



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5636/5
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Exploration Pty Ltd

1.3. Property details

Property: Exploration Licence 47/584
Exploration Licence 47/631
Exploration Licence 47/1943
Local Government Area: Shire of Ashburton
Colloquial name: Juna Downs Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
215		Mechanical Removal	Mineral Exploration, Hydrogeological Drilling and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 October 2019

2. Site Information

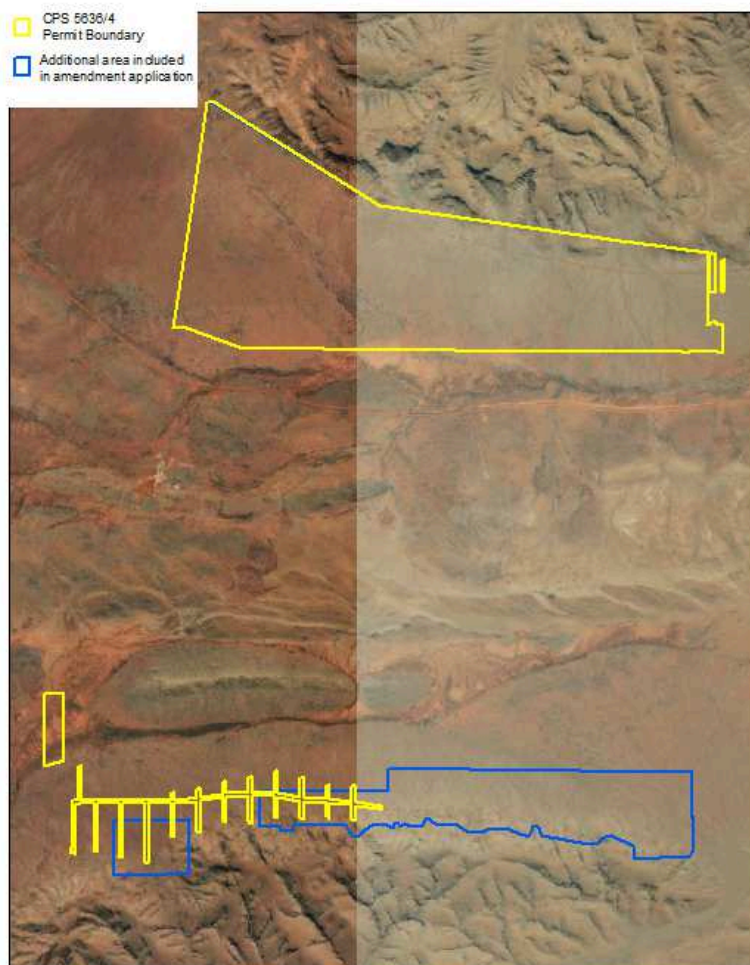
2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations (GIS Database):</p> <p>18: Low woodland; mulga (<i>Acacia aneura</i>); 32: Shrublands, pindan; Acacia shrubland with scattered low trees over <i>Triodia</i> spp.; and 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i>.</p> <p>Several flora surveys have been undertaken within the boundary the permit area, the most recent was undertaken in October 2017 and covered the northern portion of the permit boundary (Rio Tinto, 2018). A description of these vegetation communities can be found in decision report 5636/4.</p> <p>The additional area included in this amendment is covered by existing clearing permit 4391/3. A description of the vegetation communities in this area can be found in decision report 4391/3.</p>
Clearing Description	<p>Juna Downs Project. Hamersley Exploration Pty Ltd proposes to clear up to 215 hectares of native vegetation within a total boundary of approximately 2,686 hectares for the purpose of mineral exploration, hydrogeological drilling and associated activities. The project is located approximately 73 kilometres east, south-east of Tom Price, in the Shire of Ashburton.</p>
Vegetation Condition	<p>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);</p> <p>to</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p>
Comment	<p>The vegetation condition has been recorded using the scale created by Trudgen (1988). These vegetation condition ratings have been converted to the scale implemented by Keighery (1994).</p> <p>Clearing permit CPS 5636/1 was granted by the Department of Mines and Petroleum (now Department of Mines, Industry Regulation and Safety) on 29 August 2013 and authorised the clearing of 35 hectares within a boundary of approximately 778 hectares. CPS 5636/1 was amended on 16 January 2014 to increase the area authorised to clear to 43 hectares and increase the permit boundary to approximately 857 hectares. In August 2016 CPS 5636/2 was amended, increasing the clearing authorisation to 100 hectares and including hydrogeological drilling</p>

and associated activities to the purpose of clearing. CPS 5636/3 was amended on 19 April 2018 to increase the authorised clearing by 25 hectares to a total of 125 hectares within a boundary of approximately 2,006 hectares.

Hamersley Exploration Pty Ltd has applied to amend CPS 5636/4 to increase the amount of clearing authorised to 215 hectares, increase the clearing permit boundary to approximately 2,686 hectares and extend the duration of the permit to 31 December 2029. The additional area for this amendment covers an area previously granted under clearing permit 4391/3. This permit will be surrendered following the grant of this amendment.



3. Assessment of application against Clearing Principles

Comments

Hamersley Exploration Pty Ltd has applied to amend CPS 5636/4 to increase the amount of clearing authorised by 90 hectares, expand the permit boundary by approximately 680 hectares and extend the permit duration to 31 December 2029.

There has been seventeen vegetation types recorded within the additional area (Rio Tinto, 2016). None of the vegetation within the permit area has been identified as being a Threatened or Priority Ecological Community (Biota Environmental Sciences, 2018; Rio Tinto, 2016; GIS Database).

There has not been any Threatened flora species recorded within the additional area (Rio Tinto, 2016; GIS Database). Several Priority flora species have been recorded within the additional area. *Eremophila* sp. Hamersley Range (Priority 3) has been recorded from two locations within the additional area with a further 28 plants recorded outside of the permit boundary (Rio Tinto, 2016). At the time of the survey and the assessment of clearing permit 4391/3, this species was classified as Priority 1 but has since been reclassified as Priority 3 (Western Australian Herbarium, 2019). There were 23 individuals of *Rostellularia adscendens* var. *latifolia* (Priority 3) recorded within the additional area from two locations (Rio Tinto, 2016). The flora survey recorded 161 individuals of *Sida* sp. Barlee Range (Priority 3) within the additional area (Rio Tinto, 2016). This species has a range of over 300 kilometres and Rio Tinto has records of over 10,000 plants in the Pilbara (Rio Tinto, 2016; Western Australian Herbarium, 2019). *Solanum kentrocaule* (Priority 3) was recorded from one location within the additional area (Rio Tinto, 2016). *Triodia* sp. Mt Ella (Priority 3) is common within the additional area with 5,051 plants recorded from previous flora surveys (Rio Tinto, 2016). Rio Tinto (2016) has records of over 20,000 individuals of *Triodia* sp. Mt Ella in its flora database. The flora survey of the additional area recorded 104 and 39 plants of *Acacia bromilowiana* (Priority 4) and *Eremophila magnifica* subsp. *magnifica* (Priority 4) respectively (Rio Tinto, 2016). Clearing permit 4391/3 has a condition which requires recorded locations of

Priority flora are avoided. Based on current information, the proposed amendment is not likely to have a significant impact on the Priority flora species recorded within the additional area. Potential impacts to Priority flora may be minimised by the current flora management condition.

The following three broad fauna habitats have been described in the additional area (Rio Tinto, 2016):

- Rocky slopes consisted of scattered low trees of *Eucalyptus leucophloia* subsp. *leucophloia* over open hummock grassland of *Triodia epactia* and *Triodia* sp. Shovelanna Hill;
- Undulating slopes consisted of low woodland to scattered low trees of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Corymbia deserticola* subsp. *deserticola* over tall open shrubland / mallee of *Acacia atkinsiana* and *Eucalyptus gamophylla* over open tussock grassland of *Triodia* sp. Shovelanna Hill and *Triodia epactia*; and
- Drainage line – minor consisted of low woodland to low open woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over tall shrubland to shrubland of *Acacia atkinsiana*, *Gossypium robinsonii*, *Acacia tenuissima*, *Acacia ancistrocarpa*, *Acacia bivenosa*, *Acacia maitlandii* and *Senna glutinosa* subsp. *glutinosa* over tussock grassland to open tussock grassland of *Themeda triandra* and *Triodia epactia* with *Eriachne mucronata*.

The large majority of the additional area was mapped as the undulating slopes habitat which is common and widespread in the local area (Rio Tinto, 2016). Evidence of the Northern Quoll (*Dasyurus hallucatus* - Endangered) was recorded within the additional area, with two scats located in the rocky slopes habitat (Rio Tinto, 2016). The rocky slopes habitat contains habitat features such as rocky overhangs and small caves which may provide suitable denning habitat to support Northern Quolls (Rio Tinto, 2016). These areas may also provide habitat for other native fauna species. Rio Tinto has established an internal restriction area around the location of the scat and nearby breakaway and cliff habitat which is likely to be preferred habitat for the Northern Quoll (Rio Tinto, 2016). Potential impacts to the Northern Quoll may be minimised by the implementation of a fauna management condition covering the restriction area.

There has been several Western Pebble-mound Mouse mounds (*Pseudomys chapmanii* - Priority 4) recorded within the permit area (Rio Tinto, 2016). Suitable habitat for this species is widespread throughout the region. The proposed amendment is not likely to have a significant impact on this species.

There are no permanent watercourses or wetlands within the additional area however, there are numerous minor ephemeral watercourses within the permit boundary (GIS Database). These watercourses only flow following significant rainfall events. The proposed amendment is not likely to have a significant impact on surface water quality or riparian vegetation within the local area.

The additional area has been mapped as being comprised of the Boolgeeda and Newman land systems (GIS Database). Both of these land systems are generally not prone to erosion (Van Vreeswyk et al., 2004).

The permit boundary abuts the boundary of Karijini National Park (GIS Database). Care needs to be taken to ensure that clearing activities do not increase the spread of weeds into the National Park. Potential impacts from weed species may be minimised by the continued implementation of the existing weed management condition.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is at variance to Principle (f), may be at variance to Principles (a) and (b), is not likely to be at variance to Principles (c), (d), (g), (h), (i) and (j) and is not at variance to Principle (e).

Methodology Biota Environmental Sciences (2018)
Rio Tinto (2016)
Van Vreeswyk et al. (2004)
Western Australian Herbarium (2019)

GIS Database:

- DPaw Tenure
- Hydrography, Lakes
- Hydrography, Linear
- IBRA Australia
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Soils, Statewide
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

There is one native title claim over the area under application (DPLH, 2019). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2019). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The amendment application was advertised on 8 January 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2019)

4. References

- Biota Environmental Sciences (2018) Juna Downs Native Vegetation Clearing Permit Report. Report Prepared for Rio Tinto by Biota Environmental Sciences, Leederville, Western Australia.
- DPLH (2019) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 4 October 2019).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Rio Tinto (2016) Flora, Vegetation and Fauna Habitat Assessment at Juna Downs - Native Vegetation Clearing Permit Supporting Report. Report Prepared by Rio Tinto Iron Ore, May 2016.
- Rio Tinto (2018) Supporting information for clearing permit application CPS 5636/5, dated 18 December 2018.
- Trudgen, M.E. (1988) A report on the flora and vegetation of the Port Kennedy area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A & Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.
- Western Australian Herbarium (2019) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (Accessed 3 October 2019).

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DoEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DoEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DoEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System

ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR Critically endangered species

Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN Endangered species

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX Extinct species

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW Extinct in the wild species

Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable

notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS Other specially protected species

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P Priority species:

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy

of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.
- (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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.