

Part D

Outcomes and Conclusions

D.1 The Preferred Project Plan

D.2 Outcomes of the Preferred Project Plan

D.3 Conclusions

D.1 THE PREFERRED PROJECT PLAN

The 'Moonee Waters' Preferred Project Plan (**Figure 32**), as presented herein, has been generated through an extensive and exhaustive iterative process. That process has involved the evolution of the 'Moonee Waters' project from an initial concept which was responsive to the ecological constraints on the subject site at Moonee, and is based on the principles of Ecologically Sustainable Development (ESD).

The 'Moonee Waters' Preferred Project Plan is the final outcome of a design process which had been based in the first instance on the ecological and environmental constraints identified by the project team, and which subsequently has been responsive to submissions made by various agencies/persons with respect to the revised 2007 Concept Plan.

The 'Moonee Waters' Preferred Project Plan provides for two small and discrete development Precincts (or 'villages') on a substantial private land-holding at Moonee. The two development Precincts have been located and specifically designed to minimize adverse impacts upon the natural environment, both direct and indirect. In this respect, the two development Precincts:

- have been located specifically to avoid the removal of vegetation regarded as high conservation value or significance (with exception of a very small area in the Northern Precinct of approximately 1300m²);
- are located on the more elevated parts of the subject site which contain dry forest communities;
- require the removal of only a small proportion of vegetation from the subject site (approximately 21%), virtually all of which is well conserved on the north coast of NSW;
- have been located to avoid the removal of critical habitat for threatened species;
- have been designed to ensure the retention of examples of all forest vegetation types and wildlife habitats and resources on the site within the substantial Conservation Area; and
- have been designed to maximize the retention of hollow-bearing trees and associated tree canopy, to maintain aboreal movement pathways throughout the subject site.

In addition, most of the development Precincts will contain no property fences, thus allowing terrestrial fauna movements. The western part of the Northern Precinct will contain fencing to re-direct terrestrial fauna to the 'wildlife corridors' through the site.

The 'Moonee Waters' Preferred Project Plan provides for the retention, enhancement and subsequent dedication of the majority of the subject site (76.29ha) to Coffs Harbour City Council and/or the DECC for biodiversity conservation purposes. That Conservation Area contains 99.77% of the "endangered ecological communities" (EECs) on the 'Moonee Waters' site, and constitutes an extremely significant contribution to biodiversity conservation in this area.

The 'Moonee Waters' Preferred Project Plan also contemplates the provision of properly designed and constructed, and sensitively located, public access paths and bicycle tracks through the Conservation Area. These public access features will be located, designed and constructed in a manner intended to limit impacts on the natural environment to the maximum extent possible, and will meet or exceed the standards established by the DECC in National Parks in this location. Further, the provision of formal and properly constructed and maintained access paths through the Conservation Area will enable the closure and rehabilitation of existing informal and uncontrolled access tracks which are causing environmental damage.

The 'Moonee Waters' Preferred Project Plan will retain all of the most sensitive wetland ecosystems on the subject site, including Coastal Saltmarsh communities, sedgelands and wetlands, and the total extent of the SEPP 14 Wetland which is present (in part) on the subject site. All of those areas of vegetation will be contained within the Conservation Area proposed as part of the Preferred Project Plan.

The 'Moonee Waters' Preferred Project Plan incorporates a range of sensitively designed and specifically determined features to minimize the potential for adverse impacts on the adjoining Conservation Area, including:

- the provision within the development footprints for both Precincts of all Asset Protection Zones (APZs), to be contained within front yards of perimeter allotments and within the 20m wide peripheral road/swale reserve;
- the peripheral road will be specifically located and constructed in a manner which retains substantial trees, including hollow-bearing trees, within the peripheral 20m road/swale reserve;
- the planting of all perimeter bio-retention swales with native vegetation to provide additional wildlife habitat around the development Precincts and to contribute to a "environmental buffer" to the adjoining Conservation Area;
- the avoidance of any piped discharge of stormwater from the development Precincts, and the use of 'over-topping' of the peripheral bio-retention swales to mimic existing hydrologic conditions;
- the retention of the majority of hollow-bearing trees within the two development Precincts (involving a possible maximum loss of just 16 trees) as well as the retention of associated tree canopy;
- the replacement of any tree-hollows that must be removed either by re-using tree-hollows removed from the development Precincts or the replacement of tree-hollows by nest boxes within the Conservation Area;

- the provision of substantial signage around and through the development Precincts to raise awareness of the ecological values of the Conservation Area; and
- the proper design, location and maintenance of small 'local parks' to ensure that no adverse impacts are imposed on the Conservation Area by these features.

The 'Moonee Waters' Preferred Project Plan also incorporates a range of features (as discussed above) which obviate the need for "environmental buffers". Nevertheless, the development has been designed to provide 'buffers' to the EECs over most of the subject site which average 30m in width. Those 'buffers' of dry forest vegetation range from 0-50m+ in width, and in association with appropriate management of the peripheral road/swale system, provide significant protection for the EECs within the Conservation Area.

The 'Moonee Waters' Preferred Project Plan has been specifically designed to maintain the most substantial 'wildlife corridors' in the general vicinity of the subject site. Those 'wildlife corridors' include:

- a 200m+ wide east-west corridor through the subject site between the SEPP 14 Wetland and Green Bluff in the east and the Pacific Highway easement of the immediate west to the subject site. This 'wildlife corridor' is located between the Northern and Southern Precincts and has involved specific design features to ensure its optimal functioning; and
- a 50m wide east-west 'wildlife corridor' along the northern side of the subject site, north of the Northern Precinct. That 'wildlife corridor' will be supplemented by the retained vegetation to the immediate north within environmental zoned land, and is coincidental with identified movement corridor contained in the RTA design for the updated Pacific Highway at this location.



Figure 32 - The plan revised in the context of feedback from DoP and other authorities.

D.2 OUTCOMES OF THE PREFERRED PROJECT PLAN

The 'Moonee Waters' Preferred Project Plan provides an array of exceptional outcomes, both for sensible and sensitive urban planning and for substantial environmental and conservation benefits.

The land on which the 'Moonee Waters' Preferred Project is to be developed was zoned by Coffs Harbour City Council in 2000:

69.05ha	Residential	68% of the site
32.95ha	Conservation	32% of the site

The exhibited revised 2007 Concept Plan proposed:

22.9ha	Residential	22.6% of the site
74.9ha	Conservation	73.4% of the site

The Preferred Project Plan now contemplates:

21.5ha	Residential	21.1% of the site
76.3ha	Conservation	74.8% of the site

The outcomes of the Preferred Project Plan for the 'Moonee Waters' development include:

- a REDUCTION in the development area to just 31% of that zoned by Council in 2000; and
- an INCREASE in the Conservation Area to 232% of that zoned by Council in 2000.

Additional environmental benefits which are derived from the 'Moonee Waters' Preferred Project Plan include:

- the protection of 99.77% of the "endangered ecological communities" (EECs) located on the subject site;
- the retention of the whole of the SEPP 14 Wetland, and its separation from development areas by between 30m and 250m;
- provision within the developmental footprints for all stormwater treatment features and Asset Protection Zones;
- the confining of Strategic Fire Advantage Zones along access roads to areas of dry forest, to be undertaken in an environmentally

sound manner; and

- the dedication of a substantial area of privately owned land (76.29ha) for biodiversity conservation purposes at no cost to the public purse.

The additional specific environmental benefits and outcomes which have been derived through the iterative process, which were all contained in the original Concept Plan, and are embodied in the 'Moonee Waters' Preferred Project Plan include:

- the provision of the two most significant, widest and best quality 'wildlife corridors' between the coast and the Orara State Forest to the west;
- design of the whole development to facilitate wildlife movements and to provide the least constraints on wildlife activities at this location;
- the retention of the overwhelming majority of hollow-bearing trees on the subject site, both within the two development Precincts and in the Conservation Area;
- the replacement of any hollow-bearing trees or any tree-hollows which are lost by re-using tree-hollows and/or by placing nest boxes in the Conservation Area;
- use of the perimeter bio-retention swales as supplementary habitat, as well as to contribute to an "environmental buffer" for the Conservation Area;
- the retention of all habitat types and plant community types on the subject site within the Conservation Area;
- a commitment to the implementation of a Vegetation Management Plan (VMP) which would protect habitat and resources for native biota (particularly threatened plants) which are currently being adversely affected by uncontrolled human access to the site;
- a significant contribution to the local conservation reserve system, particularly the Coffs Coast reserve system managed jointly by CHCC and the DECC;
- the avoidance of piped stormwater discharge from any part of the development Precincts; and
- the provision of a well-designed and constructed public access system (bicycle paths and public walks) through the Conservation Area to avoid the creation of or maintenance of degraded and unformed tracks which are currently having an adverse affect on the current natural ecosystems.

D.3 CONCLUSION

The 'Moonee Waters' Preferred Project Plan provides an outstanding example of an appropriate balance between, reasonable and sensitive urban development and desirable biodiversity conservation and public access outcomes.

The 'Moonee Waters' Preferred Project Plan addresses the appropriate use of a privately owned 102ha property on the NSW coast north of Coffs Harbour, of which 69.5ha was zoned by Coffs Harbour City Council (CHCC) for residential purposes in 2000.

The 'Moonee Waters' Preferred Project Plan by contrast, proposes the development of just 21.49ha of the subject site (21% of the whole site or just 31% of that proposed by Council for residential purposes) and offers to dedicate 76.29ha (75% of the site) to Council and/or the DECC for biodiversity conservation purposes. That approach constitutes a 232% increase in the extent of land to be dedicated for conservation over Council's 2000 zoning of the site.

As documented in detail above, the 'Moonee Waters' Preferred Project Plan has involved an exhaustive and comprehensive assessment process to ensure that the areas proposed for development activities are of the lowest environmental sensitivity and biodiversity conservation value on the subject site, and that the proposed development will impose the least possible adverse impacts on adjoining conserved lands.

The 'Moonee Waters' Preferred Project Plan represents an appropriate application of the principles of Ecologically Sustainable Development (ESD), and achieves both outstanding biodiversity conservation outcomes and a reasonable and proper result in respect of urban planning, economic and social considerations, and community benefits. The project achieves a 'Maintain or Improve' outcome by retaining and protecting a substantial area of native vegetation on the subject site, by enhancing areas that have been the subject of weed infestation and or disturbance, and by redressing environmental damage at this location.

The 'Moonee Waters' Preferred Project Plan satisfies the objectives of the Environmental Planning & Assessment Act 1979 (EP&A Act) in all respects.

The 'Moonee Waters' Preferred Project Plan:

- is an appropriate, sustainable, reasonable, economically viable and sensible balance between urban development, economic activity, environmental sustainability and biodiversity conservation; and
- provides a substantial community benefit both in terms of protecting of the natural environment in the Conservation Area and providing public education, facilities and access to and through an area of biodiversity value.



Figure 33 - The Preferred Project Plan related to Hollow-bearing Trees to be Retained and development boundary of previous scheme shown in dashed black line.