

SALVAGE PERMIT INFORMATION CHECKLIST

Providing complete information will greatly speed-up review of your application. This checklist has been compiled to facilitate the process of filling out the General Permit Application and the Animal Care Application Form. We have highlighted key information requirements, and sections that are often inadequately addressed and cause requests for review and re-submissions.

TO BE INCLUDED IN “ANIMAL CARE APPLICATION FORM – SECTIONS 3 AND 4”

Experience of investigators. Provide details about experience (i.e. don't just state “has experience conducting salvages for amphibians”). Details should include species previously surveyed or salvaged, dates and locations (most recent or relevant sub-set if too many to list all), and relevant training.

TO BE INCLUDED IN “GENERAL PERMIT APPLICATION – PROPOSED ACTIVITY SECTION” AND “ANIMAL CARE APPLICATION FORM – SECTIONS 5 TO 11”

- 1) **Species expected to be captured** - Expected numbers (estimate if not known) and status (i.e. note if species are provincially red or blue listed, SARA listed, or otherwise at risk). Justification of estimate of number of animals to be salvaged (pre-construction surveys?).
- 2) **Location animals are being salvaged from** - including map(s) and a description of the habitat. Photos may also be helpful.
- 3) **Expected dates of activities (start date and end date)** – Does the timing of the project conflict with key seasonal activities of the animals e.g., breeding.
- 4) **Project background.** Rationale for the work. I.e. why are the salvages being done? Has the activity that triggered the need for salvage been through an approval process such as an Environmental Assessment Review or Water Act Approval? Etc.
- 5) **Methodology** based on best available science and established protocols where they exist:
 - a) **Description of capture and relocation methodology** that will be used, including:
 - i) Techniques and equipment (i.e. what kind of traps or surveys).
 - ii) Intensity of effort (e.g. number of surveys and/or traplines, duration and frequency of trap checks and surveys, duration of entire salvage, number of people involved, etc.).
 - iii) Within the salvage area, where will traps be set? Where will surveys be conducted?
 - iv) Timing (time of day, time of year, etc.).
 - v) Precautions to protect wildlife from harm during capture, handling and relocation.
 - vi) How the salvage area will be isolated a) prior to salvage, b) during salvage, and c) post-salvage during construction.
 - vii) Once captured, how the animals will be held, transported and released. Expected duration in captivity. What precautions will be taken to reduce disease transmission probability when held in captivity (hygiene protocols?).

- b) **Release location.** Provide a description of the release location and justification of selection of release location sites.
- i) Must be a site with similar habitat of equal or better habitat suitability for the animals relative to the salvage site, and outside of the area of impact.
 - ii) Suitability should be assessed using a technically sound rationale based on best available information and science, e.g. habitat modelling or suitability ratings where these are defined for a species, field surveys to determine habitat characteristics and quality, etc.
 - iii) The land owner and/or land manager of the relocation site must be consulted for permission to release animals to the site.
 - iv) Other appropriate criteria for choosing a release site include those that meet the requirements of the life history and habits of the animals in question, i.e. access to food, shelter, and breeding habitat for different life stages, and dispersal habitat, as appropriate. The temperature and water quality requirements of the animals must be met in the new location. Provincial best management practice guidelines, RISC standards, scientific literature, and species experts can be used to define criteria and methods used for locating release locations.
 - v) Other desirable characteristics of the release site include:
 - (1) In relatively close proximity to the salvage site (but outside the area of impact).
 - (2) Protected land (i.e. land protected from development). Lands slated for development are not suitable release locations.
 - (3) Upstream of the impact in the case of watercourse, as long as animals will be prevented from moving downstream into the area of impact.

*Note that each situation will be different and achieving all desirable characteristics may not always be possible or appropriate. Please use technically sound best judgement and provide a rationale for the choice of release locations.

- 6) **Appropriate references** to support methods (e.g. RISC standards, best management practice guidelines, other scientific and technical literature, species experts). Note that it is not enough to just refer to a reference (e.g. “to capture amphibians we will be following the RISC standards for amphibians”); a description of the methods as outlined above must also be provided with justification of amendments, if any.
- 7) **CCAC Invasiveness Category** – All salvage operations fall under Category C.
- 8) **Measures used to prevent or minimize stress, injury or other harm** to animals captured, and to prevent accidental mortality (contingency plans). Provide details of euthanasia and disposal techniques in case of unexpected injury to animals. All incidentally killed animals should be deposited as voucher specimens at appropriate museums.

- 9) **Hygiene protocols for aquatic field work.** For amphibians, a condition of the Wildlife Act permit will be following the “Interim Hygiene Protocols for Amphibian field staff and researchers”, which will be attached to the permit. The Ministry of Environment has Standards for Live Animal Capture and Handling Guidelines; following them is a standard condition of Wildlife Act permits:
<http://ilmbwww.gov.bc.ca/risc/pubs/tebiodiv/capt/index.htm>.
- 10) **Non-target or incidental animal capture.** Note that all captured animals (unless they are invasive, non-native species) should be released unharmed in a new and appropriate location, regardless of whether or not they were expected to be captured as part of the salvage.
- 11) **Invasive, non-native amphibians** (bullfrogs and green frogs) should be humanely euthanized according to the Canadian Council for Animal Care - Euthanasia recommendations for amphibians and reptiles can be found at:
http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GDLINES/AmphibiansReptiles.htm.
- Preferred euthanasia methods for green frogs and bullfrogs are physical methods that result in a rapid loss of brain function, i.e. decapitation followed by pithing, or immersion in buffered tricaine methanesulphate or MS-222.
- 12) **The data to be collected from the animals captured.** The Wildlife Act permit will define certain data that must be collected for each animal, including capture location, date, and age class and sex. For species at risk, photographs showing size and other identifying characteristics are very useful and may be required to confirm identification.

Note that the General Permit Application and the Animal Care Application are reviewed separately, so the above information must be included in both applications, or included in an attachment that can be appended to both applications.