

Submission in response to proposed Concrete Batching Plant, Glebe Island

Introduction

The environmental and social impacts of the proposal to relocate and expand the Hanson concrete batching and port facility from its existing site in Blackwattle Bay to Glebe Island cannot be understood without first understanding the current state of usage within the wider, densely populated residential area that encloses the Bays precinct. The proponent foresees business opportunities from relocating to a new facility on Glebe Island as a supplier to the large infrastructure projects taking place in the surrounding area with more on the drawing board. But the proponents' submission in support of development approval contains little acknowledgement of how its operations will impact the community around it.

There is a need for the proponent to relocate because the owner – the NSW government - wants the land Hanson leases on Blackwattle Bay in order to build a large retail and residential complex. On the other hand the government has a major infrastructure investment and building program it expects to run for decades, for which it needs a lot of concrete. As it happens, the owner has some other land in another part of the Bay where a mixed use industrial waterfront would support its program infrastructure projects.

This proposed development on Glebe Island is essentially a 24 hour X 7 day quarry and cement works. Frequent bulk carrier ship deliveries will allow the drilling, blasting and crushing of aggregate to take place at a distance from Sydney, but the machinery to receive, manage, store and despatch the raw materials for the making of concrete will all be present at Glebe Island. The facility will also make and despatch finished concrete product itself. Ships deliveries of aggregate are expected to take 12 hours to unload while their auxiliary engines burn low grade “residual oil” alongside the wharf.

B-Double tankers and ‘truck and dog’ trailers will deliver other raw materials such as sand and cement to the facility. The mixed concrete produced by Hanson will then be delivered to construction sites by its fleet of 55 concrete agitator trucks. Hanson will also maintain two aggregate tipper trucks with dog trailers to deliver aggregate from the facility to customers. Other customers will send their own trucks to obtain aggregate. In addition other vehicles at the site include bobcats, forklifts and loaders. Most of the workforce of 85 are expected come to work by car, with sixty-four parking bays to be provided for workers and visitors.

Quarries and cement works crush rock and generate large amounts of dust and transshipment is also a dusty operation. The proponent proposes to manage dust from transshipment by locating much of the process inside a large shed and by the extensive washing down of vehicles. The shed will rely on negative air pressure and ‘bag house’ filtering systems to capture dust which will then have to be disposed of. This is a critical aspect of the operation because everything depends on timely and effective maintenance of the air system; especially the filters.

By any measure, Glebe Island will become a large, energy intensive industrial process with correspondingly large emissions of diesel exhaust, dust, vibration and noise and the impacts will extend well beyond the site itself. The Glebe Island site is less than 300 metres away from recently built high rise residential buildings and parks. It is also adjacent to one of the busiest roads in Sydney (the A4) in the geographic centre of 11 densely populated suburbs, home to 94,000 people. This area is already struggling to cope with a heavy burden of noise and air pollution from traffic, aircraft, existing major building projects such as WestConnex, and much more to come.

The proposal

The proponent's application, naturally enough, emphasises all the positives of a move to Glebe Island from the proponent's point of view:

- it will preserve jobs for 65 workers
- the city needs nearby concrete batching facilities to supply its construction boom
- aggregate will arrive at Hanson's by ship (as it does at Blackwattle Bay)

- Hanson will supply aggregate to other facilities, reducing long haul trucking

However, the proponent's specialist consultant's reports minimise or fail to mention the negative impacts on the local community of a move to Glebe Island.

For example, there are assurances about how the consultant's modelling indicates "*potential air quality impacts associated with the Project will be below ambient air quality impact assessment criteria*" and "*cumulative air quality impacts indicates that the Project is not anticipated to result in any additional exceedances of the impact assessment criteria.*" But these conclusions were arrived at despite the consultant having made no air quality measurements themselves. They instead rely on incomplete data from other locations to support a number of assumptions and conclude that "*the potential for the Project to adversely impact air quality is considered to be low and acceptable.*"

This consultant makes its understanding of its role clear. In an upfront disclaimer it says it "... *acts in all professional matters as a faithful advisor to the Client and ... does not attempt to verify the accuracy, validity or comprehensiveness of any information supplied to (the consultant) for its reports.*"

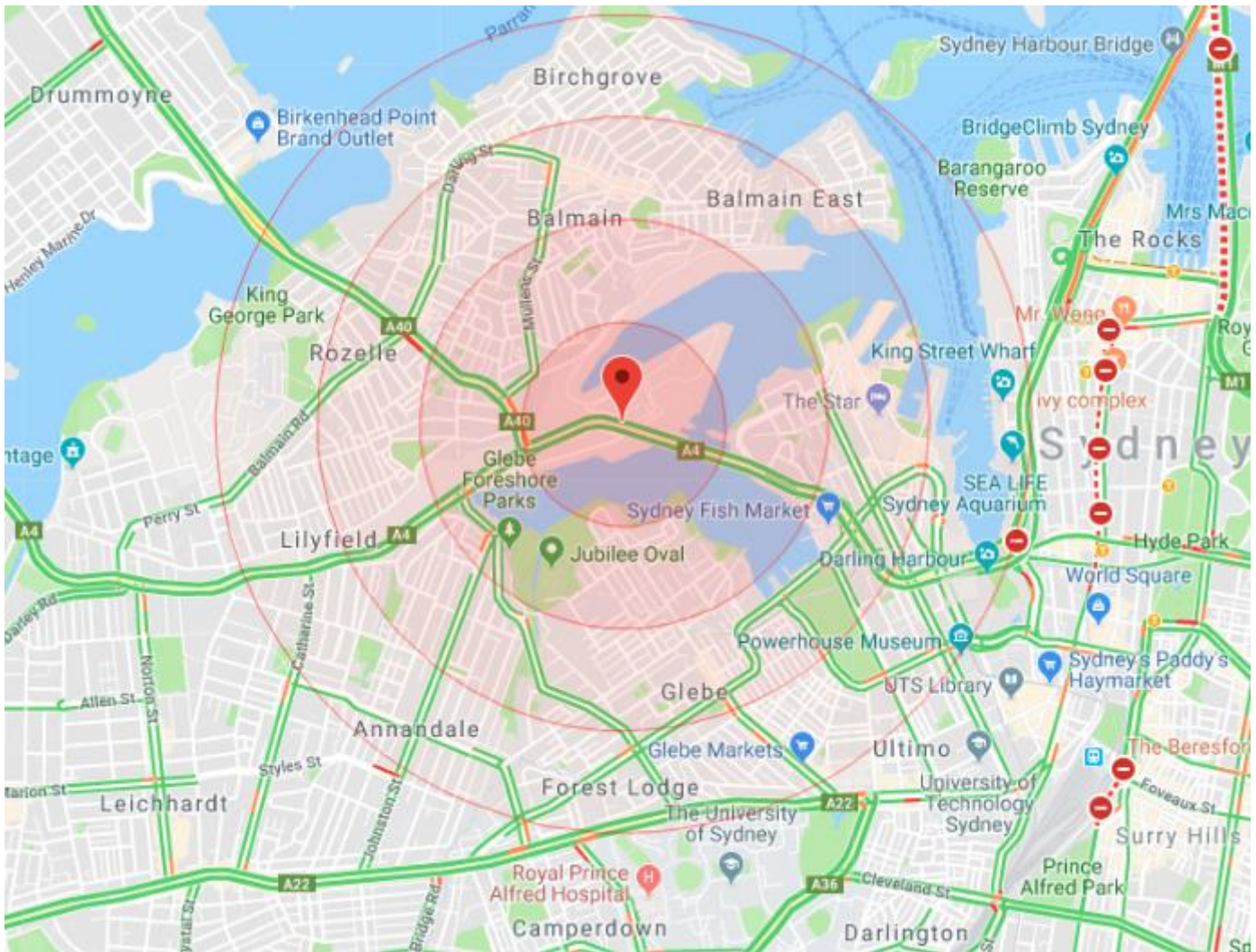
It is inconceivable that a project of this type and scale would be approved without accurate knowledge of existing air quality at this specific site and without quantification of the emissions of the specific ships, equipment and vehicles to be used. Given that vehicle exhaust, dust, vibration and noise will extend well beyond the site itself, it is also inadequate for the proponent's analysis of traffic impacts to be limited to the three major road intersections within a couple of hundred metres of where the port's James Craig Road emerges onto The Crescent.

Home to 94,000 people, the adjoining suburbs listed below are ranked by population density. With the exception of Leichhardt they are all located substantially within 2km of the port facility and will directly experience the impacts of Glebe Island/White Bay and its related developments.

Rank	Suburb	Population 2016	Density - residents per sq. km
3	Ultimo	8,845	12734
4	Pymont	12,813	12458
20	Glebe (NSW)	11,532	6589
22	Balmain East	1,932	6454
23	Balmain	10,453	6422
26	Forest Lodge	4,583	6019
27	Annandale (NSW)	9,451	5823
33	Birchgrove	3,303	5397
38	Leichhardt (NSW)	14,625	5176
50	Rozelle	8,725	4457
69	Lilyfield	7,616	3339

<https://www.microburbs.com.au/heat-map/population-density>

In addition to almost 100,000 residents, an unknown but large number of visitors come into the area to work, make deliveries, attend schools and daycare centres, get married, shop, play sport, eat out and attend entertainment. Many others pass through the area on their way to one of those activities just mentioned. More than 134,000 vehicles across just the Anzac Bridge, immediately adjacent to Glebe Island, every day on average.



Each circle on the map steps a further 500m away from the Glebe Island facility

The proponent's Air Quality Report (*S6.3 Vehicle exhaust emissions*) estimates up to 9,062 truck movements per day could occur between the proponent, its suppliers and its customers. Despite this, the proponent's Traffic Report concludes this won't cause the traffic to slow down much at the three intersections just outside the facility's front door. There is no traffic analysis provided beyond these three immediate intersections. There are some specific assurances that aggregate trucks won't use residential streets for their deliveries but no such guarantee in the case of concrete trucks which will be delivering to building sites that might be anywhere.

We are told about the proposed site's fit with the government's urban development plans and strategic business opportunities for proponent but there is little or nothing in the EIS about the legacy of impacts from earlier major projects and those still underway. The potential for accumulated impacts to exceed assessment criteria is passed over as a problem to be addressed by later projects - the same future projects which the proponent is hoping will go ahead so it can sell them concrete.

If this port facility (or for that matter any other project planned for the area) is to be accepted by the community it will need a social licence. Developers, be they government, public or private companies, will have to manage things a lot better than they have in the recent past. Without community acceptance businesses will be seen to lack legitimacy and reputations and investments put at risk.

[The precinct](#)

The rest of this submission describes some of the likely environmental impacts of the facility from the residents and visitors' perspective and suggests ways of addressing them that might allow the project to coexist.

The proponent's proposed concrete batching plant on Glebe Island sits in the middle of the suburbs of Rozelle, Birchgrove, Balmain, East Balmain, Pyrmont, Glebe, Annandale and Lilyfield. Large areas of each of these villages lie

within a 1500 metre radius of the Glebe Island site. When this radius is extended to 2000 metres it further captures a significant part of Barangaroo and Ultimo, virtually all of Forest Lodge as far as Sydney University and some of Leichhardt.

The suburbs affected are some of Sydney's most densely populated. Out of 109 suburbs in greater Sydney, Ultimo is ranked as third most densely populated with 12,734 residents per square kilometre. Pyrmont is in fourth place with 12,458. Glebe 20th with 6,589, Balmain East 22nd, Balmain 23rd, Forest Lodge 26th, Annandale 27th, Birchgrove 33rd and Leichhardt (38th).

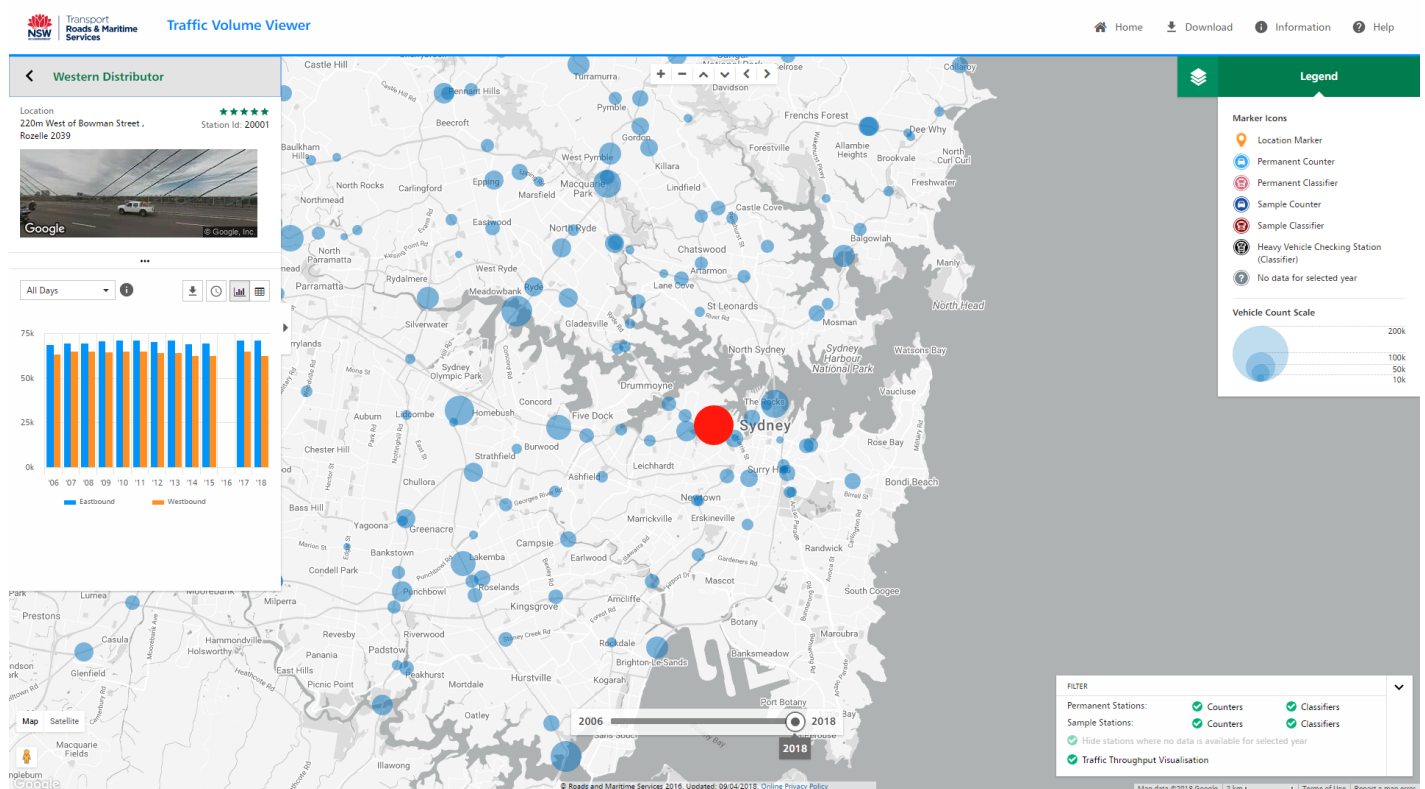
Pollution

Air, water, soil, harbour floor and noise pollution from waterfront activities have long been present in The Bays precinct from numerous nineteenth century noxious industries and later arrivals, such as the White Bay power station and its coal loader. In recent decades almost all this remaining industry has closed down and seen its land given over to medium and high density housing. More recently noise and emissions from increasing light and heavy vehicle traffic, aircraft flightpaths and noise and air pollution from ships moored at the White Bay Cruise Terminal among other sources is again responsible for severe impacts on residents.

Traffic

Victoria Road and the City West Link are major traffic arteries, converging at White Bay.

The RMS maintains a network of traffic volume monitors at key sites on Sydney's road network. Monitor Id 20001 on the Anzac Bridge, almost directly above Hanson's proposed new concrete batching site, shows that the Anzac Bridge is the busiest road in Sydney with an average of 134,414 vehicles travelling daily in both directions above Glebe Island so far this year. This represents a large air quality impact from motor vehicle emissions in the heart of The Bays Precinct, spreading to its immediate surrounds.



According to the proponent's Air Quality Report (*S6.3 Vehicle exhaust emissions*), up to 9,062 additional truck movements per day from the proponent, its suppliers and its customers, will start and arrive just a short distance from where 134,414 vehicles on average each day are travelling on the Anzac Bridge. The trucks on site will be joined by between 3 and 7 CSL ships a week, each burning fine-particle-producing Residual Oil in their auxiliary engines during the 12 hours it will take them to unload.

Table 6-2: Estimate of truck numbers

Activity	Peak operational Day		Normal Day	
	Trucks per year	Trucks per day	Trucks per year	Trucks per day
Concrete trucks	181,818	7,576	251,485	689
Cement tanker trucks	8,439	352	12,775	35
Sand trucks	27,211	1,134	87,965	241

Despite the ‘perfect storm’ of emission sources just described, the proponent’s air quality consultant wrote (S5.1) that “there has been no air quality monitoring undertaken at the site of the proposed development. A project of this scale typically does not warrant a specific monitoring program ...”. The consultant did however cast around for existing air quality data that could be considered “representative” of the air quality at Glebe Island. Consultant judged that using data from the EPA’s monitoring station at Rozelle would be taking a “conservative” approach because Glebe Island’s air was probably better than Rozelle’s close to Iron Cove because Glebe Island was closer to harbour breezes. On the other hand, consultant dismissed a data set from the White Bay Cruise Terminal 0.8 kilometres away, suggesting exceedances were likely due to local factors like wood smoke.

In addition to the traffic monitoring station on the Anzac Bridge two other RMS stations are located a short distance west:

1. Id 20075 on City West Link 40m west of The Crescent measures average east and westbound daily traffic: 60,982
2. Id 7163 on Victoria Road, 20m north of Evans Street Rozelle measures average eastbound daily traffic only: 33,846

From monitors Id 20001 and Id 20075 we know the proportion of traffic travelling east is 53% and traffic travelling west is 47%, so it is fair to assume the west-bound daily average for Id 7163 would be around 33,846.

If the RMS equipment is accurate then 134,000 vehicles are coming and going daily on the Anzac Bridge and an estimated 125,000 vehicles are coming and going on City West Link and Victoria Road. That is, some 9000 vehicles a day are passing the Bridge monitoring station but missing the other two stations nearby. This can be explained if those 9000 vehicles are:

- journeys to and from the port facilities via James Craig Road
- journeys to and from Robert Street and the Balmain Peninsula
- journeys to and from Lilyfield Road
- journeys to and from section of The Crescent that leads to Glebe and Annandale. It does not appear that Id 20075’s siting would allow it to detect these

The monitoring station on the City West Link tells us 93% of the passing traffic is cars and 7% is trucks (the other two stations do not distinguish trucks from other vehicles). Since many truck movements would be associated with the port, the proportion of truck traffic on the bridge may be higher. It certainly will be after the proponent’s new facility opens.

Given the long list of major infrastructure projects planned to take place in the area, traffic monitors should be upgraded to record two-way traffic and distinguish between cars and trucks. More points should be monitored to provide accurate baseline and ongoing measures of traffic levels, for trucks in particular.

Additionally, it is time that the owners of large fleets of commercial vehicles operating in sensitive environments use the latest technology available to help them fulfil the terms of their social licence. It is likely that Hanson has already equipped, or has plans to equip or re-equip, its vehicle fleet with GPS tracking. If not, it should do so, and it should make the information it gathers accessible in real time to its stakeholders in the community for reasons of openness and transparency.

Fuel

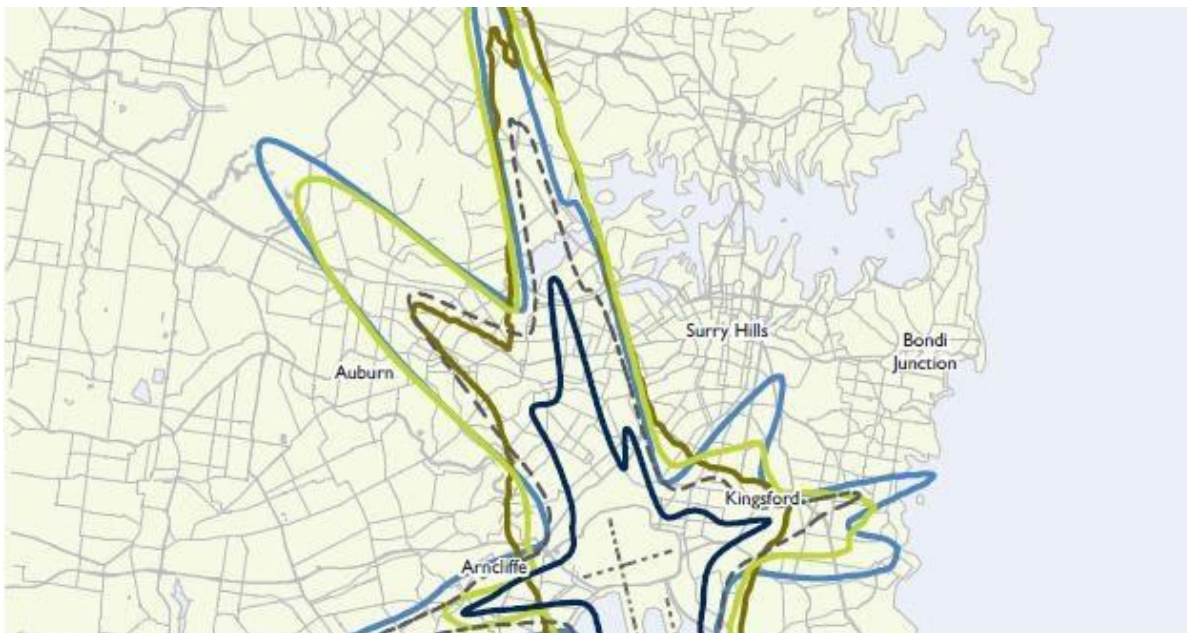
Conspicuous by its absence in the EIS is any mention of the fuel standards that will be met by vehicles involved with the facility to reduce the air pollution which will be created at the facility and in the suburban streets on which materials will be transported. This is a strange omission in a proposal to set up an industrial process similar to a mining operation in the midst of densely populated urban area in the year 2018.

There are obvious opportunities to ensure that a project of this scale and lifespan gets off to a clean start. The cheap, heavy fuel oil used by ships for navigation and portside activities can be replaced by higher grade, low emissions fuel. The many vehicles based at the facility and the many vehicles visiting the facility can use the lowest emission transport fuel technologies currently available: electricity, gas or hydrogen. And so should all the other equipment in and around the facility itself.

As it stands, the only nod to green and sustainable practices in the proponent's submission is an offer to connect to the system of local cycleways that pass close by the facility and provide showers and lockers for workers in case they wish to employ active transport to commute or take part in physical exercise in their breaks. There seems little risk of this. Anyone working at the site would be very ill-advised to perform aerobic exercise in the sort of air-quality that will prevail at Glebe Island, if the proponent's proposal goes ahead unamended. And so would any passing commuter who is tempted to ride to work across the already heavily polluted Anzac Bridge.

Aircraft noise

Less than 7 kilometres south of the Anzac Bridge, Sydney airport has long been a local source of intrusive noise for residents of the Inner West. The arrival of jets at the end of the 1950s brought growing levels of noise pollution for those under the increasingly busy north-south flight path. The opening of the third runway in 1994 solved the airport's congestion problem but widened the constant noise problem for many residents. Without the respite offered by "noise sharing arrangements" and an 11pm – 6am curfew, the life of residents in Birchgrove, Balmain, Rozelle Lilyfield, Annandale, Leichhardt and many other suburbs, would be unendurable.



While aircraft noise is unlikely to bother workers at Glebe Island, it is an ongoing burden for their neighbours a short distance to the west. Although this is not an issue for which the proponent has any responsibility, it is part of an existing noise and air pollution burden the proponent will be adding to. Noise from large, heavy, low-g geared diesel vehicles in residential areas already subject to existing traffic and aircraft noise and emissions levels will be a very unwelcome development.

Vehicle noise and emissions

Section 5.8 of the proponent's EIS suggests that a traffic assessment was only necessary for the Glebe Island egress intersection and two others:

- The Crescent/ City West Link Road;
- James Craig Road/ The Crescent; and
- Victoria Road/ The Crescent.

These three major road intersections are all within 1 kilometre of the proposed facility. The impact of proponent's vehicles on the performance of these intersections says little about the impact of proponent's aggregate, concrete and other vehicles on residents living beyond these intersections if some of these trucks take to residential streets.

The proponent's EIS undertakes that all aggregate delivery movements will be confined to the Anzac Bridge and M2. It would be helpful if proponent would provide the address of all facilities that will receive deliveries of aggregate from Glebe Island and confirm this is an undertaking that will honour into the future, should the development be approved.

The EIS states that concrete agitator delivery trucks would only travel along Victoria Road for accessing work sites in and around Balmain, Drummoyne and Rozelle and that concrete agitator trucks would only travel along Johnston Street and Booth Street for accessing work sites in and around Glebe and Annandale.

It would be helpful if proponent would explain what is meant by "... around Balmain, Drummoyne and Rozelle (and) around Glebe and Annandale" in 5.8.1. For example, what routes would proponent's agitator trucks take to construction sites in Ashfield, Summer Hill, Lewisham, Petersham, Stanmore, Enmore, Newtown and destinations further south?

Major infrastructure projects

The Glebe Island facility is one of the first developments associated with a large (and growing) number of major infrastructure developments centred on the Bays Precinct. Residents are extremely concerned about the cumulative impacts of these developments on top of the background burden of pollution and congestion that the area already endures.

Major related infrastructure projects to impact the area include:

- The Rozelle Interchange
- Western Harbour Tunnel and Beaches Link
- Rozelle Rail Yards site management work
- The Bays Precinct Urban Transformation Program
- Parramatta Road Corridor Urban Transformation Strategy
- Parramatta Light Rail
- Sydney Metro City and Southwest

In addition to air, noise, dust and light pollution, some of these projects involve the handling of toxic materials such as dredged harbour sediments in the immediate vicinity of the proponent's facility. Even if the proponent is correct in arguing that their new facility, as described, will not cause pollution levels to be exceeded (and it has not adequately demonstrated this), its EIS should at least point out some of the obvious challenges that will be created by other projects that have been announced that will move in next door.

Since the proponent knows in general terms what these challenges will be, it also needs to be planning for them: by conducting proper baseline studies of air quality and traffic impacts and switching to cleaner fuels, for example.

It's interesting that the proponent's Traffic Study does provide an Assessment of cumulative impacts (S6.0) and suggests that the opening of various WestConnex roads may relieve them. No such assessment though in the Air Quality report – is this only because there is no reason for optimism?

It is because of the government's redevelopment plans that the proponent now has to move to the new site and this is also why the proponent's activities over the next 20 years at, least, will be largely about servicing these projects. It is

not sufficient, therefore, for the EIS to wash its hands of addressing cumulative impacts of pollution by suggesting that they are not part of the future problem. The proponent's choices now (of options such as fuel type) will not only determine the increased pollution burden in the area on day one, it will be part of much bigger problem that will continue to grow.

Recommendations

For a development of this size, with significant impacts on hundreds of thousands of people, and a cumulative impact even greater if some of the further proposed major infrastructure projects proceed in the area, residents, government agencies including EPA, Ports Authority and RMS, and the proponents themselves need to be actively involved from the outset in the development, planning and implementation of mitigation measures.

Specific actions required as a condition of approval would include, but not be limited to:

1. specific and detailed monitoring of the site for baseline and ongoing:
 - a. exhaust emissions
 - b. dust emissions
 - c. noise
2. specific and detailed baseline (existing) monitoring of major and secondary roads within a 2k radius of the site:
 - a. exhaust emissions
 - b. dust emissions
 - c. type of vehicle
 - d. traffic congestion
3. the monitoring data identified in 1) and 2) is to be made publicly accessible will continue to be gathered as this and other projects proceed.
4. development of a plan to replace road transport diesel fuel with the cleanest available fuel such as battery/electric or hydrogen.
5. development of a plan to replace shipping fuel with electricity, or with a cleaner fuel such as LPG, LNG or hydrogen if a transition to EVs will be delayed. This includes diesel use for alongside power, with shore to ship power a temporary option if cleaner onboard power will be delayed.
6. identify the location of Hanson's customers for raw materials and the routes that will be taken to and from Glebe Island by outbound and returning vehicles, regardless of ownership.
7. Negotiate a code of operations to include conditions, such as hours of operation, around certain activities with those affected.

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