

# ALBERTA ORPHAN BLACK BEAR CUB REHABILITATION PROTOCOL

APRIL, 2018

This protocol addresses the rehabilitation of young-of-the-year orphan black bear cubs and is for use by those wildlife rehabilitation facilities with valid permits under the Wildlife Regulation (“Permittees”) that have been approved in writing by Alberta Environment and Parks (AEP) to rehabilitate orphan black bear cubs. This approval is in addition to an approved Facility Plan containing information specific to black bear rehabilitation. For the purposes of this document, a “cub” is defined as a young-of-the-year animal <12 months.

In order to receive written approval, a Permittee must provide written notification of their intent to rehabilitate orphan black bears at the time of permit renewal to the regional AEP wildlife biologist. This includes an up to date Facility Plan.

To be considered for approval to rear orphaned black bear cubs for release, a Permittee must provide the following information to AEP.

- Financial status, including proof of sufficient funding to rear black bear cubs using the methods outlined in this protocol.
- Evidence of staff training including past experience and knowledge of rehabilitating bear cubs.
- Transportation plan including current equipment and availability of staff for transporting cubs to the facility.
- Details of an education plan including, but not limited to, printed materials, outreach programs and messaging (websites, social media) used to educate the public on bear rehabilitation, habituation, food conditioning, encountering bear cubs in the wild, etc
  - Wildlife rehabilitators are responsible for messaging provided by all staff/volunteers to the public.
  - Inaccurate information or details that contradict Government of Alberta published information will influence the decision to approve a facility for bear rehabilitation.

The facility must also pass an on-site inspection to ensure it meets the criteria in the approved Minimum Standards as well as those contained in this document.

It is important to be able to evaluate the success of rehabilitating orphan black bear cubs in Alberta. Some amount of research and monitoring has been done across North America using varying rehabilitation techniques. Van Dijk (2000) states that “the release of rehabilitated bears in an area with few bears and enough food and, where the risk of density-dependent social intolerance is low, can be called a success when the released bears survive, reproduce and stay away from human settlements.” Other important objectives are to release bears in good health with the necessary skills to survive in the wild and minimize disease risk to the native population (Beecham et al. 2016).

AEP defines success as an orphan black bear cub that is released back into the wild in good health, and for the remainder of its life does not exhibit any problem behaviors near human settlements or developed areas.

## OPTIONS FOR ORPHANED BEAR CUBS

- 1) **Leaving cubs in the wild/Returning cubs to the wild.** This should be the first option considered if the circumstances are appropriate.
  - This is a viable option if:
    - i. the bear cub is old enough to survive alone (5-7 months), has adequate fat reserves and is assumed to be in healthy condition;
    - ii. the bear cub does not pose a risk to human safety at the location in which it was found (e.g. along a road, close to residences, etc);
    - iii. adequate steps have been taken to ensure the cubs are not orphaned (i.e. monitor overnight for mother bear activity);
    - iv. the bear cub has not been removed from the location in which it was found for a period longer than 48 hrs. Some members of the public are likely to collect the cubs before ensuring they are actually orphaned. Rogers (1985) indicates returns to the wild in this situation can be a successful method to reunite sows with cubs.
  - 2) **Raising/rehabilitating and releasing cubs** – where it has been determined by AEP this is the best option, Permittees approved as such may receive bear cubs for rehabilitation and release.
  - 3) **Placement in a zoo** – alternative used if other options are not available or appropriate as determined by AEP staff.
  - 4) **Euthanization** – alternative that may be used in the following situations:
    - when the health of the cubs is determined (by the AEP wildlife biologist and/or wildlife veterinarian) to be such that euthanization is the most humane decision;
    - when the cubs are part of a family group that has become a problem/conflict as determined by Fish and Wildlife Enforcement Branch (FWEB)/AEP;
    - if there are no rehabilitation facilities approved to house orphan black bear cubs or no space available at an authorized rehabilitation facility; or
    - other circumstances as determined by AEP or FWEB

## CRITERIA FOR REHABILITATION

In determining the suitability of orphaned black bears for rehabilitation in Alberta, first consideration will be the availability of space at a permitted wildlife rehabilitation facility. As there will be a limited number of bear cubs that can be placed at wildlife rehabilitation facilities in any given year, animals will need to be selected as the best candidates for successful captive rearing and release.

In order to be eligible for rehabilitation at an approved facility, black bear cubs must be:

- 15 kg (33lbs) or less

- Admitted to the rehabilitation facility between January and July 1<sup>st</sup> of any year.
  - Cubs brought to the facility after July 1<sup>st</sup> of a year must be evaluated by AEP staff to determine suitability for rehabilitation. Criteria will include (but is not limited to) body condition, percentage of body fat, sickness or injury, time of year and environmental factors.
- Young-of-the-year (>12 months old). Young of the year cubs are those cubs born in that year, not yet denned in the winter. Yearlings that have successfully denned over the previous winter are not suitable candidates for rehabilitation upon emergence.
- Examined by a qualified wildlife veterinarian (approved by AEP), after which AEP staff will determine whether the cub should be euthanized or allowed to remain at the facility for rehabilitation;
  - Cubs must be in good health (no serious injuries that require long-term vet care or obvious disability).
  - Injured cubs may not always be suitable for rehabilitation. Cubs requiring longer-term care are generally not recommended candidates for rehabilitation and reintroduction (Beecham et al 2016). Injured cubs will be evaluated by AEP staff in consultation with veterinarians, to determine suitability for rehabilitation.

Permittees must not rehabilitate black bear cubs in the following situations:

- Cubs that are found “left alone”. These cubs must not be considered abandoned or orphaned until reasonable effort has been made to reunite the cub(s) with their mother.
- Family groups involved in problem wildlife situations will be dealt with as a unit and at the discretion of FWEB and AEP staff.

## INTAKE OF BLACK BEAR CUBS AT APPROVED FACILITIES

The following requirements apply to Permittees that have been approved to rehabilitate orphan black bear cubs:

- Permittees must notify the regional AEP biologist immediately upon knowledge of an orphaned black bear cub from a member of the public or arrival of a black bear at their facility (without prior knowledge).
- When capturing and transporting black bear cubs:
  - Wildlife rehabilitators are not permitted to capture bears (i.e. use of traps or immobilizing drugs) unless it can be done by hand with minimal basic equipment.
  - Transportation of black bear cubs to a rehab facility must not be done by members of the public.
  - Measures must be taken to prevent the escape of bears during transport and to minimize handling time.
  - Retrieval and transportation of bear cubs may only be done by trained personnel with appropriate safety equipment (transport cage, immobilization equipment).
  - Cubs must be provided water if being transported long distances (>150kms).
- Upon receipt of any black bear cub, the rehabilitation facility will arrange for a veterinary exam by a qualified approved wildlife veterinarian\*\*. The results of that exam will be shared with the

AEP regional biologist and a decision will be made about the suitability of the cub for rehabilitation.

- AEP will consider which facility will receive the cub(s) based on location and current occupancy (if there are multiple permitted facilities). Whenever possible bears should be placed with another bear of similar age/size.
- During the rehabilitation process, Permittees will continually evaluate all cubs for their suitability to continue to release.
  - A plan for ongoing evaluation will be made by AEP with recommendations from the wildlife veterinarian.

*\*\*AEP will identify to the wildlife rehabilitator who can be contacted as an approved and qualified wildlife veterinarian.\*\**

## HOUSING/ENCLOSURES REQUIRED AT APPROVED FACILITIES

The following requirements apply to Permittees that have been approved to rehabilitate orphan black bear cubs:

- Permittees must not have any bear cubs in the residence of the caretaker at any time. Separate facilities are required to meet the housing requirements.
- Facilities must have separate enclosures for bear cubs appropriate to age, size, and temperament. The number and size of pens that meet or exceed the criteria below will determine the maximum number of cubs permitted at each facility. At minimum the facility must have:
  - Cub Nursery – for cubs <10wks that are bottle fed
  - Cub Enclosure/Medical pen – for cubs > 10 weeks or those in need of medical treatments. This pen should be fitted with guillotine doors (or similar) controlled from the outside for blind feeding/cleaning by caretaker.
  - A separate enclosure for quarantine of new arrivals, sick animals and to facilitate treatment of these animals.
  - Minimum of two outdoor captive-rearing enclosures. Ideally an acclimatization pen (for cubs >4months) and a larger wild enclosure (for cubs > 5kg) that allows species specific behaviours (e.g. tree climbing, digging, foraging, and bathing).
- Enclosures must include heated indoor options for infant cubs (<8 weeks).
- The location of large outdoor enclosures on the site should be chosen to minimize evidence of all human presence to the wildlife in care (visual as well as auditory and olfactory).
- The permittee must not open the facility to the public at any time when bears are present at the site.
- Each outdoor enclosure that will be used for rehabilitating bear cubs must contain escape deterrents and provide adequate security.
  - Sides of enclosures must be nine gauge chain-link fencing or concrete block;
  - Complete chain link roof with a partial solid roof on top for shelter. Roofless cages are permitted if they are designed in a way that ensures security from escape (i.e. electric fencing with overhang, or 3 feet of vertical/slanted metal sheeting on top to restrict climbing);
  - Buried chain-link designed in such a way as to prevent digging and escape under the fence (Examples include: buried in a concrete base; OR chain link fence extending along the ground 2m from, and perpendicular to, the vertical fence).

- Double-door entry systems and locks to secure all gates.
  - Perimeter fencing must be inspected a minimum of 2 times a week.
  - Electric fencing (if used) must be tested daily to ensure voltage is working and set appropriately to prevent escape.
- The Permittee must install and maintain visual barriers on enclosure walls and fences to prevent bear cubs within the enclosure from seeing humans outside of the enclosure. This reduces interactions with facility staff or any other member of the public. Use of video cameras to monitor bears in their enclosures is encouraged to reduce unnecessary human interaction.
- Each outdoor enclosure that will be used for rehabilitating bear cubs must contain a shelter or structure that protect any bears in the enclosure from weather extremes (i.e. den box, culvert or equivalent).
- Each outdoor enclosure that will be used for rehabilitating bear cubs must contain habitat enrichment including but not limited to
  - a water feature,
  - a climbing structure, and
  - digging opportunities.
- Each outdoor enclosure must have surface substrate that is composed of at least 60% natural material (for example soil and grass). If other surface material is present, it should represent less than 40% of the enclosure and be made of concrete (with a sloping floor to a drain for cleaning) and provide heavy rubber mats to avoid foot damage.
- All cages for bear cubs must be designed so that food can be provided and cages cleaned without the animals seeing people (i.e. hatch doors to close animals off in separate cage sections).
- No bear cub shall be contained in a cage that is smaller than the minimum cage dimensions applicable to a bear cub of its age. The minimum cage dimensions are indicated in the following chart for various ages of bear cubs. Larger cubs are often reared in larger outdoor enclosures (1.2 to 2.0 ha/3-5 acres) (Beecham, 2015).

**Minimum Cage Dimensions** (*taken from IWRC/NWRA Minimum Standards, 4<sup>th</sup> Edition*)

Order/Family	Infant Care					Nursing/Pre-weaned					Juvenile Outside				
	W	x	L	x	H	W	x	L	x	H	W	x	L	x	H
Bears															
Black Bears	(L)	20	Gallon			(L)	3	ft	x	6	ft	x	3	ft	(L) 20 ft x 36 ft x 16 ft *
		76	Liter				0.9	m	x	1.8	m	x	0.9	m	(L) 6.1 m x 11.0 m x 4.9 m

## HANDLING & GENERAL CARE

- The Permittee shall ensure that each cub will have no more than 2 human caregivers during the entire time the cub is held at the facility, from admittance to release.
- The Permittee shall ensure that no cub will be fed by hand after it is weaned off bottle-feeding (approx. 10 weeks of age). The facility will implement methods of blind feeding to reduce human interactions with the bears.
- The Permittee shall ensure that no public visitation or observation of the cubs is permitted at the rehabilitation facility. The only persons permitted to handle or observe (other than via video monitoring) are the identified caregiver(s), the veterinarian, and AEP staff.

- The Permittee will develop and implement an appropriate dietary plan for cubs with an AEP approved wildlife veterinarian based on age, weight, and nutritional needs as determined by the veterinarian.

## DISEASE CONTROL

- All individual cubs considered a candidate for rehabilitation must undergo disease and parasite testing as directed by wildlife disease specialists and/or wildlife veterinarians designated by AEP.
- The Permittee will ensure that within 30 days of release, all cubs are assessed, as directed by wildlife disease specialists and/or qualified wildlife vets, for parasites and disease.
- The Permittee must ensure that they have appropriate quarantine enclosures designed to isolate cubs when necessary.
- The Permittee must quarantine each bear cub for a period no less than 30 days upon arrival to the facility.

## RELEASE

There are several methods/techniques used by rehabilitators to release bears across North America. The method that provides the best chance for a bear to remain unhabituated is one where the bear spends the shortest amount of time in the rehabilitation facility. This method involves releasing bears in late fall/early winter in good condition, and allowing them to find an adequate winter den on their own. Beecham et al. (2016) found there to be no difference in post-release survival of bears that were released using this method vs bears that were placed directly into dens in the winter, or overwintering bears at the facility and releasing them in the spring.

- Cubs must be released on or before October 15th of the year they arrived at the facility and are not to be overwintered at the facility unless approved in writing by the AEP Regional Resource Manager. This approval will be determined on a case by case basis.
- Cubs will be evaluated for release suitability by AEP staff.
- Release of cubs will be coordinated with AEP staff. Cubs will be collected by AEP staff from the rehab facility and taken to an appropriate location (within home range of capture location) for release.
- At time of release, cubs will be fitted with a monitoring device (radio collar, ear tag, etc) that will be attached and monitored by AEP.

## MONITORING

AEP will implement a monitoring strategy that includes:

- Marking each individual released from a permitted facility including an appropriate tracking device.
- Data Management - collection and analysis of data

The long term data set will be used as one measure to evaluate the success of the rehabilitation process.

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