



Title of Proposal - DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Natural Resources Management

1.2 Provide a detailed description of the proposed action, including all proposed activities.

Off-road vehicle (ORV) tracks are a feature of the Arthur-Pieman Conservation Area (APCA), a State reserve, in north west Tasmania. ORVs include registered four-wheel drives, all-terrain vehicles (ATVs), utility terrain vehicles (UTVs) and trail bikes. The majority of the tracks are open to the public for ORV use through a permit system. This regulated recreational use is consistent with the legislated management objectives of this reserve class. Tracks in this reserve class may be designated for use by vehicles through the Tasmanian National Parks and Reserved Land Regulations 2009. That designation, and any other component of this proposal that constitutes a government authorisation, is not part of the action. Tracks 501 (south of Sea Devil Rivulet), 503 and 601 provide 37.3 km of access to the remote coastline south of Sandy Cape and north of the Pieman River and are currently closed for public use. It is intended to designate these tracks as open for ORV use subject to restrictive conditions. The action requires the implementation of a series of minor works: 2.85 km of track surface protection, hardening and drainage works, 3.05 km of fencing, installation of signage and temporary markers, and rehabilitation of exposed surfaces.

An integrated management regime will ensure ORV access to the tracks is sustainably managed. Key components of that management are:

- 1) Minor works: including track surface protection, drainage, fencing and signage
- 2) Optimal route establishment: annual establishment of the optimal route prior to the permit season
- 3) Survey and monitoring: on-going survey, assessment and monitoring of key sites and values to support adaptive management and optimal route establishment
- 4) Compliance and education
- 5) Regulation of access: a permit system with a capped limit, seasonal access, and other conditions of use

These components are described in more detail below.

Minor works - the fundamental purpose of the works is to protect cultural and natural values. They comprise: laying of geo-textile and plastic panel surface protection, track hardening, placement of culverts, establishment of short re-routes, fencing and rehabilitation works to



stabilise exposed surfaces. Approximately 2.26 km of surface protection or hardening is required for the protection of wetlands, soils and cultural heritage. The main method for surface protection will be clip-together plastic panels. These are retrievable, allowing for sites to be rehabilitated. Culverts will be bedded into existing drainage lines/creeks with minimal disturbance and covered with sand and gravel. Approximately 15 plastic 3 m long culverts will be used. Fencing will be used to protect cultural heritage sites, wetlands, herbfields and grasslands from vehicle incursions. Small sections of fence will be used to block redundant tracks and to allow for rehabilitation of braided tracks. Approximately 3.05 km of fencing will be required in sections ranging from nearly 200 m to very small sections less than 5 m. An excavator (< 3 t) will be used on Track 601 for remediation and drainage works to contain erosion. Small (1 t) excavators may be used throughout. Closed tracks will be allowed to naturally rehabilitate or stabilised using geo-textile material. Designated camping sites will be within 10 m of the existing track footprint within redundant track sections and will not require works.

Optimal route establishment - signage and temporary directional markers will be installed to delineate the optimal route prior to each driving season. Markers may be required to be repositioned in response to the dynamic and active nature of the area, particularly within dunes and sand sheets. Light weight plastic 'star pickets' with reflective markers on the apex will be used so that they are clearly visible in all conditions. The separation between markers will be such that each marker will be readily visible from the preceding marker. Approximately 250 track markers will be required. Re-routes will be established through the use of markers; the open nature of the terrain and the use by ORVs will not generally require the re-routes to be actively constructed, although in some sections surface protection may be placed on top of the existing ground surface or culverts put in place. These measures are to direct vehicles to the designated track, so that areas containing cultural heritage and other values are not traversed by vehicles and to allow for the closure and rehabilitation of redundant track sections.

Survey and monitoring (Pre-driving Season Survey and Condition Reporting) - undertaken annually to measure the effectiveness of mitigation measures, to determine the optimal route and inform consideration of the permit allocation for the following season. The survey will focus on priority track sections, values and habitats and will establish trends in key indicators over time. The initial survey will include all the proposed work sites and will establish baseline data.

Compliance and education - on-ground resources, including dedicated compliance staff, aerial operations and remote cameras will be used to manage compliance with permit conditions. Compliance staff will be employed to provide an on-ground presence on the tracks during the driving season focusing on adherence with permit conditions, driver behaviour and education, track maintenance and management and protection of values. Two new positions will be created within DPIPWE for this purpose and DPIPWE will seek Aboriginal applicants for these positions. The dedicated compliance positions will be supported throughout the driving season by other PWS staff and compliance operations will also be conducted outside of the driving season.

Regulation of access - Access to the tracks will require the purchase and allocation of a special permit that is additional to the permit currently required to access ORV tracks elsewhere in the APCA. Initial allocation of permits will be capped at 12 vehicles per day. The allocation will be



reviewed annually on the basis of the results of the survey and monitoring program. Permits will be valid for three days. The tracks will be closed between June and October inclusive. Driving will be restricted to daylight hours. Daylight hours are defined as being between one hour after sunrise and one hour before sunset. Track 601 is only to be open to ATVs, UTVs and trail bikes and may be accessed from across the Pieman River. Consistent with management elsewhere in the APCA, unsupported camping will be permitted in specific, designated sites at the terminus of Track 503 and on Track 601 south of Rupert Point. An additional allocation of 150 vehicles per season will be reserved for future potential commercial tourism use with a maximum of six vehicles permitted on the tracks at any time. Commercial use will be subject to the restriction on daylight use, the vehicle restriction on Track 601 and the permitted driving season.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
broader area encompassing tracks 501, 503 and 601	1	-41.460533968703	144.79231588504
broader area encompassing tracks 501, 503 and 601	2	-41.460868445858	144.7921556702
broader area encompassing tracks 501, 503 and 601	3	-41.458295506297	144.80382864384
broader area encompassing tracks 501, 503 and 601	4	-41.479390597299	144.82030813602
broader area encompassing tracks 501, 503 and 601	5	-41.506649689371	144.84228079227
broader area encompassing tracks 501, 503 and 601	6	-41.522588369463	144.85738699345
broader area encompassing tracks 501, 503 and 601	7	-41.550343148525	144.87455313114
broader area encompassing tracks 501, 503 and 601	8	-41.543148608714	144.89034597782
broader area encompassing tracks 501, 503 and 601	9	-41.512305799292	144.90751211552
broader area	10	-41.508706513791	144.93909780888



Area	Point	Latitude	Longitude
encompassing tracks 501, 503 and 601 broader area	11	-41.547259872351	144.93566458134
encompassing tracks 501, 503 and 601 broader area	12	-41.580654198264	144.8889726868
encompassing tracks 501, 503 and 601 broader area	13	-41.589898806218	144.89103262333
encompassing tracks 501, 503 and 601 broader area	14	-41.629430241923	144.91300527958
encompassing tracks 501, 503 and 601 broader area	15	-41.640720488344	144.91094534305
encompassing tracks 501, 503 and 601 broader area	16	-41.663808014157	144.92536489872
encompassing tracks 501, 503 and 601 broader area	17	-41.668937451664	144.91987173466
encompassing tracks 501, 503 and 601 broader area	18	-41.644235455984	144.90492574832
encompassing tracks 501, 503 and 601 broader area	19	-41.642439510672	144.9028658118
encompassing tracks 501, 503 and 601 broader area	20	-41.640900089136	144.89874593875
encompassing tracks 501, 503 and 601 broader area	21	-41.637564549646	144.89668600223
encompassing tracks 501, 503 and 601 broader area	22	-41.630892952748	144.90423910282
encompassing tracks 501, 503 and 601 broader area	23	-41.619600984884	144.89737264774
encompassing tracks 501, 503 and 601 broader area	24	-41.603942940044	144.8894762244
encompassing tracks 501, 503 and 601 broader area	25	-41.584686036479	144.87848989627



Area	Point	Latitude	Longitude
501, 503 and 601 broader area encompassing tracks	26	-41.567478344226	144.86681692264
501, 503 and 601 broader area encompassing tracks	27	-41.556175276322	144.86132375858
501, 503 and 601 broader area encompassing tracks	28	-41.542557592292	144.85411398075
501, 503 and 601 broader area encompassing tracks	29	-41.528423000633	144.84347097538
501, 503 and 601 broader area encompassing tracks	30	-41.512999923408	144.83248464725
501, 503 and 601 broader area encompassing tracks	31	-41.498344595502	144.81909505985
501, 503 and 601 broader area encompassing tracks	32	-41.473397201674	144.80192892215
501, 503 and 601 broader area encompassing tracks	33	-41.460533968703	144.79231588504

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).

The proposed action occurs entirely within the APCA. The APCA is a 103,147 ha reserve approximately 35 km south west of Smithton in Tasmania’s north west. The reserve contains unique coastal landscapes, Aboriginal cultural heritage and diverse ecosystems. There are thirteen management objectives for conservation areas under the Tasmanian *National Parks and Reserves Management Act 2002* (see Section 1.12) that require equal consideration. The management objectives allow for tourism and recreational use consistent with the protection of natural and cultural values.

The coastal environment of the APCA has long been popular for ORV recreation and as a consequence an extensive track network has developed over time. The southern extent of the APCA coastline below the small settlement of Temma, including the area of the proposed



action, can only be accessed by ORVs. These tracks have been designated with numerical identifiers. The proposed action is confined either to the footprint, or in close proximity to the footprint, of the tracks designated as 501, 503 and 601. These tracks can be seen on aerial photos from the mid to late 1980's and are fully evident in the 1990's. Track 501 commences immediately south of Sandy Cape and terminates at the Interview River. Access to this track is via the Sandy Cape Track. Approximately 2 hours is required for most vehicles to reach Sandy Cape from Temma.

Track 501 is open from Sandy Cape to Sea Devil Rivulet under the current permit system. References in the referral to this track are to be taken to mean its extent south of Sea Devil Rivulet to the Interview River, a length of approximately 17.5 km. Track 601 is approximately 11.9 km in length and commences at the Interview River and terminates at the Pieman River. The Pieman River is a large river and impassable without the use of a vessel. Track 503 commences from the end of Track 501, is approximately 7.9 km in length and runs inland from above the Interview River and provides access to an historic mine site. Tracks 501 and 601 are entirely within the Western Tasmania Aboriginal Cultural Landscape (WTACL). The first 2.1 km of Track 503 is within the WTACL. Track 503 can only be accessed from Track 501. Track 601 is accessed from Track 501 or can be accessed by ferrying ORVs across the Pieman River. Approximately two hours is required to drive between Sea Devil Rivulet and the Interview River, 30 minutes to reach the terminus of Track 503 and two hours to drive from the Interview River to the terminus of Track 601 at the Pieman River. Notwithstanding the proposed works, the tracks will remain a challenging driving experience suitable only for experienced and suitably equipped parties. References to 'tracks' in the referral is to the collective lengths of Tracks 501 (from Sea Devil Rivulet), 503 and 601. (Refer to attached location maps).

Track 501 north of the Lagoon River traverses coastline that alternates between coastal dune systems that interface with tidal rock platforms and more extensive and mobile dune systems with sandy beaches. Large midden deposits are a feature of some areas of this terrain. The southern section of Track 501, between the northern margins of the Interview River through to the south bank of Lagoon River traverses an extensive sandy beach front with an associated series of highly mobile sand dune systems. Very few tidal rock platforms are present along this section of the coast. The coastline traversed by Track 601 is characterised by a rocky coastal foreshore with a series of small bays and extensive tidal rock platforms. Sand dune systems only occur along this section of coast line within 1 km of the Interview River and in the vicinity of Rupert Point. Numerous creek lines drain this section of the coast. Track 503 traverses an inland plateau of buttongrass moorland with incised watercourses that support scrub and eucalypt forest.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

Approximately 4.6 km of combined linear works with an estimated development footprint of 1.8 ha.

1.7 Is the proposed action a street address or lot?



Lot

1.7.2 Describe the lot number and title.N/A: the area does not have a lot title

1.8 Primary Jurisdiction.

Tasmania

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

No

1.10 Is the proposed action subject to local government planning approval?

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 09/2017

End date 10/2018

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

National Parks and Reserves Management Act 2002

The APCA is reserved land proclaimed under the Tasmanian *Nature Conservation Act 2002* and managed in accord with the Tasmanian *National Parks and Reserves Management Act 2002* (NPRMA). Under the NPRMA the managing authority responsible for the management of the APCA is the Director of National Parks and Wildlife, a statutory position currently held by the Secretary of the Department of Primary Industries, Parks, Water and Environment (DPIPWE). Operational management of the APCA is undertaken on behalf of the Director by the Parks and Wildlife Service (PWS), which is a Division within DPIPWE.

The NPRMA (Schedule 1) provides management objectives for conservation areas:

- (a) to conserve natural biological diversity;
- (b) to conserve geological diversity;
- (c) to preserve the quality of water and protect catchments;
- (d) to conserve sites or areas of cultural significance;
- (e) to provide for the controlled use of natural resources including special species timber harvesting, and including as an adjunct to utilisation of marine resources;
- (f) to provide for exploration activities and utilisation of mineral resources;
- (g) to provide for the taking, on an ecologically sustainable basis, of designated game species



for commercial or private purposes, or both;

(h) to provide for other commercial or industrial uses of coastal areas;

(i) to encourage education based on the purposes of reservation and the natural or cultural values of the conservation area, or both;

(j) to encourage research, particularly that which furthers the purposes of reservation;

(k) to protect the conservation area against, and rehabilitate the conservation area following, adverse impacts such as those of fire, introduced species, diseases and soil erosion on the conservation area's natural and cultural values and on assets within and adjacent to the conservation area;

(l) to encourage appropriate tourism, recreational use and enjoyment (including private uses) consistent with the conservation of the conservation area's natural and cultural values;

(m) to encourage cooperative management programs with Aboriginal people in areas of significance to them in a manner consistent with the purposes of reservation and the other management objectives.

A statutory management plan, Arthur-Pieman Conservation Area Management Plan 2002, was prepared under the NPRMA in 2002. The management plan sets out how the management objectives apply in the APCA. The Director must give effect to the management plan. Amongst other matters, the management plan sets out the manner in which ORVs may be used in the APCA. The management plan identifies the following benchmarks for an effective and sustainable off-road vehicle management system:

- substantial compliance by users with permit/authority conditions. The approach is to ensure that all off-road users are licenced, their vehicle registered, and they hold an Arthur-Pieman 4WD Track Permit. PWS enforces compliance, but also focuses on education, in a two-pronged approach to changing user behaviour.

- demonstrated capacity of the system to move toward recovering the costs of sustainably managing off-road vehicle use in the reserve via a user-pays model.

- a substantial reduction in the rate of degradation of natural and cultural resources assessed by objective measures.

The NPRMA makes provision for regulations in respect of reserved lands: the *National Parks and Reserved Land Regulations 2009* (the Regulations). Regulation 18 provides, inter alia:

(1) The managing authority may designate areas for the driving of vehicles on reserved land in the class of conservation area, regional reserve or nature reservation area.

(2) A person must not drive a vehicle on any reserved land except –

(a) on a road on that reserved land; or

(b) in a designated vehicle area.

Since the APCA became a conservation area in 1999, a permit has been required to drive on certain vehicle tracks that have been designated under the Regulations as open for ORV use.



The current permit system has been in place since 1 December 2010 and prescribes which tracks can be currently used. Driving beyond these tracks is illegal. All drivers and riders must obtain an 'Arthur-Pieman 4WD Track Permit' for designated off-road tracks. The permit system does not currently include Tracks 501, 503 and 601. These are closed and not designated for use.

It is intended to designate these tracks as being open for ORV use. ORVs include registered four-wheel drives, ATVs, UTVs, and trail bikes. That designation, made under the *Tasmanian National Parks and Reserved Land Regulations 2009* is not a component of the proposed action. Regulation of the use of these tracks will be through a specific, more restrictive, permit system that will be additional to the permit system currently in place for ORV use elsewhere in the APCA.

The designation of Tracks 501, 503 and 601 as areas where ORVs may be used will be subject the following initial conditions:

- The use of the tracks is confined to an 'open season' between 1 November and 31 May. The tracks are not open for use between 1 June and 31 October. PWS has the authority to close the tracks at any given time in response to safety, environmental or other concerns.
- Users are required to purchase a 'recreational driver – special pass'. This permit is additional to the permit currently required for driving elsewhere in the APCA.
- The permit is valid for 3 days.
- Initial permit allocation will be capped at 12 vehicles per day, with subsequent allocations to be determined following completion of the annual Pre-driving Season Survey and Condition Report.
- Driving will be restricted to daylight hours only (except for emergencies). Daylight hours are defined as being between one hour after sunrise and one hour before sunset.
- Unsupported camping will be restricted to designated sites which will be provided at the terminus of Track 503 and on Track 601 south of Rupert Point. This is consistent with management for ORV tracks elsewhere in the APCA.
- Track 601 is only to be open to ATVs, UTVs and trail bikes. Four-wheel drive vehicles will not be permitted on this track. The track may be accessed from the Pieman River.
- An additional permit allocation of 150 vehicles per season is to be provided for future commercial tourism use. Commercial use will be subject to the restriction on daylight use, the vehicle restriction on Track 601 and the permitted driving season.

The declaration of Tracks 501, 503 and 601 as a designated vehicle area under the Regulations, the implementation of conditions on use and the minor works detailed in this referral are within the powers provided under the NPRMA to the Director of National Parks and Wildlife as the managing authority for the APCA. The Director has to give effect to the management plan and otherwise manage the reserve in accord with the management



objectives. PWS has developed a systematic assessment process, the Reserve Activity Assessment (RAA), for all new or recurrent works that have the potential for an adverse environmental, social or economic impact. The RAA ensures that activities on reserved land are consistent with the management objectives of the relevant reserve class and any applicable management plan. An RAA will be undertaken for the proposed action. RAAs are classified into 4 levels, with level 4 applying to the activities of greatest scale, risk, complexity or public interest. It is expected, due to the requirement for detailed studies of natural and cultural values and the importance of the area's values, that the RAA for this action would be a level 4 RAA. Level 4 RAAs require the preparation and release for public comment of a Development Proposal and Environmental Management Plan (DPEMP). The DPEMP will address the potential impact of the proposal on all of the relevant values of the area.

Local government planning approval or other statutory planning approvals are not required for the action proposed in this referral.

Aboriginal Heritage Act 1975

The protection of Aboriginal cultural heritage in Tasmania is principally provided through the *Aboriginal Heritage Act 1975*. The Act provides for the protection of relics from damage, destruction, defacement, concealment or interference unless in accord with a permit granted by the Minister. The Act was amended in June 2017 and now includes revised penalty provisions. For deliberate acts that harm Aboriginal relics the maximum penalty for individuals or a small business entity is \$785,000, while for reckless or negligent acts the maximum penalty for individuals or a small business entity is \$157,000.

It is expected that a permit under the Act will need to be sought for components of the proposed action in this referral, as the laying of protective surfaces through midden sites will result in interference and has the effect of concealment.

Threatened Species Protection Act 1995

There are a number of flora and fauna species known from the general area and from within proximity to the tracks that are listed under the Tasmanian *Threatened Species Protection Act 1995*. Where any of these are proposed to be disturbed as a result of the action, a permit under the Act will need to be sought.

State Policies and Projects Act 1993

The State Coastal Policy 1996 is a policy under the *State Policies and Projects Act 1993*. The State Coastal Policy applies to all land to a distance of one kilometre inland from the high-water mark. The policy is concerned with the protection of natural and cultural values of the coast, use and development of the coast in a sustainable way and the shared responsibility of integrated management and protection of the coastal zone. The proposed action will be consistent with the policy.

1.13 Describe any public consultation that has been, is being or will be undertaken,



including with Indigenous stakeholders.

The action is set against the context of the management of ORVs in the APCA over a considerable length of time.

The preparation of the APCA Management Plan is a statutory process set out under the NPRMA. That process provides for a significant level of public input through the provision of an opportunity for members of the public to make representations to the Director. Representations are a fundamental consideration in the determination of the final content of a management plan. Use of ORV tracks was the subject of a number of representations during the preparation of the APCA Management Plan 2002 and the issue was fully considered as a result in the statutory process.

More recently the management of ORV tracks in the APCA has involved considerable levels of public consultation. In 2009-2010 PWS undertook an extensive assessment of the variety of track driving taking place in the APCA. In 2010 the draft *Arthur-Pieman Conservation Area Sustainable Recreational Vehicle Access* report was released for public comment. Public response to the draft report was high, with a total of 2434 submissions received from individuals, families and organisations. A high proportion (2291 or 94%) of submissions were form letter responses. In 2011, a study on the social values of the APCA to the Circular Head community was commissioned by PWS to assist planning in the APCA. Key Tasmanian Aboriginal groups, including the Tasmanian Aboriginal Centre and the Circular Head Aboriginal Corporation, have been consulted in relation to the management of ORV tracks, including those subject to the proposed action.

DPIPWE continues to liaise with stakeholder groups with an interest in the management of ORV access in the APCA. The classification of the proposal as a Level 4 RAA will ensure further opportunity for public comment on the proposal.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.

Cultural heritage assessments will be carried out for each individual work site in order to establish requirements under the Tasmanian *Aboriginal Heritage Act 1975*. Each site will also have an ecological assessment undertaken, in particular to meet any obligations under the Tasmanian *Threatened Species Protection Act 1995*. Cultural, ecological and track condition assessments (Pre-driving Season Survey and Assessment Condition) will be conducted annually as part of the establishment of the route prior to the opening of each driving season. These are described more fully in Section 4.1.

The initial cultural and ecological assessments will support the assessment of the proposed action through the RAA process which will be undertaken by PWS prior to commencement of any works or use of the tracks. The RAA process is used to identify activities requiring detailed assessment and guides the assessment of risks and impacts. This includes legislative and policy guidance and compliance as well as biophysical, cultural and social impacts. The RAA



has been developed to ensure the requirements of the NPRMA with respect to the management of reserved land are being met. The RAA assessment process is a well-established process successfully used by PWS over a considerable period to assess a range of activities on reserved land.

The following assessments, while not formal environmental impact assessments defined by legislation, have been undertaken in support of decisions under the *National Parks and Reserves Management Act 2002* related to management of ORVs in the APCA and provide substantial detail on the values of the area:

The Arthur-Pieman Conservation Area Sustainable Recreational Vehicle Access Draft Report 2010 (PWS);

Analysis of Public Responses: Arthur Pieman Conservation Area Sustainable recreational vehicle access (PWS);

The Arthur-Pieman Conservation Area Sustainable Recreational Vehicle Access Report 2012 (PWS);

The Social Values of the Arthur-Pieman Conservation Area, a study of social values of the reserve for the Circular Head community 2011 (prepared for PWS by Planning for People);

The Aboriginal Cultural Heritage Assessment of Designated Vehicle Tracks Within the Arthur-Pieman Conservation Area 2010 (Cultural Heritage Management Australia);

An Assessment of Vehicle Tracks between Greenes Creek and the Pieman River and their Impact on Aboriginal Heritage 2007 (Tasmanian Aboriginal Land and Sea Council for PWS);

The Arthur-Pieman Conservation Area Vehicle track assessment: Geoconservation, Flora and Fauna Values and Impacts Report 2007 (Department of Primary Industries and Water)

1.15 Is this action part of a staged development (or a component of a larger project)?

No

1.16 Is the proposed action related to other actions or proposals in the region?

No



Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The [interactive map tool](#) can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

- [Profiles of relevant species/communities](#) (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- [Significant Impact Guidelines 1.1 – Matters of National Environmental Significance](#);
- [Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).

2.1 Is the proposed action likely to have ANY direct or indirect impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to have ANY direct or indirect impact on the values of any National Heritage places?

Yes

2.2.1 Impact table

Place	Impact
Western Tasmania Aboriginal Cultural Landscape (WTACL)	DESCRIPTION: The WTACL is listed on the National Heritage List as it meets Criterion (a): 'the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.' The nature of the values of the WTACL and the manner in which the potential impact of the action on those values must be considered was the subject of extended deliberation in the two Federal Court proceedings referenced in Section 6.2. The



Place	Impact
	<p>Gazettal Notice listing the WTACL, dated 7/2/2013, identifies the following values as satisfying this criterion: 'During the late Holocene Aboriginal people on the west coast of Tasmania and the southwestern coast of Victoria developed a specialised and more sedentary way of life based on a strikingly low level of coastal fishing and dependence on seals, shellfish and land mammals (Lourandos 1968; Bowdler and Lourandos 1982). This way of life is represented by Aboriginal shell middens which lack the remains of bony fish, but contain 'hut depressions' which sometimes form semi-sedentary villages. Nearby some of these villages are circular pits in cobble beaches which the Aboriginal community believes are seal hunting hides (David Collett pers. comm.; Stockton and Rodgers 1979; Cane 1980; AHDB RNE Place ID 12060). The Western Tasmania Aboriginal Cultural Landscape has the greatest number, diversity and density of Aboriginal hut depressions in Australia. The hut depressions together with seal hunting hides and middens lacking fish bones on the Tarkine coast (Legge 1929:325; Pulleine 1929:311-312; Hiatt 1967:191; Jones 1974:133; Bowdler 1974:18-19; Lourandos 1970: Appendix 6; Stockton and Rodgers 1979; Ranson 1980; Stockton 1984b:61; Collett et al 1998a and 1998b) are a remarkable expression of the specialised and more sedentary Aboriginal way of life.' This value may be further explained and contextualised by the following information provided in the National Heritage database for the WTACL: 'During the late Holocene, the beaches, rocky shores and coastal dune fields of western Tasmania provided the setting for a specialised and semi-sedentary Aboriginal way of life based on a strikingly low level of coastal fishing and a dependence on seals, shellfish and land mammals. Along the coast, a suite of sites including large and complex middens, stone artefact scatters, hut depressions, stone arrangements and petroglyphs provides evidence for this way of life. These cultural</p>



Place	Impact
	<p>heritage values are important to the Tasmanian Aboriginal community. Investigations have resulted in the identification of a very large number of Aboriginal heritage sites within the APCA and the two adjoining reserves. The sheer number of sites, the rich diversity of site types present, the comparative rarity of some of these site types, and the comparatively in-tact nature of many of the sites makes this one on the richest and most significant Aboriginal cultural heritage landscapes present in Australia. Moreover, there is a reasonably extensive ethnohistoric record of Aboriginal occupation in this region, which provides important supportive information for the archaeological record. The entire area is of great significance and importance for Tasmanian Aboriginal people.' NATURE AND EXTENT OF IMPACT: The tracks have been in existence for a number of decades and have been established over time in an ad hoc manner. In many instances they have been inappropriately sited and impact on cultural heritage, particularly middens. Continued illegal use has led to additional damage to cultural heritage values traversed by the tracks and also through the passage of ORVs diverting from the main existing track either to seek alternative routes or in an effort to seek driving challenges. Impacts from this illegal use include the crushing of cultural materials, de-stabilisation of middens and dune systems and exposure of cultural material. The proposed action is intended to ensure that these impacts do not occur as a result of the designation of the tracks for ORV use. While there are no recorded hut depressions or seal hides in proximity to the proposed action, it is understood from the deliberations of the Federal Court proceedings that the value of the WTACL in proximity to the tracks consists of the suite of cultural sites and material and their place in the landscape in the context of the stated value of the WTACL in the National Heritage listing. The proposed minor works associated with the establishment of the optimal route are intended to stabilise lengths of</p>



Place

Impact

the existing track that will be used under the regulated access regime, to direct vehicles to alternative routes that avoid cultural heritage or vulnerable landscape features and to close and rehabilitate redundant track sections. The proposed works on the existing tracks largely comprise the laying of removable surface material such as geo-textile or plastic matting, which will introduce a foreign material into the landscape. These materials will protect the underlying cultural values. While the cultural material exposed in the track footprint will be concealed, there are many other comparable examples in the landscape of accessible and naturally visible values and concealment of material in these small sections will ultimately lead to their long term protection. Approximately 480 m within the designated tracks has exposed cultural material within the footprint that will be concealed as a result of the proposed works. Diversion and re-routing of the track to avoid cultural values or landscape features will also be undertaken. In particular, re-routes at Johnsons Head and Dago Plains will allow for track sections that traverse, or are in proximity to, significant cultural values to be closed and rehabilitated. The use of directional markers and signage will also result in the introduction of foreign material but this is to achieve a net benefit: the avoidance of cultural values. The use of surface protective material, directional signage, minor drainage works, such as the placement of culverts, will require some disturbance of subsurface material. Without mitigation the works may have a visual impact on the landscape, although it should be noted that closure and rehabilitation of redundant track sections will have a long term benefit of mitigating the visual impact of the current track footprints. Most of the proposed works are minor in extent. Some are more substantial or may be in more exposed and visible locations. Areas of track stabilisation will be covered in sand, are within the existing track footprint and are not expected to have a significant visual impact. Fences are not expected to be visually



Place	Impact
	intrusive on a wider scale but may have localised visual impacts. The low relief of the area and limited sightlines will allow visual impacts to be minimised. The minor works, in combination with route optimisation, annual survey, access regulation and compliance, will minimise or remediate impacts on the values of the WTACL and the action will not have a significant impact.

2.2.2 Do you consider this impact to be significant?

No

2.3 Is the proposed action likely to have ANY direct or indirect impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Lowland Native Grasslands of Tasmania	DESCRIPTION: There are a number of small patches of Lowland Themeda triandra grassland scattered between the Italian River and Lagoon River, with a larger area (approximately 12 ha) in the vicinity of Johnsons Head. Between the Arthur River and the Lagoon River the community occupies approximately 20-30 ha. These areas are shown in the attached location and values maps and are derived from the TASVEG digital vegetation map: http://dPIPWE.tas.gov.au/conservation/development-planning-conservation-assessment/planning-tools/monitoring-and-mapping-tasmanias-vegetation-(tasveg)/tasveg-the-digital-vegetation-map-of-tasmania . Track 501 traverses the south-western margin



Species	Impact
	<p>of the larger area at Johnsons Head. Assessment in 2011 suggests that this area has a high probability of meeting the guidelines for classification as Lowland Native Grassland of Tasmania. As a precautionary measure this community will be considered to meet those guidelines. Current threats include the introduction of weeds and physical disturbance from illegal ORV use. NATURE AND EXTENT OF IMPACT: Re-routes will not be put through this community. Indirect impact may occur from weed introduction as a result of either ORV use or from the conduct of the proposed works. However, this risk can be effectively mitigated through regulation of access and standard construction prescriptions for weed and disease control. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the condition of the grasslands and the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will ensure protection of the communities and therefore there will be no significant impact on those communities.</p>
Neophema chrysogaster (Orange-bellied parrot)	DESCRIPTION: There are fewer than 50 birds in the wild and the last known breeding site is Melaleuca in south-west Tasmania. Breeding occurs between November and March, and the birds overwinter on the coast of south-east mainland Australia between April and October. The migration route follows the west coast of Tasmania and there have been a number of observations along the APCA coast, including in proximity to the proposed action. Birds return generally between October and November and begin migration from February. During migration, birds may stop to feed anywhere along the west and northwest coasts. Favoured habitats during migration include saltmarshes, beaches, coastal dunes and heathland. They eat a range of native and exotic seeds, glasswort sea rocket, buzzy, grasses and sedges. Key threats are loss of habitat,



Species	Impact
	<p>including through disturbance and, due to the small population: disease, stochastic events and predation. NATURE AND EXTENT OF IMPACTS: Works proposed as part of the action are to be of limited extent and would not be expected to impede either migration or foraging across the area of the proposed action. The potential patches of Lowland Tasmanian Native Grassland, in particular the larger area in the vicinity of Johnsons Head, may provide foraging habitat for migrating individuals. Disturbance from activities associated with the proposed works or inappropriate track routing in proximity may have an impact on the utilisation of that particular habitat. The areas of grassland will be avoided and will be protected as a result of the works. Works in the immediate vicinity of the grassland at Johnsons Head would be undertaken outside of the migration season. More general disturbance impacts associated with the proposed works are unlikely due to their localised and limited extent. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the condition of the grasslands and the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will ensure protection of the grassland communities that may provide foraging habitat for the species and directly for the species itself and therefore there will be no significant impact on the species.</p>
Thinornis rubricollis rubricollis (Hooded Plover)	<p>DESCRIPTION: Occurs on wide beaches backed by dunes with large amounts of seaweed and jetsam, creek mouths and inlet entrances. The breeding period (pairing, nesting, fledging) is from 1st September through to 31st March. Nests are found above the high water mark on flat beaches, on stony terraces, or on sparsely vegetated dunes. The species has been recorded from the shoreline throughout the length of Track 501 and is regularly observed. This was confirmed during a field visit in February 2017 where 67</p>



Species	Impact
	<p>individuals were observed from the full extent of Track 501. There are 22 records for hooded plovers between Sandy Cape and the mouth of the Pieman River. Seventeen of these are post-2000. The number of post-2000 records of the hooded plover from the footprint is broadly similar to those of other similar sandy coastlines in the State's north-west, north, and east. The species is vulnerable to general disturbance while nesting and foraging and the destruction of nests from ORV use and other activities above the high tide mark. NATURE AND EXTENT OF IMPACT: There are no proposed works within nesting habitat. Beaches will not be traversed above the high tide mark as a result of construction of the minor works. Re-routing and signage will direct users away from potential nesting habitat wherever practical and driving will be restricted to daylight hours. There is likely to be some unavoidable disturbance to foraging birds with heightened risk to foraging juvenile birds. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.</p>
Litoria raniformis (Green and Golden Frog)	<p>DESCRIPTION: Although there are no records of this species from within the proposed works area, the area is within its range and there are records north of Kenneth Bay, 16 km to the north of the start of Track 501. Suitable habitat may be present in the form of small wetlands, some of which have been previously impacted by illegal ORV use. NATURE AND EXTENT OF IMPACT: The proposed minor works will avoid all potential wetland habitat and will also provide protection for wetlands and will not impact the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed</p>



Species	Impact
Oreisplanus munionga larana (Marrawah Skipper)	<p>mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the potential habitat and therefore there will be no significant impact on the species.</p> <p>DESCRIPTION: Known only from the coastal and near-coastal areas of the northwest coast of Tasmania, it is exclusively associated with the tussock-sedge <i>Carex appressa</i>, which is its larval host and food plant. Its preferred habitat in the APCA is <i>Carex appressa</i> sedgeland at the margins of poorly drained paperbark (<i>Melaleuca ericifolia</i>) scrub and forest. There are three areas identified as potential habitat in the vicinity of Track 501 that are at some risk from illegal ORV use; <i>Carex appressa</i> sedgeland at Johnsons Head and aquatic wetlands between the Italian and Lagoon Rivers with <i>Carex appressa</i> at the margins. A patch of <i>Carex appressa</i> has been recorded north of Rupert Point near Track 601. NATURE AND EXTENT OF IMPACT: The proposed works are minor in extent, are almost entirely within an existing footprint, will avoid all potential habitat and will not impact on the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the potential habitat and therefore there will be no significant impact on the species.</p>
Pterostylis cuculata (Leafy Greenhood)	<p>DESCRIPTION: In Tasmania the Leafy Greenhood is found on three islands off the north west coast of Tasmania: King Island, Hunter Island and Three Hummock Island and on the mainland at Gardiner Point (Arthur River) and the northern Possum Banks area, both in near coastal areas in the northern APCA. The Lowland <i>Themeda triandra</i> grasslands at Johnsons Head and between the Italian and Lagoon Rivers may provide habitat. NATURE</p>



Species	Impact
	<p>AND EXTENT OF IMPACT: The proposed works are minor in extent, are almost entirely within an existing footprint, will avoid potential habitat and will not impact the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.</p>
Dasyurus maculatus maculatus (Spotted-tail Quoll)	<p>DESCRIPTION: Habitat important to the Spotted-tailed Quoll includes large patches of forest containing adequate denning sites and high densities of mammalian prey such as rats, possums and small wallabies. The species has an extensive home range, from several hundred to several thousand hectares. They are known to use multiple dens and change dens every 1–4 days. Den sites have been recorded in a variety of locations including rock crevices, hollow logs, hollow tree buttresses, tree hollows, windrows, clumps of vegetation, caves, boulder tumbles, under buildings, and in the dens of rabbits and wombats. Female Spotted-tailed Quolls (Tasmanian population) are known to dig burrows when a suitable substrate is available. The species has been recorded in the vicinity of Track 501 but is likely to range through the general area traversed by all three tracks. NATURE AND EXTENT OF IMPACT: Given the extent of their range and their tendency to occur in low densities the minor works would not be expected to have a measurable impact, particularly as the works are almost entirely within an existing footprint, however there is a small risk that rerouting or other works could impact unrecorded den sites. Survey of proposed re-routes would allow dens to be identified and avoided. The species is highly unlikely to suffer from road kill due to the low speeds required by vehicles on the tracks and driving will be restricted to daylight hours.</p>



Species	Impact
Sarcophilus harrisii (Tasmanian Devil)	<p>The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.</p> <p>DESCRIPTION: Open forest and woodland habitats are preferred, while tall or dense wet forests are avoided. The highest population densities are found in mixed patches of grazing land and forest or woodland. Tasmanian Devils tend to travel through lowlands, saddles and along creeks, avoiding steep slopes and rocky areas, and favouring predictably rich sources of food such as carcasses, rubbish dumps, and roads. Dens are typically underground burrows (such as old wombat burrows), dense riparian vegetation, thick grass tussocks and caves. The main threat to this species is Devil Facial Tumour Disease. To date, there have been no reports of DFTD occurring within the Arthur Pieman Conservation area. The closest recorded cases of DFTD are at Kanunnah Bridge, 40km to the north east of Track 501, and Granville Harbour, 20 km to the south of Track 601. As both of these areas were first recorded with DFTD in 2015, it is likely that the disease has spread further. In the case of the Granville Harbour record, the Pieman River represents a substantial obstacle to disease spread into the APCA, but the Kanunnah Bridge case could easily spread west towards the APCA. Tasmanian devils have been recorded at the Pieman River heads and at Rupert Point on Track 601 but would be expected to potentially occur throughout the area traversed by all three tracks and this is confirmed by evidence of scats and tracks.</p> <p>NATURE AND EXTENT OF IMPACT: Given the extent of their range and the likelihood of low densities the minor works would not be expected to have a measurable impact, particularly as they occur</p>



Species	Impact
	<p>almost entirely within an existing footprint, however there is a small risk that re-routes or other works could impact unrecorded den sites. Survey of proposed re- routes would allow dens to be identified and avoided. The species is highly unlikely to suffer from road kill due to the low speeds required by vehicles on the tracks and driving will be restricted to daylight hours. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.</p>
Caladenia dienema (Windswept Spider-orchid)	<p>DESCRIPTION: Occurs in windswept low heathland among dwarfed shrubs and sedges on moist to well-drained sandy and clay loam. Rocky outcrops and rocky open heathy woodland are strongly associated with many occurrences of the species but it can extend into shrubby forests, usually dominated by Eucalyptus obliqua. Known from eight populations, all coastal or very near coastal, ranging from West Point to Conical Rocks, on Tasmania's west coast. The species has not been recorded from within proximity to the tracks but there may be suitable habitat. The population at Conical Rocks (south of the Pieman River) is approximately 2.5 km from the end of Track 601. NATURE AND EXTENT OF IMPACT: The proposed works are minor in extent, are almost entirely within an existing footprint, will avoid potential habitat and will not impact the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on</p>



Species	Impact
Prasophyllum pulchellum (Pretty Leek-orchid)	the species. DESCRIPTION: The species grows in low heath which becomes extremely dense in years following fire. Plants have been found among rushes and sedges on gentle slopes just above colonies of stunted <i>Melaleuca squarrosa</i> . Soils are moist to wet sandy loams or peaty loams. It is known only from widely scattered localities in the north and south of Tasmania. In the APCA it is known from one location, Bluff Hill Point, north of Arthur River. The species has not been recorded from within proximity to the tracks but there may be suitable habitat. NATURE AND EXTENT OF IMPACT: The proposed works are minor in extent, are almost entirely within an existing footprint, will avoid potential habitat and will not impact the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.
Pterostylis ziegeleri (Grassland Greenhood)	DESCRIPTION: The Grassland Greenhood is known from 19 subpopulations in Tasmania, almost all of which are in the Midlands or coastal areas across the east and north east. One site has been identified at Marrawah, beyond the northern extent of the APCA. In coastal areas it is found on the slopes of low stabilised sand dunes and in grassy dune swales. The species has not been recorded from within proximity to the tracks but there may be suitable habitat. NATURE AND EXTENT OF IMPACT: The proposed works are minor in extent, are almost entirely within an existing footprint, will avoid potential habitat and will not impact the species. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route



Species	Impact
	establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.

2.4.2 Do you consider this impact to be significant?

No

2.5 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed migratory species, or their habitat?

Yes

2.5.1 Impact table

Species	Impact
Calidris ruficollis (Red-necked Stint)	<p>DESCRIPTION: In Australasia, the Red-necked Stint is mostly found in coastal areas, including in sheltered inlets, bays, lagoons and estuaries with intertidal mudflats, often near spits, islets and banks and, sometimes, on protected sandy or coralline shores. Occasionally they have been recorded on exposed or ocean beaches, and sometimes on stony or rocky shores, reefs or shoals. They also occur in saltworks and sewage farms; saltmarsh; ephemeral or permanent shallow wetlands near the coast or inland, including lagoons, lakes, swamps, riverbanks, waterholes, bore drains, dams, soaks and pools in saltflats. It roosts in sheltered areas including within vegetation and forages on exposed wet sand or immediately below the tideline. It breeds in the northern hemisphere, arriving in Australia around October and departing late February or March, although first year birds may reside in Australia. It is commonly observed foraging on beaches between Sandy Cape and the Interview River.</p> <p>NATURE AND EXTENT OF IMPACT: There are no proposed works in typical foraging habitat and the area as a whole is not a significant habitat for the species which prefers</p>



Species	Impact
	more sheltered coastal environments. The annual survey and the compliance and education function of the proposed dedicated compliance staff will ensure that the effectiveness of the proposed mitigation measures are closely monitored. The proposed works, annual survey, optimal route establishment, regulation and compliance will provide effective protection of the species and therefore there will be no significant impact on the species.

2.5.2 Do you consider this impact to be significant?

No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

No

2.7 Is the proposed action to be taken on or near Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place



Overseas?

No

2.13 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

No



Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

FLORA

Much of the extent of Track 501 traverses active dunes and beach with generally minimal vegetation. These areas are interspersed with complexes of scrub and heath. An area of Lowland *Themeda triandra* grassland community occurs in the vicinity of Johnsons Head with scattered patches between the Lagoon and Interview Rivers. Small wetland communities occur that support aquatic hermland, sedgeland and rushland and lacustrine hermland. There are minor expressions of *Melaleuca ericifolia* swamp forest in wetter areas. Beyond the dune complexes are areas of wetter scrub that extend to within proximity of the track. Track 503 traverses these coastal vegetation communities before entering the more elevated inland area of buttongrass moorland with patches of wet eucalypt forest and scrub associated with watercourses and less exposed areas with deeper and more fertile soils. Track 601 traverses coastal scrub and heathland complexes before entering an area of more diverse vegetation between Ruperts Point and the Pieman River. In this area the coastal scrub complexes are interspersed with buttongrass moorland and more extensive areas of coastal heath. The rocky coastline supports a mosaic of succulents, marsupial lawns and wet herbfields as well as wind-pruned coastal heaths dominated by *Cyathodes abietina* and *Leptospermum scoparium*.

The Lowland *Themeda triandra* grassland community is dominated by velvet tussock grass (*Poa rodwayi*) with a rich assemblage of herbs in the intertussock spaces. The low shrubs *Acrotriche affinis*, *Beyeria lechenaultii* subsp. *latifolia*, *Hibbertia sericea*, *Leucopogon parviflorus* and *Spyridium vexilliferum* are sometimes sparsely emergent from the grass sward. The community occurs on stabilised near-coastal calcareous dunes.

Wetlands typically occur in association with swamp forests at the inland margin of coastal dunes where the surface drainage from the hinterland has been impeded. Many of the wetlands dry out for extended periods, the aquatic plant species being reduced to vegetative tubers that survive in the wetland soil. Freshwater aquatic hermland may include conspicuous emergents such as water ribbons (*Triglochin procera*) and running marsh flower (*Villarsia reniformis*), with species such as water milfoils (*Myriophyllum* spp.) and pondweeds (*Potamogeton* spp.). Freshwater aquatic sedgeland and rushland tends to be dominated by sharp clubsedge (*Schoenoplectus pungens*). Lacustrine hermland includes marsupial lawns and herbfields that grow at the margins of wetlands or where the water table is at or very close to the surface for most of the year. They are characterised by a single, low-growing vegetation layer. Grazing pressure by native animals often keeps the community less than 5 cm in height. Wetland communities are listed as a Threatened Native Vegetation Community under the Tasmanian



Nature Conservation Act 2002.

Coastal heathland and wet heathland communities are locally common in the APCA within 2–3 km of the coast on acidic old sand dunes and windblown sand sheets. Species composition and diversity in the heathlands display considerable local variation, reflecting differences in soil characteristics, drainage and fire history. Coastal heathland and wet heathland communities are commonly dominated by soft-fruited tea-tree (*Leptospermum glaucescens*) dry heath and scented paperbark (*Melaleuca squarrosa*) wet heath, respectively. Additional communities include mallee peppermint (*Eucalyptus nitida*) dry heath, honeysuckle (*Banksia marginata*) dry heath, coast tea-tree (*Leptospermum laevigatum*) dry heath and swamp paperbark (*Melaleuca ericifolia*) dry heath.

Extensive areas of treeless vegetation characterised by the presence of buttongrass (*Gymnoschoenus sphaerocephalus*) occur on siliceous substrates in the far east and southeast of the APCA as traversed by Track 503. Buttongrass moorland occurs in flattish to gently undulating areas on very poorly drained acidic podzol peats.

Melaleuca ericifolia swamp forest occurs as pure or almost pure stands, forming a dense canopy over a simple, sedgy understorey and occurs in poorly drained or intermittently waterlogged areas, typically in dune swales or at the margins of dune-barred wetlands. *Carex appressa* sedgeland may fringe the forest.

Coastal scrub on sands are generally dominated by *Acacia longifolia* subsp. *sophorae* and *Leucopogon parviflorus* with *Hibbertia sericea* and *Isolepis nodosa*, grading into dry scrubs dominated by *Banksia marginata* and/or *Melaleuca ericifolia*. Dry heaths are generally dominated by *Leptospermum glaucescens* and *Acacia mucronata*.

A number of flora species not listed under the EPBC Act but listed under the Tasmanian *Threatened Species Protection Act 1995* have been recorded in the vicinity of the tracks:

Amphibromus neesii, southern swampgrass (rare)

Euphrasia collina, subsp. *tetragona*, northcoast eyebright (endangered)

Lotus australis, Australian trefoil (rare)

Ranunculus acaulis, dune buttercup (rare)

Spyridium vexilliferum var. *vexilliferum*, helicopter bush (rare)

Veronica novae-hollandiae, coast speedwell (vulnerable)

Amphibromus neesii is a perennial grass and has been recorded from the grassland at Johnsons Head. A single individual of *Euphrasia collina*, subsp. *tetragona* was recorded inland of Track 501 in 1954 but is not considered to be a reliable record. *Lotus australis* is a perennial herb found within *Poa* tussock grassland, low coastal shrubbery and on dunes. It has been recorded at Johnsons Head, Dago Plains and Rupert Point. *Ranunculus acaulis* is a perennial



herb found in seepage areas on the seaward sides of dunes and in swales that in some cases have been impacted by illegal vehicle use. It has been recorded throughout the length of the tracks with a significant population at the Italian River. A key threat to this species is the expansion of sea spurge. *Spyridium vexilliferum* var. *vexilliferum* is a shrub found in sandy heaths and rocky outcrops. It is sensitive to fire frequencies longer than 5-6 years and *Phytophthora cinnamomi*. A single individual has been recorded from Track 501 near Dago Plains. *Veronica novae-hollandiae* has been recorded north of the Interview River through to Johnsons Head where it grows in sandy littoral banks and herbfields. Expansion of sea spurge is also a threat to this species.

FAUNA

The relative remoteness and natural condition of the APCA and the varied topography and vegetation within it provide an important range of habitats for fauna. The coast of the APCA serves as an important part of the Bass Strait migratory corridor for many bird species including the nationally endangered orange-bellied parrot, and provides valuable breeding habitat for numerous shore birds that are threatened elsewhere in Australia.

Within proximity to the tracks the following species listed under both the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) (additional to those discussed in Section 2) have been recorded:

Aquila audax fleayi (Wedge-tailed Eagle), TSPA-endangered, EPBC-Endangered

Prototroctes maraena (Australian Grayling), TSPA-vulnerable, EPBC-Vulnerable

Ceyx azureus diemenensis (Tasmanian Azure Kingfisher), TSPA-endangered, EPBC-Endangered

Sterna nereis subsp. *nereis* (fairy tern), TSPA-vulnerable, EPBC-Vulnerable

Haliaeetus leucogaster (White-bellied Sea-Eagle), TSPA-vulnerable, EPBC-Marine

Aquila audax fleayi is endemic to Tasmania and is known to occur in all habitats throughout the State. The species requires old-growth forest on sheltered sites for nesting and this, combined with territorial behaviour, act to limit its breeding range and potential. It has been recorded inland from the tracks and elsewhere within the APCA. The species forages in all habitats from coastal dunes to mountain peaks. In general the habitat in proximity to the tracks is unsuited for nesting due to an absence of the tall trees generally utilised. The area may be utilised as foraging habitat although there are no recorded sightings within 1km of the tracks.

Haliaeetus leucogaster is distributed around the coastal perimeter and inland lakes of Tasmania. The population in Tasmania is non-migratory. It has less specific nesting requirements than *Aquila audax fleayi*, although it will favour larger trees when available, especially on mainland Tasmania and large islands. Generally, this species nests in mature forests within 5km of a large water body or more rarely on sea cliffs and rock stacks.



Occasionally on offshore islands, they nest in low coastal scrub where cliffs or tall trees are not available. Large estuaries and convoluted coastlines are the favoured sites for both nesting and foraging as these provide a longer interface between land and water. Density is lower on the west and south coasts, possibly due to the lack of forest sheltered from high winds. No nests have been recorded from within 1km of the tracks. The area would be expected to be utilised as foraging habitat and the species has been recorded in the vicinity of Sandy Cape.

Prototroctes maraena has been recorded from the lower Pieman River but there are no records in proximity to the tracks. It is a diadromous species that migrates between fresh and marine waters. Most of its life is spent in freshwater, but at least part of the larval and/or juvenile stages are spent in coastal seas. Spawning occurs in fresh water, from late summer to winter, the timing varying with location and between years. It has not been recorded within proximity to the tracks.

Ceyx azureus diemenensis is found along the forested margins of major rivers, where it usually occurs in shady and overhanging forest vegetation. It is found on rivers on the south, west, north and northwest coasts with outlying occurrences in the northeast, east, centre and Bass Strait islands. The species catches prey by plunging from perches overhanging the water. The nest is in the end of a narrow tunnel drilled in an earth bank beside or very close to water. It has been recorded in the vicinity of the Pieman River which is typical habitat as the dense riparian forest provides perching opportunities over deep water. The species has not been recorded in proximity to the tracks and potential habitat was not identified during the 2007 natural values survey of the tracks as the coastal streams do not generally consist of deep reaches with overhanging, thick vegetation.

Sterna nereis subsp. *nereis* is a small piscivorous bird that occurs along the coasts of Victoria, Tasmania, South Australia and Western Australia; occurring as far north as the Dampier Archipelago near Karratha. The species nests on sheltered sandy beaches, spits and banks above the high tide line and below vegetation. The subspecies has been found in embayments of a variety of habitats including offshore, estuarine or lacustrine (lake) islands, wetlands and mainland coastline. The bird roosts on beaches at night. The subspecies may migrate within southern Western Australia and Tasmania, where they are seen less frequently during the winter months. It has been recorded on an off-shore island south of Sandy Cape. It has not been recorded within proximity to the tracks.

The following species of conservation significance have been recorded within the wider area of the APCA:

Accipiter novaehollandiae grey goshawk (TSPA-endangered)

Arenaria interpres interpres ruddy turnstone

Haematopus longirostris longirostris pied oystercatcher

Haematopus fuliginosus fuliginosus sooty oystercatcher

Limnodynastes peronii striped marsh frog (TSPA-endangered)



Neophema chrysostoma blue-winged parrot

Pezoporus wallicus wallicus ground parrot

Sterna bergii crested tern

Sterna caspia Caspian tern

Thalassarche cauta shy albatross (TSPA-vulnerable, EPBC-Vulnerable)

A variety of shorebird species nest, roost and/or feed on beaches, spits, mouth of estuaries, shingle beds or adjacent dunes. At regular periods throughout the day and night, shorebirds (particularly migratory species) feed on intertidal mudflats and beaches that are exposed at low tide and then roost (rest) at high tide just above the water level. These habitats are rich in invertebrates; a range of food items are consumed including limpets, snails, chitons, mussels, clams, bivalves, pipi, crabs, barnacles, amphipods, worms and sea squirt.

Wetland habitats have been described in Section 2. These provide potential habitat for frogs and other aquatic species. *Perameles gunni* (Eastern-barred bandicoot) is a nationally listed species but is common in south east and northern Tasmania where it has colonised agricultural areas where selective clearing has created a mosaic with native bushland. It is not listed under the Tasmanian *Threatened Species Protection Act 1995*. Although the area of the action is potentially within its range, the species has not been recorded from within 50 km of the tracks.

3.2 Describe the hydrology relevant to the project area (including water flows).

Track 601 terminates at the estuary of the Pieman River, one of the largest rivers draining western Tasmania. The coastline traversed by the tracks features numerous small creeks and streams. The most significant of these are the Interview (between Track 501 and 601), Italian (Track 501) and Lagoon (Track 501) rivers. These are typically incised across elevated inland areas before entering the narrow coastal strip and have limited estuarine features. Wetlands characteristically occur at the inland margin of coastal dunes where the surface drainage from the hinterland has been impeded. These may dry out during the summer months. Track 501 and Track 601 traverse the margins of some wetlands. Mean annual rainfall is approximately 1521 mm. Prevailing onshore winds and large swells are a feature of the coastline.

3.3 Describe the soil and vegetation characteristics relevant to the project area.

Track 501 traverses a dynamic coastline with prominent active features such as massive dunes and sand sheets. The route mainly traverses sandy beaches and deflated sand country. A number of river crossings are required. Sections of rocky coastline force the route inland onto vegetated dunes at Johnsons Head and between the Italian and Lagoon rivers. Active dune features play an important role in the types of vegetation present. The presence of soil-vegetation cover on stabilised sands has a critical role in maintaining dune morphology in these environments and these features can persist for thousands of years despite the nature of the



wind environment. Where the soil-vegetation cover is damaged, exposed sand is likely to be deflated by the wind, potentially triggering sand blows and dune migration.

The following vegetation types occur on Track 501:

1) Beaches — bare sand with occasional marram grass hummocks

(2) Johnsons Head: native grasslands dominated by *Poa rodwayi* occur on stable dunes inland of the existing track; *Melaleuca ericifolia* swamp forest remnants in the swales with *Carex appressa* at margins. Marram grasslands, with sea spurge infestations; mainly exotic grasslands and wet herbfields behind frontal dunes with *Catapodium marinum*, *Plantago major* and sweet melilot (*Melilotus indicus*) prominent; low heathland dominated by *Leucophyta brownii* colonising disturbed dune areas.

(3) Italian–Lagoon Rivers: Exposed hardpan base in north with sparse coastal grasslands dominated by *Austrofestuca littoralis*. Dune areas: succulent herbfields and low heaths dominated by *Carpobrotus rossii* and/or *Leucophyta brownii*; wetlands dominated by water ribbons (*Triglochin* sp.) and *Villarsia reniformis*, with low *Melaleuca ericifolia* swamp forest at margins; native grasslands dominated by *Poa rodwayi*; low dune scrub dominated or co-dominated by *Acacia longifolia* subsp. *sophorae*, *Myoporum insulare* and *Leucopogon parviflorus*, with occasional sea spurge infestations; dry coastal heaths dominated by *Leptospermum glaucescens*.

The coastal section of Track 503 begins in active sand features before traversing largely low relief button grass plains with sandy soils. Vegetation consists of bare sand at the coastal end; coastal scrub on sands dominated by *Acacia longifolia* subsp. *sophorae* and *Leucopogon parviflorus* with *Hibbertia sericea* and *Isolepis nodosa*, grading into dry scrubs dominated by *Banksia marginata* and/or *Melaleuca ericifolia*; wet sedgy heaths dominated by *Melaleuca squarrosa*, with *Leptospermum scoparium*, *Epacris lanuginosa*, *Chordifex hookeri* and the occasional buttongrass; dry heaths dominated by *Leptospermum glaucescens* and *Acacia mucronata*; dry *Eucalyptus nitida* woodland with a heathy understorey.

The geology of the coastal section traversed by Track 601 between the Interview River and Pieman Head comprises Precambrian sedimentary rocks – finely laminated siltstone and mudstone (Interview Siltstone) and interbedded quartzite, siltstone and conglomerate (Rupert Beds). Devonian Granite outcrops out to the east with minor occurrences on the coast between Rocky Creek and the Interview River. The Quaternary geology is characterised by mobile pinkish sands which are best displayed near the Interview River, and fine mostly vegetated white sand forming sand sheets and minor dunes.

The track passes through areas of mobile sand to the immediate south of the Interview River, with colonising plants such as *Leucophyta brownii* and *Carpobrotus rossii*, while stabilised dune areas support scrubs dominated by *Leucopogon parviflorus*, *Acacia longifolia* var. *sophorae* and *Myoporum insulare*. A significant dune-barred wetland is present on the coastal side of the track opposite Lanes Tor, with lacustrine herbfields at its margins. To the south the track follows the coastal terrace: coastal heathland is present on dunes of low relief, the usual co-dominants being *Banksia marginata*, *Aotus ericoides*, *Leptospermum glaucescens* and *Leptospermum*



scoparium. The dunes have impeded drainage from the terrace in places, lower-lying areas supporting wet heathland and scrubs with *Melaleuca ericifolia*, *Melaleuca squarrosa* and *Acacia verticillata* prominent. The rocky coastline supports a mosaic of succulents, marsupial lawns and wet herbfields, as well as wind-pruned coastal heaths dominated by *Leptecophylla abietina* and *Leptospermum scoparium*.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

The most significant natural features beyond those already described are the geomorphological features of the coastal strip. In particular, Track 501 traverses an area containing an outstanding suite of sandy coastal and aeolian landforms, including major transgressive dune fields that extend inland for up to 2 km and can be up to 60m in height. The transgressive sand sheets between Skull Creek and the Interview River are one of the most impressive examples of this type of aeolian feature in Tasmania. It is particularly significant because this section of coastline is generally free of marram grass, which has been used to artificially stabilise mobile sands elsewhere in Tasmania. Significant component features include numerous palaeosols exposed within mobile sand areas. The dune landforms have developed during at least two principal phases of sand deposition. The stratigraphic relationship is significant and clearly exposed at locations near the Italian River. Track 503 traverses some areas containing the geomorphological feature 'Western Tasmania Blanket Bogs'. The soils, part of a more extensive blanket bog soil system in western Tasmania, are globally rare.

3.5 Describe the status of native vegetation relevant to the project area.

In addition to the area of Lowland *Themeda triandra* grassland near Johnsons Head that has potential to meet the criteria as the EPBC listed Lowland Native Grassland of Tasmania, the other native vegetation type of particular conservation significance are occurrences of wetland vegetation communities described in Section 3.1. These are listed under the Tasmanian *Nature Conservation Act 2002* as a Threatened Native Vegetation Community. They occur generally as small dune blocked wetlands, usually perennial in nature. Two more significant wetlands, at Dago Plains (approx. 0.7 ha) and near Lanes Tor (approx. 0.3 ha) are adjacent to Tracks 501 and 601 respectively.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The tracks are between the tidal limit and approximately 30 m asl. Although some dune faces can be steep in gradient the area is generally of low relief.

3.7 Describe the current condition of the environment relevant to the project area.

The area is entirely within reserved land, is remote and is not subject to other land uses (other



than passive recreation) either direct or proximal. As a result the vegetation is in good to excellent condition. There are few weeds with the exception of sea spurge (*Euphorbia paralias*) and marram grass (*Ammophila arenaria*), the latter the subject of past deliberate plantings to stabilise mobile dunes. Marram grass distribution is limited to the northern extent of Track 501. *Phytophthora cinnamomi* is common in susceptible plant communities along the tracks. Catchments draining into the area are in a natural to near natural state. Feral cats and rabbits have been recorded in the area.

The most evident impact on the environment of the study area has been the historical establishment of the tracks and resultant erosion and exposure of unstable sand deposits, and their ongoing illegal use, in particular the creation of alternative or secondary routes and areas of braiding. The impacts of this use have been described in other sections of the referral.

3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.

Not applicable

3.9 Describe any Indigenous heritage values relevant to the project area.

The cultural heritage values of the WTACL have been broadly described in Section 2.2. This section expands on that description and is intended to be read as further contextualisation, focusing on the value of the WTACL described in the National Heritage listing within the area of the tracks. The cultural heritage of the WTACL and the APCA more generally is important in terms of the wider story of the Aboriginal occupation of Tasmania and of western Tasmania in particular. Furthermore that cultural heritage is not restricted to tangible evidence but also the intangible. This context is provided in the National Heritage List database and in the 2010 Cultural Heritage Management Australia report: *An Aboriginal Cultural Heritage Assessment of Designated Vehicle Tracks within the Arthur Pieman Conservation Area* and which also largely forms the basis of this description. More detailed description is provided in the report. It is also acknowledged that the cultural heritage of the area can only be fully known by Tasmanian Aboriginal people.

The sheer number of sites in the wider APCA, the rich diversity of site types present, the comparative rarity of some of these site types, and the comparatively intact nature of many of the sites makes this one of the richest and most significant Aboriginal cultural heritage landscapes present in Australia. The tangible values are also informed by a reasonably extensive ethnohistoric record of Aboriginal occupation. The area traversed by the tracks is representative of this landscape, although it does not have some of the more unique sites known from areas to the north such as West Point and Sundown Point. Nonetheless the individual 'sites' and associated archaeological material are considered collectively from a landscape perspective and in the context of the WTACL as a whole.

Archaeological sites in proximity to the tracks are predominantly midden sites with artefact scatters and isolated artefacts. Middens range in thickness from thin scatters to stratified



deposits of shell and sediment up to 2 m thick. In addition to shell which has accumulated as food refuse, shell middens usually contain other food remains such as bone, and humus from the decay of plant and animal remains. They also commonly contain charcoal and artefacts made from stone, shell and bone. The largest of the midden sites tend to be situated at the interface between rocky shorelines where there are extensive tidal rock platforms present and sandy beaches where there are bordering sand dune deposits. These sites tend to have the richest assemblage of material in terms of shell species diversity and the range of material, such as bone and artefacts. The density of midden sites along sandy beach shorelines, where there are limited associated rock platforms, tends to be low. Sites are most commonly located at the rear of the fore-dune systems. Those midden deposits that are present along sandy shorelines tend to be comparatively small and they are generally less diverse. The density of midden sites along rocky shorelines is comparatively low to moderate. Middens located along rocky shorelines tend to be comparatively small in size, and generally consist of a thin veneer of surface shell material, with little or no depth of midden deposit. Surface artefacts are often associated with these smaller midden deposits. The vast majority of the artefacts present within sites are un-modified flakes and cores. It is apparent that stone resources in the general area were plentiful. The stone material types represented in the assemblages of artefact scatters and middens were black chert, grey quartzites, white quartz and spongalite of varying colour. Stone quarries, hut depressions, rock shelters and seal hides have not been recorded within proximity to the tracks.

From Sea Devil Rivulet, Track 501 runs along the high tide mark of a sandy beach through to approximately 1 km north of Skull Creek. No sites have been recorded on this section of track. From here, the track runs just inland from the coast, across a series of fore-dune systems which interface with extensive tidal rock platforms. Large midden deposits are located on the prominent fore-dune system on the northern margins of Skull Creek. The section between the Skull Creek and the Italian River traverses a very extensive and mobile dune system that fronts a sandy beach. The section from the Italian River to the north bank of Lagoon River traverses a series of prominent coastal dune systems which interface with extensive tidal rock platforms. A number of very large and dense shell midden sites are located along this section of track. The midden deposit on the northern margins of the Lagoon River is one of the largest recorded in the APCA. The section of Track 501 from the Lagoon River to the Interview River is largely confined to active beach, however midden deposits occur in some locations. A rock engraving is also in proximity to the track on this section. Track 503 joins Track 501 in an area characterised by mobile sands with exposed midden deposits. The inland section of Track 503 has not been surveyed for cultural heritage, however the locality type is considered to have a low probability for cultural heritage values. Sites on Track 601 are predominantly shell middens, with some stone artefact scatters. Four of the midden sites are comparatively large, comprising extensive and dense deposits of midden material. These four sites all occur within sand dune systems which interface with extensive tidal rock platforms, with the two largest midden deposits being situated on the sand dune systems that fringe Rupert Point, indicative of the general pattern of site and artefact distribution along Track 601. Along the rocky coastal strip where sand dune systems are not present, sites are significantly smaller with less density of materials present.

The Aboriginal Heritage Register (AHR) records information about Aboriginal heritage sites in Tasmania and is administered by DPIPWE (see attached location and values map). The AHR was searched using a 500 m buffer centred on the tracks, including the full extent of Track 501



north of Sea Devil Rivulet - one hundred and forty four sites have been recorded within the 500 m buffer.

- 91 sites are categorised as midden sites.
- 13 are midden sites with individual artefacts or artefact scatters.
- There are 28 artefact scatters and 11 isolated artefact sites.
- One rock engraving site has been recorded.

It should be noted that midden 'sites' are in fact sometimes extensive areas. Clusters of 'sites' may be better viewed as continuous expressions of cultural heritage consisting of extended areas of middens with attendant artefacts. The records include those documented in the 2010 Cultural Heritage Management Australia report but also include other survey work over time. The total distribution of sites conforms to the general description presented in the 2010 report.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The action area is entirely within the Arthur-Pieman Conservation Area as described in Section 1.12

3.11 Describe any existing or any proposed uses relevant to the project area.

Conservation activities are periodically undertaken as part of the management of the APCA including research and monitoring. Existing recreational use is limited to passive recreation. The potential for commercially led 'tag-along' or guided ORV based tours has been considered and accounted for through the additional vehicle allocation in the proposed regulation of the tracks. An opportunity also exists to facilitate indigenous ecotourism, including proposals which may seek to utilise the commercial vehicle allocation. The proposed vehicle allocation will provide an appropriate limit to commercial ORV use and will therefore avoid future cumulative impacts from ORV based commercial proposals. There are no additional uses proposed for the area other than described in the referral.



Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.

GENERAL MITIGATION MEASURES

Pre-driving Season Survey and Condition Reporting

Prior to the commencement of each driving season the tracks will be assessed and the most appropriate route will be established. The route will be a combination of track sections where surface protection measures have been implemented, robust track sections in a 'natural' state and sections through open or dynamic environments delineated through the use of temporary markers and signage. This work will be informed by an integrated survey and condition assessment. Where required, additional assessment will be undertaken at the end of the permitted driving season.

The following will be the key components of the survey and condition assessment:

- track condition assessment
- ecological values survey of priority areas on the existing route and for any required re-routes (EPBC and State listed communities, flora and fauna: known locations, known or potential habitat)
- cultural values survey of priority areas on the existing route and for any required re-routes
- key habitat condition assessment (wetlands, grasslands, Marrawah Skipper habitat)
- shore bird monitoring (the survey will target Hooded Plover and Red-necked Stint and will include beach areas traversed by the tracks and areas beyond the track route)
- weed and disease assessment (the assessment will target key habitats such as grasslands)



A vehicle track monitoring strategy is in place for the ORV tracks currently open for use in the APCA. This will be extended to the tracks subject to the action and will consist of photo monitoring locations and assessment of priority track lengths. The program is designed to assess the condition and rates of change of vehicular tracks (i.e. depth and width), and to monitor off-track impacts and unauthorised track development, in the context of a Limits of Acceptable Change framework. This will be the track condition assessment component of the annual pre-driving season survey and will allow for baseline data to be established to inform the effectiveness of the works and to monitor trends in condition across the extent of the tracks. Monitoring will be prioritised for sites/track lengths according to track susceptibility, work type and values and will also include areas of rehabilitation and closed track sections.

Works Program

The survey and assessment program described above will be undertaken at each identified site prior to the commencement of the proposed works outlined in Section 1.2 of this referral. Conducting the survey immediately prior to the implementation of the proposed works will provide the most robust information given the dynamic nature of the area, particularly for the cultural values, noting that there already exists a high level of knowledge of the values within the track footprint. The minimum impact, 'light touch' nature of the proposed works will allow for a flexible approach to the works undertaken at individual sites in response to the survey findings. The restriction of access to Track 601 to ATVs, UTVs and trail bikes will ensure that the extent of the required works, including the introduction of material, can be kept to a minimum. The passage of lighter vehicles will improve the efficacy of the mitigation measures. ATVs and UTVs also use lower tyre pressures which reduce impact on the track surface.

A fundamental consideration in determining the types of works to be implemented across the length of the tracks is that the degree of built infrastructure and the amount of introduced material used is to be the minimum required to ensure that the impact of ORV use of the tracks or the impact of the track footprint itself is within an acceptable limit. In addition, to the furthest extent possible, the material used to implement the works will be retrievable.

The works program will require the use of lightweight machinery such as small excavators (not exceeding 3 tonnes) and power barrows. Access and movement of equipment will require the use of UTVs. For Track 601, the work program will be implemented from south to north as the excavator will be barged to the end of Track 601 on the Pieman River. This will ensure that the movement of equipment is over consolidated track sections as the work progresses. The excavator will be used to dig drains and install water bars. The excavator will be walked through Track 601 conducting works along the way, returning over the completed works to the Pieman River to be barged out. Small (one tonne) excavators may be used on all tracks as these can be delivered via helicopter. These small excavators have been successfully used by PWS in other sensitive areas for track construction, including in the Tasmanian Wilderness World Heritage Area. Tractors and trailers will be used on Track 501 to transport materials such as the plastic track hardening panels, sand and gravel for the proposed works. Where required, and to minimise impacts, equipment and materials will be delivered to or transferred within the area by helicopter. Machinery and vehicles will not traverse beach areas known to support shorebirds unless a sufficient area below the high tide limit can be safely utilised to minimise disturbance. PWS has an existing field facility at Sandy Cape, however as work progresses field camps will



be required, particularly on Track 601. All waste will be contained and removed in accord with standard practices employed by PWS for remote field work. Areas occupied by camps or equipment and material storage will have been identified and included in the pre-implementation values surveys. A Construction and Environmental Management Plan (CEMP) with industry best practice methods for minimising impacts during construction will be prepared and implemented. Activities required for the works will be constrained to a 'works corridor'. The corridor will consist of an area no greater than 3 m either side of existing track footprints or 5 m either side of the centreline of any re-routes. Any areas within the works corridor where MNES or other values, including areas of potential habitat, have been identified, will be excluded from it and these areas will be detailed in the CEMP. The corridor excludes temporary campsites and laydown areas, the footprints of which will be minimised as far as practicable.

Regulation, Education, Information and Compliance

The regulation of access through an additional permit system will impose conditions intended to ensure sustainable use. Access to Tracks 501, 503 and 601 will require a permit and this will allow for controlled access. Initial permit allocations are to be capped at 12 vehicles per day with permits valid for 3 days. The closed season ensures that the tracks are used only during the most appropriate time of the year. The tracks will be clearly marked. The restriction of driving to daylight hours will reduce disturbance and the risk of road kill and will ensure that the marked route can be adequately identified by drivers.

PWS has in place a program of education and information targeted at ORV users in the APCA which is primarily implemented through the permit system in place for tracks that are currently available for use. The publication *Recreational Driving Guide: Arthur Pieman Conservation Area* details the area's values and measures to reduce impact. The requirement to gain a permit for use provides the opportunity to adapt information in response to specific issues and this will be continued with the additional regulation of Tracks 501, 503 and 601.

Compliance will have an important role in ensuring that users of the tracks adhere to the permit conditions and are acting responsibly. Compliance efforts and management presence more generally also provide an opportunity for on-going education of users. Compliance operations are already being conducted on the tracks with peak times a continued focus, although out of season use is also addressed due to the potential of proportionally greater impacts from illegal use during the wetter months. Compliance operations currently occur on average at least once a month in the general APCA area.

The key compliance measure will be the establishment of two new 0.7 FTE positions within PWS. PWS will seek Aboriginal applicants for the positions. The positions will be dedicated to undertaking compliance and education throughout the tracks during the driving season and will be supported by other PWS staff with compliance training. It will allow for the values and tracks to be monitored throughout the season, ensuring that markers and signage are in good condition and that the tracks are appropriately identified. This on-ground presence will deter illegal use of the tracks and will allow for early detection of any issues. On ground and aerial compliance efforts will be complimented by remote monitoring devices such as counters and cameras. Compliance operations will also be undertaken outside of the driving season. Failure to comply with permit conditions may result in users being denied future permits and subject to



penalties under relevant legislation and regulations.

Weeds and Disease

There are a number of MNES and other values that may be impacted by the introduction of weeds and disease, in particular *Phytophthora cinnamomi* and *Chytrid* fungus. These have the potential to be brought into the area through ORV use and during the implementation of the works program. Due to the remote location it is not feasible to put in place vehicle washdown facilities at the commencement of Track 501. Risk of introduction of weeds and disease is greatest where vehicles enter the tracks south of Temma with soil material from elsewhere. The key objective is that vehicles are clean prior to entering the track network and this will be undertaken through education and information associated with the permit system.

Weed and disease control during implementation of the works program will be based on the measures outlined in the *Tasmanian Reserve Management Code of Practice* (2003) (<http://www.parks.tas.gov.au/index.aspx?base=7154>) , *Tasmanian Coastal Works Manual: A best practice management guide for changing coastlines* (2010) (<http://dpiuwe.tas.gov.au/Documents/RAA%20Overview.pdf>) and the DPIPWE produced guideline, *Washdown Guidelines for Weed and Disease Control - Edition 1* (<http://dpiuwe.tas.gov.au/Documents/Washdown-Guidelines-Edition-1.pdf>). The key risk to be mitigated is where machinery is moved from outside the area, particularly where it is airlifted into remote sites, or through areas where weeds and disease are known to occur. Hygiene procedures in these guidelines are routinely employed by PWS in remote area works programs and have been proven to be effective. The pre-construction survey effort will identify specific hygiene procedures that may be required. All material will be sourced from quarries assessed by a suitably qualified person as being 'low-risk' for weeds and disease, in accord with standard procedures employed by PWS.

Annual weed and disease monitoring will be conducted as a component of the Pre-driving Season Survey and Condition Reporting. Surveys will identify local weed infestations and the potential presence of *Phytophthora* and will also focus on areas where works or rehabilitation have been undertaken. Areas of weed infestation can be eradicated if feasible and knowledge of weed distribution will assist in route selection. The annual monitoring will also enable any impact of use on the spread of weeds and disease to be identified and therefore addressed through management of track access.

SPECIFIC MITIGATION MEASURES

Western Tasmania Aboriginal Cultural Landscape (WTACL)

While the fundamental purpose of the proposed minor works is to protect cultural heritage values, it is recognised that there is potential for impact on those values through the placement of protective material and through the impact of the works on the wider landscape. To mitigate the impact of the works, each site will be surveyed for Aboriginal cultural values. The purpose of this is to establish a baseline and to minimise both the required extent of the works and the impact of the placement of protective material. The protective material proposed to be used requires only minimal or no intrusion into the subsurface, however the assessment of each site



will allow for the option with the least impact to be taken. Assessment of each site will also identify those areas that can be utilised for the temporary storage of material and equipment during the works.

The imperative of protecting exposed values may not always allow for the minimisation of visual impacts, and it must be recognised that the existing tracks already have an impact on the landscape. Notwithstanding, to the furthest extent possible, the visual impact of the works on the landscape will be minimised. The principle manner in which this can be achieved is through careful selection of material, in particular colour, and through the use of natural material such as sand to overlay materials. The environment of the area is such that in many instances a layer of sand is expected to occur naturally. The use of non-retrievable material such as gravel will be minimised and will not be used where track surface protection is used to conceal cultural material. The overall intention of the proposed action is to reduce the landscape scale impacts of the tracks through route stabilisation, closure of redundant track sections and avoidance of unplanned track development. The generally low relief of the area reduces the risk of impacts from the proposed works on landscape or aesthetic values. The consolidation of a single route and the closure and rehabilitation of redundant track sections will have a net benefit for the aesthetics and integrity of the landscape.

The re-routing of the track alignment at Johnsons Head and at Dago Plains considerably reduces the length of track surface protection works required in these areas and will prevent the use of track sections that traverse areas of exposed midden material. The re-route at Johnsons Head will avoid use of 690 m of track that is proximal to midden sites and that, in one location, traverses a dune crest containing midden material. The minor re-route at Dago Plains will allow a route to be established that links with an existing track footprint to the east. The eastern track footprint will not require surface protection works. This will redirect the route way from a 1.7 km coastal section that includes middens that have previously been traversed by ORVs, therefore avoiding further impacts to these features. Closure of redundant track section at Rupert Point will allow three previously identified cultural heritage sites to be avoided. Immediately south of the Interview River is a significant midden within mobile sands. Material in this vicinity is regularly exposed and concealed as the sands move with the wind. This area cannot be avoided due to the Interview River which can only be crossed at a single point close to the tidal limit. In this area plastic panels will be laid across the surface where material is exposed or is known to be near to the surface, with the remaining route delineated through deeper sands by temporary markers. It is anticipated that the panels and markers will require regular repositioning throughout the driving season. To ensure the effectiveness of this approach, access to Track 601 will be limited to ATVs, UTVs and trail bikes. This will reduce both the weight and width of vehicles allowing for more flexible route selection, will reduce impact from vehicles on the surface protection material and will require less material. The management of this site will be a priority for the dedicated on-ground compliance staff.

Given the changing and dynamic environment there is always the possibility of unanticipated discovery of cultural material. The use of an Unanticipated Discovery Protocol (UDP) is a standard approach and will be implemented in this circumstance. For the proposed action the UDP developed by Aboriginal Heritage Tasmania within DPIPWE will be employed. All employees and contractors working in the area in any capacity will be required to be aware of the UDP.



An important component of the proposed mitigation measures for the WTACL values will be cultural awareness training for employees and contractors. Similar training is already a DPIPWE commitment for the management of the Tasmanian Wilderness World Heritage Area. The training will assist employees and contractors to understand the significance of the cultural values throughout the area, and the legislative protection afforded to them, as well as gaining practical skills in recognising the tangible, material elements of that value on the ground. In this way inadvertent impacts during construction will be avoided while recognition and response to an unanticipated discovery will be enhanced. The presence of dedicated, on-ground compliance staff with an understanding of the values of the area will be an important measure in protecting those values.

The works program will be provided to the Aboriginal Heritage Council and Aboriginal Heritage Tasmania (DPIPWE) for advice. This commitment is additional to the procedural requirements of obtaining permits under the *Aboriginal Heritage Act 1975* for specific components of the works program.

Lowland Native Grasslands of Tasmania

This vegetation community is to be a priority habitat for the Pre-driving Season Survey and Condition Reporting and will be assessed and mapped prior to commencement of the proposed works. Track 501 passes through the seaward margin of the most significant area at Johnsons Head but the route can be retained within the existing footprint. Re-routes through the mapped area will be avoided. The general mitigation outlined for weed and disease control and weed monitoring will also form part of on-going mitigation measures for this community.

Neophema chrysogaster (Orange-bellied parrot)

Potential impacts to the grassland communities may be detrimental to this species. Therefore the mitigation proposed for Lowland Native Grasslands of Tasmania is relevant as a mitigation measure for this species. In addition, possible disturbance impacts will be mitigated by conducting works in proximity to the large grassland at Johnsons Head outside of the migration season.

Thinornis rubricollis rubricollis (Hooded Plover), *Calidris ruficollis* (Red-necked Stint)

Driver education and the establishment of a single, optimal route, will have an important role in mitigating impacts on this species. Signage where tracks join onto beach and other known habitat will reinforce the need to drive below the high tide line. Track markers will be used in key locations to direct the route away from areas of shore bird habitat. The proposed re-routes at Johnsons Head and Dago Plains will direct the track route away from the coast, including a number of beaches where both species have been observed. Disturbance will be reduced by the prohibition on night driving. Shorebird monitoring will be a key component in the Pre-driving Season Survey and Condition Reporting and will inform adaptive management in key areas for the species. The pre-works survey will establish baseline data. Driver behaviour in these areas will be a focus of compliance efforts. As described above, movement of vehicles above the high tide mark during the proposed works program and for management purposes will be avoided except under emergency circumstances. The presence of dedicated on-ground staff on the



tracks will be an important measure in ensuring appropriate driver behaviour and awareness.

Litoria raniformis (Green and Golden Frog)

Although the species has not been recorded from the area of the tracks, the wetlands that might provide suitable habitat will be a priority habitat in the Pre-driving Season Survey and Condition Reporting. Reroutes will not be established through these habitats and current impacts from the existing track footprints will be avoided and rehabilitated through the proposed works.

Oreisplanus munionga larana Marrawah Skipper

The marginal habitat in proximity to the tracks, *Carex appressa* sedgeland at the margins of poorly drained paperbark (*Melaleuca ericifolia*) scrub, will be accurately mapped and assessed prior to commencement of the proposed works and will be an on-going priority for the Pre-driving Season Survey and Condition Reporting. This habitat will not be impacted by the proposed works as the mapping will allow it to be avoided. Re-routes will not be established through this vegetation type.

Dasyurus maculatus maculatus (Spotted-tail Quoll), *Sarcophilus harrisii* (Tasmanian Devil)

Potential dens will be identified during the Pre-driving Season Survey and Condition Reporting as part of any re-route establishment. Re-routes will not be established in proximity to confirmed den sites. The proposed work sites will be surveyed for dens prior to commencement of any works activity. While the low speeds necessarily required to safely traverse the tracks present a low risk for road kill, the prohibition on night driving will further reduce this risk.

Pterostylis cucullata (Leafy Greenhood), *Prasophyllum pulchellum* (Pretty Leek Orchid), *Caladenia diemena* (Windswept Spider Orchid), *Pterostylis ziegeleri* (Grassland Greenhood)

The Pre-driving Season Survey and Condition Reporting will identify the occurrence of any individuals on proposed re-routes and will enable individuals or potential habitat to be avoided. The proposed work sites will be surveyed prior to commencement of any works. While these species are considered unlikely to occur within the track footprint, this will minimise the potential that material storage or other disturbance occurs in known or potential habitat.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.

Western Tasmania Aboriginal Cultural Landscape (WTACL)

- Implementation of the minor works program does not have a significant impact on the values of the WTACL
- Current impact of track footprints will be stabilised – the existing track footprints have initiated and facilitated erosion and the proposed surface protection, drainage and rehabilitation works will stabilise and remediate these impacts



- Redundant track sections (braids and secondary tracks) will be stabilised and rehabilitated to allow for long term recovery
- Re-routes to avoid values and optimise the track routes will provide net benefit to the integrity and condition of the values of the WTACL
- Levels of illegal use including 'off-track' or other inappropriate driving are expected to be reduced substantially and further reduced over time through the proposed mitigation, adaptive management, education and compliance

Lowland Native Grasslands of Tasmania

- No loss of area and no loss of condition as a result of the action

Neophema chrysogaster (Orange-bellied parrot)

- No impact on potential utilisation of grassland habitat during migration as a result of the action

Thinornis rubricollis rubricollis (Hooded Plover), *Calidris ruficollis* (Red-necked Stint)

- No significant impact on either species as a result of the action

Litoria raniformis (Green and Golden Frog)

- No net loss of potential wetland habitat as a result of the action

Oreisplanus munionga larana (Marrawah Skipper)

- No loss of habitat, no loss of habitat condition as a result of the action

Dasyurus maculatus maculatus (Spotted-tail Quoll), *Sarcophilus harrisii* (Tasmanian Devil)

- No impact on confirmed dens as a result of the action
- No significant impact on either species as a result of the action

Pterostylis cucullata (Leafy Greenhood), *Prasophyllum pulchellum* (Pretty Leek Orchid), *Caladenia diemena* (Windswept Spider Orchid), *Pterostylis ziegeleri* (Grassland Greenhood)

- No loss of individuals of these species or confirmed areas of habitat as a result of the action



Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

No

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No



5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

The minor works are intended to mitigate known impacts from ORV use and will occur almost entirely within the existing track footprint and will be constrained within a narrow works corridor. The works are to be limited to the minimum extent required to achieve that aim, will be 'light touch', and use retrievable, non-intrusive material wherever possible. Works on the track surface, including re-routes and stabilisation works, comprise approximately 8.1% of the total length of the tracks. The impact from the works is expected to be minimal, limited to minor subsurface disturbance associated with anchoring materials and the placement of signs, markers and fences or other barriers.

The works are not likely to have a significant impact on matters of MNES or the environment but will contribute significantly to sustainable use of the tracks because: existing track sections through middens and dunes will be stabilised or closed, secondary routes or areas of braiding will be closed and impacts on significant values or features, such as wetlands, will be mitigated or avoided. Approximately 11 km of redundant or braided track will be closed, including tracks sections that run through or are proximal to midden deposits and other cultural heritage features and sections of shoreline that provide habitat for shore birds. Pre-season surveys and monitoring and establishment of the optimal route prior to each driving season will further enable sustainable access to the tracks. The temporary markers will have minimal impact, particularly as they are largely required in dynamic dune and sand sheet environments. Similarly the placement of signage and barriers will also have minimal impact, while contributing significantly to improved outcomes.

The implementation of conditions associated with the designation of the tracks, through the requirement to purchase and gain a permit and the imposition of conditions on that permit, constitutes a restriction on access. The purpose of these restrictions is to ensure that access is allowed for on a sustainable basis. The restrictions limit the time of year that the tracks are open for use, limit driving to daylight hours only, impose a daily limit on permit issue and a limited permit length, and restrict access to Track 601 to ATVs, UTVs and trail bikes.

All of these measures will be regularly evaluated and integrated with the annual Pre-driving Season Survey and Condition Reporting and an on-going compliance program. Key to the



compliance program is the employment of dedicated staff on the tracks with a compliance and education function. The proposed action is intended and expected to have an overall net beneficial impact on MNES and the environment.

Western Tasmania Aboriginal Cultural Landscape (WTACL)

The proposed works are limited to the footprint of the tracks with the exception of minor re-routes, temporary machinery and material storage, and temporary works campsites. Any areas utilised for these purposes will be surveyed prior to the works commencing and the works designed to minimise or avoid potential impacts on natural or cultural values. The works will utilise materials that are sympathetic to the broader landscape and environment and that require either no, or only minor, disturbance to install.

The covering of tracks with stabilising material where they pass through middens or areas containing artefacts will have the effect of concealing that cultural material. However the material has been exposed by the existing track and occurs within its footprint and the laying of stabilising material mitigates against on-going erosion and does not constitute substantial disturbance. Cultural material exposed by natural processes in dynamic environments elsewhere will be avoided through the establishment of the optimal route (and possible re-routing where appropriate) prior to the driving season. Impact on the midden site south of the Interview River will be mitigated through the proposed vehicle restriction which will allow for the effective employment of surface protection materials and temporary markers.

The proposed action will therefore not result in the loss, degradation or damage to the values for which the WTACL is listed as a National Heritage place. The proposed action will not result in those values being notably altered, modified, obscured or diminished.

Lowland Native Grasslands of Tasmania

The grassland areas will be mapped and avoided. No works are proposed beyond the track footprint in areas of grasslands. On-going condition monitoring will be undertaken. No impact expected.

Neophema chrysogaster (Orange-bellied parrot)

The mitigation actions for the Lowland Native Grasslands of Tasmania will avoid impacts on the foraging potential of the grassland habitat. Therefore impacts to the Orange-bellied Parrot are unlikely.

Thinornis rubricollis rubricollis (Hooded Plover)

The species has been recorded, and can be expected to occur, on most beach habitats in the APCA and some disturbance to foraging is expected to occur. The occurrence of the species between Sea Devil Rivulet and the Pieman River, while important, is not significant in the context of the distribution of populations in the APCA or the north west and west coasts of Tasmania. The species is widespread in the extensive areas of habitat present throughout the APCA and has also been recorded commonly on the coast north of Sea Devil Rivulet and south



of Temma including in proximity to ORV tracks and routes.

Nests sites are generally found above the high tide mark. While beaches form part of the track routes, particularly between the Lagoon and Interview rivers, there are no works proposed for these areas. Beach areas will not be utilised by vehicles associated with implementation of the works program unless they can be safely traversed below the high tide mark. Users of the tracks will be directed away from nesting habitat by track markers and signage and driving will be restricted to daylight hours as part of the regulation of the permit system. The proposed action will not have a significant impact on the species.

Litoria raniformis (Green and Golden Frog)

The species has not been recorded in the vicinity of the proposed action. Potential wetland habitats will be mapped, avoided and monitored on an on-going basis. The proposed action is not likely to impact on the species.

Oreisplanus munionga larana Marrawah Skipper

The species has not been recorded. There is very limited potential habitat and this will be mapped and avoided. Habitat will be monitored on an on-going basis. The proposed action is not likely to impact on the species.

Dasyurus maculatus maculatus (Spotted-tail Quoll), *Sarcophilus harrisii* (Tasmanian Devil)

The potential for dens to be impacted is very low and will be mitigated through the proposed survey and monitoring which will allow them to be identified and avoided. While the low speeds required to safely traverse the tracks suggest the potential for road kill will be low, this risk is substantially reduced through the restriction of driving to daylight hours. The proposed action is not likely to impact on these species.

Pterostylis cucullata (Leafy Greenhood), *Prasophyllum pulchellum* (Pretty Leek Orchid),
Caladenia diemena (Windswept Spider Orchid), *Pterostylis ziegeleri* (Grassland Greenhood)

These species have not been recorded in the vicinity of the proposed action. Any occurrence or potential habitat will be identified and avoided. The proposed action is not likely to impact on these species.

Calidris ruficollis (Red-necked Stint)

The species has been recorded, and is expected to be present on beach habitats in the area and some disturbance to foraging may occur. There are no works proposed in foraging areas within beach habitats. The coastline habitat in proximity to the tracks, due to its exposed nature, is not significant in the context of the wider population in Tasmania. The proposed action will therefore not have a significant impact on the species.



Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

The Director of National Parks and Wildlife (the Director) is a statutory position under the Tasmanian *National Parks and Reserves Management Act 2002*. Under the Act, the Director is the managing authority for the APCA. Management of the APCA is required to be in accord with the *Arthur-Pieman Conservation Area Management Plan 2002* and the Act requires the Director to give effect to the management plan. The PWS manages the APCA operationally on behalf of the Director.

The PWS has been managing the land as a conservation area since 1999 and prior to that as a Protected Area under the Tasmanian *Crown Lands Act 1976* since 1982. The PWS manages approximately 46% of Tasmania's land area in trust on behalf of all Tasmanians. This includes 816 reserves, including 19 national parks, covering 2.9 million hectares of land and water. PWS also manages National Heritage places and World Heritage properties.

The PWS employs a systematic assessment process, the Reserve Activity Assessment (RAA), for all new or recurrent works that have the potential for an adverse environmental, social or economic impact (for an overview of the RAA process see <http://dpiuwe.tas.gov.au/Documents/RAA%20Overview.pdf>). The RAA process is used to identify activities requiring detailed assessment and guides the assessment of risks and impacts. This includes legislative and policy compliance as well as biophysical, cultural and social impacts. PWS has a proven track record in implementing significant infrastructure projects, for example, the Three Capes Track and Cradle Mountain Sewage Upgrade, in remote and sensitive areas in a manner consistent with the protection of natural and cultural values. PWS has developed a Monitoring and Reporting System designed to evaluate reserve management against a series of key performance indicators. Operational activities are conducted in accord with the *Tasmanian Reserve Management Code of Practice 2003* and internal environmental and planning policies.

The PWS is a division of the Department of Primary Industry, Parks, Water and Environment (DPIPWE). DPIPWE is the lead Agency in Tasmania responsible for the sustainable management, use and protection of natural resources and cultural heritage. The Secretary of DPIPWE is currently the Director of National Parks and Wildlife. DPIPWE is responsible for natural values management, including conservation of threatened species and communities, and management and protection of Aboriginal and historic cultural heritage. It has considerable expertise and experience in the areas for which it has management responsibility.



6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.

Tasmanian Aboriginal Centre Inc v Secretary, Department of Primary Industries, Parks, Water and Environment [2014] FCA 1443;

Tasmanian Aboriginal Centre Incorporated v Secretary, Department of Primary Industries, Parks, Water and Environment (No 2) [2016] FCA 168;

Secretary, Department of Primary Industries, Parks, Water and Environment v Tasmanian Aboriginal Centre Incorporated [2016] FCAFC 129; (2016) 244 FCR 21, 219 LGERA 64;

Secretary, Department of Primary Industries, Parks, Water and Environment v Tasmanian Aboriginal Centre Incorporated (No 2) [2016] FCAFC 137.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

These details have been provided in Section 1.12 and Section 6.1

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

Yes

6.4.1 EPBC Act No and/or Name of Proposal.

2002/600 - Cradle Mountain Walking Track

2003/1087 - Water management and use – Cradle Valley Sewerage Scheme

2004/1931- Non-toxic palatability – baiting trials – Macquarie Island



2005/2287 - Remote area power supply – Maatsuyker Island

2005/2337 - Waste Management – Cradle Valley

2006/2763 - Lake St. Clair car park

2009/4922 - Cascade Female Factory

2009/5079 - Pest eradication of European rabbits, black rats and house mice

2010/5676 – Remove build up on existing swales around the perimeter of the airport strip

2011/6200 - Tasmanian Parks and Wildlife Service, Department of Primary Industries, Parks, Water and Environment/Tourism and Recreation/Tasman National Park, Fortescue Road/Tasmania/Three Capes Track

2011/6216 - Department of Primary Industries, Parks, Water and Environment/Science and research/Maria Island National Park off the south-east coast/TAS/Translocation of DFTD-free Tasmanian Devils



Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Tasmanian Parks and Wildlife Service (2011) Analysis of Public Responses: Arthur Pieman Conservation Area Sustainable recreational vehicle access http://www.parks.tas.gov.au/index.aspx?base=24170	High	N/A
Tasmanian Parks and Wildlife Service (2012) The Arthur-Pieman Conservation Area Sustainable Recreational Vehicle Access Report 2012 http://www.parks.tas.gov.au/index.aspx?base=26417	High	N/A
Planning for People (2011) The Social Values of the Arthur-Pieman Conservation Area, a study of social values of the reserve for the Circular Head community http://www.parks.tas.gov.au/index.aspx?base=24161	High	Limited by sample size
Department of Primary Industries, Water and Environment (2002) Arthur-Pieman Conservation Area Management Plan 2002 http://www.parks.tas.gov.au/index.aspx?base=6194	High	N/A
Cultural Heritage Management Australia (2010) The Aboriginal Cultural Heritage Assessment of Designated Vehicle Tracks Within the Arthur-Pieman Conservation Area 2010 https://	High	A feature of the area is the concealment and exposure of sites due to sand movement, sites additional to those identified in the survey are known. The survey did not



Reference Source	Reliability	Uncertainties
<p>stors.tas.gov.au/au-7-0095-053 99</p>		<p>cover the full length of the tracks.</p>
<p>Tasmanian Aboriginal Land and High Sea Council (2007) An Assessment of Vehicle Tracks between Greenes Creek and the Pieman River and their Impact on Aboriginal Heritage 2007</p>	<p>High</p>	<p>A feature of the area is the concealment and exposure of sites due to sand movement, sites additional to those identified in the survey are known. The survey did not cover the full length of the tracks.</p>
<p>Department of Primary Industries and Water (2007) The Arthur-Pieman Conservation Area Vehicle track assessment: Geoconservation, Flora and Fauna Values and Impacts Report 2007</p>	<p>High</p>	<p>The report is comprehensive and gives an excellent overview but is 10 years old and is not intended to be used as an ecological assessment report for the proposed works</p>
<p>Schahinger, R. (2002). Near-coastal native grasslands of northwestern Tasmania: community description, distribution & conservation status, with management recommendations. Nature Conservation Report 02/10, Nature Conservation Branch, Department of Primary Industries, Water and Environment, Hobart.</p>	<p>High</p>	<p>Background report only</p>
<p>Natural Values Atlas, accessed 2/3/2017, Department of Primary Industries, Parks, Water and Environment. https://www.naturalvaluesatlas.tas.gov.au/#MapPage</p>	<p>High</p>	<p>Database - reflects survey effort only</p>
<p>Resource Management and Conservation Division (2011) Background Report for Lowland Native Grasslands of Tasmania, Unpublished Report to the Australian Government, Department of Primary Industries, Parks, Water and Environment, Hobart.</p>	<p>High</p>	<p>Background report only</p>



Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

It is not feasible to take no action to manage vehicle use on the tracks. The only viable alternative to the proposed minor works is to put in place a higher level of built infrastructure, including more extensive re-routes, to further formalise the tracks. This course of action was not pursued as, from a mitigation perspective, it is unnecessary, increases risks associated with construction, is prohibitively costly and would not result in the realisation of the recreational value of the tracks.

In the course of the Federal Court proceedings referred to in Section 6.2 (as presently before her Honour Justice Mortimer), it was indicated that the time frame required to prepare relevant supporting information would most likely lead to a referral being submitted in late 2017. This position was based on the need to more fully develop and understand the required works program and to undertake supporting surveys as part of an iterative process in the development of that program. As the work program continued to be scoped this approach was reconsidered. It was evident that the proposed works were limited in scope and could be undertaken using techniques that required minimal disturbance. It has also been determined that the more significant re-route previously contemplated at Johnsons Head could be avoided by undertaking a greater proportion of work within the existing track footprint. A further issue in the establishment of the optimal route is the often dynamic nature of the terrain. For this reason the more adaptive and responsive approach outlined in Section 1.2 was considered preferable. This approach allows for survey work to be undertaken prior to the driving season for dynamic areas where the route will need to be established through directional markers and immediately prior to the commencement of the succession of minor works, as the cultural values in particular in these areas are well understood but subject to changing environmental conditions.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?



No



Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Director

9.2.2 First Name

John

9.2.3 Last Name

Whittington

9.2.4 E-mail

John.Whittington@dpiuwe.tas.gov.au

9.2.5 Postal Address

GPO Box 44
Hobart TAS 7001
Australia

9.2.6 ABN/ACN

ABN

58259330901 - Department of Primary Industries Parks Water and Environment

9.2.7 Organisation Telephone

1300368550



Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Director

9.2.2 First Name

John

9.2.3 Last Name

Whittington

9.2.4 E-mail

John.Whittington@dPIPWE.tas.gov.au

9.2.5 Postal Address

GPO Box 44
Hobart TAS 7001
Australia

9.2.6 ABN/ACN

ABN

58259330901 - Department of Primary Industries Parks Water and Environment

9.2.7 Organisation Telephone

1300368550



9.2.8 Organisation E-mail

Information@dipwe.tas.gov.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy’s guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date:


9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Declaration

I, John Whittington, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:.....  Date: 8 September 2017

I, _____, the person proposing the action, consent to the designation of _____ as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date:

9.3 Is the Proposed Designated Proponent an Organisation or Individual?



Organisation

9.5 Organisation

9.5.1 Job Title

Director

9.5.2 First Name

John

9.5.3 Last Name

Whittington

9.5.4 E-mail

John.Whittington@dipwe.tas.gov.au

9.5.5 Postal Address

GO Box 44
Hobart TAS 7001
Australia

9.5.6 ABN/ACN

ABN

58259330901 - Department of Primary Industries Parks Water and Environment

9.5.7 Organisation Telephone

1300368550

9.5.8 Organisation E-mail

Information@dipwe.tas.gov.au

Declaration

I, John Whittington, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.



Signature: Date: 8 September 2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Director

9.8.2 First Name

John

9.8.3 Last Name

Whittington

9.8.4 E-mail

John.Whittington@dipwe.tas.gov.au

9.8.5 Postal Address

GPO Box 44
Hobart TAS 7001
Australia

9.8.6 ABN/ACN

ABN

58259330901 - Department of Primary Industries Parks Water and Environment

9.8.7 Organisation Telephone

1300368550

9.8.8 Organisation E-mail

Information@dipwe.tas.gov.au

Declaration



I, John Whittington, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:.....*John Whittington*..... Date: 8 September 2017



Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

- 1.
2. apca_chma_main_report.pdf
3. apca_chma_section_2_part1_confidential_not_for_public_release.pdf
4. apca_chma_section_2_part2_confidential_not_for_public_release.pdf
5. apca_chma_section_3_part1_confidential_not_for_public_release.pdf
6. apca_chma_section_3_part2_confidential_not_for_public_release.pdf
7. apca_chma_section_3_part3_confidential_not_for_public_release.pdf
8. apca_vehicle_tracks_assessment_natural_values_report_part1.pdf
9. apca_vehicle_tracks_assessment_natural_values_report_part2.pdf
10. apca_vehicle_tracks_assessment_natural_values_report_part3.pdf
11. epbc_act_protected_matters_report.pdf
12. location_maps_part2_photo_imagery_north.pdf
13. location_maps_part4_ahr_sites_north.pdf
14. location_maps_part5_ahr_sites_south.pdf
15. location_maps_part6_grassland_locations.pdf
16. location_maps_part_1_location_of_proposed_action.pdf
17. location_maps_part_3_photo_imagery_south.pdf
18. location_maps_part_7_wtacl.pdf
19. natural_values_atlas_report.pdf
20. summary_of_proposed_works_part1.pdf
21. summary_of_proposed_works_part2.pdf
22. summary_of_proposed_works_part3.pdf
23. summary_of_proposed_works_part4.pdf