

Community – Kea Project Plan

Arthur's Pass - Canterbury

Funded by: Department of Conservation (CCPF)

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Aim

The aim of the Community – Kea Project Plan is to i) facilitate long-term community kea conservation initiatives and ii) to change the way we think, act and live with kea in our communities. This will be actioned through development of collaborative Community – Kea Project Plans across the South Island. The Arthur's Pass plan will address concerns specific to the local community and threats to the resident kea population.

Project Background

This initial project plan outline has been developed as a result of discussions with communities during the Kea Conservation Trust's (KCT) Winter Advocacy Tour - 20 July – 3 August 2015. The tour was funded by Dulux and supported by Department of Conservation (DOC). The tour theme, "Building a future with kea", aimed to promote a new MOU between communities and kea. This initiative is in line with the new Strategic Plan for Kea Conservation (refer attached document), objective 3: to i) increase positive perceptions of kea and reduce conflict and ii) facilitate formation of community led kea conservation initiatives.

Local Community – Kea Project Plans will be activated by two Community Engagement Coordinator's (CEC's) based in the following areas:

1) Upper half of the South Island: Northern region (Nelson/ Motueka/ Kahurangi), Central North (Nelson Lakes/ Murchison/Arthur's Pass/Christchurch/Mt Hutt) and upper West Coast (Greymouth and Hokitika). There is also the potential to include Kaikoura at a later date (the eastern most population of kea).

2) Lower half of the South Island: Lower West Coast (Franz/Fox Glaciers and Haast), Central South (Mt Cook, Wanaka/Mt Aspiring and the Routeburn/Dart/ Queenstown areas) and Fiordland (Te Anau/ Milford/Murchison mountains).

Each project plan, will be developed in detail over the next two years and will involve creation of an active volunteer network and facilitation of funding streams (external and internal). The plans will take into account eight threats, actual and potential, to the wild kea population which have been identified by kea researchers.

- 1) Predation by introduced mammals
- 2) Lead in kea habitat (e.g. flashings and lead-head nails, tyre weights, lead shot)
- 3) Poorly-deployed pest control devices (e.g. poison baits and traps laid for pest control and aerial 1080 operations)
- 4) Avian diseases

- 5) Climate change (e.g. changes in predator abundance, food availability and habitat quality)
- 6) Accidents with human objects (e.g. motor vehicles, snow groomers, rubbish bins, electricity sub-stations)
- 7) Destruction/removal of nuisance individuals (permitted or illegal)
- 8) Illicit trade in wildlife

Threat focus and mitigation will be area and resource dependant and take into account community interests, expertise and support.

Arthur's Pass

Arthur's Pass is a small alpine village first surveyed in 1864 by Sir Arthur Dudley Dobson, which is sited at 740m above sea level within the Arthur's Pass National Park (1929). There is a permanent resident human population of c30 people which is bolstered year round by visiting bach/crib owners. Annually, a large number of visitors utilise the wider area recreationally; in winter for skiing at the 5 commercial and club ski fields and year round for tramping/mountaineering. In addition to this Arthur's Pass is one of only 3 transit routes through the main southern divide and the only one linking NZ's third largest city, Christchurch, through to the West Coast of the South Island. As such it sees considerable local and tourist traffic annually.

The nearest major towns/cities are Christchurch, located 153 km to the east (a 2 hr drive) and Greymouth and Hokitika to the west (1 hr 15 mins). Castle Hill Village, which has a growing community (pop. c 15), is 40 mins east of Arthur's Pass Village.

Arthur's Pass Conservation Efforts

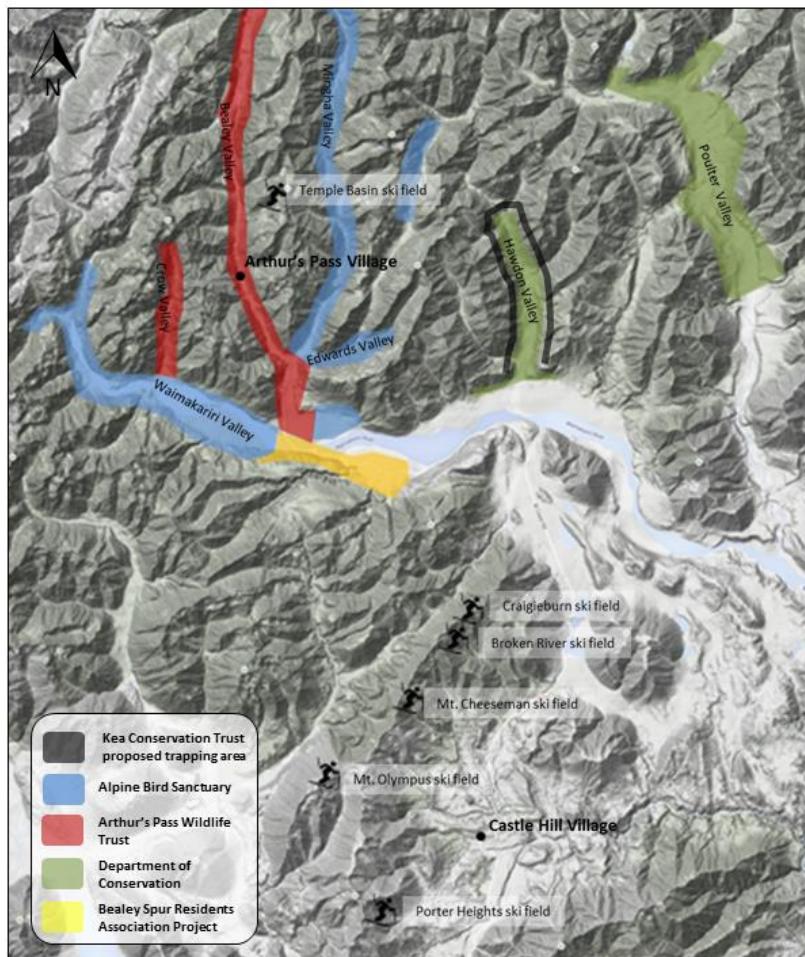
There are a number of pest control programmes (mammalian predator control and wilding pine removal) and species recovery programmes (Orange Fronted Parakeet (OFP) and Great Spotted Kiwi (GSK)) being carried out in the wider Arthur's Pass area. These are being carried out by DOC, Arthur's Pass Wildlife Trust (APWT), Alpine Bird Sanctuary (ABS), Bealey Spur Residents Association (BSRA), the NZ Conservation Trust (NZCT), Canterbury Environmental Trust (CET) and Waimakariri Ecological and Landscape Restoration Alliance (WELRA). Areas of focus include the South Branch of the Hurunui, Craigieburn Forest, Castle Hill, Broken River and Bealey Spur as well as the Crow, Bealey, Mingha, Waimakariri, Poulter and Hawdon Valleys (this last site being the KCT's kea nest monitoring site since 2009). Work carried out is either driven by a relatively small group of dedicated individuals focused predominantly on supporting species lower down in the valleys such as GSK and Whio. There is also a significant trapping and aerial 1080 programme carried out by DOC which is focused on protection of the critically endangered OFP in the Hawdon, Andrews, Poulter & South Branch of the Hurunui (S. Yong pers comm) (refer Table 1 for details).

There is currently no pest control occurring higher up to directly support nesting kea (as is occurring in the Nelson Lakes area) although pest control lower down will be supporting kea populations generally.

Table 1. Location of conservation work carried out by conservation groups in Arthur's Pass.

Group	Location	Activity	Trap #s	Focal species
DOC	Hawdon, Andrews, and Poulter Valleys and the South Branch of the Hurunui	Predator control/ OFP work	4000	OFP
APWT	Crow, Bealey Valleys	Predator control	364	GSK and whio
ABS	Mingha, Edwards and Waimakariri Valleys	Predator control	440	Whio
BSRA	Bealey Spur	Predator control		Restoration
NZCT	Craigieburn Forest, Broken River, Bealey Spur, Castle Hill	Predator control	400	
CET	Craigieburn Forest	Predator control (with the NZCT) and runs the Craigieburn Environmental Education Centre		
WELRA	Castle Hill Basin and Upper Waimakariri Catchment	Wilding pine control	n/a	Wilding pines
KCT	Hawdon Valley	Kea monitoring and proposed predator control	300 (proposed)	Kea

Figure 1. Location of individual organisations carrying out predator control work



Arthur's Pass Kea

Arthur's Pass has been a mecca for kea research since the 1960's. Kea in this area are productive and easily accessible. Long-term studies have been conducted on local kea movements by Jackson (1960's) and behavioural studies by Diamond and Bond (1990's). The Kea Conservation Trust has researched population status and productivity within the Hawdon Valley since 2009 and developed education and advocacy resources for use in the local community. A number of universities are also involved in kea projects focusing on kea behaviour, vocalisations, diet, interactions between visitors to the area and local movement of kea within the alpine village. There is no doubt that this area will continue to be a valuable study site for kea research for as long as kea remain here. Not only does the area provide a unique opportunity to study population dynamics, behaviour and general ecology but it also provides the opportunity to research kea - human interactions, human behaviour in relation to kea, conflict, anthropogenic impacts on kea and threat mitigation. This area also provides a unique opportunity for community involvement in threat mitigation projects.

Although the Arthur's Pass kea population appears to be thriving, most probably due to the pest control efforts taking place in the area, it is also a potentially high risk site for kea as they come into direct contact with humans and their property. Kea have been injured or killed as a result of vehicle incidents, illegal shooting, lead poisoning, electrocution, ingestion of foreign materials, and interaction with pest control devices/poisons. As a result it is thought that the average lifespan of local kea is significantly lower than more remote areas. In addition to this, there are minimal DOC funds available for wildlife response (ie. to transport birds to local veterinary facilities, or to pay for treatment). Currently, there are up to a dozen cases of kea requiring medical attention in the Arthur's Pass area alone each year. Any injured kea handed into DOC are either euthanised (or released to die 'naturally' in the wild) or are taken by DOC or volunteers (APWT and KCT) to Ferry Road Animal and Bird Hospital or Hornby vets, both located in Christchurch (approx. 300kms round trip). There is no consistency when it comes to deciding the fate or treatment of individual birds and there are no funds to reimburse volunteers for expenses incurred (Kates, pers comm). DOC are currently working on an injured bird response document to provide more consistency on decision making (S. Yong, pers comm).

Project Plan Focal Areas

Discussions with the community and researchers over the years as well as recent meetings with the APWT and community during the 2015 Winter Advocacy tour, highlighted the following areas locals wished to get involved with in regards kea conservation: i) reduction of local threats (pest control, removal of lead from buildings), ii) care of injured kea (through support of local community volunteer efforts) and iii) education of visitors to the area to reduce conflict and exposure of kea to dangerous situations. These focal areas may be added to in the future.

i) Reduction of Local Threats (pest control and removal of lead)

Pest Control - Support and expand local pest control efforts to support kea

Aim - This project will look a) to increase the current volunteer pool to support current predator control initiatives in the Arthur's Pass area (currently manned by APWT, DOC, ABS, NZCT, CET and BSR), and b) to extend the trapping area in the Hawdon Valley from the valley floor to protect known kea nest cavities.

Funding - DOC CCPF for Community Engagement Coordinator (CEC) and Dulux (as part of the nest monitoring effort).

a) Support current pest control

Method - Development of a sustainable volunteer programme (with associated advocacy programme) to support local pest control efforts. The CEC will work with local communities and interested stakeholders (e.g. Canterbury University Tramping Club (CUTC) etc) to develop this list and help coordinate with conservation groups as required. Due to the environment volunteers will be required to work within, this programme will require careful assessment and coordination of volunteers, and development of robust training and health & safety plans, (S Yong pers comm.). It is noted that the majority of the proposed new trapping lines in the Hawdon Valley will not be suitable for volunteers.

Funding – DOC CCPF – for CEC

b) Hawdon nest protection programme

Method - Kea breeding pairs in the Hawdon Valley survey area have consistently fledged chicks since nest monitoring began in 2010. However, during the most recent breeding season (2015), all nests failed as a result of predation after a prolific beech mast event. Future protection of these nests is therefore a priority.

Prior to committing to this project the area is to be checked to ensure accessibility.

Once the trap line layout is established, approximately 30km of trap line (targeting stoats) at 900-1000m altitude in the Hawdon Valley (this is where the majority of kea nests are located) is proposed. Traps (DOC 150/200's) to be placed every 100m (total of 300 traps across the network). Two trap line proposals have been put forward by DOC personnel with experience in this location (Josh Kemp and Sandy Yong). It is proposed that that a combination of these two will be used depending on terrain found at the time of area check (refer Figures 2 and 3 below).

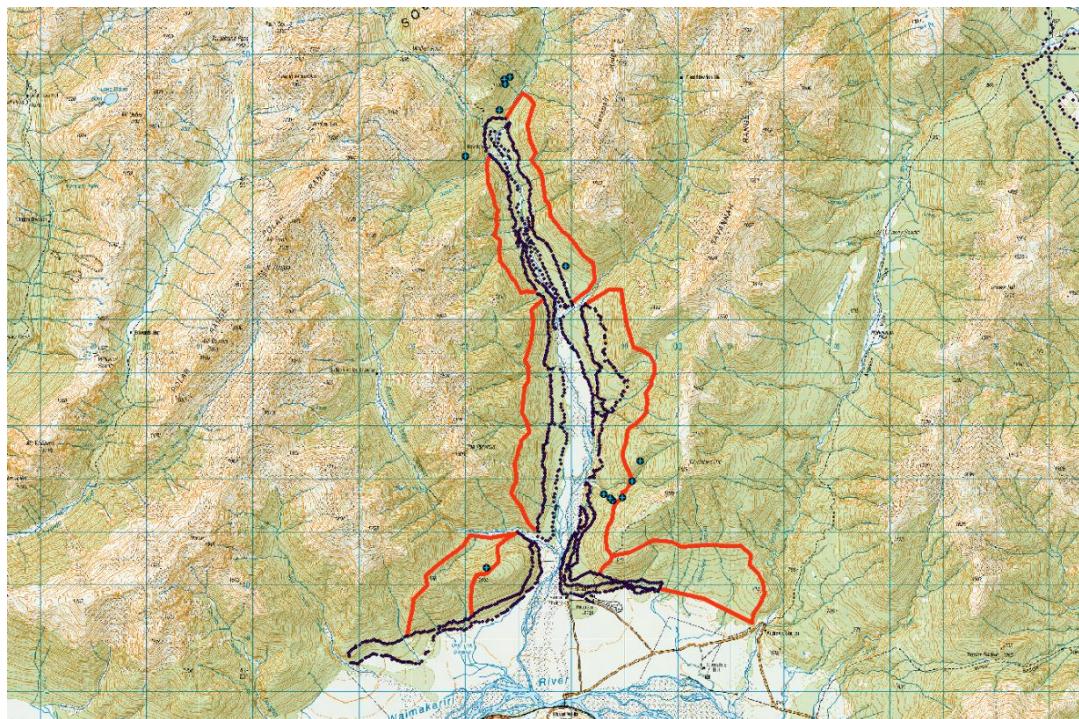
Trap maintenance timeframes and frequency - six full-day circuits for entire trapline. Annual number of checks dependent on trap type used and weather conditions (up to a maximum of ten checks/year).

Funding – Dulux (as part of the nest monitoring programme). \$TBC currently available (potentially to be used as seed funding to support the project in its entirety and long-term).

Funding is required for the following: Purchase of traps (x300) and initial set up (DOC 200 s/s traps approx \$56/each from PMS). Trap boxes potentially built by volunteers. There will be significant cost in initial track cutting of trap lines. Servicing the entire circuit will cost a total of \$1,800 (6 days @ \$300/day) each time. This cost may be reduced depending on volunteer input (ie volunteers may potentially service the loops closest to the Waimakariri River (the remaining lines will not be suitable for volunteers due to the terrain)) as well as timing with nest monitoring checks.

In addition to this there will be a requirement to budget for trap line maintenance at least every 3 years, potentially more frequently dependent on winter snows & storms (S. Yong, pers comm).

Figure 2. Existing and proposed trapping network in the Hawdon Valley (Josh Kemp, DOC)



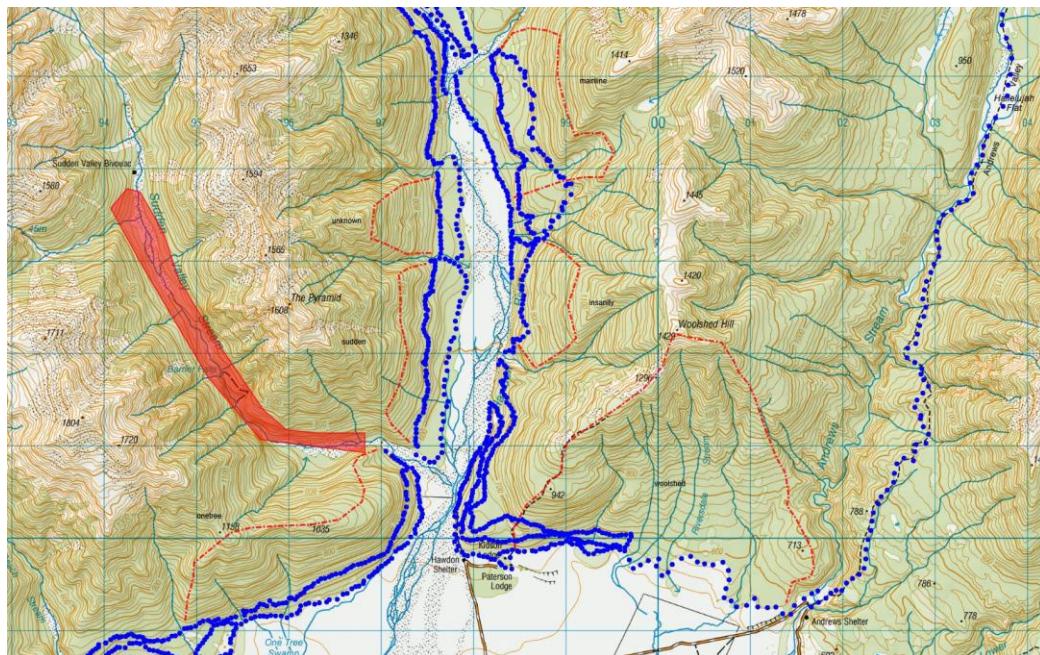
Key:

Turquoise circles – kea nests

Red Lines – Proposed traplines at 900-1000 m

Purple dots – existing fenn traps to protect whio/GSK

Figure 3. Existing and proposed trapping network in the Hawdon Valley (Sandy Yong, DOC)



Key:

Red dotted lines – proposed kea trap lines

Red strip (Sudden Valley) – marked bait station only lines above and parallel to existing trap lines which could be converted to trap lines for kea

Blue dots – existing fenn traps to protect whio/GSK

Additional notes (Sandy Yong):

- Onetree block – good deer trail along most of this line. Will minimise cutting
- Unknown – again there is another bait station line above the current trap line but probably not high enough to warrant establishing a trap line. However, good deer trails exist on ridge at either end of this block.
- Woolshed hill – suggest use existing tramping track & continue round the ridge as a circuit. The ridge towards the Andrews valley end has not been previously rece'd. At the 900m level on the front face of woolshed hill there are areas of bluffs. This area is also very dense in vegetation which will require a lot of track cutting. Towards the Andrews end, wasps are a problem in the summer. The section where there are a group of kea nests upstream of woolshed hill will be challenging to establish a trap line.
- Insanity – good ridge either side.
- Mainline – downstream of proposed kea lines there is a line of bluffs. The proposed line follows a nice ridge with established deer trail.
- Suggest avoiding gully areas between the main faces

Removal of Lead - Support local residents in the removal of lead from local buildings within Arthur's Pass.

Aims - This project will look to a) to support local initiatives in removing all lead from local buildings, ski fields and throughout huts in conservation areas in and around Arthur's Pass; b) to provide alternative materials (tech screws and flashings) to replace the lead removed; and c) to support safe disposal of old lead.

Funding - Funding partners for alternative non-toxic materials and technical support to be secured (this is currently being investigated as part of a South Island wide project).

ii) Care of Injured Kea

Aims - In the first instance a fund is to be set up to take donations to support volunteer efforts to access medical care for injured kea. This will be driven by the KCT and be used for the following purposes:

- Reimbursement of travel costs (petrol) on production of receipt/s;
- Purchase of any equipment (carry cages etc), expendables (food and hydration) to support holding and transport of kea (any proposed purchases must be cleared first to ensure there are sufficient funds available);
- Development of veterinary register (list of vets able to provide initial and long-term medical support for kea)
- Process for transporting kea to specialist veterinary facilities (Massey University (Palmerston Nth), the Nest (Wellington Zoo)), Vet Ent (Queenstown) or the South Island Wildlife Hospital (ChCh));
- Develop local SOP with community stakeholders for dealing with injured kea

Funding – a crowd sourced funding page has been set up to collect funds to support volunteers transporting kea to receive medical treatment (amount raised as of the beginning of December 2015

- \$1,600 via this page or directly into the KCT bank account). This fund will be promoted on a regular basis throughout the year to keep it topped up.

Development of Injured kea SOP will be supported through the DOC CCPF Strategic plan funds and DOC CCPF Community - Kea Project Plan. DOC Rangiora is currently updating their injured bird response procedures. This should provide more consistency & can work with both KCT & APWT (S. Yong, DOC pers comm).

iii) Education of visitors

Aims – to increase public awareness of the endangered status and threats to kea and to reduce the incidence of inappropriate behaviour and conflict. Main education points to cover a) kea are endangered and fully protected, b) no feeding of kea, c) conflict resolution and d) call to action. This will be achieved through the following methods:

- Supply of kea education resources to the AP Outdoor Education Centre (APOEC)
- Discussion on development of a kea interactive area to drive safe kea interaction messages
- Development of appropriate resources for local ski fields
- Development and delivery of interactive kea talks by kea personnel (targeting school and tourist groups) – via the APOEC and DOC
- Promotion of kea sightings reporting (via website or phone app)
- Promotion of kea proofing database and conflicts programme

Funding – this project will be funded through the DOC CCPF – Community – Kea Project Plan.