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Melbourne Airport Preliminary Draft M3R Major Development Plan

Flight Free Australia submission in response to its public exhibition online

uploaded via https://caportal.com.au/melair/virtual/feedback/m3r on 16 May 2022.

FLIGHT FREE AUSTRALIA (flightfree.net.au) is a national group of people who pledge to not fly due to the severity of the global climate crisis. Like others in the Stay Grounded international coalition, we understand the horrifying human impact on our planet from fossil fuels will continue to worsen as avaition increases the massive injections of these high into the atmosphere. We are therefore against new aviation infrastructure unless it is emissions free.

Flight Free Australia objects to the proposed Third Runway on the following grounds.

1. The M3R MDP will enable increasing flight emissions

2. The M3R MDP's assessment of climate risk is cavalier

3. The M3R MDP's public engagement process is flawed

4. The M3R will necessitate the clear felling of legally protected woodland

5. The M3R will increase air and soil pollution

6. The M3R MDP presents a selective cost benefit analysis

Our objections, detailed below, respond to the content of the following specific chapters of the MDP.

Part A - The Project > Chapter A2: Need for the project, Chapter A6: Stakeholder engagement

Part B - Airport > Chapter B5: Ecology, Chapter B11: Greenhouse gas emissions, Chapter B13 Climate change and natural hazard risk

Part D - Community > Chapter D2: Economic impact assessment

Part E - Management framework > Chapter E3: Offset management strategy, Chapter E5: Risk management

1. Increased emissions

The proposed Third Runway will contribute to increasing global heating emissions, right when we must rapidly reduce emissions across society.

1.1 We are in a climate emergency

• Last year global greenhouse gas emissions rose by a record amount [1] . Repeated devastating and expensive climate impacts are becoming the new norm for Australians. Right now the Great Barrier Reef is in its death spiral and other tipping points to unstoppable warming are at hand [2]

• The UN Secretary-General António Guterres warns "We are on a pathway to global warming of more than double the 1.5ºC limit" that was agreed in Paris in 2015 [3].

• 1.5ºC of warming is now likely by 2030. And 2ºC of warming is now likely before 2050 [4].

1.2 Emissions must be reduced

• Aviation exists in a world that – in word if not yet deed – wants to rapidly reduce emissions. A world whose existing fossil fuel infrastructure is enough to take us past the Paris warming limit [5]. A world where not building any new coal, gas or oil infrastructure is an imperative [6].

• "It's now or never", warns the IPCC, to make immediate and deep emissions reductions across all sectors, if we want to limit global warming to 1.5°C [7].

• The IEA says we must stop developing new emissions sources, such as new runway enabled increased flight numbers [8].

• Governments around the world agree we should avoid more than 1.5ºC of warming, now inevitable from emissions to date [9]. The Coalition and Labor are targeting reductions (albeit insufficient) of 26-28% and 43%. Most Australians are calling for more significant cuts [10].

• Lord Deben, the chair of the Climate Change Committee, which advises government, said last month: "There is not any space for airport expansion" [11].

• Aviation infrastructure investments such as the proposed Third Runway will become increasingly insecure as prudential assessments (in line with the International Energy Agency directive to not fund new fossil fuel projects) reveal their at-risk status from global heating [12].

• Climate Action 100+, the world's largest investor engagement initiative on climate change, in their updated Aviation Sector Strategy report drawing on IEA analysis, say that growth in air travel needs to be curtailed in order to keep the planet on track for no more than 1.5°C of global warming. The IEA's 1.5°C scenario notes the necessity of keeping business travel to 2019 levels, capping long-haul flights of more than 6 hours for leisure reasons at 2019 levels, and shifting demand to high-speed rail infrastructure where possible [13].

• For an acceptable probability of avoiding runaway warming, greenhouse gas emissions must be cut to zero within 10 years [14].

1.3 In the face of overwhelming evidence that we need to reduce GHG emissions, the M3R understates emissions resulting from its plan

The Third Runway preliminary draft Major Development Plan under-reports global warming caused by the GHG emissions that the Third Runway enables.

First, it only counts CO2 emissions.

The MDP excludes emissions other than direct CO2 emissions. The MDP says that outputs from the Aviation Environmental Design Tool exclude emissions other than direct CO2 emissions (*see MDP B11.4.6.2 Aircraft Landing take-off cycle*). These excluded non-CO2 emissions contribute twice as much warming as CO2 alone [15].

And it only counts landing and take-off (LTO) CO2 emissions, which, depending on the length of the flight, average around 15% of total flight CO2 emissions. The MDP says "Full flight emissions from aircraft … have been excluded from the assessment of operational emissions" (*see MDP B11.4.4*) and "GHG emissions associated with the airspace are largely out of Melbourne Airport's control" (*see MDP B11.4.1*).

But excluding total flight emissions is not the standard practice when assessing airport emissions elsewhere. In the UK, airports including Heathrow and Bristol [16] include total flight Scope 3 emissions in their emissions assessments, and in France the independent Autorité Environnementale [17] requires airport extension projects to address all the emissions induced by the increase of their activity.

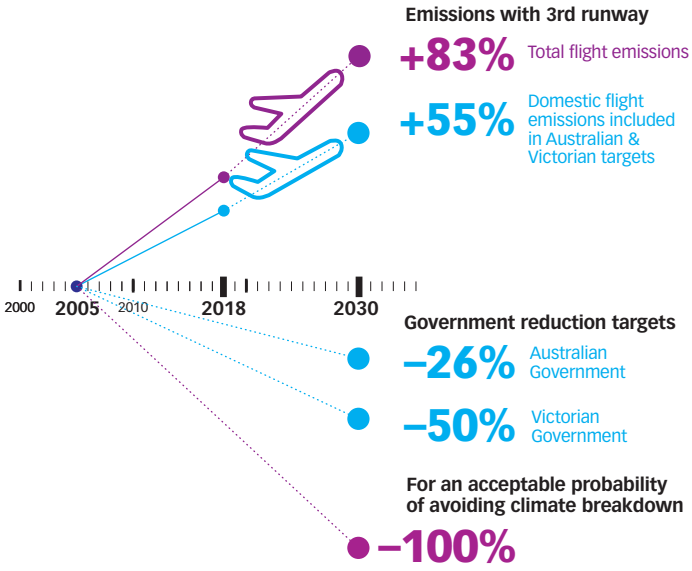
1.4 The M3R will increase emissions

• Aviation is the most emissions intensive form of transport, per kilometre and per hour, and is projected to grow by ~4% per year whilst other sectors continue to decarbonise [18].

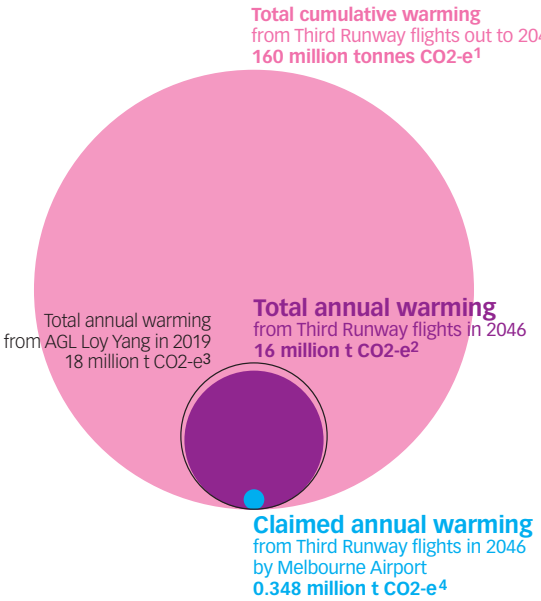
• Aviation is the world's fastest growing source of climate breakdown emissions due to the record growth in flights [19].

• At this most critical stage of the climate emergency, Melbourne Airport is proposing that its flight emissions increase by 55%. According to the MDP, a 3rd runway will enable an additional 136,500 flights per year by 2046, or a 55% increase on the pre-Covid 246,450 flights in 2018-19. *(see MDP Part A, Chapter A2 Need for the project, Table A2.3)*

Third Runway enabled emissions increases and government emissions reduction targets



Cumulative, annual and claimed emissions for the Third Runway



• Total annual warming from Third Runway flights will be around 16 million tonnes CO2-e [20]. This is roughly 50 times the CO2-e acknowledged by Melbourne Airport: 0.348 million tonnes (*see MDP Part B, Chapter 11, 11.8*) and near enough to total warming from AGL Energy Limited's Loy Yang in 2019 of 18 million tonnes CO2-e [21].

• The MDP itself classifies greenhouse gas emissions from the operation of the Third Runway at this level, being greater than 0.1% of Australia's total annual GHG emissions (excluding LULLUCF), as having a Major Impact Severity. It describes Major Impact as "a significant and irrecoverable estimated financial liability … [that could] include capital costs [and] negative reputation and media attention globally, with follow on effects including political implications, [with a probability that the] project is significantly delayed or cancelled" *(see MDP Severity criteria Table B11.1)*.

• Cumulative warming emissions can be estimated to total around 160 million tonnes CO2-e from the Third Runway out to 2046 *(see MDP > Part B > Chapter B11 Greenhouse gas Emissions > Table B11.17).* The "No Build"/"Build" LTO CO2 emissions difference for 2026 is 19,340 t CO2-e, for 2031: 50,416 t CO2-e, and for 2046: 348,294 t CO2-e. Assuming a linear growth, that's the same as: 15,538 t for 5 years between 2026 and 2030 (half the 31,076 difference between the 2026 and 2031 figures) = 77,690; 148,939 t for 15 years between 2031 and 2045 (half the 297,878 difference between the 2031 and 2045 figures) = 2,234,085; and 1 year of 348,294 (2046). Added that's 77,690 + 2,234,085 + 348,294 = 2,660,069 t for LTO. 2,660,069 t x 20 ('cos LTO is roughly 5% of total) = 53,201,380 t. But 53,201,380 t x 3 ('cos CO2 is a third of total warming emissions) = 159,604,140 t. Or 160 million tonnes over the 20 years 2026 to 2046.

• Australia Pacific Airports Melbourne (APAM) are proposing an 80% increase in total flight emissions by 2030 on 2005 levels [22].

• Construction emissions will be 422,094 t CO2-e for the Third Runway, including 149,571 t from the concrete used (*see MDP> Part B > Chapter B11 Greenhouse gas Emissions > Table B11.15).*

1.5 M3R can't be emissions free

• Third Runway enabled flights will not be emissions free in the next decade — our zero emissions deadline for reducing the risk of overshooting climate targets [23].

• Renewables-electrified planes, aviation's only emissions free option, are years away for short-haul and a pipe-dream for long-haul flights. Electric aircraft, for flights under 1,000 km, may be in service by 2050, but they won't be emissions free until the electric grid is fully decarbonised.

• Alternative aviation fuels are not emissions free.

• Offsetting flight emissions does not reduce emissions.

• Emissions reductions from fuel efficiency improvements are being overwhelmed by emissions from more and more flights.

• Emissions reductions per passenger have stalled because airplane capacity and cruising speeds have reached an efficiency plateau with further gains unlikely.

Conclusion

• The proposed Third Runway must be halted because the impact of increasing global heating emissions is existential to society as we know it.

• The MDP must be amended to include reporting of total flight enabled emissions

• An Environment Impact Assessment including of the increased global heating emissions, together with an “Avoidance Plan” for assessed impacts, must be completed before the MDP goes to the federal Transport Minister for approval.

2. Non-scientific climate risk assessment

The MDP says that "Climate change is unlikely to create new risks for the operation of M3R" (*see MDP, Part B, Chapter 13, B13.6.1.2*), and that its "assessment shows that none of the risks from climate change or natural hazards is rated as high or extreme, and that no impacts are rated as major adverse" (*see MDP, Part B, Chapter 13, B13.6.2*).

The MDP includes a risk assessment for high temperature impacts. It assesses the Risk Event of "high temperatures leading to lower air density, reducing aerodynamic lift and jet engine power output enough to prevent takeoff" in 2070 as Medium Level, having Moderate consequences, and as "Almost certainly not likely"! (*see MDP, Part B, Chapter 13, Table B13.26 p.753*). Yet this event is already being experienced at airports around the world at 1.1°C of warming [24].

The MDP assesses risks to the operation of the Third Runway in 2070 from climate change under a high-emission, business-as-usual scenario where global heating hits 4°C (*see MDP, Part B, Chapter 13, B13.2.2*). It concludes that there are no potential climate impacts that "have been found to represent significant or high risks to the operation of the airport."

This assessment displays an amateurish approach to risk management and the coming period of warming-induced global disruption, as well as an astounding lack of understanding about the fundamentals of life on a hotter planet.

Known since 2016 as Hothouse Earth [25] this 4°C of warming scenario is one in which climate system feedbacks and their mutual interaction drive the Earth's climate to a point where further warming becomes self-sustaining, that is, unstoppable. At 4°C , those Victorians, amongst the perhaps few billion remaining globally, would have survival on their minds, not a European holiday. Of a 4°C future, Kevin Anderson, Professor of Energy and Climate Change in the School of Engineering at the University of Manchester in the UK, says, it "is incompatible with an organised global community, is likely to be beyond 'adaptation', is devastating to the majority of ecosystems and has a high probability of not being stable" [26].

Prof. Johan Rockström, director of the Potsdam Institute for Climate Impact Research in Germany, says "the consequences of a 4C warmer world are so terrifying that most scientists would rather not contemplate them, let alone work out a survival strategy … It's difficult to see how we could accommodate eight billion people or maybe even half of that … There will be a rich minority of people who survive with modern lifestyles, no doubt, but it will be a turbulent, conflict-ridden world." [27]

The MDP does however find regulatory and market responses to climate change, such as "emissions reporting obligations", "climate-related regulation" and "changing customer behaviour", to be significant long term risks with major consequences for the operation of a Third Runway (*see MDP, Part B, Chapter 13, B13.8.2 p.744 & Table B13.27 p.757 & 759*).

So… actions such as these, to protect us from the existential risk of runaway warming, are threats to the operation of the Third Runway.

Conclusion

• The presentation of the draft MDP to the federal transport minister needs to be delayed until a brutally honest, comprehensive and independent climate risk assessment is completed with regard to the latest scientific research on the impacts of increasing global warming.

• This climate risk asssessment must be open to public scrutiny.

3. Public engagement process flaws

The MDP's public engagement process has been flawed in unprecedented ways, has lacked transpaerncy and been needlessly rushed.

• **Proper process ignored.** This is the first time an Australian airport has published a Master Plan (MP) and a Major Development Plan requiring the public to provide feedback to both at the same time. Previously, and logically, each five year MP has been released, assessed and approved before any consequent MDPs is released, as was the case for Sydney, Brisbane and Perth airport Master Plans and runway MDPs. If a flaw in the MP is revealed during its public assessment that alters aspects of any proposed works later requiring an MDP, then a simultaneously released MDP will be automatically out of date and need updating prior to its publication for public assessment.

• **Rushed feedback period.** APAM is allowing the unpaid public just 100 days to read and critique a Master Plan and Major Development Plan that APAM has taken years and paid thousands of dollars to prepare.

• **Absence of an independent Environmental Impact Statement.** The potential environmental impact of a new runway anywhere is huge, yet an Environment Impact Statement from by the Department of Agriculture, Water and the Environment (AWE) on the proposed Third Runway was not undertaken prior to publication of the preliminary draft MDP. On 2 March 2021, after the exposure draft of the MDP was referred to them by the Department of Infrastructure, Transport, Regional Services and Communications (ITRSC), the environment department of AWE deferred to Section 160 of the Environment Protection and Biodiversity Conservation Act (EPBC 2021/8886). Section 160 provides an accredited referrals and approvals pathway for developments regulated by the Commonwealth under, in this case, the Airports Act, like the 3rd runway that, require an approved Major Development Plan. Under this pathway, the *self-assessment* of any environmental impacts of the Third Runway has been included in the MDP. The environment department can only offer advice on the MDPs listed environmental impacts. It cannot decline approval no matter how negative its own assessment of the MDPs listed environmental impacts might be.

• **Transparency of the manner and extent to which the environment impacts are addressed is dramatically lessened** when, under the MDP process, only the matters listed under Section 91 of the Airports Act are to be self-assessed by the proponent. An independent, fully resourced and transparent assessment is avoided for environmental characteristics and impacts on communities and the 'environment' in its broadest sense. For example, no in-depth consultation of the to-be-impacted public by health or any other professionals has been undertaken and published in relation to noise, air quality, airport hazards and risk, public health, economic and social/community issues.

• **Reliance on Section 91 prevents the public from knowing** what exactly is being assessed over what time period and by what method, the level and detail of analysis and modelling that is undertaken, the alternatives to the 3rd runway, and the full suite of possible options for managing environmental impacts. It also creates uncertainty about the public availability of detailed technical studies that would normally be appended to an EIS.

• **Melbourne Airport responsible environmental management concerns.** In 2019, PFAS escaped the airport estate, contaminating waterways that feed into the Maribyrnong River. The community have been unable to find out who paid for the clean-up, what it cost, or how much contamination there is on the land in the Keilor Valley south of the airport.

• **An environment assessment of a Third Runway's impacts** carried out under the direction of the proponent cannot be a transparent and independent assessment free of any conflict of interest.

Conclusion

• Public feedback to the M3R preliminary Draft MDP should be re-opened after it aligns with a ministerially approved 2022 Master Plan. If the Master Plan is revised in any way after the 16 May 2022 because of public input, the preliminary Draft MDP must be revised accordingly and then made available for public submissions

• Before the draft MDP is sent to Minister, APAM must make public the breakdown of answers ("Yes"/"Undecided"/"No") it received to its question of those who made MDP submissions "Are you in favour of Melbourne Airport's Third Runway?" public.

• Before the draft MDP is sent to Minister, an independent assessment of all the health, climate and environmental impacts must be undertaken and published.

• A Health Impacts Statement is needed to independently assess how the Third Runway will impact the health of those living under the new flight path.

4. Clearfelling of protected woodlands

• Deforestation, coupled with the rampant destruction of natural resources, will soon have devastating effects on the future of society as we know it.

• Melbourne Airport acknowledges that a significant biodiversity ecosystem including Grey Box Woodland, is located at the northern end of the airport. The Grey Box Woodland covering 136.57 hectares has two ecosystem communities now threatened with extinction. Listed under the Commonwealth Environment Protection and Biodiversity Conservation Act (EPBC) as Grey Box and Grassy Woodlands, and the Derived Native Grasslands of South Eastern Australia, they are protected by the EPBC Act.

• Deforestation, coupled with the rampant destruction of natural resources, will soon have devastating effects on the future of society as we know it [28].

• The EPBC Act offsets policy results in a net loss of habitat. The 2020 interim report of the Independent review of the EPBC Act said that "Environmental offsets do not offset impacts of developments". The EPBC Act offsetting conditions are met by "purchasing and improving an area of land with the same habitat as that which is destroyed or damaged by the development. This offset is then protected from future development. Across the range of developments that use averted loss offsets, a net reduction of habitat has resulted". The "offsets policy ... has not resulted in projects avoiding increasingly scarce habitat" [29].

• The EPBC Act offsets policy requires fundamental review. The Independent review of the EPBC Act said that "because most offsets are averted loss offsets, the offset policy in its current form delivers little other than weak protection of remnant habitats of Matters of National Environmental Significance (MNES) that may have never been at risk of development. It requires fundamental review"[30].

Conclusion

• Until the EPBC Act offsets policy is changed to provide the strongest protection of remnant habitats, the MDPs proposed offsetting of the protected Gray Box Woodland should not be approved. And approval should only proceed after any proposed offset habitat is located and purchased.

5. Air and soil pollution

Construction and operation of the proposed Third Runway will create soil and air pollution hazards. The Third Runway Major Development Plan acknowledges these hazards but includes no plan for avoiding them.

5.1 Air pollution

• A recent study, "A review of health effects associated with exposure to jet engine emissions in and around airports" concluded that "exposure to aircraft emissions induce pulmonary and systemic inflammation, which potentially contributes to cancer, asthma, respiratory and coronary heart disease."

• The MDP does not clearly state the extent of air pollution from Third Runway flights that will impact airport-adjacent communities. Air pollutants can include hydrocarbons, nitrogen oxide, and particulate matter [31][32].

• The MDP fails to cpmprehensively address the health impacts from this pollution on these communities.

• The health study, promised by Melbourne Airport, that may or may not include an assessment of these impacts, has not been made public, preventing any peer review.

• The MDP contains no plan to adequately protect airport-adjacent communities from ultra-fine particulate matter from aircraft engines.

5.2 Soil pollution

• PFAS, or per- and poly-fluoroalkyl substances, are manufactured chemicals used in products that resist heat, oil, stains and water. They are used in fire-fighting foams, including at airports.

• Melbourne Airport operates on Commonwealth land. And, on this land, the Commonwealth has not established a safe process for managing PFAS contaminated soils — handling it, storing it and rendering it safe.

• The MDP contains insufficient detail on the management of PFAS contaminated soils and other pollutants.

• The MDP provides no information to the public, particularly to those communities around the airport, on the impacts of the works to remove the PFAS contaminated soil — not the number, frequency or hours that trucks will be active.

Conclusion

• Melbourne Airport must develop management processes for PFAS before any MDP has been approved.

6. Selective cost benefit analysis

6.1 Benefits overstated

• The MDPs economic impact assessment concludes that "There are no significant negative economic impacts" (*see MDP Part D2 Economic Impact Assessment, D2.5.2*), and "All of the M3R impacts can be considered as economic benefits." (*see MDP Part D2 Economic Impact Assessment, D2.8*)

This conclusion flies in the face of other recent economic assessments of proposed airport expansions.

In *Flying Low* [33], a New Economics Foundation (NEF) report focussing on the proposed expansion of Heathrow, NEF dissected the economic modelling conducted by various statutory bodies in the lead-up to the decision. They showed that, even using the government's own criteria for infrastructure appraisal, the proposed investment in Heathrow represents a poor deal for the UK as a whole. NEF calculations suggested that — applying the usual HM Treasury scores to the proposed North West Runway — it would be judged 'low' or even 'poor' value for money and would not be recommended for approval.

• The MDP overstates the job losses of a No Build scenario. All the people employed in a Build scenario would not become unemployed in a No Build scenario. The state economy would develop in different ways: budgets and investment may well be spent elsewhere, leading to employment and contributions to GDP in other areas of the economy.

• The European Union Against Aircraft Nuisances has reported that airport growth doesn't fuel economic growth [34].

• *The dodgy economics behind expanding our airports* [35], a report by NEF in the UK, found that expanding UK airports won't tackle unemployment or bring more money to the UK, despite what airport executives say.

• The MDP overstates the number of jobs a Third Runway will create. Relating indirect, induced and catalytic jobs to overall employment is essentially double counting. These jobs arise in other sectors. If all industries made the same claims, the number of jobs created would exceed the total workforce.

Western Sydney Airport (WSA) was promoted as offering a 'jobs bonanza' to local communities, but the *Jobs for the West* [36] report found the job forecasts were vastly exaggerated. The report compared WSA's 8,700 new jobs claim with 1,600 generated at similar airports.

• The MDP doesn't even model, for comparison, the construction and operation jobs generated by east coast high speed rail (HSR) infrastructure.

• Other costs including the $15 billion for a Melbourne Airport Rail Link, and the cost of Third Runway-induced traffic congestion, estimated to be roughly $8 billion a year by 2030, could be avoided by building High Speed Rail up the east coast of Australia.

6.2 Costs unaddressed and ignored

• **RCP8.5 scenario costs.** The cost to the Melbourne Airport Corporation and its investors of the IPCC RCP8.5 emissions scenario — that the MDP claims to have modelled in its climate risks assessment (*see MDP Part C14, Table 14.3*) — is nowhere addressed in the MDP. Yet the airport as a whole, including any Third Runway, will become a stranded asset if atmospheric concentrations of CO2 are anywhere near the RCP8.5 scenario's 900ppm by 2100.

• **Poor health outcomes costs.** The MDP does not address the costs of poor health outcomes from increased noise, pollution and climate change, caused by the Third Runway

• **The environmental costs** of the operation of the Third Runway are not included in the MDP, making its investment costs to economic growth comparison nonsensical. By way of example expansion proposals from Bristol, Leeds Bradford, Southampton and Stansted airports in the UK ignored up to £13.4bn worth of damage to the climate [37]. The cost of offsetting Heathrow Third Runway emissions has doubled to Ł100bn since the UK parliament approved the runway [38].

• The cost to tax payers of the aviation fuel tax subsidy for domestic flights is unaddressed by the MDP. Known as the "Concessional rate of excise levied on aviation gasoline and aviation turbine fuel" it amounts to around $1,000 million annually [39].

• The net cost to tourism of flights overseas enabled by the Third Runway is unaddressed by the MDP. In 2018-19, Australians spent $65 billion on trips overseas [40], while international visitors to Australia spent $44.6 billion. A net loss to the economy of $20 billion.

• The cost of job losses consequent to increased automation of airport functions, such as ticketing and baggage handling, is unaddressed by the MDP.

6.3 Speculative flight demand projections

• The modelling of future flight growth, on which the business case of the Third Runway rests is not included in the MDP. It's "proprietary and commercial-in-confidence".

• It does admit however that its flight demand growth forecasts — the ones saying a Third Runway is needed — were completed in 2019, before Covid-19 changed expectations for the future of the aviation industry like nothing before.

• The MDP states that research by industry bodies such as ABS, BITRE, Tourism Australia, Airports Council International, IATA, and ICAO have been factored into its hidden flight demand forecasting. But the factors affecting future flight movements that were assessed by these bodies remain unclear. For instance, the IATA's Air Passenger Forecast does not assess the risk from growing aviation-sourced greenhouse gases. And because of the uncertainties Covid has introduced, BITRE have not provided any data to Melbourne Airport on alternate demand futures.

• The Melbourne Airport 2022 Master Plan states that its post-Covid forecasts aren't derived from a range of possible flight demand scenarios. The forecasts are the flight numbers that fit a "recovery scenario" (*see Melbourne Airport Master Plan, Chapter 7, 7.1 p.112)*, as in, what the industry needs to happen. They aren't the flight numbers that fit an "avoid 2ºC scenario", as in, what humanity needs to happen.

• Flight demand modelling including the effect of any prolonged pandemic factors, such as Covid-induced flight wariness, the growth of online business meetings, and the spread of new more infectious viruses is absent from the MDP [41].

• So too is modelling that includes the effect of global warming factors such as the climate concerned public choosing to reduce emissions by flying less, or the introduction of regulatory restraints on flight emissions [42].

• The MDP excludes any assessment of the risk to the airport's business growth forecasts from the development of a high speed rail service up the east coast from Melbourne to Sydney and Brisbane. That establishing a High Speed Rail Authority is federal Labor policy exposes Melbourne Airport's lack of due diligence.

• Even under APAM's hidden modelling, pre-Covid 2019 flight movements can grow (from whatever year they re-establish themselves) by one third before a Third Runway would be necessary (*see MDP, Part A, Chapter A2, Tables A2.1 p.57 & A2.2 p.63*). An increase in flight movements of the same number, up to 2019, took 15 years to achieve [43].

• And APAM itself is so uncertain about the Third Runway MDP's flight demand growth figures that the federal Transport minister is being asked to delay the mandatory completion date for the Third Runway by five years (*see MDP, Part A, Chapter A2, A2.4.1.1 p.57*).

• An innocent bystander could well ask if it is the case that Melbourne Airport Corporation's flight demand forecasts are out of date wishful thinking and lack serious consideration of realistic risks.

• If they are, then the Melbourne Airport 2022 Master Plan, built on these projections, cannot be approved. And neither can the Third Runway MDP, because it can only derive from an approved Master Plan.

Conclusion

• A broad competitor risk assessment must be undertaken.

Summary

The MDP acknowledges that regulating emissions reductions – in other words, acting to reduce the risk of climate collapse – acting to make us safe – will threaten the operation of the 3rd runway (*see MDP, Part B, Chapter 13, B13.8.2 p.744 & Table B13.27 p.757 & 759*)**.**

In light of this, and to align with state, national and global emissions reduction imperatives, we submit that either APAM withdraw its Third Runway MDP or the federal transport minister decline approval of the Third Runway MDP.

Just as we observe Total Fire Bans to minimise bushfire emergencies during fire season, so we must observe Total Runway Expansions Ban to minimise the risk of runaway emissions during the climate emergency.

Endnotes

[1] https://www.reuters.com/business/energy/global-energy-related-carbon-emissions-rose-6-2021-new-record-high-iea-2022-03-08/

[2] http://www.climatecodered.org/2022/01/have-tipping-points-already-been-passed_28.html

[3] https://news.un.org/en/story/2022/04/1115452

[4] https://www.climaterealitycheck.net

[5] https://www.theguardian.com/environment/2022/apr/04/ipcc-report-now-or-never-if-world-stave-off-climate-disaster

[6] https://www.ipcc.ch/2022/04/04/ipcc-ar6-wgiii-pressrelease

[7] https://news.un.org/en/story/2022/04/1115452

[8] https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits

[9] https://johnmenadue.com/climate-catastrophe-now-inevitable-without-emergency-action/

[10] https://www.theguardian.com/australia-news/2021/oct/12/guardian-essential-poll-most-australians-want-morrison-to-set-a-higher-emissions-reduction-target

[11] https://www.theguardian.com/environment/2021/dec/22/cleanup-cost-of-heathrow-third-runway-doubles-to-100bn-mps-told

[12] https://www.chathamhouse.org/2021/09/climate-change-risk-assessment-2021

[13] https://www.climateaction100.org/news/climate-action-100-warns-that-the-aviation-industry-must-take-urgent-action-to-keep-1-5c-within-reach/

[14] https://www.climaterealitycheck.net

[15] https://stay-grounded.org/wp-content/uploads/2020/10/SG_Factsheet_Non-CO2_2020.pdf

[16] https://www.ftbchambers.co.uk/sites/default/files/Appeal%20Decision%203259234.pdf

[17] https://www.cgedd.developpement-durable.gouv.fr/IMG/pdf/raae-2020-v6-web_cle11ed5c.pdf

[18] https://ourworldindata.org/travel-carbon-footprint https://www.nature.com/articles/s41467-021-24091-y

[19] https://www.europarl.europa.eu/news/en/headlines/society/20191129STO67756/emissions-from-planes-and-ships-facts-and-figures-infographic

[20] *In 2019, there were 246,450 flight movements at Melbourne Airport on its two runways (see MDP, Part B > MP_B6.1.2).*

In 2018-19 CO2 emissions from all flights departing Melbourne Airport were 4,650,000 t CO2 (see https://airporttracker.org + https://airporttracker.org/assets/Airport%20Tracker_Technical%20Note.pdf).

So if we assume all flights both departing and arriving is double the number departing, then the total CO2 emissions enabled by the two runways at Melbourne Airport in 2018-19 is twice 4,650,000, or 9,300,000 t CO2. Note that this calculation is for arriving and departing flights total emissions, since the MDP reports arriving and departing flights LTO emissions.

In 2046 there are projected to be 136,500 Third Runway flight movements (see MDP > Part A > Chapter A2 Need for the project > Table A2.3).

So, if 246,450 flight movements (see https://www.bitre.gov.au/publications/ongoing/airport_traffic_data) created 9,300,000 t CO2 in 2019, then, presuming the range of flight distances remains in the same proportion, we can estimate that 136,500 flight movements will create 5,149,898 t CO2 (9,300,000 divided by 246,450 times 136,500) in 2046. This assumes that CO2 per flight movement will not change, and that any fuel efficiency gains are cancelled out by increased longer flight movements.

But CO2 emissions contribute just a third of a flight's total warming (see https://stay-grounded.org/wp-content/uploads/2020/10/SG_Factsheet_Non-CO2_2020.pdf)

So total warming from CO2 and non-CO2 flight emissions is three times 5,149,898 t, or 15,449,994 t CO2-e.

Upstream jet fuel or Well To Tank CO2 emissions for jet fuel are equivalent to roughly 20% of flight CO2 emissions. So 0.2 x 5,149,898 = 1,029,979 t CO2. The UK government reported in 2018 the ratio between total emissions and in flight emissions (whether as CO2 or GHG) as 1.2 (not including radiative forcing), as in, total is 120% of flight emissions (see https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019).

If we add that we get 15,449,994 + 1,029,979 = 16,479,973 t CO2-e.

So Third Runway flights in 2046 will create 16,479,973 t CO2-e

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