

Community – Kea Project Plan

Wanaka – Mt Aspiring National Park

Funded by: Department of Conservation Community Fund (DOC-CF)

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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 Wanaka – Mt Aspiring National Park (NP) 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.

Wanaka – Mt Aspiring National Park

Wanaka (originally known as Pembroke), was initially settled by Europeans in the early 1850's when the first sheep stations in the Upper Clutha were established. Wanaka itself was first surveyed in the early 1860's. The Wanaka area (inclusive of the Matukituki) now has a permanent resident population of just under 7,000 people. Sited on the southern shores of Lake Wanaka, Wanaka Township is the gateway to Mt Aspiring National Park. The area is forecast to receive over 1.3 million visitors during 2016, many flocking to the area to enjoy the wide choice of recreational outdoor activities available such as skiing (at Treble Cone, Cardrona Alpine Resort, Snow Park and the Snow Farm), rock climbing, tramping and mountaineering, hunting and fishing in Mt Aspiring National Park (NP), jetboating, fishing, water-skiing and mountain biking in and around the lake respectively, or skydiving, paragliding and flying in and around the NP (Lake Wanaka Tourism). Wanaka is accessed from the West Coast by Haast Pass (State Hwy 6), from the South by the Cardrona Valley Rd (which links it to Queenstown 40 minutes to the South) and State Hwy 8/8A from the east.

Mount Aspiring (Tititea) NP, bordered by Fiordland National Park in the South and Westland National Park in the west, is part of the Te Wahipounamu Southwest World Heritage Site (which along with Mount Cook covers 2.6million ha). Established in 1964, Mt Aspiring NP covers an area of 355,543 hectares (NZ's 3rd largest NP) and includes its namesake Mt Aspiring (3,033m), Mt Pollux (2,542m) and Mt Brewster (2,519m). Popular tramping tracks include the Matukituki Valley, Routeburn Track, Rees- Dart circuit, Gillespie Pass and Rabbit Pass circuits. It also contains 100 glaciers and is home to at least 45 native bird species (including South Island Robin which were reintroduced into the area in



2008). The Matukituki Valley is made up of private farmland and red beech on the flats, mountain beech in drier eastern areas and silver beech in the wetter western areas. Above bushline (1100m), the forest gives way to alpine tussocks and fellfields rising up to permanent snowcapped mountains.

There are a number of tramping huts within the NP owned either by DOC or the NZ Alpine Club (NZAC) and managed by DOC. These include Mt Aspiring Hut, Cascade Hut, French Ridge Hut and Colin Todd Hut (all owned by the NZAC) and Liverpool Hut (DOC) (DOC, 2015).



Matukituki Valleys, Mt Aspiring National Park. DOC, 2015

Local Conservation Efforts

There are a number of active conservation groups and individuals in the area. Of particular relevance to this project are the Matukituki Charitable Trust (MCT) and DOC, both of whom undertake predator control in Mt Aspiring National Park (and the Matukituki Valleys specifically). Established in 2013, the MCT has been very active supporting and expanding DOC's conservation programmes within the West Matukituki valley, through provision of volunteers and operating funding. The kea is considered an icon bird for the MCT and is specifically referred to as a primary objective in requiring protection (MCT, 2016).

In addition, other groups with a focus on pest control include the Longview Environmental Trust (LET), an umbrella group aiming to coordinate predator control efforts in the Matukituki River area, the Diamond Lake Trust, and the Otago Kiwi Recovery Trust focusing on predator control up the East branch of the Matukituki Valley. Other groups involved in trapping include Wanaka River Journeys, Motutapu Station and Glendhu Station. Details of each group's efforts are supplied in Table 1 below.

Table 1. Location of conservation work carried out by conservation groups in Wanaka- Mt Aspiring NP.

Group	Location	Activity	Trap #s	Focal species (who benefits?)
DOC	West Matukituki Valley	Predator control Predator monitoring Beech mast monitoring	52 DOC 200 single set	Kea Rock wren Robins Forest birds Potential translocation of Mohua, Whio, Weka & Kiwi
Matukituki Charitable trust	West Matukituki Valley	Predator control Predator monitoring Beech mast monitoring	412 traps Another 57 traps to be installed before winter 2016 & buying more traps before winter for next spring	Kea Rock wren Robin Whio Forest birds Bats
Longview Environmental Trust (LET)	Lower Matukituki Valley	Predator control Wetland birds monitoring Umbrella trust looking to coordinate predator control efforts in the Matukituki.	Need to ask John May	Forest birds wetland birds
Diamond Lake Trust	Lower Matukituki River (by the lake)	– predator control	304 traps	Forest birds
Otago Kiwi Recovery Trust	East Matukituki Valley	Predator control	200 traps	Forest birds Whio Wanting to translocate kiwi
Wanaka River Journey	Mouth of the Matukituki river	Predator control	40 traps	Forest birds
Environmental Society of Wanaka	?? No field work			
Motutapu Station	Motutapu valley	Predator control	Approx 617	Weka

Glendhu Station	Glendhu bay	Predator control	unknown	poultry
Otago boys High School, OBHS	Matukituki Valleys	Predator control with the MCT		
DOC	Matukituki valley	Wilding pine control & weed control Tahr & goat control Geese control Rabbit control fencing	n/a	Ecosystem level
KCT	Matukituki valleys	Proposed kea monitoring 2016-2017		Kea

Figure 1. Location of individual organisations carrying out predator control work (Gaud, 2016)



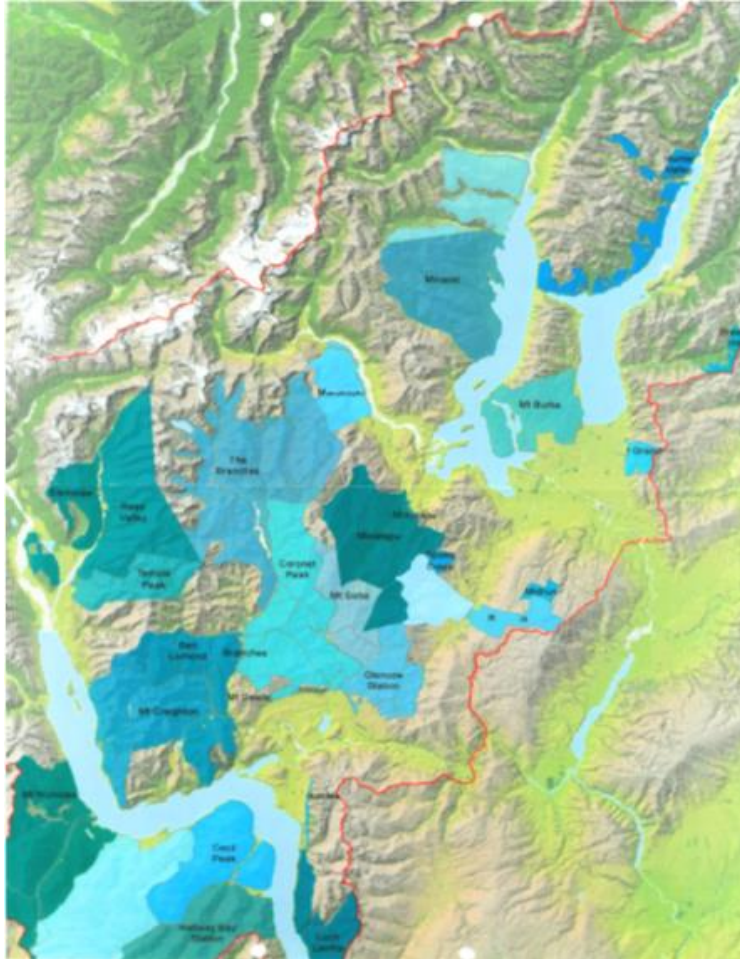
High Country Stations

The central Otago region has a long history of sheep farming with the earliest stations established in the 1850's. Just a decade later and the earliest reports of kea attacking sheep on a Wanaka station were also recorded. The last reported incidents of kea attacking sheep were in the Makarora area on Mt Albert Station in the late 1900's, approximately 1998, and the last permit to shoot kea was

applied for and granted in approximately 1998 (1 kea was shot in this instance). Prior to this issue, Glen Dene station also reported kea issue on their property (Gaud, pers comm).

Stations currently active in the Wanaka area and surrounds include the Matukituki, Motutapu, Minaret, Mt Burke, Glen Dene, Mt Albert, Mt Aspiring, West Wanaka, Glendhu and Cattle Flat, Makarora Stations.

Kea sightings are still reported from Cattle Flat and Mt Aspiring Stations but otherwise little is known



about their activities or the frequency of kea visits at these properties. The prevalence of kea strike on sheep today is generally poorly known and relies on high country run holders to report kea issues and utilise nonlethal methods of reducing kea strike and conflict. A study is currently underway to find out the current status of kea strike and farmers perception of kea. This research will be completed and published late 2016 (Reid, pers comm, 2016).

Local Ski Areas

Treble Cone is the sole ski field which is regularly visited by kea. 2- 6 kea visit the ski buildings most days throughout the ski season. A total of 23 kea were banded during a DOC run research project in 2013 where researchers observed a dip in kea numbers with few females reported at last band (van Klink, pers comm).

Treble Cone is the largest ski area in the South Island operating at an elevation of 1250m – 2088m. Annually it sees around 100,000 visitor days. There have been no reports of kea visiting any of the ski fields within the Cardrona Valley (Cardrona Alpine Resort, Snow Park and Snow Farm) since reporting began in 2008. Treble Cone is very pro kea and as with other ski fields around the South Island, collect donations for kea conservation projects. They also report any kea injuries or conflict issues to DOC Wanaka. As with other ski fields, issues include kea interaction with on-site rubbish bins, rubbish left on the picnic tables and skiers cars and property in the carpark. It has also been reported to DOC that kea have damaged chair lift cables (Gaud, pers comm). There is certainly opportunity for more advocacy/signs to educate the public about kea as well as opportunities to work with staff at the site to help out with any kea issues and to collect sightings of birds on an on-going basis (particularly re-sightings of banded birds).

Wanaka – Mt Aspiring NP Kea

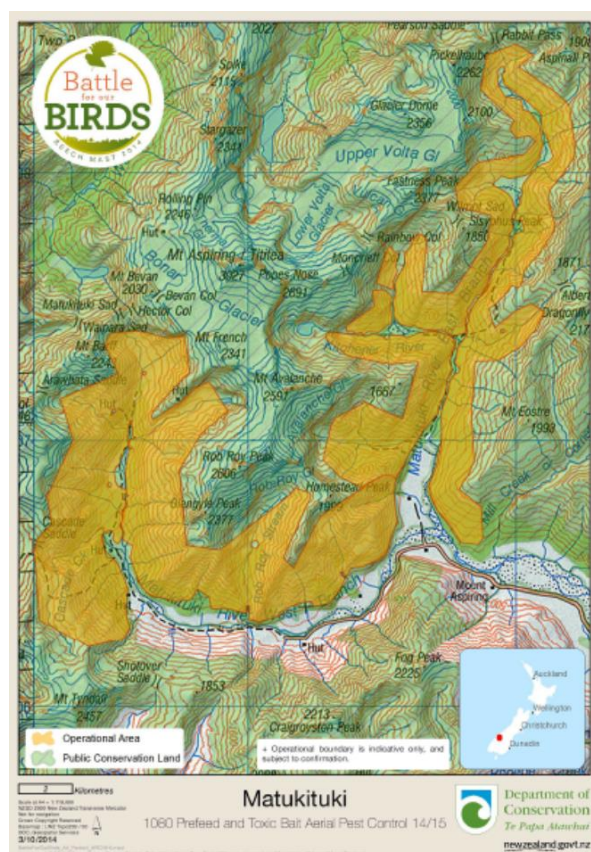
The status of the kea population in the Wanaka – Mt Aspiring area is not well understood. Two research projects have been undertaken relatively recently looking at blood lead levels in kea in Mt Aspiring national park (2008) and repellent research (2013/2014). Both projects resulted in half of the resident population and their offspring being banded at and around Rob Roy Glacier in the West Matukituki and Treble Cone ski field.

Research on blood lead levels in kea has shown Mt Aspiring kea to have low lead levels in comparison to other kea living close to human habitation. Anecdotally however, this population has decreased over the past few decades (Aspinall pers comm), reason unknown. The Mt Aspiring NP contains prime kea habitat and historically supported a much larger population of kea with flocks of over 50 observed on a regular basis by local high country farmers (ibid MCT, in collaboration with DoC Wanaka, have identified a population of Kea that was declining when the Trust was established. Over the two years of active trapping and being part of the Battle for Our Birds campaign in Spring 2014, the MCT have received reports of a stable to increasing population but are currently unable to establish what population of kea actually exists in the valley and whether this is trending upwards (MCT,2016).

The KCT has received reports over the years from DOC hut wardens in the valley and records of up to 11 at Colin Todd Hut, 6-8 at French Ridge Hut, 8-15 at Aspiring Hut, 4-6 at Liverpool Hut, 4-6 at Cascade Saddle during the summer months (Gaud, pers comm). Additionally 20 -32 kea have been sighted at Gloomy Gorge (on two separate occasions) by other users of the park.

Few kea deaths caused directly by human actions have been reported in the area. The only reported deaths were from kea killed in Timms Traps (Gaud, pers comm). This is in contrast to other areas where kea have been killed as a result of predator control methods, vehicle strike, lead poisoning and conflict. Whether this is a true indication of the state of kea in this area or whether kea deaths are going unreported or unnoticed is currently unknown.

Now that active and committed pest control efforts are being carried out within the NP and, specifically in the Matukituki Valley by the MCT and its supporters, there is opportunity to better understand the status of this population and impacts on it. In addition to the ongoing local ground based predator control efforts of MCT and DOC, the NP was also included in DOC's Battle for Our Birds campaign in December 2014. A total of 7,090 ha were treated with 1080 in the following valleys; East and West Matukituki. Depending on results of beech seed monitoring in the area, a further treatment may go ahead in 2016. As such it is an important population to monitor across years to ascertain impact of 1080 directly on kea and benefits to productivity (if any).



This area is of significant importance due to its proximity to Wanaka; a major converging point for outdoor enthusiasts, tourism and education providers and as such is a potentially important location to engage the public in kea conservation initiatives. Increasing awareness of kea status and threats via promotion of this programme within Mt Aspiring NP, would be a positive step forward in increasing positive perceptions of the species and educating those people who come into direct contact about how to interact with kea to minimise potential conflict situations.

Project Plan Focal Areas

Discussions with the community and researchers over the years as well as recent meetings with the local community during the 2015 Winter Advocacy tour, highlighted the following areas locals wished to get involved with in regards kea conservation: i) Identification of local kea population status, ii) identification and reduction of local threats (predation, lead, conflict, other), iii) care of injured kea (through support of local community volunteer efforts), iv) survey of local landowners perceptions of kea and v) 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) Identification of local kea population status

Monitoring of Kea in the Matukituki Valley - Development of a community kea catch trip, survey and nest monitoring program for the Matukituki Valley, Mt Aspiring National Park (NP).

Aim: This project has 3 main aims to support kea conservation initiatives: i) run an initial catch trip to enable attachment of transmitters and bands to adults and bands to fledglings and juveniles, ii) monitor kea nest productivity and predator impact through the breeding season, iii) run a kea survey in January 2017 and combine with all other data to provide a baseline for the local kea population.

Method: An initial catch trip will be run in partnership with Department of Conservation Wanaka and volunteers to enable radio transmitters to be placed on adult kea for tracking back to nest sites, identifying pairs and home territories. Active kea nests will then be identified and progress followed through the breeding season to ascertain productivity and predator impact. All progeny will be banded prior to fledging to enable visual ID, and data entered into the main kea database. A follow up community summer survey and catch trip will then be conducted in January 2017 and additional funds for subsequent years investigated (refer Matukituki kea monitoring project plan).

Funding: An application for funding has been submitted for the field work part of this project. Additional funds for equipment will be sourced locally (possible business sponsorship?) and through the Dulux nest monitoring fund. Project management time will be supported via the DOC CF.

ii) Identification and reduction of local threats

Pest Control – Identify level of nest predation and support and expand local pest control efforts to support kea.

Aim: This project will look to a) to quantify the impact of predation on monitored nests in Project i), and b) to set up predator control to protect known kea nest cavities.

Method: This project will be an extension of project i) – identification of kea population status. Data collected from nest cameras will be graphed to show prevalence of predator visitation and kea

nesting success. If it is found that predation is an issue for breeding birds, then a trapping network around active nest cavities to be designed and implemented prior to subsequent breeding seasons.

Funding: DOC CF funding for a). Funds to be raised for direct nest protection once nest cavities have been identified.

Lead risk – although kea tested for lead in 2008 in Mt Aspiring NP showed low levels of lead present in their blood (of 27 kea tested only 1 had elevated lead levels (McKinnes, 2009)), a survey of lead building materials (lead nail heads and flashing specifically) indicate that lead may still be accessible to kea in the NP (Robson, 2010). Lead nail heads were replaced at Cascade Hut several years ago and replaced with a nontoxic alternative (Martin Curtis and NZAC with support from Placemakers Wanaka). Removal of any additional lead in local farm buildings and lodges on the boundaries of the NP should also be investigated as this would only benefit kea in the area.

In addition to this it has been noticed that lead shot in carcasses may also be a risk to scavenging kea. This source of lead as a risk to kea has not as yet been investigated. Until such time as the risk is identified it may be prudent to promote the use of steel shot through the local NZDA and DOC predator control divisions etc.

Aim: Identify lead presence in buildings within and adjacent to the NP and remove. Raise awareness of potential lead poisoning in kea via lead shot.

Method: Review all information on kea and lead in Mt Aspiring National Park (refer McKinnes (2009) and Robson (2010)) and a) develop a plan for lead removal and b) apply for funding and community support (materials and volunteer input). Investigate potential issues of lead shot.

Funding: Plan development funded through the DOC CP fund (CEC position). Funding for lead removal to be secured if required.

Conflict – The first recordings of kea strike on sheep were reported in the Wanaka area in the mid 1800's. Considering the number of high country sheep stations still in operation around the local area, it is important to ascertain whether there are any ongoing issues with kea (as has been the case in the Queenstown area). In addition to this Treble Cone is visited on a regular basis by a relatively active group of kea during the ski season. Ensuring conflict issues are minimised and education/advocacy potential with visitors is maximised would be of benefit to both the local kea population and community.

Aim: Investigate current perceptions of kea in the area.

Method: Sheep stations a) Review the latest research on kea – sheep conflict (Reid – in the process of writing up her PhD), b) contact and where possible visit and talk to local station owners/managers.

Ski fields a) Visit the ski field and talk to staff (management and maintenance in particular) to ascertain if any issues with kea on site as well as what information available for visitors about kea, b) carry out a face to face survey with visitors to ascertain perception regarding kea and c) watch visitor and kea interactions and note behaviours seen (eg, feeding of kea by visitors, thieving of peoples property/food by kea etc).

Funding: Initial visits and survey funded through the DOC CP fund (CEC position).

iii) 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. This fund will be promoted on a regular basis throughout the year. DOC also potentially able to support through provision of equipment and transport logistics.

Development of Injured kea SOP will be supported through the DOC CCPF Strategic plan funds and DOC CCPF Community - Kea Project Plan.

iv) Education of visitors to the area to reduce conflict and exposure of kea to dangerous situations.

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 outdoor focused companies
- Development of appropriate resources for local ski fields where necessary
- 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 CF – Community – Kea Project Plan. Also the potential for volunteer involvement by local kea supporters.