

Environment

This Fact Sheet provides an overview of the existing environment and the potential impacts on the environment in respect to the KUR-World development.

The Draft Environmental Impact Statement (EIS) identifies the ecological values of the site and the potential impacts of the project on flora and fauna. Where the potential for impacts exist, mitigation measures are put forward to avoid or limit those impacts.

Consistent with its location near World Heritage listed areas, there are many flora and fauna species on the site that are listed under Commonwealth and State legislation. The highest profile is the Myola treefrog (*Litoria myola*). Breeding habitat of the Myola treefrog has been confirmed in Owen Creek, Haren Creek (a tributary of Owen Creek) and Cain Creek. All creeks are in the north western section of the project area. An estimated 10 per cent of the total population of around 750 individuals occurs on site.

Another high-profile species is the Myola Palm (*Archontophoenix myolensis*). This species is difficult to distinguish from other *Archontophoenix* species without fruiting bodies, thus all *Archontophoenix* are being treated as Myola Palm. All potential *A. myolensis* individuals observed were located below the high bank of streams - either in the creek bed or on the bank.

Other listed species on site include:

- Tapping green eyed tree frog (*Litoria serrata*)
- Greater large-eared horseshoe bat (*Rhinolophus philippinensis*)
- Spectacled monarch (*Symposiachrus trivirgatus*)
- Short-beaked echidna (*Tachyglossus aculeatus*)
- Macleay's fig-parrot (*Cyclopsitta diophthalma macleayana*)
- Tube-nosed insectivorous bat (*Murina florium*)
- Rufus fantail (*Rhipidura rufifrons*)
- Daintree Gardenia (*Randia audasii*)
- Bare-rumped Sheath-tail Bat (*Saccolaimus saccolaimus nudicluniatu*)
- Spectacled flying-fox (*Pteropus conspicillatus*)
- Slender Ginger (*Alpinia hylandii*)

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There is a possibility other important species may occur on site, however evidence of their presence was not found during surveys. These include the Southern Cassowary (*Casuarius casuarius johnsonii*) and the Northern Quoll (*Dasyurus hallucatus*). Habitat of both species occurs in the remnant vegetation on site. Irrespective of the presence of listed species, the remnant vegetation and riparian areas associated with watercourses provide quality habitat for a range of Wet Tropic flora and fauna. In total over 170 fauna species and 260 flora species have been recorded on site.

Habitat disturbance and vehicle collision pose the biggest risk for these protected species. The habitat can be directly impacted through clearing or indirectly impacted by weed invasion or the deterioration in water quality of streams.

Clearing of remnant vegetation as defined in the Vegetation Management Act 1999 will be restricted to areas such as for roads, helipad and zip-line tower infrastructure and will result in the loss of approximately:

- 1 hectare of Regional Ecosystem 7.11.44 ('Of Concern')
- 1 hectare of Regional Ecosystem 7.11.1a ('Least Concern')
- 2 hectares of Regional Ecosystem 7.11.7a ('Least Concern')

The development also includes site disturbance of currently cleared areas devoid of vegetation as well as non-remnant vegetation (also known as Category X vegetation). The total area of disturbance is approximately 155 hectares.

The draft EIS recommends a range of mitigation measures for the protection of threatened species. These mitigation measures include the protection of 46.1 hectares for habitat retention or additional habitat retention and 6.1 hectares proposed for restoration, within development precincts.

The current surface water quality does not meet the regulatory standards. However, the Proponent is committed to a range of mitigation measures that will result in the maintenance or enhancement of surface water quality. The draft EIS also includes traffic control as a mitigation measure for the protection of species, in particular the Southern Cassowary. Biosecurity is also considered in the draft EIS on account of the potential impacts on protected species posed by pests and domesticated animals.

The best-case scenario outcome (i.e. mitigation of residual impacts and the avoidance of a Significant Residual Impact (SRI)) is achieved through the effective implementation of technical management plans and specifications. Technical management plans and specifications, including species specific management plans, can be reliably prepared based on existing knowledge and experience. The technical aspects include:

- overarching management plans, such as a Bio-security Management Plan,
- environmental management procedures, for example a Permit to Clear procedure,
- general management actions, including for example waste reduction, and
- species specific management actions, such as speed limits.



In consideration of the Environmental Management Plan (refer Chapter 21 of the draft EIS), and that uncertainty exists regarding potential residual impacts for the Kuranda Tree Frog, Tapping Green-eyed Frog, Australian Lacelid and Southern Cassowary, additional consideration is given to the species specific mitigation measures necessary to achieve an SRI of unlikely. To this end, overarching and species-specific management measures, to mitigate project related impacts have been identified and aligned with each phase of project delivery.

This approach presents the mode of project delivery necessary to achieve the best-case outcome and it is a commitment of the proponent to adopt this approach.






If all of the mitigation measures put forward in the draft EIS are adopted, the project is unlikely to have a significant residual impact on any of the species identified in the draft EIS.

Environment CONTINUED






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LEGEND



-  KUR-WORLD PROJECT AREA
-  PROPOSED ACCESS ROAD
-  PRECINCTS [MASTER PLAN REVISION G]
-  ZIP LINE [OPTION 1]
-  VM ACT REGIONAL ECOSYSTEM BOUNDARIES [VERSION B]

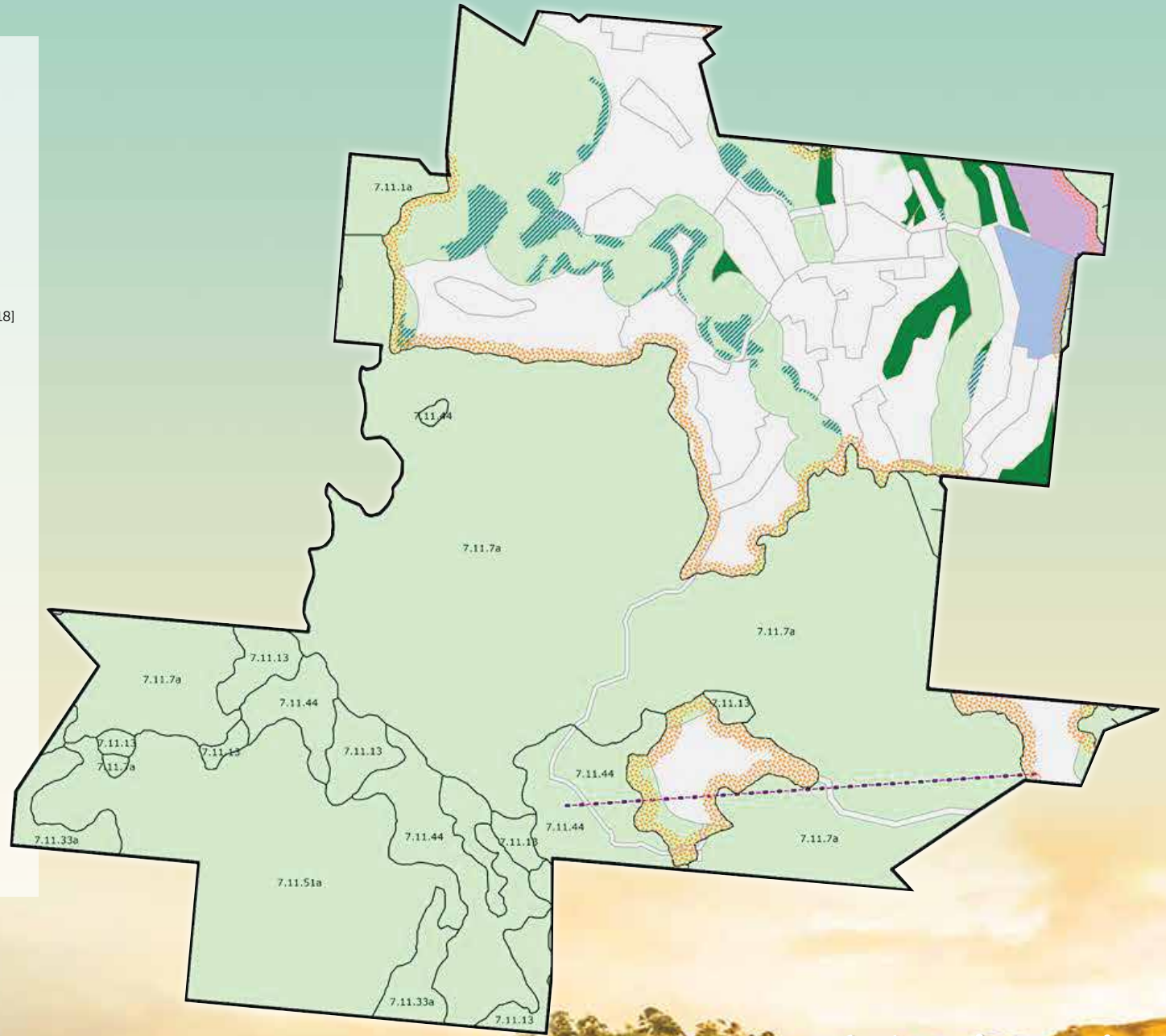
DEVELOPMENT ACTION

-  INFRASTRUCTURE EXCLUSION AREA [CARDNO 14 SEPTEMBER 2018]
-  HABITAT RETENTION [MASTER PLAN REVISION G, NRA 2017 C]
-  RECOMMENDED ADDITIONAL HABITAT RETENTION [NRA 2017 C]
-  RECOMMENDED HABITAT RESTORATION [NRA 2017 C]
-  DISTURBANCE [MASTER PLAN REVISION G]*

*DISTURBANCE AREAS WILL ALSO CONTAIN AREAS OF SELECTIVE VEGETATION RETENTION

PRECINCTS WITH MIXED DEVELOPMENT ACTIONS

-  PRECINCT J
 ~ HABITAT RETENTION 8%
 ~ RECOMMENDED ADDITIONAL HABITAT RETENTION 29%
 ~ INFRASTRUCTURE EXCLUSION AREA 15%
 ~ DISTURBANCE UP TO 64%
-  PRECINCT K
 ~ HABITAT RETENTION 29%
 ~ RECOMMENDED ADDITIONAL HABITAT RETENTION 15%
 ~ INFRASTRUCTURE EXCLUSION ARE 20%
 ~ DISTURBANCE UP TO 56%



Environment CONTINUED

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