



Planning &
Infrastructure

**MAJOR PROJECT ASSESSMENT:
Wet 'n' Wild Sydney
Reservoir Road, Prospect
(MP10_0190)**



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

December 2011

ABBREVIATIONS

CIV	Capital Investment Value
Department	Department of Planning & Infrastructure
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning & Infrastructure
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning
PAC	Planning Assessment Commission
Parklands SEPP	State Environmental Planning Policy (Western Sydney Parklands) 2009
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PEA	Preliminary Environmental Assessment
PFM	Planning Focus Meeting
PPR	Preferred Project Report
Proponent	Prospect Aquatic Investments Pty Ltd
RtS	Response to Submissions

Cover Photograph: Masterplan

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NSW Government
Department of Planning & Infrastructure

EXECUTIVE SUMMARY

This report is an assessment of an application by Prospect Aquatic Investment Pty Ltd (the proponent), seeking concept plan approval for the construction and operation of a water theme park (known as Wet 'n' Wild Sydney) at Reservoir Road, Prospect, pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The site is within the Western Sydney Parklands and is located between the M4 Motorway, Reservoir Road and Watch House Road at Prospect, within the Blacktown Local Government Area.

The concept plan seeks approval for the design, construction and operation of Stage 1 which includes site preparation and earthworks, demolition and tree removal, construction of 10 water theme park rides and attractions, construction of ancillary park support facilities, at-grade car parking, signage, landscaping, and construction of associated stormwater and water cycle management facilities, infrastructure and utilities. Additionally, the concept plan seeks approval of a Complying Development Scheme for the future development of the site.

The Capital Investment Value (CIV) of the concept plan is **\$98,118,364**. The concept plan will create approximately 222 full time equivalent construction jobs, and approximately 187 full time equivalent operational jobs.

The site is unzoned under clause 9 of the State Environmental Planning Policy (Western Sydney Parklands) 2009. The development of the water theme park is permissible with consent under clause 11(2) of the State Environmental Planning Policy (Western Sydney Parklands) 2009.

The EA was exhibited from 23 February 2011 until 25 March 2011 (30 days). The Department received nine submissions from public authorities and thirty eight submissions were received from the general public, of which ten were submissions objecting to the development. Issues raised in submissions related to heritage, traffic, public transport, noise, flora and fauna, visual impacts, air quality, ecologically sustainable development, impacts to water supply and community benefits.

On 3 August 2011, the proponent submitted a Preferred Project Report (PPR) which detailed changes to the configuration and staging of the development. Additionally, the proponent submitted a response to public and agency submissions and additional information in response to issues raised therein.

The department has assessed the merits of the proposal and considers that the key issues relate to traffic and accessibility, noise, heritage and archaeology, ESD, ecology, bushfire, and the complying development code. These issues have been assessed in detail and the department is satisfied that they can be adequately mitigated and managed to ensure a satisfactory level of environmental performance, pursuant to section 75J of the EP&A Act. The proponent also negotiated with the council contributions payable for the upgrade of Reservoir Road.

The department is satisfied the site is suitable for the proposed use and that the project will provide significant social and economic benefits for Western Sydney, and

is consistent with the Metropolitan Plan for Sydney 2036 and the North West Subregion Draft Subregional Strategy.

The department therefore considers the proposal to be in the public interest and the concept plan including Stage 1 should be approved, subject to modifications and conditions.

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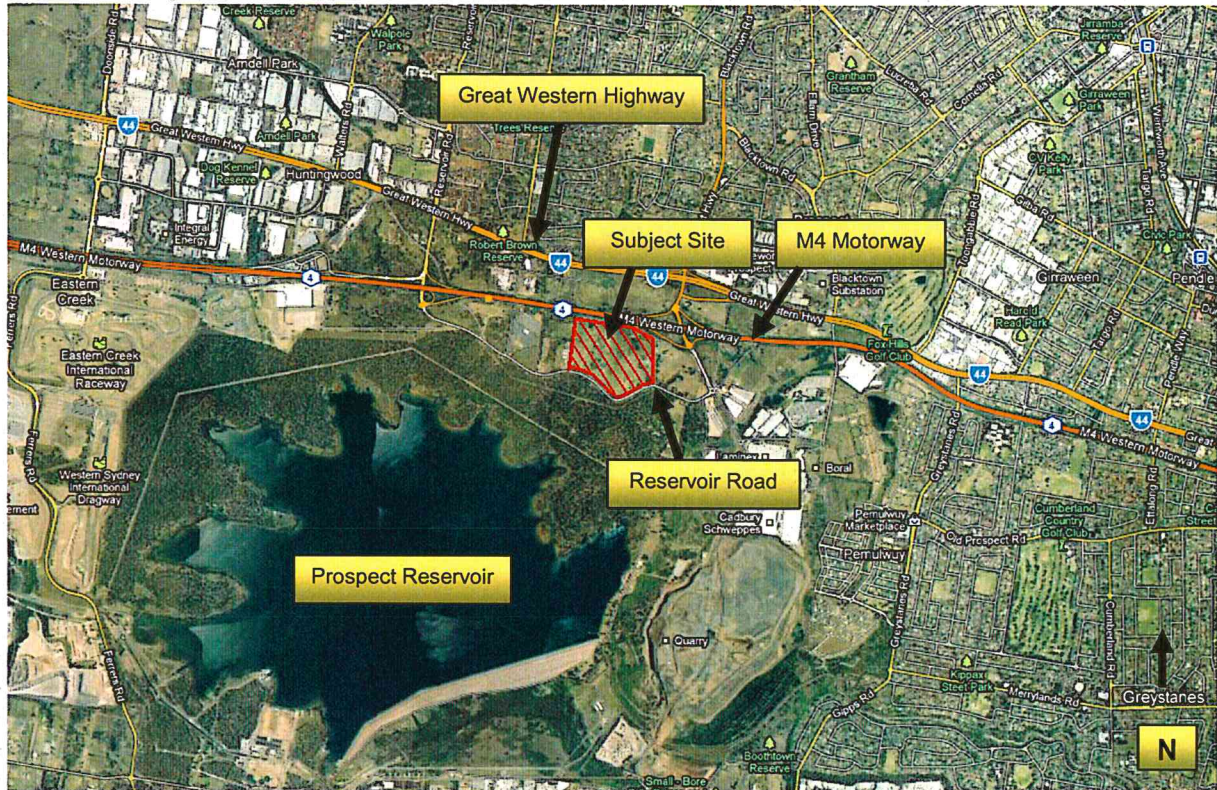
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1. BACKGROUND

1.1. The Site

The site is located within Blacktown Local Government Area (LGA) and also forms part of the Western Sydney Parklands. The site is located between the M4 Motorway, Reservoir Road and Watch House Road in Prospect and is legally described as Lot 1 in DP 1045771. The project location is shown in Figure 1 below.

Figure 1: Project Location



1.2. Existing Site Features

The site comprises a single irregular shaped allotment with an area of approximately 25.5 hectares. The site has frontages to the M4 Motorway, Watch House Road and Reservoir Road. The topography of the site comprises undulating gentle slopes with a drainage line running through the centre of the site from the south to the north. The site is predominantly covered in pasture with some isolated areas of natural vegetation, including two areas of Cumberland Plain Woodland with a combined area of approximately 2.2 ha. The site also contains 5 dilapidated houses and associated sheds and garages which are located along the southern and eastern boundaries of the site. The existing site is shown below in Figure 2.

Figure 2: View across the site to the north east



1.3. Surrounding Development

Development surrounding the subject site is detailed below:

- To the north of the site, beyond the M4 Motorway, is a vacant land corridor zoned for general industrial use. The Great Western Highway and the residential suburb of Prospect are also located further north of the site.
- To the east of the site, beyond Watch House Road, are a number of rural residential land uses and a telecommunications tower facility. The Prospect Highway and the Greystanes employment area are also located further east of the site.
- To the south of the site, beyond Reservoir Road, is native bushland surrounding Prospect Reservoir.
- To the west of the site are a number of rural properties. The Blacktown Drive Inn Cinema, Royal Cricketers Arms Inn, Eastern Creek Raceway and the Western Sydney Dragway are also located further west of the site.

The existing site layout and surrounding development is shown in Figure 3 below.

Figure 3: Existing site layout



1.4. Strategic Context

1.4.1 NSW State Plan 2021

The NSW State Plan is the NSW Government's strategic business plan, setting priorities for action and guiding resource allocation. The plan seeks to rebuild the economy, return quality services, renovate infrastructure, strengthen our local environment and communities and restore accountability. The proposed development would contribute to a number of the plans important priorities and targets, including the following:

- increase business investment and employment
- encourage job growth in centres close to where people live and provide access to public transport
- increase participation in recreational activities in Sydney
- protecting local environments from pollution
- increase walking and cycling.

1.4.2 Metropolitan Plan for Sydney 2036

The Metropolitan Plan for Sydney 2036 vision seeks to create a sustainable, affordable, liveable, equitable and networked city that supports the continued economic growth of Sydney and enhances its standing as a global city. The plan identifies that Sydney's future growth will require the establishment of approximately 760,000 more jobs, half of which will be required to be located within Western Sydney.

The proposed development will satisfy the Metropolitan Plan objectives to:

- provide for a broad range of local employment types in dispersed locations
- ensure appropriate services are located near transport, jobs and housing
- increase and diversify the jobs and skills base of Western Sydney
- achieve sustainable water use
- minimise and recycle waste.

1.4.3 North West Subregion Draft Subregional Strategy

The North West Subregion Draft Subregional Strategy identifies the Western Sydney Employment Hub as a collection of 10 sites, including the Greystanes Employment Lands and the Huntingwood Precinct which are located in close proximity to the proposed development. The proposal will complement the employment precinct as it will provide approximately 222 full time equivalent construction jobs, and approximately 187 full time equivalent operational jobs. Additionally, the proposal will contribute towards meeting the employment capacity target of 130,000 new jobs within the north west subregion by 2031.

2. PROPOSED PROJECT

2.1. Project Description and Approval Regime

The proposal as described in the Environmental Assessment, and revised by the Preferred Project Report, sought approval of a water theme park.

2.1.1 Concept Plan

The concept plan approval is sought for:

- Stage 1
 - Stage 1 includes: site preparation and earthworks, demolition and tree removal, construction of 10 water theme park rides and attractions, construction of ancillary park support facilities, at-grade car parking, signage, landscaping, and construction of associated stormwater and water cycle management facilities, infrastructure and utilities.
 - Approval is sought for Stage 1 of the concept plan to proceed to construction with no further environmental assessment required.
 - Key Components of Stage 1 are identified in table 1 below.
- Future expansion area.
 - Approval is sought for a Complying Development Code (CD Code) for the whole of the site, allowing future expansion area of rides and ancillary uses outside the Stage 1 area, and also the replacement of rides and facilities inside the Stage 1 area, as required.
 - Any development that falls outside of the prescribed standards and conditions of the CD Code will be the subject of a future development application.

2.1.2. Key Components of the Concept Plan

Table 1: Stage 1 Design Construction and Operation Components

Aspect	Description
<i>site preparation earthworks, demolition and tree removal</i>	<ul style="list-style-type: none"> • cut and fill earthworks across the site • demolition of 4 of the 5 existing structures on the site (retention of the former policeman's cottage) • removal of 0.78 hectares of Cumberland Plain Woodland • grading, draining and turfing of future expansion areas of the site
<i>water theme park rides and attractions</i>	<ul style="list-style-type: none"> • construction of 10 water theme park rides, including: 'Boomerang Bay' 'Surf Wave Pool', 'Lazy / Adventure River', 'Giant Rainfortress Waterplay on Wet Deck', 'Double Aqualoop, Freeloop and Freefall Complex', 'Duelling Master Blaster Tube Ride', 'Zip Line', 'Double Flowrider', 'Innertube Slides with Superbowl / Rattler / High Speed Drop / Constrictor', 'Family Boomerango and Abyss Raft Ride', and 'Sky Coaster'.
<i>ancillary park support facilities</i>	<ul style="list-style-type: none"> • entry plaza • turnstiles • guest support • ticketing / group sales (under canopy) • park entry overview • fencing • guest services / first aid • retail shop / park exit • change rooms / showers / lockers • life guards and security • sails fabric shade structures • beer garden • fast food • terraced sand beach lounging • rental cabanas • smoking area • restrooms • plaza with iconic giant geyser • rentals • main food service • dining area under shade canopy • "all you can eat" dining • sloping lawn • mechanical space • administration and staff building • maintenance / storage / service area • central overlook plaza • tube storage
<i>access and parking</i>	<ul style="list-style-type: none"> • visitor access via a new signalised intersection with turning lanes off Reservoir Road to visitor car parking area on the western side of the site • loading dock access off Watch House Road at the north eastern side of the site • emergency vehicle access around the site and emergency egress from each boundary of the site

Aspect	Description
	<ul style="list-style-type: none"> • construction of main visitor car park at the west of the site with 1,857 sealed car spaces including 42 spaces for the disabled, 12 coach spaces, 6 mini-bus spaces, 20 motorcycle spaces, 200 bicycle parking spaces and a pick-up / drop-off area. • staff and service vehicle car parking for 47 unsealed spaces at the north eastern side of the site • loading area at the north eastern of the site • sealed pedestrian and disabled access paths throughout the Stage 1 site
<i>utility services</i>	<ul style="list-style-type: none"> • augmentation of 350 m of water supply services along Reservoir Road to the site and relocation of a Sydney Water easement within the site • connection to sewerages services approximately 800 m north of the site • connection to gas main services approximately 600 m north of the site • connection to electricity services approximately 1,200 m south east of the site • connection to telecommunication services along Reservoir Road
<i>signage</i>	<ul style="list-style-type: none"> • the location of three free standing signs along the M4 motorway and Reservoir Road frontages • signs on rides, attractions and building structures • information / directional signage throughout the park
<i>landscaping</i>	<ul style="list-style-type: none"> • landscaping comprising iconic beach trees and beach landscape treatments and subtropical rainforest throughout different areas of the park, supplement existing woodland areas with plantings of Cumberland Plain Woodland Species, and planting of native wetland species around water detention pond.
<i>water cycle management</i>	<ul style="list-style-type: none"> • stormwater management including vegetated water treatment swales throughout the car park, roof water collection tanks, pits and underground pipes through the main water park areas, gross pollutant traps prior to discharge into wetland, water treatment wetland, stormwater detention and reuse pond, overflow discharge in to Blacktown Creek • rainwater use including harvesting and use of rainwater for irrigation from the detention and reuse pond, toilet flushing washdown water from roof water collection tanks following UV disinfection and filtration of sediment • use of potable water for pools, rides, kitchens, showers and hand basins, and discharge of waste water from them in to Sydney water sewer.
<i>Environmental Management Plan</i>	<ul style="list-style-type: none"> • to be implemented in Stage 1 and includes objectives, actions, indicators and targets for environmental performance
<i>operating hours</i>	<ul style="list-style-type: none"> • December and January 9 am to 11 pm (and to 12 midnight for special events) • February to April 9 am to 6 pm weekdays, 9 am to 10 pm weekends • May to August 9am to 5 pm weather and circumstances permit, and temporary closures for upgrades • September to November 9 am to 6 pm weekdays, 9 am to 10 pm weekends

Figure 5: Stage 1 (shown in white) and Future Expansion Area (shown in green)



2.2. Project Need and Justification

The proposal will provide Western Sydney with a major recreational and entertainment facility that will make a significant contribution to the local economy in terms of investment, tourism and employment. The development of the water theme park is also consistent with the Western Sydney Parklands Plan of Management 2020 which identifies the desired future character of the subject site and surrounding area as a major destination for tourism and passive and active recreation.

The proposal is also consistent with the Metropolitan Plan for Sydney 2036 and the North West Subregion Draft Subregional Strategy as the proposal will contribute towards meeting the employment capacity target of 130,000 new jobs within the north west subregion by 2031 through the provision of approximately 222 full time equivalent construction jobs, and approximately 187 full time equivalent operational jobs.

3. STATUTORY CONTEXT

3.1. Major Project

The proposal is a major project under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) because it is development located within the Western Sydney Parklands and has a capital investment value of more than \$30 million, in accordance with clause 10(1) of the State Environmental Planning Policy (Western Sydney Parklands) 2009 (Parklands SEPP).

Clause 10 of the Parklands SEPP was repealed on 1 October 2011 pursuant to clause 6.14(1), Schedule 6 of State Environmental Planning Policy (State and Regional Development) 2011, however, under clause 6.14(2), clause 10 of the Parklands SEPP continues to apply to applications made, but not finally determined before that repeal.

Part 3A of the EP&A Act, as in force immediately before its repeal on 1 October 2011 and pursuant to Schedule 6A to the EP&A Act, continues to apply to *transitional Part 3A projects*. Director-General's environmental assessment requirements (DGRs) were issued in respect of this project prior to 1 October 2011, and the project is therefore a *transitional Part 3A project*. Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister for Planning and Infrastructure (or his delegate) may approve or disapprove of the carrying out of the concept plan under section 75O of the EP&A Act, and may make a determination under 75P(1)(c) of the EP&A Act that no further environmental assessment is required for Stage 1.

3.2. Delegation

The Minister has delegated his functions to determine Part 3A applications to the Department where:

- the council has not made an objection, and
- there are less than 25 public submissions objecting to the proposal, and
- a political disclosure statement has not been made in relation to the application.

There have been 10 submissions received from the public objecting to the proposal. Council initially provided a submission which objected to the proposal, however, this objection was withdrawn during the assessment. There has also been no political disclosure statement made for this application or for any previous related applications, and no disclosures made by any persons who have lodged an objection to this application.

Accordingly the application is able to be determined by the Deputy Director General under delegation.

Additionally, the Minister delegated his functions under section 75P of the EP&A Act to the Deputy Director-General where approval is given for a concept plan under section 75O of the EP&A Act. Accordingly, subject to approval of the concept plan, the Deputy Director-General may make a determination under 75P(1)(c) as documented above, and issue an order under section 75P(2)(d) for the commencement of the 'Wet 'n' Wild Sydney Complying Development Code'.

3.3. Permissibility

Clause 11 of the Parklands SEPP identifies the permissible and prohibited land uses in the Western Sydney Parklands. Under Clause 11(3) of the Parklands SEPP, residential accommodation is the only prohibited land use in the Western Sydney Parklands, and under Clause 11(2) of the Parklands SEPP, all other land uses are permissible with consent if they are carried out by a private entity. Therefore, the proposed uses in the proposal are permissible in the Western Sydney Parklands with consent.

3.4. Environmental Planning Instruments

Under Sections 75(2)(d) and 75(2)(e) of the EP&A Act, the Director General's report for a project is required to include a copy of, or reference to, the provisions of any State Environmental Planning Policy (SEPP) that substantially governs the carrying out of the project, and the provisions of any environmental planning instruments (EPI) that would (except for the application of Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the assessment of the project. The instruments that would otherwise be applicable include:

- State Environmental Planning Policy (Western Sydney Parklands) 2009
- State Environmental Planning Policy (Major Development) 2005
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy No.55 – Remediation of Land
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

In accordance with clause 3(2) of the Blacktown Local Environmental Plan 1988 (Blacktown LEP), Blacktown LEP does not apply to land to which State Environmental Planning Policy (Western Sydney Parklands) 2009 applies. Additionally, Blacktown DCP 2006 (Blacktown DCP) does not apply to land to which State Environmental Planning Policy (Western Sydney Parklands) 2009 applies. Accordingly, Blacktown LEP and Blacktown DCP do not apply to the site.

The department's consideration of the abovementioned SEPPs is provided in Appendix D.

3.5. Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of the Act, as set out in Section 5 of the Act. The relevant objects are:

(a) *to encourage:*

- (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
- (iii) *the protection, provision and co-ordination of communication and utility services,*
- (iv) *the provision of land for public purposes,*
- (v) *the provision and co-ordination of community services and facilities, and*

- (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- (vii) *ecologically sustainable development, and*
- (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The department has considered the objects of the EP&A Act, and determined that the application is consistent with the relevant objects. The assessment of the application in relation to these relevant objects is provided in section 5 of this report.

3.6. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle,*
- (b) *inter-generational equity,*
- (c) *conservation of biological diversity and ecological integrity,*
- (d) *improved valuation, pricing and incentive mechanisms.*

Detailed assessment of the economic and environmental issues associated with the concept plan is provided in section 5 of this report. On the basis of this assessment, the department is satisfied that the proposal encourages ESD, in accordance with the objects of the EP&A Act.

3.7. Statement of Compliance

In accordance with section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

4. CONSULTATION AND SUBMISSIONS

4.1. Exhibition

Under section 75H(3) of the EP&A Act, the Director-General is required to make the environmental assessment (EA) of an application publicly available for at least 30 days. After accepting the EA, the department publicly exhibited it from Wednesday 23 February 2011 until Friday 25 March 2011 (30 days) on the department's website, and at the Department of Planning and Infrastructure Information Centre and Blacktown City Council.

The department also advertised the public exhibition in the Sydney Morning Herald, Daily Telegraph and Blacktown Advocate on 23 February 2011 and notified landholders, local community groups and relevant State and local government authorities in writing.

The Department received forty seven (47) submissions during the exhibition of the EA – nine (9) submissions from public authorities and thirty eight (38) submissions from the general public, of which ten were submissions of objection.

A summary of the issues raised in submissions is provided below.

4.2. Public Authority Submissions

Nine submissions were received from public authorities during the exhibition. None of the submissions objected to the proposal, however, some provided general comments and recommendations as summarised below. Blacktown Council indicated it would object unless a condition was imposed requiring the upgrade of Reservoir Road. In addition to providing submissions during the EA exhibition, some agencies also provided submissions on the PPR. The department's consideration of key issues raised in submissions is contained in Section 5 of this report. Appropriate modifications / conditions of approval have been recommended where requested by agencies. An outline of submissions provided by agencies is provided below, and further details of agency submissions is provided in Appendix B and C of this report.

Blacktown City Council (Council)

- Council raised concern with the assumptions used in the traffic modelling and impacts on surrounding intersections during the exhibition. Council later identified that the supplementary information provided by the proponent in the PPR had addressed council's concerns regarding traffic modelling and impacts on the surrounding road network.
- Council considered the provision of 1810 car parks to be an underestimation of the car parking requirements, however, council later identified that they would accept a condition requiring the preparation of an Operational Traffic and Transport Management Plan to manage parking in the future.
- Council objected to any approval being given that did not provide a condition requiring the upgrade of Reservoir Road. Council later provided a submission which indicated that the council accepts the proponent's monetary contribution of \$650,000 to council for the repair and reseal of Reservoir Road from Reconciliation Road to Peter Brock Drive.
- Council initially raised concern with the lack of visual impact assessment on heritage items in the vicinity of the subject site, however, later identified that the PPR is supported by further heritage assessment and a report that now satisfies the concerns raised by council.

Office of the Environment and Heritage (OEH) formerly Department of Environment Climate Change and Water

- OEH considered that the EA did not adequately assess the potential impacts of the noise and light on the fauna of Prospect Nature Reserve.
- OEH considered that the EA has not adequately assessed the impacts of the proposed cut and fill required to create the wetland and water reuse area in the north of the site, and its potential impacts on the water table and the hydrological

regime of the Cumberland Plane Woodland (CPW) remnant immediately adjacent to it.

- OEH does not consider that this replanting will adequately offset the proposed impacts on the critically endangered CPW.
- OEH identified that any areas of regenerated CPW within APZ's should not be considered as offsets for the proposal.

NSW Office of Water

- NOW noted that the site has a small roof area and a high water use, and the proposal needs to demonstrate that it can achieve this proposed water supply before any approval is given.
- NOW identified that the water sharing plan for the Greater Metropolitan Region Unregulated River Water Sources commenced on 1 July 2011, and consequently, the licensing provisions of the Water Management Act 2000 also came in to effect within the plan area.
- NOW identified that the proponent will need to trade water from another existing entitlement in accordance with the rules set out in the water management plan.

Sydney Water

- Sydney Water identified that a new 250 mm water main will need to be laid along Reservoir Road to the site from the existing 200 mm water main crossing Reservoir Road (approximately 300 m to the east of the site).
- The site is not currently connected to Sydney Water's wastewater network with the nearest connection approximately 700 m away in Norman Street. Sydney Water has limited the peak sewerage discharge from the site to this connection, to 15 litres per second.
- Sydney Water has discussed the relocation of the water main and easement with the proponent and have conditionally agreed to relocate the water main along the northern boundary of the site.

NSW Roads and Maritime Services (formerly) NSW Roads and Traffic Authority

- Reconciliation Road is expected to open to through traffic in early 2012 which will substantially alter background traffic conditions. The SIDRA modelling provided in the EA will need to be updated to reflect this and needs to be carried out in the peak period and not the shoulder period.
- The RMS identified that the monetary contribution which formed part of the lease agreement for the site (see discussion under Section 5 of this report) is a contribution towards State road works and identified that there may be a need to condition local road works directly attributed to the development.
- The RMS acknowledges that bus bays have been provided on site, however the RMS still requires the proponent to discuss the potential for bus bays at the proposed traffic control signals on Reservoir Road.

Transport NSW

- TNSW appreciated the consideration given to reducing travel demand and improving the travel characteristics of the site and supports the efforts to increase sustainable means of travel, including measures such as a shuttle bus service between the development and Blacktown Train Station, Bicycle parking facilities within the site
- TNSW strongly encouraged the facilitation of a sustainable transport culture on site and given the relative isolation of the site from public transport, the provision

of shuttle bus services to Blacktown Train Station for workers and visitor would be integral for reducing private vehicle trips to the site. The conditions should include a commitment to the continued operation and promotion of this service prior to the commencement.

Heritage Branch of the Office of the Environment and Heritage (Heritage Branch) (formerly Heritage Branch of the Department of Planning)

- The Heritage Branch considered that the EA has not sufficiently considered the heritage and archaeological impacts of the project and requested further information be provided. The Heritage Branch later acknowledged that sufficient information had been provided in the PPR.
- The Heritage Branch considered that the EA does not include a sufficient visual analysis to determine the impacts on the nearby state heritage listed Royal Cricketers Arms Hotel.
- The Heritage Branch considers that increased visual screening along the site frontage along Reservoir Road is necessary to protect this aspect of the site's significance and also considered that increased visual screening around the Policeman's Cottage is required to maintain its visual character as a heritage building.
- Signage along Reservoir Road requires careful location and design to fit in with the rural character and nature of the road, in particular, to the west of the site where the Royal Cricketers Arms Inn and Policeman's Cottage are located.

Land and Property Management Authority (LPMA)

- LPMA note that the Wet 'n' Wild proposal seeks to rely on an easement through land owned by LPMA to provide sewer and gas utilities to their site. These easements would use proposed Sydney Water easements.
- LPMA and Western Sydney Parklands Trust agreed to make available such utilities through the Huntingwood East site on the understanding they would be located in a large riparian corridor and not the proposed Sydney Water easement.

NSW Rural Fire Service

- RFS recommend that the property around buildings adjacent to the 'Remnant' Cumberland Plain Woodland is to be maintained as an inner protection area up to a minimum distance of 10 metres.
- RFS recommend that the property around buildings adjacent to the 'Forest Structure' Cumberland Plain Woodland is to be maintained as an inner protection area up to a minimum distance of 35 metres.
- RFS recommend that arrangements for an emergency evacuation plan are to comply with "Planning for Bushfire Protection 2006".

4.3. Public Submissions

Thirty eight submissions were received from the general public. Of the 38 public submissions, ten (26%) objected to the project, 21 (55%) supported the project and seven (18%) did not object but provided comments. The key issues raised in public submissions are listed in Table 3, over.

Table 3: Summary of Issues Raised in Public Submissions

Issue	Proportion of submissions (%)
Positive benefit to the community	55
Traffic impacts	34
Heritage impacts	24
Noise	11
Flora and fauna	8
Visual impact	6
Public transport	3
Air quality	3
ESD	3
Impact to water supply	3

The department has considered the issues raised in submissions in its assessment of the project.

4.4. Proponent's Preferred Project Report

The proponent provided a Preferred Project Report (PPR) on 3 August 2011 in response to issues raised in submissions (see Appendix C).

The PPR was accompanied by a Response to Public Submissions, Response to Agency Submissions, supplementary Transport and Accessibility Impacts Report, Heritage View Analysis Report, Baseline Historical Archaeological Impact Assessment, Revised Heritage Impact Statement, Sydney Water letter of agreement to relocation of easement, Complying Development Code, and revised architectural drawings.

The PPR provided changes to the site masterplan and landscape masterplan in response to recommendations made in the Heritage View Analysis Report to conserve view corridors and include additional planting and regeneration of woodland. Additionally, the PPR included revised flood detention provisions and a wetland and reuse pond area detailed plan.

5. ASSESSMENT

The Department considers the key environmental issues for the project to be:

- Traffic and Accessibility
- Noise and Vibration
- Heritage and Archaeology
- ESD
- Ecology
- Bushfire
- Complying Development Code
- Public Interest

5.1. Traffic and Accessibility

A Transport and Accessibility Impact Report (TAIR) was submitted as part of the EA and a supplementary TAIR accompanied the PPR in response to traffic and accessibility issues raised in submissions.

5.1.1 Attendance Forecast

The TAIR identifies that the proposal will attract up to 925,000 visitors per year, however daily attendance will vary considerably from day to day throughout the year. It will vary from weekdays and weekends, holidays and non holiday periods, daylight saving and non daylight saving periods, and warmer summer months and cooler winter months. The daily attendance forecast for the development was generated from surveys of existing developments, including Wet 'n' Wild Gold Coast.

The daily attendance forecast for the development is divided in to three periods throughout the year, namely, off peak (1 March – 31 October), shoulder (1 November – 19 December and 27 January – 28 February), and peak (20 December – 26 January). The daily attendance forecast is provided in Table 4 below.

Table 4: Daily attendance forecast

Period		Day of Week	Days of Year	Total Days		Forecast Daily Attendance (people)	
				Number	%	Average	Range
Off Peak	Non holiday	Weekday	1 March – 31 October	174	47.7	2,000	500-3,000
	Non holiday	Weekend		71	19.5	3,100	1,000-4,000
Shoulder	Non holiday	Weekday	1 Nov – 19 Dec and 27 Jan – 28 Feb	59	16.0	3,600	2,000-7,000
	Non holiday	Weekend		23	6.4	6,900	3,000-8,000
Peak	Holidays	Weekday	20 Dec – 26 Jan	27	7.4	7,700	4,000-9,000
	Holidays	Weekend		11	3.0	7,700	5,000-9,000
				365	100		

The daily attendance forecast identifies that the lowest attendance rates occur during the off peak period which represents the cooler months of the year and has a duration of approximately 245 days or 67% of the days in a year. During the off peak period, daily attendance rates range from 500 – 3000 people during weekdays and 1000 – 4000 people during weekends.

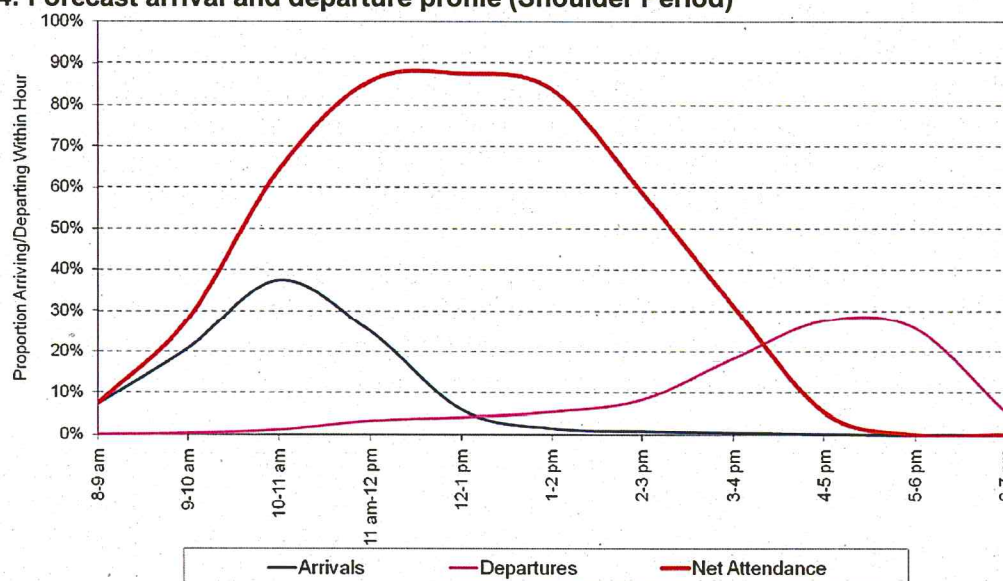
The highest daily attendance rates occur during the peak period which occupies the summer holiday period and has a duration of approximately 37 days or 10% of the days in a year. During the peak period, daily attendance rates range from 4000 – 9000 people during weekdays and 5000 – 9000 people during weekend periods.

The TAIR report identifies that the peak period for the development itself would occur on weekends and school holidays, however, the peak period for the road network surrounding the site occurs on weekdays in non-school holiday periods. Consequently, the TAIR identifies that the transport assessment was based on the shoulder period as it coincided with peak traffic conditions on the adjacent road network in non-school holiday periods.

During the shoulder period (1 November – 19 December and 27 January – 28 February), closing times of the water theme park vary between 6 pm and 10 pm.

The TAIR indicates that a 6 pm closing time has been assumed for the traffic assessment as departures are more concentrated around this time than the later 10 pm closing time, and it represents the worst case situation. The forecast arrival and departure profile for the weekday and weekend shoulder periods are illustrated below in Figure 4.

Figure 4: Forecast arrival and departure profile (Shoulder Period)



During the shoulder period, daily attendance rates range from 2000 – 7000 people on weekdays. The arrival and departure profile for the shoulder period indicates that during the weekday AM peak hour period of the surrounding road network (8 am – 9 am), approximately 7%, or between 140 - 490 people will be arriving at the water theme park. During the PM peak hour period of the surrounding road network (4 pm – 5 pm), approximately 28%, or between 560 – 1960 people will be departing the water theme park.

The TAIR also assumes that the arrival and departure profiles of the weekend and weekday periods would be similar, and during the weekend shoulder period, daily attendance rates will range from 3000 – 8000 people. Accordingly, the arrival and departure profile indicates that during the weekend peak hour period of the surrounding road network (11 am - 12pm), approximately 25%, or between 750 – 2000 people will be arriving at the water theme park.

Blacktown City Council raised concern with the use of the shoulder period as the basis of the traffic assessment given the potential traffic impacts associated with the peak holiday period. In response, the proponent identified that the use of the shoulder period is consistent with the Road and Maritime Services (RMS) (formerly RTA) Guide to Traffic Generating Development given the day to day, week to week variation of attendees to the development. Additionally, whilst there is no specific section on theme parks, the Guide identifies that recreational and tourist facilities are site and type specific in their operation and traffic generation, often with seasonal variations in usage, and analysis of proposed developments should be based on surveys of similar developments. The RMS raised no objection to the use of the shoulder period in the traffic assessment.

The department considers that the use of the shoulder period in the traffic assessment is appropriate given the high variability of the attendance forecast of the development and is consistent with the RMS Guide to Traffic Generating Development.

5.1.1 Traffic

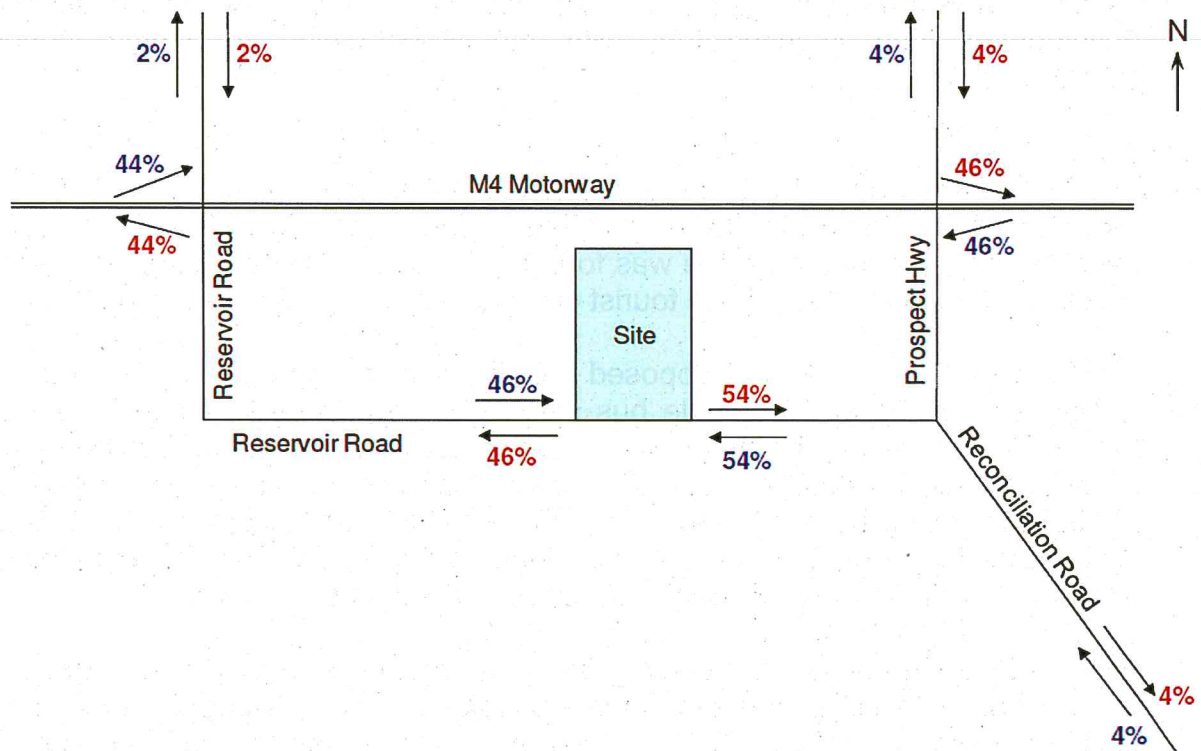
The TAIR identifies that a traffic and parking survey from July 2008 of Wet 'n' Wild Water World on the Gold Coast found that 72% of people arrived by car and the average vehicle occupancy rate was found to be 3.25. The remaining 28% of people arrived by bus, including private tourist coaches and public bus services.

The TAIR indicates that the proposed development will be serviced by at least one public bus service and a shuttle bus service to be provided between the site and Blacktown Train Station by the proponent. Notwithstanding the provision of bus services to the development, the TAIR conservatively assumes a higher percentage of visitors arriving by car (85%), and a lower vehicle occupancy rate (3.0) than the survey results from Wet 'n' Wild Water World on the Gold Coast. The remaining 15% of attendees would arrive by public transport / shuttle bus.

Visitors to the park are expected from all over the greater Sydney metropolitan region, and will utilise different approach routes. TAIR divided Sydney in to five subregions and identified the most likely approach routes for each subregion. The supplementary TAIR incorporated the proposed Reconciliation Road extension (due to be completed in 2012) as an approach route in response to issues raised during the exhibition. The traffic distributions and approach routes identified in the supplementary TAIR are provided in Table 5 below and Figure 5 over

Table 5: Forecast Traffic Distribution

Region	Proportion of all Traffic	Proportion of all traffic by Approach Route				
		M4 East	M4 West / M7	Prospect Highway (north)	Reconciliation Road (south)	Reservoir Road (north of M4)
Sydney North	17.5%	13.5%	3.0%	1.0%	0.0%	0.0%
Sydney CBD / East	15.0%	15.0%	0.0%	0.0%	0.0%	0.0%
Sydney South	18.1%	0.0%	16.1%	0.0%	2.0%	0.0%
Sydney West	11.6%	0.0%	10.6%	0.0%	0.0%	1.0%
Sydney Central	37.8%	17.5%	14.3%	3.0%	2.0%	1.0%
Total	100%	46%	44%	4%	4%	2%

Figure 5: Forecast Traffic Distribution

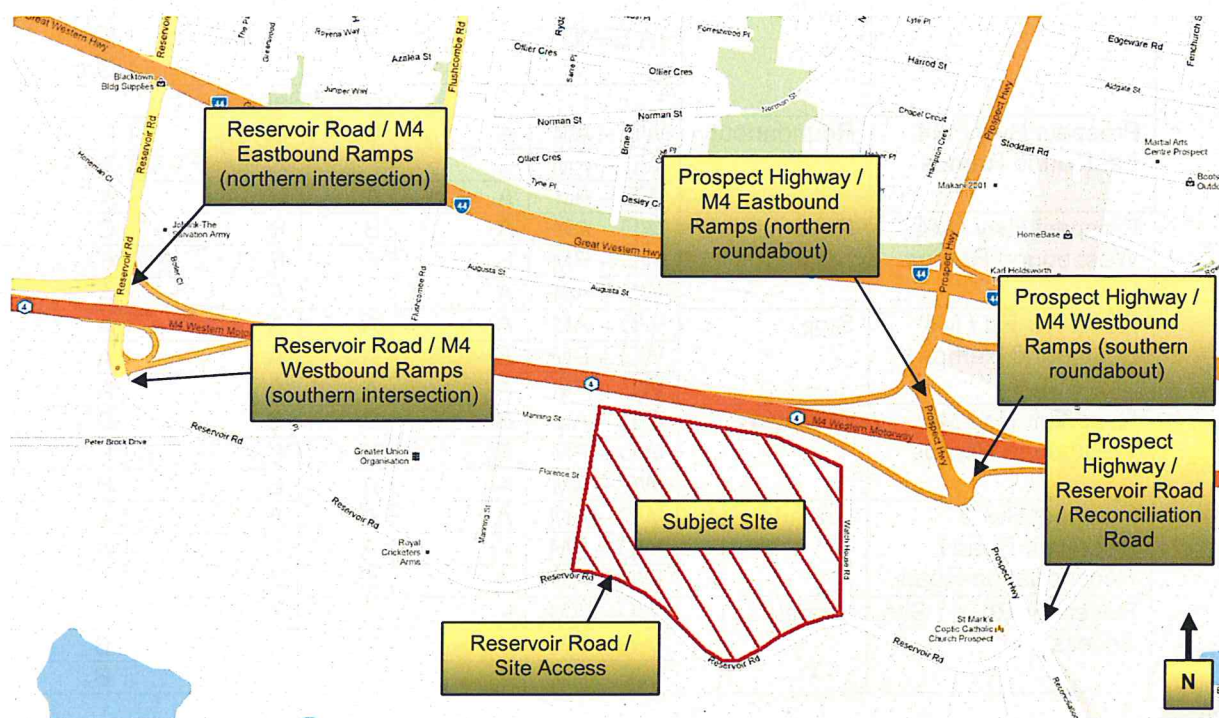
The above forecast traffic distribution identifies that approximately 90% of visitors would use the M4 to access the site, approximately 4% of visitors would use Prospect Highway to the north of the M4, approximately 4% of visitors would use Reconciliation Road and approximately 2% of traffic would use Reservoir Road to the north of the M4.

The supplementary TAIR also provided a SIDRA analysis of six key approach route intersections / interchanges in the vicinity of the site, including:

- Prospect Highway / M4 Eastbound Ramps (northern roundabout)
- Prospect Highway / M4 Westbound Ramps (southern roundabout)
- Reservoir Road / M4 Eastbound Ramps (northern intersection)
- Reservoir Road / M4 Westbound Ramps (southern intersection)
- Prospect Highway / Reservoir Road / Reconciliation Road
- Reservoir Road / Site Access

The supplementary TAIR identified that other intersections within the vicinity of the site, such as the Great Western Highway / Reservoir Road, the Great Western Highway / Prospect Highway and Prospect Highway / Ponds Road were excluded from the SIDRA analysis as the expected traffic generated around these intersections would be relatively low (less than 25 vehicles per hour), and would therefore have a negligible impact to intersection performance.

The abovementioned six key approach route intersections are identified in Figure 6.

Figure 6: Key intersections and approach routes

The SIDRA analysis was based on the peak periods of the surrounding road network, namely, weekday AM peak (8 am – 9 am), weekday PM peak (4 pm – 5 pm), and weekend AM peak (11 am – 12 pm.) Additionally, the SIDRA analysis included four traffic scenarios, namely:

- the existing traffic level of the surrounding road network (existing)
- the base traffic level for 2011 (including traffic from the opening of Reconciliation Drive) (2011 Base)
- the base traffic level for 2011 plus traffic generated by the development (2011 Base + Dev), and
- the base traffic level for 2021 plus traffic generated by the development plus background traffic growth (2011 Base + Dev + Growth).

The SIDRA analysis is based on visitors of the park and does not include staff. The TAIR indicates that there will be between 100 and 300 daily staff depending on the time of the year, and most staff would arrive approximately 30 – 60 minutes prior to the park opening and would leave approximately 30 minutes after the park closing. Accordingly, staff are not expected to impact on the total traffic generated by the development within the abovementioned peak periods. In addition, no analysis has been conducted of the existing or base level of the site access intersection along Reservoir Road as it has not been constructed. The findings for the SIDRA analysis are presented in Table 6.

Table 6: SIDRA Analysis Level of Service

Intersection	Control	Time (WE/WD)	Existing	Base 2011	Base 2011 + Dev	Base 2011 + Dev + Growth
Level of Service						
Prospect Hwy / M4 Eastbound Ramps	Roundabout	WD – AM	A	B	B	F
		WD – PM	B	F	F	F
		WE – AM	A	A	A	A
Prospect Hwy / M4 West bound Ramps	Roundabout	WD – AM	A	B	B	C
		WD – PM	B	F	F	F
		WE – AM	A	A	A	A
Reservoir Rd / M4 Eastbound Ramps	Stop	WD – AM	A	A	A	A
		WD – PM	A	A	A	A
		WE – AM	A	A	A	A
Reservoir Rd / M4 Westbound Ramps	Giveaway	WD – AM	B	C	C	F
		WD – PM	F	F	F	F
		WE – AM	A	A	B	B
Prospect Hwy / Reservoir Road / Reconciliation Road	Roundabout	WD – AM	A	A	A	A
		WD – PM	A	A	A	A
		WE – AM	A	A	A	A
Reservoir Road / Site Access	Signals	WD – AM	-	-	A	A
		WD – PM	-	-	B	B
		WE – AM	-	-	B	B

The SIDRA analysis identified that the Prospect Highway / M4 eastbound ramps (northern roundabout) and westbound ramps (southern roundabout) are currently operating at a level of service (LOS) 'B' (good performance), however, there will be a significant deterioration in intersection performance to a LOS 'F' (at capacity and may require other control mode) during the weekday PM peak period as a result of traffic generated from the opening of Reconciliation Road (identified as Base 2011). The SIDRA analysis also identified that traffic generated by the development would result in an increase in delays of 37 seconds (to 114 s) for the northern roundabout and 79 seconds (to 182 s) for the southern roundabout in the Base 2011 + Dev level.

Reconciliation Road is expected to be open to through traffic by early 2012, prior to operation of the theme park. Whilst the significant deterioration in intersection performance of the northern and southern roundabouts is a result of the opening of Reconciliation Road, the traffic generated by the development will also contribute to deterioration of intersection performance.

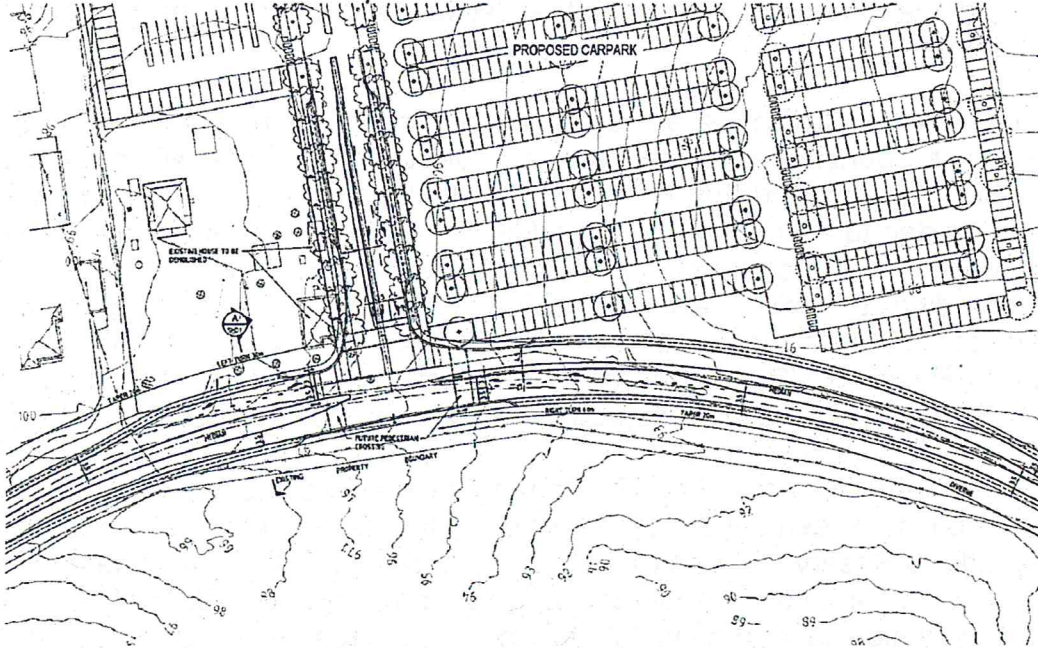
The PPR and Supplementary TAIR identify that various short term measures have been investigated by the RMS to increase capacity at this interchange, such as part time traffic signals on key movements. Full signalisation of the two roundabouts, in addition to widening of the bridge over the M4 is also a possible solution to address the capacity constraint. Further details of proposed road upgrades are provided in section 2.1.2 of this report.

The SIDRA analysis also identifies that the Reservoir Road / M4 Westbound ramp intersection currently operates at a LOS 'F' and the additional traffic generated by the opening of Reconciliation Road and traffic generated by the development will result in further delays at the intersection under the current arrangement. The department considers that interchange upgrades at the Reservoir Road / M4 Westbound ramp intersection are already warranted from current and expected traffic volumes, irrespective of the additional traffic generated by the development.

5.1.2 Road Infrastructure Works / Contributions

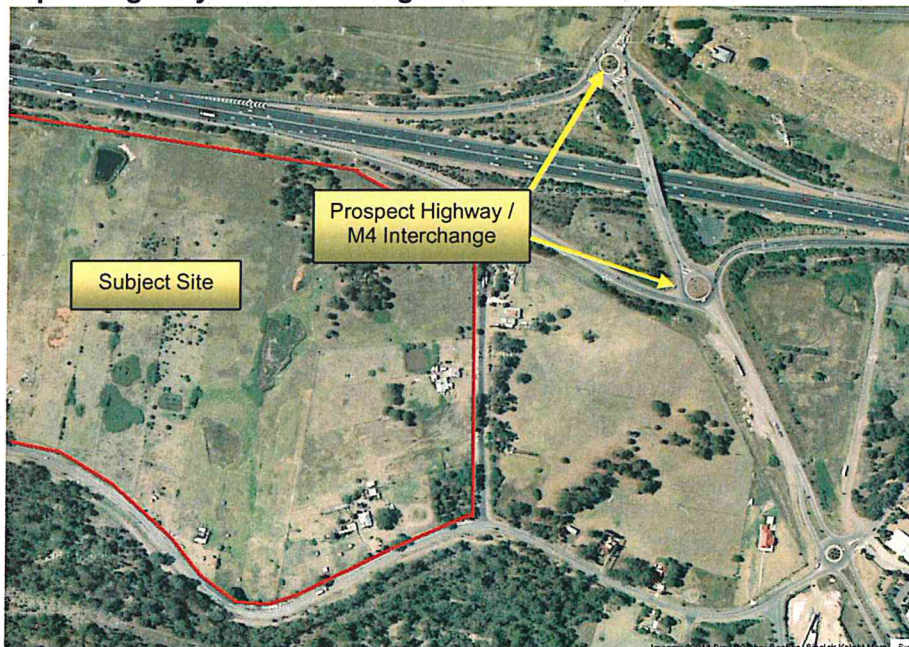
The application includes the proposed construction of a new signalised intersection at the site entry and approximately 400 m of road improvement works along Reservoir Road including traffic islands, kerb and gutter, bus stops and drainage. The proposed site access works are illustrated in Figure 7.

Figure 7: Reservoir Road / Site Access Intersection



The proponent has also identified that a monetary contribution of \$5.2 million to the NSW Government for road improvement works forms part of the lease agreement (with the Western Sydney Parklands), for the subject site. The proponent identifies that the RMS is investigating the detailed scope of road improvements to the Prospect Highway / M4 Interchange to accommodate increased growth in traffic volumes in the region, including traffic generated by the development. The Prospect Highway / M4 Interchange is identified in Figure 8.

Figure 8: Prospect Highway / M4 Interchange



The proponent identified that the RMS has committed to completing upgrades to the Prospect Highway / M4 Interchange prior to the opening of the water theme park. However, the theme park itself does not warrant upgrades to the interchange as a result of traffic generated by the development.

In this regard, the RMS is not requiring additional contributions for road upgrades beyond the \$5.2 million payment as stipulated in the lease agreement with the government.

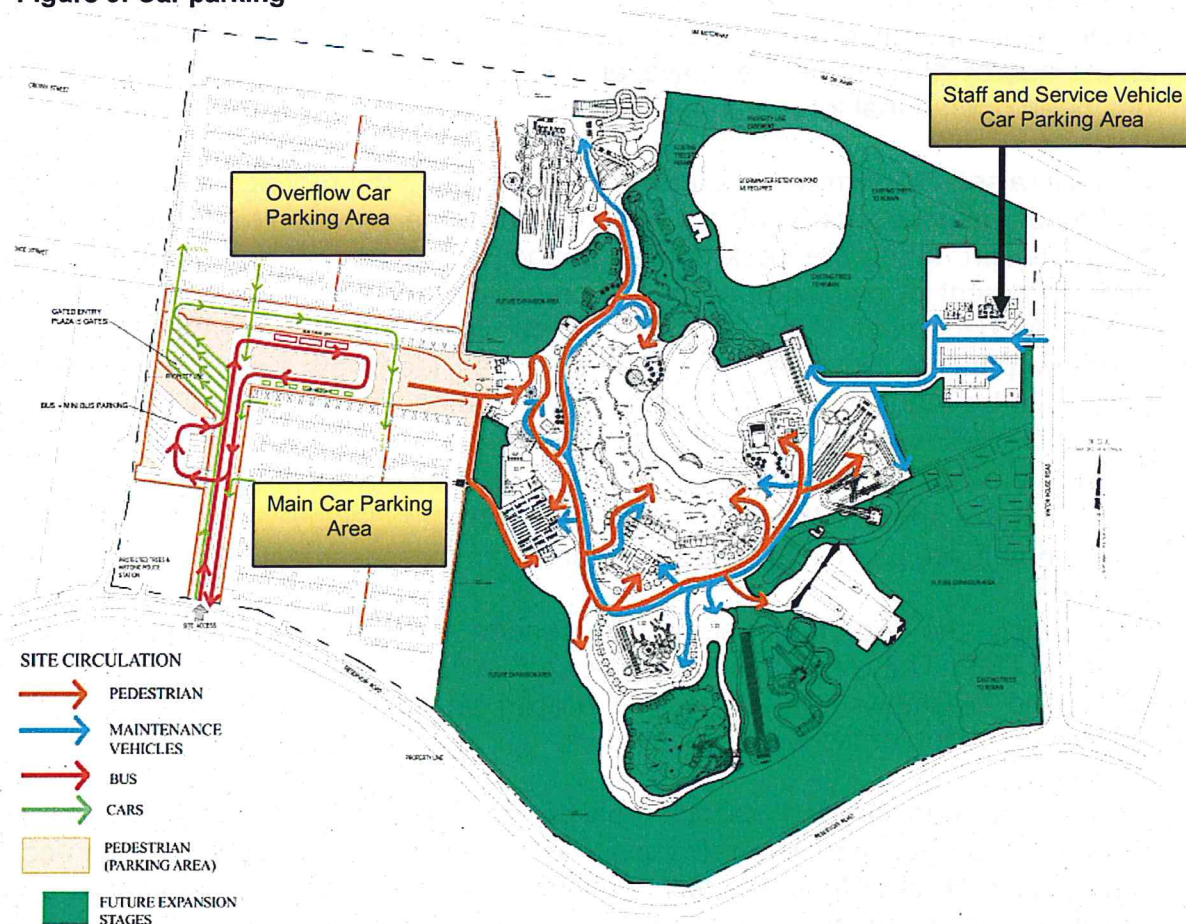
Council raised traffic as an issue in their submissions on the EA and PPR. In particular, council requested that a total of 10 intersections within the vicinity of the site be upgraded and that Reservoir Road, Watch House Road and Manning Street be upgraded to accommodate the additional traffic generated by the development. In response, the proponent identified that the existing road and intersections surrounding the site have capacity to accommodate traffic generated by the development, with the exception of the Prospect Highway / M4 Interchange and the M4 / Reservoir Road Interchange which are already experiencing capacity constraints, irrespective of the traffic generated by the development.

In their submission on the PPR, council expressed the view that Reservoir Road would fail as a result of the construction of the development, and maintained that an upgrade to Reservoir Road was required. In response, the proponent, in consultation with council, proposed a monetary contribution to council of \$650,000 (to be imposed by a condition of approval) for the repair and reseal of Reservoir Road between Reconciliation Road and Peter Brock Drive, excluding approximately 400 m at the site entry which is already proposed to be upgraded by the proponent.

The department considers that the contribution provided by the proponent for road improvement works to be undertaken by council, in combination with the proposed 400 m of improvement works along Reservoir Road, will adequately upgrade the road to accommodate the traffic generated by the development. Council have been consulted and accept that the proposed condition will facilitate the required upgrade works.

5.1.3 Parking

The proposed development includes two car parking areas (main and overflow parking area) on the western side of the subject site, which are accessed via the site entry off Reservoir Road. An additional staff and service vehicle car parking area is proposed on the eastern site of the subject site. The car parking areas are identified in Figure 9.

Figure 9: Car parking

A total of 1,810 car parking spaces are proposed for the development, including 42 disabled bays. The car parking area will also accommodate 12 coach parking bays, 6 minibus parks and 20 motorcycle parks. The car parking area also includes a pick-up and drop-off area with capacity for 15 cars / taxis and 3 buses near the entry plaza.

Approximately 40% of car parking will be provided in the main car park and the remainder will be in the overflow car park area. Access to the main car park will be via a new 2 way site access intersection off Reservoir Road, and access to the overflow parking area will be via an internal entry point within the site.

The TAIR identifies that there is no suitable parking codes applicable to the development, and as such, the required spacing has been developed on the basis of traffic generation forecasts for the development. Traffic forecasting is based on the shoulder period, and accordingly, during the weekday shoulder period, 2,600 attendees are forecast to be at the development at 1 pm, which equates to a car parking demand of 740. Additionally, during the weekend shoulder period, approximately 86% of the total peak daily attendees for the shoulder period, or 6000 attendees, are forecast to be at the development at 1 pm, which equates to a car parking demand of 1,700 cars. Accordingly, the provision of 1,810 car parks will sufficiently accommodate the peak car parking demand of the shoulder period.

Notwithstanding, it is possible that demand for parking may exceed on-site supply on a small number of peak days each year.

The proponent has identified that, on such days, a special traffic management plan would be in operation and could involve the use of additional parking facilities such as the nearby drive in theatre, however, this is unlikely to occur until the development has been operational for a number of years.

Council raised concern with the provision of car parking proposed in the development and recommended that 2,200 car parking spaces be provided to accommodate peak accumulation during the peak holiday period. In response the proponent included a new statement of commitment for the preparation of an Operational Transport and Traffic Management Plan (OTTMP) which would include measures to address overflow parking. However, the proponent has identified that overflow parking is unlikely to be required until the park is fully expanded in the future. Council confirmed that an OTTMP would be acceptable provided:

- there was a suitable target timeframe for the delivery of the plan
- council approve the parking assessment methodology
- no off site parking is included in the parking assessment.

Accordingly, the department has recommended a condition requiring the preparation of an OTTMP. The OTTMP is to be prepared in consultation with the RMS, Transport NSW and Blacktown City Council, and is to be approved by the Director-General prior to operation of the water theme park.

A staff car parking and service vehicle area will be provided adjacent to the administration building. The parking area and service vehicle area will be accessed from Watch House Road and will contain 47 parking spaces to be shared between service vehicles and staff vehicles. On the basis of surveys conducted at Wet 'n' Wild Water World on the Gold Coast, it is estimated that the number of service vehicle movements will be no more than 10 vehicles per hour. Additionally, the majority of service vehicle movements are expected to occur outside peak periods of the surrounding road network, and outside peak arrival and departure times for visitors of the park.

The department considers that the provision of car parking on the site will adequately service the demands of the water theme park. Whilst the demand for parking may exceed on site supply on a small number of peak days in the year, this is not expected to occur until the water theme park is fully expanded. Additionally, the recommended condition for the preparation of an OTTMP will ensure that adequate car parking provision is provided.

5.1.4 Public Transport

The site is currently serviced by one bus route between Blacktown Station and Fairfield Station (west bus route 812) via Reconciliation Road and Prospect Highway. The proponent has indicated that the feasibility of a shuttle bus service between the development and Blacktown Train Station will be investigated as part of the OTTMP. The department has recommended a condition that the OTTMP is to be prepared in consultation with the RMS, Transport NSW and Blacktown City Council, and is to be approved by the Director-General prior to operation of the water theme park.

Additional measures to promote non-car travel modes include the provision of a secure bike parking area for visitors near the entry plaza which would accommodate up to 200 bikes.

Additionally, a bike parking area for staff is to be provided near the administration building, which would accommodate up to 20 bikes. The proposed site access intersection also includes pedestrian crossings on all approaches to enable pedestrians and cyclists to safely cross Reservoir Road to enter and exit the park.

The EA also identified a number of measures that could be coordinated between the proponent and government to improve the opportunity for non-car travel modes, including:

- operation of bus 812 services on weekends as well as weekdays
- development of pedestrian and cyclists facilities surrounding the site, including construction of the Blacktown bike plan route 6
- additionally, upon completion of the Reconciliation Road extension, introduce a new strategic bus corridor no. 43 Blacktown to Wetherill Park.

The EA also identifies that additional measures will be considered by the proponent to manage the demand for travel to the development, including the inclusion of public transport fares as part of the entry price, provision of priority parking for vehicles with 3 or more occupants, and preparation of a Travel Access Guide for visitors and staff.

Council and RMS have recommended that a shared pedestrian and cycle path should be provided on the northern side of Reservoir Road from the theme park to Reconciliation Road, and accordingly, council has identified that the cycle path as a high priority regional cycle path in the RMS's Cycle Ways Program. Council will apply for funding from the RMS to construct it.

The department considers that the proposed measures detailed in the EA and the proponent's Statement of Commitments will encourage sustainable transport use.

5.1.5 Construction Traffic

Construction traffic generated during the construction phase of the development is expected to access the site via the M4, Prospect Highway and Reservoir Road.

There is currently already a significant volume of trucks using Reservoir Road and Prospect Highway associated with the development of the nearby Greystanes Precinct and Reconciliation Road.

The department has therefore recommended a condition requiring the preparation and implementation of a Construction Traffic Management Plan (CTMP) for all demolition / construction activities. The CTMP would detail vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.

5.2. Noise and Vibration

A Noise and Vibration Report (noise report) was submitted as part of the EA. The noise report identified that the proposed development will generate noise from the following sources:

- operational noise from patrons in various areas of the park and on slide platforms, noise from patron shouts and yells when on rides, noise from events (particularly those involving amplified music) and noise from mechanical plant.
- traffic noise from increased traffic on public roads and traffic movements in car park areas.
- construction noise and vibration associated with the demolition, earthworks and construction works.

The noise report identified the nearest sensitive residential receivers, including

- R1 – 24 Watch House Road, residential premises to the east
- R2 – 425 Reservoir Road, residential premises to the west
- R3 – 517 Reservoir Road, residential premises to the south west
- R4 – 525 Reservoir Road, residential premises to the south west
- R5 – 533 Reservoir Road, Coptic Catholic Church of St Mark

The location of the nearest sensitive residential receiver (R2) is approximately 50 m from the site boundary, as shown in Figure 10 below.

Figure 10: Location of Sensitive Residential Receivers



5.2.1 Operational Noise

The noise report identified existing noise levels based on noise monitoring from the front property boundary of 24 Watch House Road (R1) and the front façade of the dwelling at 431 Reservoir Road, Prospect (R2). The noise report established the intrusive criterion based on existing background levels and the amenity criterion based on the OEH Industrial Noise Policy Guideline (see Table 7 and Table 8).

Table 7: Intrusiveness Criterion

Location	Intrusive Criterion $L_{Aeq,15min}$		
	Day	Evening	Night
R1 – 24 Watch House Road	50 dB(A)	50 dB(A)	47 dB(A)
R2 – 425 Reservoir Road	45 dB(A)	45 dB(A)	39 dB(A)

Table 8: Amenity Criterion

Type of Receiver	Indicative Noise Amenity Area	Time of Day	Recommended Noise Level L_{Aeq}	
			Acceptable	Recommended Maximum
Residence	Urban	Day	60 dB(A)	65 dB(A)
		Evening	50 dB(A)	55 dB(A)
		Night	45 dB(A)	50 dB(A)
	Suburban	Day	55 dB(A)	60 dB(A)
		Evening	45 dB(A)	50 dB(A)
		Night	40 dB(A)	45 dB(A)
Place of Worship	All	When in use	50 dB(A)	55 dB(A)

The urban and suburban classifications have been included in the amenity criterion rather than a rural classification as the area has significant existing traffic noise from the M4 and Reservoir Road. Accordingly, the majority of surrounding sensitive residential receivers are classified as suburban, whilst 24 Watch House Road is classified as urban due to its close proximity to the M4.

The noise report establishes noise goals for the day, evening and night periods by applying the lowest criteria from the abovementioned intrusiveness and amenity criterion. The noise goals are provided in Table 9.

Table 9: Noise Goal

Location	Noise Goal L_{Aeq}		
	Day	Evening	Night
R1 – 24 Watch House Road	50 dB(A)	50 dB(A)	47 dB(A)
R2 – 425 Reservoir Road	45 dB(A)	45 dB(A)	39 dB(A)

The noise report provided an evaluation of noise sources generated from the operational phases of the development against the noise goal criteria. Operational noise sources include noise from patrons and visitors to the park, noise from vehicular movements in the car park, and noise from mechanical plant equipment.

The noise report identified that operational noise levels of the proposal are generally expected to comply with the noise goal criteria, with the exception of some minor exceedances of less than 5 dBA during the extended trading hours after 10 pm. Accordingly, an acoustic fence is recommended to be constructed along the common boundary between the residence at 425 Reservoir Road and the car park / drive way to minimise noise. The proponent has included this recommendation in the Statement of Commitments.

The operation of the development will also include amplified outdoor music events, referred to in this report and in the recommended conditions as 'amplified special events'.

The EA identifies that amplified special events are proposed to be infrequent events, and verbal advice from the proponent is that the events will be held in the peak summer period on a possible 16 occasions. For these events, opening hours until 12 midnight is sought (one hour later than the proposed usual operating hours of 11 pm).

Based on a predicted sound power level of 125 dBA, the noise report identifies that considerable exceedance of the noise goal could occur from these special events. The noise report proposed a number of mitigation measures to reduce potential impacts from amplified music events which have been incorporated in to the proponents Statement of Commitments, including:

- notifying residents of scheduled events and providing a contact phone number for complaints
- assigning a dedicated and trained staff member to respond to noise complaints during events
- orientating speakers so that they do not face directly towards residences
- using a greater number of low powered speakers rather than a few high powered speakers when possible
- directing speakers downward and toward the audience

- locating events in the overflow car parking area with the stage and speakers towards the M4 motorway to minimise noise impacts.

It is noted that the acoustics report submitted by the proponent does not indicate the extent to which the above measures will mitigate the noise.

As the impacts are therefore uncertain, and it may be untenable for nearby residents to be subjected to noise from an unlimited number of special events, held up to 12 midnight, it is proposed to allow five test events to be held in the first year of operation as a trial.

A condition is proposed in the concept plan and in the Stage 1 project approval to require a noise report to be submitted following the season of test events, and a submission is to be made to the Director General to allow for further events. The holding of further special events after the trial events, is to be subject to the further approval of the Director-General, and additional requirements or restrictions may be applied if necessary. If the trial events are satisfactory, the special events may be carried out on a permanent basis to the extent approved by the Director General.

Additionally, the department has recommended as a condition for the Proponent to demonstrate that the operational noise generated by the proposal (excluding amplified music events) will meet the noise goals outlined above, as well as satisfying the Building Code of Australia and Australian Standard AS 1668 with respect to operational plant.

5.2.2 Traffic Noise

The noise report identified that traffic noise along Reservoir Road is predicted to increase by more than the allowable 2 dBA as a result of traffic generated by the development, when compared to current levels of traffic in the area. The proponent has identified that, notwithstanding the additional traffic generated by the development, the completion of the Reconciliation Road extension is expected to significantly increase traffic volumes within the local road network.

The department considers that the additional traffic generated by the opening of Reconciliation Road, as detailed in the TAIR and supplementary TAIR, will be a significant contributor of additional traffic in the surrounding road network, and consequently, will result in an increase in traffic noise levels along Reservoir Road. In this context, the proposal is not considered to be a significant contributor to overall traffic noise levels in the future.

5.2.3 Construction Noise and Vibration

Noise associated with construction will result from plant and earthmoving equipment, truck movements and the operation of tools and hand held machinery. The noise report identifies that construction noise levels during the bulk earthwork phase are predicted to exceed the set management levels of the OEH Interim Construction Noise Guideline, however no receivers are predicted to be "highly affected". Accordingly, the noise report has recommended noise management measures to be implemented during the construction phase, including:

- limiting work to day light hours
- implementing respite periods with low noise / vibration-producing construction activities

- performing noisy work during less sensitive time periods
- selecting low-noise plant and equipment
- ensure equipment has qualified mufflers installed
- establish stringent noise emission limits for specified plant and equipment
- implement noise monitoring and audit program to ensure equipment remains within specified limits
- use quieter and less vibration emitting construction methods where possible
- noisy plant and equipment should be located as far as possible from noise sensitive areas, optimising attenuation effects from topography.

To ensure that the amenity of the surrounding area is protected throughout the construction works, The department has recommended a condition for the proponent to prepare a Construction Management Plan which will detail noise and vibration management. The plan will need to address the OEH Interim Construction Noise Guideline, including:

- identification of specific activities that will be carried out and associated noise sources
- identification of all potentially affected sensitive receivers
- noise and vibration monitoring reporting and response procedures
- description of specific mitigation treatments, procedures and management measures.

Additionally, the recommended condition requires that the noise and vibration management section of the Construction Management Plan address the relevant provisions of Australian Standard 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites.

The department has also recommended a the project approval condition that the hours of construction work be restricted to the hours of 8am – 1pm on Saturdays and no work on Sundays or public holidays to minimise weekend noise impacts from construction works.

The department is satisfied that the amenity of the surrounding area will be protected during the construction works through the recommended conditions of approval.

5.3. Heritage and Archaeology

A Heritage Impact Statement (HIS) accompanied the EA. A revised HIS, a Baseline Historical Archaeological Impact Assessment and a Heritage View Analysis accompanied the PPR in response to heritage issues raised by the Heritage Branch of OEH and council. Additionally, a further revised copy of the HIS was submitted to the department in response to a submission made by the Heritage Branch regarding the PPR.

Landscape and Built Heritage

The latest revised version of the HIS (dated September 2011) identifies that there are no heritage items on the site that are listed on the State heritage register or in the Blacktown Local Environmental Plan. However, the HIS identifies that a number of heritage items are located within the broader vicinity of the subject site, including:

- The Royal Cricketers Arms Inn (State heritage listed)
- Policeman's Cottage

- St Bartholomew's Church and Cemetery (State heritage listed)
- Former Prospect Post Office (State heritage listed)
- Prospect Reservoir (State heritage listed)

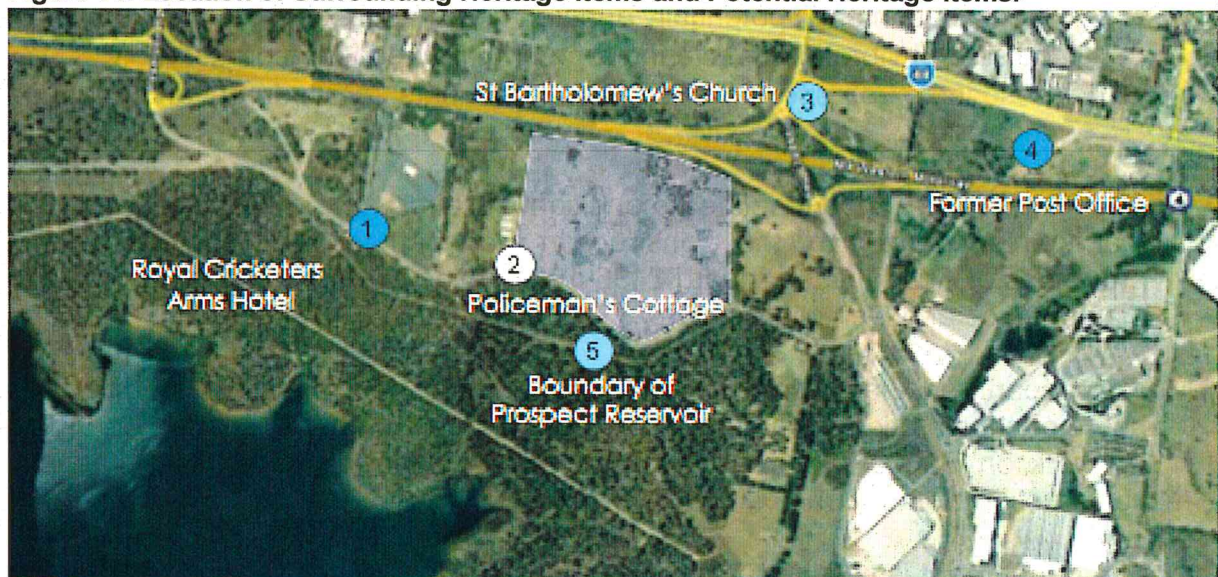
Additionally, the HIS identifies that there are a number of items of historical significance in the landscape that should be retained:

- the existing road alignments
- the former Policeman's Cottage and associated row of pine trees, and view corridors between the former Policeman's Cottage
- St Bartholomew's Church.

A Heritage View Analysis accompanied the PPR and provided an assessment of the potential impacts of the proposed water theme park on heritage items that are located in the vicinity and/or in the visual catchment of the subject site.

The location of each item in relation to the subject site is identified in Figure 11.

Figure 11: Location of Surrounding Heritage Items and Potential Heritage Items.



The Heritage View Analysis identified that the proposed development is not anticipated to visually impact on The Royal Cricketers Arms Inn, the Policeman's Cottage or the former Post Office. However, the view analysis identified that the theme park would be visible from St Bartholomew's Church, Reservoir Road and Prospect Reservoir, and additionally, the proposal would impact on mutual heritage views shared between each of these items. Further, the mutual heritage view between St Bartholomew's Anglican Church and the former Policeman's Cottage has the potential to be negatively affected by the proposed development.

The Heritage View Analysis notes that the proposed location of rides in the theme park as shown in the concept plan are such that the heights of rides do not appear to interfere with the view line, however, the main impact on the view line is likely to occur as a result of the growth of vegetation proposed to be planted in the car park areas of the site. Accordingly, the Heritage View Analysis recommended that vegetation height in the view line be controlled, so that views are maintained in both directions.

The HIS identified that the portion of Reservoir Road that defines the southern boundary of the site should be retained as it demonstrates the historic alignment of the Great Western Road to Penrith and the Blue Mountains. Additionally, the HIS identified that the existing semi rural character of the road should also be retained and visual screening through the strategic planting of appropriate tree species should be implemented along this frontage to protect the significance of this part of the site.

As described in section 5.1.2 of this report, the application seeks approval for road improvement works along Reservoir Road and the addition of a new signalised intersection at the site entry. In accordance with the recommendations of the HIS, the alignment of Reservoir Road will be maintained as part of the proposed upgrade works, as well as the alignment of Watch House Road. Additionally, the proponent has incorporated additional landscaping along the southern boundary of the site in accordance with the recommendations of the HIS.

Council provided late advice (7 December 2011) that the Reservoir Road reservation is subject to investigation by OEH for listing as a State heritage item, and requested that OEH comment on works to Reservoir Road, prior to issue of a construction certificate. However, as the alignment is not proposed to be altered, and the Council will be carrying out the road resurfacing works in part and will be working with the proponent for the remainder of the resurfacing, this is not considered necessary.

Additionally, four requirements for the site have been incorporated in the proposal and are identified in Section 5 of the proponent's Statement of Commitments, being:

- the conservation of the Policeman's Cottage and its immediate setting for a use that is compatible with both its cultural significance and the emerging context of the water theme park
- the retention and conservation of the group of tall pines in the immediate vicinity of the Policeman's Cottage as a significant visual and cultural marker or signpost in the surrounding landscape
- the retention of the alignment of Reservoir Road for its demonstration of the historic alignment of the Great Western Road to Penrith and the Blue Mountains.
- the retention of the alignment of Watch House Road, which defines the eastern boundary of the subject site, for its demonstration of the historic alignment of the former Church Street, where it gave direct access from the Great Western Road to St Bartholomew's Church.

The Heritage Branch of OEH noted the recommendations from both the Heritage Impact Statement and Heritage View Analysis had been incorporated in to the proponent's Statement of Commitments, and raised no objection in regards to any heritage impacts.

Historical Archaeology

The Baseline Historical Archaeological Impact Assessment provided with the PPR identified three areas of historical archaeological resources within the subject site, namely:

- structural remains of a mid twentieth century cottage fronting Reservoir Road, south of the former Policeman's Cottage
- structural remains and exotic plantings of a mid twentieth century farm house complex

- remnants of timber posts, possibly associated with mid twentieth century advertising hoarding or post war out buildings such as a shed or barn.

The Baseline Historical Archaeological Impact Assessment identified that historical archaeological resources found on site are unlikely to have state or local heritage significance. Accordingly, the remains are not considered to be 'relics' as defined by the *Heritage Act 1977*. Notwithstanding, potential archaeological resources, such as occupational deposits, may also exist below the interior floor of the former policeman's cottage and may be of state or local heritage significance, and therefore may be considered 'relics' as defined by the *Heritage Act 1977*.

The Baseline Historical Archaeological Impact Assessment identified that, aside from the inner floor area of the Policeman's Cottage (which is proposed to be retained) it is considered unlikely that potential archaeological resources survive within the remainder of site given that the site has been heavily modified by excavation, cutting, grading and filling works.

All recommendations of the Heritage Impact Statement, the Baseline Historical Archaeological Impact Assessment have been included in the proponent's Statement of Commitments.

The Heritage Branch of OEH noted the recommendations from both the Baseline Historical Archaeological Impact Assessment had been incorporated in to the proponent's Statement of Commitments, and raised no objection in regards to Archaeology.

In summary, the department is satisfied that, subject to the proponents Statement of Commitments, the proposal will have no adverse impacts on the heritage significance of items contained within, and in the vicinity of the site, and that the proposed development will have no adverse impacts on the archaeological resources of the site.

The OEH raised no concerns with the work undertaken in the application with regards to Aboriginal Archaeology, and indicated broad support for the management recommendations in the proponent's Statement of Commitments.

5.4. Ecologically Sustainable Development

The EA includes an Environmental Management Guideline (EMG), Ecologically Sustainable Development Statement (ESD Statement), and an Environmental Management Plan (EMP). The EMG was prepared by the Western Sydney Parklands and includes ESD recommendations to enhance the proposals environmental performance with regard to water, energy and waste.

Additionally, the Guideline includes ESD indicators that can be used to measure and monitor the environmental performance and progress of the proposal over time. The ESD statement provides an outline of the ESD measures to be included in the proposal which relate to the following categories:

- water conservation
- energy conservation
- materials and resources
- land and biodiversity
- environmental quality and emissions

- traffic and transport
- social amenity.

The EMP provided objectives, actions and indicators for each of the abovementioned categories.

The ESD statement identifies that the main water uses of the proposal are for pools and irrigation, however, other uses include toilet flushing, showering before and after swimming, kitchen operations and outdoor deck wash down. A water cycle management plan accompanied the EA which identifies that 90% of the water required for irrigation, toilet flushing and outdoor deck wash down can be supplied by re-used water (i.e. treated stormwater or rainwater).

Additional measures identified to reduce potable water use include the selection of low flow tapware, water efficient toilets, low water use (or waterless) urinals, low flow showerheads (with button timers), low flow spray heads outdoor wash down and low water use appliances (e.g. dishwashers). The volume of water carried out of pools by visitors to the park will also been reduced by two thirds through designing deck areas to drain water back in to the pool system where possible. Additionally, splashguards to rides and attractions are proposed to further reduce water loss.

Buildings with permanent roofs will have rainwater tanks buried underneath their floor slabs, and the harvested rainwater will be stored and reused for non-potable purposes such as toilet flushing and external deck wash down following filtration of sediment and UV sterilisation.

A stormwater detention pond and wetland are proposed in the natural drainage corridor in the northern part of the site. Water collected in the stormwater detention pond will be UV treated before being re-used and any overflow would be discharged in to Blacktown Creek.

In accordance with the EMP, water consumption will be monitored at regular intervals to enable detection of any leaks in the potable and non-potable water supplies, to determine if the site is operating at optimum efficiency and to raise awareness of water consumption and the promotion of responsible water use, which results in reduced water consumption and lower water costs. Collected data from water meters will be used to compare and benchmark water consumption across the theme park. The EMP also identifies that water education for staff and water conservation signage around the park will form part of the operation of the proposal.

Consideration of the green star environmental rating system tools will be used to guide building orientation to apply passive solar design principles where practical. Additionally, insulation of buildings will also be specified to comply with the BCA. Natural ventilation will be accommodated in buildings where possible in amenity blocks, toilets and change rooms, and any air-conditioned areas of buildings will be zoned according to occupancy rate and times.

Gas will be used to supply many of the energy demands on the site, and as the site is not currently serviced by gas, a connection is required to be installed to the nearest gas network approximately 600 m north of the subject site.

The feasibility of solar hot water (with a gas back up) will be determined at the detailed design stage. Additionally, the feasibility of the installation of photovoltaic cells on the roofs of buildings within the site will be explored as an alternative energy source during the detailed design phase of the development.

The EMP also identifies that an Operational Energy Management Plan will be prepared and implemented which outlines actions to minimise energy consumption, energy conservation initiatives, metering and monitoring strategies and measures to promote staff and visitor energy conservation awareness and behaviour.

The preparation and implementation of a Construction Waste Management Plan (CWMP) and an Operational Waste Management Plan (OWMP) will be included in the construction and operational phases of the development respectively. The CWMP will identify the types of waste generated during the demolition and construction works on the site, and will provide estimations of waste targets and identify measures to achieve the construction waste targets. The OWMP will detail the collection, separation, temporary storage and recycling waste generated during the operational phase of the development. The EMP also identifies that the selection of low environmental impact and low embodied energy materials will also be incorporated within the proposal, such as recycled steel, recycled timber or Forest Stewardship Council certified timber, where practical.

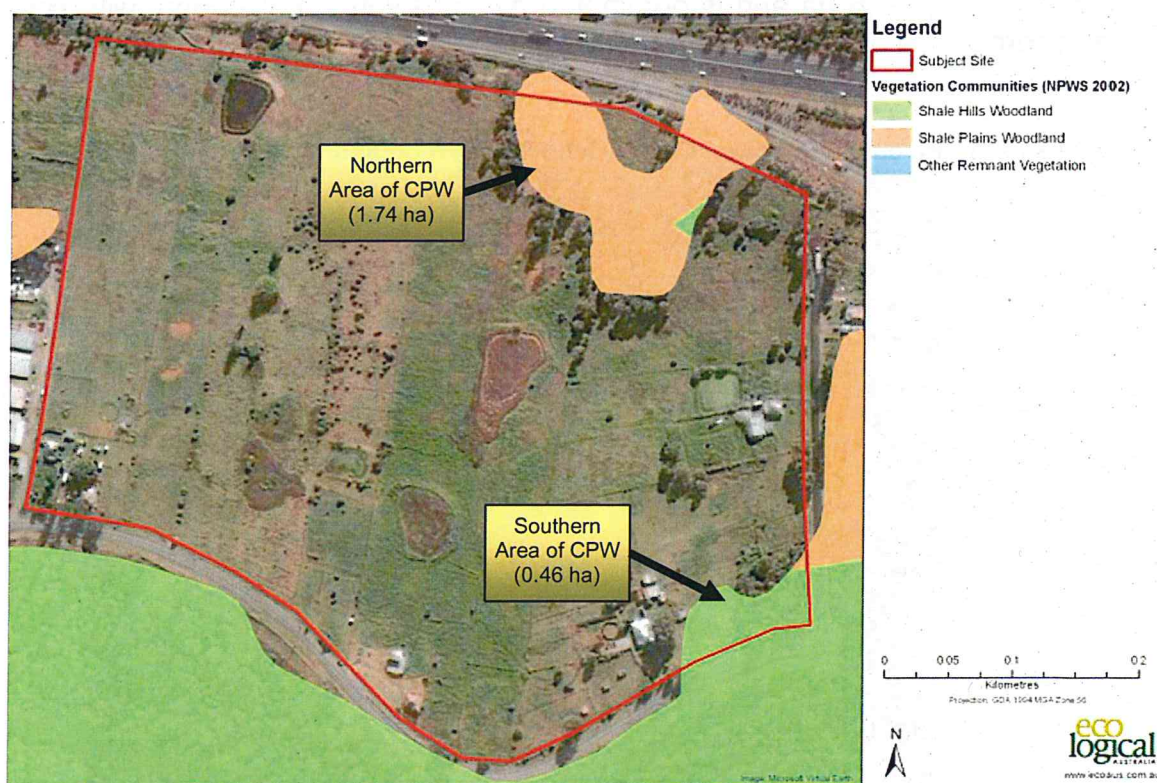
The department is satisfied that the proponent has adequately considered the principles of ESD in the proposal. Additionally, the initiatives outlined in the EMP will ensure that further development of ESD initiatives will be implemented at the detailed design stage of the development.

5.5. Ecology

A Biodiversity Impact Statement (BIS) accompanied the EA. The BIS identified that the site contains a variety of remnant native and exotic vegetation, a riparian strip towards the middle of the site, four small farm dams and large expanses of exotic grass / pasturelands.

Additionally, the BIS identified that the site contains two areas of remnant woodland vegetation which were mapped as 'Shale Hills Woodland' and 'Shale Planes Woodland' by the National Parks and Wildlife Service in 2002. Both biometric vegetation types are identified as equivalent vegetation types of 'Cumberland Plain Woodland in the Sydney Basin Bioregion', which is listed as a critically endangered ecological community under the *Threatened Species Conservation Act 1995* (TSC Act). Additionally, both biometric vegetation types are identified as equivalent vegetation types of 'Cumberland Plane Shale Woodlands and Shale Gravel Transition Forest', which are listed as a critically endangered ecological community under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). For the purpose of the assessment in the BIS, as well as this assessment, the two biometric vegetation types were collectively identified as Cumberland Plain Woodland (CPW).

The two areas of CPW identified within the site are located in the north and south-east of the subject site, and collectively occupy an area of 2.2 ha. The two areas of CPW on site are identified in Figure 12.

Figure 12: Vegetation Mapping By National Parks and Wildlife Service 2002

The BIS identifies that the northern area of CPW occupies an area of 1.74 ha and is dominated by *Eucalyptus tereticornis* (Forest Red Gum) and *Eucalyptus molucanna* (Grey Box), with *Eucalyptus crebra* (Narrow-leaved Ironbark) also present. A photo of the northern area of CPW is provided in Figure 13.

Figure 13: Northern remnant of Cumberland Plain Woodland

The BIS identifies that the south-east area of CPW occupies an area of approximately 0.46 ha and is dominated by *Eucalyptus molucanna*, with *Eucalyptus tereticornis* also present. A photo of the south-east area of CPW is provided in Figure 14.

Figure 14: South east remnant of Cumberland Plain Woodland



The BIS also identified the presence of two threatened bat species which were known to occur on site, namely, the Eastern False Pipistrelle (*Falsistrellus tasmaniensis*) and the Eastern Bent-Wing Bat (*Miniopterus schreibersii oceanensis*). Both species are listed as vulnerable under the TSC Act.

The proposed development involves the clearing of 0.78 hectares of CPW in order to provide sufficient space for a stormwater detention pond and water treatment wetland in the north of the site. Accordingly, the northern area of CPW will reduce from 1.74 ha to 0.96 ha. Additionally, the proposal includes the clearing and excavation of approximately 20 ha of degraded exotic grasslands within the site. The clearing of vegetation and the removal of dead wood and dead trees are listed as key threatening processes under the TSC Act.

The BIS identifies that the impacts associated with the removal of vegetation and earthworks produce a further risk of incremental clearing of a critically endangered ecological community and fragmentation of a critically endangered ecological community. The BIS detailed that mapping undertaken by the National Parks and Wildlife identified that there is approximately 3426 ha of CPW within a 10 km radius of the site (study area). Accordingly, the removal of 0.78 ha of remnant CPW within

the site will be a reduction of approximately 0.03% of existing CPW within the study area.

The BIS also identifies that the CPW areas within the site have remained in a degraded state for many years, with a high prevalence of exotic species, and little management other than horse grazing. The BIS also identified that the areas of CPW have a reduced native understorey and contain exotic shrubs, and the presence of the M4 and surrounding residential areas are existing impediments to the connectivity of the CPW areas within the site to other ecological communities in the surrounding area. Further, notwithstanding the removal of 0.78 ha of CPW within the site, approximately 70% of existing trees within the remainder of the site would be retained, which would minimise potential impacts to canopy species, such as the Eastern False Pipistrelle and the Eastern Bent-wing Bat.

The proponent has indicated that the location and size of the stormwater detention pond and water treatment wetland has been designed to account for the topography of the site, and to make use of as much cleared land as possible. A number of mitigation measures have been identified to minimise the potential disturbance on the retained areas of CPW on the site, including:

- identifying and fencing off all vegetation to be retained, prior to any vegetation removal
- undertaking vegetation clearing during seasons that minimise the risk of impacting on hibernating micobats or breeding woodland birds
- undertaking a pre-start clearing inspection by an ecologist of the proposed disturbance area to identify the presence of any fauna, biological resources, habitat resources and the availability of endemic seed
- implementing the following active clearing practices including:
 - environmental and noxious weeds are controlled within the disturbance area prior to clearing
 - seed collection is undertaken
 - identified habitat trees are inspected prior to felling
 - if no fauna is observed, a bulldozer is used to rip the root zone around the base of the tree
 - the dozer slowly pushes the tree to allow it to fall under its own weight, thereby minimising damage during felling
 - a trained wildlife handler is to be onsite to inspect fallen trees and to attend to any animals which may be injured or require assistance.
- stormwater runoff to be controlled so as to minimise nutrient and contaminant escape to surrounding lands.

As part of the proposal, the remaining 1.42 ha of remnant CPW will be retained and restored on site and an additional one ha of the site will be planted with CPW species, predominantly along the frontage of the site to Reservoir Road to create a buffer between the development and the Prospect Nature Reserve. The proponent identified that a Vegetation Management Plan will be prepared and implemented for areas of remnant and regenerated areas of Cumberland Plain Woodland on the site.

Issues raised by OEH

OEH provided a submission during the exhibition of the EA and raised concern with the impacts of noise and light from the operation of the proposal on the native fauna within Prospect Nature Reserve to the south of the site. Additionally, OEH did not

consider that the proposed replanting will adequately offset the proposed impact on the critically endangered CPW as:

- the species identified to be used to rehabilitate the woodland area are not species characteristic of CPW
- the key design principles of the landscaping plan did not include conservation and the Vegetation Management Plan (VMP) will be implemented for only five years, and therefore the CPW will degrade thereafter
- the replanting of the CPW is proposed to occur in long linear strips, which will be difficult to maintain.

OEH also raised concerns with the potential water table impacts associated with the stormwater detention basin and wetland on the area of remnant CPW in the north of the site.

In response to issues raised by OEH, the proponent provided a revised landscape plan in the PPR which detailed additional planting along the Reservoir Road frontage to provide a further buffer screen from noise and light between the park and the Prospect Nature Reserve. The proponent also confirmed that potential impacts to groundwater were identified in the geotechnical report and EA which identified that the vegetation was not expected to be impacted significantly due to measures undertaken in the design.

OEH also provided a submission on the PPR which maintained concerns regarding the potential impacts to the water table and the area of remnant CPW in the north of the site. The OEH maintained concern regarding the potential impacts of noise and light on the fauna within the Prospect Nature Reserve and the proposed replanting of CPW to offset the loss of remnant CPW on the site and the adequacy of the VMP to be implemented for 5 years to allow natural resilience of the revegetated CPW areas to prevail. OEH also considered that those areas of the site that are proposed to be revegetated with CPW, that are also within bushfire protection asset protection zones (APZ's), should not be considered as offsets as they will not be able to meet the conservation objectives.

Whilst voluntary, OEH also recommended consideration of the BioBanking Assessment Methodology (BBAM) to allow the offsetting requirements to be calculated in a consistent and transparent way.

In response to OEH's submission on the PPR, the proponent identified that the stormwater detention pond and water treatment wetland will be lined with an impervious membrane to eliminate infiltration and impacts to ground water, and accordingly, there will be no change to the groundwater impact on the survival of the area of remnant CPW in the north of the site.

The proponent also identified that use of the BBAM is unwarranted given the relatively poor condition of the remnant CPW within the site and the relatively small area of CPW proposed to be removed. The proponent has also advised the department that all areas of remnant CPW to be retained and regenerated on the site are not within APZ's, and that the proponent would not object to a condition requiring the VMP being managed in perpetuity for the life of the water theme park.

The department agrees in part with OEH with regards to the issue of the planting along Reservoir Road not being of sufficient width. Although the proponent has advised that it was not intended to be a CPW regeneration area, it is considered that given that no offset has been provided for the loss of CPW, the revegetation of an area along Reservoir road would provide an acceptable offset. This would be in conjunction with the regeneration of those areas to remain.

The department has therefore recommended a condition for the proponent to submit an amended landscape plan, prepared in consultation with the OEH. The width of the revegetated area will need to be negotiated with OEH. The amended landscape plan is to be submitted for the approval of the Director General prior to the issue of the first construction certificate.

Additionally, the department has recommended that the proposed Vegetation Management Plan (VMP) be prepared by a qualified ecologist to conserve and enhance the areas of remnant and regenerated areas of CPW on site, and that the VMP be implemented for the duration of operation of the water theme park. The VMP is also to be prepared in consultation with a bush fire consultant to ensure that bush fire issues are considered and that there is no conflict between the conservation outcome and bush fire requirements such as in the location of APZs.

In summary, the department has considered the proposed removal of 0.78 ha of CPW on merit, and considers that, subject to the recommended conditions of approval and the proponent's Statement of Commitments, the removal is acceptable.

5.6. Bushfire

The southern side of the subject site along Reservoir Road is mapped as Bush Fire Prone Land by council and the NSW Rural Fire Service. A bushfire protection assessment accompanied the EA which provides a review of the proposed development against the aims and objectives of the document "Planning for Bushfire Protection 2006" (PBP).

The site is located directly to the north of an area of Cumberland Plain Woodland (CPW) which surrounds Prospect Reservoir. The bushfire protection assessment identifies that this vegetation has a shrubby understorey and is classified as 'forest' under the PBP.

The subject site is predominantly clear of bush fire prone vegetation, however there are two areas of CPW within the north and south of the subject site that are proposed to be retained and regenerated as part of the proposal. The bushfire protection assessment identifies that these two areas within the site are identified as low hazard vegetation under the PBP.

The bushfire protection assessment provided a number of recommendations to be incorporated in the proposal to comply with the requirements for commercial development under the PBP. All recommendations contained in the bushfire protection assessment were included in the proponent's Statement of Commitment's.

The RFS reviewed the environmental assessment and bushfire protection assessment and provided the following recommendations:

- at the commencement of buildings works and during the operation of the development, the property around buildings adjacent to the 'Remnant' Cumberland Plain Woodland is to be maintained as an inner protection area up to a minimum distance of 10 metres
- at the commencement of buildings works and during the operation of the development, the property around buildings adjacent to the 'Forest' Cumberland Plain Woodland is to be maintained as an inner protection area up to a minimum distance of 35 metres
- a Fire Protection Plan is to be prepared that includes a contact person and contact details, description of works for the construction of asset protection zones and their continued maintenance, particularly in relation to the 'remnant' vegetation within the site
- water, electricity, gas, access roads, construction works, landscaping and emergency and evacuation arrangements are to comply with 'Planning for Bush Fire Protection 2006'
- arrangements for a emergency evacuation plan are to comply with the PBP.

The proposal complies with the requirements of the RFS regarding setbacks of buildings adjacent to the remnant vegetation within the subject site as the minimum APZ of 10 m is provided for the machinery sheds, and the remainder of buildings within the site comprising APZ's of greater than 25 m from the remnant vegetation. Additionally, the proposal complies with the requirements of the RFS regarding setbacks of buildings adjacent to forest vegetation contained within Prospect Reservoir as the minimum APZ provided between enclosed buildings and the forest vegetation contained within Prospect Reservoir is 78 m.

Additionally, in response to the RFS submission, the proponent revised the Statement of Commitments to include the preparation and implementation of a Fire Management Plan and Bushfire Emergency and Evacuation Plan.

The department is satisfied that the proposed recommendations in the bushfire protection assessment in the EA, Statement of Commitments and recommended conditions of approval will provide adequate bushfire protection measures for the proposal.

5.7. Complying Development Code

The application seeks approval of a complying development code (CD Code) under the concept plan to facilitate the progressive development of the future expansion areas of the site. The development of indoor and outdoor recreation facilities, entertainment facilities, amusement centres, ancillary facilities or temporary structures associated with the overall use as a water theme park could be approved as complying development, subject to meeting the requirements of the CD Code.

A complying development certificate would be issued by either council or an accredited private certifier. Development that does not meet the requirements of the CD Code would need to be the subject of a development application to council.

The CD Code includes prescribed standards and conditions that relate to building height and setbacks, structural integrity, safety of rides, codes and standards for building construction, earthworks and tree removal, and consistency with the concept

plan. Table 10 identifies the key development standards of the code, as originally proposed.

Table 10: Key development standards of complying development code as proposed in EA

Element	Standard
Building Envelopes Height and Setbacks	<ul style="list-style-type: none"> • The height of ride structures is not to exceed 35m above finished ground level. • The height of any building is not to exceed 12 meters above finished ground level. • Buildings other than ride structures are not to exceed the building height plane defined as starting from ground level at the boundary of land to which this code applies between the curtilage of the former historic Policeman's Cottage and the south west corner of this land and St Bartholomew's Church in Prospect. • All building structures other than fences and minor structures such as gate houses, pump housing, below ground structures, are to be setback a minimum of 15m from the property boundary. • The footprint of any building other than a ride structure is not to exceed.
Landscape Plan	<ul style="list-style-type: none"> • A landscape plan must be included to integrate the landscaping of a new development with the landscaping on the site approved in the Part 3A Concept Plan. Tree removal No tree above 10m in height is to be removed as complying development under this code.
Tree removal	<ul style="list-style-type: none"> • No tree above 10m in height is to be removed as complying development under this code.

During assessment, the department raised concern that the development of future facilities under the CD Code, beyond the facilities detailed in the concept plan, may result in additional patrons and associated increases in traffic generation of the site. Further, the department raised concern that there was no assessment of the potential increases in patrons, traffic generation or car parking demand associated with any additional facilities of the park which would be approved under the CD Code.

In response, the proponent identified that complying development in the future expansion stages of the site is aimed at rejuvenating the park and its attractions to keep attendance levels and repeat visitation, and is not expected to increase attendance levels. Additionally, the proponent identified that the external road network would have spare capacity to accommodate any relatively minor increases in traffic associated with complying development. The proponent requested that an additional standard be included in the CD Code requiring a review of the Operational Transport and Traffic Management Plan for any development that results in more than 1 ha of additional rides and facilities.

A complying development code should have no subjective aspects that require further assessment. The department has therefore recommended a condition of approval requiring the CD Code be amended prior to it being formalised by an Order such that to be complying development:

- There is no increase in patron numbers or traffic generation, or parking demand as a consequence of development.
- The capital investment value of the development or works does not exceed \$10 million
- Development is consistent with the terms of approval of the approved concept plan.

Additionally, signage should be complying development, subject to the approval of a Signage Strategy (and development is in accordance with that Strategy). A revised CD Code, incorporating the above amendments, is to be provided to the Director-General for approval within one month of the date of concept plan approval.

5.8. Public Interest

The proposal will provide a major recreational and tourism facility that will make a significant contribution to meeting the recreational needs of Western Sydney. The proposal will provide a significant benefit to the local economy and will create approximately 222 full time equivalent construction jobs, and approximately 187 full time equivalent operational jobs. The proposal is also consistent with the Western Sydney Parklands Plan of Management 2020 which identifies the desired future land use of the site to be a major destination for tourism and passive / active recreation.

6. CONCLUSION

The Department has reviewed the environmental assessment and duly considered advice from public authorities as well as issues raised in the public submission in accordance with Section 75I(2) of the EP&A Act. All relevant environmental issues associated with the proposal have been extensively assessed.

The development is consistent with the strategic objectives for the area, being consistent with the Metropolitan Plan for Sydney 2036, the draft North West Subregion Draft Subregional Strategy, and the Western Sydney Parklands Plan of Management 2020.

The proposal is generally consistent with requirements of the relevant planning instruments, policies and objectives. The department has given consideration to the relevant State Environmental Planning Policies and the context of the locality.

The department is of the view that the recommended conditions and implementation of the measures detailed in the proponent's EA and appendices, PPR and appendices and the Statement of Commitments will adequately mitigate the environmental impacts of the proposal.

On balance, the department considers the site to be suitable for the proposed development and that the concept plan and Complying Development Code is in the public interest. Sufficient information has been submitted with the concept plan documentation to allow project approval under section 75P(1)(c) of the EP&A Act for Stage 1 of the concept plan, without the need for any further environmental assessment.

7. RECOMMENDATION

It is recommended that the Deputy Director-General:

- a) **Consider** the findings and recommendations of this report;
- b) **Approve** the concept plan (MP 10_0190), subject to modifications, under section 75O(1) of the EP&A Act, having considered all relevant matters in accordance with (a) above;
- c) **Determine** that under 75P(1)(c) of the EP&A Act, no further environmental assessment is required for Stage 1 of the Concept Plan (MP 10_0190);
- d) **Approve** Stage 1 of the concept plan (MP 10_0190), subject to conditions, under section 75J(1) of the EP&A Act;
- e) **Determine** that the future stage of the development (excluding Stage 1) are to be subject to Part 4 and Part 5 of the EP&A Act, as relevant;
- f) **Determine** that under section 75P(2)(c), the further environmental assessment requirements for any development are outlined in Schedule 5 of the Concept Approval.
- g) **Sign** the attached Instrument of Approval (**TAG A**)



Heather Warton
Director
Metropolitan and Regional Projects North



Chris Wilson
Executive Director
Major Projects Assessment



Richard Pearson
Deputy Director-General
Development Assessment & Systems Performance