comparison of benefits and costs is therefore qualitative, meaning that the net economic outcome cannot be established quantitatively. Nevertheless, based on the information presently available, I consider that the economic costs are unlikely to be out of proportion to the benefits such that the proposal should be declined under section 85(3)(b) of the FTAA.

- In conclusion, I consider that the integrated proposal is likely to generate regionally significant economic benefits and that these benefits are likely to exceed its costs. However, further information is required to establish the incremental benefits attributable specifically to Stage 2, the extent of transfer and displacement effects, and the scale and significance of the proposal's ongoing operational activities.

- The Panel has asked the following question 17(e) in Minute 2:

  Can Auckland Council advise whether or not it agrees with the Applicant's economic analysis that Stage 2 of the Project generates regionally significant benefits?

  In my opinion on balance, that the proposal considered as an integrated whole (Stage 1 and Stage 2) is likely to generate regionally significant economic benefits. These regional benefits arise primarily from Stage 1 which allows a nationally distinctive tourism activity, a very large hyperscale data centre, and regionally significant solar farm. However, the Applicant's analysis does not demonstrate whether these regional benefits are attributable specifically to Stage 2.

  The applicant's economic assessment includes activity already enabled by the Stage 1 consent, reports gross construction impacts without accounting for transfer and displacement, and does not quantify the proposal's ongoing operational benefits. Furthermore, many of the other identified benefits are merely locally beneficial and represent activity transferred from elsewhere in Auckland.

  Accordingly, the agreement on regional benefits is qualified. The integrated proposal is likely to be regionally significant, but further information is required to establish the net additional and incremental benefits arising from Stage 2. There is insufficient information provided by the applicant to establish whether Stage 2 would generate regionally significant benefits.

4.0 Documents Reviewed

The following documents have been reviewed in preparing this memorandum:

- Appendix 57: Economic Assessment – Property Economics, June 2026.
- Appendix 58: Economic Peer Review – Insight Economics, June 2026.
- Appendix 66: Development Timeline.
- Appendix 68: Stage 1 and Stage 2 Comparison Table and Drawings.
- Appendix 9: Auckland Surf Park Community Masterplan.
- Appendix 43: Integrated Transport Assessment– Flow, 3 June 2026.
- Appendix 55: Urban Design Assessment – Barker and Associates, 3 June 2026.
- Assessment of Environmental Effects – Barker and Associates, 8 June 2026.
- Property Economics (2022) Auckland Surf Park Fast Track Economic Impact Assessment Overview.
- Property Economics (2023) Auckland Surf Park Fast Track Economic Impact Assessment Overview.

5.0 Additional Reasons for Consent Not included in AEE / Incorrect Reasons for Consent

Nil.

6.0 Specialist Assessment

Economic Outcomes

This review focuses on the updated Property Economics report *Auckland Surf Park Stage 2 Fast-track Application Economic Impact Assessment* (**Economic Assessment**) which covers the economic issues associated with the proposed development (**Auckland Surf Park Stage 2**). For ease of comparison, this response follows the same structure as the Economic Assessment.

Where relevant, this response also references information contained within other technical expert assessments, the Assessment of Environmental Effects (**AEE**) and Insight Economics memo (**Economic Peer-review**).

In summary, I consider that Auckland Surf Park Stage 2 is likely to result in a net positive economic outcome if approved under the FTAA process. In relation to the FTAA requirements, I consider that the proposal as a whole will likely be regionally significant due to the scale of benefits associated with the Tourism, Solar and data centre aspects of the development, which is likely to be material in the regional context.

However, I disagree with applicant's economists in terms of the economic benefits associated with other aspects of the development, my view that certain components of the project such as the scale of the construction benefits, residential supply, and wider benefits are not demonstrated to be regionally significant when considered in isolation.

However, there is agreement that the development is likely to be regionally significant when assessed as an integrated whole.

1. Tourism and Surf Park Sectors Overview (Section 4)

Broadly, I agree with the points raised in this overview section of the Economic Assessment. The surf park and associated tourism components of the project would be unique within both the Auckland region and New Zealand, creating a niche attraction for domestic and international visitors.

I also agree that international tourism is a significant export earner for New Zealand and that activity in this sector has not yet recovered to pre-COVID levels, either nationally or within Auckland region. The development of a new all-weather attraction may help attract additional international visitors to Auckland and New Zealand.

While Auckland has a large resident population, the Economic Assessment does not establish whether that population would be sufficient to support all-weather attractions generally. Nevertheless, I agree that a new all-weather attraction such as the proposed surf park would likely be more viable in Auckland than in most other locations in New Zealand.

The Economic Assessment's discussion of surfing as a growing recreational activity globally and in New Zealand, and of its associated economic contribution, is reasonable. However, I note that only a few dozen surf parks currently operate worldwide. The examples referred to in the Economic Assessment (including facilities in California, Florida and Texas) also suggest that many surf parks are located in warmer climates and serve larger resident populations and tourism markets than Auckland.

I agree that a surf park would help diversify Auckland's visitor offering and the region's tourism ecosystem. The available evidence internationally indicates that surf parks can attract substantial patronage and may be commercially viable in appropriate locations. However, the sector remains relatively new, and there is limited publicly available evidence demonstrating sustained profitability or recovery of the significant capital investment required.

The Economic Assessment provides no evidence regarding the forecast scale of domestic or international visitation to the Auckland Surf Park, nor does it assess the commercial viability of its ongoing operation. Ultimately, the

commercial risk associated with the park rests with its developer and operator and is not, in itself, a matter that must be established when assessing the costs and benefits accruing from the site. Nevertheless, where the claimed economic benefits depend on forecast visitor numbers and the park's continued operation, those assumptions should be supported by reasonable evidence.

2. Economic Context (Section 5)

The scope of the Economic Assessment is limited to effects within the Auckland region over a six-year construction period and covers the entire development (both Stage 1 consented and Auckland Surf Park Stage 2 FTAA). It identifies economic efficiency as a key assessment measure and states that "non-economic" effects are excluded to avoid double counting.

I agree that the Auckland region is the appropriate geographic scope, particularly because it is the key spatial unit relevant to the FTAA requirements. Construction benefits are also relevant, and economic efficiency is an important assessment measure.

However, I consider the assessment's temporal scope to be unduly confined. Many of the project's benefits would arise only after construction is completed. The ongoing operation of the surf park, data centre and solar farm would largely fall outside the six-year period adopted in the Economic Assessment. I recommend that these benefits be assessed to provide a clearer understanding of the overall magnitude and significance of the project's anticipated economic effects.

I also note that a substantial part of the proposed development is already authorised and could proceed regardless of whether approval is granted under the FTAA. However, the Economic Assessment assumes that Stage 1 would not proceed in the absence of FTAA approval ("represent the economic benefits as a whole" because "components of the two stages function as one integrated project".

This assumption is inconsistent with the consented baseline and may overstate the incremental economic benefits attributable to the Auckland Surf Park Stage 2 proposal. Under the new proposal there would be some modifications to the approved consented activity in terms of the scale of Surf Park, however these are not shown to be material to the function of the park itself.[1] Most of the changes proposed as part of Auckland Surf Park Stage 2 relate to the expansion of the consented data centre to a hyperscale facility (+43%), the introduction of 487 residential dwellings, and additional industrial and commercial activities. All of these components would materially affect the assessed economic outcomes. However, the Economic Assessment does not establish that they are specifically dependent on, or functionally interconnected with, the Surf Park.

I disagree with the Economic Assessment's inclusion of benefits attributable to activities already authorised under the existing consent. Those activities form part of the consented baseline, and including their benefits in the assessment of Auckland Surf Park Stage 2 results in double counting. The Economic Assessment should instead have isolated the incremental costs and benefits attributable to the Stage 2 proposal, assessed against the development already enabled by the existing consent.

I also disagree with the implication that externalities should not be assessed by economists, or that they should be characterised as "non-economic". Development and ongoing activity generally produce external effects which, although they may not have readily observable market values, remain economically relevant and should not be dismissed as non-economic. Nevertheless, I acknowledge where other suitably qualified experts have assessed the

[1] Lagoon (+10%), solar (+12%), ancillary facilities and additional commercial accommodation (+72 rooms).

externalities, their evidence may be sufficient to provide decision-makers with an understanding of the nature and magnitude of the associated costs and benefits, while avoiding double counting.

3. Total Economic Activity (Section 6)

The Economic Assessment estimates that construction of Auckland Surf Park Stages 1 and 2 would generate approximately $1.8 billion in Auckland regional GDP impacts, measured on a net-present-value basis, over the six-year construction period. It also estimates employment impacts totalling 13,921 FTE-years. These are gross economic impacts associated with the construction programme and do not represent the net additional benefit to the regional economy after transfer and displacement effects are taken into account.

While I agree that the development of Auckland Surf Park Stages 1 and 2 would generate substantial construction activity, the Economic Assessment provides insufficient information for me to independently verify its estimates. In particular, it does not clearly separate the effects attributable to the already-consented Stage 1 development from those attributable to the proposed Stage 2 development. Nor is there detail on the construction activity for each type of building (i.e. lagoon, hotel, amenities, residential, retail, industrial, or the data centre). Accordingly, I am unable to determine the incremental economic impacts arising specifically from the Auckland Surf Park Stage 2 proposal or whether these have been reasonably estimated. However, I note that in the previous assessment that the total value of Stage 1 was estimated to be $524m of GDP.[2] While I acknowledge that the previous assessment applied a different set of assumptions and is not directly comparable with the current Stage 2 Economic Assessment, it nevertheless indicates that a substantial proportion of the reported construction benefits (potentially around one-third) may arise from development already enabled by the existing Stage 1 consent. These effects should form part of the baseline rather than being treated as benefits attributable to the Stage 2 proposal. I would recommend that the Economic Assessment be updated to include more detail to allow independent verification.

Furthermore, the Economic Assessment acknowledges in its executive summary that not all the estimated gross activity would be additional to the Auckland economy, as some would represent a redistribution of growth and economic activity that would otherwise occur elsewhere in the region regardless of the development of Auckland Surf Park.

The Economic Assessment also states that the project would represent approximately 5% of Auckland's annual building-development activity. The latest building-consent data I have reviewed records approximately $12.1 billion of consented work over the most recent year. Against that benchmark, the project's forecast peak direct expenditure of approximately $975 million in 2028 would be equivalent to around 8% of the current annual value of consented building work. Also, the labour required at peak (4,781 FTE) would be around 5% of all construction workers in Auckland. Although these measures are not directly equivalent to those used in the Economic Assessment, the comparison indicates that the proposed construction programme would be large relative to the regional market.

A project of this scale would be expected to draw workers, materials, finance and other resources away from alternative developments (i.e. supply-side displacement). It could also redirect demand from households and businesses that would otherwise be accommodated elsewhere in Auckland (i.e. demand-side transfer). These displacement and transfer effects are therefore likely to be material when assessing the project's net economic benefits.

[2] Property Economics (2022) Auckland Surf Park Fast Tack Economic Impact Assessment Overview.
Property Economics (2023) Auckland Surf Park Fast Tack Economic Impact Assessment Overview.

The treatment of transfer and redistribution effects was also raised during the Sunfield fast-track approval process. In that case, the panel directed the applicant's economists (who are also the authors of the present Economic Assessment), to estimate the extent of those effects. I recommend that an equivalent assessment be undertaken for Auckland Surf Park Stage 2. This should distinguish the Stage 2 proposal from the consented Stage 1 baseline and estimate the proportion of the reported gross impacts that would constitute genuinely additional regional economic activity. Accounting for transfer and displacement effects is likely to result in a significant reduction in the economic benefits attributable specifically to Stage 2.

4. Other Non-Monetised Economic Costs and Benefits (Section 7)

The Economic Assessment then provides a qualitative discussion of other economic costs and benefits that have not been quantified in monetary terms.

The identified benefits include:

- increased tourism, particularly international visitation attracted by the surf park, with associated benefits for the regional economy;
- additional residential and commercial development, providing more housing and business premises on the North Shore-Dairy Flat;
- increased competition and economic efficiency through the potentially more productive use of labour and capital;
- improved local amenity in Dairy Flat arising from a master-planned development;
- diversification of Auckland's economy and visitor offering through the provision of a new and distinctive tourism product;
- a potential "halo" effect in Dairy Flat, whereby other businesses and investment are attracted to co-locate near the surf park;
- a wider range of local housing in Dairy Flat, including apartments, townhouses and standalone dwellings;
- increased local expenditure in Dairy Flat generated by new residents and businesses; and
- greater local economic activity in Dairy Flat and increased retention of spending within the local economy.

The Economic Assessment provides no evidence regarding the likely scale of these benefits. While I accept that some positive effects are likely, many of the identified effects appear to be primarily local (in Dairy Flat or North Shore) rather than regional. In particular, the benefits associated with additional premises, local amenity, co-location, housing choice, local expenditure and the internalisation of spending would principally accrue within the development or its surrounding area (i.e. points 2, 4, 6, 7, 8, 9). Some may also represent a redistribution of residents, businesses and expenditure from elsewhere in Auckland rather than a net benefit to the region.

Tourism is likely to provide the most important potential regional benefit (i.e. points 1 and 5), both in terms of new spend in the economy and also diversification of the economy. I consider, that it would be reasonable to expect that the applicant has developed forecasts of the Surf Park's prospective customer base, including the number and origin of tourists (domestic and international), expected expenditure and length of stay. This information would also be a critical input into assessing the commercial viability of the surf park and could be used to estimate the value of the economic benefits beyond the park.

The previous Stage 1 Economic Assessment considered aspects of visitor origin and tourism expenditure, it estimated that 30% of visitors would be tourists and an annual value of around $10m per annum in the regional economy.[3] However, the present assessment does not provide an equivalent quantification for the combined proposal or identify the incremental tourism benefit attributable specifically to Stage 2. However, I acknowledge that it is likely that much of the tourism benefit would be attributable to the surf park already authorised as part of Stage 1 and the changes in Stage 2 may result in a marginal increase relative to the previous estimate of $10m. The residential, commercial and expanded data-centre components introduced or enlarged through Stage 2 may have little effect on the number of visitors attracted to the surf park.

Tourism benefits could nevertheless be regionally important if the development attracts additional visitors to Auckland or New Zealand who would not otherwise have visited, or causes existing visitors to remain longer and spend more. Conversely, expenditure by Auckland residents, or by visitors who would have come to Auckland regardless, would largely represent transferred expenditure. This evidential gap should therefore be addressed through quantified visitation and expenditure forecasts, with the genuinely additional effects distinguished from transferred activity and the Stage 1 baseline.

Finally, the claimed competition and efficiency benefit may extend beyond the immediate locality and be regional (point 3). However, the development proceeding only because it can attract labour and capital does not, by itself, demonstrate a net efficiency gain. Higher wages or returns may reflect the productivity of the proposed activities, but they may also reflect competition for scarce resources and the displacement or delay of other developments.

Any efficiency benefit should therefore be assessed against the opportunity cost of the labour, capital and materials employed by the project. Even if the development represents a more productive use of those resources than the available alternatives, the resulting net benefit would be the difference between those uses, not the project's total gross construction value. In my opinion, this benefit may be positive but is unlikely to be regionally significant with respect to FTAA or material without further supporting evidence.

I also note that the economic assessment does not mention the potential benefits of the solar farm or the hyperscale data centre, or their significance in the region.

The solar farm is proposed to be 6.5MW and would also be relatively large in the Auckland context. Based on publicly available information, it would likely rank within the five largest solar developments in the region and could be the second-largest operating installation, behind the approximately 10MW AC solar farm at Ardmore.

Similarly, the increase in the data centre to a proposed 120MW hyperscale data centre would be exceptionally large in the New Zealand context. Based on publicly disclosed capacities, it would be more than twice the size of the largest individual data-centre facility currently operating in Auckland and almost equivalent to the ultimate combined capacity of CDC's two Auckland campuses.

Although it would not be the largest data-centre development proposed nationally, the Datagrid campus in Southland is planned to provide approximately 280 MW. However, it would nevertheless represent a regionally significant development in Auckland. The potential economic benefits, infrastructure demands and wider implications of a data centre of this scale are not discussed in the Economic Assessment.

[3] Property Economics (2022) Auckland Surf Park Fast Tack Economic Impact Assessment Overview.
Property Economics (2023) Auckland Surf Park Fast Tack Economic Impact Assessment Overview.

The Economic Assessment also identifies the following costs:

- Additional infrastructure costs, which are commonly associated with greenfield development and can be large. The assessment considers that the necessary infrastructure is already planned or provided for in this location and therefore concludes that the proposal would not generate material additional infrastructure costs.
- Effects on residential development elsewhere, including other greenfield and intensification areas. The assessment argues that the Surf Park development is unique and targets a distinct market, meaning that it would not materially displace housing demand from other locations. It nevertheless acknowledges that there may be some overlap with other residential markets.
- A reduction in the future supply of industrial land. The site is zoned Future Urban Zone (FUZ) and identified principally for industrial development. However, this development is not anticipated until approximately 2035, and the Surf Park site represents around 8.5% of the FUZ identified in this location so is not material. The assessment also notes that several components of the Surf Park proposal are industrial in character, or could potentially occur as discretionary activities within an industrial zone, including the data centre, solar farm, industrial lots and some recreational activities. It further considers that Auckland has an adequate overall supply of industrial land.

These conclusions are not fully supported by quantitative evidence and I consider that there are other costs not mentioned in the assessment.

First, the fact that infrastructure is planned does not necessarily mean that the proposal would impose no additional cost. The relevant consideration is whether the scale, timing or location of the development would require infrastructure to be brought forward, expanded or funded differently from what would otherwise occur. However, the Economic Assessment's conclusion should be confirmed by the relevant infrastructure experts. If their assessments demonstrate that the proposal would not generate additional infrastructure costs or require planned investment to be brought forward, I would accept the conclusion reached in the Economic Assessment.

Second, the uniqueness of the surf park does not establish that the associated residential development would serve an entirely separate housing market. The proposed dwellings would still compete with housing elsewhere in Auckland for purchasers, tenants, development finance, construction labour and materials. Any assessment of additional housing benefits should therefore consider the extent to which development would be brought forward or transferred from other locations.

Third, I agree that many of the activities proposed within the Surf Park development are industrial in nature. I also accept that an 8.5% reduction in the FUZ land identified for future industrial use may not be material, particularly if sufficient suitable industrial land remains available both locally and elsewhere in Auckland. Nevertheless, the proposal would reduce the future supply of industrial land and could ultimately create a need to rezone and service additional land elsewhere. This represents a potential opportunity and infrastructure cost that should be recognised and assessed, even if it is not ultimately found to be material.

Fourth, I consider that the development may give rise to other costs that are not addressed in the Economic Assessment. Of particular relevance are the environmental externalities associated with hyperscale data centres, which can require substantial electricity and water for cooling and may generate noise and other local effects. There is no discussion of the physical relationship between the core components and whether:

- Whether the solar farm would generate sufficient electricity to meet a material proportion of the hyperscale data centre's demand. If grid electricity would also be required, as appears likely, the assessment should quantify the expected annual and peak imports, explain how the proposed "100% renewable" status would be achieved, and identify the extent to which this relies on on-site generation, grid-supplied renewable electricity or contractual arrangements.
- Whether the surf lagoon would provide a sufficient and reliable heat sink for the data centre's recoverable waste heat. This requires a thermal balance demonstrating the amount and temperature of recoverable heat, the lagoon's seasonal heating requirements and heat losses, and whether the system could maintain the proposed water temperature throughout the year. The assessment should also identify how surplus heat would be managed when lagoon heating demand is low (in summer) and how the lagoon would be heated when the data centre producing insufficient recoverable heat (in winter).

However, I acknowledge that the proposed data centre may be relatively resource-efficient compared with alternative facilities as it will use water from the surf lagoon as part of its cooling system. Similarly, the co-location of the solar farm may enable a greater proportion of its electricity demand to be met from renewable generation. However, these potential efficiencies need to be demonstrated, including the extent to which the solar generation would coincide with the data centre's electricity demand and reduce demand on the wider electricity network.

The Economic Assessment does not discuss or quantify these potential efficiencies or operational interdependencies, despite the applicant's claim that the proposed integration of the solar farm, hyperscale data centre and heated surf lagoon would be unique among surf parks internationally. This is an unusual omission given that the integration of the surf lagoon-data centre-solar farm appears to be an important element of the proposal's overall operation and business model. Even if the relevant environmental effects are assessed by other technical experts, the Economic Assessment should explain how those findings affect its assessment of the project's net economic costs and benefits.

5. Conclusion (Section 8)

I generally agree with the conclusions set out in the Economic Assessment, except where I have identified differences in this review. Broadly, while I do not agree with every aspect of the methodology adopted, I consider that the Surf Park would likely generate regionally significant economic benefit (s22(1)(a) of FTAA). I also consider it likely that if the economic costs were fully quantified they would be smaller than the estimated benefits. On this basis, the overall economic outcome would be positive for the community and wider society (s85(3)(b) of FTAA).

6. Economic Peer-review

The Economic Peer-review prepared by Insight Economics concludes that the Economic Assessment provides a sufficiently robust and proportionate basis for finding that Auckland Surf Park Stage 2 would generate significant regional economic benefits. It considers the assessment to be well structured, decision-focused and broadly consistent with the level of analysis ordinarily prepared for a fast-track application. In particular, it identifies the quantified construction effects ($1.85bn in GDP) as the strongest part of the assessment.

However, the scope of the Economic Peer-review is expressly limited. It has not replicated the modelling, verified the underlying inputs or prepared an alternative assessment. Accordingly, its conclusions principally address whether the methodology and resulting narrative appear reasonable, rather than independently verifying whether the quantified values are correct. In my view, this substantially limits the assurance that can be taken from the peer review regarding the accuracy of the quantified results.

The Economic Peer-review also accepts the integrated treatment of Stage 1 and Stage 2 on the basis that the wider project team confirmed that approach was appropriate. It considers that the Economic Assessment provides both Stage 2 metrics and wider whole-project context. However, it does not test whether the reported Stage 2 figures genuinely exclude activity already enabled by the Stage 1 consent. Nor does it assess the appropriate consented baseline or quantify the incremental benefits that depend upon approval of Stage 2. The Economic Peer-review does not resolve my concern that a material proportion of the reported construction benefits may arise under the existing consent and should not be attributed to Stage 2.

Economic Peer-review considers that the qualitative discussion of tourism, housing, local activity and industrial-land opportunity costs is adequate for a high-level assessment. It acknowledges that more information could be provided regarding ongoing operational benefits from tourism, but treats this only as a possible refinement.

Its positive conclusion should therefore be treated as a limited methodological and proportionality review rather than independent validation of the reported economic benefits. Further information remains necessary to identify the benefits attributable specifically to Stage 2 and to determine the extent to which the reported gross impacts represent net additional benefits to the Auckland economy.

In my view, there are substantive gaps in the information relating to the enduring operational effects, additional tourism expenditure, residential displacement, and the operational relationship between the solar farm-data centre and lagoon are central to determining the project's net and incremental benefits.

7.0 Section 67 Information Gap

I consider the following information gaps would improve the evidence base:

- Estimation of the ongoing tourism benefits and significance in Auckland Region.
- Estimation of the ongoing power generation benefits and significance in Auckland Region.
- Estimation of the ongoing data centre role and significance in Auckland Region.
- Provide an assessment of the activity enabled by Stage 2 as distinct to the baseline allowed by existing consent of Stage 1.
- Estimate the value of construction activity accounting for transfer and displacement effects, to understand the scale of the change in regional economic activity in net terms, rather than gross terms.
- Provide information on the business model in terms of potential efficiencies or operational interdependencies between the surf lagoon-data centre-solar farm, all of which are essential (and globally unique) aspects of the surf park. This information would provide some comfort that each aspect is scaled adequately to meet the stated outcomes.

8.0 Recommendation

The application would be more complete if the applicant had quantified the costs and compared them to the benefits of the proposal through a cost–benefit analysis. This would enable decision-makers to have greater confidence that all relevant impacts have been systematically identified and assessed, and that the proposal would deliver a positive outcome for the region.

9.0 Proposed Conditions

The proposed conditions of consent are not within the scope of my assessment, and I therefore make no comment on them.

10.0 Supporting Documents

Detail is provided in the footnotes to Section 6.0 of this memo.