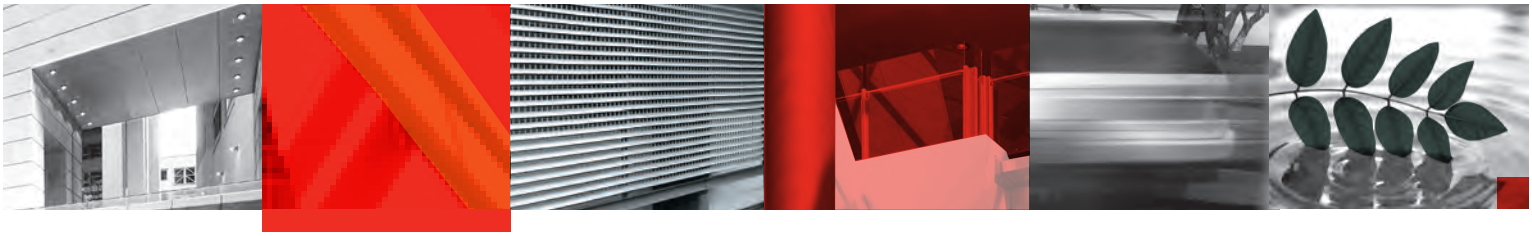
Part 3A Environmental Assessment Report



Wet 'n' Wild Sydney

Submitted to Department of Planning
On Behalf of Prospect Aquatic Investments Pty Ltd

February 2011 ▪ 09505

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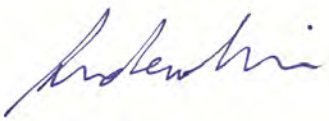
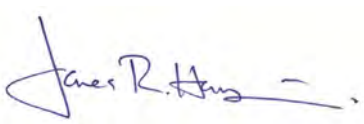
JBA Urban Planning Consultants Pty Ltd operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed below, it is a preliminary draft.

This report has been prepared by: Andrew Wilson

Signature  Date 08/02/11

This report has been reviewed by: James Harrison

Signature  Date 08/02/11

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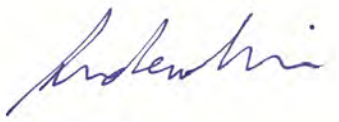
Statement of Validity

Prepared under Part 3A of the Environmental Planning and Assessment Act, 1979 (as amended)

Environmental Assessment prepared by	
Name	Andrew Wilson
Qualifications	Bachelor of Urban and Regional Planning
Address	Level 7, 77 Berry Street, North Sydney
In respect of	Part 3A Concept Plan for Wet'N'Wild Sydney Water Theme Park
Concept Plan	
Applicant name	Prospect Aquatic Investments Pty Ltd
Applicant address	Level 1, 500 Chapel Street SOUTH YARRA VIC 3141
Land to be developed	Lot 1 in DP 1045771 – Reservoir Road, Prospect
Proposed development	▪ Water Theme Park
Environmental Assessment	An Environmental Assessment (EA) is attached
Certificate	I certify that I have prepared the content of this Environmental Assessment and to the best of my knowledge: ▪ It is in accordance with the Environmental Planning and Assessment Act and Regulation. ▪ It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.
Signature	
Name	Andrew Wilson
Date	8 February 2011

Executive Summary

Prospect Aquatic Investments Pty Ltd (a wholly owned subsidiary of Village Roadshow Limited) is submitting a Part 3A Concept Plan Application for a Wet 'n' Wild Sydney water theme park on the site at Reservoir Road , Prospect and is seeking approval from the Minister for Planning under Part 3A the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Part 3A Concept Plan Application is for the following aspects of the Wet'n'Wild Sydney water theme park:

- Stages 1 and 2 – Design, Construction and Operation; and
- Complying Development Code for the site including future development of Stage 3.

The Site

The site is located on the eastern side of the Western Sydney Parklands at Prospect between the M4 Motorway, Reservoir Road and Watch House Road. It is situated within 'Precinct 7 – Prospect Recreation' and identified specifically as a 'Tourism Hub' in the Draft Western Sydney Parklands Plan of Management.

The site is described as Lot 1 in DP 1045771 and has an area of approximately 25.5 hectares. It is owned by the NSW Government's Western Sydney Parklands Trust, and is currently subject to an Agreement to Lease to Prospect Aquatic Investments Pty Ltd.

The topography forms a natural undulating amphitheatre of gentle slopes with a drainage line running through the centre of the site from south to north in the upper catchment of Blacktown Creek and Parramatta River. The site is largely cleared of trees and is predominately covered by exotic pastures with some limited areas of native vegetation. There is a total of approximately 2.2 hectares of Cumberland Plain Woodland scattered through the site including pockets in the north and south east parts of the site.

The site has been used mainly for agricultural and horse agistment purposes and contains 5 dilapidated houses and associated garages, outbuildings and sheds mainly located towards the southern and eastern boundaries.

To the north of the site immediately on the opposite side of the M4 Motorway is further vacant land (owned by the NSW Government) which is zoned for general industrial use, then the Great Western Highway and the residential suburb of Prospect (some 500 metres to the north of the site). To the south of the site is native bushland surrounding Prospect Reservoir. To the east are a small number of rural residential land uses and a telecommunications tower facility, and the Greystanes employment lands. To the west are other rural properties and the remainder of the Western Sydney Parklands used for various recreational purposes including Blacktown Drive-Inn, Eastern Creek Raceway, and Western Sydney Dragway.

The Wet'n'Wild Development

Prospect Aquatic Investment's vision is to create a world-class iconic water theme park, entertainment and recreational destination known as Wet 'n' Wild Sydney with a spectacular array of state of the art water theme park rides and attractions.

The Wet'n'Wild Sydney water theme park is to deliver to the residents of western Sydney a major recreational and tourism facility that will provide specialised areas for all groups including families, children and teenagers along with corporate function facilities, hospitality, food & beverage and retail offerings. The design includes distinct precincts around key rides and attractions and support facilities including the surf wave pool centrepiece, lazy river, children's pool areas, extreme river and thrill rides, central support facilities and rest areas, park entry plaza, and natural wetland. The creation of these precincts presents a multitude of entertainment experiences through the water park.

The principal theme in the design of the water theme park is the creation of an environment that embodies and reflects *Australian Surf-Beach Culture* which has a universal image to which teenagers and families have a strong affinity.

Stages 1 and 2

Stages 1 and 2 of Wet'n'Wild Sydney comprise the following:

- **Water theme park rides and attractions** that include a surf wave pool and lazy river ride as the fixed centre pieces, and a series of rides for families, children and teenage thrills.
- **Ancillary park support facilities** including car park, entry building, food & beverage facilities, restrooms/lockers, outdoor sporting facilities, events area, merchandise facilities, back-of-house loading dock and administration office facilities, and a number of safety and security measures including life guards, ride attendants, first aid building, access controls and information services.
- **Landscaping** of the water theme park with various landscape zones and spaces to integrate with native woodland around the site perimeter and reinforce the character of different precincts proposed within the water theme park.
- **Access and parking** including a new access road and signalised intersection off Reservoir Road, and parking for a total of 1,857 cars including 42 spaces for the disabled, 18 buses, 20 motorcycles and bicycles.
- **Water cycle management** that includes a stormwater management and rainwater use plan to achieve objectives for water quality and quantity on the site including approximately 90% of the water needed for irrigation, toilet flushing and washdown from the use of rain water.
- **Utility services** delivery to the site including water, sewer, gas, electricity and telecommunications.
- **Signage** guidelines for the water theme park and plans for the main signage proposed on the M4 and Reservoir Road frontages and on the main park entry.
- **Site preparation works** including earthworks that achieve a net balance of cut and fill, demolition of existing buildings (other than the historic former policeman's cottage), and tree removal.
- **Environmental management plan** for the construction and operation of the water theme park that includes objectives, targets and actions for water conservation, energy conservation, materials and waste, traffic and transport, environmental emissions, biodiversity and social amenity.

- Operating hours as follows:

Months	Operating Hours
December and January	9am to 11pm; and to 12 midnight for special events
February to April	9am to 6pm weekdays 9am to 10pm weekends
May to August	9am to 5pm as weather and circumstances permit; and Temporary Closures for Upgrades
September to November	9am to 6pm weekdays 9am to 10pm weekends

- **Visitor numbers** estimated at up to 925,000 visitors per year with seasonal fluctuations that range between 9,000 to 11,000 visitors per day in the peak summer period and 1,500 to 2,000 visitors in the cooler periods of the year.
- **Staging** that comprises the envisaged opening of Stage 1 and part of Stage 2 in September 2012 with a total of 15 major rides and attractions, and ongoing construction during park closure periods in winter for the remainder of Stage 2 over an indicative 5 years and Stage 3 over an indicative 10-15 year time period.

Complying Development Code for Future Stages

The Part 3A Concept Plan Application seeks approval of a Draft Complying Development Code for the erection of future rides, attractions and ancillary structures on the site including the Stage 3 future expansion area.

Complying Development would be approved through the issue of a Complying Development Certificate by either Blacktown City Council or an accredited private certifier for future water theme park development on the site that meets the development standards in the proposed Complying Development Code. Development that does not meet the complying development standards in the Code would need to be the subject of a Part 3A Project Application for the approval of the Minister for Planning.

The Draft Code essentially allows the following types of development to be carried out as Complying Development on the site subject to meeting prescribed standards and conditions:

- Water ride tower structures up to a height of 35m above finished ground level; and
- Buildings used for ancillary support facilities up to a height of 12 metres above finished ground level with a maximum footprint of 1,000m^2.

The prescribed standards and conditions in the Draft Complying Development Code relate to building heights and setbacks; structural integrity and safety of rides; relevant codes and standards for building construction, food premises and demolition; limitations to earthworks and tree removal; and consistency with the Part 3A Concept Plan for Wet'n'Wild Sydney.

Environmental Assessment

The assessment of environmental planning issues associated with the Part 3A Concept Plan Application for the proposed Wet'n'Wild Sydney water theme park is provided in accordance with the Director-General's Environmental Assessment Requirements (DGRs). A summary of this assessment is given below.

Planning Instruments

The proposed Wet'n'Wild Sydney water theme park is consistent with the provisions of the relevant planning instruments identified in the DGRs, and particularly in the following respects:

- The Metropolitan Plan for Sydney 2036 and the North-West Draft Subregional Strategy identify the 'Western Sydney Parklands' in which the site is located as a major new regional open space providing for the recreational needs of existing and planned future communities in western Sydney. The proposed water theme park is consistent with these NSW Government planning strategies in contributing to meet the recreational needs of western Sydney.
- The SEPP (Western Sydney Parklands) 2009 is the principal environmental planning instrument applying to the site. The proposed water theme park development is permissible in the parklands with the approval of the Minister for Planning and consistent with the aims and objectives of the SEPP. The relevant matters for consideration prescribed in the SEPP for new development have been addressed in the planning of the proposed water theme park.
- The Draft Western Sydney Parklands Plan of Management (October 2010) presents the vision and prioritised actions for the parklands over the next decade. The site is located within the precinct identified as "Precinct 7 – Prospect Recreation", and is specifically identified as a "Tourism Hub". The proposed Wet'n'Wild water theme park development is consistent with the Draft Plan of Management in providing a major recreational and entertainment facility in the parklands.
- The proposed development is also consistent with the NSW State Plan, objects of the EP&A Act, and the provisions of SEPP 55 – Remediation of Land and SEPP (Infrastructure) 2007.

Transport and Accessibility

Road network

The major roads surrounding the site and current traffic volumes include the M4 Motorway (120,000 vehicles per day on average), Prospect Highway (40,600 vehicles per day on average to the north of the M4 and 2,000 vehicles per day to the south of the M4), and Reservoir Road (2,000 vehicles per day).

RTA plans for the road network include the extension of Prospect Highway – Reconciliation Drive to the south of the locality through the newly developing Greystanes industrial estate to meet the suburb of Wetherill Park and other south west suburbs. This extension is expected to increase traffic volumes on Reconciliation Drive - Prospect Highway and the interchange with the M4.

The proposed development of the water theme park is expected to generate vehicle traffic volumes ranging from 200 vehicles per hour in non-peak periods to 400 vehicles per hour in peak periods. This increase in traffic volumes can be accommodated on the road network and intersections with acceptable levels of service with the exception of the roundabouts at the M4 Motorway and Prospect Highway interchange in the weekday afternoon peak period.

In light of the capacity issue at this M4 – Prospect Highway interchange, the proponent has made a significant contribution to road and intersection upgrades in the locality as part of the lease agreement for the land with the NSW Government to mitigate traffic impacts from the water park. The RTA is committed to completing these upgrades in time for the water theme park to open to the public.

Public Transport and other Modes of Access

The existing public transport around the site comprises the 182 Westbus route (Fairfield to Blacktown) which runs on Reconciliation Drive with a bus stop some 400m to the east of the site. This bus service operates Monday to Friday between 5am and 7pm. It runs to and from Blacktown rail station taking approximately 15 minutes to make the 5km journey.

The proposed water theme park development includes the following measures to supplement the existing public transport, decrease reliance on private vehicles and ensure the park is more accessible. These measures include:

- commitment to investigate shuttle buses between the site and Blacktown railway station;
- provision of secure bicycle parking facilities for both visitors and workers;
- provision of priority parking for vehicles with three or more occupants.

Access for the Disabled

All parts of the water theme park including access circulation paths and buildings (other than the water rides) comply with access standards and requirements in relevant Australian Standards, the Building Code of Australia, the Commonwealth Disability Discrimination Act 1992 (DDA) and Blacktown DCP subject to the implementation of detailed design measures in construction stage.

The water rides may not be fully accessible to people with a disability due to the nature of the rides, and health and safety regulations. This accords with the DDA Access Code. In these cases, viewing areas are provided adjacent to the rides enabling participation in the experience through friends or family members.

Ecologically Sustainable Development

An Environmental Management Plan (EMP) is included in the proposed development to ensure its consistency with the principles of ecological sustainable development. The EMP is for the construction and operation of the water theme park and includes objectives, targets and actions for water conservation, energy conservation, materials and waste, biodiversity, environmental quality and emissions, transport, and social amenity.

Built Form and Urban Design

The proposed Wet'n'Wild water theme park provides a large scale development that will be a major focal point for recreation and entertainment in western Sydney. The type and scale of the development is appropriate for the site in the context of being identified in planning instruments as a 'Tourism Hub' within a recreational precinct in the Western Sydney Parklands.

The site planning and design of the water theme park includes a number of measures that respect the natural topography of the site and surrounding properties, reduce its impact on the landscape and amenity of the area, and provide for an interesting and entertaining experience for users of the water park. These measures include fitting the main water theme park facilities into the natural topographical amphitheatre, locating the building and ride structures towards the centre of the site, and creating distinct precincts around key rides, attractions and support facilities.

The building designs include a mix of rides and attractions designed to provide a range of experiences for the purposes of entertainment, access and safety. The larger ride structures have a relatively light weight, visually permeable and sculptural frame structure that reduces visual impact. The support buildings and shade structures are designed to reflect the character of Australian surf beach culture, fun, recreation and entertainment as well as serving the support functions, providing weather protection, and meeting ESD design quality principles in the EMP.

The landscape design integrates with the native woodland around the perimeter of the site, and reinforces the character of different precincts within the main water theme park. This includes a park entry celebrated with iconic avenue trees, surf wave pool with landscape material normally found around beaches on the eastern seaboard, a sub tropical rainforest for shade and an intimate experience around the children's water play area as well as the river rides and bungalows, supplementing existing woodland areas with plantings of Cumberland Plain Woodland species, and planting of native wetland species around the water detention pond.

Environmental and Residential Amenity

Visual Impact Analysis

Photomontages of the proposed Wet'n'Wild water theme park development taken from significant vantage points surrounding the site show that:

- it will be visible only in parts along the M4 Motorway due to the vegetation on the motorway reserve and on the site which screen the site;
- it will be visible along most parts of Reservoir Road; and
- it will be a distant view in the landscape from the nearest residential zone in Prospect approximately 500m to the north.

The impact of the proposed water theme park development on the visual landscape is reasonable within the context of the site being identified in planning instruments as a 'Tourism Hub' in the Western Sydney Parklands and the principles used in the planning and design of the water theme park to minimise the impact on the landscape.

Impacts on Surrounding Development

The proposed water theme park development will not have any unreasonable impact on amenity of surrounding properties in terms of sunlight access, acoustic privacy, visual privacy, views and wind primarily due to the nature of the surrounding land uses, separation distances and site planning.

The proposed development will not have any significant impact on the amenity of any residential zone as the nearest zone is located approximately 500m to the north of the site in Prospect on the opposite side of the M4 Motorway and Great Western Highway.

The rural residential properties immediately to the east and west of the site and church property to the east will be impacted by the proposed development in terms of increased traffic and associated noise. This impact is reasonable within the context of the site being identified in planning instruments as a 'Tourism Hub' in a recreation precinct in the Western Sydney Parklands, and in light of the measures employed in the site planning and design of the water theme park to mitigate impacts on the amenity of the area.

Safety and Security

The proposed water theme park includes a range of ancillary park support facilities for the safety and security of park users. These facilities include park access controls, food & beverage facilities, restrooms/lockers, life guards and ride attendants, first aid, and information services.

The proposed water theme park has been planned and designed in accordance with the principles of Crime Prevention Through Environmental Design (CPTED) including surveillance, access and space management.

Good surveillance opportunities have been implemented throughout the park through the provision of excellent sightlines, positioning of ride attendants and lifeguards, effective lighting, and limiting hiding places.

Access control measures are to be used within the park including perimeter fencing, turnstile or similar entry points, and gated restrictions to back of house facilities.

Space management of the site will ensure all areas of the park are well maintained and used to ensure that visitors feel safe and comfortable. This will include maintenance measures such as prompt replacement of expired lighting and decayed materials, and prompt removal of any vandalism and graffiti.

A security management plan and code of practice will be prepared for the licensed bar as part of the application for a liquor licence at a future stage prior to trading.

Implementation of the above measures will help to reduce the opportunities for crime and contribute to a safe and secure environment for patrons to enjoy.

Heritage and Archaeology (Non-Aboriginal)

A statement of heritage impact prepared for the proposed development identifies the primary conservation requirements for the site as the retention of the following items which have been incorporated into the water theme park development:

- the former Policeman's Cottage and its immediate curtilage;
- the group of tall pine trees in the immediate vicinity of the former Policeman's Cottage;
- the visual link between the elevated site of the former Policeman's Cottage and St Bartholomew's Church;
- the alignment of Reservoir Road;
- the alignment of Watch House Road;
- any archaeological relics associated with the building formerly located between the Policeman's Cottage and the Reservoir Road frontage; and
- careful management of potential archaeological relics.

Aboriginal Heritage

An Aboriginal Heritage Assessment has also been prepared in consultation with Aboriginal community stakeholders as part of the planning of the proposed development. The assessment found two artefact sites - one low density artefact scatter and one isolated artefact – and concludes that the north eastern portion of the site is the location of a Potential Archaeological Deposit (PAD). The assessment finds that the majority of the site exhibits low levels of archaeological significance due to moderate to high disturbance during past agricultural use.

The two artefact sites are located in the natural drainage line within the area most suitable for the proposed stormwater detention pond and water treatment wetland. The artefacts are proposed for collection and conservation in conjunction with test excavations and in consultation with Aboriginal community stakeholders.

An Aboriginal Heritage Management Plan will be prepared for the PAD site which is not affected by the proposed development in Stages 1 and 2. The plan will be developed in consultation with the Aboriginal stakeholders currently involved in the project and provide recommendations relating to the assessment of future activities involving subsurface impacts and any relevant conservation measures.

Stormwater Management and Flooding

A Water Cycle Management Plan prepared for the water theme park includes a range of measures to achieve the objectives for water quality and quantity established in documents prepared by Blacktown City Council, the previously known NSW Department of Environment and Conservation, Upper Parramatta River Catchment Trust, and Western Sydney Parklands Trust.

The Water Cycle Management Plan has integrated plans for stormwater management and rainwater use. The water management for pools, rides, kitchens, showers and handbasins are separate systems to stormwater as the water quality and health requirements for these uses are not compatible with the proposed stormwater drainage and reuse systems.

Stormwater Management

The proposed stormwater management plan includes the following components to achieve the objectives for water quality and quantity:

- vegetated water treatment swales throughout the car park;
- roof water collection in tanks for reuse;
- pits and underground pipes through the main water park areas;
- gross pollutant traps (GPTs) prior to discharge into wetland;
- water treatment wetland;
- stormwater detention and reuse pond;
- overflow discharge into Blacktown Creek.

Rainwater Use

The proposed development includes the collection and use of rainwater for:

- irrigation water from the detention and reuse pond; and
- toilet flushing and washdown water from roof water collection tanks.

This will achieve approximately 90% of the water needed for irrigation, toilet flushing and washdown from the use of rain water.

Flood Assessment

Flood modelling predicts flood levels of 77.2m Australian Height Datum within the site in the Probable Maximum Flood (PMF) event. The lowest floor level of park infrastructure and water level of pools is approximately 79m AHD, well above the PMF flood level.

The modelling demonstrated that on large rainfall events up to and including the 100 year Average Recurrence Interval event there will be a substantial reduction in flows passing the M4 compared to the site in its current condition, and this is predicted to result in lowered flood levels up to 1 in 100 year events.

During the PMF event, the M4 flood level is currently about 300mm above the road surface. This level is predicted to increase slightly after the development, however no new flood hazard is created.

Contributions

There are no contributions plans that apply to the proposed development under the EP&A Act.

Prospect Aquatic Investments Pty Ltd has made a significant contribution to the NSW Government towards the study and upgrade of road intersections in the locality as part of the terms of the lease agreement for the land.

Contamination

A Phase 2 Environmental Assessment has been carried out to determine if there is any soil or groundwater contamination on the site associated with past agricultural activities and areas of fill on the site. The assessment found that there are low level contaminants on the site that are not of concern, and concludes that in the absence of significant contamination, the site is suitable for the proposed water theme park development in its current state without any soil or groundwater remediation.

Geotechnical Issues

Geotechnical investigations have found that the site conditions are suitable for the proposed development with a low risk of any soil slope instability. A number of standard construction practices relating to slope batters, footings to bedrock, drainage and water proofing, and fill construction are recommended for site stability in the geotechnical report.

The site is identified as having subsurface saline soils, and a salinity management plan has been prepared for the development to minimise any potential impacts on the water park.

Flora and Fauna

The majority of the 25.5 hectare site is cleared of native vegetation and comprises mainly exotic/disturbed grass/pastureland and shrubland. A total of 2.2 hectares of Cumberland Plain Woodland (CPW) is located on parts of the site. CPW is listed as an ecological community that is classified as threatened under Commonwealth legislation and endangered under State legislation in NSW.

A significant portion of the CPW is located within the natural drainage line and low point of the site where it is the most suitable location for the proposed stormwater detention pond and water treatment wetland for the water theme park. As a consequence, the proposed development of the stormwater pond and wetland involves the removal of 0.78 hectares of CPW.

The proposed landscaping of the water theme park includes the planting and regeneration of approximately 1.5 hectares of CPW species on the site.

The biodiversity assessment prepared for the proposed development finds that there is more than 3,000 ha of the CPW community in existence, and the proposed development will impact on 0.03% of it. The assessment concludes that the extent of habitat to be removed is negligible in the context of the existing CPW within the study area and the area being retained and replanted/regenerated on the site. Further, the vegetation removal will not affect habitat connectivity nor increase fragmentation as the vegetation to be removed is degraded with a high prevalence of exotic flora species, and has been subject to horse grazing for a number of years.

The assessment also concludes that it is unlikely the proposed development would significantly impact on threatened fauna species and ecological communities that are 'known' or considered 'likely' to utilise the site and CPW.

A number of impact mitigation and amelioration strategies have been included in the proposal including the planting/regeneration of more than 1.5 hectares of CPW species on the site as part of the landscaping of the water theme park. These strategies mitigate the potential effects of the proposal on threatened species, populations, ecological communities, or their habitats and minimise the impacts of the proposal on the flora and fauna values of the study area in general.

Noise and Vibration

A noise and vibration assessment prepared for the proposed water theme park considers the noise and vibration impact from both the construction and operational phases of development including noise from patrons, traffic, parking, and amplified music events.

The nearest sensitive noise receivers include rural residential dwellings to the east and west of the site, and St Marks Coptic Catholic Church situated further to the east.

The noise assessment finds that the planning and design of the water theme park includes a number of measures that effectively mitigate potential noise from the development. These measures include orientation of rides towards the centre of the site, landscaping and recommended screening measures.

Operational Noise

The operation of the park will meet relevant noise criteria for the sensitive noise receivers with the exception of some potential minor exceedance after 10pm. Amplified music events will also exceed noise criteria at nearby properties. A number of ameliorative measures are proposed during events involving amplified music relating to notification to surrounding properties and direction of amplified speakers.

Construction Noise

The noise assessment finds that construction noise is unavoidable and it is likely that there will be some level of disturbance to surrounding receivers during demolition works and construction. However, no receivers are predicted to be exposed to noise levels exceeding 75dB(A), being the level at which a receiver is considered to be 'highly effected'. Mitigation measures are proposed to reduce acoustic impacts resulting from the construction activities through limiting to construction hours and operation of machinery.

Traffic Noise

Traffic arising from the development will cause an increase in noise over current levels slightly (2dB) in exceedance of criteria for the sensitive noise receivers. However, all receivers are within the vicinity of the planned future road link from Prospect Highway to Wetherill Park which is expected to result in significantly increased traffic flows which exceed the peak traffic generated by the proposed development and which will diminish the acoustic impacts of traffic arising from the proposed water theme park.

Vibration is not expected to be an issue, as the nearest receivers are situated over 100m from mechanical plant items and rides.

Bushfire Protection

The bushfire hazards on and around the site include the CPW to the south on the opposite side of Reservoir Road around Prospect Reservoir which is identified as bushfire prone land, and the two areas of remnant CPW being retained within the site which fall within the classification of 'low hazard vegetation'.

The proposed development incorporates bushfire protection measures in accordance with the NSW *Planning for Bush Fire Protection 2006* guidelines including provision for safe evacuation and emergency access, defendable space around enclosed buildings, asset protection zones (APZs), fuel management within APZs, construction standards for buildings located within 100 m of bush fire prone vegetation, water supply and fire hydrants, and standards for electrical and gas infrastructure.

Hazardous Materials

Existing buildings on the site proposed for demolition have been audited for hazardous materials and found to contain asbestos materials. The asbestos containing materials are proposed to be removed by a licensed asbestos removal contractor in accordance with the requirements of WorkCover NSW, the 'National Occupational Health and Safety Commission Code of Practice for the Safe removal of Asbestos (2nd edition') 2005, the 'Guide to the control of Asbestos Hazard in Buildings and Structures' 1988 and AS 2601-2201. Any contaminated materials or hazardous substances will be classified first, and then stored, transported and disposed of in accordance with DECCW requirements at a licensed waste facility.

The proposed development will include the storage of chemicals in the maintenance area at the rear of the surf wave pool plant room as the primary store and smaller compliant storage areas for liquid chlorine. All chemical storage areas are proposed to be designed, built and operated in accordance with the relevant standards: AS 3780-2008 Storage and handling of corrosive substances; AS 1940 -2004 Storage and handling of combustible materials; AS 4326 -2008 The storage and handling of oxidizing agents; AS/NZS 3833 -2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers; Dangerous goods safety management Act 2001; and Occupational Workplace Standards Act for NSW.

Consultation

The proponent has established and implemented a pro-active consultation program with key stakeholders in the planning and development of Wet'n'Wild Sydney. The consultation program includes stages: Stage 1 – Pre-lodgement; Stage 2 – Public exhibition; and Stage 3 – Response to submissions

The pre-lodgement phase of the project is complete and involved consultations with various stakeholders with an interest in the proposal including tenants and nearby residents, State and Local Government and associated agencies, district heritage groups and environmental groups, and civic and economic development organisations. The main issues raised in this stage include:

- Strong public expressions of support from all levels of Government, business and civic groups;
- Strong support for economic rationale, tourism potential, employment generating opportunities, particularly for western Sydney;
- Multiple expressions of interest from local businesses to project website;
- Traffic management, site access, on site parking and timing of infrastructure improvements;

- Water and energy sustainability; and
- Social and cultural heritage, alignment of Reservoir road, maintenance of old policeman's cottage and associated pine trees.

These issues have been addressed in the planning and design of the development as described in the relevant sections of this EAR.

Construction Management

A construction management plan will be prepared for the project prior to the commencement of works. The plan will manage the construction and its potential impacts, and address measures for site safety and security, construction vehicle traffic management, erosion and sediment controls, dust suppression, noise and construction hours, waste management, site responsibilities and reporting.

Conclusion and Justification

Given the circumstances described above, the proposed Wet'n'Wild water theme park development satisfies the legal planning assessment requirements of the EP&A Act and the Director-General, and is considered to be consistent with the principles of ecologically sustainable development. Given these planning merits, we request that:

- the Minister approve Stages 1 and 2 of the Wet'n'Wild water theme park, and determine under Section 75P(1)(c) of the EP&A Act that no further environmental assessment or applications are required for Stages 1 and 2 to proceed immediately to construction certification.
- the Minister issue an Order under Section 75P(2)(d) of the EP&A Act to implement the Complying Development Code for the erection of future rides, attractions and ancillary structures on the site in future stages of development.

1.0 Introduction

This Environmental Assessment Report (EAR) is submitted in support of a Part 3A Concept Plan Application for a water theme park development to be known as "Wet 'n' Wild Sydney", to be constructed on land at Reservoir Road at Prospect (the site).

JBA Urban Planning Consultants Pty Ltd has prepared this EAR on behalf of the applicant, Prospect Aquatic Investments Pty Ltd (PAI) which is a wholly owned subsidiary of the ASX listed Village Roadshow Limited.

PAI is submitting a Part 3A Concept Plan for Wet 'n' Wild Sydney over the whole site and is seeking approval under Part 3A the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the following:

- Stages 1 and 2 - Design, Construction and Operation; and
- Complying Development Code for the site including Stage 3.

The Part 3A Concept Plan includes a level of detail for Stages 1 and 2 over the majority of the site sufficient for the Minister to approve it and determine under Section 75P(1)(c) of the EP&A Act that no further environmental assessment or applications are required in order for Stages 1 and 2 to proceed immediately to construction certification.

The Part 3A Concept Plan also includes a Draft Complying Development Code for the erection of future rides, attractions and ancillary structures on the site. This includes the Stage 3 future expansion area and future renewal of facilities in all stages. The Complying Development Code can be implemented by Order issued by the NSW Minister for Planning under Section 75P(2)(d) of the EP&A Act.

This Report provides a description of the site and the Part 3A Concept Plan and proposed water theme park development, and includes an assessment of environmental planning issues in accordance with the Director General's environmental assessment requirements issued under Section 75N of the *Environmental Planning & Assessment Act, 1979* (the EP&A Act) which are included at **Appendix A**.

An expert project team has been formed to deliver the project and prepare supporting technical documents which are appended and should be read in conjunction with the main body of this EAR.

The project team includes the following:

Proponent	Prospect Aquatic Investments Pty Ltd
Planning	JBA Planning
Designers	White Water
Landscape Architecture	Oculus
Survey	Bee & Lethbridge
Water Management	Brown Consulting
Civil Engineering	Brown Consulting
Transport and Traffic Engineer	Arup
Ecology – flora and fauna	EcoLogical
Bushfire Assessment	EcoLogical
Historic Heritage	Graham Brooks & Associates
Aboriginal Heritage	Mary Dallas Consulting Archaeologists
Acoustic Engineer	Renzo Tonin & Associates
Accessibility	Morris Goding
Geotechnical	RCA Australia
Quantity Surveyor	Rider Levett Bucknall
Ecologically Sustainable Development	Sustainable Built Environments
Building Certification and Fire Engineering	Philip Chun

2.0 The Site

Site Location and Context

The site is located within the eastern side of the Western Sydney Parklands as shown in **Figures 1, 2** and **3**. It is bound by the M4 Motorway to the north, Reservoir Road to the south, Watch House Road to the east, and a property being used for rural purposes to the west.

Site Description

The site is described as Lot 1 in DP 1045771. It has an area of approximately 25.5 hectares and is an irregular shaped parcel of land.

The site dimensions include a frontage of approximately 500m along the northern M4 motorway boundary, 600m along the curved southern boundary frontage of Reservoir Road, and 300m along the eastern Watch House Road boundary. The site has a varying depth of between 300m and 500m between the M4 motorway and Reservoir Road.

The site is owned by the NSW Government's Western Sydney Parklands Trust, and is currently subject to an Agreement to Lease to Prospect Aquatic Investments Pty Ltd which will convert to a 50 year lease immediately upon practical completion of the construction works. A letter of landowner's consent from the Trust is included at **Appendix A**.

A Site Survey and Site Analysis Plans are included in **Appendix T** to this EAR.

Topography

The site is situated in the upper catchment of Blacktown Creek and Upper Parramatta River. The topography of the site forms a natural undulating amphitheatre of gentle slopes from the high point towards the south western corner to the low point towards the centre of the northern boundary. A natural drainage line runs through the centre of the site from south to north.

Geology and Soils

The site lies within the Bringelly Shale of Triassic age. The geology on the site includes carbonaceous claystone, siltstone, laminate and fine grained sandstone and shale.

Vegetation

The site is largely cleared of trees and is predominately covered by improved pastures with some limited areas of native grasses and vegetation.

Remnant Cumberland Plain Woodland is scattered through the site including pockets in the far north east and south east parts of the site covering a total of approximately 2.2 hectares.

Existing development

Over the years, the site has been used mainly for agricultural and horse agistment purposes and contains 5 dilapidated houses and associated garages, outbuildings and sheds mainly located towards the southern and eastern boundaries. An aerial photograph of the site is at **Figure 4**.

Surrounding Development

To the north of the site immediately on the opposite side of the M4 Motorway is further vacant land (owned by the NSW Government) which is zoned for general industrial use, then the great Western Highway and the residential suburb of Prospect some 500 metres to the north.

To the south of the site is native bushland surrounding Prospect Reservoir.

To the east of the site are a small number of rural residential land uses and a telecommunications tower facility, and the Greystanes employment lands.

To the west of the site are other rural properties and the remainder of the Western Sydney Parklands used for various recreational purposes including Blacktown Drive-Inn, Eastern Creek Raceway, and Western Sydney Dragway.

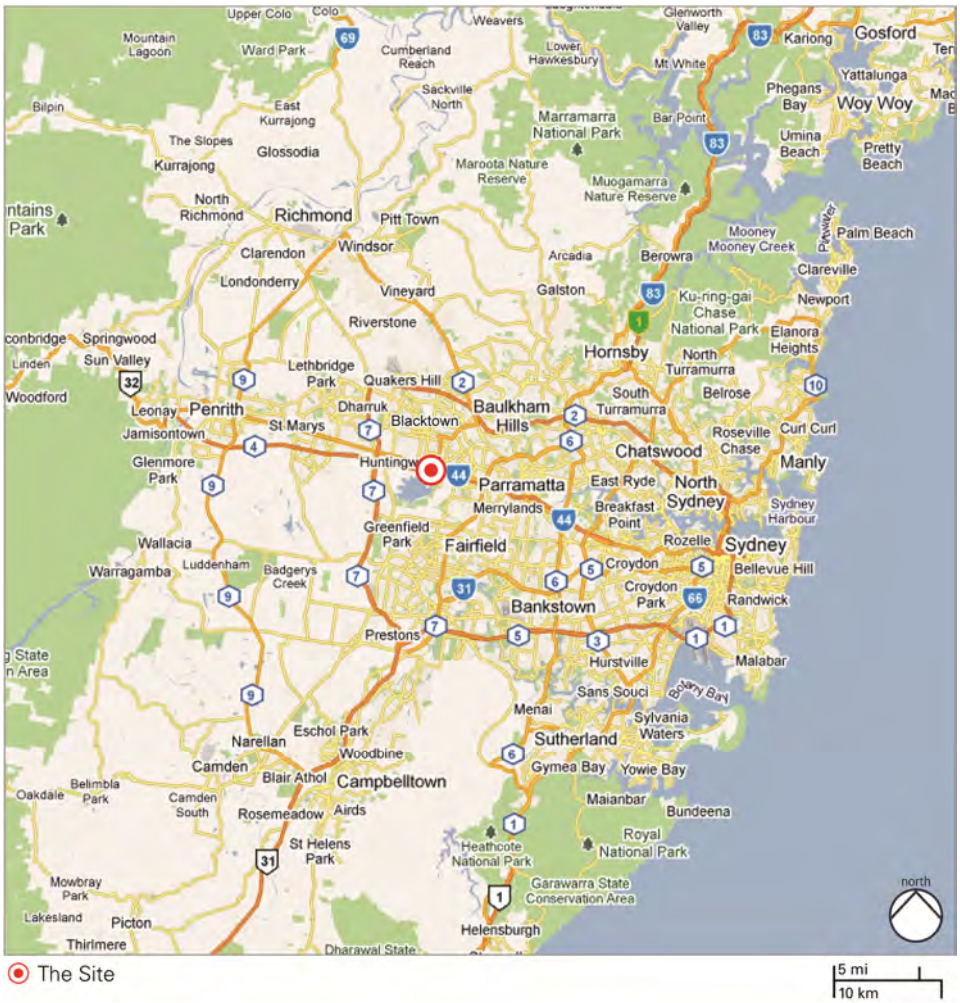


Figure 1 – Regional location

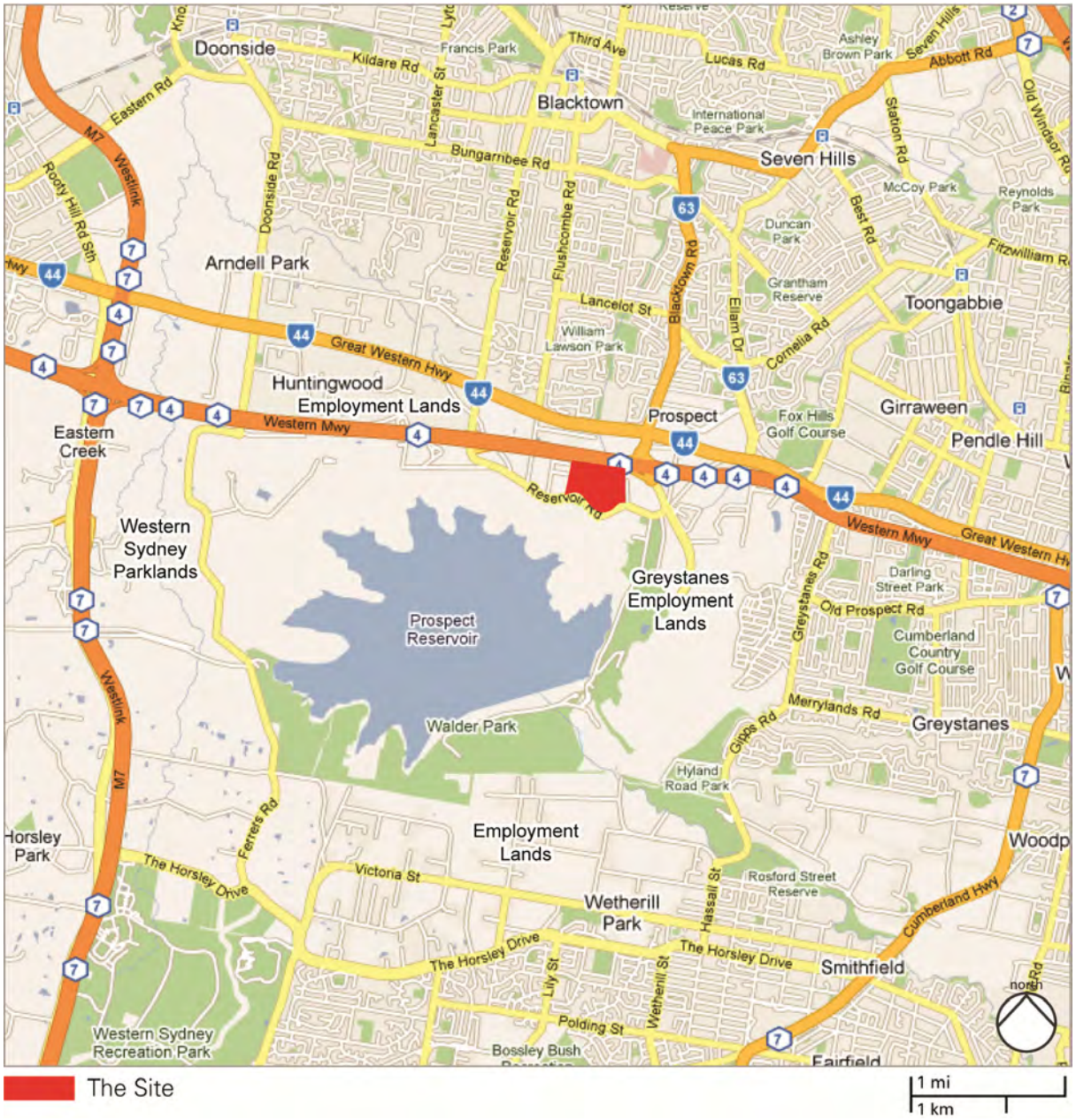


Figure 2 – Site location

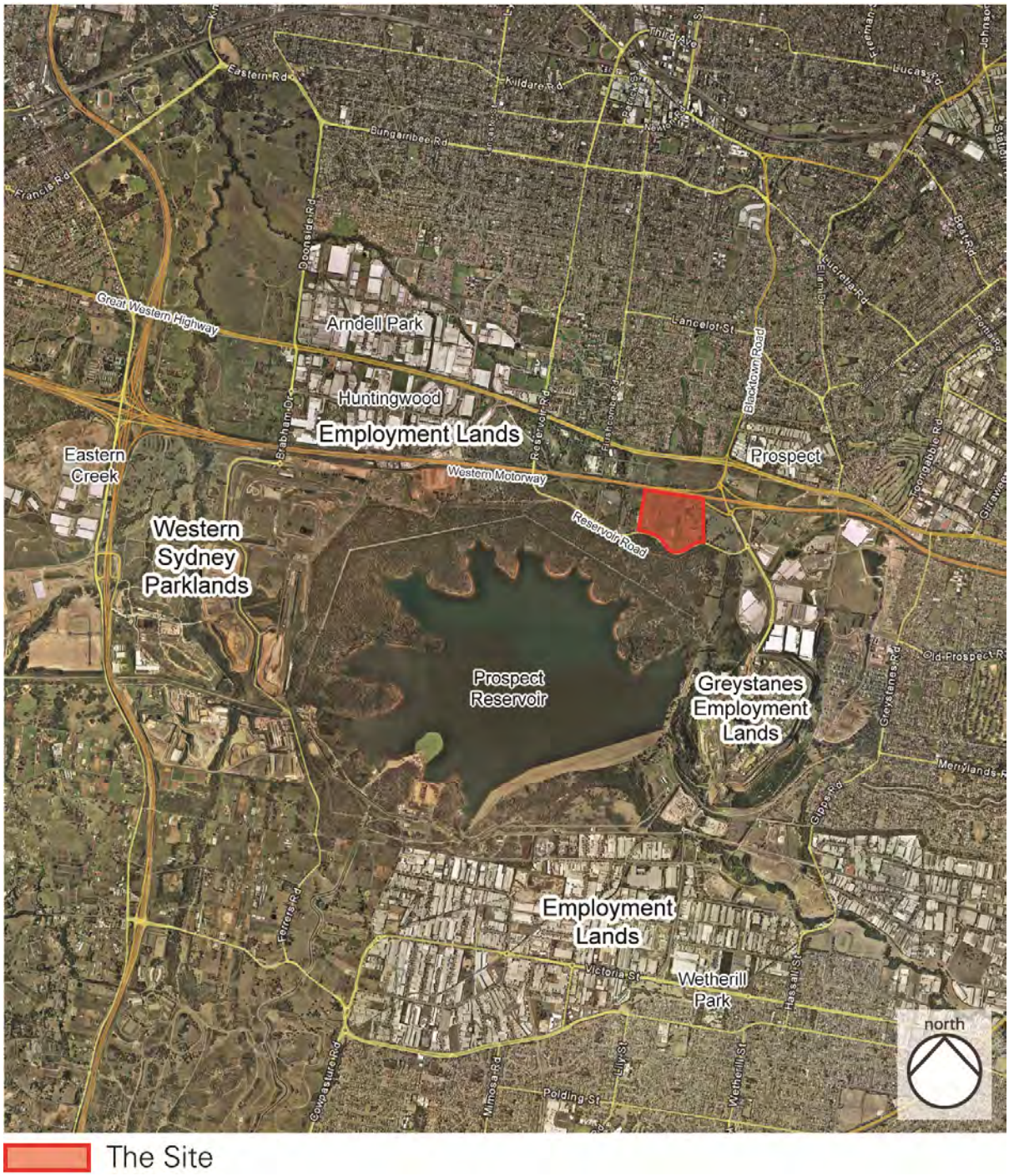


Figure 3 – Aerial photo of the site location

Figure 4 – Aerial photo of the site

3.0 The Wet'n'Wild Development

Prospect Aquatic Investments Pty Ltd propose to develop a Wet'n'Wild Sydney water theme park on the site at Reservoir Road, Prospect.

The Part 3A Concept Plan Application seeks approval for the following:

- Stages 1 and 2 – Design, Construction and Operation; and
- Complying Development Code for the site including Stage 3.

Plans and drawings of Wet'n'Wild Sydney - Stages 1 and 2 are appended to this EAR including Site Plan Drawings at **Appendix U**, Building Design Drawings at **Appendix V**, Landscape Plans at **Appendix W** and Photomontages at **Appendix X**.

3.1 Vision

Prospect Aquatic Investment's vision is to create an exceptional, world-class water theme park, entertainment and recreational destination known as Wet 'n' Wild Sydney. Wet 'n' Wild Sydney is expected to become one of the world's top 10 water theme parks by attendance and will have a spectacular array of the world's most state of the art water theme park rides and attractions providing the residents of western Sydney with a beach like destination they can call their own, and enhancing the lifestyle of the community in Greater Western Sydney.

Wet'n'Wild Sydney will deliver to the residents a water theme park that is set to make its mark as an iconic piece of social infrastructure across the Sydney landscape. It will provide the youth of Sydney with a single venue for all their fun and entertainment in a secure environment. For the young, it will become a 'cool' place to be seen, providing all the action and entertainment, aquatic and otherwise, they could imagine - plus more - and for parents it will become an exciting, entertaining environment where they can relax and unwind in the peace of mind of a safe environment for the whole family. Tourists from overseas and around Australia alike will make Wet 'n' Wild Sydney a "must do" part of their holiday. The business and corporate market will also be accommodated with an unrivalled environment for staff parties, picnic days and special event functions.

Wet'n'Wild Sydney will provide quality amenities set amongst striking architecture, landscaping and foliage. Water parks are about good, healthy, exhilarating outdoor fun and entertainment for the young and old alike. There will be specialised areas for groups including families, children and teenagers along with corporate function facilities, hospitality, food & beverage and retail offerings. The water park is to offer unique full day experiences and will promote repeat visitation from locals. Complementing the core water theme park activities will be a strong events calendar reinforcing the destination status of the park.

The proposal is to create an environment which embodies and is reflective of a theme of ***Australian Surf-Beach Culture*** which has a universal image to which teenagers and families have a strong affinity. This theme is to be manifest in the architecture of building structures, landscaping, artistic murals, paved surfaces, internal advertising of surf/beach brands, banners, display vehicles, piped music, competitions and activities, iconic red and yellow caps/flags/notice boards/buoys, open fires, live music and concerts.

3.1 Stages 1 and 2 Development

The Part 3A Concept Plan Application seeks approval for the design, construction and operation of Wet'n'Wild Sydney - Stages 1 and 2 which includes the following:

- Water theme park rides and attractions;
- Ancillary park support facilities;
- Landscaping;
- Access and parking;
- Water cycle management;
- Utility services strategy;
- Signage;
- Site preparation works - earthworks, demolition and tree removal;
- Environmental management plan; and
- Operating hours and carrying capacity.

3.2 Water Theme Park Rides and Attractions

The Concept Plan for Wet'n'Wild Sydney – Stages 1 and 2 includes a list of rides and attractions that can be separated into three broad categories or themes for children, families and teenagers. The proposed rides are shown in the plans and drawings appended to this EAR and comprise the following:

- 'Boomerang Bay' Surf Wave Pool
- Lazy/Adventure River
- Extreme River
- Tots Island Slides Pool
- Tots Island Giant Spray Pad
- Giant Rainfortress Waterplay on Wet Deck
- Family Double Python and Family Raft Ride
- Whizzard Mat Racer (6 Lanes)
- Duelling Master Blaster Tube Ride
- River Grotto/Waterfalls
- Double Aqualoop, Freeloop and Freefall Complex
- Double Flowrider
- Water Walkway With Interactive Sprays
- Innertube Slides (6 Flumes) with Superbowl/Rattler/ High-Speed Drop/Constrictor
- Family Boomerango and Abyss Raft Ride
- Zip Line
- Sky Coaster

Children

Children will be well catered for with a wide variety of attractions that have proven to be popular at Wet'n'Wild Waterworld on the Gold Coast and other water theme parks around the world. The children's area is located within a themed area that includes:

- Toddlers Water Play Pool – the toddler's pool area will include a wide variety of water play attractions designed specifically for ages 1-9 years. Attractions include soft-play animal structures, mushroom fountains, spray structures and large themed interactive soft play features such as pirate ships, submarines and the like.
- Interactive Water Play Zone – the interactive waterplay area includes a themed tower structure with interactive water wheels, water cannons, sprays, geysers and other water attractions.

Families

Water theme parks offer all the natural attractions of the beach and Wet'n'Wild Sydney is aimed to become *the beach for the families of Greater Western Sydney*, bringing the pleasures and lifestyle of Sydney's coastline to the people of western Sydney. A large number of rides and attractions capable of entertaining the entire family will be provided for and include:

- Surf Wave Pool – will form the signature centre piece attraction of the park. The wave pool may also cater for "dive in" movies. Children, teenagers and adults will be able to float around or laze adjacent to the wave pool whilst watching movies on a big screen above the wave pool.
- Lazy and Extreme Rivers - a lazy river and action river weaves throughout the water theme park and act as water transport around the water theme park. This attraction has multiple "rides within a ride" which includes various themed sections including rapids, waves, caves and diversions. It is ridden on a tube and can cater for the entire family.

Family and Teenager Thrill Rides

A number of thrill style water slides are provided to cater to both the teenage thrill market as well as families. Teenagers will be especially attracted to the 'jaw dropping' and 'adrenalin pumping' water slide rides and attractions.

Future Stages

The progressive implementation of the future expansion area will see the addition of further rides and attractions which will continue the everlasting appeal of the water park. PAI will endeavour to capture a number of "world firsts".

3.3 Ancillary Park Support Facilities

A wide range of building structures and facilities will be constructed to house the functions typically required for a major water theme park operation and to provide support, safety and security for park users. A Support Facilities, Safety and Security Plan is included at **Appendix U**. The following support building structures and facilities are included in Stages 1 and 2 of the proposed development.

Entry Building

An eye catching entry building will greet guests from the moment they arrive at the park. The entry building will set the tone for the water theme park with all buildings throughout the water theme park carrying the same theme.

Outdoor sporting facilities

Ancillary outdoor sport facilities and activities such as beach volley ball, beach cricket, beach soccer, rollerblading and skating, dive-in movies, family picnic areas, general recreational space will be investigated and implemented.

Events Area

An events area to host a wide range of shows and activities promoting the park as a compelling destination. This includes musical events, recreational events, sporting and cultural events, and exhibitions.

Food & Beverage

Quality food and beverage offerings are important factors for families when choosing to visit a potential venue. The water theme park will cater to a wide variety of tastes, with regular take away style food being available but also an emphasis on healthy food options.

Merchandise

Merchandise facilities will provide guests all their souvenirs and gifts typically found within a water theme park or theme park including all swimming apparel including towels, sunscreen, surf wear and the like.

Administration/First Aid

Administration facilities housing an enquiries reception area, offices and staff and other items, including the park's paramedics and first aid room, will be required and located within close proximity to the entry building.

Restrooms/Lockers

Various restrooms will be strategically located throughout the park together with a high number of lockers for guests to securely store their belongings for the day.

Policeman's Cottage

Under the terms of the Agreement to Lease, PAI proposes to refurbish the former "Policeman's Cottage" which is located in the far south western corner of the site. The future use of the cottage will be resolved at a later stage.

Back-of-house loading dock facilities

Back of house loading dock facilities will be included on the site with direct road access to the rear of the site.

Safety and security measures

The proposed development will include life guards and security at strategic locations throughout the water theme park, information services, and access controls through fencing surrounding the site and entry protocols.

List of Ancillary Park Support Facilities

The support facilities are shown in the plans and drawings appended in Volume 2 of this EAR and comprise the following in Stages 1 and 2:

- Entry Plaza
- Turnstiles
- Group Entry
- Guest Support
- Ticketing/ Group Sales (Under Canopy)
- Park Entry Overview
- Fencing
- Guest Services/First Aid
- Retail Shop/ Park Exit
- Change Rooms/ Showers/ Lockers/ Restrooms
- Rentals
- Main Food Service
- Dining Area Under Shade Canopy
- "All You Can Eat" Dining
- Central Overlook Plaza
- Tube Storage
- Group Picnic Pavilions
- Life guards and security
- Food and Beverage Services
- Special Events Lawn
- River Wave Equipment
- Sails Fabric Shade Structure
- Beer Garden
- Fast Food
- Terraced Sand Beach Lounging
- Rental Cabanas
- Smoking Area
- Restrooms
- Plaza With Iconic Giant Geyser
- Lounging Shade Structures
- Sloping Lawn
- Mechanical Space
- Administration And Staff Buildings
- Maintenance/Storage/Service Area
- River Beach Entry/ Exit

3.4 Landscaping

A Landscape Masterplan prepared by the landscape architects Oculus is included in **Appendix U** and detailed Landscape Plans prepared by Oculus are included in **Appendix W** for Stages 1 and 2. Oculus has provided the design statement on the proposed landscape concept for Wet 'n' Wild Sydney as based upon the following key design principles:

- recognising and reflecting the importance of the site and it's key location within the greater Western Sydney Parklands;
- enhance the identity of the site and provide a series of logically well connected landscape spaces;
- providing natural shading with evergreen canopy trees in association with fixed shade elements;
- providing clearly legible and safe pedestrian connections throughout the site and with the surrounding at grade carparks;
- reinforcing the main promenade as the primary structuring device for the site;
- bringing the surrounding landscape into the site through planting and other means;
- incorporating simple design treatments and a selection of robust landscape materials that minimise maintenance;
- providing a planting palette that provides a distinct landscape character that utilises primarily native and endemic plant material; and
- incorporating water sensitive urban design initiatives in the carparks and other locations where appropriate to reduce heat island effect and reduce solar glare.

The landscape concept proposes various landscape zones and spaces that will reinforce the character of the site all of which are connected by a well defined pedestrian circulation pattern throughout the site. The concept utilises a planting palette that recognises and works with these spaces to celebrate the site and entry to the water park, reflects the uses for each of the broader spaces and provides a micro climate of lush sub tropical plantings and native plantings along the interface with the wooded bushland adjacent the site.

The main vehicular entry road will be marked with iconic avenue trees to celebrate and provide hierarchy to the internal road system while the entry court will be planted with palms to mark the main pedestrian entry to the water park. Plant material normally found around the beaches of Sydney's eastern suburbs and naturally along the eastern seaboard of Australia is located around the wave pool and along the promenade to reinforce a beach character. The children's water play area as well as the river rides and bungalows contain sub tropical rainforest species to provide shade and a more intimate landscape experience. Accent and grove plantings will be used to highlight feature areas and mark important pedestrian nodes and gathering spaces.

The existing woodland areas will be supplemented with plantings of Cumberland Plain Woodland species that will provide a corridor between the two existing remnant stands and the water detention area will be planted with native wetland and sedge species. The carparks will incorporate water sensitive design elements including biofiltration swales and raingardens as well as tree planting to reduce glare and heat island effect. It is proposed that the landscape treatment associated with the former Policeman's Cottage will be simple and understated until renovations and future uses for the building are more fully determined.

3.5 Access and Parking

An Access Circulation Plan is included in **Appendix U** in this EAR.

Vehicle Access

The proposed vehicle access arrangements comprise the following:

- Visitor access road off a new signalised intersection with turning lanes off Reservoir Road to parking on the west side of the site as shown in the intersection works plans at Appendix V;
- Back-of-house loading access off Watch House Road on the north east side of the site; and
- Emergency vehicle access around the site and emergency egress from each side of the site.

Vehicle Parking and Loading

The proposed development includes parking for vehicles as follows:

- Main visitor car park with 1,857 car spaces including 42 spaces for the disabled, 12 bus coach spaces, 6 mini-bus spaces, 20 motorcycles spaces, bicycle parking and drop-off/ pick-up zone on the southwest part of the site,
- Staff car park (unsealed) on the north east corner of the site;
- Loading / back-of-house area on the north east side of the site.

Pedestrian and Disabled Access

The proposed development includes sealed pedestrian and disabled access paths throughout Stages 1 and 2 as shown in the access circulation plan and other drawings appended in Volume 2 of this EAR.

3.6 Water Cycle Management

A Water Cycle Management Plan prepared by Brown Consulting for Stages 1 and 2 is included at **Appendix B**. It includes the following components:

- objectives for water quality and quantity;
- stormwater management plan (schematic drawing included at **Appendix U**);
- rainwater use plan;
- pools, rides, kitchens, showers and hand basins.

The Water Cycle Management Plan has integrated plans for stormwater management and rainwater use. The water management for pools, rides, kitchens, showers and handbasins are separate systems to stormwater as the water quality and health requirements for these uses are not compatible with the proposed stormwater drainage and reuse systems.

Objectives for Water Quality and Quantity

The objectives for water quality used in the proposed development are adopted from:

- Blacktown City Council Development Control Plan (DCP) 2006 which contains required percentage reductions in post development average annual loads of various pollutants for the stormwater management plan; and
- NSW Department of Environment and Conservation (DEC) publication *Managing Urban Stormwater: Harvesting and Reuse* for the rainwater use plan.

The objectives for water quantity used in the proposed development are adopted from:

- Blacktown City Council DCP and the water quantity requirements of the Upper Parramatta River Catchment Trust (UPRCT) presented in the "On-site Stormwater Detention Handbook, Fourth Edition December 2005" for the stormwater management plan; and
- Environmental Management Guidelines for the development prepared by the Western Sydney Parklands Trust for the rainwater use plan.

Stormwater Management Plan

The proposed stormwater management plan includes the following components to achieve the objectives for water quality and quantity:

- vegetated water treatment swales throughout the car park;
- roof water collection in tanks for reuse;
- pits and underground pipes through the main water park areas;
- gross pollutant traps (GPTs) prior to discharge into wetland;
- water treatment wetland;
- stormwater detention and reuse pond;
- overflow discharge into Blacktown Creek.

Rainwater Use Plan

The proposed development includes the harvesting and use of rainwater for the following:

- irrigation water from the detention and reuse pond following UV disinfection and filtration of sediment;
- toilet flushing and washdown water from roof water collection tanks following UV disinfection and filtration of sediment.

The Water Cycle Management Plan achieves approximately 90% of the water needed for irrigation, toilet flushing and washdown from the use of rain water. The remaining 20% of water needed for these purposes will be obtained from potable water supply from Sydney Water.

Pools, Rides, Kitchens, Showers and Handbasins

The water management system for pools, rides, kitchens, showers and handbasins involves the use of a potable water supply from Sydney Water for these facilities and discharge of waste water from them into the Sydney Water sewer.

3.7 Utility Services Strategy

A Utility Services Strategy prepared by Brown Consulting is at **Appendix C** and a Utility Services Plan is included at **Appendix U**. The proposed strategy for delivery of utility services to the water theme park is as follows:

Water Supply

A new 250mm diameter main is proposed to replace the existing 100mm diameter main fronting the site in Reservoir Road. The new main will connect with the existing 300mm diameter main located approximately 350m to the east in Reservoir Road/Picrite Close.

The proposed development includes the relocation of the proposed Sydney Water easement from traversing through the middle of the site to along Watch House Road and part of the northern boundary of the site.

Sewerage

A new 225mm diameter main and easement are proposed to connect to the existing 300mm diameter sewer main in Norman Street, Prospect approximately 800m to the north of the site. The sewer will drain by gravity.

Gas

A new gas main and easement are proposed to connect to the existing gas main in Hampton Crescent, Prospect approximately 600m to the north of the site.

Electricity

New 125mm diameter underground conduits with 11kV power lines are proposed to connect to the existing substation approximately 1,200m to the southeast of the site near Reconciliation Drive on the edge of the Greystanes industrial estate.

Telecommunications

Connection to the existing Telstra fibre network in Reservoir Road is proposed, and any network upgrades will be resolved in consultation with Telstra.

3.8 Signage

Signage Guidelines prepared by the Western Sydney Parklands Trust and an Access and Directional Signposting Strategy for the proposed development are included in **Appendix D**. Signs are also shown on the architectural drawings of rides, attractions and building structures in Stages 1 and 2 at **Appendix V**.

The proposed signage in the Wet'n'Wild water theme park comprises the following:

- Three freestanding signs along the M4 Motorway and Reservoir Road frontages;
- One freestanding sign on car park entry road;
- Signs on rides, attractions and building structures; and
- Information/ directional signage through the park.

This Part 3A Application seeks approval for 4 possible locations for freestanding signs on the road frontages as shown in the landscape masterplan plan at **Appendix U**, on which a maximum of 3 freestanding signs are proposed to be erected in accordance with the Signage Guidelines.

3.9 Environmental Management Plan

An Environmental Management Plan (EMP) for the proposed water theme park prepared by Sustainable Built Environments is included at **Appendix E.** The EMP ensures that the water park will be constructed and operated in accordance with environmentally responsible best practices and will seek to incorporate the latest technologies and environmental standards. The EMP is based on Environmental Management Guidelines prepared by the Western Sydney Parklands Trust as part of the lease agreement for the land.

The EMP includes objectives, actions, indicators and performance targets for the following environmental performance categories:

- water use and conservation;
- energy use and conservation;
- materials and waste;
- traffic and transport;
- environmental quality and emissions;
- land and biodiversity; and
- social amenity.

3.10 Operating Times and Visitor Numbers

The proposed operating times for the Wet'n'Wild Sydney water theme park are as follows:

Months	Operating Hours
December and January	9am to 11pm; and to 12 midnight for special events
February to April	9am to 6pm weekdays 9am to 10pm weekends
May to August	9am to 5pm as weather; and circumstances permit; and Temporary Closures for Upgrades
September to November	9am to 6pm weekdays 9am to 10pm weekends

The water theme park is envisaged to cater for patronage in the order of approximately 925,000 visitors per year, and between 9,000 to 10,000 visitors per day in the peak summer period. There is a possibility that some (very rare) days will have more than 11,000 visitors.

The water park will operate mainly on an 8 month operating cycle from September to April (inclusive). Between May to August, the water park will be closed over the cooler winter months for upgrades, and open only if weather and circumstances permit.

The water park will have several low attendance weekdays (1,500 to 2,000 visitors), and the design of the park will support its seasonal nature and expected fluctuation in attendance levels.

3.11 Site Preparation Works – Earthworks, Demolition, Tree Removal

Bulk Earthworks

A cut and fill diagram for Stages 1 and 2 is included at **Appendix U** of this EAR. The objectives achieved by the earthworks design are as follows:

- design of the water theme park to fit into the existing topography to the extent possible;
- appropriate grades for car parks and access paths in accordance with relevant Australian Standards;
- building pad levels for park rides, attractions and facilities;
- suitable graded interfaces between park precincts; and
- a balance in cut and fill volumes across the site.

Demolition

Stages 1 and 2 of the project involves the demolition of existing building structures on the site comprising 4 of the 5 dwelling houses and associated garages, outbuildings and sheds. The former Policeman's Cottage in the southwest corner of the site is being retained.

Tree Removal

Stages 1 and 2 of the proposed development involves the removal of approximately 0.78 hectares of Cumberland Plain Woodland on the site mainly within the natural drainage depression area on the site to enable the development of the stormwater detention and reuse pond and associated water treatment wetland. The trees removed in the development are proposed to be replaced in the landscaping of the site.

3.12 Staging

The proposal is to continually upgrade and enhance the water park on a regular basis, and allow for subsequent capital reinvestment and further development of rides and attractions over the first 15 years of operation and beyond. The Concept Plan incorporates various expansion possibilities. An indicative Staging Plan is included in **Appendix U** with 3 stages that are described in the table below.

Stage	Estimated Timing
Stage 1	Completion for park opening envisaged in September 2012.
Stage 2	Partial completion for park opening in September 2012 to ensure a total of 15 rides and attractions together with Stage 1 for the park opening, and phasing of construction for the remaining part of Stage 2 over 5 years.
Stage 3	Phases of expansion over 10-15 years.

Stage 1 is also proposed to involve earthworks across both Stages 1 and 2, and the temporary landscaping (turfing) of Stage 2 areas.

The staging described above in indicative only and is not proposed to form part of a Part 3A Approval. The staging and timing is subject to a number of factors such as market conditions and budgetary circumstances that affect commercial decisions on the timing of development. In particular, the rides identified within Stage 2 that will be completed for the park opening together with Stage 1 will be selected after this Part 3A Application is made.

3.13 Complying Development Code for Future Development

The Part 3A Concept Plan Application seeks approval for the Draft Complying Development Code included at **Appendix F** for the erection of future rides, attractions and ancillary structures on the site including the Stage 3 future expansion area.

Complying Development would be approved through the issue of a Complying Development Certificate by either Blacktown City Council or an accredited private certifier for future water theme park development on the site that meets the development standards in the proposed Complying Development Code. Development that does not meet the complying development standards in the Code would need to be the subject of a Part 3A Project Application for the approval of the Minister for Planning.

The Draft Code essentially allows the following types of development to be carried out as Complying Development on the site subject to meeting prescribed standards and conditions:

- Water ride tower structures up to a height of 35m above finished ground level (being the anticipated height of some water rides in the future); and
- Buildings used for ancillary support facilities up to a height of 12 metres above finished ground level with a maximum footprint of 1,000m^2.

The prescribed standards and conditions in the Draft Complying Development Code relate to building heights and setbacks; structural integrity and safety of rides; relevant codes and standards for building construction, food premises and demolition; limitations to earthworks and tree removal; and consistency with the Part 3A Concept Plan for Wet'n'Wild Sydney.

4.0 Environmental Assessment

This section of the report provides an assessment of the environmental planning issues associated with the Part 3A Concept Plan Application for the proposed Wet'n'Wild Sydney water theme park in accordance with the Director-General's Environmental Assessment Requirements (DGRs).

The draft Statement of Commitments included in Section 8 of this report complements the findings of this section. The key issues in the DGRs and the location where they are addressed in this report are shown in the following table.

Director General's requirements		Location in Report
Key issues		
1.	**Relevant EPI's policies and Guidelines to be Addressed** ▪ Planning provisions applying to the site, including permissibility and the provisions of all plans and policies including: - Objects of the EP&A Act; - 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; - NSW State Plan; - Metropolitan Plan for Sydney 2036; - North West Subregion Draft Subregional Strategy; and - Nature and extent of any non-compliance with relevant environmental planning instruments, plans and guidelines and justification for any non-compliance.	Section 4.1
2.	**Transport and Accessibility Impacts** ▪ Provide a Transport Management and Accessibility Plan (TMAP) prepared with reference to the Draft Interim Guidelines of the NSW Department of Transport and Roads and Traffic Authority, Metropolitan Transport Plan – Connecting the City of Cities, the NSW State Plan, the NSW Planning Guidelines for Walking and Cycling, the Integrated Land Use and Transport policy package, the NSW Bike Plan, Premier's Council for Active Living (PCAL) - Anticipated traffic generation of the proposed development and the distribution of it along the surrounding road network system, its impact on existing intersections and surrounding road network system particularly on the state road network system, with regard to road capacity, traffic conditions, expected impacts and any upgrade requirements;	Section 4.2; Appendix G

	Director General's requirements	Location in Report
	- Detail impacts to the capacity of the road network system accounting for the current level of service and identification of road upgrades required to maintain satisfactory levels of service to the year 2021. - Daily peak traffic movements likely to be generated from the proposed development including impact on nearby intersections and the need / associated funding for upgrading or road improvement works (if required). Key intersections to be examined / modelled include: - - M4 on and off ramps/intersections to Prospect Highway; - - M4 on and off ramps/intersections to Reservoir Road; - - Great Western Highway and Reservoir Road; - - Great Western Highway and Prospect Road; - - Prospect Highway and Ponds Road; and - - Prospect Highway / Reservoir Road / Reconciliation Road. - Details of the proposed access, parking provisions and service vehicle movements associated with the proposed development, including compliance with Australian Standards; - Provide an analysis of potential public transport provision, walking and cycling connections within the vicinity of the proposed site and proposed measures to address accessibility to and from the site and connections to the wider region via sustainable transport modes. - Demonstrate how uses of the development will be able to make non-car based travel choices and identify measures to manage travel demand. - Identify appropriate measures to manage the demand for travel to and from the development, in particular reduce the demand to travel to and from the development by private car (car dependency) and increase the proportion of travel by public transport, walking and cycling to increase the non-car mode share for travel to and from the site. - Address the potential for implementing measures to reduce traffic impacts, including but not limited to, incentives to encourage car pooling. - Address the potential for implementing a location specific sustainable travel plan, such as a Work Place Travel Plan (WTP) for workers, and / or a Travel Access Guide (TAG) for visitors of the development. - Identify potential traffic impacts during the construction stage of the project, and measures to mitigate these impacts.	
3.	**Ecologically Sustainable Development (ESD)** ▪ Detail how the development will incorporate ESD principles in the design, construction and ongoing operational phases of the development; and	Section 4.3; Appendix I

	Director General's requirements	Location in Report
	▪ Include a description of the measures that would be implemented to minimise consumption of resources, water and energy, including an Integrated Water Management Plan which details any proposed alternative water supplies, water recycling, proposed end uses of potable and non-potable water, and water sensitive urban design.	
4.	**Built Form and Urban Design** ▪ Height, bulk and scale of the proposed development within the context of the locality and surrounding agricultural lands and residential development; ▪ Details of proposed open space and landscaped areas; and ▪ Design quality with specific consideration of the massing and public domain.	Section 4.4; Appendix V
5.	**Environmental and Residential Amenity** ▪ Detail how the development will impact on any significant view corridors into and out of the site, inclusive of a visual landscape analysis; ▪ Impacts of the proposal on acoustic privacy, visual privacy, view loss and wind impacts on surrounding development; ▪ Visual impacts on any heritage items within the vicinity; and ▪ Details of the measures to be implemented to achieve a high level of environmental amenity.	Section 4.5
6.	**Safety and Security** ▪ Address safety and security of the development, with particular reference to the Crime Prevention Through Environmental Design Principals.	Section 4.6
7.	**Heritage** ▪ A statement of significance and an assessment of the impact on the heritage significance of any heritage items and Prospect Reservoir Environmental Conservation Area should be undertaken in accordance with the guidelines in the NSW Heritage Manual. Particular consideration should be given to Prospect Reservoir and Surrounding Areas, The Royal Cricketer's Arm Hotel, St. Bartholomew's Anglican Church, and Reservoir Road.	Section 4.7; Appendix K
8.	**Aboriginal Heritage** ▪ The EA shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005.	Section 4.8; Appendix L
9.	**Archaeological Impacts** ▪ The EA shall address archaeological impacts in accordance with the NSW Heritage Office Archaeological Assessment Guidelines.	Section 4.7 and 4.8; Appendix K and L.

	Director General's requirements	Location in Report
10.	**Drainage & Stormwater** ▪ Detail how the development will address any drainage issues associated with the proposal including stormwater and drainage infrastructure; and ▪ Detailed plans of the proposed erosion and sediment control measures during demolition, construction and operation.	Section 3.6
11.	**Contributions** ▪ Address Council's Section 94 Contribution Plan and/or details of any Voluntary Planning Agreement.	Section 4.9; Appendix
12.	**Contamination** ▪ Demonstrate compliance that the site is suitable for the proposed use in accordance with SEPP 55.	Section 4.11; Appendix N and Q
13.	**Flooding** ▪ An assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005) including the potential effects of climate change, sea level rise and an increase in rainfall intensity.	Section 4.12; Appendix K
14.	**Utilities** ▪ In consultation with relevant agencies, the EA shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure works; and ▪ Arrangements to protect or relocate utility easements should be identified.	Section 3.17; Appendix C and AA
15.	**Staging** ▪ Details regarding the staging of the proposed development.	Section 3.12
16.	**Flora and Fauna** ▪ Address impacts on flora and fauna, including threatened species, populations and endangered ecological communities and their habitats and steps taken to mitigate any identified impacts to protect the environment.	Section 4.13; Appendix O
17.	**Noise and Vibration** ▪ Provide a quantitative assessment of the potential demolition, construction, operation and traffic noise impacts of the project.	Section 4.14; Appendix J
18.	**Waste** ▪ Identify, quantify and classify the likely waste streams to be generated during construction and operation; ▪ Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste; and ▪ Describe the measures to be implemented to manage the disposal of contaminated and potentially contaminated biological and sewage waste, if required.	Section 4.15; Appendix E

Director General's requirements		Location in Report
19.	**Bushfire** ▪ An assessment of any bush fire risk to the site including consideration of any relevant provisions of the 'Planning for Bush Fire Protection 2006'. Particular consideration should be given to internal and external public access roads to the site, water supplies, evacuation & emergency management / planning, Asset Protection Zones & areas of defendable space, and vegetation management and landscaping.	Section 4.16; Appendix P
20.	**Hazards** ▪ A description of the proposed storage, use and management of any hazardous material and measures to be implemented to manage hazards and risks associated with the storage.	Section 4.17; Appendix Q
21.	**Consultation** ▪ Undertake an appropriate and justified level of consultation in accordance with the Department's Major Project Community Consultation Guidelines October 2007.	Section 4.19; Appendix R

4.1 Planning Instruments

The relevant environmental planning instruments applying to the site and proposed development as identified in the DGR's are:

- Objects of the EP&A Act;
- State Environmental Planning Policy (SEPP) (Western Sydney Parklands) 2009 and the Western Parklands Management Vision (November 2004), and Draft Western Sydney Parklands Plan of Management (October 2010);
- SEPP (Major Development) 2005;
- SEPP (Infrastructure) 2007;
- SEPP 55 – Remediation of Land;
- SEPP 33 – Hazardous and Offensive Development;
- NSW State Plan;
- Metropolitan Plan for Sydney 2036;
- North West Subregion Draft Subregional Strategy.

4.1.1 Objects of the EP&A Act

The proposed Wet'n'Wild water theme park is consistent with the objects of the EP&A Act as shown in the following table.

Objects of the EP&A Act	Proposed Wet'n'Wild Water Theme Park
(a) to encourage:	The proposed development is consistent with the objects of the EP&A Act in the following respects:
(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	▪ it promotes the welfare of the community with a major facility for recreational and entertainment purposes; ▪ it represents the proper management and development of the land in accordance with the recreational and tourism objectives for the precinct in the Government's planning instruments as explained in the following sections of this report;
(ii) the promotion and co-ordination of the orderly and economic use and development of land	▪ it represents the orderly and economic development of the land in being carried out in accordance with due processes in the leasing of the land and this Part 3A Application process;
(iii) the protection, provision and co-ordination of communication and utility services	▪ it includes the delivery of utility infrastructure as described in Section 3.7 of this report;
(iv) the provision of land for public purposes	▪ it provides land a new water theme park for paid public use;
(v) the provision and co-ordination of community services and facilities	▪ it provides a unique recreational and entertainment facility for the community;
(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	▪ it includes the planting of Cumberland Plain Woodland which more than offsets the removal of trees in the project;
(vii) ecologically sustainable development	▪ it addresses the principles of ESD as shown in Section 4.3 of this report and the appended Environmental Management Plan;
(viii) the provision and maintenance of affordable housing	▪ affordable housing is not relevant to this project as residential development is prohibited in the precinct and on the site;
(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State	▪ the NSW Minister for Planning is the approval authority for this project under relevant planning instruments, and Blacktown City Council is being consulted about the project in the planning and development process;
(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.	▪ it includes a consultation program with opportunity for participation of stakeholders and the public in the planning and development process.

4.1.2 SEPP (Western Sydney Parklands) 2009

The SEPP (Western Sydney Parklands) 2009 is the principal planning instrument applying to the site. The key provisions in the SEPP applying to the project are in "Part 2 – Land uses and provisions applying to development" which can be summarised as follows:

- Clause 10(1) of the SEPP states that development in the Western Parklands that has a capital investment value of $30M or more is declared to be a project to which Part 3A of the EP&A Act applies, and thereby requires the approval of the Minister for Planning.
- Clause 11 sets out the permissible and prohibited land uses in the Western Parklands. In essence, residential accommodation is the only prohibited land use, and all other land uses including the proposed uses in the Wet'n'Wild project are permissible in the Western Parklands.
- Clauses 12 to 16 set out the matters that a consent authority must consider in assessing a development application, and need to be considered in the Part 3A Application process for this Wet'n'Wild Sydney project. These matters are addressed in the table below.
- Clause 18 and Schedule 2 of the SEPP (Western Sydney Parklands) set out the types of exempt development that can be carried out in the Western Parklands without consent. This includes minor non-structural building alterations; change of use from business to business or retail to retail; demolition; emergency services; landscaping and public domain works; signage for directions, community purposes or temporary events; and temporary use of land for a maximum period of 182 days.

	Clause	Proposed Wet'n'Wild Water Theme Park
12.	**Matters to be considered by the consent authority—generally** In determining a development application for development on land in the Western Parklands, the consent authority must consider such of the following matters as are relevant to the development	
	(a) the aim of this Policy, as set out in clause 2,	The proposed development is consistent with the aims of the SEPP in the following respects: ▪ it contributes to the recreational, entertainment and tourist facilities in the Western Parklands; it will deliver beneficial social and economic outcomes to western Sydney; ▪ it allows for the location of government infrastructure and service facilities in the Western Parklands; ▪ it respects the natural systems of the Western Parklands through planting of additional native woodland and appropriate water conservation and energy efficiency measures; ▪ it respects the heritage of the parklands through the conservation of historic policeman's cottage and road alignment of Reservoir Road, and significant view corridor; it facilitates public access to, and use and enjoyment of, the Western Parklands;

	Clause	Proposed Wet'n'Wild Water Theme Park
		▪ it meets community needs and interests in recreation and entertainment; ▪ it promotes education in water safety and conservation; and ▪ it is undertaken in an ecologically sustainable way.
	(b) the impact on drinking water catchments and associated infrastructure,	The site is not in the catchment of Prospect Reservoir, and the proposed water park development will not have an impact on the reservoir or its catchment.
	(c) the impact on utility services and easements,	Utility services are available and have capacity to service the proposed water park as described in Section 3.7 of this report.
	(d) the impact of carrying out the development on environmental conservation areas and the natural environment, including endangered ecological communities,	The impact of the proposed water park development on ecological communities is addressed in Section 4.13 of this report and the appended specialist biodiversity assessment.
	(e) the impact on the continuity of the Western Parklands as a corridor linking core habitat such as the endangered Cumberland Plain Woodland,	The impact of the proposed water park development on core habitat and Cumberland Plain Woodland is addressed in Section 4.13 of this report and the appended specialist biodiversity assessment.
	(f) the impact on the Western Parkland's linked north-south circulation and access network and whether the development will enable access to all parts of the Western Parklands that are available for recreational use,	Access is addressed in Section 4.2 of this report and the appended specialist access reports.
	(g)the impact on the physical and visual continuity of the Western Parklands as a scenic break in the urban fabric of western Sydney,	Visual landscape is addressed in Sections 4.4 and 4.5 of this report.
	h) the impact on public access to the Western Parklands,	Access is addressed in Section 4.2 of this report and the appended specialist access reports.
	((i) consistency with: (i) any plan of management for the parklands, that includes the Western Parklands, prepared and adopted under Part 4 of the Western Sydney Parklands Act 2006, or (ii) any precinct plan for a precinct of the parklands, that includes the Western Parklands, prepared and adopted under that Part,	The Draft Western Sydney Parklands Plan of Management is addressed below in Section 4.1.3 of this report.
	(j) the impact on surrounding residential amenity,	Residential amenity is addressed in Section 4.5 of this report.
	(k) the impact on significant views,	Views are addressed in Sections 4.4 and 4.5 of this report.
	(l) the effect on drainage patterns, ground water, flood patterns and wetland viability,	Water cycle management is addressed in Section 4.15 of this report and the appended specialist Water Cycle Management Plan.
	(m) the impact on heritage items,	Heritage is addressed in Sections 4.7 and 4.8 of this report and the specialist heritage reports in Appendices K and L.
	(n) the impact on traffic and parking	Traffic and parking is addressed in Section 4.2 of this report and the specialist transport report in Appendix G.

	Clause	Proposed Wet'n'Wild Water Theme Park
13.	**Bulk water supply infrastructure not to be impacted** Development consent must not be granted to any development on land in the Western Parklands unless the consent authority is satisfied that:	
	(a) the development will have a neutral or beneficial impact on the quality of the water in the bulk water supply infrastructure shown on the Bulk Water Supply Infrastructure Map, and	The site is not in the catchment of Prospect Reservoir, and the proposed water park development will not have an impact on the reservoir or its catchment.
	(b) the development will not impact on the integrity or security of the bulk water supply infrastructure, and	The integrity and security of the bulk water supply infrastructure in the locality is not proposed to be affected by the water park development.
	(c) the development will not increase the risk of illegal access to the bulk water supply or security of the bulk water supply infrastructure, and	Access to bulk water supply infrastructure in the locality is not proposed to be affected by the water park development.
	(d) access to bulk water supply infrastructure for maintenance and operation activities by the Sydney Catchment Authority and Sydney Water Corporation will not be impeded by the development.	Access to bulk water supply infrastructure in the locality for maintenance is not proposed to be affected by the water park development.
14.	**Development in areas near nature reserves or environmental conservation areas** Development consent must not be granted to development on land to which this clause applies, unless the consent authority has considered the following: (a) whether the development is compatible with and does not detract from the values of the nature reserve or environmental conservation area, (b) any management plans applicable to the nature reserve or environmental conservation area, (c) whether the development has been designed and sited to minimise visual intrusion when viewed from vantage points in the nature reserve or environmental conservation area.	The site is not near any nature reserve or environmental conservation area.
15.	**Heritage conservation** (4) Effect on heritage significance The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item concerned. This subclause applies regardless of whether a heritage impact statement is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6). (5) Heritage impact assessment The consent authority may, before granting consent to any development on land in the Western Parklands: (a) on which a heritage item is situated, or (b) within the vicinity of land referred to in paragraph (a), require a heritage impact statement to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item.	There is no heritage item on the site which is listed on either the State heritage register or in an environmental planning instrument.

	Clause	Proposed Wet'n'Wild Water Theme Park
15.	**Heritage conservation continued…** (6) Heritage conservation management plans The consent authority may require, after considering the significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.	Heritage conservation issues associated with the proposed water theme park development are addressed comprehensively in Sections 4.7 and 4.8 of this report and in the specialist heritage assessments in Appendices K and L which assess the heritage significance of the site and the other heritage items in the vicinity of the site, and show that the planning and design of the development has incorporated a number of measures for conservation and management of items of heritage significance including the former policeman's cottage, the alignment of Reservoir Road, view corridor, and areas of potential archaeological deposits.
	(7) Conservation incentives The consent authority may grant consent to development for any purpose of a building that is a heritage item, or of the land on which such a building is erected, even though development for that purpose would otherwise not be allowed by this Policy, if the consent authority is satisfied that: (a) the conservation of the heritage item is facilitated by the granting of consent, and (b) the proposed development is in accordance with a heritage conservation management plan that has been approved by the consent authority, and (c) the consent to the proposed development would require that all necessary conservation work identified in the heritage conservation management plan is carried out, and (d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, and (e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.	
16.	**Commercial signage** Development consent must not be granted to the erection of signage unless: (a) the consent authority is satisfied that the signage is consistent with any commercial signage policy prepared by the Trust, and (b) in the case of a commercial road sign, the Roads and Traffic Authority has been given written notice of the development application and any comments received by the consent authority from the Roads and Traffic Authority within 21 days have been considered by the consent authority.	The signage policy prepared by the Trust and proposed signage plans are included at Appendix D. The signage plans are consistent with the Policy. No road sign is included in the Part 3A Application.

4.1.3 Western Parklands Management Vision

The Western Parklands Management Vision (2004) prepared by the Department of Infrastructure, Planning and Natural Resources sets out the main objectives and vision for the parklands and includes a structure plan. The Management Vision identifies the water park site as within Precinct 4.

4.1.4 Draft Western Sydney Parklands Plan of Management

The Draft Western Sydney Parklands Plan of Management (October 2010) presents the vision and prioritised actions for the parklands over the next decade. The site is located within the precinct identified as "Precinct 7 – Prospect Recreation" in the draft plan of management, and is specifically identified as a "Tourism Hub" of the Western Sydney Parklands.

4.1.5 SEPP Major Development 2005

The SEPP (Major Development) 2005 identifies the types of development which require the approval of the Minister for Planning under Part 3A of the EP&A Act. The SEPP (Major Development) 2005 is not relevant to this project as the SEPP (Western Sydney Parklands) 2009 declares the project a major development that requires the approval of the Minister under Part 3A of the EP&A Act.

4.1.6 SEPP (Infrastructure) 2007

SEPP (Infrastructure) 2007 includes the main statutory planning controls relating to public infrastructure in NSW. Part 3 Division 17 Subdivision 2 of the SEPP sets out the provisions for "Development in or adjacent to road corridors and road reservations" such as the M4 motorway adjacent to the site of the proposed Wet'n'Wild development.

Clause 101 of the SEPP – 'Development with frontage to classified road' states that a consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that vehicular access to the land is provided by a road other than the classified road, and the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development. The consent authority must also be satisfied that the development is not sensitive to traffic noise and vehicle emissions, or is appropriately located and designed to ameliorate potential traffic noise or vehicle emissions arising from the adjacent classified road.

Clause 104 of the SEPP states that in considering a development involving more than 200 motor vehicles such as this project, a consent authority must give written notice of the application to the RTA and take into consideration any submission that the RTA provides. The consent authority must also consider the accessibility of the site including the efficiency of movement of people and freight, the potential to minimise the need for travel by car, and any potential traffic safety, road congestion or parking implications of the development.

4.1.7 SEPP 55 – Remediation of Land

SEPP 55 and its associated contaminated land planning guidelines establish the requirements for the investigation and remediation of contaminated land as part of the development of land in NSW.

Clause 7 of SEPP 55 effectively states that a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated, and it is satisfied that the land is suitable in its present state, or will be made suitable after remediation, for the proposed land use.

SEPP 55 states that a preliminary investigation of the land must be prepared and considered in accordance with the contaminated land planning guidelines for land that has been subject to certain previous potentially contaminating activities as specified in the guidelines which includes 'agricultural/ horticultural activities' and 'sheep and cattle dips'.

The contamination and remediation of land is addressed in Section 4.10 of this report in accordance with the provisions of SEPP55.

4.1.8 SEPP 33 – Hazardous and Offensive Development

SEPP 33 does not apply to the proposed water theme park as the development does not fall with the definition of a hazardous industry or offensive industry to which SEPP 33 applies.

4.1.9 NSW State Plan

The proposed Wet'n'Wild water theme park is consistent with the NSW State Plan as shown in the following table.

Chapters in the State Plan	Comment on Proposed Wet'n'Wild Water Theme Park
Better Transport and Livable Cities	The site is located next to the M4 motorway on the main Sydney arterial road transport network, and approximately 5km south of the main Western Sydney rail line at Blacktown and Seven Hills rail stations. The proposed development involves a contribution to the upgrade of the nearby interchange of M4 motorway and Prospect Highway to cater for increasing traffic in the locality including mainly from both the proposed water park and nearby Greystanes industrial estate. The proposed development will be providing a shuttle bus between the water park and Blacktown rail station.
Supporting Business and Jobs	The proposed Wet'n'Wild water theme park is estimated to generate: ▪ over $20 million added annually and 300 EFT construction jobs over two years to the to the local economy during construction; and ▪ over $25million added to the local economy annually 275 EFT jobs directly on site and indirectly in the western Sydney economy, plus part time and casual employment in the local economy during the operational phase.
Clever State	The proposed water park will provide educational experiences in water safety and conservation.
Healthy Communities	The proposed water theme park includes a range of measures for the health and safety of park users as described in Section 4.6 of this report and shown in the appended Support Facilities, Safety and Security Plan.
Green State	The proposed development accords with the principles of ecological sustainable development as described in all the relevant parts of this EAR including Section 4.3.
Stronger Communities	The Wet'n'Wild Sydney water theme park will provide an iconic recreational and entertainment facility that provides for social interaction and contributes to the sense of place and identity which strengthen the community of western Sydney.

Chapters in the State Plan	Comment on Proposed Wet'n'Wild Water Theme Park
Keeping People Safe	The proposed water theme park includes a range of measures for the health and safety of park users as described in Section 4.6 of this report and shown in the appended Support Facilities, Safety and Security Plan.
Better Government	The project is being carried out in accordance with due government processes and legal requirements relating to the leasing of the land and approval of development.

4.1.10 Metropolitan Plan for Sydney 2036 and North-West Draft Subregional Strategy

The Metropolitan Plan for Sydney 2036 and the North-West Draft Subregional Strategy aims to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing, employment and recreation needs of the region's population over the next 25 years.

The site forms part of the 'Western Sydney Parklands', an undeveloped regional area of open space that has been identified in the Draft Subregional Strategy to be developed as a major new regional park, providing quality open space for new and existing communities in Western Sydney and at the same time protecting significant conservation and cultural values.

The parklands are divided into nine precincts each supporting ecological values as well as providing opportunities for recreation, natural and cultural heritage interpretation, tourism and commercial recreation. The Draft Plan of Management for the Western Sydney Parklands identifies the site as a 'Tourism Hub' within 'Precinct 7 – Prospect Recreation'. The desired future character of the precinct is *"a major destination for tourism and passive/active recreation, including picnic grounds, Sydney Water Infrastructure, a drive-in cinema and historic Cricketers Arms Hotel".*

The proposed development is consistent with the Metropolitan Plan and the North-West Draft Subregional Strategy in that it will help meet the demand for regional open space as new households are developed in the north-west and southwest growth centres of western Sydney, and it will increase access to quality recreational and entertainment experiences in the region.

4.2 Transport and Accessibility

A Transport and Accessibility Study of the proposed Wet 'n' Wild water theme park has been prepared by ARUP (**Appendix G)**. The study examines the road network, intersection layout, public transport access, and pedestrian and cycle networks and considers options for sustainable travel.

Traffic Generation and Road Network Capacity

Existing Conditions

The site is bound by the M4 Motorway to the north, Reservoir Road to the south and Watch House Road to the east. The Great Western Highway is situated 300m to the north and runs parallel with the M4 Motorway. The intersection with the M4 Motorway, Prospect Highway and Reconciliation Road is situated to the east. An aerial photograph is provided at **Figure 4** which illustrates the location of the site in the context of the local road network.

ARUP note that the key intersections/interchanges in the vicinity of the site are:

- M4 on and off ramps/intersections to Prospect Highway;
- M4 on and off ramps/intersections to Reservoir Road;
- Great Western Highway and Reservoir Road;
- Great Western Highway and Prospect Road;
- Prospect Highway and Ponds Road; and
- Prospect Highway / Reservoir Road / Reconciliation Road.

According to the RTA, the Annual Average Daily Traffic (AADT) volume on the M4 Motorway is approximately 120,000 vehicles in the vicinity of the site. Traffic volume on the Prospect Highway, north of the M4 and Great Western Highway, is approximately 40,600 AADT. Automated traffic counts taken by ARUP over one week in May 2009 suggest that traffic volumes on Reservoir Road (west of Watch House Road) average in the order of approximately 2,000 Vehicles per Day (VPD) and volumes on Prospect Highway (north of Reconciliation Road) are in the order of 4,500 per day. These averages are brought down by significantly lower traffic levels recorded on weekends.

Capacity modelling has been undertaken which confirms that the surrounding network does have spare capacity, with most intersections obtaining a grade A (good performance) Level of Service (LOS). Only 2 nearby intersections demonstrated traffic volumes that slightly exceed the desirable maximums, indicating that these roundabouts could operate at near capacity if traffic volumes were to increase. These intersections are:

- the M4 Motorway / Prospect Highway northern roundabout, which achieves a grade B (good performance) LOS in the weekday PM peak period; and
- the M4 Motorway / Prospect Highway southern roundabout which achieves a grade B (good performance) LOS in the weekday PM peak period.

Significant industrial development occurring at the Greystanes Estate has resulted in plans for Reconciliation Road to be extended to Widemere Road in the near future, connecting the region with Wetherill Park and the south-western suburbs. These proposed upgrades and extensions are expected to result in increased traffic volumes and other impacts upon the surrounding traffic conditions independent to those arising from the development of the proposed water theme park.

Forecast Traffic Impact

The proponent has prepared detailed arrival and departure profiles for various operating hours, based on experience from operating similar centres such as Wet 'n' Wild Gold Coast. ARUP have used these projections to forecast the potential impacts of the development, in terms of traffic flow and intersection performance, upon the surrounding road network.

The potential impacts of the proposed development upon traffic flows on nearby roads are as follows:

- Weekday AM Peak
  - Traffic volumes generated by the site are forecast to be similar to current levels for the weekday AM peak period.
- Weekday PM peak
  - Total site traffic is forecast to range from 38 vehicles per hour in the vicinity of the Reservoir Road / M4 Northern Intersection to 164 vehicles per hour on Reservoir Road.

- Weekend AM peak
  - Traffic volumes during the Weekend AM peak period are forecast to increase from current levels, however traffic volumes remain substantially lower that weekday peak periods.
- Traffic flow weekend PM peak
  - Traffic volumes generated by the site are forecast to be similar for both the weekday and weekend peak periods. However, as total traffic volumes on the weekends are relatively low, it is anticipated that the impact will not be significant due to the good operation of the network during this period.

The potential impacts of the proposed development upon intersection operation performance are predicted as follows:

- Reservoir Road / Reconciliation Road
  - No impact
- M4/ Prospect Highway - Northern Roundabout
  - A reduction in the Weekday PM peak period LOS from grade B (good performance) to grade E (at capacity and may require other control mode).
- M4/ Prospect Highway - Southern Roundabout
  - a reduction in the weekday PM peak period LOS from grade B (good performance) to grade D (operating near capacity).
- M4/ Reservoir Road - Northern Intersection
  - No impact
- M4/ Reservoir Road - Southern Intersection
  - No impact

The report finds that most traffic generated by the development would occur outside of the afternoon peak period, due to the 9pm closing time during the summer months and the spread-out nature of arrival and departure patterns. The most noticeable impact would occur on a relatively small number of days in the afternoon weekday peak, when traffic leaving the site would be subject to short delays entering the motorway network, however, this is considered to be acceptable in the context of a typical regional trip in Sydney.

Mitigation Measures

In light of the capacity issue at the M4 – Prospect Highway interchange, the proponent has made a significant contribution to road and intersection upgrades in the locality as part of the lease agreement for the land with the NSW Government to mitigate traffic impacts from the water park. The RTA is committed to completing these upgrades in time for the water theme park to open to the public.

Layout and Design of the Car Park

Car parking is to proposed on the western portion of the site and will provide a total of 1,857 car spaces (including 42 spaces for the disabled, 18 bus parking spaces, 20 motorcycle spaces, bicycle parking area, and drop off/pick up area.

The proposed parking has been designed to comply with the relevant Australian Standards for parking.

Public Transport, Pedestrians and Cycling

The existing public transport around the site comprises the 182 Westbus route (Fairfield to Blacktown) which runs on Reconciliation Drive with a bus stop some 400m to the east of the site.

This bus service operates Monday to Friday between 5am and 7pm. It runs to and from Blacktown rail station taking approximately 15 minutes to make the 5km journey.

ARUP's assessment of the surrounding area has found that the roads in the vicinity of the site are often semi rural in nature, devoid of footpaths and lack pedestrian crossings at nearby interchanges. There are no formal cycling facilities in the vicinity of the site and therefore cyclists must share the road with motorised traffic.

In light of the above, a number of measures are recommended for investigation in order to supplement the public transport and decrease reliance on private vehicles to ensure the park is more accessible. These measures include:

- provision of secure bicycle parking facilities for both visitors and workers;
- operation of a shuttle bus between the site and Blacktown Station and possibly other suitable stations. This service would operate with greater frequency on weekends and during school holidays; and
- provision of priority parking for vehicles with three or more occupants.

In addition to the above, a Work Place Travel Plan for workers and a Travel Access Guide for visitors will be prepared prior to the opening of the development. The park will also consider measures such as staggered ticket offers and extended opening hours in peak periods, that may spread the spatial distribution of trips.

The report also makes a number of recommendation which could be considered by Blacktown City Council, tour operators, the RTA and Westbus. Such measures include:

- operating the 812 bus service on weekends;
- operation of an on-demand tourist coach service between the site and major CBD hotels, hostels and Central Station; and
- construction of Blacktown Bike Plan Route 6, Prospect Reservoir to Blacktown Station, with a possible extension to Liverpool and Fairfield via the Strategic Bus Corridor;
- the inclusion of good walking and cycling facilities as part of the M4 / Prospect Highway interchange upgrade; and
- the introduction of new bus services for the region once Strategic Bus Corridor No. 43, Blacktown to Wetherill Park, is completed.

Together, these initiatives will make a significant contribution to increasing the proportion of journeys to the site via alternative modes of transport.

Construction Traffic

The site is situated close to the motorway network and therefore the construction traffic is unlikely to have any significant impact upon local streets. A significant amount of construction activity is currently taking place on the nearby Greystanes Estate, generating a significant volume of truck traffic on Reservoir Road and Prospect Highway.

A Construction Traffic Management Plan will be prepared following approval of the project. The report will detail vehicle routes, the number of vehicles, hours of operation, access arrangements and traffic control measures.

Accessibility

An Access Review of the proposed water theme park has been prepared by Morris-Goding Accessibility Consulting and is included at **Appendix H**. The report makes an assessment of access/ egress arrangements and proposed travel paths throughout the site against the requirements of applicable Australian Standards, the Building Code of Australia, the Commonwealth Disability Discrimination Act 1992 (DDA), Blacktown DCP and the Director General.

The report found that all aspects of the park (other than water rides) comply with requirements, subject to the implementations of the recommendations of the report. As the recommendations relate to the detailed design, they will be addressed at construction drawing and certificate stage.

The review found that some water rides may not be fully accessible to people with a disability due to health and safety regulations, however this is in line with the DDA Access Code. In these cases appropriate viewing areas are to be provided adjacent to the attractions, enabling participation in the experience through friends or family members.

4.3 Ecologically Sustainable Development

An ESD Statement prepared by Sustainable Built Environments is at **Appendix I**. It examines the opportunities for the ecological sustainability of the project in terms of water conservation, energy conservation, materials and resources, land and biodiversity, environmental quality and emissions, transport, and social amenity. The Environmental Management Plan (EMP) included at **Appendix E** includes the measures adopted for investigation in the planning, construction and operation of the proposed water theme park development for ecological sustainability. These measures include objectives, actions and targets for the following:

- **Water** including minimising water loss and consumption, reusing stormwater, minimising quantity and improving quality of runoff and monitoring water consumption;
- **Energy** including reducing energy demand, particularly from the grid, and associated greenhouse gases, using solar energy, using green power sources, monitoring energy use;
- **Materials and resources** including use of sustainable materials with low embodied energy in building materials, minimising waste to landfill, reuse and recycling of waste material;
- **Land and biodiversity** including protecting and enhancing the biodiversity and native vegetation on the site, minimise site disturbance by fitting into the topography, and mitigating any risks associated with contamination, bushfire and hazardous materials;
- **Environmental quality and emissions** including visual comfort through natural daylighting in buildings and appropriate lighting in the park, maintaining significant view corridors, ameliorating noise, indoor thermal comfort and air quality, and minimising dust and air pollution in construction;
- **Transport** including encouraging fuel efficient travel and reduced reliance on private vehicles through public transport, motorcycling, cycling, car pooling; and
- **Social amenity** including fulfilling recreational needs, conserving items of heritage significance, creating a safe, healthy and accessible environment, and community consultation.

4.4 Built Form and Urban Design

Site Context and Scale of Development

The site is situated within the Western Sydney Parklands which provides the major subregional open space and recreational parkland for the people of western Sydney. It is located within the area 'Precinct 7 – Prospect Recreation' in the Draft Plan of Management for the Western Sydney Parklands, and is specifically identified as a 'Tourism Hub'. The site is identified as a place and focal point for recreation and entertainment in western Sydney.

The proposed Wet'n'Wild Sydney water theme park development is a large scale recreational facility with the main water park facilities covering over 16ha. of the site and major water rides having footprints of over 2,000sq.m and heights of up to around 20m above ground level, and a sky coaster up to 83m in height. The support facility buildings are in contrast all low scale single storey buildings.

The scale and height of the proposed development is appropriate for its context and place as the Tourism Hub in the main recreational precinct in the Western Sydney Parklands. The scale of the water theme park and building structures within it reinforce the site as a major focal point for recreation and entertainment in western Sydney.

The site planning and design of the proposed Wet'n'Wild Sydney water theme park includes a number of measures as described below that respect the natural topography of the site and surrounding properties and reduce its impact on the landscape.

Site Planning and Design

The key principles used in the site planning and design of the proposed Wet'n'Wild Sydney water them park include:

- fitting the main water theme park into the natural topographical amphitheatre;
- siting and massing of the main structures towards the centre of the site;
- creating distinct precincts around key rides, attractions and support facilities.

The proposed development makes use of the natural topographical amphitheatre of the site to the maximum practical extent. It includes a series of stepped platforms necessary for building structures and attractions that sit into the topography. The use of the natural topography contributes to minimising impacts on the visual landscape and the extent of earthworks, and facilitates natural flows of water on the site.

The design of the water theme park includes the siting and massing of the main water park structures around the central lower parts of the site. This siting and massing reduces any potential impacts of the development on surrounding properties and the visual landscape.

The planning and design of the Wet'n'Wild Sydney water theme park includes distinct precincts around key rides and attractions and support facilities including the surf wave pool centrepiece, lazy river, children's pool areas, extreme river and thrill rides, central support facilities and rest areas, park entry plaza, and natural wetland. The creation of these distinct precincts presents a diverse and interesting character and multitude of experiences through the water park to satisfy the range of needs of site users. It also provides for a legible/ easily understood access and wayfinding around the park, and a high level of amenity and character.

Building Designs

The proposed water theme park includes a mix of ride and attraction designs for families, children, and teenagers including quiet rides and thrill rides. These are designed to provide a range of experiences for the purposes of entertainment, access and safety. The larger ride structures have a relatively light weight, visually permeable and sculptural frame structure that minimise the visual impact of a building structure of this scale.

The design of the support building and shade structures includes forms, materials and finishes to reflect the character of Australian surf beach culture, fun, recreation and entertainment as well as serving the support functions, providing weather protection and incorporate ESD design principles in the EMP that are appropriate for the proposed Wet'n'Wild Sydney water theme park.

Landscape Design

The landscaping of the water theme park includes various landscape zones and spaces to integrate with native woodland around the site perimeter and reinforce the character of different precincts within the water theme park. This includes a park entry celebrated with iconic avenue trees, surf wave pool with landscape material normally found around beaches on the eastern seaboard, a sub tropical rainforest for shade and an intimate experience around the children's water play area as well as the river rides and bungalows, supplementing existing woodland areas with plantings of Cumberland Plain Woodland species, and planting of native wetland and sedge species around the water detention pond.

4.5 Environmental and Residential Amenity

Visual Impact Analysis

Photomontages of the proposed Wet'n'Wild water theme park development are included at **Appendix X** and effectively provide a visual impact analysis. The photomontages are taken from significant vantage points surrounding the site including along the M4 motorway and Reservoir Road, and from the residential area in Prospect to the north of the site.

These photomontages show that:

- it will be visible only in parts along the M4 Motorway due to the existing vegetation on the motorway reserve and on the site which largely screens the site.
- it will be visible along most parts of the Reservoir Road site frontage.
- it will be a distant view in the landscape from the nearest residential zone in Prospect approximately 500m to the north.

The impact of the proposed water theme park development on the visual landscape is reasonable within the context of the site being identified in planning instruments as a 'tourism hub' in the Western Sydney Parklands and the principles used in the planning and design of the water theme park to minimise the impact on the landscape described below.

Impacts on Surrounding Development

The surrounding land uses and development comprises:

- To the north of the site immediately on the opposite side of the M4 Motorway is further vacant land (owned by the NSW Government) which is zoned for general industrial use, then the great Western Highway and the residential suburb of Prospect some 500 metres to the north.

- To the south of the site is native bushland surrounding Prospect Reservoir.
- To the east of the site are a small number of rural residential land uses and a telecommunications tower facility, and the Greystanes employment lands.
- To the west of the site is the remainder of the Western Sydney Parklands used for various rural and recreational purposes including Blacktown Drive-Inn, Eastern Creek Raceway, and Western Sydney Dragway.

In this context of surrounding properties, the proposed water theme park development will not have any unreasonable impact on amenity in terms of sunlight access, acoustic privacy, visual privacy, views and wind due to the nature of the surrounding land uses and separation distances.

In particular, the proposed development will not have any significant impact on the amenity of any residential zone due to separation distances as the nearest is located approximately 500m to the north of the site in Prospect on the opposite side of the M4 Motorway and Great Western Highway.

The rural residential properties immediately to the east and west of the site and church property to the east will be impacted by the proposed development in terms of increased traffic and associated noise. Traffic is addressed in Section 4.2 and noise is addressed in Section 4.14 and **Appendix J** of this report. These adjacent properties will not be impacted in terms of sunlight access or wind effects due to separation distances and the minimal effects of the light weight and permeable frame structures of the water park rides.

The impact of the proposed water theme park development on surrounding properties is reasonable within the context of the site being identified as a 'tourism hub' in the Western Sydney Parklands and the measures employed in the planning and design of the water theme park to mitigate impacts on the amenity of the area.

Planning and Design Measures for Environmental Amenity

The planning and design of the proposed water theme park has included the following measures that minimise the impact on the amenity of the visual landscape and locality:

- fitting the main water theme park into the natural topographical amphitheatre;
- locating the main rides and structures towards the centre of the site;
- designing large building structures for rides with a relatively light weight frame structures that mitigates building bulk, visual impacts, shadows and wind effects;
- landscaping that includes perimeter planting of native woodland which screens the development;
- internal site access road and car park that has sufficient parking and queuing capacity to avoid traffic congestion and queuing on the road network;
- measures in the following sections of this report for managing ecological sustainability, heritage, water, energy use, waste, biodiversity, hazards and construction impacts relating to the proposed development.

4.6 Safety and Security

The proposed water theme park includes a range of measures for safety and security and has been designed in accordance with the relevant Crime Prevention Through Environmental Design (CPTED) principles of surveillance, access controls and space management.

The Support Facilities, Safety and Security Plan for the development shows the range of facilities proposed for the safety and security of park users including park access controls, food & beverage facilities, restrooms/lockers, life guards and ride attendants, first aid areas, and information services.

Surveillance

Good surveillance opportunities have been implemented throughout the park to enable staff and visitors to easily see and interact with one another and to deter would be offenders from committing crime. This has been achieved through:

- the provision of good sightlines across the park;
- the positioning of ride attendants and lifeguards around the park;
- the provision of effective lighting; and
- ensuring landscaping in publicly accessible areas of the park does not provide offenders with places to hide or entrap victims.

Access Control

Wet 'n' Wild Sydney will be a major visitor attraction and as such, access to park facilities is to be controlled. Access control measures are to be used within the park that will ensure members of the public are clear about where they are permitted to go and which areas are restricted. Restricting access to less frequented back of house facilities will reduce the possibility of offenders committing crimes out of sight from other patrons and staff. Suitable access control is achieved through:

- the installation of turnstile or similar access and perimeter fencing, taking care to ensure barriers are not overly tall or hostile; and
- the use of fencing and gated access to back of house facilities.

Space Management

Ensuring all areas of the park are well maintained and well used will help to ensure that visitors feel safe and comfortable in the environment and can reduce the opportunities for crime. To achieve effective site management, Wet 'n' Wild Sydney staff will ensure:

- the site is clean and well maintained;
- vandalism and graffiti is rectified/ removed promptly;
- expired lighting is promptly replaced; and
- decayed physical elements are promptly removed or refurbished.

A security management plan and code of practice will be prepared for the licensed bar as part of the application for a liquor licence at a future stage prior to trading.

Implementation of the above measures will help to reduce the opportunities for crime to take place and will contribute to a safe and secure environment for patrons to enjoy.

4.7 Heritage

A Statement of Heritage Impact relating to the proposed Wet 'n' Wild water theme park has been prepared by Graham Brooks & Associates Pty Ltd and is included at **Appendix K**. The statement has been prepared using principles established in the Australia ICOMOS Burra Charter and in accordance with the guidelines in the NSW Heritage Manual.

Assessment of Heritage Values

The report discusses how each of the criterion of the Heritage Manual relate to the subject site as outlined below.

- Importance in the course of NSW's cultural or natural history

  "The evolved agricultural and pastoral landscape of the subject site at the north western corner of Reservoir and Watch House Roads, Prospect, is of some local heritage significance as a relatively small remnant of the wider rural cultural landscapes characteristic of the Cumberland Plain of Western Sydney throughout the 19th and 20th centuries. The majority of these rural cultural landscapes have been progressively and extensively redeveloped since at least the mid 20th century to cater for the expanding urban housing, industrial, transportation and recreational needs of metropolitan Sydney".

  "The former police cottage has heritage significance at a local level, firstly as illustrative of an early farming establishment dating from, or around, the time of the Creasey property and vineyard during the 1880s. It has an additional layer of local significance as a local landmark in the late nineteenth century context, when it was known as a police cottage".

- Strong associations with the words or life of persons of importance

  "As a small portion of several larger parcels, the subject site has some significance for its local historical associations with a number of prominent 19th century land holders in the district, including Robert Lethbridge, Walter Lamb and William Hay. The land is assumed to have been progressively cleared for agricultural, vineyards or pastoral use in conjunction with the major portions of the relevant land holdings".

  "The subject site has little social significance due to the lack of continuity of land ownership, especially during the late 20th century and most particularly since its incorporation into the Western Sydney Parklands".

- Importance in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement

  "The subject site has some aesthetic significance as a gently undulating remnant pastoral landscape with several groups of trees and a scattering of late 20th century cottages and farm sheds located at intervals along the frontages of Reservoir Road and Watch House Road. It slopes gently to the north, creating a gully distinguished by the headwaters of a small creek".

- Strong associations with a particular community or cultural group

  "There are no cultural or community groups with a strong or special association with the site for social, cultural or spiritual reasons".

- Potential to yield information that will contribute to an understanding of NSW's cultural or natural history

  "The subject site has little technical significance although there is a small number of potential archaeological sites associated with former buildings".

- Possession of uncommon, rare or endangered aspects of NSW's cultural or natural history

  "The subject site has some significance for its relative rarity as a remnant agricultural and pastoral in the immediate Prospect locality but little significance within the wider Cumberland Plain. It is too small to have any significance as a representative survivor of the larger 19th century rural land holdings across Western Sydney".

  "The former police cottage in the south western corner of the subject site is considered an increasingly rare surviving and intact example of vernacular architecture".

  "The southern boundary line of the site follows the alignment of Reservoir Road, which is a surviving remnant of the Great Western Road constructed in 1815-1818 to follow the ridgeline of Prospect Hill".

- Importance in demonstrating the principal characteristics of a class of cultural/ natural places or environments

  "This criterion is not applicable".

Graham Brooks & Associates are of the opinion that the subject site has some significance for its relative rarity as a remnant agricultural and pastoral site in the immediate Prospect locality, however it is too small to have any significance as a representation of larger 19th century rural holdings in Western Sydney. There are no listed heritage items on the site at the present time and, as a whole, the site does not meet the required threshold levels to be heritage listed. Despite this, the former Policeman's Cottage located in the south west of the site, and the historic alignment of the Great Western Road between Peter Brock Drive and Prospect Highway would qualify for listing within the Blacktown LEP.

Impact of the Proposed Development

The transformation of the site for use as a major water theme park will inevitably impact upon the limited cultural heritage values of the site. Nonetheless, there is nothing inherent in the evolved cultural landscape of the overall site that would prevent the proposed development as any losses are of a low heritage significance.

Details of the impacts of the development, specifically relating to key components of the heritage values of the site and its vicinity are as follows:

- Evolved Cultural Landscape:
  - the group of tall pines in the vicinity of the Policeman's Cottage will be retained (high level of local heritage significance);
  - the remnant areas of bushland at the northern edge and south east corner of the overall site will be retained (medium level of local heritage significance);
  - the water theme park will result in the creation of a series of new landscape precincts;
  - the creation of the public car parking facilities will result in the regrading of topography in the western section of the site;
  - remnant physical evidence, such as cottages, sheds, outbuildings, gardens and fence lines relating to the scale of settlement and intensification of mid 20th century agriculture will be lost (low level of heritage significance);
  - historic subdivision patterns will be lost (low to medium level of heritage significance); and
  - the nature, scale and intensity of development adjoining the northern edge of the historic Reservoir Road alignment (formerly the Old Western Road) will be modified (high level of local heritage significance).

- The Policeman's Cottage:
  - the cottage will be conserved and repaired (high level of local heritage significance);
  - new trunk service connections to the cottage will be introduced;
  - the building will be adapted for an as-yet unidentified compatible use; and
  - a new and appropriate garden setting will be developed.
- Archaeological sites:
  - any archaeological relics associated with the building formerly located between the Policeman's Cottage and the Reservoir Road frontage will be retained;
  - any potential impacts on any surviving relics will be carefully managed during the installation of services to the upgraded Policeman's Cottage and the creation of a new garden curtilage to the Cottage; and
  - any archaeological relics associated with the post c1930s building group may be lost.
- Listed items and conservation areas in the vicinity of the site:
  - the historic view lines between the Policeman's Cottage and St Bartholomew's Church may could potentially be diminished (high level of local heritage significance); and
  - the park may potentially create visual competition with St Bartholomew's when viewed by traffic moving along the M4 motorway.
- Remnant physical evidence of the former Prospect Village:
  - a significant modern development will be introduced adjacent to the historic road alignment at the western extremity of the former Prospect Village precinct.

Conservation Requirements

Based on their assessment , Graham Brooks and Associates have outlined the primary conservation requirements for the site. Their findings are as follows:

- This Policeman's Cottage and its immediate setting should be conserved and re-used for a use that is compatible with both its cultural significance and the emerging context of the water theme park. If such uses are not immediately apparent, the building should be conserved and made ready for a future, as yet unidentified use.
- The group of tall pine trees in the immediate vicinity of the Policeman's Cottage should be retained and conserved as significant visual and cultural markers or signposts in the surrounding landscape.
- The historic visual link between the elevated site of the Policeman's Cottage and St Bartholomew's Church should be retained.
- The alignment of Reservoir Road as it defines the southern boundary of the overall site should be retained for its demonstration of the historic alignment of the Great Western Road to Penrith and the Blue Mountains. The existing semi rural character of the road should also be retained.
- The alignment of Watch House Road, that defines the eastern boundary of the overall site should be retained 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.

4.8 Aboriginal Heritage

An Aboriginal Heritage Assessment Report has been prepared by Mary Dallas Consulting Archaeologists (MDCA) in accordance with the draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC, July 2005), the Interim Aboriginal Community Consultation Guidelines (2004) and the Director General's Requirements. The Assessment Report is included at **Appendix L.**

Consultation

Aboriginal community stakeholders have been consulted as part of the assessment process by MDCA. This involved the notification of the Registrar of Aboriginal Owners, Native Title Services Corporation Ltd, DECCW, Blacktown City Council and the Deerubbin Local Aboriginal Land Council. An invitation for Aboriginal stakeholders to register their interest in the project was issued via public notices placed in the Blacktown Sun and Blacktown Advocate.

Existing Conditions

The report states that historical studies of the Prospect area and specifically Prospect Hill located several kilometres to the south-east, identify the area as being associated with conflicts in the 1790s and early 1800s between Aboriginal people and European farmers.

Indications from previous studies into the area suggested that evidence of Aboriginal occupation within the development site was likely to be relatively sparse and partly to heavily disturbed. However, several investigations, such as the excavation at Greystanes, have revealed that there is potential for higher density intact archaeological deposits around first order tributaries, such as within the development site. Furthermore, a search of DECCW AHIMS Register indicated that one Aboriginal site had been recorded within the subject site.

A site survey conducted by MDCA determined that the majority of the development site exhibits low levels of archaeological significance, due to the vast majority of the site being moderately to highly disturbed during agricultural land use. These investigations also revealed that the artefacts where in fact further to the south than AHIMS records had suggested and therefore the survey concentrated on the identification of previously unrecorded archaeological evidence.

MDCA report that the artefacts present on the site comprise a low density artefact scatter referred to as BC1, located in a boggy area along the drainage line. An isolated artefact referred to as BC2 is situated in a cutting below the existing dam in the drainage line. Descriptions of the artefacts are included in **Table 2** below:

Table 1 – Recorded artefacts on the site

Artefact	Raw Material	Description
BC1:1	Red silcrete	Flaked Piece
BC1:2	Red silcrete	Broken backed blade - proximal end
BC1:3	Red silcrete	Flaked piece
BC1:4	Grey silcrete	Broken flake
BC1:5	Banded chert	Angular fragment
BC2:2	Red/pink silcrete	Flaked piece

In addition to these recorded artefacts, a Draft Heritage Management Plan prepared by Environmental Resources Management (ERM) in 2005 identified the north eastern portion of the site as the location of a Potential Archaeological Deposit (PAD). An extract from the Aboriginal Heritage Assessment Report is provided below, which illustrates the locations of recorded Aboriginal sites and the area of PAD within the subject site.

Figure 5 – Locations of recorded Aboriginal sites and the area of PAD within the subject site

Management Strategy

The development proposal will impact upon the identified Aboriginal archaeological sites BC1 and BC2 and a portion of the PAD. Works in these locations will involve the removal of topsoil and therefore the removal of any archaeological deposits and artefacts within the area. This would affect a maximum area of around 400m2 within the PAD, comprising the western 25-30% of this area.

The artefacts recorded at BC1 and BC2 are proposed for collection that will be undertaken in conjunction with the recommended archaeological test/salvage excavations. Collected artefacts will be analysed after collection and a report fully documenting the results of the excavations will be produced. Options for the long term management of Aboriginal artefacts retrieved during the excavation will be discussed with the Aboriginal stakeholders for the project.

An Aboriginal Heritage Management Plan will be prepared for those portions of the PAD which will not be impacted upon by the proposal. The plan will be developed in consultation with the Aboriginal stakeholder groups currently involved in the project and will provide recommendations relating to the assessment of future subsurface impacts within the remaining area of the PAD. If appropriate, this plan may also include recommendations for Aboriginal heritage interpretive displays relating to the PAD area.

4.9 Contributions

There are no contributions plans that apply to the proposed development under the EP&A Act.

Prospect Aquatic Investments Pty Ltd has made a monetary contribution towards the study and upgrade of road intersections in the locality as part of the terms of the lease agreement for the land with the NSW Government.

4.10 Contamination

Historical records and aerial photographs dating back to 1951, suggest that the site has previously been used for rural residential development and agricultural activities, potentially contaminating the site. Accordingly, investigations have been undertaken by RCA Australia into the presence of contamination, the findings of which are included in the Environmental Site Assessment at **Appendix M**.

In addition to chemicals potentially leaching into the soil from past agricultural uses, site investigations have determined that there are significant amounts of fill material present on site. Consequentially, a number of potential residue contaminants have the potential to be present in the soil, including:

- asbestos associated with fill materials and present and former buildings;
- pesticides and herbicides associated with past agricultural uses;
- hydrocarbons from fill materials , storage sheds and residential development; and
- heavy metals due to past agricultural uses and development activities.

RCA Australia have undertaken widespread site testing to ascertain if contamination levels on site would require any remediation before the site could be considered suitable for the proposed development. Test pitting was carried out in 24 locations, in a 50m spaced general grid pattern across the site and undertaken to a depth of approximately 2m or until bedrock was encountered. Surface soil samples were collected at a further 16 locations. Additionally, 5 groundwater monitoring wells were installed at targeted locations around the site.

All soil samples were analysed for total petroleum hydrocarbons (TPH), Benzene Toulene Ethyl-benzene and Xylenes (BTEX) and 8 metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury). Surface soil samples and a limited number of test pit samples were also analysed for Polycyclic Aromatic Hydrocarbons (PAHs), Organo-Chlorine Pesticides (OCPs) and Organo-Phosphorous Pesticides (OPPs). Groundwater samples were tested for TPH, BTEX, 8 metals (as above) and PAHs.

The results of the site testing are as follows:

- All soil samples reported chromium concentrations above Ecological Investigation Level (EIL) guidelines;
- 3 soil samples reported arsenic levels which slightly exceeded EIL guidelines;
- the remaining soil samples reported concentrations of all other tested materials, as being below EIL guidelines;
- some groundwater samples were found to have levels of cadmium (1 sample), nickel (2 samples) and zinc (3 samples), which exceed EIL guidelines;
- 1 groundwater sample reported concentrations of analyte phenanthrene which exceeded EIL guidelines; and
- 2 groundwater samples were found to have TPH levels which exceed EIL guidelines.

RCA Australia note that all chromium and arsenic levels exceeded the EIL only slightly and therefore these results are not considered to be of concern. A senior RCA engineering geologist has stated that elevated TPH concentrations in groundwater samples are likely to have occurred due to natural shale oil deposits within the Bringelly Shale.

In the absence of any significant contamination and in consideration of the low permeability of underlying soils and low groundwater sensitivity at the site, RCA have advised that no specific soils or groundwater remediation is required. Accordingly, the site is considered suitable for the proposed development.

4.11 Geotechnical Issues

Detailed investigations have been undertaken by RCA Australia into the various geotechnical and soil characteristics of the site and these are included in the Geotechnical Investigation reports at **Appendix N**.

Existing conditions

Site Geology

According to the report, the NSW Department of Mineral Resources 1: 100,000 scale Penrith geology sheet indicates the site lies within the mapped extent of the Bringelly Shale of Triassic age. Listed rock types for the Bringelly Shale are shale, carbonaceous claystone, laminite, fine to medium grained lithic sandstone and rare coal and tuff.

Geological structures shown within the site or its immediate environs are:

- bedrock dips towards Prospect Reservoir as inferred from the Penrith Basin syncline axis that runs under Prospect Reservoir located to the south of the site; and
- faulting associated with Prospect intrusion to the south–east of the site.

The listed geological rock types encountered in cored borehole logs extracted from the site include:

- shale;
- carbonaceous claystone;
- laminite; and
- fine to medium grained lithic sandstone.

Subsurface Conditions

The Geotechnical Investigation report identifies three distinct geotechnical sub-surface profiles present across the site. These three areas are characterised by:

- natural clay soil profiles overlying bedrock, where the topsoil layer may extend down to a depth of 300mm depending on previous cultivation activities;
- disturbed subsurface profiles to depths in excess of 300mm which may include imported fill materials; and
- saturated soils along drainage lines in and around the existing farm dams.

RCA advise that bedrock encountered in test pits and boreholes comprised claystone, siltstone, laminite and fine grained sandstone. Soil conditions are assessed as being of low permeability.

The reports identify that the development would be to required to address potential impacts relating to slope stability and salinity. None of these issues render the site unsuitable for the proposed development and each is discussed in further detail below.

Slope Stability

Overall soil slope instability is likely to be low risk. Slopes typically range from 1 in 8 to 1 in 50 with subsurface profiles typically comprising a 2-3m deep clay profile over bedrock, except for fill/disturbed and saturated soil. Surface water drainage follows surface slopes towards drainage lines and groundwater follows the bedrock dip to the south-west.

In response to the topographical conditions, RCA Australia have recommended that development should be carried out in accordance with the good hillside practices outlined in the 'Guideline for Landslide Susceptibility, Hazard and Risk Zoning for Land Use Planning' by the Australian Geomechanics Society (Geomechanics, Vol 42, No.1, 2007). Such measures include, but are not limited to:

- minimisation of cut and fill;
- provision of on-site water detention tanks where necessary;
- pinning footings to bedrock; and
- retaining vegetation where possible.

Based on their assessment of the existing conditions, RCA Australia have also identified a number of measures that should be taken to ensure development on the site is carried out in a manner appropriate to specific site conditions. These measures include:

- incorporating temporary drainage and silt fencing into the design of bulk earthworks to prevent water ponding in the base of excavations;
- excavating cut batters into clayey soil at 1 in 3 to ensure stability and prevent erosion;
- steeper fill batters are to be supported by retaining walls subject to structural loads;
- engineered fill construction on slopes of 1 in 8 are to be stepped into the slope;
- uncontrolled fill and saturated soils are to be reworked, moisture conditioned and compacted in order to support high level footings;
- any pier boreholes are to be cleaned and inspected by a suitably experienced engineer prior to the placement of steel reinforcement and the pouring of concrete;
- waterproof seals are to be provided for pavement materials, with adequate surface and subsurface drainage to prevent sub-grade materials from wetting and softening up; and
- before pavement formation, sub-grade materials are to be prepared in accordance with the detailed recommendations outlined within the report.

The Statement of Commitments in section 5 outlines further measures that will be taken to ensure soil stability. Providing the geotechnical guidelines set out in the report are complied with, RCA advise that the site is suitable for the intended use.

Salinity

The Department of Natural Resources Map of Salinity Potential In Western Sydney (2002) indicates that the site is located in an area of moderate salinity potential. Testing undertaken by RCA Australia established that soil salinity increased in depth top soils considered non-saline and subsurface soils considered to be moderately saline at a depth of 1m.

Development in environments with subsurface saline soils have the potential to disturb the soil, leading to concentrations of salts in topsoil and the fabric of the built environment. Accordingly RCA Australia have prepared a salinity management plan which provides a number of recommendations to mitigate the impact of salinity on the site during both the construction and operational phases.

Measures to be implemented include, but are not limited to:

- capping underlying saline soils with non-saline imported fill or non-saline topsoil;
- testing imported fill to ensure salinity levels do not exceed two deci-siemens per centimetre;
- placing cut materials in the original in-situ order where possible and burying saline soil under non-saline soil;
- avoiding excavation at groundwater level;
- grading, revegetating and installing adequate drainage infrastructure to filling areas;
- minimising cut and fill;
- utilising fill materials with sufficient permeability properties;
- maintaining natural drainage patterns;
- ensuring an appropriate ratio of impermeable and permeable surfaces;
- ensuring pools have adequate drainage to ensure chlorine does not infiltrate permeable areas;
- utilising sulphate resistant materials for underground surfaces, roads or pavements where possible;
- limiting the addition of salts to materials, fill or water;
- providing waterproof seals on roads;
- utilising concrete with a suitable strength; and
- providing sufficient allowances for the corrosion of steel, or installing appropriate protective systems.

These measures to ensure appropriate salinity management are included in the Statement of Commitments in section 5. Implementation of these measures and ongoing maintenance during the operational phase will ensure the development does not result in any negative affectation on soil quality on the subject site, or any adjoining site.

Groundwater

Ground water is not expected to be impacted significantly due to the following measures in the design and operation of the water theme park:

- Groundwater extraction is not proposed;
- Natural drainage patterns have generally been adopted;
- Infiltration is not a design concept of the stormwater management, and although there is initial treatment of impermeable surface runoff by grass swale, the bulk of the stormwater is conveyed via piped systems;
- Stormwater detention pond is lined with impervious membrane to eliminate infiltration to groundwater;
- Chlorine treated water is always contained where pool overflow may occur, and overflow is then piped to for treatment then site discharge;
- Landscape species are selected for limited watering needs, and there will be no reason for overwatering of landscape areas;
- Maintenance of piped services will negate leaking to the groundwater.

4.12 Flooding

The management of any potential flooding in the site area is covered in the Water Cycle Management Plan prepared by Brown Consulting included at **Appendix B**. Presently, the topography of the site results in the vast majority of rainfall draining to the north of the site towards the M4 motorway.

Brown Consulting have based their assessment on detailed XP-Rafts hydraulic modelling of the site. The modelling involved splitting the site into sub catchments that best represent the post development site and the imperviousness and roughness of the built environment. The modelling presumed the reuse storage pond to be 100% full at the start of a rainfall event and results are therefore considered to be conservative.

The modelling predicts flood levels of 77.2m Australian Height Datum within the site in the Probable Maximum Flood (PMF) event. The lowest floor level of park infrastructure and water level of pools is approximately 79m AHD, well above the PMF flood level. This means that the park itself is unaffected by flooding.

The modelling demonstrated that on large rainfall events up to and including the 100 year Average Recurrence Interval event there will be a substantial reduction in flows passing the M4 compared to the site in its current condition, and this is predicted to result in lowered flood levels in these 1 in 100 year events. During the PMF event, the M4 flood level is currently about 300mm above the road surface. This level is predicted to increase slightly after the development, however no new flood hazard is created.

4.13 Flora and Fauna

A Biodiversity Impact Assessment has been undertaken by EcoLogical Australia Pty Ltd (refer to **Appendix O**). The assessment identifies flora and fauna species and ecological communities known or likely to occur on the site, considers the potential biodiversity impacts arising from the proposed development, and proposed measures to mitigation potential impacts in accordance with the *Draft Guidelines for Threatened Species Assessment* (DEC and DPI 2005), *Threatened Species Conservation Act 1995* (TSC Act) and the *Commonwealth Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act).

Existing Conditions

According to the report, National Parks and Wildlife Service have mapped Shale Plains Woodland and Shale Hills Woodland on the subject site. In accordance with this categorisation, two Biometric vegetation types have been identified on the site as follows:

- Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plan, Sydney Basin
- Grey Box - Forest Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin

These vegetation types correlate with a Threatened Ecological Community (TEC) listed under the TSC Act and EPBC Act, commonly referred to as Cumberland Plain Woodland.

Other vegetation on the site comprises exotic/disturbed grass/pastureland and shrubland.

Assessment of Impacts

The proposed development will require the removal of approximately 0.78 ha of Cumberland Plain Woodland and approximately 23 ha of degraded exotic grassland. The proposed excavation works will also result in the removal of soil and subsequently the removal of any native seed bank in designated areas. The proposed development includes new planting of approximately 1.5 ha of Cumberland Plain Woodland as described in the appended landscape plans.

Direct Impacts

Clearing - A large proportion of the site comprises exotic/disturbed vegetation and exotic/disturbed grass/pasturelands. Approximately 22.69 ha will be cleared to facilitate the proposed development. This vegetation is degraded having been previously cleared and or managed for a number of years through slashing (grassland) and grazing (horses).

Habitat removal - The key habitat features proposed for removal at the site include woodland vegetation, coarse woody debris, farm dams and disturbed grasslands. The proposed development will result in the reduction of 33% in woodland habitat, the loss of three farm dams and approximately 22 ha of disturbed grassland. The 'clearing of native vegetation' and 'removal of dead wood and dead trees" are listed as Key Threatening Processes under the TSC Act.

Excavation The excavation of the soil below the retained trees will result in the removal of any native seed bank in the area.

Indirect Impacts

Reduction in extent of a Threatened Ecological Community - The direct impact of partial clearing, under-scrubbing and excavating of soils within the site will remove 0.78 ha of remnant Cumberland Plain Woodland, a Critically Endangered Ecological Community (CEEC). The most recent mapping available for this ecological community within the study area (NPWS 2002) calculates there is approximately 3,426 ha of this community in existence. The proposed development will indirectly impact on the total extant of CEEC by <0.03%.

Considering this mapping was undertaken more than 8 years ago, there is likely to have been some reduction in CEEC due to clearing over this time. As a precautionary measure, if a 10% reduction of extant is assumed, approximately 3,083 ha would still remain in the study area of this CEEC, including more than 300 ha within the Prospect Reservoir Nature Reserve immediately to the south of the site. This would still equate to an approximate 0.03 % reduction in actual extent of CEEC in the study area.

Fragmentation - There is minimal risk of fragmentation to native remnant vegetation due to the proposed works, as currently the remnant is removed from other extant native vegetation through the reduction of native understorey species, the prevalence of exotic shrubs and the presence of the M4 Motorway immediately north of the site which is curtailed by residential housing and associated infrastructure to the north of the Motorway. Potential impacts to habitat for mobile species (e.g. bats, birds) through the removal of canopy species (i.e. Eucalypts) has been reduced through the proposed retention of almost 70% of the trees on site.

Notwithstanding the above impacts, whilst this vegetation (i.e. Cumberland Plain Woodland) is identified as a remnant of a CEEC, it has remained in a degraded state for a many years with a high prevalence of exotic species, and has maintained little management other than horse grazing. It is currently subject to a variety of KTPs due to it landscape position amongst the peri-urban environment and current management, including invasion and establishment of exotic vines and scramblers, perennial grasses and Lantana.

Management and Mitigation

Avoidance and Minimisation Measures

The proposed development involves the clearing of approximately 0.78 hectares of existing native remnant woodland vegetation within the site in order to provide sufficient space for a water detention basin. The size and placement of this water retention basin has been designed to take into account the geography of the site and makes use of as much cleared land as possible. The extent of this basin has been reduced to the minimum extent necessary to still meet the engineering requirements of this structure.

Whilst vegetation clearing must be undertaken due to the location of the water retention basin, the proponent will mitigate the impacts of this disturbance by adopting risk minimising practices for pre-start and clearing activities onsite, and include the revegetation of other areas with native woodland as described below.

Mitigation Measures

- All trees or other vegetation to be retained should be identified, clearly marked and fenced off prior to any vegetation removal;
- Vegetation clearing should be undertaken during seasons that minimise the risk of impacting on hibernating microbats or breeding woodland birds;
- A Pre-start Clearing Inspection should be completed by an ecologist of the proposed disturbance area to identify the presence of fauna (including threatened species such as microbats);
- Pre Start Clearing Inspections also identify biological resources within the disturbance area including habitat resources (hollows, stag trees and coarse woody debris) and the availability of endemic seed.
- The following active clearing practices are to be implemented:
  - Environmental and noxious weeds are controlled within the disturbance area prior to clearing;
  - Seed collection is undertaken;
  - The 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 onsite to inspect the tree and to attend to any animals which may be injured or require assistance; and
  - The toppled trees are left on the ground overnight to allow any other unidentified animals to relocate.
- Sediment fences or equivalent should be erected prior to the removal of any vegetation and kept in place until all areas of bare soil have been stabilised;
- Stripping soil in disturbance areas and immediately re-spreading over rehabilitation areas;
- Weed management particularly focused on noxious weeds which includes routine inspection and identification;
- A Soil and Water Management Plan should be designed and implemented for the proposed works in accordance with appropriate guidelines for managing urban stormwater, for example, Soils and Construction: Managing Urban Stormwater 4th Edition (Landcom 2004);

- Stormwater runoff will be controlled within the development planning so as to minimise nutrient and contaminant escape to surrounding lands; and
- Pest management activities as required.

Rehabilitation / Revegetation measures

- A Vegetation Management Plan (VMP) will be developed for the areas of retained remnant woodland and the proposed water retention basin. The VMP will set out a 5 year implementation period from the completion of development and include the creation of management zones, vegetation monitoring and weed control measures.
- A seed collection strategy and program to harvest endemic seed from local vegetation to either directly sow or propagate for tube stock planting in rehabilitation areas; and
- Revegetation of the water retention basin with native wetland flora is undertaken to provide a resource for amphibians to colonise / take refuge during migration across the landscape.
- The proposed landscaping of the site includes the planting and regeneration of approximately 1.5 ha of Cumberland Plain Woodland.

Conclusion

Assessments of significance in accordance with the 'Draft Part 3A Guidelines for Threatened Species Assessment' under Part 3A of the EP&A Act were undertaken for those species and TEC's observed (i.e. 'known') on the site or considered 'likely' to occur on the site.

The extent of habitat to be removed is considered negligible in the context of the existing Cumberland Plain Woodland within the study area (i.e. 3,426 ha of this community exists) and being retained and replanted/regenerated within the site. The vegetation removal at the site will not affect habitat connectivity nor increase fragmentation as the vegetation to be cleared / modified is currently in a degraded state with a high prevalence of exotic flora species and has been subject to horse grazing for a number of years.

The assessments conclude that it is unlikely the proposed development would significantly impact on threatened species and ecological communities that are 'known' or considered 'likely' to utilise the site including Cumberland Plain Woodland, Eastern False Pipistrelle (*Falsistrellus tasmaniensis*) or the Eastern Bent-wing Bat (*Miniopterus schreibersii oceanensis*).

An assessment of significance under the EPBC Act was undertaken for Cumberland Plain Woodland, as it was the only listed species observed (i.e. known) or considered 'likely' to occur on the site. The outcome of this assessment was that it is unlikely to have a significant effect on threatened species, populations, ecological communities, or their habitats, and accordingly a Species Impact Statement is not required for the proposal.

The removal of the vegetation within the site will not affect habitat connectivity nor increase fragmentation as the vegetation to be cleared / modified is currently in a degraded state with a high prevalence of exotic flora species and horse grazing. Following consideration of the administrative guidelines for determining significance under the EPBC Act, it is concluded that the proposal is unlikely to have a significant impact on matters of National Environmental Significance or Commonwealth land, and accordingly a referral to the Commonwealth Environment Minister is not necessary.

A number of impact mitigation and amelioration strategies have been recommended for the proposal including the planting/regeneration of approximately 1.5 hectares of CPW on the site as part of the landscaping of the water theme park. These strategies mitigate the effects of the proposal on threatened species, populations, ecological communities, or their habitats and minimise the impacts of the proposal on the flora and fauna values of the study area in general. These recommendations have been incorporated into the Statement of Commitments at Section 5.

4.14 Noise and Vibration

The construction and operation of the proposed water theme park has the potential to cause noise and vibration impacts affecting surrounding sensitive receivers. Accordingly, a Noise and Vibration Assessment has been prepared by Renzo Tonin & Associates (NSW) Pty Ltd in accordance with the Environmental Criteria for Road Traffic Noise (ECTRN) and the Industrial Noise Policy (INP), produced by DECCW (**Appendix J)**.

The assessment calculates potential acoustic impacts that may arise as a result of the proposed development and recommends mitigation measures to ensure relevant noise control guidelines are followed.

In particular, the report considers noise emanating from both the construction and operational phases, including noise from patrons, the car park and amplified music events. The report also considers acoustic impacts resulting from increased traffic.

The nearest sensitive noise receivers include rural residential dwellings to the east and west of the site, and St Marks Coptic Catholic Church further to the east situated on the corner of Reservoir Road and Reconciliation Drive.

Noise emissions from the proposed water park have been calculated using the CadnaA computer model, which takes into consideration, amongst other things:

- the location of sources and receivers;
- meteorological conditions such as wind;
- separation distances;
- ground type; and
- attenuation from barriers.

The findings of the noise modelling for both the construction and operational phases and traffic are discussed in further detail below.

Existing Conditions

To quantify the existing noise environment, Renzo Tonin & Associates have conducted noise monitoring at two nearby sites. The findings of this assessment are presented in **Table 1** below.

Table 2 – Existing Noise Levels

Receiver Location	L_{A90} Background Noise Levels			L_{Aeq} Ambient Noise Levels		
	Day	Evening	Night	Day	Evening	Night
24 Watch House Road	47 dB(A)	48 dB(A)	43 dB(A)	53 dB(A)	53 dB(A)	50 dB(A)
431 Reservoir Road	44 dB(A)	44 dB(A)	36 dB(A)	61 dB(A)	58 dB(A)	60 dB(A)

Construction Phase

Noise Criteria

Based on guidance included within AS2436:2010 "Guide to noise control on construction, maintenance and demolition sites" and their extensive experience, Renzo Tonin and Associates recommends that the L_{Aeq} dB(A) noise management levels be set at 55dB(A) for 24 Watch House Road and 50dB(A) for 425 Reservoir Road. The findings of the noise modelling for the construction phase are included below in **Table 2**.

Table 3 – Predicted Construction Levels

Receiver Location	24 Watch House Road	425 Reservoir Road
L_{Aeq} construction noise	54-68 dB(A)	55-74 dB(A)
Noise Management Level	55 dB(A)	50 dB(A)

As demonstrated, the predicted construction noise levels exceed the noise management levels. However, no receivers are predicted to be exposed to noise levels exceeding 75dB(A), the level at which a receiver is considered to be 'highly effected'.

The report finds that vibration is not expected to be an issue, as the nearest receivers are situated over 100m from mechanical plant items or rides. Accordingly, no special measures to reduce vibration impacts are required.

Noise resulting from the construction of the proposed development is unavoidable and it is therefore likely that there will be some level of disturbance to surrounding receivers during demolition works and construction. Accordingly, mitigation measures are required to reduce acoustic impacts resulting from these activities. A number of noise management measures have been recommended in the report and will be implemented where reasonable and feasible. Proposed measures include:

- limiting work to daylight hours;
- implementing respite periods with low noise/ vibration producing construction activities;
- selecting low noise plant and equipment;
- installing quality mufflers on equipment;
- establishing stringent noise emission limits for specified plant and equipment;
- implementing a noise audit program;
- using quieter construction methods;
- removing unnecessary equipment from the site;
- concentrating noisy activities to one location and moving on to the next as quickly as possible;
- switching off equipment when not in use;
- locating noisy plant and equipment away from sensitive areas;
- where possible, optimising attenuation effects from topography, natural and manmade barriers and materials stockpiles;
- avoiding and minimising vehicle movements outside construction hours;
- ensuring equipment is well maintained;
- using equipment of an appropriate size and power;
- educating workers in quieter work practices;

- installing noise control kits for noisy mobile equipment and shrouding stationary plant as necessary;
- locating site access roads as far away as possible from noise sensitive areas; and
- adopting a comprehensive community information program before construction begins.

Working hours are also to be restricted in accordance with DECCW's "Interim Construction Noise Guideline (July 2009)". This is in order to ensure works occur outside of more sensitive times (i.e. during daylight hours). Working hours are therefore restricted to:

- between 7.00am and 7.00pm, Monday to Friday;
- between 8.00am and 1.00pm Saturdays; and
- no work or deliveries on Sunday and/or public holidays.

The above measures aim to ensure potential impacts from construction noise and vibration are minimised to acceptable levels.

Operational Phase

Noise Criteria

Based on guidance included within DECCW's Industrial Noise Policy, the intrusiveness of a mechanical noise source is considered acceptable if the L_{Aeq} does not exceed the background noise level, measured over a 15 minute period, by more than 5dB(A). The findings of the noise modelling for the operational phase (excluding amplified music events) are included below in **Table 3**.

General Operations

Based on guidance included within DECCW's Industrial Noise Policy, the intrusiveness of a mechanical noise source is considered acceptable if the L_{Aeq} does not exceed the background noise level, measured over a 15 minute period, by more than 5dB(A). The findings of the noise modelling for the operational phase (excluding amplified music events) are included below in **Table 3**.

Table 4 – Predicted Operational L_{Aeq} Noise Levels

Receiver Location	24 Watch House Road	425 Reservoir Road
Patron Noise (Calm)	45 dB(A)	39 dB(A)
Car Park Noise (Calm)	30 dB(A)	40 dB(A)
Cumulative Noise Level	45 dB(A)	42 dB(A)
Cumulative Noise Level (wind source to receiver)	49 dB(A)	43 dB(A)
Criteria (Day / Evening)	50 dB(A)	45 dB(A)
Criteria (Night)	47 dB(A)	39 dB(A)

General operational noise is expected to comply with the set criteria at the nearest receivers under calm conditions. However, some minor exceedances of less than 5dB(A) are possible during extended trading hours after 10pm, arising mainly from the driveway leading to the car park. In light of this, Renzo Tonin & Associates have recommend that an acoustic fence be constructed between the residence and the driveway to provide approximately 5dB(A) shielding from the impacts of the car park noise.

Outdoor Amplified Music Events

As part of Wet 'n' Wild's operations, outdoor music events may occur on the special events lawn and the secondary overflow parking area. Based on a sound power level of 125dB(A), predicted noise emissions from music events are presented in **Table 4** below.

Table 5 - Predicted L_{Aeq} Music Noise Levels

Receiver Location	24 Watch House Road	425 Reservoir Road
Special Events Lawn	64 dB(A)	64 dB(A)
Secondary Parking Area	62 dB(A)	61 dB(A)
Criteria (Day/ Evening)	50 dB(A)	45 dB(A)
Criteria (Night)	47 dB(A)	39 dB(A)

As demonstrated, considerable exceedances are possible during amplified music events. To mitigate these impacts the report proposes a number of measures to reduce these impacts, including:

- notifying residents of schedules 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; and
- locating events in the secondary parking area with the stage and speakers towards the M4 Motorway to minimise the noise impacts.

Amplified music events are proposed to be infrequent events and are not considered to be unreasonable in the context of the site in the Western Sydney Parklands recreational precinct, and with the implementation of the ameliorative measures.

Traffic

Noise Criteria

Road traffic noise has been assessed in accordance with the NSW Environmental Criteria for Road Traffic Noise (ECTRN, Environment Protection Authority 1999). The policy divides land uses into different categories and provides appropriate criteria for each development type.

The development is considered to have the potential to create additional traffic on existing freeways/arterials and collector roads. In these cases, the set criteria is L_{Aeq} 60dB(A) in the day and 55dB(A) in the night. St Marks Coptic Catholic Church is considered to be a sensitive land use with an internal noise criteria of 40dB(A). In all cases, traffic arising from the development should not lead to an increase in existing noise levels of more than 2dB(A).

Methodology

Noise levels reaching the facades of residential properties on Reservoir Road have been calculated using the CoRTN88 method, which takes into consideration:

- traffic volume and heavy vehicle forecasts;
- vehicle speed;
- road gradient;
- the differing source heights of cars and heavy vehicles (3-source heights used);
- ground reference levels of the road and receivers;
- separation distances of the road to receivers;
- ground type between the road and receivers;
- angles of view of the road from the receiver's position;
- attenuation from barriers (natural and purpose built) and cuttings;
- reflections from barriers, cuttings, roadside structures etc; and
- corrections for building facade reflections under Australian conditions.

To quantify the existing noise environment, Renzo Tonin & Associates have estimated the existing and predicted noise levels using the CoRTN88 method. The findings of this assessment are presented in **Table 5** below.

Table 5 – Estimated Current and Predicted L_{Aeq} Traffic Noise Levels

Receiver Location	Existing Noise Level		Additional Noise		Total Traffic Noise	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Saturday	60 dB(A)	59 dB(A)	59 dB(A)	61 dB(A)	63 dB(A)	63 dB(A)
Sunday	61 dB(A)	57 dB(A)	59 dB(A)	61 dB(A)	63 dB(A)	62 dB(A)

As demonstrated, traffic arising from the development may cause an increase of 2 - 5 dB(A) over current levels, which is in exceedance of the 2dB(A) criteria. However, all receivers are within the vicinity of the planned future road link from Prospect Highway to Wetherill Park.

This new road is expected to result in significantly increased traffic flows and noise levels which exceed the peak traffic generated by the proposed development, and diminish the acoustic impacts of traffic arising from the proposed water theme park.

4.15 Waste Management

An Environmental Management Plan has been prepared by Sustainable Built Environments and is included at **Attachment E**. The plan incorporates strategies for managing construction waste and the ongoing management of waste generated by visitors to the water theme park. The plan effectively addresses the appropriate segregation, containment and disposal of waste and has been prepared in accordance with the Environmental Management Guidelines prepared by Western Sydney Parklands Trust.

Construction Phase

The key objectives for sustainable management during the design and construction phase are:

- minimise construction waste - starting from design stage;
- maximise recycled and recyclable content of construction materials;
- maximise re-use of and recycling of construction material; and
- select construction materials with minimal environmental impact where appropriate.

These objectives can be achieved by:

- implementing the management plan in design and building processes;
- requiring construction contractors to explore opportunities to use excavated earth generated during construction for Parkland management and considering creative uses of remaining excavated earth such as creating embankments;
- where practical, providing dedicated storage areas for the separation and collection of recyclable and compostable waste;
- requiring contractors to have valid ISO 14001 Environmental Management System (EMS) accreditation prior to and throughout construction as appropriate; and
- maximising the re-using/ recycling/ composting of all demolition and construction waste where possible.

Operational Phase

The key objectives for sustainable management during the design and operational phase are:

- minimise waste to landfill;
- maximise local or on-site recovery and re-use of waste streams;
- maximise recycled and recyclable content of all operational equipment and product;
- maximise recycling of materials;
- minimise use of environmentally hazardous chemicals for water treatment, cleaning and first aid; and
- practise continuous improvement.

These objectives can be achieved by:

- implementing an 'avoid, reduce, re-use, recycle' approach to waste management in all operational processes;
- Negotiating minimal packaging of operation materials, food products and merchandise with manufacturers as far as practical and appropriate;
- providing appropriate recycling facilities for visitors and staff;
- ensuring office space operations achieve NABERS Waste 5 Star;
- recycling disposable food equipment (such as cutlery, plates and cups) where practical and feasible;
- requiring contracted food providers to comply with Wet N Wild Sydney's waste management plan including the use of on-site recycling facilities; and
- giving preference to all operational materials (including chemicals) on the basis of high life cycle analysis (LCA).

4.16 Bushfire

A Bushfire Protection Assessment prepared by Ecological Australia is included at **Appendix P**. It provides a review of the proposed development against the aims and objectives contained within the document *Planning for Bush Fire Protection 2006* (PBP). The PBP outlines the necessary planning considerations when developing land which is in close proximity to areas likely to be affected by bushfire events.

Existing conditions

The land to the south of the site on the opposite side of Reservoir Road around Prospect Reservoir is identified as bushfire prone land by Blacktown Council and the NSW Rural Fire Service. The bushfire hazard is Cumberland Plain Woodland located within 140 m of the site and has a shrubby understorey and is classified as 'forest' in accordance with the PBP.

Land within the subject site has been almost completely cleared of any bush fire prone vegetation, however, two areas of remnant vegetation within the site are proposed to be retained and regenerated to Cumberland Plains Woodland. One remnant site is located within the northern portion of the site and the other within the site's south-east corner. Both these areas of woodland on the site cover less than 1 ha. and fall within the classification of 'low hazard vegetation' in PBP. Low hazard vegetation uses 'rainforest' setbacks and construction standards as a surrogate for reduced fire behaviour expected from small and/or narrow areas of vegetation.

Bushfire Protection Measures

The Bushfire Protection Assessment prepared by Ecological Australia makes the following conclusions and recommendations:

- Safe evacuation is provided for visitors/staff/contractors present on the site during a bushfire event, particularly as a large portion of the proposed development including the large western car park will be located well over 100 metres from the nearest bush fire prone vegetation and is not considered bush fire prone.
- Defendable space is to be provided around the following enclosed buildings to facilitate safe fire-fighting:
  - Administration building;
  - Machinery shed;
  - Beer bar;
  - Food and beverage area;
  - Change room/locker area;
  - Ticket booths at entrance; and
  - Three satellite toilet blocks/food and beverage buildings.
- Asset Protection Zones (APZs) prescribed by PBP for habitable buildings around each of the retained areas of CPW vegetation within and adjacent to the proposed development are as a minimum:
  - Northern CPW remnant – 10 m minimum APZ;
  - Southern CPW remnant – 10 m minimum APZ; and
  - Southern CPW within Prospect Reservoir Reserve – 35 m minimum APZ.

The APZ for the proposed development is already in place within the subject land and surrounding roads/allotments and no additional vegetation clearance or tree removal is required to support the proposed development.

- Fuel management within the APZ is to be as follows:
  - No tree or tree canopy is to occur within 2 m of building rooflines;
  - The presence of a few shrubs or trees in the APZ is acceptable provided that they:
    - are well spread out and do not form a continuous canopy;
    - are not species that retain dead material or deposit excessive quantities of ground fuel in a short period or in a danger period; and
    - are located far enough away from the building so that they will not ignite the buildings by direct flame contact or radiant heat emission.
  - Any landscaping or plantings should preferably be local endemic species or other low flammability species; and
  - A minimal ground fuel is to be maintained to include less than 4 tonnes per hectare of fine fuel (fine fuel means ANY dead or living vegetation of <6 mm in diameter e.g. twigs less than a pencil in thickness. 4 t/ha is equivalent to a 1 cm thick layer of leaf litter).
- Construction to relevant bushfire protection standards is required for the following buildings located within 100 m of the nearest bush fire prone vegetation: The southern-most toilet blocks/food and beverage buildings; Beer bar; Machinery storage (northern and southern buildings); and Administrative building.
- These buildings will require construction to a Bushfire Attack Level (BAL) under Australian Standard AS 3959-2009 'Construction of buildings in bushfire-prone areas' (Standards Australia). The BAL for each building will depend on the size of the APZ between the building and the nearby bush fire prone vegetation. Buildings will also need to be constructed in accord with Section 3 'Construction General' of AS 3959-2009 and the ember protection provisions on Page 10 of the 2010 Appendix 3 Addendum to PBP where applicable.
- Perimeter access is not considered necessary for the proposed development and the proposed access and circulation will satisfy the requirements of PBP providing PBP compliant passing bays are constructed along the internal property access road to permit fire appliances to pass safely, and fire hydrants are installed along the property access road in accord with the requirements of AS2419.1 Fire hydrant installations - System design, installation and commissioning' (Standards Australia 2005).
- The subject land will be serviced by reticulated water. The furthest point from any future buildings to a hydrant is to be less than 70 m. The reticulated water supply will comply with the following acceptable solutions within PBP:
  - Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads;
  - Fire hydrant spacing, sizing and pressures comply with AS 2419.1 – 2005. Where this cannot be met, the RFS will require a test report of the water pressures anticipated by the relevant water supply authority. In such cases, the location, number and sizing of hydrants shall be determined using fire engineering principles;
  - Hydrants are not located within any road carriageway;
- All above ground water and gas service pipes external to the building are metal, including and up to any taps; and
- The [PBP] provisions of parking on public roads need to be met.
- The electrical transmission line to the subject land is above ground is to be clear of any tree by more than 0.5 m of the powerline conductors.
- Any gas services are to be installed and maintained in accordance with AS/NZS 1596:2008.

The above bushfire protection measures have been incorporated into the Statement of Commitments at Section 5.

4.17 Hazardous Materials

Demolition of existing buildings

Due to their age, many of the existing structures on the site have the potential to include hazardous materials. Audits of all premises to be demolished have been undertaken by RCA Australia in accordance with AS 2601-2001 (refer to **Appendix Q**). The audit ascertains if hazardous materials are present and determines any special measures which may be required during the demolition phase. The findings of the audit are presented in **Table 2** below.

Table 6 – Findings of hazardous material audits

Location	Hazardous Materials
15 Watch House Road	
House exterior	Backboard in the meter box (zelminite) Flat Asbestos Containing (AC) sheeting on the walls
House interior	Flat AC sheeting on the walls in the bathroom
Detached laundry	Flat AC sheeting on the walls
Granny Flat	AC sheeting on the interior walls AC sheeting on the ceiling Flat AC sheeting on the exterior walls
Workshop	AC sheeting on the ceiling AC interior walls AC external walls
Miscellaneous	Broken AC sheeting on site Asphalt road residue Small quantities of lubricants and chemicals in the shed and workshop
5 Watch House Road	
Main building exterior	Flat AC sheeting on the extension walls
Detached laundry	AC sheeting on the interior and exterior walls AC ceiling
Chicken shed	AC sheeting on the walls
Detached WC	AC sheeting in the interior and exterior walls AC sheeting on the ceiling
Miscellaneous	Septic tank on site Asphalt road skimming in the driveway
491 Reservoir Road	
Main building interior	AC sheeting on the walls and ceiling of the laundry AC sheeting in the bottom 1.8m of bathroom walls
Main building exterior	AC sheeting on the walls AC sheeting on the eaves
Detached garage	AC sheeting on the walls
Detached back shed	AC sheeting on the ceiling
Detached WC	AC sheeting on the gable

Location	Hazardous Materials
467 Reservoir Road	
Main building exterior	Asbestos backboard in the meter box Flat AC sheeting under the eaves
Detached double garage	AC gable ends
431 Reservoir Road	
Main building exterior	Flat AC sheeting under the eaves Flat AC sheeting on the walls
Main building interior	Flat AC sheeting on the kitchen walls
Double garage	AC gable at both ends of the garage
Detached WC and laundry	Flat AC sheeting on the exterior walls
Miscellaneous	Argon welding gas behind the garage Septic tank on site Lead based paints

The asbestos containing materials are proposed to be removed by a licensed asbestos removal contractor in accordance with the requirements of WorkCover NSW, the 'National Occupational Health and Safety Commission Code of Practice for the Safe removal of Asbestos (2nd edition') 2005, the 'Guide to the control of Asbestos Hazard in Buildings and Structures' 1988 and AS 2601-2201. Any contaminated materials or hazardous substances will be classified first and then stored, transported and disposed of in accordance with DECCW requirements at a DECCW licensed waste facility.

The report also advises that dust in the roof spaces of these properties is likely to have high levels of lead and other contaminants. In consideration of this, the report recommends that access to roof spaces is to be suitably controlled and work in these areas should be undertaken using personal and environmental protection measures.

Hazardous Chemical Storage

The proposed development will include the storage of chemicals in the maintenance area at the rear of the surf wave pool plant room as the primary store and smaller compliant storage areas for liquid chlorine (up to 5000 litres capacity) at other plant rooms. It is estimated that chemicals and quantities required t be stored on the site include Sodium hypochlorite (18, 000 litres), Calcium Hypochlorite (4 ton), Calcium chloride (2 ton), Sodium Bicarbonate (2 ton), Cyanuric acid (200 kg), Algaecide (100 litres), Anti Foam (100 litres), Sodium thiosulphate (200 kg), Soda Ash (200 kg), and Co2 gas(6 ton).

All chemical storage areas are proposed to be designed, built and operated in accordance with the following standards:-

- AS 3780-2008 Storage and handling of corrosive substances;
- AS 1940 -2004 Storage and handling of combustible materials;
- AS 4326 -2008 The storage and handling of oxidizing agents;
- AS/NZS 3833 -2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers;
- Dangerous goods safety management Act 2001;
- Occupational Workplace Standards Act for NSW.

4.18 Consultation

The proponent has established and implemented a pro-active consultation program with key stakeholders in the planning and development of Wet'n'Wild Sydney. A report on the consultation program prepared by Cosway Australia is included at **Appendix R**. The consultation program has 3 stages as described below.

Stage 1 – Pre-lodgement

The pre-lodgement phase of the project has involved consultations with various stakeholders with an interest in the proposal including tenants and nearby residents, State and Local Government and associated agencies, district heritage groups and environmental groups, and civic and economic development organisations.

Pre-lodgment consultation commenced on 13 September 2010 coinciding with the announcement of the Agreement for Lease for the subject site with the NSW Government. The pre-lodgment consultation has continued throughout the period of preparing the Part 3A Application. Details of the consultations including stakeholders and methods of consultation are included in the report at **Appendix R**.

The main findings in this pre-lodgement stage of consultation are summarised as follows:

Strong Levels of Support

- Strong public expressions of support from all levels of Government, business and civic groups
- Strong support for economic rationale, tourism potential, employment generating opportunities, particularly for western Sydney
- Multiple expressions of interest from local businesses to project website

Main Issues Raised

- Traffic management, site access, on site parking and timing of infrastructure improvements;
- Water and energy sustainability; and
- Social and cultural heritage, alignment of Reservoir road, maintenance of old policeman's cottage and associated pine trees.

These issues have been addressed in the planning and design of the development as described in the relevant sections of this EAR.

Stage 2 – Public Exhibition

Village Roadshow intends to exhibit the project at the Blacktown City Council and at the Department of Planning Head and Regional offices for the purposes of soliciting public and stakeholder feedback on the project.

The exhibition will be appropriately advertised and publicised and will be attended by knowledgeable project staff to engage with interested parties and accept public submissions.

Stage 3 – Response to Submissions

In response to formal submissions received through the statutory consultation process, the proponent will issue to relevant agencies and Blacktown Council the issues raised by particular stakeholder groups, indicate how it proposes to respond to the submissions received and indicate how the proposal has been adjusted to result of the feedback received. The proponent may also, if necessary, undertake follow-up consultations with stakeholders.

4.19 Construction Management

A construction management plan will be prepared for the project prior to the commencement of works. The plan will manage the construction and its potential impacts, and address measures for site safety and security, construction vehicle traffic management, erosion and sediment controls, dust suppression, noise and construction hours, waste management, site responsibilities and reporting.

5.0 Draft Statement of Commitments

	Project Component	Environmental Outcome (Commitment)	Measure (Commitment)	Timing for Completion
1.	**Approved Plans and Design Quality**	Development is carried out in accordance with approved plans and documents.	Development will be carried out generally in accordance with plans and documents in the Part 3A Concept Plan EAR.	All stages of the project.
		Buildings exhibit design quality.	Buildings are designed taking into account the Australian surf culture theme and ESD design quality principles in the Environmental Management Plan in Appendix I of the Part 3A Concept Plan EAR.	Preparation of construction design drawings for buildings.
2.	**Transport and Access**	Equitable access is provided for the water theme park.	A shuttle bus operated by the water park to provide access for park users between the site and Blacktown rail station will be investigated.	During operation of the water theme park.
			Access for the disabled will be provided in accordance with relevant standards and recommendations in the Access Review in Appendix H of the Part 3A Concept Plan EAR.	To be included in construction drawings and implemented in the construction of the development.
			A contribution towards the upgrade of the local road network is to be provided to the NSW Government in accordance with the terms of the lease agreement for the land.	Prior to construction certificate.
			A Travel Access Guide will be prepared for park users showing means of access to the site via a range of transport modes.	Prior to the opening of the water theme park to paying customers.
			A Construction Traffic Management Plan will be prepared and implemented.	To be prepared prior to works commencing and implemented during construction activities.
3.	**Ecological Sustainability**	The operation and construction of the water theme park is in accordance with the principles of ecological sustainability.	The actions in the Environmental Management Plan (EMP) in Appendix I of the Part 3A Concept Plan EAR will be implemented.	As stated in the EMP.
4.	**Safety and Security**	A safe and secure environment is provided in the water theme park.	The facilities in the Support Facilities, Safety and Security Plan in the Part 3A Concept Plan will be implemented.	During construction and ongoing operation of the water theme park.

	Project Component	Environmental Outcome (Commitment)	Measure (Commitment)	Timing for Completion
			The site will be maintained and kept in a clean state including prompt removal of any graffiti and rectification of any vandalism.	Ongoing operation of the water theme park.
			A Security Management Plan and Code of Practice for the licensed premises will be prepared and implemented.	To be prepared as part of an application for a liquor licence, and implemented in the operation of the park.
			An Emergency Management Plan will be prepared for the water theme park.	Prior to opening of the water theme park.
5.	**Heritage**	Items of heritage significance on the site are conserved.	The building known as the former policeman's cottage will be retained.	Ongoing.
			The tall pines in the immediate vicinity of the former policeman's cottage will be retained.	Ongoing.
			Any archaeological relics found in the immediate vicinity of the former policeman's cottage will be conserved.	Ongoing.
			A visual link between the immediate vicinity of the former policeman's cottage and St Bartholomew's Church in Prospect will be retained.	Ongoing.
			The alignments of Reservoir Road and Watch House Road will be retained.	Ongoing.
			The recommendations in the Aboriginal Heritage Assessment in Appendix L of the Part 3A Concept Plan EAR for the collection of artefacts found on the site will be implemented.	Prior to, during and after earthworks.
			An Aboriginal Heritage Management Plan will be prepared and implemented for the area identified as an area of potential archaeological deposits (PAD) in the Part 3A Concept Plan EAR.	To be prepared prior to commencement of earthworks in the PAD area, and implemented as specified in the Plan.
6.	**Geotechnical**	Geotechnical hazards are managed in the construction of the water theme park.	The recommendations in the Geotechnical Investigation and Salinity Management Plan for construction methods are implemented.	During construction.
7.	**Flora and Fauna**	Impacts on native vegetation and habitat are mitigated.	The mitigation measures in the Biodiversity Impact Assessment in Appendix O of the Part 3A Concept Plan EAR will be implemented.	Prior to and during construction.

	Project Component	Environmental Outcome (Commitment)	Measure (Commitment)	Timing for Completion
			A Vegetation Management Plan will be prepared and implemented for the Cumberland Plain Woodland on the site.	To be prepared prior to completion of landscaping and implemented for at least 5 years.
			Approximately 1.5 hectares of Cumberland Plain Woodland species will be planted and regenerated as part of the landscaping of the site.	During landscaping.
8.	**Noise**	Noise impacts on surrounding properties are ameliorated.	The recommendations in the Noise and Vibration Assessment in Appendix J of the Part 3A Concept Plan EAR for ameliorating construction noise and amplified noise will be implemented.	During construction and operation of the development.
9.	**Bushfire protection**	Bushfire protection measures are implemented in the water theme park.	The bushfire protection measures in the in the Bushfire Protection Assessment in Appendix P of the Part 3A Concept Plan EAR will be implemented.	All stages of development and ongoing operation of the water theme park.
10.	**Hazardous materials**	Hazardous materials are managed in accordance with relevant Australian Standards, regulations and guidelines.	The recommendations in the Hazardous Substance Audits in Appendix Q of the Part 3A Concept Plan EAR will be implemented in the demolition of existing buildings.	During the demolition of existing buildings.
			Chemicals associated with the operation of the water theme park will be stored in accordance with the relevant standards and guidelines specified in Section 4.17 of the Part 3A Concept Plan EAR.	Ongoing operation of the water theme park.
11.	**Construction management**	Construction activities will be carried out in accordance with a plan of management.	A Construction Management Plan will be prepared and implemented as described in Section 4.18 of the Part 3A Concept Plan EAR.	To be prepared prior to commencement of works and implemented during construction activities.
12.	**Signage**	Signage is in accordance with the WSPT signage guidelines.	A Signage Strategy will be prepared for the water theme park and approved by the Western Sydney Parklands Trust in consultation with the Roads and Traffic Authority and Blacktown City Council.	Prior to opening of the water theme park.
13.	**Water cycle management**	Water cycle calculations are accurate.	Water cycle calculations in the Water Cycle Management Plan in Appendix B of the Part 3A Concept Plan EAR will be reviewed.	Prior to Construction Certificate.
14.	**Consultation**	Project stakeholders are consulted in the planning of the water theme park development.	The 3 stages of consultation specified in the Consultation Report in Appendix R of the Part 3A Concept Plan EAR will be implemented.	As specified in the Consultation Report.

6.0 Conclusion & Justification

The Part 3A Concept Plan Application for the proposed Wet'n'Wild water theme park has planning merit and is justified in the following respects:

- it will provide western Sydney with a major world-class recreational and entertainment facility that will make a significant contribution to meeting the recreational needs of the people of western Sydney and provide significant benefits to the local economy in terms of investment, tourism and employment;
- it is consistent with relevant planning instruments including the NSW State Plan, Metropolitan for Sydney 2036 and North-West Draft Subregional Strategy, SEPP (Western Sydney Parklands) 2009, and Draft Western Sydney Parklands Plan of Management;
- it has excellent road access on the major Sydney arterial network with the capacity to accommodate the proposed development subject to upgrading the M4 / Prospect Highway interchange for which a contribution has been made by the proponent as part of the lease agreement for the land;
- public transport access is available nearby with an existing Westbus route to and from Blacktown rail station, and implementation of a supplementary park shuttle bus service will be investigated;
- an Environmental Management Plan (EMP) is included in the proposed development to ensure its consistency with the principles of ecological sustainable development and includes objectives, targets and actions for water conservation, energy conservation, materials and waste, biodiversity, environmental quality and emissions, transport, and social amenity;
- the scale and visual impact of the development is appropriate for the site in the context of being identified in planning instruments as a 'Tourism Hub' within a recreational precinct in the Western Sydney Parklands;
- the site planning and design of the water theme park fits into the natural topography of the site and respects surrounding properties to minimise its impact on the landscape and amenity of the area, and provide for an interesting and entertaining experience for users of the water park;
- the building designs include a mix of rides that are relatively light weight, visually permeable and sculptural frame structures, and support buildings and shade structures that are designed to reflect the character of Australian surf beach culture, fun, recreation and entertainment as well as providing weather protection and be consistent with ESD design principles;
- the landscape design appropriately integrates with the native woodland around the perimeter of the site, and reinforces the character of different precincts within the main water theme park;
- it will not have any unreasonable impact on the amenity of surrounding properties in terms of sunlight access, acoustic privacy, visual privacy, views and wind primarily due to the nature of the surrounding land uses, separation distances, site planning and amelioration measures proposed for noise and construction activities;
- a range of ancillary park support facilities for the safety and security of park users are included such as the park access controls, food & beverage facilities, restrooms/lockers, life guards and ride attendants, first aid, and information services;
- access and circulation paths throughout the site meet relevant standards for vehicles, pedestrians and the disabled;

- items of heritage significance on and around the site including the former policeman's cottage are being conserved;
- Aboriginal artefacts are proposed to be conserved and a management plan prepared for the area identified as having potential for archaeological deposits;
- A Water Cycle Management Plan has been prepared and includes a range of measures to achieve established objectives for water quality and quantity such as vegetated water treatment swales, gross pollutant traps, water treatment wetland, stormwater detention and reuse pond, and rainwater tanks which achieve approximately 90% of the water needed for irrigation, toilet flushing and washdown from the use of rain water;
- the proposed water park facilities are above both the 1 in 100 year and probable maximum flood (PMF) levels;
- utility services in the form of water, sewer, gas, electricity and telecommunications are available in the locality for connection to the site;
- a Phase 2 Environmental Assessment concludes that the low level soil contaminants on the site are not of concern, and that the site is suitable for the proposed water theme park development in its current state without remediation;
- the geotechnical conditions are suitable for the proposed development with a low risk of any soil slope instability subject to standard construction practices, and a salinity management plan has been prepared to manage the saline soils;
- the impact of the proposed removal of 0.78 hectares of Cumberland Plain Woodland (CPW) within the natural drainage line for the purpose of constructing the proposed detention pond and wetland is assessed as negligible given the extent of CPW (over 3,000 hectares) in the locality, the degraded condition of the existing CPW, and the proposed mitigation measures including the planting and regeneration of approximately 1.5 hectares of CPW as part of the landscaping of the water theme park;
- bushfire protection measures are proposed in accordance with the NSW *Planning for Bush Fire Protection 2006* guidelines;
- hazardous materials are proposed to be managed in accordance with relevant Australian and OH&S regulations, standards and guidelines;
- consultation with stakeholders has been carried out;
- a construction management plan will be prepared prior to commencement of works; and
- a statement of commitments is provided for the development of the proposed water theme park.

Given the circumstances described above, the proposed Wet'n'Wild water theme park development satisfies the legal planning assessment requirements of the EP&A Act and the Director-General, and is considered to be consistent with the principles of ecologically sustainable development. Given these planning merits, we request that:

- the Minister approve Stages 1 and 2 of the Wet'n'Wild water theme park, and determine under Section 75P(1)(c) of the EP&A Act that no further environmental assessment or applications are required for Stages 1 and 2 to proceed immediately to construction certification.
- the Minister issue an Order under Section 75P(2)(d) of the EP&A Act to implement the Complying Development Code for the erection of future rides, attractions and ancillary structures on the site in future stages of development.