Jenny Freeman
130 Sancrox Road
SANCROX NSW 2446

PO Box 5255
PORT MACQUARIE NSW 2444

Email: freemanco@bigpond.com

11 December 2019

Planning Services
Department of Planning
Industry and Environment
GPO Box 39
Sydney NSW 2001

Attention: Ms Melissa Anderson

Dear Melissa,

RE: SANCROX QUARRY EXPANSION PROJECT – PROJECT NUMBER – SSD-7293

This submission has been prepared in response to the notification of the above development proposal. I am the owner of Lot 5 DP 785611, No 130 Sancrox Road Sancrox. This landholding adjoins the quarry landholding on the quarry's western boundary.

Our family has lived on this landholding since 2008 and have no issues with the quarry and its continued operation.

We do however, object to this current proposed expansion, due to the scale of the proposal, without any quantifiable justification and the superficial nature of the EIS. The EIS fails to identify and properly examine the impacts of the proposal both within and external to the site or provide any meaningful mitigation for those impacts.

Accordingly, the following matters are raised as the basis of our objection.

1. **Justification for the Proposal**

   No justification for the scale of the proposed expansion has been provided within the EIS to allow the demand for resources of this quantity to be substantiated.

   - The EIS does not provide any examination or assessment of the existing quarry resources available within the region. Hanson themselves have a future quarry site on Milligans Road at Wauchope which is not mentioned, let alone the remaining four existing and operating hard rock quarries in the region. The EIS is presented as if the Sancrox quarry is the only local supply of hard rock material.

- No data on historic production from the quarry has been provided. The current quarry licence provides for a production of 185,000 tonnes per annum (70,000m^3). In 2014, the quarry sought and obtained a modification to the development consent for a temporary 5-year window of increased production to 455,000 tonnes per annum. This increase was based upon increased demand for the Pacific Highway duplication, which has now been completed.

  This temporary approval of increased production under the current approval ceased on 14 March 2019. None of the above changes in production approvals are discussed in the EIS which suggests the current extraction licence continues to allow 455,000 tonnes per annum production as part of the context for the current application for an increase to 750,000 tonnes per annum.

- No quantifiable justification for the increase to 750,000 tonnes per annum has been provided. There is no data on the demand for quarry resources across the region or projections of demand into the future. The EIS quotes extracts from the Ethos Urban report which identifies a number of current and proposed developments as justification. Some of the nominated proposed developments have not as yet progressed to rezoning stage.

- Historically, the current quarry has experienced variability in the quality of the resource. The geology of the site is known to be volatile in places and highly weathered. No details have been provided on the drilling exploration program to prove up the resource, in terms of the various classes material the quarry is projected to produce or the volume of overburden or unsuitable material.

- We have been provided with a digital model of the completed quarry as proposed, that has been developed using the current topography and the proposed quarry excavation contours. It is noted that no such model has been included in the EIS for the proposed expansion which is a fundamental omission in the documentation. The proposed quarry void is estimated to generate 52 million tonnes of material, which, even allowing for 15% for overburden, over the proposed 30 years, will generate 1,473,333 tonnes of quarry material per annum. (Refer **Attachments 1a & 1b**)

  This is nearly double the proposed 750,000 tonnes per annum sought in the current application, or alternatively, at 750,000 tonnes per annum, the proposed quarry extent will provide a life almost double that requested.

- The EIS states in the section under Waste, that the overburden when not required for rehabilitation may be used as commercial product such as road base or general fill.

  Over the life of the current quarry, there is no evidence of any overburden having been used for rehabilitation. In fact, there is no evidence of any rehabilitation of the existing operations of the quarry having occurred at all, notwithstanding the quarry has operated under its current development consent since 1995.

  No Quarry Rehabilitation Plan has been provided as part of the EIS to allow for any estimate of the volume or overburden required for this purpose. On this basis, the overburden will add a further 260,000 tonnes per annum to the above 1,473,333 tonnes per annum of production, assuming a 30-year life.

In summary, the EIS does not provide any information to demonstrate that a quarry of this scale is required to meet the current and projected demands for quarry materials within the region. The lack

of justification for the 400% increase in annual production also then relates to the proposed extension of operating of the quarry hours to 24 hours per day and 7 days per week. Without verifiable justification for the significant increase in the proposed annual output, the extension of operating hours can also not be supported. The Development Application as submitted cannot be approved without such justification for the scale of the proposed expansion.

2. Biodiversity Conservation Act Requirements

The EIS seeks to avoid the requirements of the Biodiversity Conservation Act 2016, by taking advantage of the Biodiversity Conservation (savings and Transitional) Regulation 2017. From our assessment, the proposal does not meet the criteria and timeframes required under the Regulation, as follows:

- The EIS document makes use of the Biodiversity Conservation (Savings and Transitional) Regulation 2017, using the definition of a "pending or interim planning application". It is difficult to see how this EIS meets the requirements of Clause 27 (1) (b) and Clause 27 (2) of the Regulation with the last re-issued SEARs dated 18 September 2017 and the SSD Application lodged on 10 July 2019.

- The Biodiversity Assessment Report (BDAR) does not meet the requirements of Part 6.15 (1) in terms of the date of the report being 17 June 2019. Application of Part 6.15 will require the re-application of the Biodiversity Calculator (and depending on the output of re-application of the Biodiversity Calculator) re-submission and potentially re-exhibition of the BDAR.

- The Biodiversity Values field studies were completed in 2015, while the Biodiversity Credits Report is dated 4 July 2017.

- The current EIS proposal also varies from the concept used in the Credits Report.

- It is considered these are fundamental and substantial flaws in the biodiversity assessment contained in the EIS.

We submit that the application does not meet the statutory requirements of the Savings provisions under the Regulation. As such, the application cannot be accepted or determined in its current form.

3. Ecological Assessment

This objection is based upon the inadequacy of the ecological report submitted with the EIS, considering the scale of the expanded quarry proposal and other ecological assessment carried out in the vicinity of this proposal.

- The EIS and associated biodiversity report makes limited references to previous ecological assessments completed as part of various urban growth and development proposals in the immediate area and including this site.

- The report assessments outcomes differ significantly from those carried out previously. The 2011 Biolink report prepared for Port Macquarie-Hastings Council (PMHC) as part of the Greater Sancrox Structure Plan, identified the majority of the area proposed for the quarry expansion as being part of a Sub-regional Corridor (Fig 10). (Refer **Attachment 2)**

In terms of ecological values, the area proposed for quarry expansion was mapped as either "irreplaceable" or be "value managed".

The Connectivity Links provided with the EIS (Appendix E), have not been placed over aerial photographs to allow the proposal to be assessed, in the context of the overall area.

Table 5.7 in the EIS proposes mitigation measures including "Design and implement a planting plan for corridor of native vegetation east and west of proposed quarry pit, to maintain north-south corridor link of trees, as per sub-regional corridor in the Biolink Greater Sancrox Structure Plan (PMHC 2015)".

Given the quarry's current development and removal of all vegetation up to its eastern boundary, together with the proposal to place a bitumen plant in this area, there is no indication in the EIS how a future eastern vegetated link can be established within the quarry property boundaries.

- The ecological report within the EIS has not identified any of the Hollow Bearing Trees within the quarry footprint previously identified in the Biolink report. (Refer **Attachment 3**)

- The quarry excavation contours and infrastructure areas proposed, do not relate to the surrounding topography and therefore it is not possible to determine the actual extent of clearing proposed.

  The impacts of the proposal are not able to be properly determined and assessed, based upon the submitted documentation.

- Both the existing and proposed vegetation in the offset area will be compromised by the changes to both the surface water and groundwater regimes created by the quarry development.

  The impact upon the ecology of this area as a result of the changes to both the surface water and groundwater regimes is not discussed or considered in the EIS. This is considered to be a fundamental flaw in the ecological assessment contained in the EIS.

- The biodiversity report does not discuss the impact on flora, fauna and riparian water quality from the changes in hydrology and groundwater created by the impact of the quarry on surface water and ground water flows.

  These impacts in terms of ecology will extend well beyond the site and include areas identified as Endangered Ecological Communities. None of these impacts have been considered or addressed in the EIS.

  The Biolink Report identified much of the vegetation proposed to be removed by this development or potentially affected by the changes in surface and ground water regimes as "irreplaceable or needing "value management",(Refer **Attachment 4**).

- Previous ecological studies on the McMullen Estate property to the south and the Dunn Family property to the north off the subject site, have established the presence of Koala. Koala Plans of Management (KPoM) were prepared in respect of both of these adjoining properties on the basis that the area adjoining the proposed expansion of the quarry was considered to be Core Koala Habitat.

The Biolink Report identified much of the area proposed to be cleared as Core Koala Habitat, either high or medium use. (Refer **Attachment 5**)

The ecological report with the EIS acknowledges that the site is "potential koala habitat" in accordance with SEPP 44 and that 805 records exist of koala in the search area but does not reference the approved KPoMs adjoining the southern and northern boundaries of the proposed quarry expansion. This omission is a further fundamental flaw in the ecological assessment contained in the EIS.

- There is a large existing large farm dam within the proposed quarry footprint which is not mentioned in the ecological report.

  The dam is located within the forested area and is in good condition. There does not appear to be any ecological assessment of this aquatic habitat in respect of two threatened species, the Green and Golden Bell Frog and the Green-thighed Frog known to occur locally.

  Additionally, Appendix H, Threatened Species Likelihood of Occurrence (LoO) outcomes, based upon the OEH Wildlife Atlas search, do not appear to be relevant for a number of species, eg koala, powerful owl, masked owl, all of which have been identified on adjoining areas in the Biolink Report for the Greater Sancrox Structure Plan.

Whilst the EIS includes the file survey notes (Appendix C), it has not been possible to identify the results from those surveys.

We submit that the applicants be required to undertake a full assessment of the ecological impacts of this proposal, both within and external to the site, to address the deficiencies with the ecological report submitted.

4. Noise & Blasting Assessment

Noise

The information provided within the EIS and supporting reports in relation to noise is inadequate to allow for an assessment of the acoustic impacts of the proposal.

The proposed quarry expansion provides for a relocation of the existing quarried rock processing and product stockpile areas. The plans provided with the EIS show an indication of the proposed layout for the crushing plant and stockpiles in the new location on the southern boundary of the site.

There are no finished ground Reduced Levels (RLs) for the proposed new processing operational area or for the proposed noise bund along the southern boundary. The noise bund is assumed to follow the existing ground levels, but it is not possible to determine how it relates to the finished ground surface levels and the associated levels of the processing plant. As a result, based on the submitted information it has not been possible to assess the potential noise impacts from this area.

The provision of finished surface levels for both the processing area and the top of bund are essential parts of the EIS documentation and the application should be amended to include this information in a clear format. Verification of noise impacts based on the proposed finished ground levels then should be provided to allow comparison with the existing situation.

An identical situation exists for the proposed new asphalt plant located on the southern boundary and behind the noise bund. Again, no finished RLs have been provided in the EIS for this site or the elevation of the processing tower to assess potential noise impacts.

The above also applies to the site of the proposed concrete batching plant on the former site of the gravel crushing and stockpiling area. However, in this case, the EIS does not propose any noise bund or screening for the concrete batching plant.

The same situation applies to the proposed western bund wall, where the plans show the bund wall at a low point in the topography and extending north/south along an existing drainage line. There is no information in relation to the RL's of this wall and relationship to receivers on adjoining properties to the west.

In respect of the proposed noise bund walls, the southern wall at 25m in height is as high as an eight storey building while extending for 450 metres, while the western wall at 20m in height is higher that a six storey building and extending for 250 metres.

In respect of the proposed noise bund walls, the southern wall is proposed to have a height of 25m, which is equivalent to an eight-storey building and extend for 450m. While the western noise bund at 20m, will be in excess of a six-storey building and run for 250m.

Particularly for the southern wall on the McMullen property boundary, there has been no consideration of the impacts of these structures, either visually or on an engineering basis.

The noise modelling provided does not include noise level envelope diagrams to provide an overall understanding of the noise impacts from the proposed development, both without and with mitigation. Given Council's proposed urban investigation plans for the Fernbank Creek and Sancrox areas, a diagrammatic model overlaid on an aerial photograph is required to understand the extent of impacts from noise.

The Table 4.1 provides include Noise Management Levels (NMLs) for each of the identified receptors based upon the Project Specific Noise Levels (PSNL) adopted in accordance with the NSW Industrial Noise Policy (INP).

The construction noise assessment has been based upon the NSW Interim Construction Noise Guideline (ICNG).

Table 6.2 provides the modelling for construction noise with predicted noise levels for three scenarios, plus subsets, based around the construction of the facility. The table also provides a comparison against relevant Noise Management Levels (NML) for each receptor adopted under Tables 4.3 and the resultant difference achieved.

The operational noise assessment scenarios are detailed in Table 7.1 with the predicted results modelled in tables 7.2 – 7.5 covering both day and night-time modelling.

From these tables, and noise criteria derived from policy documents, it is not possible to assess the actual noise impacts against the recorded background levels for both the mitigated and non-mitigated scenarios. The EIS is required to be amended to provide that fundamental noise impact information.

Blasting

The EIS does not include any assessment of the proposed blasting operations for the quarry or blasting plan. This quarry has had a long history of fly rock extending beyond the quarry boundaries, with evidence of flyrock still readily apparent on adjoining landholdings including the McMullen estate.

The comment in the EIS that, "Blasting practices at the quarry are to be undertaken in accordance with Australian Standard AS 2187.2", is insufficient to allow for an assessment and understanding of the potential impacts of the hazardous activity.

Before this EIS can be determined the applicants must provide a blasting and fly rock assessment report showing appropriate fly rock buffers and including a blasting management plan.

It is essential that the EIS clearly demonstrates that all required flyrock buffers are contained within the cadastral boundaries of the quarry property.

5. Air Quality & Dust Assessment

The Sancrox quarry has had a long history of minimal maintenance and housekeeping in respect of dust and air quality management.

The EIS does not provide information in a form that can be assessed by individual receivers in terms of improvement from the current situation or will it be worse.

For the main areas of dust generation, in and around the surface operations, there are no plans showing roadways and operational areas and how dust suppression will be provided. There is no dust management plan and no commitment from Hanson in respect of ongoing dust management.

For a quarry operation of this scale, dust management should be a key component of the planning and approval documentation, against which the ongoing operation can be assessed.

6. Hydrology Impacts

The EIS has not adequately address the hydrological impacts of this proposal and their effect on the nature a flow of the catchments affected.

- The proposed quarry straddles the watershed between the Fernbank and Haydons Creeks. As such the development footprint will intersect a number of first and second order streams. The EIS provides for an estimated 40-80 Megalitres per year of rainfall being captured by the quarry.
- There is no mitigation for the loss of this water from the environment proposed in the EIS.
- The removal of this water from these catchments will result in a drying of these catchments, with reduced runoff available to soak into the groundwater and for use by downstream vegetation. The impacts on the change to the downstream environment has not been addressed in the EIS.
- Both of these catchments include areas of coastal swamp and wetlands which are classed as Endangered Ecological Communities (EEC's).
- The change in the freshwater regime may also result in the tidal saltwater intrusion extending further up each catchment impact on both groundwater and vegetation communities. No assessment of these impacts has been undertaken in the EIS.
- There is no mitigation for the loss of this surface water from the environment provided for in the EIS.
- The documentation has not established that there will not be impacts on the environment from changes in hydrology extending beyond the quarry landholding.

This current development application should not be determined due to the extent of surface water impacts both within and beyond the subject site are adequately addressed and appropriate mitigation provided.

7. Groundwater Impacts

The groundwater report contained in the EIS provides detail and diagrams based upon a "base case". Nowhere is the base case defined or is there any comparative modelling between the "base case" and the pre-development and post-development scenarios.

The report states that the quarry will have a groundwater inflow are between **40,000 and 60,000 litres per day** which equates to **15 - 22 megalitres** per annum.

There are no mitigation measures proposed within the EIS for the loss of this volume of water from the groundwater aquifer.

The groundwater report has been prepared based on the steady-state analyses of a pre-development scenario of no quarry and the determination of the amount of drawdown expected at the time the excavation has been completed.

- The following limitations of the report should be noted:
    - *The model does not include a transient analysis (groundwater level and flow estimates varying over time). Therefore, the model calculated pit inflows are stabilized, long-term values that do not include groundwater in storage affects. These storage affects, although temporary,* ***could increase the current estimates significantly*** *within the initial stages of the quarry expansion where large amounts may be released from aquifer storage. (*Refer Dot point 4, page 44 of the report.)
        - The storage affects during the drawdown phase appear to be substantial.
        - Calculations undertaken based upon the base case equipotentials referenced within Figure 5.4 when combined with the expected groundwater drawdown as shown within figure 5.5 indicate that the volume of in situ material affected by the drawdown is in excess of 65 million cubic metres.
        - Assuming an average porosity of 0.1 (10%), drawdown of the storage effects would add an additional 220 megalitres per annum or over 610,000 litres per day to the groundwater take during the quarry expansion phases.
        - It should be noted that an increase in the average porosity of the surrounding soils would similarly result in the increase to the groundwater inflow during this phase.
        - The impact of the extraction of existing standing groundwater has not been considered within the groundwater report.
        - The management/disposal of the additional extracted groundwater similarly has not been considered within the groundwater report.
    - *Similarly, the drawdown estimates are long-term, stabilised estimates that represent the largest cone to be formed by the quarry dewatering. In reality, the cone of depression will* ***expand gradually*** *over time.* (dot point 5, Page 44 of the report)
        - The report acknowledges that the extent of the drawdown will continue to increase over the extreme long-term post-excavation of the quarry. This suggests that, although the drawdown estimates are long-term, they do not represent the ultimate drawdown of groundwater resources that will be experienced by the surrounding land.
    - *The current model is not sufficiently detailed to identify pit wall – groundwater issues and does not include additional estimates for pit slope or pressure reduction. Should such systems (e.g. Horizontal pit wall wells) be required, groundwater flows would be higher than current estimates. A more detailed analysis including transient flows and more detailed pit geometry configuration will be required to assess such issues.* (Dot point 7, Page 44 of the report)

    - Any works resulting in increases to the property of the surrounding soil and rock Strata will result in further groundwater inflows into the pit, as well as an increase to the area affected by the drawdown of groundwater surrounding the site. It is essential that additional modelling be undertaken to quantify the worst-case scenario for groundwater drawdown as a result of this development to allow the full potential impacts of groundwater drawdown to be assessed on surrounding properties.

- The report notes that the excavation for the quarry will results in intersection of groundwater, causing substantial drawdown of the water table in the area surrounding quarry excavation.

- No discussion has been included within the report on the impacts of this drawdown groundwater on the surrounding properties. In particular the effect on the existing vegetation including trees and pasture with increased depth to groundwater as a result of the quarry expansion.

- The report does not include the expected changes to the groundwater equipotentials as a result of the drawdown within the excavation area.

- The report does not provide any indication on what effects the drawdown will have on underground water subsurface movements generally and in particular, the risk of saltwater from the Hastings River being drawn southwards towards the excavation resulting in salinisation of the Hastings River floodplain.

- An analysis of the expected equipotentials following the excavation of the quarry based on the information provided within figures 5.4 and 5.5 of the report indicates that the expanded quarry will act as a localised sump for groundwater flows. The plan showing the existing equipotentials indicates the groundwater generally moves from South to North towards the Hastings River, however, when taking into account the expected drawdown as shown within figure 5.5 of the report and generating new equipotentials for the post development case, groundwater flows are significantly modified to be drawn towards the quarry. (Refer **Attachment 6**)

- In extreme cases, groundwater flows appear to reverse in the area to the north and northwest of the quarry resulting in groundwater flows moving southwards from the Hastings River towards the quarry excavation.

- The report does not provide any discussion on the impacts of the reversing of groundwater flows.The potential risk that saltwater from the Hastings River may be drawn into the groundwater towards the quarry excavation must be quantified.

- The report does not quantify the risk of increasing salinity of the groundwater to the north of the quarry, nor the impact of this on existing vegetation and water uses.

- The report states that the expected groundwater inflow as being modest for a pit of this proposed size, stating the expected Steady State groundwater inflow of 15 to 22 megalitres per year. As discussed above, the groundwater inflow during excavations could reach an order of magnitude higher. No discussion on the management of these higher inflows is included within the report.

Due to pumping of ground water from the current quarry excavation, now approximately -14 AHD, both of the quarry operational dams are full despite the current drought.

Quarry Dams

By comparison on our own property, our large dam which is reliant upon groundwater is completely dry. Ordinarily we rely on this water source for reticulation to stock water troughs and we are now buying water for this purpose.

Farm Groundwater Dam

Our remaining small catchment dams are now very low as a result of the current extended drought period.

Farm Catchment Dams

From the above photographs, our extreme concern in relation to the groundwater impacts of the current proposal, with no mitigation proposed, can be understood.

This current development application should not be determined due to the extent of groundwater impacts well beyond the quarry property boundaries.

8. Visual Amenity

The visual assessment and photographs provided with the EIS are not a true reflection of the impact on visual amenity from the quarry.

The quarry has historically removed vegetation right up to its eastern and northern boundaries and relied upon vegetation on adjoining landholding to provide a visual screen. Most of the vegetation on the landholding to the east has now been removed, leaving the quarry operational areas totally exposed to the Pacific Highway, Winery Drive, Fernbank Creek Rd and Wambyun Drive.

The photographs provided in the EIS are not a true reflection on the visibility of the quarry operation. In some case they are not current, in other cases that have been taken in the correct direction or they from relatively close, low elevation positions.

Figure F13.2 which compares the “Theoretical Visibility” of the current quarry and the proposed quarry proposal, would appear to show that the proposed quarry will be visible by at least 20 receptors. Given the qualification to this model provided in the EIS, this model provides no practical purpose.
The real concern with visibility, is the quarry’s past practice of either clearing and filling or excavating right up to the boundaries of its landholding. This is evident on its northern and eastern boundaries.

This practice is now proposed to be continued with e proposed expanded quarry being excavated right up to the northern boundary, with no buffer or opportunity to screen the quarry.

This EIS should not be determined until the applicant can demonstrate appropriate buffers and screening on the northern and eastern boundaries.

9. Social & Economic Impacts

The social and economic impacts of this proposal on the local community have not been adequately addressed in the EIS.

- The Ethos Urban 2019 report states that potential social impacts will be minimal: "The quarry site is remote and rural with no social infrastructure within walking distance of the site that would be affected by the expansion of quarry operations". It is not clear how a definition of "remote" could be arrived at when the development is located on the Pacific Highway and is surrounded by either industrial or rural residential style development.

- The assessment ignores the potential impacts of dust, noise, flyrock, runoff and vibration on the quality of life and property values.

- There is no discussion or consideration of the Council's Urban Growth Management Strategy or the future urban investigation area of Fernbank Creek and Sancrox.

- There is no justification that the capital investment required for this development is such that it requires an approval of 30 years to amortise the investment.

- There are no developer contributions required for this development. Any other development within the LGA would be required to make contribution towards infrastructure and services.

- Other than a small increase in employment, the community receives no benefit from hosting this development. This is particularly the case with respect to the impacts upon regional and local roads.

10. Quarry Closure & Rehabilitation

There are no details on how the proposed quarry is to be rehabilitated within the EIS. From an area of intact native vegetation, to an excavation approximately 1km long and 0.5km wide, between 50-90m deep, with virtually no mitigation strategies in place to address the environmental impacts, it is hard to see how the EIS can be acceptable in its current form.

11. Consultation

A Community Consultative Committee (CCC), was established as required by the SEARs for the EIS.

The CCC met only once at the beginning of the process, with one failed proposed meeting and one further meeting upon exhibition of the EIS, the level of consultation outlined in the Depart of Planning CCC Guidelines has not been met.

On this basis the applicant and the EIS have not met the requirements of the SEARS in the preparation of this EIS. This fact and the superficial nature of the assessments provided in the EIS should result in the applicant being required to review the proposal.

12. Current Operations

This quarry has a history of not meeting its obligations in relation to its impact upon adjoining properties.

In several locations, fill batters have been allowed to extend onto adjoining properties, no buffers for quarry operations have been provided, while the lack of water management has allowed continual water discharges onto adjoining land which continue to be evident in the current drought conditions.

Due to pumping of ground water from the current quarry excavation, now approximately -14 AHD, both of the quarry operational dams are full despite the drought. In a normal year, the dam on the southern boundary continually discharges across the McMullen Estate property which has completely changed the environment in this location and caused the death from waterlogging of some trees.

In this location the quarry, without approval has laid a 50mm syphon hose, from the dam across the adjoining owner's property to discharge into a drainage line leading to Sancrox Road. The syphon hose is fitted with a gate valve to allow the quarry to discharge water into the environment within the McMullen Estate land at will and without consultation with or consent from the adjoining landowner.

By comparison, adjoining landholders are buying water for stock as dams and usual ground water holdings are dry.

None of the quarry boundaries have been provided with safety fencing. Even the sheer sides of the quarry cut are unprotected.

The current Environmental Management Plan requires the revegetation around the boundaries which has not happened.

The development consent included a condition requiring a Quarry Rehabilitation Plan to be submitted within 6 months of the Consent being issued. There is no evidence that any of this plan, if it exists, has ever been implemented.

The quarry's past and current performance does not engender any confidence in its continuing operation of a larger quarry and its management. The quarry was fined in 2015 by the EPA for failing to carry out water sampling required by its Environment Protection Licence.

Conclusion

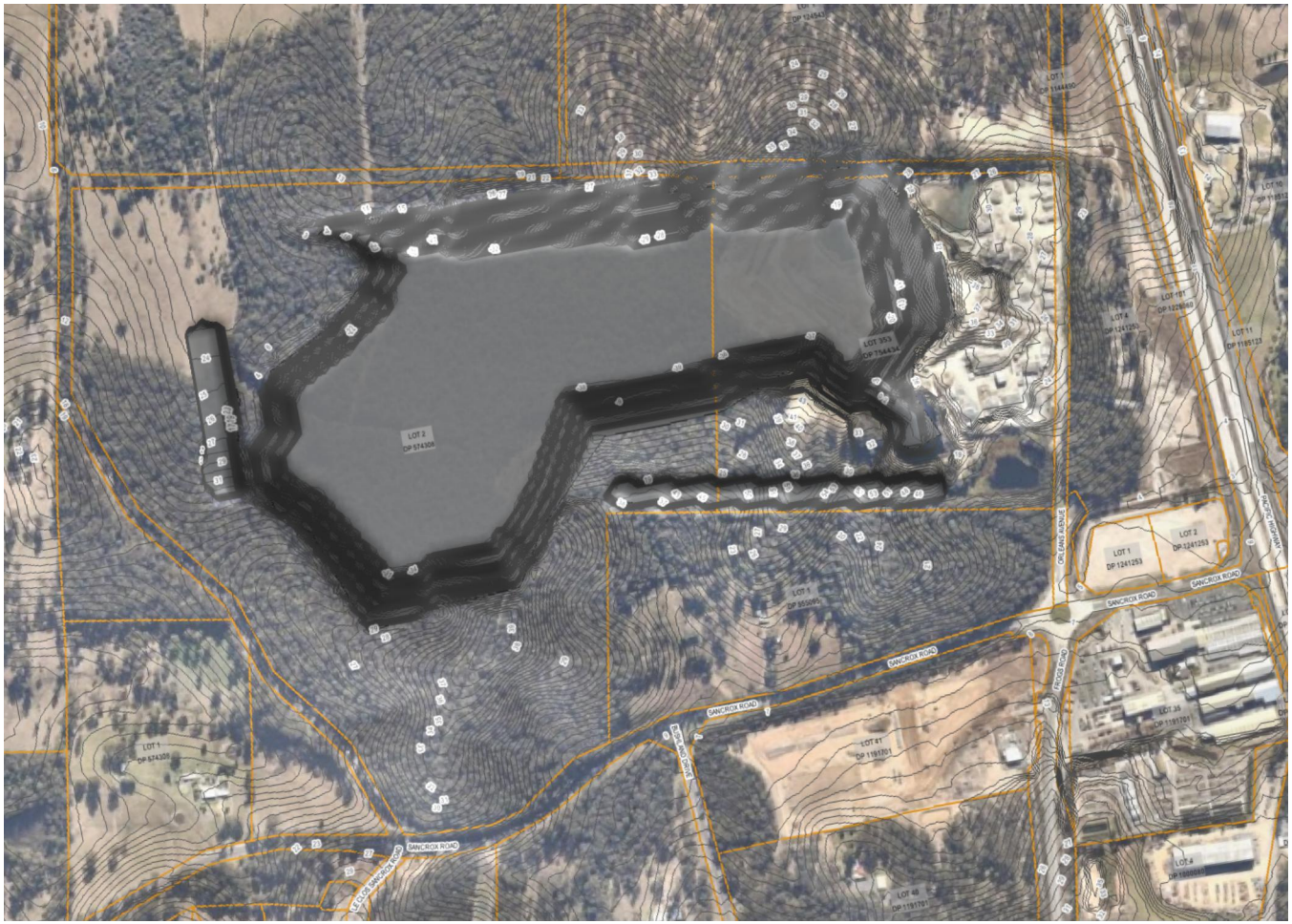
The above factors, combined with the deficiencies in the EIS, identified in this submission, are a cause for concern in relation to approval being granted for this expanded quarry proposal in its current form.

It is requested that the Department require the applicant to substantiate the need for a quarry of this scale in the first instance and secondly undertake a proper assessment of the impacts of any proposal going forward.

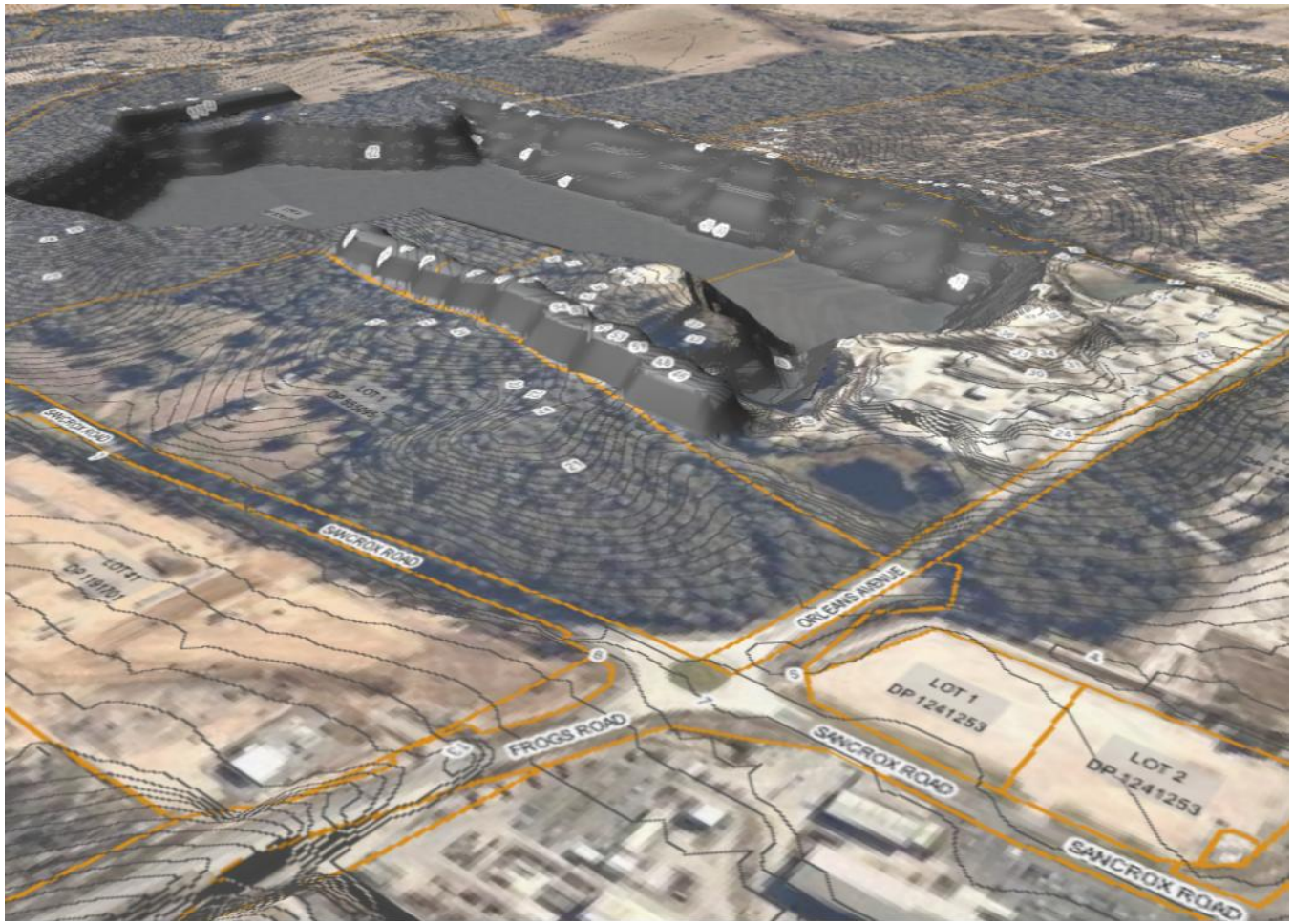
Thank you for the opportunity to make this submission.

Your sincerely

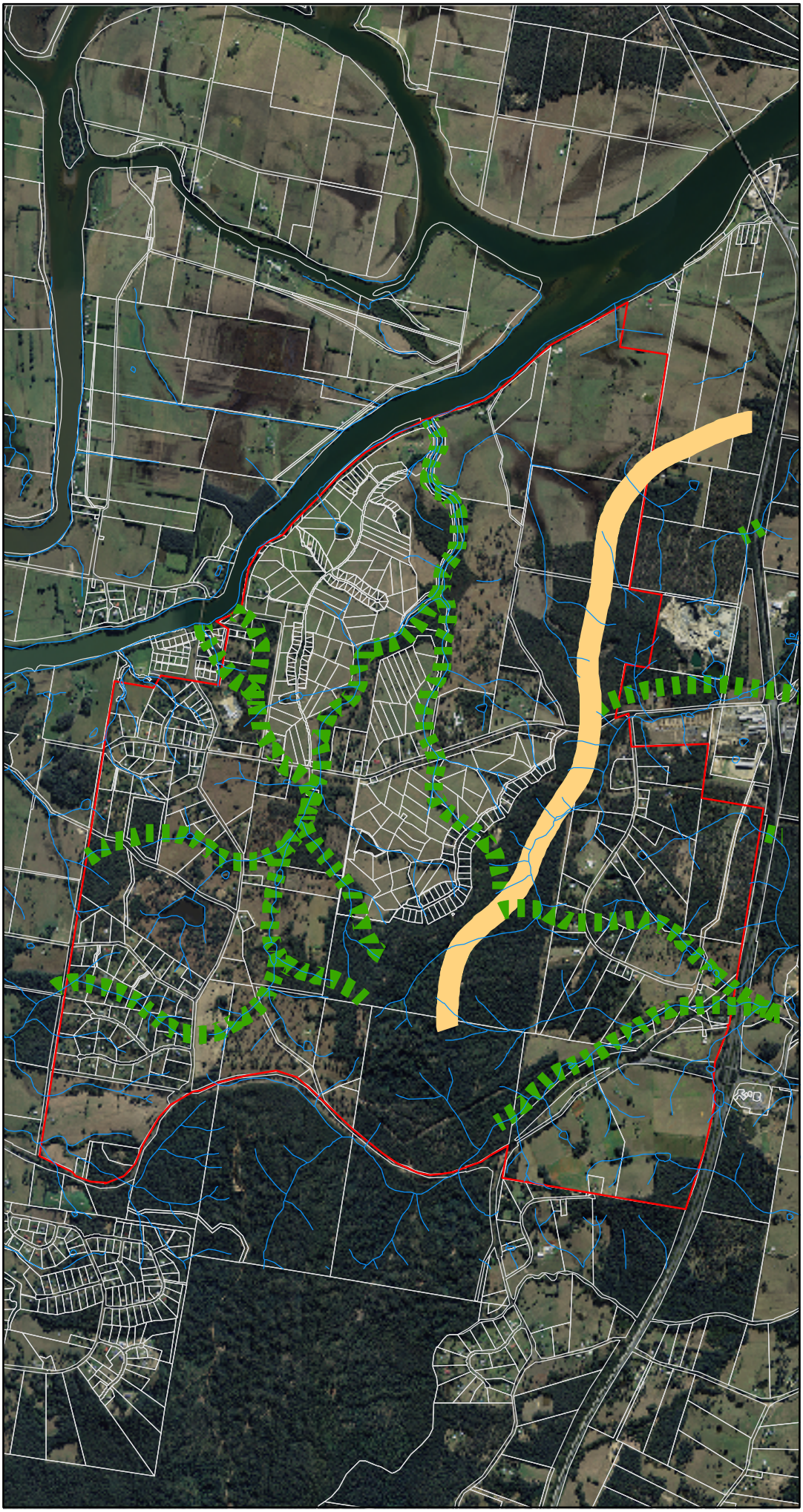
Jenny Freeman



Attachment 1a



Attachmnet 1b



GREATER SANCROX ECOLOGICAL ASSESSMENT

Study area

Property boundary

Hydrological network

Linkages

Subregional Corridor

Local linkage

Cadastre and imagery supplied by Port Macquarie-Hastings Council

N

W E

S

0 250 500 1,000

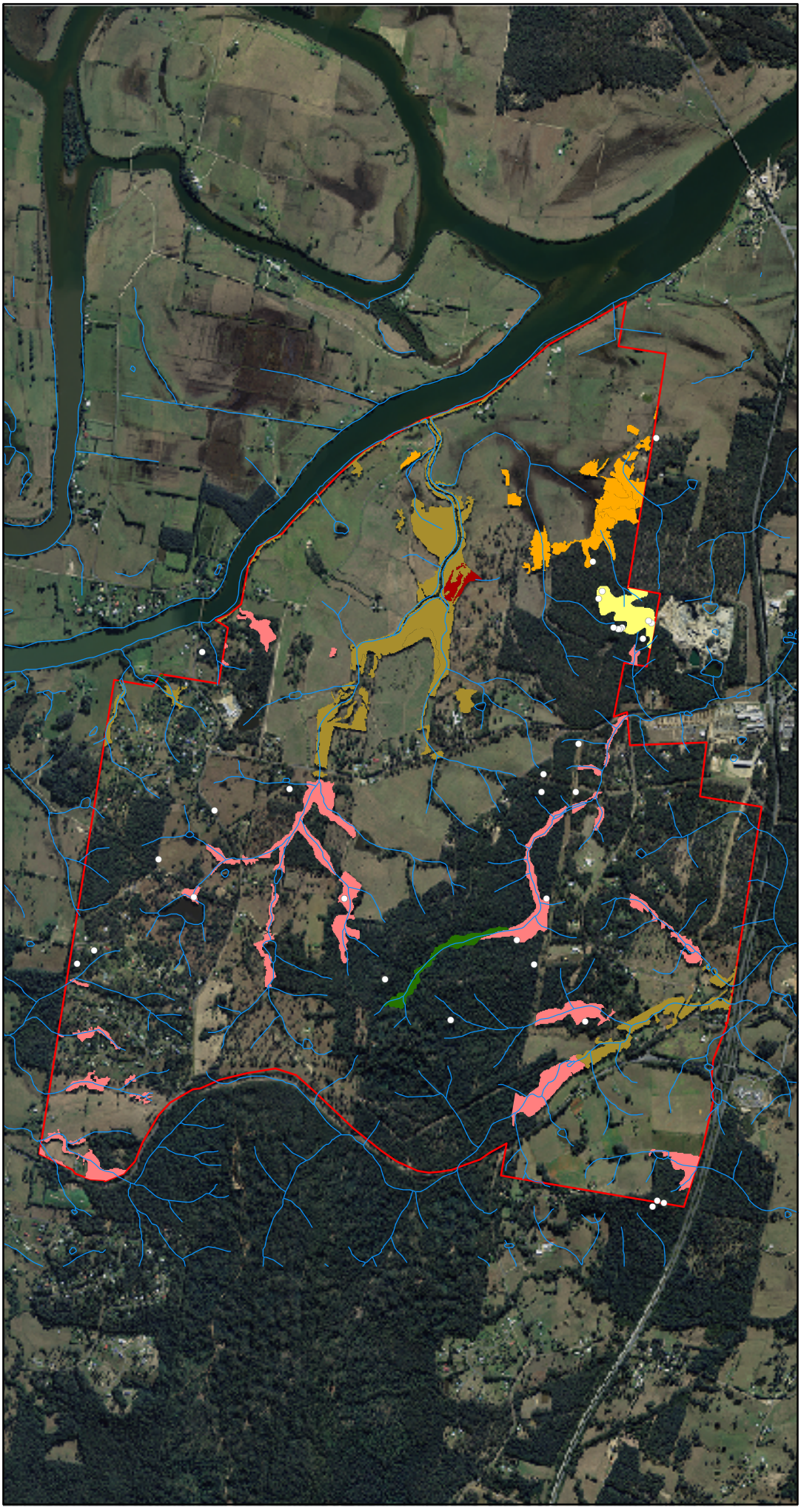
Metres

Cartographic detail may not be accurate when used for survey purposes

Biolink Ecological Consultants
PO Box 3196 Uki NSW 2484
T 02 6679 5593 F 02 6679 5523
www.biolink.com.au

Figure 10 Notional linkages for the Greater Sancrox planning area

Attachment 2



GREATER SANCROX ECOLOGICAL ASSESSMENT

- Study area
- Hydrological network
- Hollow-bearing tree
- Subtropical Rainforest
- Subtropical Coastal Floodplain Forest
- Swamp Oak Floodplain Forest
- Swamp Sclerophyll Forest on Coastal Floodplains
- Coastal Saltmarsh
- Spotted Gum Forest

Cadastre and imagery supplied by Port Macquarie-Hastings Council

N
W E
S

0 250 500 1,000
Metres

Cartographic detail may not be accurate when used for survey purposes

Biolink Ecological Consultants
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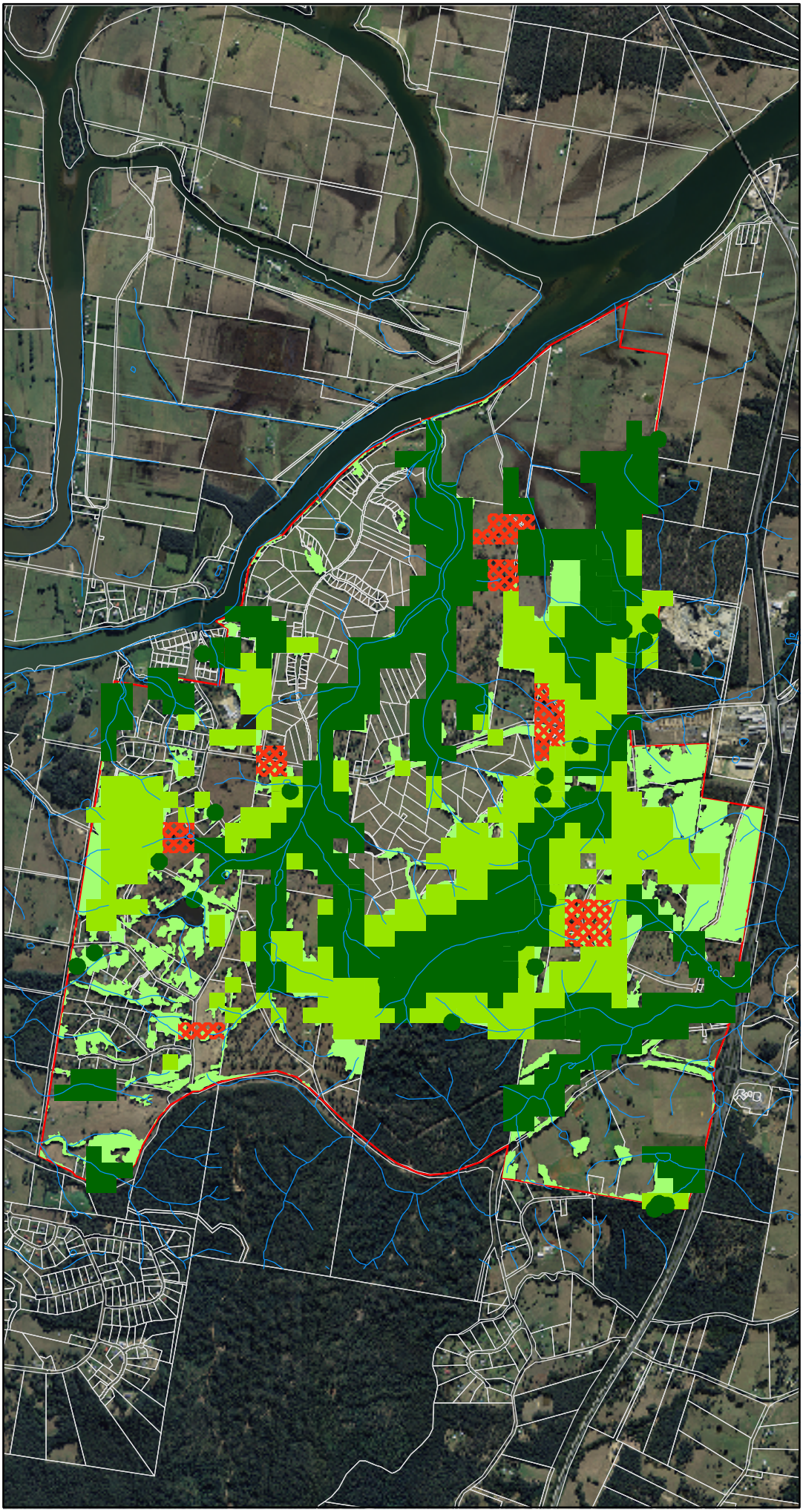
Figure 3 Hollow-bearing trees and Significant Vegetation Communities

Attachment 3



GREATER SANCROX ECOLOGICAL ASSESSMENT

Study area

Property boundary

Hydrological network

Ecological values

Irreplaceable

Value managed

Linkage

Directly offsettable

Cadastre and imagery supplied by Port Macquarie-Hastings Council

N W E S

0 250 500 1,000

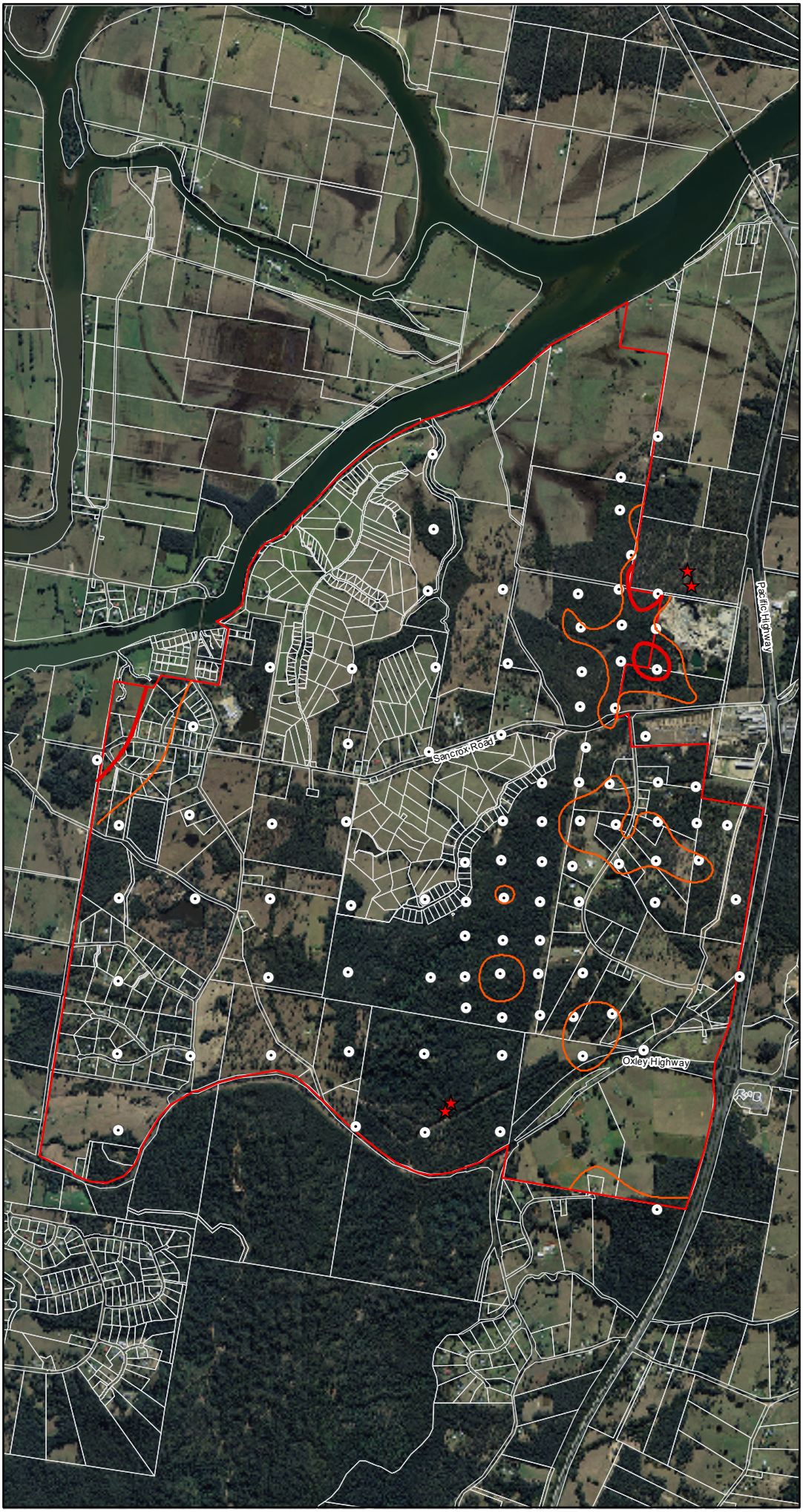
Metres

Cartographic detail may not be accurate when used for survey purposes

Biolink Ecological Consultants
PO Box 3196 Uki NSW 2484
T 02 6679 5593 F 02 6679 5523
www.biolink.com.au

Figure 9 Ecological values

Attachment 4



GREATER SANCROX ECOLOGICAL ASSESSMENT

Study area

Property boundary

SAT sites

Koala sightings

Core koala habitat

Medium (normal) use

High use

Cadastre and imagery supplied by Port Macquarie-Hastings Council

N

W E

S

0 250 500 1,000 1,500

Metres

Cartographic detail may not be accurate when used for survey purposes

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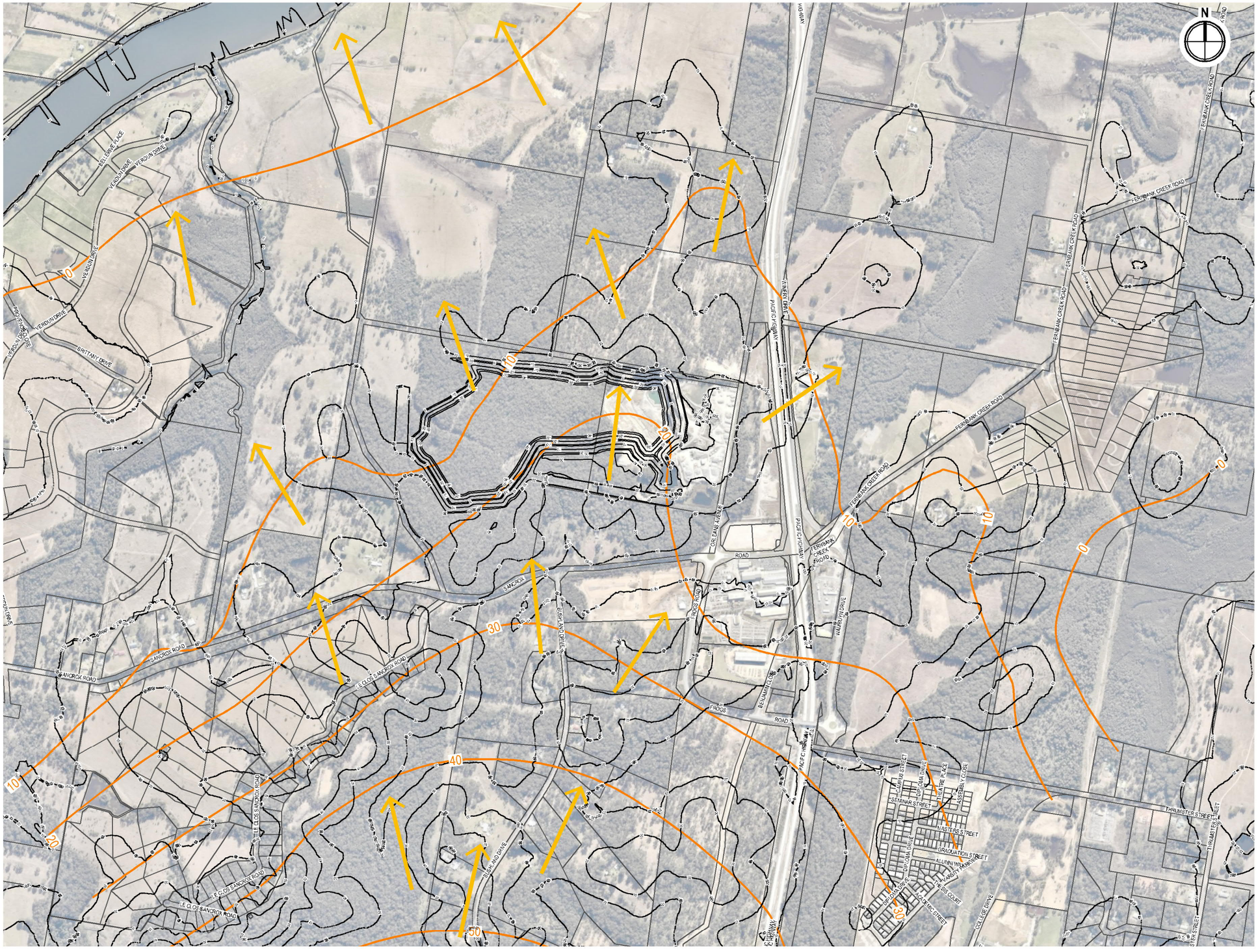
Figure 7 Location of SAT sites, koala sightings and distribution of core koala habitat

Attachment 5



LEGEND

- CADASTRAL BOUNDARIES
- EXISTING SURFACE CONTOURS (10m MAJOR CONTOUR INTERVALS)
- 40 — PRE-DEVELOPMENT GROUNDWATER EQUIPOTENTIALS (BASE CASE - NO QUARRY) - FIG 5.5
- PRE-DEVELOPMENT GROUNDWATER FLOW DIRECTION

NOTES

1. THIS PLAN HAS BEEN PREPARED FROM PUBLIC STATE GOVERNMENT & PMH COUNCIL SUPPLIED GIS MAPPING INFORMATION. IT IS SUITABLE ONLY FOR THE PURPOSE OF BROAD AREA SITE ANALYSIS AND STRUCTURE PLANNING. ALL SITE ANALYSIS AND PROPOSALS ARE SUBJECT TO DETAILED SITE SURVEY AND PLANNING ASSESSMENT AND DEVELOPMENT APPROVAL PROCESSES.

2. THE COORDINATES ADOPTED ARE MGA ZONE 56 COORDINATES AND GRID DISTANCES.

3. GROUNDWATER EQUIPOTENTIALS HAVE BEEN OBTAINED FROM FIG 5.4 OF THE GROUNDWATER REPORT (ERM 2019)

Attachment 6

K:\C REF: O:\5809_expresswayspares - sancrox north\21_planning\ 5809 Groundwater Investigations.dwg - Groundwater Equipotentials and Flow - Pre Development, 11-Dec-2019, brianc

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King & Campbell Pty Ltd
www.kingcampbell.com.au
A: PO Box 243 Port Macquarie NSW 2444
T: 02 6586 2555
F: 02 6583 4064
E: info@kingcampbell.com.au

REV.	DATE	DESCRIPTION	BY
A	11.12.2019	FOR SUBMISSION	AJC

DATUM: AHD SCALE: 1:15000 @ A3

0 375.0

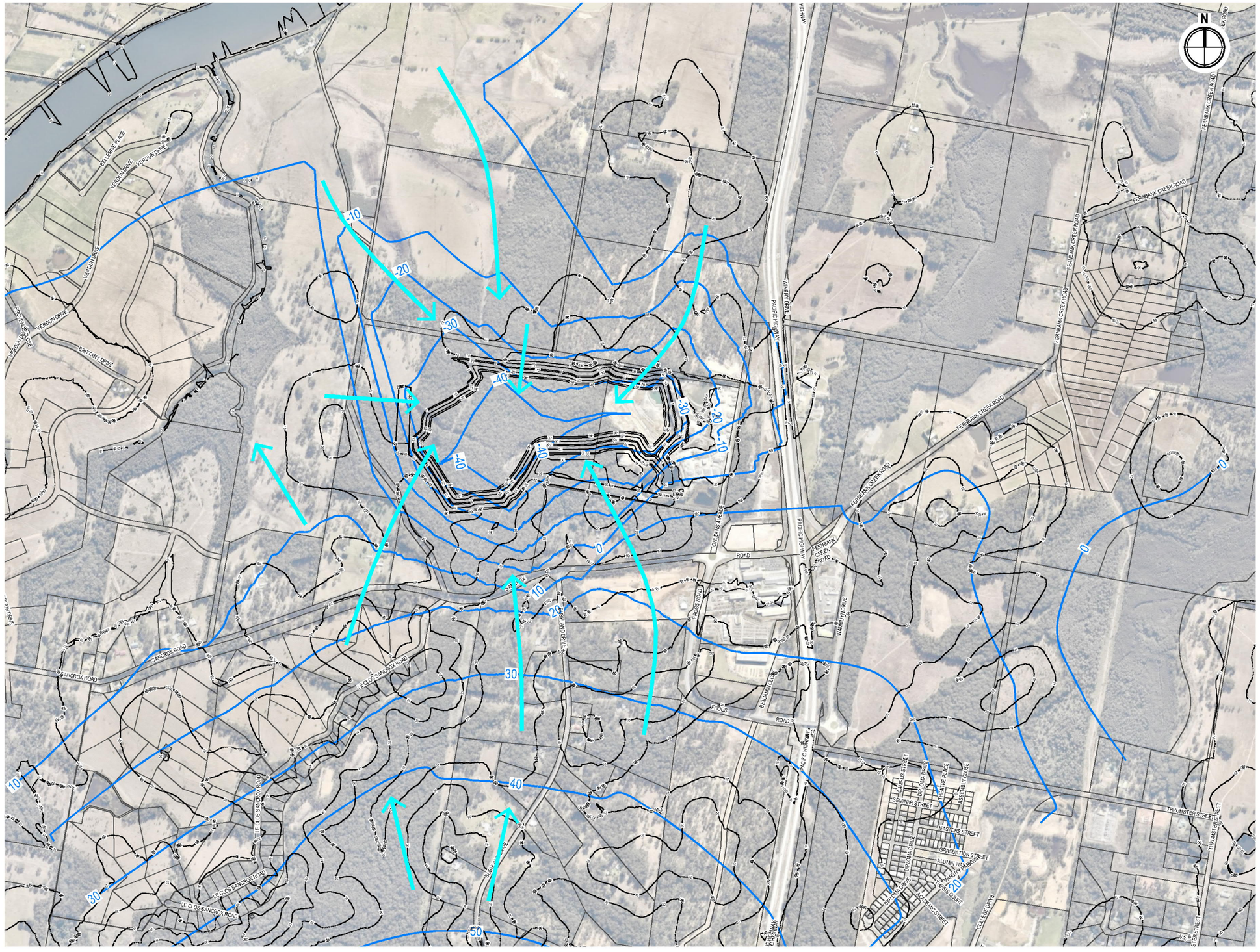
PROJECT NO:	5809
DA NO.:	-
DESIGNED BY:	-
DRAWN BY:	LW
CHECKED BY:	-
DATE CREATED:	NOV 2019

DRAWING TITLE: GROUNDWATER EQUIPOTENTIALS AND PLANNING - PRE DEVELOPMENT — A3

PROJECT: SANCROX ENTERPRISE ZONE - QUARRY INVESTIGATION
LOT 353 DP 754434, LOT 2 DP 574308, LOT 1 DP 555095, ORLEANS AVENUE, SANCROX

CLIENT: EXPRESSWAY SPARES PTY LTD

DRAWING NO:	SHEET:	REVISION:
5809 - Groundwater Investigations	01	A



LEGEND

- CADASTRAL BOUNDARIES
- EXISTING SURFACE CONTOURS (10m MAJOR CONTOUR INTERVALS)
- 30 — POST DEVELOPMENT GROUNDWATER EQUIPOTENTIALS (GENERATED FROM COMBINING PRE DEVELOPMENT EQUIPOTENTIALS - FIG 5.4 WITH DRAWDOWN CONTOURS FIG 5.5)
- POST-DEVELOPMENT GROUNDWATER FLOW DIRECTION

Attachment 6

NOTES

1. THIS PLAN HAS BEEN PREPARED FROM PUBLIC STATE GOVERNMENT & PMH COUNCIL SUPPLIED GIS MAPPING INFORMATION. IT IS SUITABLE ONLY FOR THE PURPOSE OF BROAD AREA SITE ANALYSIS AND STRUCTURE PLANNING. ALL SITE ANALYSIS AND PROPOSALS ARE SUBJECT TO DETAILED SITE SURVEY AND PLANNING ASSESSMENT AND DEVELOPMENT APPROVAL PROCESSES.
2. THE COORDINATES ADOPTED ARE MGA ZONE 56 COORDINATES AND GRID DISTANCES.
3. GROUNDWATER EQUIPOTENTIALS HAVE BEEN OBTAINED FROM FIG 5.4 OF THE GROUNDWATER REPORT (ERM 2019)
4. GROUNDWATER DRAWDOWN HAS BEEN ADOPTED FROM FIG 5.5 OF THE GROUNDWATER REPORT (ERM 2019)
5. POST DEVELOPMENT EQUIPOTENTIALS HAVE BEEN GENERATED BY COMBINING THE PRE-DEVELOPMENT GROUNDWATER EQUIPOTENTIALS WITH THE MODELLED GROUNDWATER DRAWDOWN TO DERIVE ESTIMATED POST DEVLEOPMENT GROUNDWATER EQUIPOTENTIALS

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King & Campbell Pty Ltd
www.kingcampbell.com.au
A: PO Box 243 Port Macquarie NSW 2444
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PROJECT NO:	5809
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DRAWN BY:	AJC
CHECKED BY:	-
DATE CREATED:	NOV 2019

DRAWING TITLE: GROUNDWATER EQUIPOTENTIALS AND FLOW - POST DEVELOPMENT — A3

PROJECT: SANCROX ENTERPRISE ZONE - QUARRY INVESTIGATION
LOT 353 DP 754434, LOT 2 DP 574308, LOT 1 DP 555095, ORLEANS AVENUE, SANCROX

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5809 - Groundwater Investigations	02	A

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