

Ref: D23/70047

16<sup>th</sup> October 2023



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Dear Anthony Ko,

**RE: Oven Mountain Pumped Hydro Energy Storage Project EIS SSI-12422997 Exhibition –  
Kempsey Shire Council**

Kempsey Shire Council (KSC) welcomes the opportunity to provide feedback on the Environmental Impact Statement (Application Number: SSI-12422997) for Oven Mountain Pumped Hydro Energy Storage Project (OMPS). Various stakeholders with subject matter expertise within KSC have taken the opportunity to review the information available through the Environmental Impact Statement (EIS) currently on exhibition via the NSW Planning Portal.

KSC understands the proposed OMPS Project is the development of a 900 MW pumped hydro energy storage and generation project, grid connection and ancillary infrastructure within the Armidale Regional Local Government Area. We note the project is based on an offline storage principle, meaning storage is not along the river flow path. It is also noted that if the project progresses, planning instruments (such as licenses); will be in place to provide controls on any extraction from the Macleay River to protect maintenance of river flow.

While Council has previously recognised the potential opportunities such a project may provide, as per our feedback to the Planning Secretary's Environmental Assessment Requirements (2021) [Ref: F21/3084] (Attachment 1), we also noted the need for a comprehensive environmental assessment to better understand the impacts a project of this scale and complexity would have on the immediate environment and the wider Macleay Valley area.

The following sections highlight matters previously identified by KSC that we believe are not adequately addressed in the EIS.

## **Water**

### **Water extraction**

The EIS and Appendix M identifies extraction for the initial storage fill and operational top-up will occur at a rate of up to 86.4 megalitres per day (ML/day), which results in a maximum streamflow reduction of 12.6% for short periods (several hours). This is equivalent to an approximate 5% reduction in streamflow depth at the extraction point. However, the documents fail to clearly articulate the need to minimise impact on the source and receiving waters i.e., Macleay River. Will a staged approach occur during extraction to mimic the natural catchment runoff and flow events occurring within the Macleay Catchment?

The initial storage fill is a one-off take and will occur for a relatively short period of time (i.e., 3–12 months). KSC requires further information on how and when this would occur, to ensure no adverse impacts on downstream users.

KSC noted The Water Sharing Plan for the Macleay River Unregulated and Alluvial Water Sources outlines that no new access licenses can be granted. Any new commercial development must purchase entitlement from existing access licences. KSC would like additional information on whether there are adequate entitlements available from existing access licences to accommodate the proposed development.

#### Water discharge

KSC is currently developing an Integrated Water Supply Strategy, which requires a clear understanding of the impacts of the OMPS project on water supply security and treatment requirements.

KSC understands the project may be able to release water to assist with river flow in low flow times. However, the EIS does not clearly articulate how effective this will be in maintaining river flow to:

- a) Maintain environmental flow for the overall health of the river system.
- b) Assist in recharging Council's key bore fields at Sherwood, downstream from the project, which supply the Kempsey Lower Macleay Water Supply area.

Council has been involved in multiple university studies investigating the presence of heavy metals in the Macleay River. Some of these risks are due to mining sites located upriver in the Armidale Regional Council LGA and have been decommissioned, although continue to contribute small amounts of contamination. However, there naturally exists high levels of Antimony and Arsenic in the Macleay River catchment that directly impacts Council's water supply. In 2010, Bellbrook water treatment plant was upgraded to address these contaminants and ensure it was able to remove some level of heavy metals, particularly Arsenic. Neither Willawarrin nor Kempsey Lower Macleay supply schemes have the capacity to remove these contaminants and planning/design for the future treatment plants at these locations have not included heavy metal removal and disposal. Council's Water and Sewer section has been managing the contaminated waste, but it is becoming more costly and difficult. If all three water treatment plants required arsenic removal, it would be a costly exercise for disposal. Will the OMPS project work and operation release unknown levels of heavy metals? This has not been adequately addressed in the EIS.

Consideration of the OMPS projects impact on suspended solids, and other water quality criteria as relevant, during construction and the operational phase is required given the implications for Council's water supply receiving locations which are impacted adversely by turbidity in river flow.

#### Wastewater management

Additional details are required to demonstrate compliance with AS1547:2012 (onsite domestic wastewater management) to ensure proposed wastewater management will be effective for wastewater containing human waste. In particular, the proposed disposal method via discharge to the Macleay River for '*high occupancy areas*' does not fall under s.68 *Local Government Act 1993*. It is more likely this would require approval from the EPA.

As part of an onsite wastewater management assessment buffer distances to sensitive receivers (i.e., Macleay River, gullies, dams, creeks etc) requires careful consideration.

An assessment of construction wastewater is required to determine expected wastewater quality and an associated monitoring program to ensure the treated wastewater that is discharged into the Macleay River is at a standard that will not cause adverse environmental impacts. Water quality monitoring of the Macleay River would be required for the duration of

the project to assess water quality (heavy metals, suspended solids, BOD, faecal coliforms etc). Pre-determined trigger levels should be developed and acted upon should they be exceeded.

## **Transport**

### Upgrades to Kempsey-Armidale Road

KSC does not currently have a clear understanding, or agreement relating to the required upgrades of Kempsey Armidale Road, nor how defects in the road arising from transporting goods to site on Kempsey Armidale Road will be addressed.

It is understood from the Section 3.1 Stakeholder Consultation of the EIS that *“OMPS and Council are working to enter a Voluntary Planning Agreement (VPA) for documenting the external road works necessary for the Project that will sit outside this EIS”*. The terms and conditions of the VPA must be finalised before the issue of any approval to commence works as there are many statements throughout the EIS (and Appendix R) which infer both responsibility and expense (cost and staffing) to KSC (See Attachment 2).

KSC notes the EIS includes Transport for NSW (TfNSW) requirements. These requirements are comprehensive and, in most respects, cover KSC's requirements from a local road authority perspective.

Catering for Over Size Overmass Vehicles has been assessed, however is contingent upon suitable load bearing capacity of KSC's bridges and culverts and road upgrades to ensure acceptable corridor clearances and road carriageway manoeuvring space. Certainty to these measures being implemented should be provided prior to issue of any development approvals or conditioned to be resolved prior to issue of any Construction Certificate.

### Local road upgrades

While the EIS has addressed issues of local road upgrades, it alludes to KSC being responsible for actions and treatment. Further information is required here. KSC should expect to be able to conduct business as usual management of the road. Any additional activities should be the responsibility of the proponent.

### Impact from natural disasters

Road Upgrades relative to geotechnical stability have not been adequately addressed. Access route via KSC's roads have not been considered in the EIS.

## **Social impacts**

During early works and prior to “site mobilisation” workers will be expected to source their own local accommodation. When the accommodation camp is opened (dates and timeframes not specified) the accommodation camp will be able to hold 600 people and include: kitchens, shops, recreation, first aid, waste and wastewater treatment and security. Construction workers will include locals, drive-ins (living within 100km of site) and fly in fly out (FIFO) workers through Port Macquarie and Coffs Harbour airports.

A 600-person accommodation camp is proposed during the construction phase. 5 years is a long time to live in a camp without your partner/family etc. There is no compulsion for workers to stay at the accommodation camp and many will make a choice to live locally in the community with their partners/family etc. This is a typical response, and the proponent/State government needs to make plans before commencement to address demand for local housing stock and the implications this will have on the existing community in terms of affordability and availability. If not addressed there will be impacts on local

services as existing employees transition to short-term higher paying roles and teachers, nurses, casual employees etc. are priced-out of the Kempsey Shire. Local businesses will be affected differently – some with connection to the project will flourish and others will have issues retaining staff.

Figure 4.3 of Appendix W: Social impact assessment identifies that for at least 12 months worker numbers during construction will be well above 500 at around 700. For comparison Bellbrook has a current population of 339 people. The EIS considers the accommodation camp is the solution to the proportionately large influx of workers to a remote location. Successive state significant projects in rural and regional localities show that many workers want to live with partners or family locally and with their higher earnings – the impacts on availability of affordable housing/rentals market and implications for local businesses are negative and significant for the community. The EIS does not consider this eventuality.

KSC notes that 30% of locally sourced labour during construction is not a mandated requirement. But the potential loss of up to 247 local employees will potentially have a significant impact on local business functions. The EIS is silent on this issue and solutions.

This intensifies the need for State government intervention to provide additional and dispersed accommodation solutions throughout the Shire before the construction phase of the OMPS commences. Otherwise, there will be a lot of vulnerable people who are displaced and no arrangements in place to provide shelter. EIS offers no practical or meaningful solution.

The EIS suggests local tourist accommodation will be taken-up where available during the construction phase of the project. While this is a potential windfall for the businesses there are obvious long-term implications for the Shire's developing tourism industry. The EIS has no solution.

### **Economic impacts**

KSC requires more information about the regional economic impact of construction and operational phases and more specifically, an appropriate response to provide the community when questioned regarding the overall benefit of the project to our LGA?

### **Tourist amenity**

The EIS identifies impacts during and post construction (night work, lights, stockpile areas etc.) relevant to local tourism. While amenity has been considered and mitigation measures proposed for both natural areas and on residences/lodgings, the EIS lacks information on how the potential impacts will be communicated to tourists utilising the area such as Georges Junction Campground. While not all key tourist sites are managed by KSC, tourists may expect updates to come via KSC.

### **Geotechnical hazards**

The EIS identified significant potential geological hazards that will require further consideration during both the design and construction phases of the elevated dams. While evidence of significant rock falls in the area was acknowledged, the EIS lacks any proposed controls to mitigate potential hazards.

## Community Benefits

The EIS, and particularly the social impact assessment, speaks to a community benefits program to be established by negotiation of a Voluntary Planning Agreement. It is imperative that this agreement is negotiated, and public notice provided prior to any consent being issued for the project.

Should you wish to discuss any of these aspects further, please contact the undersigned.

Kind Regards,



Michael Jackson  
Director Operations and Planning  
Kempsey Shire Council

**Attachment 1: KSC's feedback to the Planning Secretary's Environmental  
Assessment Requirements (15 February 2021) [Ref: F21/3084]**



Ref: F18/2354  
RAF: TG

15 February 2021

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Dear Iwan,

**RE: Oven Mountain Pumped Hydro Energy Storage Project – Planning Secretary's Environmental Assessment Requirements**

Kempsey Shire Council welcomes the opportunity to provide feedback on the SEAR's request for the Oven Mountain Pumped Hydro Energy Storage Project. Various stakeholders with subject matter expertise within Council have taken the opportunity to review the information available via the Scoping Report and the Planning Secretary's Environmental Assessment Requirements. Council recognises the potential opportunities such a project may provide, however notes the need for a comprehensive environmental assessment to be undertaken to better understand the impacts a project of this scale and complexity will have on the immediate environment and the wider the Macleay Valley area.

Council supports the information provided within the Planning Secretary's Environmental Assessment Requirements. Council requests adequate consideration of the following points as part of the SEAR's for this project to ensure there is appropriate coverage so that necessary assessment undertaken is comprehensive and adequate to reasonably understand the projects full environmental impacts and benefits.

**Water**

- The environmental assessment should produce detailed modelling of the potential operational consumption ('topping up') of water take from the Macleay River with regard to frequency and volume for extraction. This modelling should consider evaporation rates from the reservoirs under different climate scenarios across the life of the project and identify whether it has potential to impact on the downstream environment and on local water security for downstream receivers including but not limited to rural land holders (stock, cropping and drinking water) and Kempsey Shire Council. Detailed consideration of hydrological flow is required as part of this review and will ultimately inform licencing requirements via DPIE and WaterNSW for the extraction of water. A key consideration is times of low flow and the associated permissions that may apply to the OMPS project in those times.
- The Water Sharing Plan for the Macleay River Unregulated and Alluvial Water Sources outlines that no new access licenses are able to be granted. This means environmental flow, adjoining landowner extraction needs, and Council water supply security is ultimately unaffected under the terms of this Sharing Plan. Any new commercial development must purchase entitlement from existing access licences. Are entitlements from existing access licences available and adequate? Incentives are available under this Sharing Plan for extraction in high flow periods however.
- Council has been involved in multiple university studies investigating the presence of heavy metals in the Macleay River. Some of these risks are due to mining sites

located upriver in the Armidale Regional Council LGA and have been decommissioned, although continue to contribute small amounts of contamination. However, there naturally exists high levels of Antimony and Arsenic in the Macleay River catchment that directly impacts Council's water supply. In 2010, Bellbrook water treatment plant was upgraded to address these contaminants and ensure it was able to remove some level of heavy metals, particularly Arsenic. Neither Willawarrin nor Kempsey Lower Macleay supply schemes have the capacity to remove these contaminants and planning/design for the future treatment plants at these locations have not included heavy metal removal and disposal. Council's Water & Sewer section has been managing the contaminated waste but it is becoming more costly and difficult. If all three water treatment plants required arsenic removal, it would be a costly exercise for disposal. Will the OMPS project works and operation release unknown levels of heavy metals? This requires review and understanding as part of the environmental assessment phase.

- Consideration of the OMPS projects impact on suspended solids, and other water quality criteria as relevant, during construction and the operational phase is required given the implications for Council's water supply receiving locations which are impacted adversely by turbidity in river flow.
- Kempsey Shire Council is currently undertaking the development of an Integrated Water Supply Strategy (IWCM), which as part of the development of this Strategy requires clear understanding of the impacts of the OMPS project on water supply security and treatment requirements.
- Some issues require clarity which are alerted via the wording or lack of explanation in the Scoping Report:
  - It notes "minimal top-up" required after construction. Is there any detail to what this would be? Comprehensive understanding of this need is required which is to be advised by detailed informing studies and modelling as appropriate.
  - There was reference to multiple reports, one being SMEC, 2019. It would be useful for Council to be informed and to review these documents.
- Engagement to date with the proponents has suggested a potential benefit of the project is to assist with Council's water supplies during periods of drought by assisting with river flows from the storage the project will create, whilst also making water available for the RFS to extract in times of bushfire in the region. This requires informing studies to understand what these potential benefits may be, in particular during times of drought. Whilst the project may be able to release water to assist with river flow, what is not understood is how effective this shall be to maintain river flow to assist in recharging Council's key bore fields at Sherwood, some distance downstream from the project, which supply the Kempsey Lower Macleay Water Supply area.
- The need for additional rainfall and river flow and level measuring infrastructure should be considered during the investigation and the projects contribution to the development and ongoing operation of those already in existence requires consideration.

## **Transport**

- The volume and make-up of the vehicular traffic generated by the OMPS projects construction and operation needs to be well understood. Access from the east for most construction and operational needs is envisaged. Road pavements and road alignments from the Pacific Highway to the subject site will therefore be heavily impacted, and are not currently designed to cater for the traffic generation, in particular during the construction phase. Upgrade requirements, which are envisaged to be significant, need to be well understood in determining the OMPS projects viability and so as to ensure local and regional traffic and transport is not impacted adversely and that Council does not wear the cost burden (due to



premature failure) of the projects impact on local and regional roads used for access. As part of this assessment of cost and road pavement and alignment impacts, overmass and oversize vehicle access needs require consideration.

- Access roads to the area are prone to impact from natural disasters, in particular landslide and, as such, the assessment should consider not only geotechnical stability of the subject site but also areas where local road upgrades would be proposed.

### **Amenity**

- The road noise impact assessment should consider traffic noise impacts on receivers along local roads that constitute heavy vehicle haul routes between Kempsey/Armidale.
- Amenity impacts to any nearby tourist accommodation providers such as the Georges Junction camp ground and "Bass Lodge", both of which are to the north west of the site, require assessment.
- Construction and operational noise impacts on the local community require assessment.

### **Risk**

- Understanding of the risks to downstream residents associated with failure of the elevated dams, and the associated required controls to mitigate this risk, require assessment.

### **Environmental Health**

- The assessment should detail and assess the impacts of any expected ancillary off-site requirements of the project including construction compounds, worker camps etc given the downstream town water supply needs and recreational uses. Specific consideration of onsite sewage treatment and treated effluent disposal is required.

### **Resources**

- The assessment should detail the expected demand for quarried materials and other resources and how this demand might impact on supply in the local area.
- The projects impact on the local workforce should be assessed. What opportunities would be a product of the project for the local workforce, where would there be expected shortfalls on personnel resources and what impacts would an increased demand for skilled local workers have for the provision of those services across the locality.

### **Economic**

- Economic impacts to any nearby tourist accommodation providers such as the Georges Junction camp ground and "Bass Lodge", both of which are to the north west of the site, require assessment.

### **Heritage**

- A comprehensive understanding of Aboriginal heritage in relation to the subject site and any associated impacts is essential.

### **Consultation**

- A suitable and fit for purpose engagement strategy must be in place underpinning the development of the EIS. Wider community consultation needs to be included due to limited awareness of the project within the Kempsey Shire.
- The assessment should involve comprehensive engagement and consultation with local receivers, in particular those located along the complete proposed construction haul routes. Figure 2.7 of the Scoping Report identifies 'sensitive receivers' for consultation etc. Sensitive receivers would include residences all the way along the

route that will be used during the construction phase in particular (whether that be towards Kempsey or Armidale or both) as they state within the report that vehicle movements will significantly increase as a result of the project and we would assume this would include a large proportion of heavy vehicle movements.

- Comprehensive consultation related to Aboriginal heritage with local Indigenous communities is essential.
- Kempsey Shire Council, Armidale Regional Council and Transport for NSW have entered into an agreement to better plan for and manage the overall route of the Kempsey-Armidale Road. Consultation with these parties via this forum shall be an important aspect of the consultation phase.

#### Other

- The assessment should provide detail on the proposal for managing spoil and identify whether this can be managed onsite or whether off-site disposal is required, and if so identify how and where this may be disposed of.
- A comprehensive understanding of the broader Environmental impacts on the site footprint is essential.
- The projects potential to spread Tropical Soda Apple and other noxious weed requires assessment for both the construction and operational phases.

Should you wish to discuss any of these aspects any further please do not hesitate to contact the undersigned.

Yours Sincerely,

A handwritten signature in black ink, appearing to read "RF" followed by a flourish.

Robert Fish

**Director – Infrastructure and Planning**  
**KEMPSEY SHIRE COUNCIL**

## Attachment 2: Inferred responsibility and expense to KSC for upgrades to Kempsey-Armidale Road

Table 1.2

Item 3 EMM Responses - These works are to be designed and approved by the councils and funded by OMPS.

KSC response: Who will fund the design work, not Council unless this forms part of a Council funded works program.

Item 14 EMM Response - The design drawings for these works will be prepared by Councils.

KSC response: Who will fund the design work, not Council unless forms part of a Council funded works program.

Table 1.3

Item 1 EMM Response - Details of the likely scope and cost of road upgrades and associated road pavement impacts and repair costs for the Kempsey Armidale Road have not been finalised and are under discussion with the two relevant local councils.

KSC response: these details should be resolved before the issue of any State approvals to commence works.

Section 2.4

All internal roads have been designed in accordance with ARRB Unsealed Roads Best Practice Guide 2 (ARRB, 2020).

KSC response: Consideration should be given to sealing the sections of the internal roads expected to have frequent traffic movements to mitigate dust pollution and sediment run-off into downstream water bodies.

Section 3.1 Stakeholder Consultation

OMPS and Council are working to enter a Voluntary Planning Agreement (VPA) for documenting the external road works necessary for the Project that will sit outside this EIS.

KSC response: The terms and conditions of the VPA must be finalised before the issue of any approval to commence works.

Table 4.2

Road classification and connectivity Local Road, which is undergoing reclassification to regional road.

KSC response: Incorrect description, Regional Classified Road (refer to TfNSW Schedule of Classified and Unclassified Roads).

Table 4.3

KSC response: Should include planned upgrades, Intersection Macleay Valley Way and Second lane (2024), Armidale Rd at Woolshed Gully (2023) and Armidale Rd at Nook Creek (2024).

Section 5

KSC response: Should include Belgrave Street and Elbow Street as additional Table 5.3 - Should include intersections Macleay Valley Way/Angus McNeill Crescent (Crescent head Rd), Stuart/Belgrave Street and Elbow/Belgrave /Sea Street at railway crossing.

Table 5.14 – Traffic volumes for Smith Street post Highway Bypass should be provided.

Table 5.15 - Should include traffic volumes for Belgrave Street and Elbow Street, which are expected to be higher than River Street.

Table 5.17 – The seal width between Pee Dee to Bellbrook varies between 5.5m to 7m NOT 9m? Only recently upgraded sections of Armidale Rd between Bellbrook & Yarravel have 9m seal widths.

Section 5.9.2 I – Cavanagh's also provide school bus services; details should be included in the tables.

#### Section 5.10.1

KSC response: Several road safety improvements along River Street, West Kempsey, including pedestrian refuge crossings, have been proposed by Kempsey Shire Council. The road safety works are expected to begin in late 2022 as per the council website. – These works are now complete.

No pedestrian crossings or footpaths were observed along North Street or Second Lane. – There are some sections of existing footpaths in North Street.

This section should also refer to Council's adopted Pedestrian Access Mobility Plan (PAMP) to similar extent as referenced for cycleways in Section 5.10.2

#### Section 6.2

KSC response: Light vehicles: construction-related light vehicles are expected to be generated from Kempsey township and likely to pass through the city center e.g., Lord Street-Smith Street-Macleay Valley Way-Second Lane-North Street-River Street-Kempsey Armidale Road. Should include Belgrave and Elbow Streets.

#### Table 6.7

KSC response: Should include North Street into River Street

#### Table 6.8

KSC response: This table's recommendations raise concern about the viability of the undertaking of the recommended works. The works as recommended are significant and reliant upon suitable access to the site for OSOM vehicles. Certainty with respect to the of the works should be provided prior to issue of any consent or at least prior to issue of a Construction Certificate.

#### Section 7 -Impact Assessment KSC response:

- 7.1 – Intersection performance - the SIDRA modelling should include the intersections of Belgrave Street/Stuart St and Elbow/Sea/Belgrave Streets.
- Table 7.9 – Not all sections of Armidale Road (Yarravel to Bellbrook) are 9m wide seals. Need to note and/or comment on sections less than 9m wide. Armidale Road (Bellbrook to Pee Dee) has an average seal width of 6 to 7m and needs to be amended to reflect this.
- Table 8.1 Mitigation Measures - The "Responsibility" column includes against many measures "joint responsibilities" which should be further detailed to clearly indicate what each authority/organisation is responsible for, especially the measures involving significant road works.
- Section 9.4 – should note NHVR are required to consult with Councils for certain OSOM vehicles as part of the route application assessments. Give the scale of the project and time frames for construction, recommend further

consultations with NHVR on options for route approvals for a range of vehicles over a fixed term.