2 Assessment against the Ten Clearing Principles

The proposed clearing activities have been assessed against the Ten Clearing Principles as defined in the Department of Environment Regulations' (2014) Guide to Assessment: Clearing of Native Vegetation under the *Environmental Protection Act 1986*, taking into account the current extent and condition of the native vegetation within the Survey Area.

Table 1: Assessment of the Ten Clearing Principles

Principle	Assessment
Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity	Horizon Power commissioned 360 Environmental to undertake a reconnaissance flora and vegetation and targeted flora survey to inform decisions regarding the lease area for the proposed construction of a new power station in Leonora, Western Australia (360 Environmental Pty Ltd, 2021). A flora desktop assessment inclusive of NatureMap, Protected Matters Search Tool (PMST) and Department of Biodiversity, Conservation and Attraction (DBCA) database searches, and a review of relevant literature was undertaken to identify conservation significant flora species that have been recorded within 100 km (database searches) and 105 km (literature review) of the Survey Area (360 Environmental Pty Ltd, 2021). A total of 46 conservation significant flora were identified, including 14 Priority 1 species, three Priority 2 species, 24 Priority 3 species and five Priority 4 species (360 Environmental Pty Ltd, 2021). No Threatened flora taxa were identified by the desktop assessment (360 Environmental Pty Ltd, 2021). The pre-survey likelihood of occurrence assessment identified no conservation significant flora species as having a high or medium likelihood of occurrence, and 45 as having a low likelihood of occurrence. The remaining one taxon could not be assessed due to lack of flowering period data and preferred habitat information. No Threatened flora species pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/or gazetted as Threatened/Declared Rare Flora pursuant to the *Biodiversity Conservation Act 2016* (BC Act) were recorded during the flora and vegetation survey. No DBCA listed Priority flora taxa were recorded within the Survey Area. Two flora specimens, *Maireana* sp. *and* Sida sp., collected from the Survey Area could not be identified to species level, however, none of these are considered likely to represent flora of conservation significance due to lack of features analogous to conservation significant flora considered likely to occur in the area. The Survey Area occurs across one broad vegetation association, Laverton 28 (360 Environmental Pty Ltd, 2021). The EPA's Guidance Statement No. 33 has identified a threshold of the retention of 30% of pre-European extent of each community and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation units within the Survey Area well above the 30% threshold, with over 98% of the pre-European extent of

Principle	Assessment
	each remaining at the state, bioregion, subregion, and local government authority levels (Government of Western Australia, 2019). No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were recorded within the Survey Area. Two DBCA listed PECs were identified within 50 km of the Survey Area by the database searches. None of these overlap with the Survey Area. The Survey Area contains two vegetation types. None of the vegetation types recorded during the survey are representative of any State or Commonwealth TECs or PECs. Vegetation condition within the Survey Area ranged from Very Good to Good, comprising (rounded to one decimal place): • Very Good: 3.6 ha, 53.8% • Good: 3.1 ha, 46.2%. **Assessed Outcome:** The suite of flora taxa, vegetation and habitat recorded during the survey is considered typical for the area, and widespread beyond the Survey Area. No Threatened flora or ecological communities were recorded within the Survey Area. No Priority flora species were recorded. The proposed clearing is not considered to be at variance with this principle.
Principle (b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia	Horizon Power commissioned 360 Environmental to undertake a basic vertebrate fauna survey across the Survey Area as part of a biological assessment in June 2021 (360 Environmental Pty Ltd, 2021). A fauna desktop assessment with a 40-100 km search buffer around the Survey Area identified 178 conservation significant fauna species. The post-survey likelihood of occurrence assessment determined that one conservation significant fauna species were considered to have a high likelihood of occurrence, four were considered to have a medium likelihood of occurrence and the remaining species were considered to have a low likelihood of occurrence. Two fauna species from two families were recorded during the field survey, comprising a native bird species and an introduced mammal species. Additionally, secondary evidence of one native mammal species, one introduced mammal species, and one native reptile species was recorded. One fauna habitat type was identified during the survey, Mulga woodland. No fauna species of conservation significance were recorded within the Survey Area. One species, the Peregrine Falcon (*Falco peregrinus*), was considered to have a high likelihood of occurrence. The four species considered to have a medium likelihood of occurrence were: • Oriental Plover (*Charadrius veredus*) – Migratory, Marine • Grey Falcon (*Falco hypoleucos*) – Migratory • Princess Parrot (*Polytelis alexandrae*) – Priority 4, Vulnerable • Woma (*Aspidites ramsayi*) – Priority 1 (southwest subpopulation).

Principle	Assessment
	None of these species are considered dependent on any of the terrestrial habitat types identified within the Survey Area. Disturbance within the Survey Area is unlikely to significantly impact any of the species listed due to the abundance of similar habitat surrounding the Survey Area. **Assessed Outcome:** No fauna species of conservation significance were potentially recorded within the Survey Area, and none considered dependent on the habitat present. The proposed clearing is not considered to be at variance with this principle.
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora	No Threatened flora species pursuant to the EPBC Act and/or gazetted as Threatened pursuant to the BC Act were identified by database searches or recorded during the survey. The habitat within the Survey Area is unlikely to support any of the Threatened flora species that occur in the Pilbara region of Western Australia. **Assessed Outcome:** Given that no Threatened flora were expected to occur, or recorded, within the Survey Area, the proposed clearing is not considered to be at variance with this principle.
Principle (d) – Native vegetation should not be cleared if it comprises the whole or a part of or is necessary for the maintenance of a Threatened Ecological Community (TEC).	The database search did not identify any TECs and/or their buffers within 50 km of the Survey Area. Two State listed PECs were identified as occurring within 50 km of the Survey Area. None of these overlap the Survey Area. Furthermore, none of the vegetation recorded during the survey was considered analogous to any TECs or PECs. **Assessed Outcome:** No TECs have been recorded within the Survey Area. The proposed clearing is not considered to be at variance with this principle.
Principle (e) – Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared	The Survey Area occurs across one broad vegetation system association, Laverton 28 (Beard, 1976; Shepherd et al., 2002). Although differences exist with the terminology used in the descriptions as they are based on different methods of categorising and characterising vegetation types, and the different spatial scale of the analysis (i.e. region vs. local scale), the vegetation types within the Survey Area are considered to be broadly representative of Laverton 28. The EPA's Guidance Statement No. 33 has identified a threshold of the retention of 30% of pre-European extent of each community, and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation systems associations mapped within the Survey Area remain well above the 30% threshold, each having over 98% of the pre-European extent remaining (Government of Western Australia, 2019). **Assessed Outcome:** The broad vegetation system associations mapped across the Survey Area are well above the EPA's 30% retention threshold. The proposed clearing is not considered to be at variance with this principle.

Principle	Assessment
Principle (f) – Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland	The Survey Area does not intersect any major watercourses or water bodies that are mapped by State Government GIS databases (Department of Water and Environmental Regulation, 2021b). The closest watercourse is a minor drainage line, located 130 m south of the Survey Area. **Assessed Outcome:** The vegetation within Survey Area is not considered to be associated with a watercourse or wetland, or to be representative of riparian vegetation. Therefore, the proposed clearing is not at variance with this principle.
Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation	The Department of Water and Environmental Regulation (DWER) has defined land degradation as including the following (DER, 2014): • The clearing of vegetation • Decline in vegetation condition • Soil erosion and soil acidity (caused by wind and water erosion due to vegetation clearing) • Salinity or • Waterlogging/flooding. Vegetation condition within the Survey Area ranged from Very Good to Good, comprising (rounded to one decimal place): • Very Good: 3.6 ha, 53.8% • Good: 3.1 ha, 46.2% **Assessed Outcome:** If the proposed clearing is minimised it is unlikely to cause appreciable land degradation, and therefore will not be at variance with this principle.
Principle (h) – Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area	There are no Environmentally Sensitive Areas (ESAs) mapped within the Survey Area. The nearest ESA is associated with Lake Ballard, which is located 70 km south of the Survey Area (Department of Water and Environmental Regulation, 2021a). The Survey Area does not intersect any Conservation Areas (Department of Biodiversity Conservation and Attractions, 2021). The nearest Conservation Area is an un-named reserve (R 46847) vested under the Conservation Commission of WA, which is located 57 km south of the Survey Area. **Assessed Outcome:** The Survey Area does not occur within, adjacent to or near a conservation area. The proposed clearing is not considered to be at variance with this principle.
Principle (i) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause	The long-term annual average rainfall is 254.1 mm (1991 to 2021) (Bureau of Meteorology, 2021). The Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2021b).

Principle	Assessment
deterioration in the quality of surface or underground water	The proposed clearing is adjacent to an existing road; therefore, it is not expected to cause deterioration in the quality of surface or underground water. **Assessed Outcome:** Given the absence of any significant waterbodies across the Survey Area, if clearing of native vegetation can be minimised, it is unlikely to significantly impact the quality of surface or groundwater. The relatively small area proposed to be cleared is unlikely to result in sedimentation, increased nutrients, or changes to salinity. Therefore, the proposed clearing is unlikely to be at variance with this principle.
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	The Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2021b). The proposed clearing within the Survey Area is unlikely to cause, or exacerbate, the incidence of flooding in the local area. **Assessed Outcome:** If appropriate management actions are implemented the proposed clearing is not considered to be at variance with this principle.