

## APPENDIX 12-C: GLEBE OPTION PRELIMINARY MANAGEMENT PLAN DESCRIPTIONS

### GLEBE OPTION PRELIMINARY MANAGEMENT PLAN DESCRIPTIONS – FLORA

#### Clearing Management Plan

A management plan for clearing vegetation will be required under the Vegetation Management Act and in accordance with the State Policy for Vegetation Management, November 2006 (DNRW 2006).

Appropriate measures to be incorporated into the plan include:

- the presence of fauna spotter/catcher(s) accredited by Queensland Parks and Wildlife Service (QPWS) (details provided in fauna section); and
- clearing of vegetation to be undertaken so that any more mobile, non-volant fauna is able to move to other areas of suitable habitat (details provided in fauna section).

The Clearing Management Plan must also include measures for:

- Management of weed introduction and spread;
- Control of erosion and sedimentation during and following clearing;
- Protection from heavy machinery and other disturbances of vegetation outside of the areas designated for clearing;
- Use of cleared vegetation: - Millable timber or timber suited to artisans will be salvaged for sale. Suitable larger material in the weir area will be salvaged and used as habitat for fauna (details provided in fauna section). As much of the remaining suitable material as practicable will be mulched for use in construction site rehabilitation and landscaping of recreational facilities, provided it is ensured that no weeds are incorporated into the mulch.

#### Construction Habitat Management Plan

The Construction Habitat Management Plan should be incorporated into the overall Construction Management Plan. Many aspects of the construction process can affect terrestrial flora. In particular the following potential impacts must be managed and mitigated to prevent or restrict their effects on flora:

- Introduction and/or spread of weeds;
- Erosion and sedimentation;
- Soil and water contamination from oil, fuel or chemicals;
- Dust and vibration; and
- Establishment of stockpile areas, camps, offices, spoil dumps, refuse areas, etc.

Management of erosion and sedimentation, soil and water contamination, and dust and vibration are standard components of a Construction Management Plan and are addressed within other specialist reports for this project.

Weed management is addressed above.

Siting of stockpile areas, camps, offices, spoil dumps, refuse areas, vehicle parking areas, etc. must, where possible, be within areas that are already cleared, or are proposed to be cleared.

#### Habitat Rehabilitation Management Plan

The Habitat Rehabilitation Management Plan will play a significant role in directing compensatory actions. The major impact on the natural terrestrial environment of the Glebe Option is the direct loss of vegetation and fauna habitat, both forest and riparian, and the creation of an additional barrier to movement (the inundation area) by terrestrial fauna. This is addressed in the fauna section.

#### Operational Habitat Management Plan

Once the weir and associated infrastructure are established State-owned lands will require ongoing management of grazing activities, fire and pest species. In particular, cattle cause damage to vegetation fringing waterbodies by trampling vegetation and establishing access tracks that are prone to erosion. Both cattle and feral pigs should be managed to protect the integrity of the waterbodies.

The preparation and implementation of an Operational Habitat Management Plan is required to ensure the success of rehabilitation works, to identify any need for remedial measures, and to conduct regular pest management programs.

#### Weed Management Plan

Under the *Rural Lands Protection Act (1985)* landholders are legally responsible for the control of pests, including declared plants, on their land.

There are 10 declared and 7 non-declared pest plant species in Taroom Shire (Taroom Shire Council 2006) (Table D-1). One of these, Honey Locust *Gleditsia tracanthos*, is a Class 1 species, meaning that it is not commonly present or established in the State, has the potential to cause an adverse economic, environmental or social impact and, if established, is subject to eradication. Reasonable steps must be taken to keep land free of Class 1 pests. Seven of the declared plants are Class 2 species and the remaining 2 declared species are Class 3. Class 2 species are established in the State, and have, or could have, an adverse economic, environmental or social impact. Reasonable steps must be taken to keep land free of Class 2 pests. Class 3 species are established in the State and have, or could have, an adverse economic, environmental or social impact. Their

impact is primarily environmental and control notices can be issued for land that is, or is adjacent to, an environmentally significant area.

Two Class 2 species, Parthenium *Parthenium hysterophorus* and Giant Rats Tail Grass *Sporobolus pyramidalis*, are both dispersed by machinery. Cat's Claw Vine *Macfadyena unguis-cati* is a significant environmental weed present in the Project Area that is capable of smothering and destroying vegetation. Control of this species, and others like it, will improve the quality of vegetation adjacent to the impoundment, including rehabilitation areas. Environmental weeds that are not declared under the Act should also be controlled.

Table D-1. Pest Plant Species as Nominated by Taroom Shire Council (2006)

Common Name	Scientific Name	Declaration Status	Dispersed via Machinery, Tube Stock, Pots, Mulch, Soil	Water/ Stock Dispersed
Honey Locust	<i>Gleditsia tracanthos</i>	Class 1 (High Priority)		√
Parthenium	<i>Parthenium hysterophorus</i>	Class 2 (Very High Priority)	√	√
Harrisia Cactus	<i>Eroicerus species</i>	Class 2 (Very High Priority)		√
Parkinsonia	<i>Parkinsonia aculeata</i>	Class 2 (High Priority)		
Giant Rats Tail Grass	<i>Sporobolus pyramidalis</i>	Class 2 (High Priority)	√	√
Mother of Millions	<i>Bryophyllum species</i>	Class 2 (Moderate Priority)		√
African Box Thorn	<i>Lycium frocissimum</i>	Class 2 (Moderate Priority)		
Prickly Pears	<i>Opuntia species</i>	Class 2 (Low Priority)		√
Asparagus Fern	<i>Asparagus aethiopicus</i>	Class 3		
Cat's Claw Vine	<i>Macfadyena unguis-cati</i>	Class 3		
African Lovegrass	<i>Eragrostis carvula</i>	Non-declared (High Priority)	√	√
Variogated Thistle	<i>Silybum marianum</i>	Non-declared (Low Priority)	√	√
Mexican Poppy	<i>Argemone ochroleuca</i> <i>Argemone mexicana</i>	Non-declared (Low Priority)	√	√
Thornapple	<i>Datura species</i>	Non-declared (Low Priority)		
Saffron Thistle	<i>Carthamus lanatus</i>	Non-declared (Low Priority)	√	√
Mimosa	<i>Acacia farnesiana</i>	Non-declared (Low Priority)		
Fuchsia Bush	<i>Eremophila maculata</i>	Non-declared		

Pest plants and weeds may be controlled by:

- limiting introduction into the area of interest;
- rapidly controlling any pest plant and weed species that become established on the site
- regularly monitoring of the area of interest; and
- preparing a control/eradication plan with follow up action when and where needed.

A Weed and Pest Animal Management Plan is required for the construction and operational phases of the project. The Plan is to include:

- regular surveys (for declared plants, listed weeds) within the construction and impoundment area; and

- a control/eradication plan for each pest that may potentially occur on the site, identifying treatment methods and techniques, chemicals, equipment and sources of assistance.

The following actions should be taken during the construction phase to reduce the possibility of pest plants (or their propagules) entering the site:

- survey the proposed construction (and associated infrastructure) area and identify and remove any declared pest plants from the construction site before any work takes place. Treatment needs to take place in accordance of recommendations for DNR&W including reference to Pest Fact series and liaison with the weed officers from Banana Shire where appropriate;
- destroy all aquatic weeds in water bodies within the impoundment and the construction site (note none have been recognized to date); and any declared plants and listed environmental weeds that disperse in water within the impoundment area that will be flooded;
- undertake training in pest plant and weed awareness for construction workers;
- develop a movement protocol for vehicles and plant to ensure that pest plants and weeds are not spread by movement of vehicles entering the site or within the site;
- prepare a car park (preferably graveled) to house all vehicles entering the site. This car park to be regularly checked for any weed infestations and all such plants removed;
- prepare a wash down area for any machinery or vehicles entering the site that have been working outside of the local area. This wash down area is to be regularly monitored. Washing will ensure that machinery to be used on site is free of plant seeds, caked mud and any other debris;
- obtain pest free certification for any soil, fill, mulch and other materials entering the site;
- appoint a person responsible for regularly monitoring for potential pest occurrences (and treatment if required) of equipment, vehicles, machinery and materials (including soil, mulch, fill) entering the site;
- monitor roads into the construction area regularly during the construction of the weir to identify and remove any weed or pest plant infestations; and
- maximise the diversity and cover of native species when revegetating disturbed areas.

The following actions should be taken during the operations phase to reduce the possibility of pest plants (or their propagules) entering the site:

- regularly survey the waters edge and immediate surrounds within the impoundment area as well as the land associated with the weir wall and any associated infrastructure and identify and remove any declared weeds encountered. Treatment needs to take place in accordance with recommendations from DNR&W including reference to Pest Fact series and in liaison with weed and pest officers from Banana Shire Council;
- provide training in pest plant and weed awareness for workers and visitors to the area; and
- prepare car parks (preferably graveled) for all vehicles entering the site. These car parks to be regularly checked for any weed and pest plant incursions and all such plants removed.

## Protection of Boggomoss Communities

The importance of boggomoss communities and boggomoss snail habitat should be included as part of induction training of workers.

## Ecological Monitoring

Monitoring is a vital component of environmental management, in that it:

- provides feedback on the effectiveness of design, methods and management practices; and
- provides information that allows designs, methods and management practices to be altered to improve their effectiveness.

For the Glebe Option, ecological monitoring will be undertaken during: (i) pre-construction; (ii) clearing; (iii) construction phase; and (iv) operational phase.

### *Pre-construction*

In the preparation of Ecological Investigations for the Glebe Option, Chenoweth EPLA (2008) carried out flora surveys designed to provide an accurate assessment of the ecological condition and flora community composition within and surrounding the Project Area.

Standard survey techniques were applied that are replicable, and can be used as a basis for future monitoring. As such, data sets exist for:

- Regional ecosystem composition and condition;
- The locations of flora species of special conservation significance.

### *Clearing*

During clearing monitoring of the impacts of clearing will include:

- The distribution of declared and environmental weeds outside of the inundation area; and
- Occurrences of erosion and sedimentation influencing vegetation and stream health outside of the inundation area.

The results of monitoring will input to the Clearing Management Plan.

### *Construction Phase*

During the construction phase of the project there will be intensive activity areas around the weir wall location, and the pipeline route. Monitoring during this period will include:

- The distribution of declared and environmental weeds outside of the inundation area and adjacent to pipeline construction;
- Occurrences of erosion and sedimentation influencing vegetation and stream health outside of the inundation area; and
- Dust effects on native vegetation.

The results of monitoring will input to the Construction Habitat Management Plan.

### *Operational Phase*

There are a range of ecological elements that will be monitored during the operational phase of the weir and pipeline. These will be:

- The distribution of declared and environmental weeds around the perimeter of the weir, weir wall and adjacent to the pipeline route;
- Habitat rehabilitation/restoration progress; and
- Adjacent boggomoss communities.

The establishment of monitoring locations in representative habitats adjacent to the inundation area is an important component of the monitoring process in that locations not affected (adjacent habitat) by the presence of the weir can be monitored to assess ecological impacts, taking into account natural processes which influence the state of ecological systems. It is recommended that replication of the flora surveys be undertaken in these locations five-yearly for the initial 15 years of operation.

Groundwater monitoring bores are to be installed on the downstream side of the Boggomoss Creek levee and the data will be reviewed by a hydrogeologist before being discussed with an ecologist.

## GLEBE OPTION MANAGEMENT PLAN DESCRIPTIONS – FAUNA

### Clearing Management Plan

A management plan for clearing vegetation will be required under the VM Act and in accordance with the State Policy for Vegetation Management, November 2006 (DNRW 2006).

Appropriate measures to be incorporated into the plan include:

- the presence of fauna spotter/catcher(s) accredited by Queensland Parks and Wildlife Service (QPWS) during vegetation clearing for safe handling and possible translocation of animals unable to safely move away from the disturbance. In the case of the Koala this will need to follow *Koala Conservation and Management Program*;
- management procedures to be in place for the treatment of any injured animals; and
- clearing of vegetation to be undertaken so that any more mobile, non-volant fauna is able to move to other areas of suitable habitat, i.e., patches of habitat should not be disconnected in a haphazard fashion that limits movement.

The fauna spotter/catcher is responsible for:

- actively searching all habitat within areas to be cleared and identifying wildlife species present (e.g., Koalas, gliders and other arboreal mammals, micro-bats); and
- facilitation of clearing activities, ensuring methods used are appropriate with minimal risk of injury or death to resident wildlife in accordance with the EMP and the instructions of the construction site manager.

As a rule, the fauna spotter/catcher will work ahead of proposed clearing activities and check vegetation and fauna habitats for the presence of native species. The most desirable approach is to allow wildlife to move out of the disturbance area of their own volition.

The fauna spotter/catcher should, where practical, ensure that trees identified as *Habitat Trees of High Importance* are felled last, after the surrounding less important vegetation has been cleared. This will provide easy access for special plant and equipment (such as cherry pickers) and traps (such as Koala traps), and allow the unhindered lowering of hollow-bearing limbs. It is not acceptable to fell or push over hollow-bearing trees without first removing wildlife as there is a high risk of severe deceleration and/or crushing injuries to wildlife inhabiting such trees.

Hollow-bearing limbs can be cut and lowered gently to the ground using a variety of techniques, such as the use of cranes or special rigging. Prior to any intervention, exit holes should be plugged with rags or newspaper to prevent escape of wildlife during cutting or lowering of hollow-bearing limbs.

Where trees with hollows are to be removed the integrity and structure of tree hollows should be preserved, relocated and retained in a suitable habitat on the site or close to the site. Where tree hollows contain wildlife that are particularly sensitive to translocation (e.g., Greater Glider), special efforts should be made to record the height and orientation of the hollow, and tree species from which it was obtained to enable it to be reproduced at the translocation site. These relocated hollows need to be placed in undisturbed treed habitat closest to the affected area.

The Clearing Management Plan must also include measures for:

- Retaining large trees within the inundation area (both alive and dead) where possible, even if the base of the tree will be inundated either permanently or sporadically, to provide nesting resources for a number of species, including the EVR and Migratory species: Cotton Pygmy-goose, Black-necked Stork and White-bellied Sea-Eagle.
- Use of cleared vegetation: - Millable timber or timber suited to artisans will be salvaged for sale and suitable larger material in the weir area will be salvaged and placed in low flow areas of the reservoir to provide fish habitat or placed above frequent flood inundation levels to provide habitat for terrestrial fauna. As much of the remaining suitable material as practicable will be mulched for use in construction site rehabilitation and landscaping of recreational facilities, provided it is ensured that no weeds are incorporated into the mulch. Piles of rubble, felled timber or any other material being stored for mulching or removal can provide an attractive and suitable habitat for a range of fauna species. This is particularly so when active works has removed existing wildlife refuges or shelter. It is important that all materials are removed or mulched as quickly as possible; or placed in areas where further disturbance will not occur; or where wildlife-exclusion barriers are installed. If felled vegetation or other materials are stored for more than four days it must be assumed that they are occupied by wildlife; thus before being moved or disturbed again they must be checked by a fauna spotter/catcher.

#### Construction Habitat Management Plan

The Construction Habitat Management Plan should be incorporated into the overall Construction Management Plan. Many aspects of the construction process can affect terrestrial fauna. In particular the following potential impacts must be managed and mitigated to prevent or restrict their effects on fauna:

- Introduction and/or spread of weeds;
- Erosion and sedimentation;
- Soil and water contamination from oil, fuel or chemicals;
- Noise, dust and vibration;
- Construction traffic within fauna movement areas; and
- Establishment of stockpile areas, camps, offices, spoil dumps, refuse areas, etc.



Management of erosion and sedimentation, soil and water contamination, and noise, dust and vibration are standard components of a Construction Management Plan and are addressed within other specialist reports for this project.

The introduction and/or spread of weeds has the potential to degrade habitat outside of the Project Area over time and have indirect impacts on fauna. This aspect is discussed within the Construction Habitat Management Plan for flora (details provided in flora section).

Construction traffic may come into contact with native fauna, particularly during dawn, dusk and night time hours. Speed limits must apply to construction roads and workers will be advised of the potential presence of fauna where the roads intersect vegetation (remnant and non-remnant vegetation as mapped by Chenoweth EPLA).

Siting of stockpile areas, camps, offices, spoil dumps, refuse areas, vehicle parking areas, etc. must, where possible, be within areas that are already cleared, or are proposed to be cleared.

#### Habitat Rehabilitation Management Plan

The corridors mapped to the east and west of the inundation area are functioning as a continuous corridor due to the presence of non-remnant vegetation, albeit in places simply a single row of mature trees and in places degraded by livestock and feral animals such as pigs. The impact of the inundation would, over time, be lessened by appropriate revegetation of the shorelines and through exclusion of livestock where possible, as recommended above.

The Habitat Rehabilitation Management Plan will play a significant role in directing compensatory actions. The more significant impacts of the Glebe Option are the direct loss of fauna habitat, both forest and riparian, and the creation of an additional barrier to movement (the inundation area) by terrestrial fauna. These impacts would be best addressed by the rehabilitation of the weir edges linking vegetation to the east and west of the impoundment area. Connectivity may be achieved by a number of different habitat configurations. A corridor is a continuous link of suitable habitat between two vegetation patches. Stepping stones are disconnected patches of habitat that more mobile species, or species with some tolerance of modified habitat, move through from one vegetation patch to another. A mosaic of natural and modified vegetation, even scattered trees within a paddock, will allow some more tolerant species to move between habitat patches (Bennett *et al.* 2000). A continuous link of suitable habitat is the preferred option.

Revegetation has the greatest value when it is planned and undertaken with the requirements of wildlife in mind. Animals require food, water, shelter from weather conditions, and refuge from predators. Different species have different requirements for foraging substrate, food type, shelter and refuge, and reproductive conditions. For example, an arboreal mammal may require trees and tall shrubs in which to forage, nectar and sap on which to feed and tree hollows in which to rest and breed. Conversely, a skink may require leaf litter and fallen timber in

which to forage, invertebrates on which to feed, exfoliating bark, fallen timber and other ground cover in which to shelter and lay eggs (Bennett *et al.* 2000).

Some areas above the FSL may need to be revegetated with a variety of native vegetation. The extent of the shore lines can in part be modified by the rate and volume of water draw downs. Shorelines will require regular monitoring and treatment of weeds. An additional compensatory measure would be the provision of funding to local catchment management groups to rehabilitate, restore and enhance riparian habitats in the local area.

Revegetation and rehabilitation needs to be undertaken in stages once the Habitat Rehabilitation Management Plan (with clearly defined lines of responsibility) is developed. The plan would include:

1. identification of the aims and intended outcomes of the revegetation and rehabilitation;
2. identification of the sites to be revegetated and rehabilitated;
3. securing the tenure of the land required for any revegetation and rehabilitation to function as a corridor, or entering into a conservation agreement with the landholder(s) as appropriate;
4. consideration of the principles for enhancing the conservation values of revegetation;
5. a review of possible methods; and
6. a selection of the method(s) to be used that best address the aims.

The aims of the plan should include broad conservation values such as:

- re-establishment of REs as appropriate to landform, particularly those endangered, regionally significant or locally significant;
- re-establishment of locally significant plant species as appropriate to landform;
- provision of habitat suitable for native fauna, particularly those EVR species, migratory species, and regionally or locally significant species known to occur or considered likely to occur;
- creation of east-west corridors to alleviate the disruption to movement caused by the weir; and
- establishment of shallow wetland areas around the perimeter of the weir.

The initial stages of revegetation projects should involve:

- species selection;
- seed collection;
- selection of propagation techniques, e.g. direct seeding, planting tube stock, brush matting, plant translocation, redistribution of on-site topsoil and mulch;
- developing a schedule for site preparation and planting; and initial and ongoing maintenance;
- appropriate supporting activities such as setting up and running a nursery, establishing and maintaining temporary soil dumps;
- site preparation and seeding and/or planting;
- initial site maintenance (fencing, watering, weed control) after planting;

- identifying trees which could be translocated from within the construction site or other sites which may be disturbed, cleared or denuded to sites which will be revegetated, and organizing their future retention, re-planting and maintenance;
- organizing the retention and storage of topsoil and plant material (mulching, retaining tree limbs and branches) disturbed and removed during construction;
- developing accurate records of rehabilitation techniques, species planted, species surviving, species composition and distribution, successes, any remediation undertaken through the program, weed pest animal control; and
- developing a short and long term monitoring program.

There are a number of means by which the conservation values of revegetation projects can be enhanced, these methods include:

- using locally indigenous plant species;
- matching plant species to the landform;
- establishing natural layers in the vegetation;
- promoting patchiness of vegetation by planting practices;
- providing ground-layer components (using cleared vegetation and other elements from the inundation area);
- managing the composition and structure;
- controlling disturbance and degradation;
- reducing edge effects;
- positioning the revegetation to link with existing vegetation;
- giving priority to streams as natural corridors; and
- restoring remnants of depleted vegetation types (Bennett *et al.* 2000).

*Locally indigenous plant species* are most likely to provide natural habitat resources, and increase the likelihood of restoration of plant-animal interactions such as pollination and seed dispersal, and processes such as leaf-litter accumulation and decomposition.

*Natural vegetation corresponds closely with landform*, soil types and topography. To ensure that the correct species are planted as appropriate to position on slope and soil type check nearby remnant vegetation on the same landform.

*Different layers of vegetation* provide different foraging substrates and locations for nesting and shelter of various species. Layers can be manipulated by selecting plant species that grow to different heights. Check nearby remnant vegetation to determine the appropriate number and type of layers.

*Fine scale patchiness of vegetation* provides a range of foraging and shelter resources for fauna and can be achieved in revegetation by spacing plantings at irregular distances, by using a variety of plant species with

different growth forms and types of bark (e.g., smooth, rough and stringy) and, as a longer term management tool, by the use of thinning and fire. Natural vegetation does not grow in rows, nor is it evenly spaced.

*Ground layer components* include fallen timber, leaf litter, lichens and mosses, low-growing vegetation and open spaces. These components provide shelter and resources for invertebrates and small vertebrates such as reptiles and frogs. These in turn provide food resources for larger species. Many of these larger predators also shelter and/or breed in hollow logs, under rocks and in low, dense vegetation. Logs and rocks should be deliberately added during rehabilitation, fallen timber should be allowed to accumulate, and low ground cover plants should be included in the planting regime. The ground layer component is an important component of ecosystem function. Leaf litter and ground vegetation trap rainfall, prevent erosion, and contribute to soil formation. Fungi, bacteria and small invertebrates within leaf litter add in the decomposition of dead organic matter and recycle nutrients.

Planting should be done in such a way as to maximise conservation values; the larger the size of the habitat the greater the value. Increased area can be achieved by planting a single large patch, by planting multiple patches that grow together over time, and by planting adjacent to existing remnant vegetation. The shape of a revegetated patch determines the ratio between the perimeter and area. Long, thin patches have a high ratio of edge to area (Bennett *et al.* 2000).

Active management includes not tidying up revegetated areas, but rather adding logs and leaf litter, and by additional plantings to increase structural diversity, perhaps over a number of different seasons. Disturbance from introduced predators and other exotic animals, degradation of the ground and shrub layer by livestock, and invasion by weeds needs to be controlled and minimised. Fencing is one of the most important management actions for revegetation projects (Bennett *et al.* 2000). Many restoration projects have failed due to browsing by cattle. Herbivory by native species such as macropods may also inhibit revegetation, though grazing by macropods may be beneficial through reduction of competition by grasses (Kanowski *et al.* 2004).

Nest boxes should be established prior to clearing in remaining vegetation and within the rehabilitated area once tree growth is sufficient to encourage colonisation by arboreal mammals and other hollow-dependent species. The number, positioning and sizes of nest boxes required needs to be determined based on the number of hollows currently present within the vegetation to be cleared, requiring specific investigation.

#### Operational Habitat Management Plan

Once the weir and associated infrastructure are established, the existing forest and rehabilitation areas within State-owned lands will require ongoing management of grazing activities, fire and pest species. Requirements for fauna are as per those outlined for flora (details provided in flora section).

### Pest Animal Management Plan

Under the *Rural Lands Protection Act (1985)* landholders are legally responsible for the control of pests (declared animals) on their land.

There are 4 declared and 2 non-declared pest animal species in Taroom Shire (Taroom Shire Council 2006) (Table D-2). Class 2 species are pest species that are established in the State, and have, or could have, an adverse economic, environmental or social impact. Reasonable steps must be taken to keep land free of Class 2 pests.

Table D-2. Pest Animal Species as Nominated by Taroom Shire Council (2006).

Common Name	Scientific Name	Declaration Status
Dingo/ Wild Dog	<i>Canis lupus dingo</i> <i>Canis lupus familiaris</i>	Class 2
(feral) Pig	<i>Sus scrofa</i>	Class 2
Rabbit	<i>Oryctolagus cuniculus</i>	Class 2
Plague Locust, Migratory Locust	<i>Chortoicetus terminifera</i> , <i>Locusta migratoria</i>	Class 2
House Mouse Rat species	<i>Mus musculus</i> <i>Rattus species</i>	Non-declared
Brown Hare	<i>Lepus capensis</i>	Non-declared

Declared pests and pest animals may be controlled by:

- limiting the introduction of pest animals into the area of interest;
- rapidly controlling any pest animals that become established on the site;
- regularly monitoring of the area of interest; and
- preparing a control/eradication plan with follow up action when and where needed.

A Pest Animal Management Plan is required for the construction and operational phases of the project. The Plan is to include:

- regular surveys (for wild Dogs/Dingoes, Pigs and Rabbits) within the construction and impoundment area; and
- a control/eradication plan for each pest that may potentially occur on the site, identifying treatment methods and techniques, chemicals, equipment and sources of assistance.

The following actions should be taken during the construction phase to reduce the possibility of pest animals entering the site:

- survey the proposed construction (and associated infrastructure) area and identify and remove any declared pest animals from the construction site before any work takes place. Treatment needs to take place in accordance of recommendations for DNR&W including reference to Pest Fact series and liaison with officers from Taroom Shire where appropriate; and

- undertake training in pest animal awareness for construction workers.

The following actions should be taken during the operations phase to reduce the possibility of pest animals entering the site:

- regularly survey the waters edge and immediate surrounds within the impoundment area as well as the land associated with the weir wall and any associated infrastructure and identify and remove any pest animals encountered. Treatment needs to take place in accordance with recommendations from DNR&W including reference to Pest Fact series and in liaison with pest officers from Taroom Shire Council; and
- provide training in pest animal awareness for workers and visitors to the area.