August 2007
BEVIAN ROAD CONCEPT APPLICATION
ROSEDALE

Draft Statement of Commitments

The Director-General has requested pursuant to section 75F (6) of the *Environmental Planning and Assessment Act 1979* that the Rosedale EA include a Draft Statement of Commitments. If approval for the proposed project is granted, Marsim will commit to the following environmental management and mitigation measures for the proposed project:

No.	Commitment	Applicable Phase
1.0	**Hours of Operation**	
1.1	Construction works for the project will be limited to the hours of 7am to 7pm Monday to Saturday.	All phases
2.0	**Site Security**	
	To prevent the unauthorised entry of people into the construction site and prevent damage to the environment, security for the construction site(s) will include: • Lockable security gates; • A security fence around the staged work perimeter;	All phases
3.0	**Appointment of Project Ecologist**	
3.1	The proponent and community association shall appoint and retain a project ecologist as necessary. The project ecologist will be a suitably qualified professional restoration ecologist.	Phase 1
3.2	The Project Ecologist will audit activities on site for pre, during and post construction phases of the project to ensure implementation of ecological site management works as stipulated within the Ecological Site Management Plan.	All phases
4.0	**Induction Manuals, Training and Contract Management**	
4.1	The proponent, in consultation with the Project Ecologist, will prepare induction manuals in accordance with the *Ecological Site Management Plan*.	All phases
4.2	All employees and contractors involved with the development shall undergo induction and training in accordance with the induction manual.	Phase 1
4.3	All contracts for works onsite are to require contractors to comply with all performance criteria listed in the *Ecological Site Management Plan*.	All phases
4.4	All contractors will be responsible for rectifying damage or paying fees for damage they have caused to trees identified for retention or any feature of the ecological corridors and conservation zones.	All phases

5.0	**Site Construction Plans**	
5.1	Prior to the commencement of construction works a site construction plan is to be reviewed by the Project Ecologist. The site constructions plans must not be inconsistent with the Ecological Site Management Plan and any of the development consent conditions.	All phases
6.0	**Approvals and Licenses**	All phases
6.1	Approvals will be sought from the Department of Environment and Conservation for a seed collection licence. Any fauna relocation will be undertaken by an appropriately licensed fauna ecologists or licensed wildlife rescue organisation	Phase 1
7.0	**Bushfire Prevention and Hazard Reduction**	
7.1	Asset Protection Zones shall be provided in accordance with the Schedule of Bushfire Protection Measures and the Bushfire Attack Assessment Table of the *Bushfire Protection Assessment*.	Phase 1
7.2	Fire Management Zones to be provided in accordance Fuel Management Schedule of the *Fuel Management Plan* and maintained in accordance with the Operational Works Schedule contained at Annexure 1 of the *Fuel Management Plan*.	All phases
7.3	The proponent shall manage the fuel levels within the Asset Protection Zones in accordance the Fuel Management Schedule of the *Fuel Management Plan* and maintained in accordance with the Operational Works Schedule contained at Annexure 1 of the *Fuel Management Plan* until such time as the Community Subdivision is registered and the Community Association has jurisdiction.	All phases
7.4	Known Yellow-bellied Glider habitat and other potential threatened species habitat will be protected from destruction or damage during bushfire hazard reduction works in accordance with the Ecological Site Management Plan and the Fuel Management Plan.	All phases
7.5	Hazard reduction is to avoid creating canopy separation greater than 10 metres to protect Yellow-bellied Glider canopy movement around existing ecological corridors.	All phases
7.6	The buildings shall be constructed in accordance with the prevention strategies identified in Schedule 1 to the Bushfire Protection Assessment, by Conacher Travers, August 2007.	All phases
7.7	The proponent will provide water hydrants connected to town water for a precinct prior to issue of an occupation certificate for that precinct.	All phases
7.8	Proponent is to install fire trails and undertake maintenance in accordance with Operational Works Schedule contained at Annexure 1 of the *Fuel Management Plan* prior to occupation of precincts by residents.	All phases

7.9	Proponent to prepare a Bushfire Emergency Response Plan to provide a procedure in the event of fires threatening the community scheme.	Phase 1
7.10	Proponent will prepare performance assessment criteria for the future monitoring of fuel management activities.	Phase 1
8.0	**Vegetation Protection**	
8.1	The proponent will ensure there is no residential development, clearing, slashing, harming, cutting, removal or disturbance of vegetation (other than weeding, revegetation or bush regeneration) carried out within conservation areas and riparian corridors.	All phases
8.2	The proponent will clearly identify areas to be protected before and during development, construction and regeneration works.	All phases
9.0	**Tree Protection**	
9.1	All canopy vegetation not impacted by building envelopes and roads is to be retained unless approved by Project Ecologist. Trees directly affected by the building envelope are to be removed in accordance with the final tree removal plan. However trees that overhang buildings are to be retained if it is considered safe, doe not comprise structural integrity of the building and or the bushfire hazard risk to the building or otherwise.	All phases
9.2	A qualified arborist is to monitor damage to trees on a regular basis. If any hollow bearing tree is recommended for removal or pruning, the works are to be approved by the project ecologist.	All phases
9.3	The proponent will implement the Tree Protection Guidelines including Tree Protection Zones (TPZ) for all retained trees within the developable portions of the site as reasonably practicable.	All phases
9.4	The Project Manager or delegated officer will inspect a site prior to, during and post construction to ensure trees designated for tree protection zones are adequately marked and other appropriate environmental protection zones and sediment control measures are being maintained.	All phases
9.5	The following tree clearing techniques will be implemented: (a) Tree Protection Zones will be avoided. (b) If any tree to be removed is a hollow-bearing tree and occupied by native fauna, the tree will be lowered by a machine after the tree has been shaken to evict sheltering fauna. Once lowered, the Project Ecologist will examine all hollows for fauna occupation. If fauna is sheltering within a felled hollow, the hollow with the fauna still inside will be relocated to the Conservation Zones to allow the fauna to escape. (c) Cleared vegetation will be mulched or wood chipped and used in nominated landscape beds; (d) Removal of weeds and destruction or removal of all weed propagules, will be undertaken onsite in accordance with appropriate Weed Management Techniques in accordance with Conacher Travers *Ecological Site Management Plan*. (e) Undertake weed control, bush regeneration methods and	All phases

	revegetation works in accordance with Conacher Travers *Ecological Site Management Plan*. (f) Stabilisation and regeneration of cleared areas via direct drilling, planting of native species, mulching and the installation of biodegradable blankets in accordance with the Works Environmental Protection Plan within the *Ecological Site Management Plan*. (g) Implementation of water control measures to control surface erosion including construction of earth banks, catch drains, detention and sediment ponds, grassed and armoured waterways, rock earth and sand bag dams and outlet protection systems; and	
9.6	If filling occurs around the trunk of a tree, blue metal will be placed around the base of each tree to separate the soil from the lower trunk and where possible, fill will be graded to approximately 100mm around the base of each tree.	All phases
9.7	Penalties generally are incurred for minor infringements at $1,000 per incident, and damage to protected trees at $5,000 per incident, penalties will be subject to NSW Law.	Phase 1
9.8	All unintended damage to retained trees will be reported to the Project Ecologist who will recommend appropriate remedial measures if required.	All phases
9.9	Seed collection, propagation and planting of locally occurring native species are to be used in restoration works in accordance with the *Ecological Site Management Plan*.	All phases
9.10	Trees killed or damaged during the pre-construction, construction or post-construction phases that were to be retained, will be replaced with locally collected provenance seed propagated tube stock at a ratio of 1 to 1 planted at the location of the original tree.	All phases
10.0	**Fencing**	
10.1	All pre-existing internal fencing will be removed from the development area on a precinct by precinct and/ or stage by stage basis.	All phases
10.2	All lengths of barbed wire on all existing boundary fences will be replaced with plain fencing on a precinct by precinct and/ or stage by stage basis.	All phases
11.0	**Weed Control**	
11.1	Environmental and Noxious Weed removal will be undertaken across the entire development area targeting key invasive species on a strategic basis. All noxious weeds are to be continually suppressed and maintained at low densities and coverage. Weed removal techniques will be in accordance with the *Ecological Site Management Plan* and are to avoid the promotion of weeds in previously treated or adjoining areas.	All phases
11.4	Targeted weed control will be undertaken throughout the retained bushland areas in accordance with the *Ecological Site Management Plan*.	All phases

11.5	Native species as contained in the *Ecological Site Management Plan*. will be used for any replacement planting once weeds are removed.	All phases
12.0	**Pest Species Management**	
12.1	The proponent will implement a pest control program in accordance with the *Ecological Site Management Plan* for foxes, feral cats and rabbits in the conservation and ecological zones.	All phases
12.2	Baiting for wild dogs and foxes will be undertaken in accordance with approvals from the Rural Lands Protection Board, Department of Agriculture, (as applicable) the Department of Environment and Conservation and the Community Association and/or Council.	All phases
13.0	**Threatened Species Management**	
13.1	Threatened Species Habitat and Core Endangered Ecological Communities will be protected and conserved to achieve a maintain or improve outcome in accordance with the Conservation and Land Use Management Plan (CLUMP) and the Ecological Site management Plan (ESMP). The removal of low condition threatened species habitat and endangered ecological communities are to be offset through regeneration of existing degraded habitat and restoration of new habitat in accordance with the Precinct Plan, CLUMP and ESMP.	
13.2	The known Yellow-bellied Glider denning sites are to be retained in accordance with the tree removal plan and the *Ecological Site Management Plan*.	All phases
13.3	Artificial nest boxes are to be constructed and installed in accordance with the hollow specifications of known threatened fauna species to occur onsite including Yellow Bellied Glider, Owls and Microbats. Artificial nest boxes are to be installed at a rate of 4 nest boxes per hollow tree removed from the development area.	All phases
13.4	The proponent will replant endemic species of trees and shrubs in accordance with the *Ecological Site Management Plan* in ecological corridors and restored habitat areas that will provide long term foraging and roosting resources for threatened fauna species and general arboreal fauna. The quantity and type of nest boxes are to strategically target hollow bearing resources that is lacking in within the site to supplement and enrich the current roosting/denning and foraging resources throughout the year.	All phases
14.0	**Bush Regeneration**	
14.1	The proponent will consult a suitably qualified bush regenerator when undertaking regeneration works.	All phases
14.2	Nursery grown tube stock will be replanted at densities specified within the Ecological Site Management Plan into designated restoration areas. Appropriate ongoing management is to be undertaken to ensure survival or replacement of stock lost due to damage dehydration or disease or insect attack.	All phases

14.3	The recruitment / augmentation of plantings within areas to be slashed for bushfire hazard management will be restricted unless significant dieback occurs.	All phases
14.4	Bush regeneration works will be undertaken in the conservation areas and ecological corridors in a manner generally in accordance with the *Ecological Site Management Plan*.	All phases
14.5	Woodchip or other mulch is to be placed at a depth of 75 -100mm covering any bare areas of soil where tree planting or landscaping is to occur. Areas surrounding the stems / trunks of plants are to be kept free from mulch to reduce the incidence of collar rot.	All phases
14.6	No mulch will be spread or stockpiled within perimeter Asset Protection Zones that may provide an ignition point for spot fires.	All phases
15.0	**Habitat Management**	
15.1	Ecological corridors will be established and restored in accordance with the *Ecological Site Management Plan.*	All phases
15.2	Exotic weeds and invasive species as listed in the *Ecological Site Management Plan* will be targeted and controlled to suppress & if possible eradicate from site.	All phases
15.3	To survey all hollow bearing trees across the site and prepare a habitat tree management plan to protect potential threatened species habitat.	All phases
15.4	All areas of fallen timber identified by the Project Ecologist as fauna habitat prior to construction, will be protected and retained if appropriate. Any nests or roosts located during development works to be relocated to nearby retained trees by an experienced fauna ecologist.	All phases
15.5	All felled hollows and affected fauna will be removed from the tree and relocated to suitable trees within the development areas or conservation zones.	All phases
15.6	Boundaries of the conservation areas and ecological corridors will be clearly identified.	All phases
16.0	**Landscaping**	
16.1	Soil improvements may not include pH adjusting additives within close proximity to Bevian wetland as defined by the inner edge of the perimeter APZ.	All phases
16.2	Swimming pools, if constructed, will be designed in accordance with Australian Codes and Council Codes prior to building.	All phases

16.3	Maintenance Manuals will be prepared by the proponent to assist in guiding ongoing maintenance of the landscaping of the site.	All phases
16.4	Locally endemic native species will only be used in landscaping, asset protection zones and parks immediately adjacent to conservation areas and ecological corridors.	All phases
17.0	**Pets**	
17.1	Ownership of cats and dogs (other than "Assistance animals" as defined under in the *Disability Discrimination Act 1992* for people with disabilities) by residents will not be permitted within the Country or Edge Zones as defined in Character Plan in Roberts Day's *Urban Design Guidelines*.	All phases
18.0	**Erosion and Sediment Control**	
18.1	Environmental protection fences and sediment control fences will be installed prior to the commencement of any works in a precinct. Monitoring of environmental protection and sediment control fences will be undertaken on a quarterly basis to identify and to rectify any damage and remove built up sediments.	All phases
18.2	An Erosion and Sediment Control Plan will be reviewed by the Project Ecologist and Council for approval prior to the commencement of construction.	All phases
19.0	**Ground Water**	
19.1	The Proponent will measure water quality before, during and after the development to ensure that ground and surface water quality is maintained.	All phases
20.0	**Stormwater and Nutrient Control**	
20.1	Stormwater management and nutrient control devices must be implemented in accordance with the *Water Management Plan.*	All phases
20.2	Stormwater flows are to be diverted through gross pollutant control and nutrient filter devices where appropriate.	All phases
20.3	Overflow from the rainwater tanks and runoff from other hardstand areas must be conveyed either by the stormwater drainage system or swales to the biofiltration basins/detention systems located in accordance with the *Water Management Plan.*	All phases
20.4	Each single dwelling house or dual occupancy is to have a rainwater tank with a minimum size of 5,000L fitted with a first flush device for the collection of the majority of roof area runoff.	All phases

20.5	Reuse of collected stormwater runoff should be undertaken for non-potable purposes including toilet flushing, washing machines, garden irrigation and car washing.	All phases
20.6	All taps connected to rainwater tanks are to be identified as 'RAINWATER' with a sign complying with AS 1319. The rainwater tanks can be backed up with mains water in case of dry weather.	All phases
20.7	Leaf guards are to be provided on exposed gutters of buildings to minimise the contamination of rainwater .	All phases
20.8	Driveways and pathways are to be constructed of permeable pavement material and comply with relevant Australian Standards and Building Code of Australia.	All phases
20.9	Buffer strips used for treatment of overland stormwater runoff are to be revegetated with native vegetation eg native grass and or tree and shrub plantings.	All phases
21.0	**Cut and Fill Management**	
21.1	All cut and fill works will be carried out in accordance with specifications under the title "Bulk Earthworks" of the *Ecological Site Management Plan.*	All phases
21.2	To protect trees to be retained, fill will be graded down around the bole of trees to the existing ground level. In cases where the level of fill is too high (ie greater than 100mm) for this method to be practical, other measures such as the installation of blue metal fill surrounding the trunks of trees to be retained to the filled ground level may be done.	All phases
21.3	If a tree to be retained is likely to be damaged as a result of earthworks, the tree may be replaced with the same species in the same location as the original tree at the new ground level. Guidance from the project ecologist is to be sought if the original tree contains hollows or resident fauna.	All phases
22.0	**Monitoring, Auditing & Reporting**	
22.1	The Project Ecologist will conduct the audits and certification in accordance with the ESMP of the *Ecological Site Management Plan*.	All phases
22.2	Project Ecologist to review all activities relating to works in the ecological corridors every year for a minimum of 10 years.	All phases
22.3	An Annual Environmental Management Report will be prepared for the preceding 12 month period from the date of commencement of construction and for each 12 month period thereafter until the final occupation certificate is issued for the site detailing performance in relation to these commitments.	All phases
22.4	The proponent will establish standard locations for monitoring (once yearly for 10 years) vegetation growth, weed control and water quality strategically placed within conservation areas and ecological corridors.	All phases

22.5	Artificial nest boxes will be monitored for glider use and condition annually for the first 10 years to assess occupancy rates of fauna and replacement of damaged or deteriorated boxes as required. Monitoring will also include identifying the use of nest boxes by feral bees. Any exotic species will be removed.	All phases
22.6	Threatened species monitoring is to include plot and transect based surveys in accordance with the *Ecological Site Management Plan*. The annual Environmental Management Report is to include a cumulative analysis of the monitoring results including data from previous years.	All phases
22.7	The health and condition of the trees within the habitat corridors is to be monitored and all necessary steps taken to restore and replace any large trees lost since the previous monitoring period.	All phases
22.8	Proponent shall review the *Fuel Management Plan* on an annual basis until the final occupation certificate is issued.	All phases
22.9	Proponent to monitor bushfire risk in accordance with the *Fuel Management Plan*.	All phases
22.10	Site landscape maintenance to comply landscape specifications as contained within the *Ecological Site Management Plan*.	All phases
22.11	The Proponent will implement a maintenance program in accordance with the *Ecological Site Management Plan* which will include: • target noxious and environmental weed control • waste control • watering and revegetation maintenance • repairs to protection and sedimentation fencing; and • cleaning of any permanent anti-sedimentation structures or traps.	All phases