NSW GOVERNMENT | Environment, Climate Change & Water

Our reference : DOC10/31807; FIL10/8298 Part 3A
Contact : Steve Lewer, (02) 4908 6814

DEPARTMENT OF PLANNING NSW
Major Development Assessment
GPO Box 39
SYDNEY NSW 2001

Attention Ms Anna Bradley

Dear Ms Bradley

RE: MACHINERY MANUFACTURE AND MAINTENANCE PROJECT
SANDVIK CONSTRUCTION AND MINING PTY LTD, HEATHERBRAE
MAJOR PROJECT – MP10_0073

Reference is made to your letter received on 16 July 2010 providing the Department of Environment, Climate Change and Water (DECCW) an opportunity to make a written submission and recommend conditions of approval for the above proposal. Reference is also made to the report titled "Environmental Assessment Report – 431 Masonite Road, Heatherbrae – Sandvik Mining and Construction Australia P/L" undated ("the exhibited EA").

DECCW understands that the project application is for the establishment a 'Manufacturing, Assembly, Aftermarket Service, Regional Distribution Centre and Training Facility (including research and development and regional head office)' on a 16 hectare industrially zoned site located at 431 Masonite Road, Heatherbrae; in the Port Stephens Local Government Area. This proposal will require the clearing of approximately 13.5 ha of '*Eucalyptus pilularis* (Blackbutt) – *Angophora costata* (Smooth-barked Apple) Dry Sclerophyll Dune Forest', which represents known habitat for the Squirrel Glider and a number of microchiropteran bats.

DECCW has not previously provided any comments on this proposal, including the provision of any Environmental Assessment Requirements. The Department was also not requested by Department of Planning (DoP) to provide an assessment of whether or not the proposal was adequate to be put on public exhibition. Consequently comments that would have normally been brought to the attention to DoP during the adequacy phase are now included in this assessment of the proposal.

DECCW has completed its review of the exhibited EA and offers the following submission regarding the project. DECCW cannot at this stage support the project. The main reason for lack of support relates to threatened species issues, namely inadequate provision of offsets / compensatory habitat and lack of targeted flora searches. DECCW would reconsider the development proposal in the light of these concerns being addressed and suitable offset measures or compensatory habitat packages being developed. In regard to Aboriginal cultural heritage we advise:

1. It is strongly recommended that the proponent conduct sub-surface investigations at this location prior to any development works, as the visibility at this location is extremely low.
2. The results of the sub-surface investigation program should also be used to inform the development of appropriate ACH management strategies for the proposed impact area, in consultation with the registered Aboriginal stakeholders.
3. An ACH management plan should be developed following the sub surface investigation program.

The main detailed comments regarding the EA are shown below in appendix A.

If you would like to discuss this please contact Steve Lewer, at this office, on (02) 4908 6814.

Yours sincerely

27-8-10

PETER JAMIESON
Head Regional Operations Unit
North East Branch
Environment Protection and Regulation

Attachment A

MACHINERY MANUFACTURE AND MAINTENANCE PROJECT
SANDVIK CONSTRUCTION AND MINING PTY LTD, HEATHERBRAE
MAJOR PROJECT – MP10_0073

Explanation of DECCW's Main Areas of Concern

1. Threatened Species and Biodiversity

DECCW is unable support this development proposal in its current form due to issues pertaining to inadequate provision of offsets / compensatory habitat, and lack of targeted survey effort for a number threatened flora species. DECCW would reconsider the development proposal in the light of these concerns being addressed and suitable offset measures or compensatory habitat packages being developed.

DECCW notes that the proposal will result in the clearing of approximately 14.3 hectares (ha) of land, of which 13.5 ha represents intact, good condition, native vegetation, namely '*Eucalyptus pilularis* (Blackbutt) – *Angophora costata* (Smooth-barked Apple) Dry Sclerophyll Dune Forest'. A further 1 ha of this community will be retained on site. Within the study area the following threatened species were recorded: Eastern Bent-wing Bat, Eastern False Pipistrelle, Eastern Freetail-bat, Greater Broad-nosed Bat and Squirrel Glider. Additionally the subject site offers suitable foraging, resident and movement habitat to a number of highly mobile species, such as (but not limited to) the large forest owls (e.g. Powerful Owl), Square-tailed Kite, Glossy Black Cockatoo and microchiropteran bats. No threatened populations or ecological communities were recorded on site. The EA concluded that the proposal was unlikely to have a 'substantial adverse impact on a local population of any threatened species' due to a combination of: - relative small size of the area to be cleared, the mobile nature of the species under consideration, the proposal will not sever important connective links or lead to fragmentation of habitat, the large patch of similar connecting habitat to the south of the subject site available to species under consideration, retention of some vegetation and hollow-bearing trees on site, on-site habitat enhancement measures (e.g. nest box placement) and the proposal of an offset strategy. DECCW generally agrees with these conclusions, noting that the Department's support would largely be guided by a suitable offset strategy being provided to counteract the loss of threatened species habitat, namely 'like for like' and/or of an appropriate scale.

Adequate Provision of Offsets / Compensatory Habitat:

The proposed clearing of approximately 13.5 ha of '*Eucalyptus pilularis* (Blackbutt) – *Angophora costata* (Smooth-barked Apple) Dry Sclerophyll Dune Forest', will result in the loss of known and potential threatened species habitat. DECCW is of the opinion the removal of such vegetation / habitats would likely result in an adverse impact on locally known and potential threatened species. As such DECCW would require an adequate compensatory habitat package in accordance with DECCW guidelines / principles before the Department could lend its support to the proposal.

In light of this, DECCW acknowledges that the proponent has recommended in the EA that an 'Offset Strategy' will be provided. This offset comprises 54 ha of predominantly vegetated land at Dunns Creek, which adjoins land shortly to be reserved under the *National Parks and Wildlife Act 1974* (i.e. will form part of Columbey National Park). The vegetation on this site does not represent a 'like for like' offset with respect to the vegetation being impacted by the proposal, and as such may not offer suitable habitat to offset the species impacted upon by the proposal. Nevertheless, DECCW acknowledges that this proposed offset package does incorporate elements which may lead to some better conservation outcomes, namely the conservation of

'endangered ecological communities' (namely 'Lower Hunter Spotted Gum – Ironbark Forest', 'Lower Hunter Valley Dry Rainforest' and potentially degraded 'Hunter Lowland Red-gum Forest'), and indirect linkages to existing DECCW conservation estate. As such DECCW recognises the merit of these additional values, but is of the opinion a greater offset package is required than that being offered, especially when one considers 'like for like' will not be achieved.

The Department believes a ratio of 4:1 with respect to area to be conserved verses habitat proposed for removal is insufficient, due to it not being in accordance with current offsetting guidelines, such as those presented in the principle-based approach or through the BioBanking Scheme. DECCW believes that the current offset package is not necessarily based on any scientific merit or quantitative analysis of the likely biodiversity losses. As such DECCW believes it is inconsistent with the 'maintain or improve' requirements of the Part 3A process or DECCW's off-setting principles (DEC & DPI 2005).

To guide us on what may be an appropriate offset for this development proposal we have conducted a Biobanking assessment of both the development site and the proposed offset site. In conducting these assessments, DECCW has utilised vegetation information provided by Hunter Land P/L (who represent the proponent) to determine 'ecosystem credit' requirements. This information included specific details on the native vegetation present, namely patch sizes and community types. These details covered a much larger parcel of land within the Dunns Creek location, which is not being offered in its entirety. As the exact location of the 54 ha offset in this Lot has not been defined, the Biobanking Assessment has been done on the entire Lot and a pro-rata applied with respect to the credit requirements.

Under DECCW biobanking methodology, a total of 1,188 'ecosystem credits' (matching the same or similar vegetation types) would be required to be retired in a suitable offset package to adequately compensate the clearing impacts of the proposal. The offset proposal generated approximately 310 'ecosystem credits' (based on a 38.6% pro-rata of the entire credits for Part Lot 8). More detailed information on our Biobanking assessment is shown in Attachment B.

In conclusion, the proposed offset area (i.e. 54 ha) only represents a slightly greater than third of the overall 'ecosystem credit' requirement for an adequate offset package which compensates the proposed clearing. Although DECCW recognises that it is unlikely to enforce an exact credit match given the voluntary nature of the methodology, it does highlight the biodiversity value of the site, even though the EA portrays it in part as an unimportant parcel of habitat to threatened species. Furthermore it clearly indicates via a quantitative assessment that the proposed offset package is inadequate with respect to area and quality. Regardless of which methodology the proponent uses to determine the type, scale and size of an offset package, DECCW believes that they should be consistent between the two, and DECCW has shown that a slightly greater than 4:1 offset ratio under the 'principles-based' approach is not consistent with that determined from the 'biobanking assessment methodology' approach. As such DECCW is of the opinion that the current proposal should be enhanced with further offset area(s) to appropriately match the biodiversity values which will be lost on the development site. DECCW is unlikely to support the project without an adequate offset being secured which meets the 'maintain or improve' principles, and therefore recommends to the proponent that it seeks further offsets to guarantee adequate compensation.

Given that the proposed offset area is not a direct match for the vegetation / habitat to be cleared, the threatened species surrogates it represents are unknown, and DECCW recommends to DoP and the proponent that further flora and fauna surveys be conducted on the proposed offset lands to determine potential threatened species and/or habitat presence. DECCW is of the opinion that similar surveying and reporting requirements, as per the development site, would be required for any offset site, and survey and assessment methods must be consistent with those procedures and assessment approaches contained within the following DECCW publications:

- the *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians* (DECCW, 2009b)

- *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft* (DEC, 2004), and
- Threatened species survey and assessment guideline information on: www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm.

Conservation in perpetuity

DECCW recommends to DoP that the proponent provide details and commitment of how the offset will be managed and conserved in perpetuity. Offsets will require the proponent to consider adequate conservation in perpetuity, appropriate management regimes (including other habitat enhancement or mitigation measures) and financial security with respect to ongoing management. DECCW would typically consider suitable measures to ensure conservation in perpetuity, such as (but not limited to):

- The establishment of biobanking sites with biobanking agreements under the *Threatened Species Conservation Act 1995* (TSC Act)
- The dedication of land under the *National Parks and Wildlife Act 1974* (NPW Act).
- A Conservation Agreement under the NPW Act;
- A Trust Agreement under the *Nature Conservation Trust Act 2001*; and
- A Planning Agreement under s 93F (soon to be s116T) of the EP&A Act.
- A public positive covenant under s88E of the *Conveyancing Act 1919.*

DECCW acknowledges that the EA implies that the land would granted to DECCW as an additional to Columbey National Park, however, more details are required on how this will be achieved.

Management Plan for Offset Area and retained habitat features

DECCW recommends to DoP that the proponent provide details and commitment of how the offset will be managed. DECCW is of the opinion that a management plan for the offset area(s) should cover, but not be limited to, the following issues and should be developed prior to approval:

- weed management (both control and suppression) and monitoring,
- management of retained native vegetation and habitat (including buffer zones),
- feral animal control,
- fire management (including asset protection zones [APZs]),
- public access (including restriction of, increased traffic, and associated impacts, such as increased refuse and pets),
- size and management of buffer zones,
- minimisation of edge effects and fragmentation,
- stormwater control and changes to hydrology (including stormwater / runoff control and sediment / erosion control measures),
- management of specific habitat enhancement measures (e.g. hollow / habitat trees, animal fencing to facilitate movement [e.g. Koala 'floppy-top fencing'], artificial hollows and nest boxes etc.),
- fauna displacement and if appropriate translocation (including any licence requirements),
- proposed surveys, such as pre-extraction baseline, pre-clearance and rehabilitation surveys,
- details of long-term monitoring (including proposed timing),
- details of any rehabilitation program, including details of timing (including proposed staging details), rehabilitation measures (including details of proposed revegetation and species mix), and post-rehabilitation monitoring,
- measures to ensure conservation in perpetuity (e.g. transfer to DECCW estate, conservation agreements or covenants), and

- funding details of long-term financial commitment to any proposed conservation measures, including any mechanisms to be implemented to achieve this.

Lack of targeted surveys potential threatened flora

The EA concurs that the site contains potential habitat for two *Diuris* orchid species, which are undetectable outside their flowering period, and that previous surveys were conducted outside this period. DECCW requirements (DEC 2004) state that surveys must be undertaken at the time of year when the subject species are most likely to be detected (e.g. targeted threatened flora should be carried out when a species is flowering and/or fruiting). DECCW considers the previous flora survey times (i.e. October) to be unsuitable times for conducting targeted surveying of the likely / potential threatened orchid flora for the subject site, given that these species all flower in the latter part of the year and that flower architecture is required for positive identification. As such DECCW requests that the proponent conduct adequate targeted flora surveys for the following species, which the Department considers likely based on known occurrences (as per the DECCW '*Atlas of NSW Wildlife*' database) and known habitat preferences:

- **Leafless Tongue Orchid (*Cryptostylis hunteriana*)** – in NSW flowering occurs from December to February (Nicholls 1938, Jones 1993, Harden 1993) though Bell (2001) states that the Central Coast populations (i.e. Freeman's Waterhole, Vales Point and Wyee) flower in November.
- **Sand Doubletail (*Diuris arenaria*)** –flowers in August to September (Espallargas 2005).
- **Rough Doubletail (*Diuris praecox*)** – has a short flowering season, restricted to (late July) August to September, and usually no more than 2 weeks (Benson & McDougall 2005), though Espallargas (2005) has recorded 3-4 weeks on Tomaree Peninsula.

2. Aboriginal Cultural Heritage

A review of the adequacy of the documentation, including the EA, Appendix F entitled '*Aboriginal Heritage Impact Assessment, RPS Australia East Pty Ltd* dated June 2010) was undertaken to assess the potential impacts of the project on Aboriginal cultural heritage (ACH) values. The following issues/inadequacies need to be addressed prior to the public exhibition of the EA.

Survey Strategy results – Subsurface Investigation program:
DECCW notes that the survey was conducted, however visibility is extremely low, and the majority of the site was classified as moderate to high sensitivity. The conclusion of no ACH constraints documented in the report contradicts the mapping that has been undertaken. The conclusion that no further works are required, when visibility is low is considered by DECCW to be unacceptable.

As a Part 3A program, testing programs are permitted prior to approval. The purpose of this process is to inform the project accurately of impacts. DECCW recommends that the proponent undertake subsurface works to accurately inform all stakeholders of the extent of impact to Aboriginal cultural heritage values.

Site Cultural Management Plan:
DECCW recommends the proponent develop Aboriginal Cultural Heritage Management Plan (ACHMP) for the project area. It is recommended that the ACHMP is prepared in full consultation with the registered Aboriginal stakeholders. The ACHMP should also contain procedures for ongoing Aboriginal consultation and involvement, management of any recorded sites within the project area, details of proposed mitigation and management commitments, procedures for the identification and management of previously unrecorded sites (excluding human remains), identification and management of any proposed cultural heritage conservation area(s) and details of an appropriate keeping place agreement with local Aboriginal community representatives for any Aboriginal objects salvaged through the development process.

DECCW recommends that the ACHMP is finalised promptly following completion of the additional subsurface investigation as recommended above. Evidence of support for the plan should also be provided from the registered Aboriginal stakeholders.

Statements of commitments (SoCs):
DECCW recommends the following SoCs or conditions of approval be adopted for the project:

- If human remains are located all works must halt in the immediate area to prevent any further impacts to the remains and the area cordoned off. The NSW Police are to be contacted immediately. No action is to recommence until police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact DECCW Enviroline 131555 and no works are to continue until DECCW provides written notification to the proponent.

- In the event that surface disturbance identifies a new Aboriginal site, all works must halt in the in the immediate area to prevent any further impacts to the object(s) or are managed in accordance with an approved methodology. A suitably qualified archaeologist and Aboriginal community representatives must be contacted to determine the significance of the object(s). The site is to be registered in the AHIMS database (managed by DECCW) and the management outcome for the site included in the information provided to AHIMS.

- An Aboriginal Cultural Heritage Education Program must be developed for the induction of personnel and contractors involved in the construction activities on site. The program will be developed in collaboration with the registered local Aboriginal stakeholders.

- The proponent must consult with the Director-General, all identified local Aboriginal groups and DECCW to develop a mutually agreeable Aboriginal Cultural Heritage Management Plan for all culturally sensitive areas for the duration of this project.

3. *Protection of the Environment Operations Act 1997* matters

Based on the information provided by the proponent, the proposal does not appear to be scheduled under the *Protection of the Environment Operations Act 1997* (POEO Act). As such Port Stephens Council are the appropriate regulatory authority for environmental matters under the POEO Act for the proposed development. Accordingly DECCW have not reviewed the proposal in respect of POEO Act related matters.

References:

Bell, S. (2001b) Notes on population size and habitat of the vulnerable *Cryptostylis hunteriana* (Orchidaceae) from the Central Coast of New South Wales. *Cunninghamia*, **7(2)**: 195-204.

Benson, D. and McDougall, L. (2005) Ecology of Sydney plant species - Part 10: Monocotyledon families Lemnaceae to Zosteraceae. *Cunninghamia*, **9(1)**: 16-212.

DEC (2004) *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities*. Working Draft. November 2004. Department of Environment and Conservation (NSW).

DEC & DPI (2005) *Draft – Guidelines for Threatened Species Assessment under Part 3A of the Environmental Planning and Assessment Act 1979*. Department of Environment and Conservation / Department of Primary Industries, July 2005.

DECC (2007) *Biodiversity Certification of Environmental Planning Instruments: Working Draft*. April 2007. Department of Environment and Climate Change (NSW).

DECC (2009a) *BioBanking Assessment Methodology and Credit Calculator Operational Manual*. Department of Environment and Climate Change NSW, Sydney.

DECC (2009b) *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians*. April 2009. Department of Environment and Climate Change (NSW), Goulburn Street, Sydney.

Espallargas, N. (2005) *The Distribution and Threatening Processes of Diuris praecox and Diuris arenaria on the Tomaree Peninsula.* Unpublished report to Port Stephens Council.

Harden, G.J. (ed.) (1990-2002) *Flora of New South Wales: Volumes 1 - 4.* New South Wales University Press, Kensington.

Jones, D.L. (1993) *Native orchids of Australia* Reed Books: Sydney.

Nicholls, W.H. (1938) A new species of the genus *Cryptostylis* R.Br. *Victorian Naturalist* **54**: 182–183.

ATTACHMENT B

MORE DETAILED INFORMATION ON THE BIOBANKING ASSESSMENT CONDUCTED FOR THE PROPOSAL

To guide DECCW in its assessment of this application the Department has conducted its own biobanking development and biobank site assessments using the DECCW Biobanking Credit Calculator to determine 'ecosystem credit' requirements. These assessments were conducted by an accredited assessor and were done in accordance with '*Biobanking Assessment Methodology*' (DECC 2008) as defined under Section 127B of the *TSC Act 1995* and the '*Biobanking Assessment Methodology and Credit Calculator Operational Manual*' (DECC 2009a). DECCW acknowledges that these assessments only provide an indicative guide to the biodiversity value of the proposed development site and the compensatory habitat required to counteract losses from such a site. The Department recognizes that these values may change on appropriate field data being collected. In conducting these assessments, DECCW has made the following assumptions:

- the 100 ha assessment circles for both the development and biobank site were placed over the area of likely greatest change (i.e. area of greatest clearing for the development site and area of likely highest increase in biodiversity values for the biobank site).
- in assigning a vegetation condition code, DECCW assumed all communities were 'moderate-good' condition based on the EA and ecological reports descriptions (development site) and Hunter Land P/L email dated 6 August 2010 (offset site), and the requirements in DECC (2009). These were assessed as 'within benchmark', given that the EA and associated documents did not provide quadrat specific information for the vegetation types.
- with respect to connectivity for the development site, DECCW assumed the clearing resulted in the loss of a 500m connective link associated with the southern boundary.
- with respect to connectivity for the offset site, no impact on connectivity was assumed as the site was essentially an in-holding within a large remnant patch of vegetation.
- for both the development and offset sites, the proposals were part of large remnants and as such 'the adjacent remnant' was assessed as greater than 500 ha in both cases.
- patch condition for the both assessments was considered similar to the adjacent remnants and as such was assessed within benchmark.
- in determining the 'Threatened Species Sub Zones' and the appropriate vegetation types DECCW used the vegetation descriptions in the EA, associated ecological reports and the Hunter Land P/L email (dated 6 August 2010).
- in the absence of 'site-specific' floristic quadrat information, survey data was entered at benchmark.
- site value scores were not changed and the default accepted in both scenarios (i.e. for the biobank site the appropriate increase in site values was accepted given that the proponent would likely implement a variety of management actions based on the proposed management plan).

The development assessment conducted under biobanking methodology indicated the following 'ecosystem credits' would be required to offset the clearing of forested vegetation communities / types on the subject site:

Development Site – Biobanking Assessment

Ecosystem Credits

Vegetation Type	Area (ha)	Credits Required	Red Flag
Blackbutt - Smooth-barked Apple shrubby open forest on coastal sands of the southern North Coast [HU509]	14.5	1,188	No

Under DECCW biobanking methodology, a total of 1,188 'ecosystem credits' (matching the same or similar vegetation types) would be required to be retired in a suitable offset package to adequately compensate the clearing impacts of the proposal.

In comparison the biobank assessment of the proposed offset site generated the following 'ecosystem credits':

Biobank Site (offset package) – Biobanking Assessment

Ecosystem Credits

Vegetation Type	Area (ha)	Credits created
Blackbutt - Narrow-leaved White Mahogany shrubby tall open forest of coastal ranges, northern Sydney Basin	0.57	4
Forest Red Gum - Grey Gum dry open forest on hills of the lower Hunter Valley, Sydney Basin	2.43	16
Grey Gum - Narrow-leaved Stringybark - ironbark woodland on ridges of the upper Hunter Valley, Sydney Basin	0.71	5
Paperbark swamp forest of the coastal lowlands of the North Coast and Sydney Basin	1.08	6
Shatterwood - Giant Stinging Tree - Yellow Tulipwood dry rainforest of the North Coast and northern Sydney Basin	11.59	78
Spotted Gum - Broad-leaved Ironbark grassy open forest of dry hills of the lower Hunter Valley, Sydney Basin	106.77	587
Spotted Gum - Grey Ironbark forest dry open forest of the lower foothills of the Barrington Tops, North Coast	19.69	108

The biobanking assessment was done on the entire Part Lot 8, as the exact location of the proposed 54 ha offset is unknown. This generated 804 'ecosystem credits', of which none represent the vegetation community which is being cleared (i.e. no 'like-for-like' match). The intact vegetated component of Part Lot 8 represents approximately 140 ha (with 20 ha being cleared), as such the 54 ha proposed offset site equates to 38.6% of the total area of the Lot. To determine an indicative credit generation for 54 ha, DECCW have applied a pro-rata rate based on this percentage. Hence, 38.6% of the 804 'ecosystem credit' represents 310, therefore the proposed offset area would generate 310 'ecosystem credits'. As such this only represents a slightly greater than third of the overall 'ecosystem credit' requirement for an adequate offset package which compensates the proposed clearing.

Although DECCW recognises that it is unlikely to enforce an exact credit match given the voluntary nature of the methodology, it does highlight the biodiversity value of the site, even though the EA portrays it in part as an unimportant parcel of habitat to threatened species. Furthermore it clearly indicates via a quantitative assessment that the proposed offset package is inadequate with respect to area and quality. Regardless of which methodology the proponent

uses to determine the type, scale and size of an offset package, DECCW believes that they should be consistent between the two, and DECCW has shown that a slightly greater than 4:1 offset ratio under the 'principles-based' approach is not consistent with that determined from the 'biobanking assessment methodology' approach. As such DECCW is of the opinion that the current proposal should be enhanced with further offset area(s) to appropriately match the biodiversity values which will be lost on the development site. DECCW is unlikely to support the project without an adequate offset being secured which meets the 'maintain or improve' principles, and therefore recommends to the proponent that it seeks further offsets to guarantee adequate compensation.

References:

DECC (2008) *BioBanking Assessment Methodology*. Department of Environment and Climate Change, Sydney, NSW.

DECC (2009a) *BioBanking Assessment Methodology and Credit Calculator Operational Manual*. Department of Environment and Climate Change NSW, Sydney.

Glossary (as per '*Biobanking Assessment Methodology*' (DECCW July 2008) as defined under Section 127B of the *TSC Act 1995*)

Biobank site: Land designated by a biobanking agreement to be a biobank site.

Biodiversity credits: Ecosystem or species credits required to offset the loss of biodiversity values on development sites or created on biobank sites from management actions that improve biodiversity values.

Credit Calculator: A computer program that applies the methodology and calculates the number and classes of credits required at a development site or created at a biobank site.

Development site: An area of land that is subject to a proposed development for which a biobanking statement is sought or obtained.

Ecosystem credits: The class of biodiversity credits created or required for the impact on general biodiversity values and some threatened species, i.e. for biodiversity values except threatened species or populations that require species credits. Species that require ecosystem credits are listed in the Threatened Species Profile Database.

Red flag area An area of land (part of a development site) with high biodiversity conservation values. The impact of the development on the biodiversity values of a red flag area cannot be offset by the retirement of biodiversity credits unless the Director General of DECCW determines that strict avoidance of the red flag area is unnecessary in the circumstances.

Site Value: A quantitative measure of structural, compositional and functional condition of native vegetation, measured by site attributes.

Vegetation type: The finest level of classification of native vegetation used in the methodology. Vegetation types are assigned to vegetation classes, which in turn are assigned to vegetation formations. There are approximately 1600 vegetation types within NSW.

Vegetation Types Database: A database which contains the information on each vegetation type used in the methodology and comprises a description of each vegetation type, its class and formation, the CMA area within which the vegetation type occurs, the percent cleared value of the vegetation type, and the source of the information.