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**From:** system@accelo.com on behalf of Bruce Macnee <[REDACTED]>  
**Sent:** Friday, 2 November 2018 4:43 PM  
**To:** [REDACTED]  
**Subject:** Submission Details for company Liverpool City Council (org\_comments)  
**Attachments:** 292204\_Attachment Four.pdf; 292204\_Attachments Two and Three.pdf; 292204\_LUIIP Submission letter.pdf; 292204\_Noise attachment for LUIIP.pdf; 292204\_Submission to LUIIP October 2018.pdf

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements: yes

Name: Bruce Macnee  
Organisation: Liverpool City Council (Manager Aerotropolis and City Planning)  
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Content:  
LCC's submission is attached below

IP Address: -[REDACTED]  
Submission: Online Submission from company Liverpool City Council (org\_comments)  
[https://majorprojects.accelo.com/?action=view\\_activity&id=292204](https://majorprojects.accelo.com/?action=view_activity&id=292204)

Submission for Job: #9552  
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Site: #0  
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**Abstract**

The Director, Aerotropolis Activation  
Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

Via: Planning & environment upload portal

Dear Catherine,

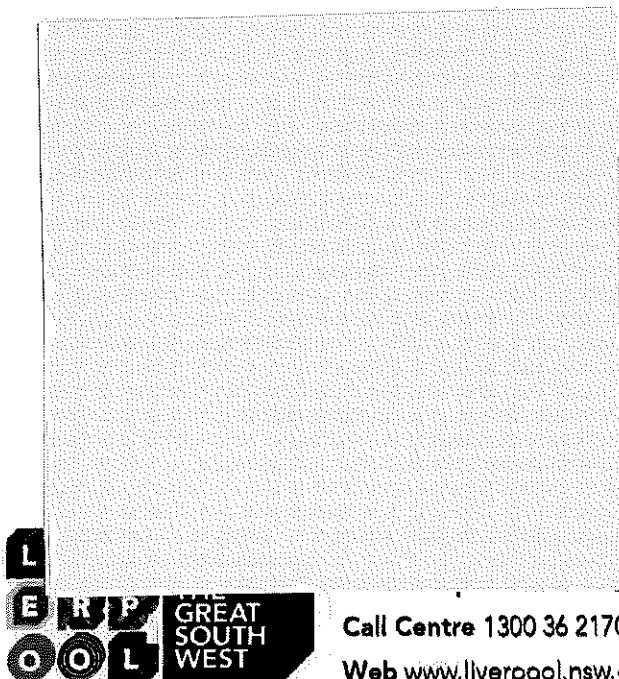
**Submission -  
Western Sydney Aerotropolis Stage 1 Land Use and Infrastructure Implementation Plan –  
Stage 1: Initial Precincts**

On behalf Liverpool City Council, I would like to thank you for the opportunity to provide feedback to the Western Sydney Aerotropolis Stage 1 Land Use and Infrastructure Implementation Plan.

In addition to this letter we have uploaded the following documents:

- Submission to the Land Use and Infrastructure Implementation Plan, Stage 1- Initial Precincts
- Attachment One – additional evidence regarding noise impacts.
- Attachment Two – LCC's preferred structure plan for the Aerotropolis.
- Attachment Three – Plan showing additional environmental corridor along the eastern edge of the airport (Badgerys Creek corridor).
- Attachment Four – a summary of issues raised at the Rural Forum.

Please note, LCC will send, by separate cover, the submissions we have received from residents for your information.



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## **Submission to Land Use and Infrastructure Implementation Plan (LUIIP)**

### **Stage1 – Initial Precincts**

#### General comments regarding the LUIIP

Liverpool City Council (LCC) supports the intent of the plan, which is to leverage the economic benefits of the airport to achieve jobs growth and improved connectivity for Western Sydney. We are also very supportive of the aspiration to develop a sustainable and green precinct with generous environmental open space corridors. LCC also supports the collaborative approach to planning and administering the region, the limited precinct release, and the concept of a staged development roll-out.

In general, Council is supportive of the delivery of Western Sydney Airport (WSA) and understands the many benefits that it will bring to the community of the West in the form of educational opportunities, employment and the introduction of new 21st century industries. For that reason, Council urges a precautionary approach to the consideration of all land around the airport recognising that extensive international experience has shown that development, particularly residential development, in proximity to airport operations acts as a constraint to and limitation on the success and opportunities of an airport. For a region experiencing a significant jobs deficit, all decisions in relation to the land subject to the LUIIP must have, as their primary guiding principle, consideration as to whether they enhance or hamper the economic and jobs dividend the airport has the potential to realise.

#### Vision vs Delivery

LCC strongly supports the Vision statements and objectives contained within the plan, in particular the focus on sustainable/green development; on compact and efficient development; and on efficient and prioritised use of infrastructure. However, the Plan does not provide the mechanisms to achieve these outcomes and, in some cases, appears to contradict these aspirations. For example:

- The vision seeks to facilitate compact settlement, within green landscapes and to encourage public transport usage. However, suggested densities within the early precincts are potentially too low to achieve this outcome and the extent of proposed rezoning is so great as to risk further sprawl;
- The Plan aspires to capture the value uplift created by new zones but provides no mechanism to or guidance on how to achieve the aim. There is a strong risk that the value will have escaped before it can be captured/shared;
- The *raison d'être* of the Plan is to align development with infrastructure delivery but is very limited in its infrastructure content. The Final Plan must contain a fully costed schedule of proposed infrastructure and a priority roll-out plan, linked to staged development;
- The Plan promotes the landscape, lifestyle and productive values of rural land, including the Metropolitan Rural Area but, at the same time proposes to sterilise vast tracts of productive rural lands east of the airport and promotes corporate-style agribusiness and an agriport on the land west and south of the airport. LCC believes that the rural lands surrounding the airport are a valuable asset that will give the airport and the aerotropolis a competitive advantage in terms of attracting tourists, businesses and workers to the region. LCC strongly supports the retention of the natural rural character of the area, particularly west and south of the airport but also east of the airport wherever, and for as long, as possible;
- The Plan promotes an active, healthy parkland city but, at the same time, permits residential development so close to the airport risking exposing new residents to adverse health impacts; and
- The Plan refers to noise as a *"key constraint in land use planning for an Aerotropolis"*, and states that *"There should not be a presumption of residential development and planning will ensure a precautionary approach to the design and location of development"*, yet it depicts

urban land as close as 1 kilometre from the eastern boundary of the airport and sets a target of 8,000 dwellings in the Aerotropolis Core.

### Governance

The plan aspires to establish a simple, streamlined, collaborative and efficient planning and approvals framework and supports local decision-making and the *"localised understanding of community needs"* but runs the risk of creating a top-heavy, complex, layered and confusing governance structure. The Plan anticipates planning inputs from:

- the "New Authority" – will 'develop government-owned land, coordinate timely delivery of infrastructure and services for the Aerotropolis as master planners, and coordinate development all nine precincts';
- the Metro Authority – will 'deliver metro services and develop land around stations';
- the Department of Planning and Environment - delivers the SEPP and the Ministerial Direction, and assesses referrals for out-of sequence development, state significant development, and for review of a 'consistency assessment';
- various government agencies e.g. the DPI to investigate the agri-port;
- the Planning Partnership – will provide a coordinated approach to planning in Western Sydney, prepare and assess precinct plans; and
- local authorities – undertake assessment and adoption of recommended zones and of planning proposals and development applications.

LCC believes that the Final Plan must clearly delineate the roles and responsibilities of the various authorities and must be a clear departure from business as usual in NSW, ensuring that there is no duplication of effort or jurisdiction.

The newly established Planning Partnership must be the over-arching planning entity that:

- coordinates the inputs from government agencies and authorities across the Western Sydney Aerotropolis,
- plans for and integrates infrastructure delivery and sequencing, and
- produces the Final Plan.

It is recommended that specific targets, for example the residential targets for the initial precincts and the height and density ranges for all precincts, should be removed from the plan, enabling the Planning Partnership to determine appropriate place-based development within the precincts.

### Greater aspiration regarding sustainable development

LCC strongly supports the focus on the restoration and enhancement of South Creek and its tributaries and on water quality and resilience but believes that development of an aerotropolis on a greenfield site deserves a more ambitious aspiration: to be the greenest airport/aerotropolis in the world, to build a carbon-neutral city, to achieve zero waste, provide generous open space (Songdo achieves 40% open space), generate renewable energy etc., (DFW and Schiphol are carbon neutral, LAX is mixing renewable jet fuels with regular jet fuel etc.).

### South Creek Corridor

The Plan recognises South Creek as an environmental asset and the Aerotropolis's green spine. The vision is for South Creek and its tributary waterways through the Aerotropolis to act as the central structural element that connects the open-space network, pedestrian and cycle paths with community facilities. LCC fully supports this vision. However, Council is concerned with the extent of proposed

Non-Urban Land as identified in the Structure Plan, which aligns with the extent of probable maximum flood (PMF) or low risk areas. In this regard, Council would like to refer to the NSW Government's Flood Prone Land Policy and the Floodplain Development Manual (FDM), which promotes avoidance of unnecessary sterilisation of flood-prone land. The Policy and the Manual supports the wise and rational development of flood-prone land, predominantly the area above the probable maximum flood or PMF and free from 1:100 year flood affectation.

The new guideline and changes to the section 117 direction and the EPA Regulation on flood-prone land provide additional guidance on development controls for low risk areas (PMF zone). The Guideline confirms that, unless there are exceptional circumstances, councils should adopt the 100-year flood as the flood planning level (FPL) for residential developments. The Guideline also notes that, unless there are exceptional circumstances, councils should not impose flood related development controls on residential development on land above the residential FPL or low flood risk areas, which is the PMF zone.

Council's Flood Policy is consistent with the State Flood Policy and Council has developed the Floodplain Risk Management Study and Plan (FRMP) for the South Creek and its tributary waterways in accordance with the guideline of FDM. Council has adopted the FRMP for South Creek, which allows residential developments in PMF areas. Please note that Council's flood policy allows residential, commercial and industrial developments on low risk flood zone, except critical and sensitive developments such as hospitals and emergency services.

LCC acknowledges the current LUIP is a high level and preliminary plan, but suggests that subsequent stages of the planning for the South Creek corridor should consider the principles of development of flood prone lands in low risk flood area and allow residential and commercial developments in the PMF zone. If it is proposed to extend the environmental zone beyond the Q100, detailed studies must be produced to justify the exceptional circumstances and extensive community engagement must be undertaken.

#### Precautionary Principle for Noise:

LCC recommends a more precautionary approach to the location of noise-sensitive activities, particularly permanent residential development, noting the precautionary principle was a requirement of the EIS for the Airport development. LCC believes this approach is prudent not only because the adverse impacts on people's health and well-being are clearly documented and significant (and important to Liverpool Council as the representative of current and future residents of the LGA), but also because the resulting impact on the operations of an airport could be catastrophic: The world is littered with examples of airports that allowed residential development to surround their boundaries only to be subsequently suffocated by the actions of disgruntled residents (LAX, Heathrow, Schiphol and Kingsford Smith Airport). The concept of locating residential neighbourhoods as close as possible to the airport boundary seems to be at odds with the plan's aspiration to create liveable and healthy lifestyles and its aim of protecting its curfew-free status.

LCC notes that the flight paths have not been set and that the ANEC contours may change once that occurs. We also note that the ANEC is only one measure of noise impact and not a reliable indicator of noise disturbance. ANEC is a cumulative measure for the "annual average day". As such, it does not provide information about single events at specific times of the day or on specific flight paths. Nor does it assess ground noise from taxiing and run-up. The WSA Environmental Impact Statement (EIS), prepared prior to the approval of the Airport Plan, makes it clear that there will be significant noise impacts affecting the area of the proposed Aerotropolis Core precinct due to overflight when the 05

operating mode is used and even Rossmore will be impacted at specific times. Whilst residents may tolerate these impacts during the day, complaints are almost inevitable when large freight planes pass overhead at 3am, for example. The EIS considers a range of measures of noise impact, including N70, N60, 90<sup>th</sup> percentile and single-event maximum noise events. Failure to consider these measures against determined flight paths will put the curfew-free status of the airport at risk and lead to adverse impacts on the health and well-being of future residents in the area.

LCC consulted with the Centre for Health Equity Training, Research and Evaluation, UNSW Sydney (CHETRE) regarding the health impacts of airport development. CHETRE is located in the Liverpool LGA and employs internationally renowned experts in the field of Health Impact Assessment with specific experience in assessing the health impacts of Airport developments. CHETRE also led the review of the health section of the WSA EIS commissioned by WSROC (CHETRE 2015). The following information was provided by CHETRE:

*"The World Health Organisation recently released updated noise guidelines. These guidelines provide recommendations for protecting human health from exposure to environmental noise originating from various sources including Airports. In total, eight systematic reviews of evidence were conducted to assess the relationship between environmental noise and the following health outcomes: cardiovascular and metabolic effects; annoyance; effects on sleep; cognitive impairment; hearing impairment and tinnitus; adverse birth outcomes; and quality of life, mental health and well-being. A separate systematic review of evidence was conducted to assess the effectiveness of environmental noise interventions in reducing exposure and associated impacts on health.*

*Specific guidelines for preventing noise-related harm from airport noise were developed, as follows:*

<b>Noise exposure</b>	<b>Strength of evidence</b>
<i>For average noise exposure, the World Health guidelines strongly recommend reducing noise levels produced by aircraft below 45 dB Lden, as aircraft noise above this level is associated with adverse health effects.</i>	<b>Strong</b>
<i>For night noise exposure, the guidelines strongly recommend reducing noise levels produced by aircraft during night time below 40 dB Lnight, as night-time aircraft noise above this level is associated with adverse effects on sleep.</i>	<b>Strong</b>
<i>To reduce health effects, the guidelines strongly recommend that policy-makers implement suitable measures to reduce noise exposure from aircraft in the population exposed to levels above the guideline values for average and night noise exposure.</i>	<b>Strong</b>

*Overall guiding principles for reducing noise-related health harm are:*

- Reduce exposure to noise, while conserving quiet area;*
- Promote interventions to reduce exposure to noise and improve health;*
- Coordinate approaches to control noise sources and other environmental health risks; and*
- Inform and involve communities potentially affected by a change in noise exposure."*

It is noted that a number of airports in Australia are subject to curfews, including several relatively small ones: Adelaide (approximately 8m passengers), Gold Coast (approximately 6.5m passengers) and Essendon. The curfew-free status of Melbourne, Brisbane and Perth airports is subject to regular review. A recent article, referring to Perth airport, highlighted the importance of retaining a curfew-



free airport when it stated that imposition of a curfew would result in a loss of 17,000 potential jobs over 25 years and an economic loss to the state of \$46 billion.

LCC suggests setting residential development back approximately 5km from the airport perimeter as a precaution and notes that there is more than enough land remaining in our LGA to accommodate projected growth for several decades to come (the land within the existing growth SEPP is only 10% developed [Rossmore has significant capacity] and the Liverpool Collaboration Area is poised to allow a substantial increase in the number of dwellings also).

#### *Aerotropolis Core*

Excluding residential from development of the Aerotropolis Core is an appropriate precautionary response to the risk of noise impacts that could potentially affect airport operations. This approach is consistent with world-wide best practice. The Airport Cities at Dallas Fort Worth, Schiphol and Incheon, for example, do not contain residential living. All of the above have Edge Cities, up to 10km away that accommodate a resident population (Las Colinas, Zuidas and Songdo). In the short term, at least, Liverpool, Campbelltown and Penrith CBDs can conveniently accommodate offices and services to support the airport as well as residential accommodation for executives and workers. These cities can connect to the airport in less than 30 minutes with the appropriate transport infrastructure.

Only after the airport has opened and monitoring has occurred that demonstrates that residential can safely be located closer to the airport, should there be consideration of noise sensitive uses in this area.

LCC understands the rationale behind the current approach – to benefit from the vibrancy/activity that residential could offer this new city location. However the following points must be considered:

- this can be achieved initially in other ways, i.e with land uses such as student housing (to support the STEM high school and university commitments), hotels, possibly other form of prescribed housing (for key workers, with limitations on tenancy). There are numerous examples world-wide of all-day vibrant and active city centres and airport cities that do not contain residential development;
- the issues of noise affected housing (with its threat to airport viability and operation) are much more significant than a city lacking some activation by permanent residents 24 hours;
- active streets and vibrancy are fundamentally design issues, rather than a land-use mix issue. For example, at Macquarie park, the problem is large footprint buildings floating in space. With detailed design control to prevent this, the objectives for the airport city can be achieved, without the need for large amounts of residential in the first instance; and
- this approach will ensure a greater possibility of getting the right transport connections back to the existing residential growth areas – Austral, Leppington etc, and the growing edge cities (metro cluster).

For the reasons explained above, LCC believes the LUIIP should adopt a precautionary approach to locating noise-sensitive development in close proximity to the new airport. We believe that there will be a much more certain body of evidence, on which to base planning decisions, shortly after the airport has opened: there will be:

- approved flight paths and ANEF contours, following community consultation;
- evidence from noise-monitoring stations to establish ambient noise levels and aircraft noise from the operational aircraft; and
- record of noise complaints received.

This evidence will enable more informed decision-making. In the meantime, land uses that are not noise sensitive and that are in fact the highest and best uses in this location – airport-related industry and commerce - can establish in the Aerotropolis Core.

CHETRE reviewed LCC's draft submission and provided the following advice:

*"CHETRE supports LCC's recommendation to adopt a precautionary approach to land-use zoning around the Airport. CHETRE also recommends that the WHO Guidelines should be applied to zoning decisions with residential and other sensitive locations such as schools, universities, aged care facilities being protected from harmful levels of noise. In addition, a comprehensive health impact assessment should be carried out to investigate the impacts of the Airport and related development on the health and wellbeing of local existing and future communities and identify opportunities for maximising health gains and mitigating any potentially negative impacts."*

**Attachment One** provides additional evidence about noise impacts

#### Encroachment of the airport site

Evidence from around the world suggests that permitting development too close to the perimeter of airports, apart from activities requiring direct or immediate access, inhibits the performance of the airport and creates adverse impacts:

- Traffic generation from intensive development in proximity to airports combines with traffic generated by the airport itself to create congestion. KSA and LAX are two obvious examples of the negative impact of congestion on airport performance. Both airports identify traffic congestion as their number one problem;
- Many airports around the world are unable to expand operations to meet growing demand because of insufficient area (LAX has spent billions of dollars expanding its boundaries and continues to do so) and because of opposition to expansion plans (Heathrow is a prime example). Although the WSA site is twice the size of KSA, at 1,780 Ha, it is relatively small by world standards (DFW, for example is almost 7,000 Ha, Incheon is at least 5,000 Ha, Turkey's third international airport, capable of accommodating 200m passengers, is 7,690 Ha, Denver is 13,600 Ha and Saudi Arabia's is a staggering 78,000 Ha.); and
- Land surrounding airports are subject to multiple adverse impacts – not just noise. These impacts include poor air quality (nitrous oxides, particulates etc.), both from airport operations and traffic volumes, soot falling on roofs and vehicles, 24-hour commercial and industrial activities, traffic congestion and disruption, and conflicting land uses. These impacts have a detrimental effect on the health and well being of residents and workers.

#### Displacement of Agricultural land

LCC acknowledges that rural land will be rezoned through this process and that various industrial activities should locate close to the airport in the near future, including aerospace and defence, logistics, just in time manufacturing etc. However, the LUJIP is contemplating rezoning vast areas of land predicated on a fully developed airport - a situation that is nearly 50 years away. A precautionary approach is appropriate for a number of reasons:

1. Because of the significant economic contributions rural lands generate and the opportunities to add value to these ventures as a result of the airport. The Blacktown and Luddenham soils are notable for containing the vast majority of Sydney's remaining market gardens and represent

some of our state's most agriculturally productive land (both in terms of quantity of production (tonnage)/ha and \$ income/ha).

2. Because of the relatively slow growth of the airport: in 20 years from now, the airport is anticipated to be the equivalent size of Perth airport today. It will therefore be at least a generation before it becomes a significant magnet for industrial development.
3. Because rural activities are generally compatible with airport operations. They are effectively providing a "holding zone" that provide flexibility for the future whilst maintaining economic productivity and valuable jobs in the meantime.
4. Because peri urban agriculture is an important aspect of resilient cities

#### Efficient use of infrastructure

The Regional and District Plans calls for the efficient use of infrastructure, including existing infrastructure. This raises a number of questions:

1. Why is it planned to develop Rossmore as a very large residential precinct, when the adjoining land in Austral and Leppington is already zoned for that purpose and only 10% developed so far? Slow take up is largely due to slow provision of infrastructure. The LUIIP would cause residential development to leap-frog the existing Growth Centre. This outcome is contrary to the expectation that planning provides certainty to the market. It will also accelerate the displacement of rural land and contribute to urban sprawl. Recent studies into industrial land supply reveal a critical shortage of zoned and serviced land in Liverpool's LGA and evidence that most existing industries would prefer to locate close to existing clients and workers and therefore do not entertain the airport area as an option at present. There is a compelling argument to say that a re-assessment of the current Growth SEPP in Liverpool to create an overall road layout plan and to create an industrial Precinct, would be a better option than opening up another residential front.
2. The same principle applies to the treatment of the existing regional cities (Metropolitan Cluster cities), Liverpool, Campbelltown and Penrith. These historic cities offer economic, administrative and social infrastructure that can assist the development of the airport, particularly in the next 20 years. The Liverpool Collaboration Area, for example, offers huge potential to supply a broad range of housing with high amenity and access to services and facilities. Although beyond the extent of the Airport Growth Area, these Edge Cities are critical components of a successful aerotropolis. There is a risk that the Plan's focus on the development of new centres will undermine existing and emerging centres.
3. Why is there such a strong focus on creating new centres and new rail lines when recently developed centres and rail links, in close proximity to the WSA, appear to be neglected by the Plan. Based on overseas models, the centres of Leppington and Edmondson Park are ideally located and structured to support the growing airport. They are both close enough to provide speedy links to the airport but far enough away to avoid the adverse impacts from noise, pollution, congestion etc. Even Glenfield and Casula have potential to support the airport.

LCC is concerned that the purpose of the LUIIP is in danger of being undermined unless a stronger emphasis is placed on providing and sequencing infrastructure and ensuring development is staged to match. The size of the growth area is very large and there are other growth areas adjoining. There is a significant risk that, without a prioritised and fully costed infrastructure schedule in place, development will occur on too many fronts and infrastructure providers will not be able to keep up. Similarly, although we acknowledge the reasons for entertaining out of sequence development, such development will inevitably undermine the efficient delivery of infrastructure.

### Greater east-west focus

LCC believes the plan to date places too much emphasis on the north-south orientation of the region. Open space corridors are almost exclusively north-south, whereas the district and regional plans aspire to a green grid (we have the spine, where are the ribs?). The Economic Corridor is depicted on a north-south alignment and the focus of transport connections is the north-south rail link. Commentators like Dr Kasarda have emphasised the importance of a rapid (less than 1 hour) rail link back to the Harbour City to take the risk out of setting up a business at the new airport and to attract the travelling public. LCC believes that an extension of the Leppington line to the airport, serviced by an express train, would easily achieve this timeframe. This connection would also provide rapid service from the airport to Liverpool (30 minutes), Campbelltown (30+) and Parramatta (50).

LCC believes that a more equitable approach would be to recognise the potentially strong relationship between the airport and the Liverpool City Centre. Liverpool has all of the right conditions to become the Premier Edge City for the airport. LCC is already experiencing a wave of interest from the commercial sector as a result of the airport and Liverpool has a skilled workforce and educational infrastructure capable of supporting the growth of the airport. With the appropriate transport connectivity, Liverpool can be a significant contributor to the aerotropolis.

### Greater Connectivity

LCC believes that there is potential for greater connectivity throughout the region and that the aerotropolis should aspire to be the most connected region in Australia. Successful aerotropolises are multi-modal hubs (Kasarda calls them "routers"), providing access to local, regional and international connections (Schiphol airport, for example, has a train station very close to the gates, providing services to Zuidas, Amsterdam, the Hague, Paris and London and Incheon airport provides transport connections to Seoul and its first airport, Gimpo). It seems sensible for the airport itself to be the interchange enabling passengers and workers to access the airport without having to change modes. There is a strong body of evidence that demonstrates that the efficiency of the "last mile" is critical in determining which airport to land at or to invest in.

Kasarda stated at a recent interview that he believed a rapid connection back to the Harbour City (less than 1 hour) would be critical to the success of the airport. Such a connection could be achieved relatively quickly and cost-effectively by connecting the airport with Leppington and scheduling express trains. LCC believes that a direct high-speed transport corridor should also be preserved and that it should be large enough to accommodate freight and fuel.

Note, LCC is also investigating the possibility of developing a rapid transit corridor, connecting Liverpool City Centre with the airport along Fifteenth Avenue. There is potential to capture some of the value of centres established along this route.

### Compact, dense, transit-oriented development

LCC recommends, as a general principle, that development should be located in compact, high density, transit-oriented centres, surrounded by green belts. LCC acknowledges that this approach is significantly different to the current approach, which advocates for medium density (notably in the Rossmore precinct). LCC considers that our approach will reduce sprawl; increase availability and patronage of public transport; increase walking and healthy lifestyles; and preserve the amenity of the area and rural land uses as long as possible.

## Attachment One - Evidence Base Regarding Noise

The National Aviation Policy White Paper, December 2009, states that

*"The impact of noise should not be under-estimated", and goes on to say "Community pressure for operational constraints at airports is coming increasingly from residents living outside the conventional high noise exposure zones near airports." (p.206), and:*

*"History and experience has shown that aircraft noise does not stop at a contour, and aircraft noise complaints are coming increasingly from areas well outside the 20 ANEF value. Best practice land use planning around airports and flight paths should ideally take into consideration the range of noise information relevant to the local community including the location of flight paths, types of aircraft activity, numbers and timing of aircraft movements, the intensity of noise events from those movements and the comparison to ambient noise levels. The ANEF and the current building standard AS2021 should not be applied by planners in isolation or without merit-based judgement" (p.211)*

The Australian Airports Safeguarding Framework, agreed to by all states and territories in 2012, makes the following statements:

*"AS2021-2015 recognises that the 20 ANEF and 25 ANEF zones do not capture all high noise affected areas around an airport, and ANEF contours are not necessarily an indicator of the full spread of noise impacts, particularly for residents newly exposed to aircraft noise.*

*Governments recognise the merits of utilising a range of noise measures and tools in conjunction with the ANEF system to better inform strategic planning..." (p.1)*

The supplementary attachment states also:

*"experience shows the majority of noise complaints that are received come from residents living outside the 20 ANEF contour", and, "it is likely no single standard will be appropriate for all airports", and, "the ANEF gives only limited recognition of night-time noise" (p.1)*

The attachment also notes that the ANEF methodology resulted from a survey of only 3,575 residents in 1982 and that ANEF 20 anticipates 11% of people will be seriously affected and 45% moderately affected by aircraft noise. The study suggested that more accurate results would accrue if N70 values were combined but noted that computing power at the time made this very difficult and expensive

The Guideline then sets out a number of N contour targets for greenfield areas. It is noted that the EIS utilises N60 and N70 contours for the airport, amongst other values, and these demonstrate the likelihood that greater restrictions may be appropriate relating to night time movements at least in the general vicinity of the future airport city.

In fact there is a significant body of evidence from around the globe that supports the view that it is risky to place noise sensitive development adjacent to the ANEC or

ANEF 20 contour relating to the new airport. The following points are relevant to the consideration of noise in relation to land use planning:

The EIS, prepared to inform the Stage 1 Airport Plan, and the Peer Review of that document, prepared by WSROC, describe a high level of uncertainty. The various noise contours produced, including the ANEC, are all based on predicted flight paths referred to as a “*hypothetical future airport usage pattern*”. The EIS states that:

*“The flight paths and procedures used for this noise assessment are indicative, which introduces uncertainty in regards to predicting the extent of aircraft overflight noise impacts”* (p.11 of Section 31 Noise), and:

*“New flight paths can only be implemented following further analysis, including detailed consideration of potential noise abatement opportunities and extensive community consultation, and final approval by CASA”*. (p. 28 of Section 10 Noise (aircraft))

The EIS makes it abundantly clear that the contours are not to be relied on for Land Use Planning purposes. Under the heading “Land use planning implications”, The EIS states:

*“It is important to note that the ANEC contours for the proposed Stage 1 development are not intended to guide future land use planning and are provided primarily for comparative purposes and to provide information about predicted noise exposure. It is intended that any changes to the current land use planning instruments would be based on longer term forecasts of noise exposure and the final airspace design”* (p.40 of Section 10) and:

*“It is expected that future land use planning around the proposed airport would be based on formal long term ANEF contours endorsed by Airservices Australia prior to the commencement of airport operations”*. (p. 73 of Section 10)

Similarly, the noise section relating to subsequent stages states:

*“Land use and planning around the proposed airport would be influenced by the development of an official ANEF chart as part of the future airspace design process. It is envisaged that planning controls based on a long term development scenario would be implemented prior to the introduction of dual runway options in order to promote appropriate development in the vicinity of the proposed airport.”* (p. 67 of Section 31)

Various peer reviewers of the EIS speculate that the eventual ANEF 20 contour could be significantly broader than the current ANEC 20 contour.

The EIS, the National Airports Safeguarding Framework (referenced in the LUIIP Stage 1) and the National Aviation Policy White Paper all state that a broad range of noise metrics should be employed when determining acceptable locations for noise sensitive development. The EIS itself calls up a number of measures, including ANEC, N70 and N60, LAmax, and ground noise from engine run up and taxiing. The EIS models three different time periods: stage 1 (10m passengers, 2030), 2050 and 2063. It is very important to note that many of these contours exceed the limits of the ANEC

contours for each period. Notably the N60 contours intrude well into the proposed Aerotropolis Core. This is to be expected because ANEC and ANEF describe cumulative aircraft noise for an annual average day. This can be very different from actual experience on any particular occasion. Best practice noise management demands that all of these impacts must be considered and that cumulative impacts must be aggregated to get an accurate picture. Consideration of the N60 contour is particularly relevant to the preservation of the curfew-free status. Your attention is drawn to the figures in the two noise sections of the approved EIS: figures 10-12, 15, 16 and 24 in Volume 2a, Chapter 10 and figures 31-5, 14, 21, 31, 34 and 35 in Volume 3, Chapter 31.

It is noteworthy that the Australian Industrial policy on nighttime noise states that noise above 40dBA is unacceptable. This level clearly contradicts the usual standard of 60dBA. There are numerous references to the fact that residents in quiet rural suburbs, newly exposed to noise are likely to be particularly sensitive.

For the reasons explained above, LCC believes a precautionary approach should be adopted to locating noise sensitive development in close proximity to the new airport. We believe that there will be a much more certain body of evidence, on which to base planning decisions, shortly after the airport has opened: there will be:

- approved flight paths and ANEF contours, following community consultation;
- evidence from noise monitoring stations to establish ambient noise levels and aircraft noise from the operational aircraft; and
- a record of noise complaints received.

This evidence will enable more informed decision making. LCC believes that this approach will not inhibit the growth of the airport or the Aerotropolis as there is more than enough land available in close proximity to the airport to absorb the residential demand in the meantime. Provided appropriate transport connections are provided, these surrounding areas and existing regional centres can house executives and airport workers. In the meantime, land uses that are not noise sensitive can establish in the Aerotropolis Core.

Council believes that failure to consider these measures against determined flight paths will put the curfew-free status of the airport at risk and potentially lead to adverse impacts on the health and well-being of future residents in the area. A recent article, referring to Perth airport, highlighted the importance of retaining a curfew-free airport when it stated that imposition of a curfew would result in a loss of 17,000 potential jobs over 25 years and an economic loss to the state of \$46 billion dollars.





**Attachment Two** illustrates LCC's preferred structure

#### Badgerys Creek Corridor

The current mapping does not adequately address Badgerys Creek. An open space spine should be designated along the full length of the creek. Given the emphasis placed on the South Creek and its tributaries in the LUIP and given the fact that this is the 'Badgerys Creek Aerotropolis', this seems to be a significant oversight. The airport plan provides a narrow strip of landscaping along the boundary with the creek. A corridor along the eastern bank, adjacent to the airport boundary would increase the overall buffer. As well as protecting the creek and providing an attractive landscape feature and opportunities for active recreation, this corridor would create an effective buffer between the airport and adjoining development (from noise, dust, pollution etc.). It could also accommodate a solar and wind farm and even noise attenuation. Schiphol airport recently constructed a series of mounds on rural land along the edge of the airport, resulting in a 50% reduction of ground noise from their new runway, demonstrating the value of buffers around airports.

**Attachment Three** demonstrates a suitable corridor, subject to our submission above regarding its width.

#### Success of the airport

The success of the airport is obviously critical to the success of the aerotropolis. LCC believes that the plan must not seek to inhibit the growth and profitability of the airport. If the airport fails or fails to reach its capacity, the transformational driver of Western Sydney stalls. LCC believes that a rapid connection back to the Harbour City is crucial to the success of the airport and that extension of the Leppington rail line to the airport is the most cost-effective way of achieving this in the short term.

#### Community Consultation

LCC has received very strong feedback from our residents, revealing that there is a lot of confusion regarding this process and this document and demanding better engagement. This submission incorporates many of the concerns of our residents. We have attached a summary of the concerns raised at the recent Rural Forum and have undertaken to forward any submissions we receive from them to the Department of Planning and Environment. The current document does not create a community engagement strategy, which explains how this Plan and associated instruments will be communicated and where community consultation can occur. LCC has committed to improving our engagement with Liverpool residents impacted by the Aerotropolis and urges the Department to also engage frequently and transparently with local residents.

**Attachment Four** is a summary of issues raised at the Rural Forum

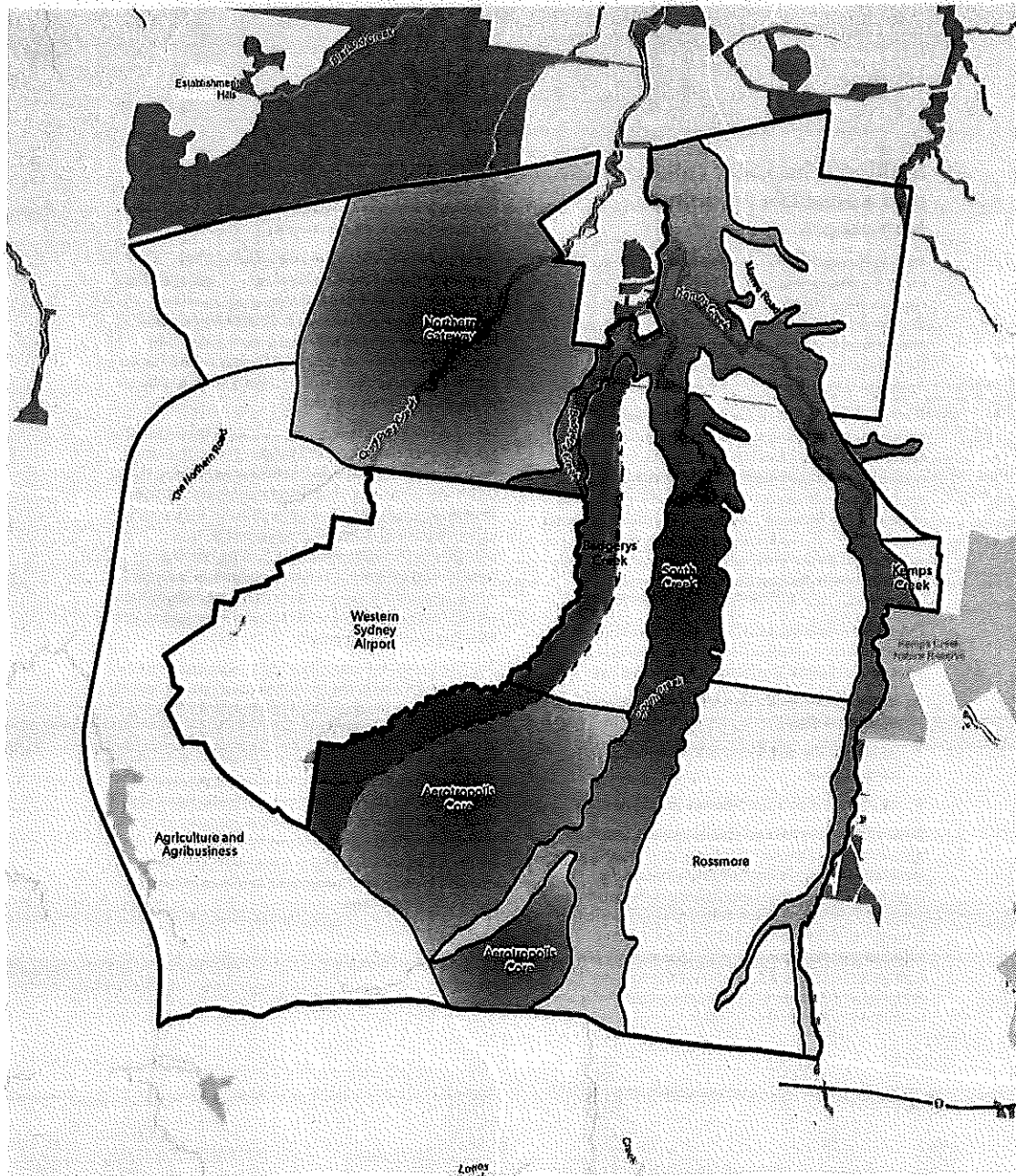
#### Transport infrastructure and road configuration across whole area.

Key points:

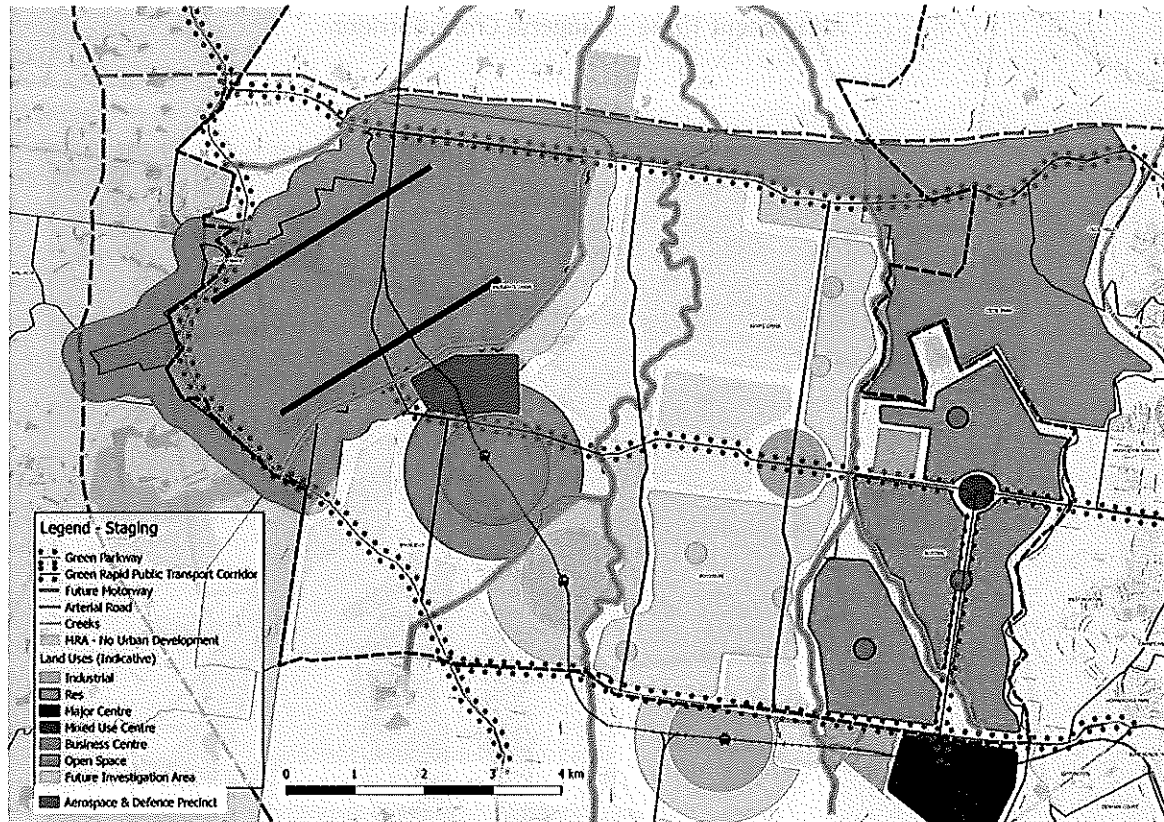
- There are vast amounts of land, with no road structure outline;
- Some reference to this infrastructure is required because it is such an important structural element for the shape of each new precincts and the entire area. It also creates certainty for land holders. EG – should we be looking at a square mile grid approach?; and
- Example of the strong structuring elements and role of the broad grid in Austral (from 1800's) continues to play a major and positive influencing role on on land releases more than 100 years later.



### Attachment Three – Badgerys Creek Corridor



## Attachment Two – Land Use Vision



## Attachment Four – Summary of Issues Raised at Rural Forum on 24 October 2018

### South Creek:

Opposition to the non-urban zone because it:

- ◆ reduces the value of the land. In fact, many residents believe that the government are conspiring to down-zone the land in order to acquire it at reduced value and then subsequently rezone it higher value used in order to capture the value uplift;
- ◆ extends too far: residents are opposed to the use of the PMF boundary as the delineator of the precinct. The consensus was that the Q100 is more appropriate.
- ◆ threatens the continuance of resident's lifestyle. Many residents are afraid they will not be able to extend their homes or continue existing activities;
- ◆ creates uncertainty and pessimism about opportunities for current residents, especially elderly residents looking to sell and downsize;
- ◆ creates uncertainty about composite acquisition of the land. Numerous questions related to the timing of acquisition, the process, people's rights and rate relief.

### Early release precincts:

Residents of the Badgerys Creek and Agriculture and Agribusiness precincts questioned why these precincts were not being prioritised.

### Agriculture and Agribusiness Precinct

- ◆ What activities will be allowed in this precinct?

### Engagement:

- ◆ residents felt excluded from the process to date. There was a perception that large landowners were being consulted but residents were not;
- ◆ there was criticism of a lack of responsiveness to enquiries and submissions.

### Road network

- ◆ a number of questions related to future roads, including the future alignment of Badgerys Creek Road, extension and widening of Fifteenth Avenue, Ramsey Avenue etc.

