

CHAPTER 9 – WILDLIFE RESCUE AND REHABILITATION

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Introduction

This Chapter provides an oiled wildlife response protocol for Tier 2 and Tier 3 oil spill responses. The Chapter outlines the general structure for oiled wildlife response and provides a plan template which will be implemented during a response involving oiled wildlife. Care of oiled wildlife will be undertaken at the discretion of the On-Scene Commander.

Standard Oiled Wildlife Response Objectives

1. Provide advice to incident command for effective and coordinated emergency response to 'at risk' and affected wildlife
2. Protect the welfare of wildlife threatened or impacted by oil
3. Co-ordinate field assessment of threatened or impacted wildlife
4. Prevent or minimize exposure of wildlife to oil by undertaking:
 - Activities to deter wildlife from oiled habitats
 - Pre-emptive capture of wildlife as appropriate
5. Undertake efficient and safe capture of oiled wildlife
6. Give priority to the treatment of threatened or endangered species when resources are overtaxed
7. Establish a system for stabilisation, cleaning and rehabilitation of impacted wildlife
8. Release back into their native habitats, birds who will be healthy and contributing members of their wild populations
9. Remove dead oiled wildlife from the food chain
10. Inform members of the public of health risks associated with contaminated wildlife

Health and Safety

Human safety and health have the highest priority both in response planning and during any response event. Accordingly, occupational safety and health requirements will be fundamental to any oil spill response. The table below identifies potential hazards that relate specifically to oiled wildlife response, while chapter 8 outlines general health and safety information for oil spill response. The development of any Incident Site Safety Plan for oiled wildlife response should use information from both of these sources. Most importantly - human welfare must come before animal welfare.

Health and safety risks	Mitigation measures
<p><u>Heat stroke.</u></p> <p>This is a risk when working with birds indoors - temperatures will be maintained above normal for the benefit of the birds' recovery.</p>	<p>Frequent re-hydration is essential especially during the cleaning phase of response. Regular breaks from duty for rest and meals will be taken, and unlimited fresh drinking water will be provided.</p>
<p><u>Transport hazards</u></p> <p>Oiled wildlife represents a hazardous consignment by nature.</p>	<p>All drivers will hold appropriate licenses for the work being undertaken, and take regular breaks to combat fatigue. Vehicle selection will ensure appropriate ventilation for those driving oiled wildlife.</p>
<p><u>Injuries from response equipment</u></p> <p>There are risks when using both medical and electrical equipment.</p>	<p>Sharps containers will be provided for the safe disposal of scalpels and needles. First aid kits will be available during all aspects of response. All electrical equipment will be maintained in excellent working condition. Electrical current isolation mechanisms will be incorporated facilities where possible.</p>

<p><u>Animal inflicted injuries</u></p> <p>Bird beaks, wings and claws can inflict injuries</p>	<p>PPE, including appropriate eyewear will be worn while handling birds.</p> <p>Adherence to strict handling protocol will be observed. In particular birds will be kept at waist level or below to protect the face and eyes from bird inflicted injuries.</p>
<p><u>Zoonotic disease</u></p> <p>Birds carry a number of pathogens that can be transferred to humans. Disease outbreaks in captive birds are not uncommon.</p>	<p>Quarantine protocols will be strictly adhered to when working with wildlife. These will be posted in all work areas.</p> <p>Hand washing before eating and drinking will be compulsory. Eating, drinking and smoking will be prohibited in bird handling areas.</p>

Record keeping

- Expenditure must be pre-approved through incident command and all records kept.
- All key response decisions will be recorded in a daily log.
- Individual medical records for each patient (appendix 1) will be maintained.
- Summary statistics which record of numbers/species captured, recovered dead, euthanized and released will be kept (appendix 2).

Initial Evaluation

Upon arrival at the Incident Command Centre or spill site, the Wildlife Operations Coordinator/s will be briefed on the current oil spill situation. The Wildlife Operations Coordinator/s will decide whether to proceed with the oiled wildlife response sequence based on the information available, or conduct a wildlife specific field evaluation. Following evaluation, oiled wildlife response intentions will be incorporated into the Incident Action Plan.

Incident Action Plan (IAP)

The Wildlife Operations Coordinator/s should assist with the development of the Oiled Wildlife Response section of the overall response IAP. A template to assist with this task is provided in appendix 3.

Oiled Wildlife Response Personnel

The National Oiled Wildlife Response Team (NOWRT) member of the Regional Council in which the spill occurs will act as the Regional Wildlife Operations Coordinator (RWOC). This person in conjunction with NOWRT members from Massey University (principally the Nationally Wildlife Operations Coordinator - NWOC), will together manage the response with input from the local NOWRT wildlife expert.

Personnel roles as shown in figure 1 will be allocated as required by the WOCs from the following sources:

- Massey University NOWRT staff (contacts provided in annex 2)
- Members of NOWRT from neighbouring regions (contacts provided in annex 2)
- Regional Responders who are trained on-site (contacts provided in annex 2 of the Regional Plan)

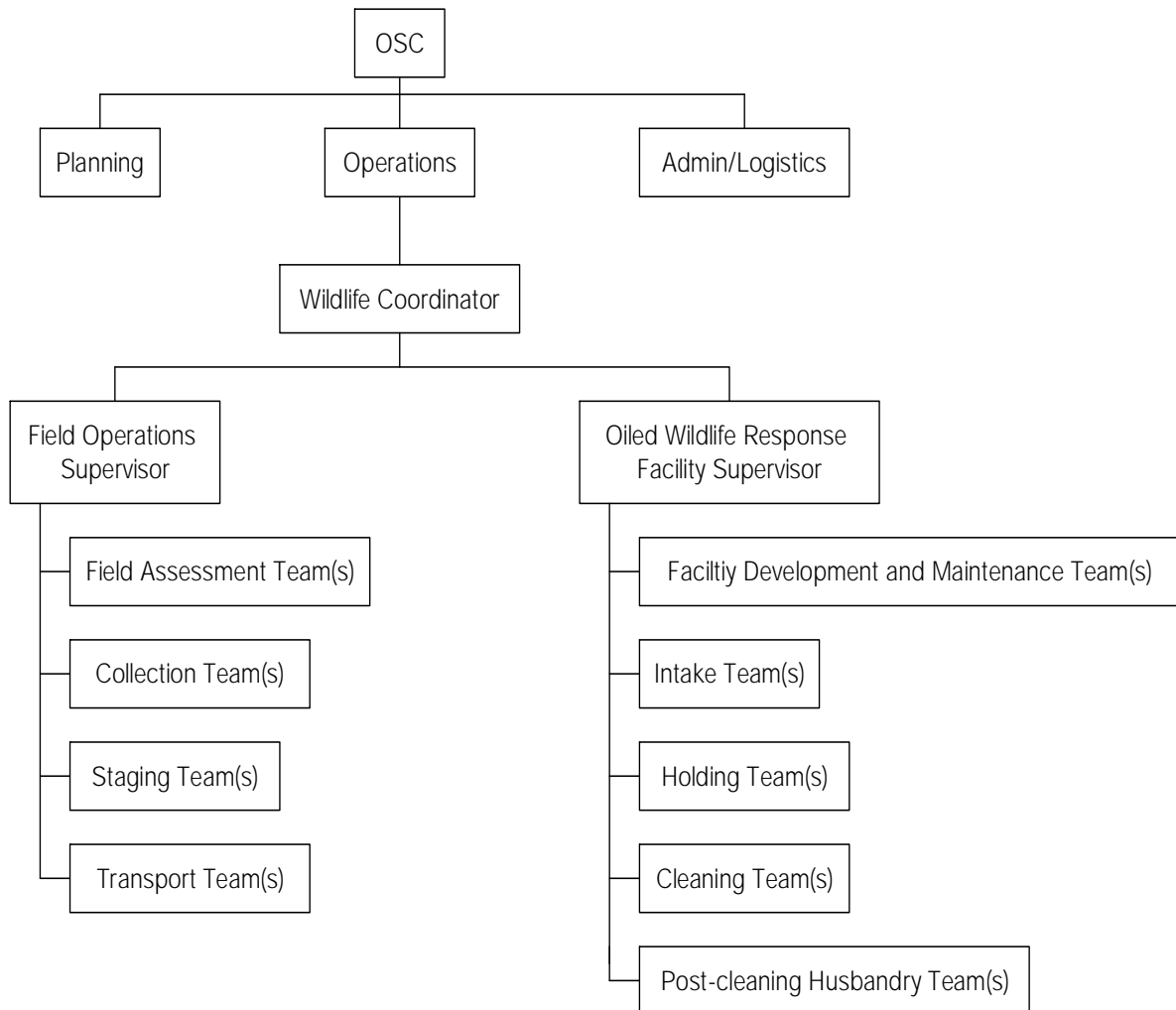
More than one role may be allocated to the same person. The WOCs will contact and mobilise the team once directed by the On-Scene Commander (OSC).

Department of Conservation (DOC) staff and local Tangata Whenua must be notified of the incident. Additional volunteer support may be available from local wildlife organisations identified in annex 2 of the Regional Plan.

Non-government organisations will require authorisation from the OSC before becoming involved. The development of pre-existing agreements with non-government organisations (e.g. Forest and Bird, SPCA) and individuals (e.g. bird rehabilitators) that are likely to have an interest in oiled wildlife response is highly recommended. These agreements should clearly define the role of these parties during a response; their capabilities and limitations. Agreements of this nature are contained in annex 6. Issues arising from the unauthorised involvement of groups and individuals shall be brought to the attention of the OSC for resolution.

Technical services for the establishment of temporary wildlife response facilities can be provided by DwyerTech Services as necessary. Mobilisation of containerised equipment stored at Massey University (see below) must be accompanied by a staff member of DwyerTech Services.

Oiled Wildlife Personnel Organisational Structure



Field Operations

A Shoreline Staging Site (SSS) should be established to provide a base for search and capture teams, and to provide shelter for animals waiting to be transported to the Oiled Wildlife Facility (OWF).

Ongoing Field Assessment

Daily field assessments will be made to identify wildlife either oiled or at risk of becoming oiled until the point whereby you are confident that all casualties have been identified. In the instance that resources are limited, priority should be placed on assessment of areas inhabited by species of high conservation value (see 'species list' contained in annex 4 of the Regional Plan).

Deterrence

'Hazing' or 'baiting' methods may be effective in some circumstances to deter animals from oiled sites or sites anticipated to become oiled. The advantages and disadvantages of different techniques are given in the table below.

Advantages	Disadvantages
Gas cannons	
Quickly deployable onshore or offshore.	Studies show limited efficacy for shorebirds
Protective of large areas (30 - 50 ha)	Gas-operated exploders are dangerous.
Automatically operated and effective during both day and night.	Birds rapidly habituate (2 - 3 days max.). Varying location/magnitude/pitch can help.
These are available from farm supply stores.	Disturbing to local residents and responders.
Operate for 2 weeks without refueling	Reduced effective range in fog and wind.
Inexpensive to operate and purchase.	Multiple cannons required for efficacy
Motor boats	
Available to remote areas	Time consuming and expensive
Rapidly effective for some species	Not feasible at night or during bad weather
Effective on most species	Doesn't work for diving birds
Can cover large area	Can be hard to locate birds and direct them
Electronic Sound Generators	
Good for open water use	Less effective in noisy urban areas
Rapidly deployed if available	Daily monitoring recommended
Protects large areas	Requires boat to deploy device at sea
Moves with spill – reduced habituation	Effectiveness decreases when windy
Effective day and night & during bad weather	Disturbing to local residents and responders
Up to two week battery life	Expensive (radio tracking gear components)
Easy to handle and operate	May not be immediately available
Human Effigies and Predator Models	
Quick to deploy & inexpensive	Birds habituate within a few days
No auditory disturbance	Effective only during daylight
Effective in poor weather	Range of effectiveness is small
Aircraft (probably not a viable option in NZ)	
Readily available to remote areas	Increased potential of bird-aircraft collisions
Effective over different habitats	Not feasible at night or during bad weather
Rapidly effective for some species	Time consuming and expensive

Other hazing techniques worth considering are:

- Lights – strobe lights, laser lights, search lights and revolving lights. NB. Lights may attract some species especially in poor weather. Inexpensive.
- Terrestrial Vehicles with air horns or sirens.
- Biosonics - distress, warning, or alarm calls that are broadcast by tape players. They are highly species specific and sometimes attract birds.
- Helium filled balloons – inexpensive, but often rapid habituation. Eyespots help.
- Flags – cheap, good for waterfowl, rapid habituation. Best colour is black.
- Reflectors (mirrors and tape) – effective for many species, especially waterfowl. Cheap and quickly deployed. May attract some species.
- Radio controlled aircraft – a common technique over airfields.
- Overhead wires or lines – useful for discrete areas
- Barricade fences – useful to prevent penguins that are already ashore at the time of the spill from returning to sea and becoming oiled.

Pre-emptive Capture

This involves the capture of a significant proportion of individuals from at risk populations to prevent their oiling. This method requires the capacity to care for potentially large numbers of animals in captivity prior to their release when the habitat is clean. Pre-emptive capture is particularly useful for 'at risk' populations of high conservation value.

Capture and Collection of Oiled Wildlife

In most instances, several teams will each search, capture and transport wildlife to the SSS. These teams will be led by personnel with specific expertise in assessment and capture techniques. Teams will require at least one member to have good knowledge of the local habitat and wildlife. A minimum of two persons is required per team.

Depending on the situation and species involved, capture operations may be shore-based, boat-based, or a combination of both. A high level of pre-planning is required and appropriate logistic support must be pre-arranged.

Animal welfare is a priority during capture and particular care should be taken when restraining individual birds.

A wildlife collection tag will be completed for each captured bird and be attached to its transport box. Birds must be staged for transport in a sheltered area. Protection from the wind is particularly important during this time.

Public control

The public should be strongly discouraged from engaging in the collection of oiled wildlife as the capture of wildlife by untrained personnel can result in harm to both humans and wildlife. A media announcement may be necessary to effectively convey this message.

Dead wildlife recovery

Dead oiled wildlife should be collected when found as they present a risk of contamination to scavenging animals, including domestic pets. Bodies should be collected into sealed, labelled plastic bags and transported to the nearest SSS.

Field Stabilisation

If more than one hour will elapse between capture and arrival at the OWF, basic stabilisation actions should be initiated by Staging Teams at the SSS. Basic stabilisation involves 1. rehydration therapy with warmed oral fluids; 2. superficial decontamination of oil from birds (especially eyes and nares/nostrils); and 3. basic temperature correction by way of providing shelter. A temporary plastic leg band is also applied during field stabilisation. Staging teams should comprise of a vet, a technician and/or conservation manager and a scribe. If casualty numbers are high (e.g. intake of 100 birds over an 8-hour period) two such teams would be required.

Transportation

Birds should be transported individually in suitable cardboard or plastic cartons that have adequate ventilation and soft absorbent padding on the floor. Care should be taken when using waxed cardboard boxes in high temperatures as the wax coating may melt and add to the contamination burden.

Vehicles for transporting animals must provide a well-ventilated area for holding transport cartons. Cartons must not be stacked or packed in tightly together. Pieces of timber can be used to ensure a gap of approximately 10 cm between boxes. An exposed load must have a tarpaulin cover to prevent further temperature stress from excessive wind exposure.

Air transport of oiled wildlife is not possible due to the hazardous nature of such cargo.

Operations at the Oiled Wildlife Facility

Admission and Assessment

This phase consists of the following procedures which are carried out by intake teams which include veterinary staff:

- Initiation of an individual medical record (Complete relevant sections of the Animal Admission and Summary Record form)
- Individual identification applied (if not already applied at the SSS)
- Clinical assessment, triage and medical stabilisation
- Entry to oiled bird holding area to regain strength prior to cleaning
- Euthanasia (if necessary)

Stabilisation

Prior to cleaning, medical stabilisation is continued until individual birds have met pre-determined health criteria. Cleaning is very stressful for wildlife and it may take up to 72 hours before birds have gained sufficient strength to undergo cleaning. Medical stabilisation includes fluid and nutritional support, provision of warmth as necessary, and other medical treatments as determined by the overseeing veterinarian.

Cleaning and Drying

Once individual birds have met pre-determined health criteria they move into the cleaning process (washing, rinsing and drying). Being cleaned is an exhausting experience for birds. Therefore it is important that these steps are conducted in a professional and efficient manner to minimise stress. Plumage must be cleaned and rinsed thoroughly to remove all traces of oil and detergent without damaging feather structure. Once washed and rinsed the birds will enter the drying area where their condition is closely monitored to gauge thermoregulatory stress. Massey University staff will oversee the cleaning process.

Rehabilitation

The objective of rehabilitation is to achieve the necessary requirements for release whilst minimising the impact of captivity on the birds' welfare. This is a delicate balance and birds must be prepared for release to the wild as soon as possible to reduce captive complications.

Restoration of waterproofing is the key aspect of rehabilitation, and is achieved through preening and physical restoration of correct feather structure. Preening is stimulated by allowing the bird to swim in preferably moving water. After oil contamination and cleaning the process of regaining waterproofing is sometimes lengthy. Birds must not be released until plumage is fully waterproof.

Hygiene and quarantine is of utmost importance during rehabilitation as are specific husbandry requirements which will vary depending on species. A gradual transition from indoor temperature controlled areas to outdoor enclosures may be required depending on ambient temperatures. Similarly, a gradual transition from freshwater to a 3% salt solution is necessary prior to release of seabirds.

Pre-Release Assessment

Ideally released animals must be biologically and behaviourally normal and capable of competing with con-specifics in the wild. Most importantly, each individual must pass a waterproofing test whereby they receive six hours continuous exposure to water after which their plumage is checked thoroughly for wet patches. Birds that exhibit no wet patches after the test progress through a pre-release veterinary assessment before they will be considered for release.

Once a favourable result for the waterproof test and the pre-release veterinary assessment has been attained, release will be dependent on a suitable release site being available. Careful attention will need to be afforded to choice of release site and timing, and birds should only be released once the environment has been cleaned of oil. Most species have high site fidelity and if released distant to their original site, they will swim or fly back.

Post Release Monitoring

Monitoring of post release survival rates is considered to be an important element of oiled wildlife response, however costs associated with such monitoring will generally not be recoverable from the spiller or the Oil Pollution Fund. Other avenues for funding may be investigated at the time of the spill. This work will obviously be dependent on funding and associated research interest. At the least, band retrieval from dead birds is encouraged.

Demobilisation

Demobilisation will be instigated following response termination. This phase is characterised by decontamination of all equipment, the dismantling of facilities and the restoration of contingency capability to standby status. Demobilisation will culminate in a debriefing where lessons learned can be captured to improve future responses.

Resources and Logistical Support

Regional Blue Boxes

The location and contents of the MNZ blue box of initial response equipment for wildlife is listed in Annex 1 of the Regional Plan.

The contents of the blue boxes are designed to provide for the initial 24 hours of a response, with a capability of 50 oiled wildlife casualties and 20 field personnel.

The contents of the blue box must be audited on an annual basis. All equipment used during exercises or spills from this resource must be replaced immediately via cost recovery from the 'spiller' or by the Regional Council.

Response Trailers

Wildlife Response Trailers containing supplementary wildlife response equipment are stationed in the following cities: Auckland, Palmerston North, Christchurch and Invercargill. The equipment contained in these trailers is listed in annex 1. If you require a trailer please contact Massey University via the On-Scene Duty Officer (OSDO) for access protocols and daily charge-out rates.

The contents of the response trailers are audited on an annual basis. All equipment used during exercises or spills from this resource must be replaced immediately via cost recovery from the 'spiller' or by the Regional Council for the area in which it was used.

The response trailers are designed to back up the blue boxes with further stabilisation equipment and basic bird wash equipment. Trailer equipment is designed to provide for an additional 50 oiled wildlife casualties, 20 field personnel and 12 wash personnel.

Mobile bird washing facilities:

At the instruction of the OSC, one or both modified shipping containers (containers 1 and 2) will be mobilised from Massey University to arrive at a designated on-scene location. The containers must be accompanied by qualified staff members from DwyerTech Services.

The current charge-out rates for the mobile bird washing facilities can be provided by Massey University on enquiry. The mobile bird washing facilities may form part of the temporary Oiled Wildlife Facility. They are not designed to be OWF substitutes.

Other

Annex 2 provides contacts for local resources available to support a wildlife response.

Temporary OWR Facilities:

Shoreline Staging Sites (SSS):

Potential Shoreline Staging Sites for each 'at risk area' may be noted on the corresponding site sheet in the Annex 4 of the Regional Plan. The key features necessary for a good SSS are summarized in the table below:

Feature	Required	Desirable
Ability to shelter oiled birds from wind, sun & rain. <i>An existing building is ideal. Marquees will suffice (flat space required).</i>	✓	
Good Ventilation. <i>If birds are to be sheltered in an existing building, sufficient ventilation is essential to ensure volatile fumes do not reach dangerous levels.</i>	✓	
Convenient to affected coast. <i>The site chosen must be a convenient logistical base for field staff.</i>	✓	
Good vehicle access and turning space. <i>Unimpeded vehicle access is required for hassle free transport of birds to the OWR facility for treatment.</i>	✓	
On-site toilets. <i>Personnel attending the SSS will require toilet facilities. Existing amenities are desirable, but portable toilets will suffice.</i>	✓	
Parking available. <i>Personnel attending the SSS will require vehicle parking.</i>	✓	
Water supply <i>An on-site water supply is desirable. However water can be tanked to the site if necessary to ensure personnel hygiene requirements can be met as can the cleaning of basic field equipment.</i>		✓
Mobile phone coverage <i>Mobile phone coverage is ideal. However radio communications may be necessary in more remote locations. At least one reliable form of communication <u>must</u> be available.</i>		✓
Electricity <i>Mains power would be advantageous, but not totally necessary.</i>		✓

As soon as oiled wildlife is confirmed, the Shoreline Staging Site(s) will be commissioned. The SSS Supervisor will go to the site of the SSS immediately upon notification and:

1. If required, arrange for the delivery of the appropriate MNZ kits.
2. Supervise the preparation of the SSS for oiled wildlife arrivals, including equipment for field stabilisation of oiled wildlife if necessary.
3. Supervise individual identification, holding of wildlife before transport and any field stabilisation.
4. Supervise arrangements for transportation of oiled wildlife to the OWF.

Oiled Wildlife Facility:

Identified Oiled Wildlife Facilities (OWF) are listed in annex 1 of the regional Plan. NB. Care must be taken to ensure that Maritime New Zealand has not identified the same site for their operational base - the OSC will be able to advise.

As soon as oiled wildlife is confirmed an OWF will be commissioned. The OWF Supervisor will go to the site of the OWF immediately upon notification to:

1. Arrange for the delivery of the appropriate MNZ and Massey equipment on-site.
2. Supervise the preparation of the OWF for oiled wildlife arrivals, specifically the set up of holding pens and stabilisation equipment for the first 24 hours of care.
3. Supervise the intake of oiled wildlife, including triage, medical assessment and medical stabilisation.
4. Supervise the construction of cleaning stations, drying facilities and clean bird holding areas.
5. Supervise the establishment of special areas e.g. veterinary, food preparation.
6. Supervise the construction of rehabilitation areas.
7. Supervise the medical management of oiled wildlife.
8. Supervise the establishment of a volunteer induction and training programme.

Ideally the OWF will house both cleaning and rehabilitation areas at the one site. However if space constraints exist and/or distance from the contaminated site is significant, these two aspects of the wildlife facilities may need to be separate.

Species at Risk and Prioritisation of oiled birds for treatment

Annex 4 of the Regional Plan provides regional avian species lists and corresponding prioritization categories (as outlined below). The key species for 'at risk areas' are also noted on site sheets. In some cases it may be necessary for the wildlife response to establish priorities for the deterrence, rescue and rehabilitation of wildlife (e.g. where many species are oiled). The prioritization categories below are intended for use as a guide only, and rely on seasonal and local information at the time of a spill incident, including nesting and breeding behaviour.

Category 1: First priority for deterrence, rescue and/or rehabilitation

Species with a New Zealand Threat Classification^{2, 3} and/or IUCN Red-list classification (www.iucnredlist.org) of critically endangered (CR), endangered (EN) or vulnerable (VU).

These are ranked from 1A to 1G for further prioritization using the New Zealand Threat Classification system.

- 1A Nationally critical
- 1B Nationally endangered
- 1C Nationally vulnerable
- 1D Serious decline
- 1E Gradual decline
- 1F Range restricted
- 1G Sparse

Category 2: Second priority for deterrence, rescue and rehabilitation

Species which are endemic to New Zealand, without a NZ Threat Classification, and with an IUCN Red-list classification of lower risk (LR) or not listed.

Category 3: Third priority for deterrence, rescue and rehabilitation

Migratory species, without a NZ Threat Classification, and with an IUCN Red-list classification of lower risk (LR) or not listed. Sub-category 3A - Straggler (or irregular migrant) species, without a NZ Threat Classification, and with an IUCN Red-list classification of lower risk (LR) or not listed.

Category 4: Fourth priority for deterrence, rescue and rehabilitation

Native species, without a NZ Threat Classification, and with an IUCN Red-list classification of lower risk (LR) or not listed.

Category 5: Fifth priority for deterrence, rescue and rehabilitation

Introduced species, without a NZ Threat Classification, and with an IUCN Red-list classification of lower risk (LR) or not listed.

Species present and their conservation-based treatment priority are also presented on 'site sheets'.

Special Considerations:

Protocol for dealing with marine mammals affected by marine oil spills is currently under development by Massey University. Contact Brett Gartrell, Kerri Morgan or Helen McConnell at Massey University for guidance.

Any special local considerations shall be included on individual site sheets in annex 4 of the Regional Plan.

Appendices:

1. Individual medical record template
2. Daily logs for wildlife summary data (live & dead)
3. Template Oiled Wildlife Response Section of the Response Incident Action Plan

Appendix 1 - Animal Admission and Summary Record

Incident Name: _____ Admission #: _____
 Admission date: _____ Admission time: _____
 Species: _____ Juv. / Adult Male / Female / Unknown
 Clinic Band: _____ DOC Band: _____

History - from collection tag:

Capture date: _____ Capture time: _____ Capture method: _____

 Capture location: _____

 Collected by (name): _____

 Status at time of collection (circle one): Alive Dead
 Degree of oiling at time of collection (%): _____
 Date & time of departure to treatment facility: _____

Pre-transport treatment Details: Treatment given at staging site: YES / NO
 Mouth/Nares Cleared YES / NO Warmed YES / NO
 Excess oil removed YES / NO Eyes Irrigated YES / NO
 Oral Hydration YES / NO Volume: _____ Fluid: _____

Other comments: _____

Admission Physical Examination:

Feathers: _____ Weight: _____

 Mouth / Bill: _____ Body condition: _____
 Nares: _____ Temperature: _____ °C
 Eyes: _____ Dehydration: _____ %
 Neck / Crop: _____ PCV: _____
 Body: _____ Buffy Coat: _____
 Wings: _____ Total Protein: _____
 Legs: _____ Blood Glucose: _____
 Feet: _____ Faecal (Direct): _____
 Posture: _____ Faecal (Float): _____

 Strength: _____ Faecal – Blood: Yes / No
 Respiration _____ Demeanour _____

Comments: _____

Triage Ranking: Low priority Medium priority High priority

Type of Oil: _____

Degree of Oiling: 25% 50% 75% 100%

Area Oiled:
 NB: Tip & middle feather layers = 'Sheen' or 'Light' or 'Medium' : Surface through to down feathers = 'Heavy'

Head:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy
Chest:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy
Wings:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy
Back:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy
Legs:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy
Tail:	<input type="checkbox"/> Sheen	<input type="checkbox"/> Light	<input type="checkbox"/> Medium	<input type="checkbox"/> Heavy

Initial rehydration therapy:
 Fluid type: _____ Volume: _____

Medical Treatment Summary: Itraconazole _____ mL of _____ mg/mL prep. _____

Samples collected: _____

Euthanased - Date: _____ Method: _____
 Reason: _____

Date washed	Product used	Wash duration	Patient condition
1.			
2.			
3.			

Pre - Release Physical Examination:
 Feathers: _____ Weight: _____

Mouth / Bill: _____	Body condition: _____
Nares: _____	Temperature: _____ °C
Eyes: _____	Dehydration: _____ %
Neck / Crop: _____	PCV: _____
Body: _____	Buffy Coat: _____
Wings: _____	Total Protein: _____
Legs: _____	Blood Glucose: _____
Feet: _____	Faecal (Direct): _____
Posture: _____	Faecal (Float): _____

Strength: _____ Faecal - Blood: Yes / No

Respiration _____

Demeanour _____

Comments: _____

Release Location: _____

Date Released: _____

Time Released _____

Appendix 3 - Oiled Wildlife Response IAP

To be updated daily during a response

Background information for developing this IAP can be found in the wildlife chapter of this plan

Aim

Include here a broad statement of aim for the oiled wildlife response.

Objectives

Include here a list of objectives for the oiled wildlife response.

Situation report

Include here a description of the situation at hand as it relates to wildlife and their key habitat. Special note should be made of priority threatened species.

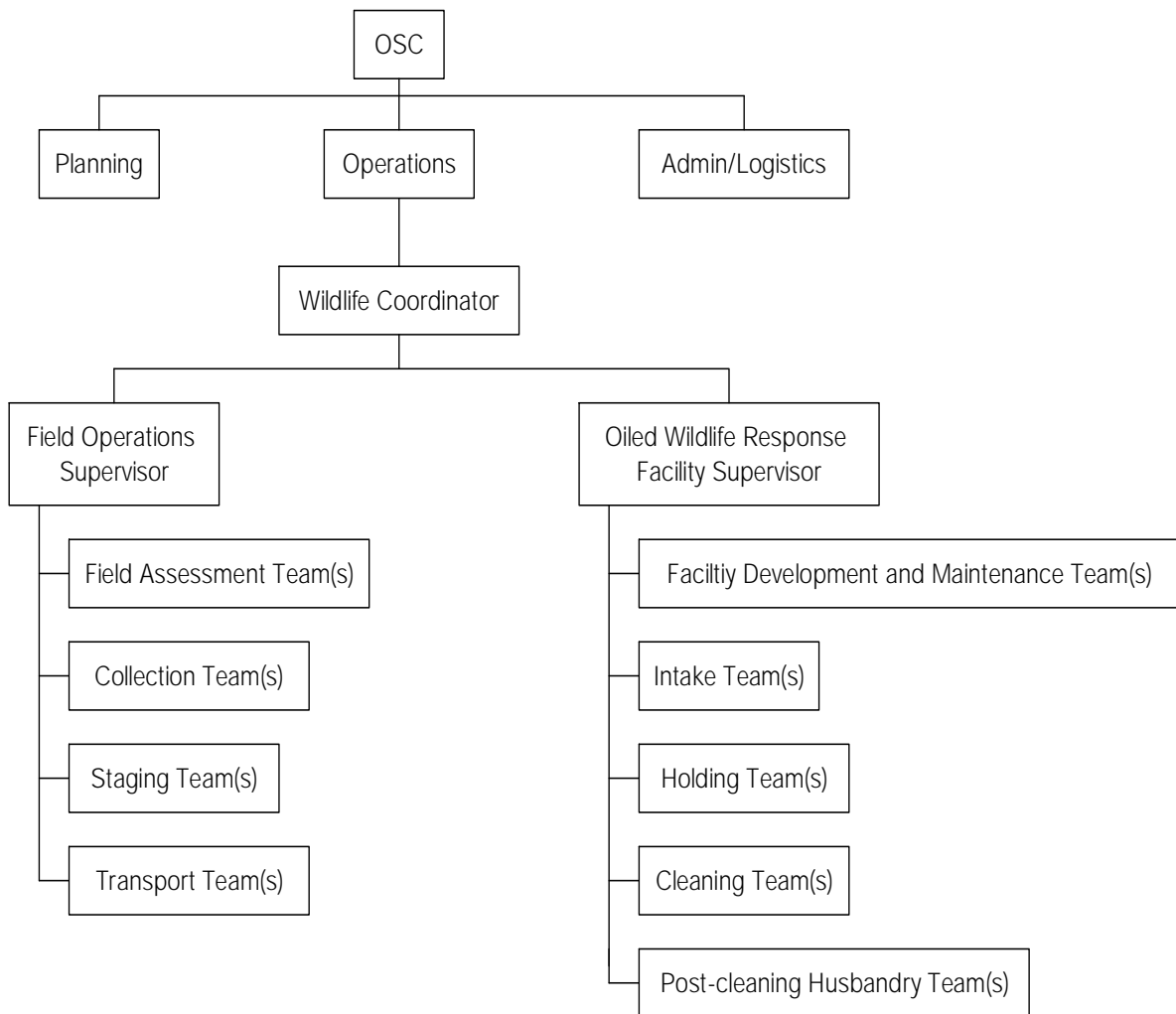
Response Actions

Include here an outline of wildlife response actions to achieve the objectives. The following format might be useful:

Action	Intention	Timeline	Responsibility
<i>For example:</i>			
1. Collect oiled wildlife from the shoreline	a. To remove dead oiled wildlife from the food chain and to retain for necropsy; b. To relocate live oiled wildlife to shoreline staging sites for triage and field stabilization	Ongoing until all affected oiled wildlife have been removed from the shoreline	Field Operations Supervisor, and Field assessment and collection teams

Personnel

Include here a list of the personnel assigned to fulfill the wildlife roles as indicated below.



Communications

Describe communications between key personnel and field teams.

Temporary OWR Facilities:

Oiled Wildlife Facility:

Identify the location(s) and of the Oiled Wildlife Facility (OWF) and any other relevant details.

Shoreline Staging Sites (SSS):

List the Shoreline Staging Sites used (and/or identified potential sites), the locations, and any access issues.

Resources

Include here an assessment of the resources available to facilitate the response intentions. The following subheading may prove useful:

Regional Blue Boxes

The contents of the blue boxes are designed to provide for the initial 24 hours of a response, with a capability of 50 oiled wildlife casualties and 20 field personnel.

Response Trailers

The response trailers are designed to back up the blue boxes with further stabilisation equipment and basic bird wash equipment. Trailer equipment is designed to provide for an additional 50 oiled wildlife casualties, 20 field personnel and 12 wash personnel while also facilitating the establishment of a pre-wash stabilisation area.

Mobile bird washing facilities:

Containers can be mobilised to form part of the temporary Oiled Wildlife Facility.

Predicted expenditure

Include here a prediction of expenditure based on response intentions.

The following expenditure predictions may be useful as an initial guideline. Costs will vary significantly between incidents.

The costs provided in the table below are for a hypothetical event in 2008 during which up to 1000 birds were oiled. For an event of this magnitude, facility and personnel capacity must provide for ongoing care of approximately 200 birds over a 30 day period. The required human resource level averaged 137 responders per day, accounting for higher numbers needed at the outset of the response.

By increasing the capacity of the cleaning facility by a factor of two from 12 to 24 birds per day, the costs of the response can be reduced by \$100 000, and there is a reduction in the number of birds which will die in care. The total capacity of the temporary centre would need to be larger.

Personnel wages	\$100 / eight hour day	\$411 000
Meals	\$25 / day	\$102 750
Accommodation	\$70 / night	\$287 700
Fish	150g / bird / day for 14 days @ \$10 / kg	\$4 200
Antifungal medication	Estimated total	\$5 000
Equipment	\$50 / bird	\$10 000
Facilities	Estimated total	\$90 000
Total		\$910 650
Total per bird (200 birds)		\$4 553

Administration and logistics

Include information on any of the following aspects as necessary:

- Transport
- Accommodation & rationing
- Personnel administration (hours of work, rosters, timesheets, etc)
- Reporting
- Finance tracking
- etc