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HQJOC Project 117/2004

Ms Vivienne Courto

Inquiry Secretary
Parliamentary Standing Committee on Public Works
Parliament House
CANBERRA ACT 2600

Dear Ms Courto

**HEADQUARTERS JOINT OPERATIONS COMMAND PROJECT
RESPONSE TO PWC SUBMISSION FROM QUEANBEYAN MONARO GREENS
GROUP**

Thank you for the opportunity to comment on the submission dated 28 May 2004 from the Queanbeyan Monaro Greens Group.

Defence acknowledges that the matters raised by the Queanbeyan Monaro Greens Group in their 28 May 2004 submission to the Parliamentary Standing Committee on Public Works were also raised in their response to the Draft Environmental Impact Statement for the Project in late 2003. The Draft Environmental Impact Statement was prepared in accordance with the Guidelines issued by Department of Environment and Heritage and placed on exhibition for public review in accordance with the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* for a period of 35 days from 17 October 2003 to 20 November 2003.

The matters raised by the Queanbeyan Monaro Greens Group are being addressed in the Supplementary Report to the Draft Environmental Impact Statement, which is being finalised by a consultant external to Defence for submission to the Minister for Environment and Heritage. The completion of the Supplementary Report has been extended by the need to undertake additional surveys and studies, and is anticipated to be ready for submission in June 2004.

The following paragraphs provide responses to the Queanbeyan Monaro Greens Group in the order that they are raised in their submission.

Security Risk

As noted in the Draft Environmental Impact Statement, Control Risks Group was commissioned by URS Australia Pty Ltd to prepare a security risk assessment for the Headquarters facility specifically for the Draft Environmental Impact Statement. The assessment was undertaken in the context of the Headquarters being considered as part of Australia's critical infrastructure. The security risk management strategies noted in the Draft Environmental Impact Statement are based on the integration of physical and electronic

security features together with operating procedures designed to protect the people and assets within the Headquarters complex.

Defence has sought to reduce the risk to the local community of the Headquarters location by the use of passive and active security and access control measures at the site, and the location of the Headquarters away from closely populated areas. Defence recognises the safety and security concerns of those local residences close to the site. As with other Defence facilities, Defence has established liaison and procedures for the passage of security related information to Federal and State police to enable their response to security incidents and the protection of the civil population.

Cost and Financing Arrangements

The projected cost of the Headquarters Joint Operations Command is, as noted by the Queanbeyan Monaro Greens Group submission, \$318 million, but as noted in the Defence submission to the Parliamentary Standing Committee on Public Works, should be expressed as \$318 million (2003-04, out-turned).

The Business Case prepared by Sinclair Knight Merz (March 2001) provided an evaluation of the operational benefits gained to March 2001 (assessed as substantial) and future benefits of collocating all the components of the then Headquarters Australian Theatre. The Business Case examined the costs and benefits (to Defence) arising from collocation compared with continuing the current situation of dispersed locations in the Sydney area. The broad findings in the Business Case of the operational benefits of collocation are noted in the Draft Environmental Impact Statement and remain valid. The Business Case was not appended to the Draft Environmental Impact Statement as a number of the cost assumptions (such as personnel, operating and maintenance, and command and information systems) have changed with the refinement of the Project scope.

The Queanbeyan Monaro Greens Group submission incorrectly links the private financing of the Headquarters Joint Operations Command Project with the privatisation of services. The Headquarters Joint Operations Command Project Acquisition Business Case was developed during 2002 and 2003 by a financial consultant engaged by Defence. The Acquisition Business Case indicates that the private financing for the buildings and infrastructure component of the project is anticipated to deliver better value for money than the direct (or often referred to as tradition) procurement methods used by Defence. Defence will retain responsibility for the delivery of the command, control, communications and information systems component of the project.

Value for money under private financing is achieved through the cost-effective transfer of risks to the private sector. The benefits are expected to be timely delivery of the facility to Defence (that is, timely construction); certainty of costs for a defined scope; sustained quality of service delivery over the life of the lease period; and improved financial management and accountability on a whole of life basis. The foregoing benefits have been realised on the majority of private financing projects undertaken by the Australian States (principally New South Wales and Victoria), and overseas. Refined value for money judgements for the Headquarters project will be available to Defence as part of the tender evaluation process later in 2004.

Impacts

Water Management

The Queanbeyan Monaro Greens Group concerns regarding bore water usage at the Headquarters site are noted. The Draft Environmental Impact Statement assessed the impact on geology and hydrogeology through hydrogeological maps and borehole data from the NSW Department of Sustainable Natural Resources, and pumping tests at two test wells on the site. The pumping tests were conducted at pumping rates of 3.2 and 2.4 L/sec respectively, significantly higher than the then anticipated supply requirements for the Headquarters of 1.5 L/sec (approximately 130 kL/day). The groundwater recharge rate was estimated to be approximately 5.2 times the annual requirements for the Headquarters (or 25 per cent of the annual recharge). The Draft Environmental Impact Statement concluded that the Headquarters ground water requirement is not expected to have an impact on the local groundwater regime, on local users and environmental requirements such as surface flow, vegetation swamps and springs. Two bores would be required to satisfy water supply requirements and to ensure adequate standby capacity in case of a pump breakdown, and during pump maintenance.

The groundwater aquifer recharge has been estimated using a conservative value of the groundwater catchment area, and it is expected that recharge is of a greater value. The apparent depth of the aquifer zones at the selected drill site affords a significant buffer zone to the migration of potential contamination from sources such as underground fuel tanks and the proposed treated effluent irrigation.

Additional calculations have been undertaken since the release of the Draft Environmental Impact Statement, and will be presented in the Supplementary Report to the Draft Environmental Impact Statement. The calculations use the values in the ACT Water Resources Management Plan to estimate the percentage of groundwater recharge that would be used by the Headquarters. The calculations indicate that the Headquarters extraction values fall within the Water Resources Management Plan guidelines limiting extraction of groundwater to 10 percent of the estimated annual recharge.

Also, more detailed water balance calculations, also to be included in the Supplementary Report, have shown that the average groundwater demand is now estimated to be 86 kL/day (or 1 L/sec) for potable supply, significantly less than the 130 kL/day stated in the Draft Environmental Impact Statement. An additional non-potable water supply of 108 kL/day will be sourced from treated effluent for toilet flushing and laundry use. As such, the estimated groundwater extraction rate would be 31 ML/year.

The Headquarters water management strategy aims to integrate the total water cycle of the site in terms of water supply, groundwater and wastewater, and maximise the use of *Water Sensitive Urban Design* elements and stormwater reuse. The strategy would involve measures such as:

- development of a groundwater borefield (nominally two bores) for potable purposes;
- water supply supplemented by stormwater runoff;
- maximum use of domestic water saving/efficient devices;
- construction of a Water Treatment Plant for potable use;

- construction of a package Sewerage Treatment Plant (STP) for treatment of effluent to tertiary standard;
- treated effluent to be reused for toilet flushing, laundry and supplementary fire fighting storage reserves;
- excess treated effluent to be disposed of by irrigation to a designated effluent irrigation area including landscaped areas and sporting fields;
- installation of oil/water separators within car park areas and bunding fuel/oil storage areas;
- maximise use of permeable pavements;
- use of detention basins/storage pond for storage of water for irrigation and to supplement landscape irrigation and fire fighting supply.

Regarding the impact of the Headquarters bore water requirements on other local bore water users, the following information will be contained in the Supplementary Report. Pumping a bore alters the direction of groundwater flow in an aquifer, with groundwater flowing towards the bore forming a funnel shaped depression in the water table. The amount of time the pump is operated, the rate at which the bore is pumped, and aquifer permeability determine the cone of depression. The drawdown is the amount of lowering of the water table from the original level.

Constant rate pumping tests undertaken as part of the Draft Environmental Impact Statement indicate that a rate of 1.5 L/sec would generate a cone of depression around the pumping centre with a radius of around 600m. At that distance, the expected drawdown is in the order of 2m. These calculations assume the aquifer receives no recharge throughout an entire year. This assumption is however not considered applicable to the site, as recharge would naturally occur through the seasonal cycle. In addition, calculations using the parameters in the ACT Water Resources Management Plan 1999 indicate that the range of withdrawal from the aquifer at 1.5 L/sec is in the order of 5.7 percent of annual recharge, indicating that pumping is sustainable even during periods of low rainfall. Under these conditions, it is assessed that the extent of the drawdown at the 600m distance would be negligible.

Based on the above calculations, the cone of depression is contained entirely within the Woodlands property, and no adverse effect is expected on neighbouring properties or the Bungendore water supply bores.

Green Building Standards

Defence is committed to taking a leading role in pursuing sustainable environmental initiatives within the framework of its mission. For the Headquarters Project, Defence will ensure that innovative energy efficiency opportunities are maximized and ecologically sustainable development measures are achieved during the design process, by incorporating requirements such as the achievement of '5 Star Rating' for the facility in accordance with the Green Building Council of Australia's accreditation process.

Transport to the Site

Bungendore Road / Yass Road / Ellerton Drive Intersection and Kings Highway / Captains Flat Road Intersection

Additional analysis has been undertaken since the Draft Environmental Impact Statement on local traffic management and road capacity, and will be included in the Supplementary Report. Assessments include future traffic predictions for the years 2007 (opening of the Headquarters) and 2017 (ten years after opening), and a conservative 2 percent per annum organic growth to account for uncertainties with future land use. A further 10 per cent has been included to account for daily and seasonal fluctuations in volumes. A comparison of 'with' and 'without' the Headquarters was assessed to quantify the impacts on the road network.

The analysis has indicated that the Headquarters traffic would have an adverse impact on all approaches to the Bungendore Road / Yass Road / Ellerton Drive Intersection, with delays and queuing in the PM peak period. Consequently, the intersection would require an upgrade at or before the Headquarters commences operations in late 2007. Regardless of the location of the Headquarters, organic growth alone would require the intersection to be upgraded between 2007 and 2017.

The analysis also indicated that the Headquarters traffic is likely to have an adverse affect on vehicles turning right both into and out of Captains Flat Road from late 2007. The adverse impact of the Headquarters traffic and organic growth is assessed to increase after 2007 to the point where vehicles turning right into Captains Flat Road in the PM will queue longer than 100m, completely blocking eastbound traffic along the Kings Highway. The right turn out of Captains Flat Road will suffer long delays.

Any road capacity improvements that may be required as a result of the Headquarters, with the exception of the Kings Highway / Headquarters primary access road intersection, would be undertaken by Roads ACT and NSW Roads and Traffic Authority as appropriate. The Headquarters primary intersection will be funded as part of the Headquarters Project. Safety and risk issues associated with the operation of the Kings Highway and Captains Flat Road are the responsibility of the relevant road authorities, who conduct road safety audits to assess compliance with the NSW Roads and Traffic Authority and AustRoads safety standards.

Defence is committed to ensuring that Roads ACT and NSW Roads and Traffic Authority are provided with the necessary information on the likely and projected impacts of the Headquarters on traffic management and road capacity in a timely manner to enable their planning to proceed. This will help to ensure that any potential capacity constraints resulting from the location of the Headquarters are identified and addressed to maintain appropriate safety and amenity levels on the affected road network

Bus Service

Defence has commenced initial discussions with local providers on the provision of a commercial bus service to and from the Headquarters, which would result in some reductions in the volume of traffic and lessen environmental impacts along the Kings Highway. The additional traffic analysis indicates that a bus service for Headquarters staff would not eliminate the need to upgrade the Yass Road / Bungendore Road / Ellerton Drive intersection, nor the need for some road improvements works to the Kings Highway / Captains Flat Road intersection.

Alternative Energy – Greenhouse Gas Emissions

Defence is focussing on the integration of actions and programs that are aimed at embedding energy management and ecologically sustainable development principles into all relevant aspects of the project beyond those specified in the 1996 Building Code of Australia. These actions will collectively contribute to an overall reduction in energy consumption, associated greenhouse gas emissions and operating costs, all of which align with the Defence, and broader Commonwealth, environmental policies.

The primary impacts associated with the operation of the Facility would be the consumption of non-renewable energy sources, through indirect use via electricity consumption and direct use of fuels in units such as boilers and emergency generators, and the emission of combustion gases.

In order to minimise the consumption of energy, and the associated emissions of combustion gases to air and impacts on air quality, a range of techniques and management systems would be utilised in the design, construction and operation of Headquarters. It is not possible to fully quantify the benefits of these mitigation measures at this stage, but energy monitoring would be carried out to drive on-going reduction in energy consumption.

Measures would include orientating buildings in such a way to ensure they capture winter sun and shield entry of summer sun as much as possible; maximising the use of natural light; optimisation of energy conservation through use of a Building Management System; minimising testing and use of emergency generators; switching off office equipment and lights after hours and in low use periods, and using minimal lighting intensity for security purposes; designing the site with efficient internal road networks to minimise delays; regular equipment maintenance; using recycled materials and recycling materials; and using energy efficient equipment.

The designers of the Headquarters facility would consider renewable energy to supplement grid supply. The option exists for Defence to consider purchasing green power from the local provider should it prove economically feasible. Defence would further consider this matter.

Social and Housing Services

Section 19.3 of the Draft Environmental Impact Statement outlines the expected demographic profile of the Headquarters, and provides an estimated breakdown of staff whom are classified as Members Without Dependents (single) and Members With Dependents (partners and dependant children). Not all staff would relocate to the Canberra region with partners and/or children. This would be a function of family life stage, partners holding professional career positions elsewhere, and a preference not to disrupt or change child education and schooling.

Australian Defence Force members would access housing in the Canberra region either through the Defence Housing Authority (the Authority) or the private rental market, depending upon their entitlement, need and personal choice. The Authority aims, where possible, to integrate Defence members into the local community and to provide housing choice rather than the construction of dedicated Defence housing estates. To meet this aim, the Authority would acquire houses in existing and new residential areas in the Canberra region to house members with dependents. Members without dependents are provided with a Rental Allowance, and would access the private rental market. The Authority is formalising

their strategy to address the housing needs for the Headquarters staff to ensure that pressure on the housing and rental market is minimised.

The designation of Kowen for further urban development, as noted in the Canberra Spatial Plan, will not impact on the development of the new Headquarters. The implementation of any urban development strategy, such as that outlined in the Canberra Spatial Plan for Kowen, would be the subject of ongoing detailed strategic master planning and environmental impact assessment. That planning and assessment would be required to consider the potential environmental impacts of the proposed residential development on any existing developments in the area, including the Headquarters. Any potential environmental impacts or interactions between the proposed residential development and existing facilities in the area would need to be addressed by the proponent at that time.

Health and Childcare services

The Draft Environmental Impact Statement acknowledges that social services such as health, education and childcare are strained in the region. Discussions on these matters with the social service agencies and authorities such as Greater Queanbeyan City Council, NSW Health Services and the ACT and NSW Departments of Education and Training will be undertaken. Defence would relay outcomes of these discussions to the community through the Defence initiated Community Consultative Working Group.

Defence is committed to providing childcare services for the Headquarters staff and not place additional demands upon existing childcare resources. Options such as supporting additional spaces at existing childcare facilities may be considered. The demand for childcare places will be refined after the 2005 Headquarters Joint Operations Command - Personnel Survey. Following receipt of the survey data, Defence will discuss options for childcare with ACT and Queanbeyan planning authorities. The details of these discussions would be relayed back to the community through the Community Consultative Working Group.

Impact on Nearby Residents

The Draft Environmental Impact Statement notes that the visual character of the Headquarters site is dominated by the major ridgeline running in a north-south direction. Construction of the Headquarters will alter the existing visual landscape. The works are assessed in the Draft Environmental Impact Statement however to have a low visual impact due to the partially restricted views of the site, and the distance of most viewers from the site. A relatively low number of potential viewers will have an unrestricted view of the site. Defence intends to undertake landscaping and tree plants to further reduce the visual impact of the site.

Lighting associated with the Headquarters will be addressed at the detailed design stage to specifically minimise light spillage from the site. This would be achieved by directing light into the site to avoid direct lines of sight to luminaries. Given the view distances and the proposed design measures to prevent light spill, the Draft Environmental Impact Statement does not expect that the development will significantly impact surrounding rural residential areas.

Construction noise from the site would occur over a two and one half-year period, with the majority of the construction activity complying with noise limits set by the NSW Environment Protection Authority. Audible construction work is proposed to occur from Monday to Friday between 7:00 am and 6:00 pm, and on Saturday between 7:00 am and 1:00 pm, and at other times only in exceptional circumstances. Control measures such as silencers

or movable barriers may be required during the bulk earthworks phase, and these will be considered during the design phase of the project.

Details of the Project/Community Consultation

Defence is committed to continue the consultation process with local community and stakeholder groups during project development, and later during the operation of the Headquarters. As outlined in the Draft Environmental Impact Statement, Defence will initiate a Community Consultative Working Group following project approval, to continue the current consultative process. Additionally, the successful consortium will be required to establish a community consultation process as a sub-group of the Defence Community Consultative Working Group.

Yours sincerely

Original signed on 4 June 2004

B.E. PLENTY

Air Commodore

Director General Headquarters Joint Operations Command Project

June 2004