Principle (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

The Myara North region is located within the Jarrahdale State Forest. The *Alumina Refinery Agreement Act 1961* granted Alcoa access to Mineral Lease 1SA within the State Forest. The Jarrahdale State Forest is managed for multiple purposes under the regional Forest Agreement and Forest Management Plan, including conservation, recreation, timber harvesting and water supply. The majority of the region contains immature forest harvested between 1950 and 1999.

The geotechnical test locations have been preferentially chosen within existing cleared/disturbed areas to minimise vegetation disturbance. They have also been located near existing access tracks where possible to minimise disturbance from equipment access.

The proposal will not result in a decrease in the biological diversity of the region. Therefore, the proposal is unlikely 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.

A detailed and targeted vertebrate fauna survey was completed of the Myra North region over two seasons between June and December 2020, in accordance with EPA guidelines. The survey report is included as Appendix 4 of Attachment 5.

The fauna survey identified 16 conservation significant species as occurring or likely to occur within the region. These include Baudin's, Carnaby and Forest Red-tailed Black Cockatoo species, woylie, quokka and chuditch.

The geotechnical test locations have been selected to avoid recorded black cockatoo nesting and potential nesting trees and other fauna burrows by at least 100m. There will be no clearing of actual or potential black cockatoo trees and disturbance to undergrowth will be minimised to minimise impact to ground-dwelling mammal species. All ground excavations will be backfilled prior to leaving site to avoid fauna entrapment. Refer Attachment 5.

The proposal will not result in the clearing of native vegetation which has been identified as significant fauna habitat, nor native vegetation necessary for the maintenance of fauna. Therefore, the proposal is unlikely to be at variance to this principle.

Principle (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Flora and vegetation surveys were undertaken in the Myara North region over two seasons between June and December 2020, in accordance with Environmental Protection Authority (EPA) guidelines. The survey report is included as Appendix 2 of Attachment 5.

Mattiske (2021) identified a total of 17 threatened flora species listed under State or Commonwealth legislation and 49 priority flora species as either recorded or likely to occur within the survey area. Eight priority flora species and zero threatened flora species were recorded within the survey area.

The geotechnical investigation test locations have been selected to avoid recorded priority flora species by at least 100m. Test locations have been preferentially located within existing cleared/disturbed areas to minimise vegetation disturbance. They have also been located near existing access tracks where possible to minimise disturbance from equipment access.

No impact to recorded rare flora, or habitat necessary for the continued existence of rare flora, is anticipated as a result of this proposal. Therefore, the proposal is unlikely to be at variance to 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.

Flora and vegetation surveys were undertaken in the Myara North region over two seasons between June and December 2020, in accordance with EPA guidelines. The survey report is included as Appendix 2 of Attachment 5.

No Threatened Ecological Communities were identified within the survey area and none are likely to occur based on the vegetation associations present. One Priority Ecological Community was identified: granite communities of the northern jarrah forest.

The geotechnical investigation test locations have been selected to avoid recorded priority ecological communities by at least 100m. Test locations have been preferentially located within existing cleared/disturbed areas to minimise vegetation disturbance. They have also been located near existing access tracks where possible to minimise disturbance from equipment access.

No impact to recorded threatened ecological communities, or habitat necessary for the maintenance of threatened ecological communities, is anticipated as a result of this proposal. Therefore, the proposal is unlikely to be at variance to 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.

Flora and vegetation surveys were undertaken in the Myara North region over two seasons between June and December 2020, in accordance with EPA guidelines. The survey report is included as Appendix 2 of Attachment 5.

The geotechnical test locations are within Beard (1990) Vegetation Association 3 – medium forest, jarrah – marri. This association is widespread across the Northern Jarrah Forest subregion with the pre-European extent comprising 48% of the subregion. Approximately 80% of the pre-European vegetation extent remains with approximately 15% of the current extent protected for conservation.

The geotechnical test locations do not represent significant remnants of native vegetation in an extensively cleared area. Therefore, the proposal is unlikely to be at variance to this principle.

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.

Flora and vegetation surveys were undertaken in the Myara North region over two seasons between June and December 2020, in accordance with EPA guidelines. The survey report is included as Appendix 2 of Attachment 5.

Some of the geotechnical test locations and access routes are within riparian or other wetland vegetation. Disturbance to riparian and wetland vegetation will be minimised as far as possible.

The proposal may be 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.

Implementation of the proposal will not result in land degradation. Soil types present within the Myara North region are described in Section 4.3 of the flora and vegetation survey included as Appendix 2 of Attachment 5. The soils underlying the vegetation are generally not susceptible to land degradation and the minimal extent of vegetation disturbance will minimse the risk of soil erosion via wind or water.

The geotechnical test locations are not susceptible to water erosion, waterlogging or flooding. Hydrological studies completed across the Myara North region indicated that the typical surface and groundwater quality is fresh (<500mg/L) with some marginally elevated salinity observed in some surface water samples during late season monitoring of perennial streams. Refer to Attachment 6. The proposed geotechnical testing will not result in any additional salinity risk.

Dieback is present across the Myara North region and the proposal will be undertaken in accordance with a proposal specific dieback management plan (refer Appendix 3 of Attachment 5). No spread of dieback is anticipated as a result of the proposal.

The geotechnical test locations will not cause appreciable land degradation. Therefore, the proposal is unlikely to be at variance to 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.

The Myara North region is located adjacent to the Serpentine National Park to the west and the Monadnocks Conservation Park to the east. The geotechnical test locations are a minimum of 100m from the nearest conservation area.

Therefore, the proposal is unlikely to be at variance to this principle.

Principle (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

The proposal will be implemented in accordance with the environmental management controls described in Attachment 5. There will be no chemical storage onsite and any liquid wastes will be contained and disposed offsite.

The proposal will not cause deterioration in the quality of surface or groundwater. Therefore, the proposal is unlikely to be at variance to this principle.

Principle (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Following completion of the geotechnical testing any excavations will be backfilled, the ground surface returned to its pre-disturbance contours and leaf litter respread. Refer to Attachment 5.

There will be no increase in flood risk as a result of the proposal. Therefore, the proposal is unlikely to be at variance to this principle.