



How to complete a well written Animal Care Application (ACA) for projects involving herpetofauna and small mammals

Purpose of Document

This document is to guide applicants completing the Animal Care Application (ACA) that accompanies a General Wildlife permit application. The information provided applies to projects involving amphibian, reptile and small mammal salvages but can be applied to other project types as well.

The goal of an ACA is to provide an accurate and thorough document that highlights the applicant's relevant experience and demonstrates the highest possible standards of animal care for the project. ACAs containing complete and correct information will assist reviewers and decision makers in assessing applications and minimize application review times.

The ACA should be a stand-alone document and should include all relevant information on the project and planned salvage activities including maps, photographs, site descriptions, expected species and methods. No supplementary documents should be included (e.g., Management Plans); any relevant information from such documents should be incorporated into the ACA.

Permit and ACA Review Process

Permit review and approval are performed by regional staff and the regional statutory decision maker (Figure 1). The ACA is reviewed by an Animal Care Committee consisting of the Provincial Wildlife Veterinarian and species specialists as required. Comments on the ACA are sent to the applicant for response and updates or revisions are often required before it is approved.

Recommended Timelines

Due to the multiple types of review and the time required for revisions and follow-up, the permit application and ACA should be submitted well in advance of the anticipated project start date. A minimum of 2 months is recommended for application review.

Key information requirements for the relevant ACA sections are outlined below. These sections are often inadequately addressed and therefore require re-submission of ACAs. The section numbering aligns with those sections in the ACA template.

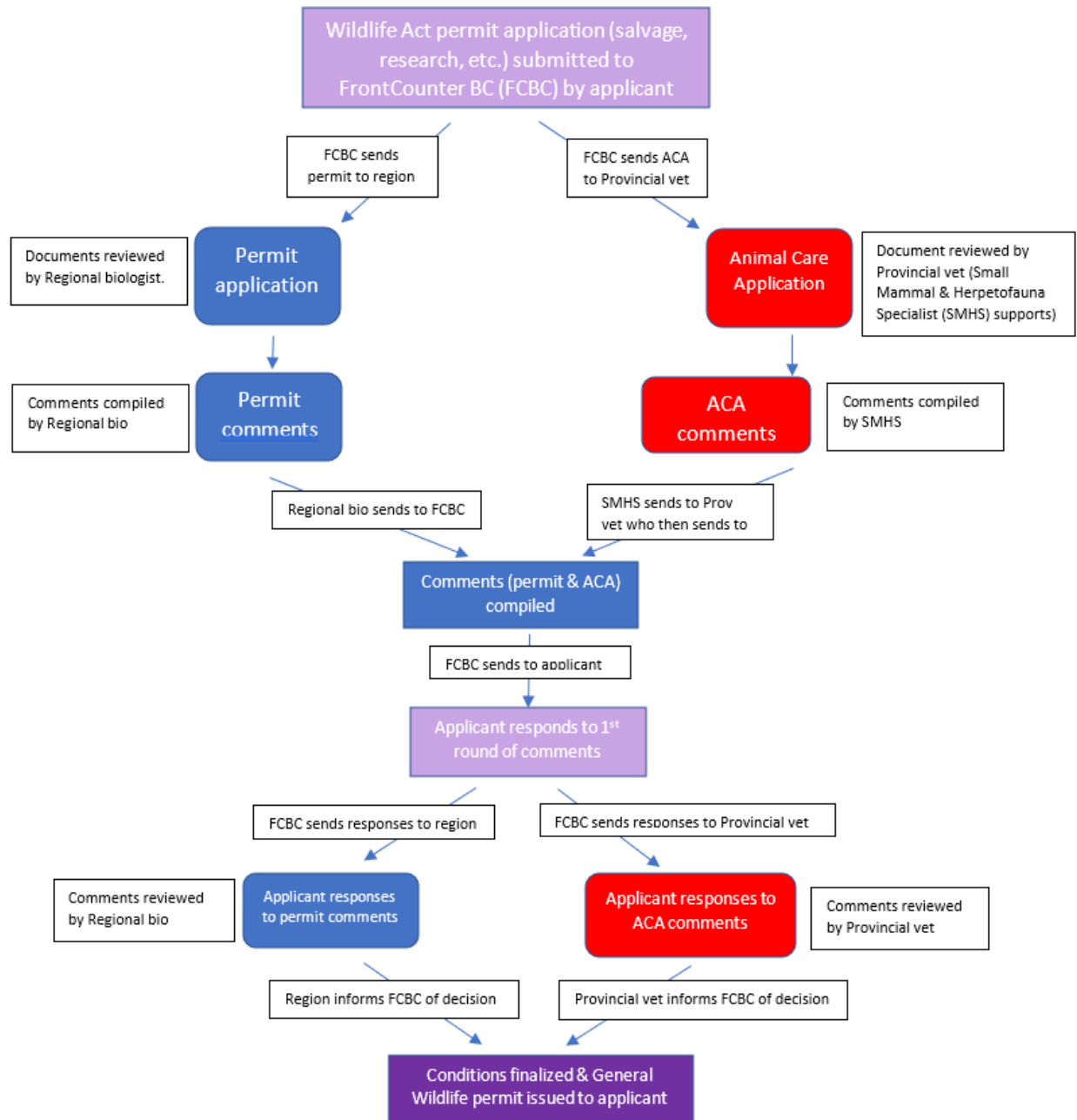


Figure 1. Flowchart of General Wildlife Permit and ACA review.

2. Starting Date and Completion Date:

- Salvage permits are typically granted for a one-year period only.
- If it is a multi-year project that involves salvage, clearly state that salvage of herpetofauna or small mammals will not occur during the overwinter period when animals are inactive or seasonal conditions are poor. Overwintering periods vary by region and this will have to be determined ahead of time.
- Failing to indicate that salvage will not occur when animals are overwintering/inactive is often not included and as a result, is a common cause for re-submission with revisions.

3. Principal Investigator:

A thorough description of the training and relevant experience of all investigators is required. It is important for reviewers to know that the investigators have appropriate experience and knowledge, as opposed to simply stating an investigator has XX years of experience. It is the responsibility of the applicant to describe the relevant skills and experience for the team conducting the work and is responsible for minimizing stress/harm/impact to the animals in question.

- Provide the following details of at least 3 of the most recent and relevant projects to demonstrate experience, either in paragraph or table form:
 - Project name
 - Year
 - Permit #
 - Role in project
 - Target species
 - Life Stage
 - # of individuals/species that you handled (estimate if exact numbers were not recorded)
- Indicate the role of the PI in the project.
- Provide a statement clearly stating that the PI is responsible for the project, including supervision and training of all staff.

4. Additional Investigators:

- All additional investigators involved in the project are to be listed along with a description of their relevant experience. See the above comment regarding details required to describe experience.
- Indicate the role of each AI in the project.

Other investigators:

- All other investigators involved in the project are to be listed along with a description of their *relevant experience*. See the above general comment regarding details required to describe experience.
- Indicate the role of each investigator in the project.
- If other investigators are being included in the ACA that lack the appropriate skills and experience, it must be clearly stated that they will be trained by or supervised by investigators that have this experience.

5. Project proposal: A. Background – Goals and Objectives

- Provide a rationale for the work (i.e. why is the research required? Why are the salvages proposed? Has the activity that triggered the need for salvage been through an approval process such as an Environmental Assessment Review or *Water Sustainability Act* approval, etc.?)
- What are the expected dates of activities being proposed (start date and end date)? Does the timing of the proposed work correspond overlap with sensitive life history events or timing windows (e.g., breeding, juvenile dispersal)?
- What is the location of the activities being proposed? i.e.
 - Where will animals be salvaged from?
 - Provide a map, describe the habitat, and include photographs, if available.
 - Provide a statement of permission to access the land containing the proposed release site.

6. CCAC Invasiveness Category:

All Salvage operations fall under Category C.

7. Species and number of animals required:

- Provide a complete list of amphibians, reptiles and/or small mammals potentially found in the project area. Use current information (i.e., previous survey work, habitats present) to inform the species list.
- All reptiles, amphibians, and small mammals with potential to be encountered must be included, not just at-risk species. *If salvage work is proposed, it must apply to all herpetofauna, and small mammals encountered.*

NOTE: Refer to the BC Species and Ecosystems Explorer

(<https://www2.gov.bc.ca/gov/content?id=DB888ABF936D478295BC87C99B5CA4DC>)

and Appendix 2A of the Best Management Practices for Reptile and Amphibian Salvages in BC (2016);

<https://www2.gov.bc.ca/gov/content?id=83468BC888E345369E4A3BC48FB86F9F>) for guidance.

- Estimate the number of individuals per species that will be expected and provide rationale for those numbers (e.g. previous inventory, surveys, knowledge of area).

8. Details of capture, handling, sampling and surgical procedures and final disposition:

* A Note on Blanket Protocols *

For the method section below, **please do not submit generic (copy and paste) protocols from past applications.** Although some of the same information can be used, the methods provided must be specific to the project, species, life stages and salvage techniques proposed for each project. Including a generic protocol generates confusion during the review process and will likely result in delays acquiring your permit.

Capture technique:

Clearly outline approaches proposed to survey (detect) and capture animals. If methods differ by life history stage and species, clearly describe methods for each.

- Describe the survey conditions when survey and capture work will be completed to ensure highest possible detection rates of animals (i.e., time of day, time of year, temperature, etc.)
- Clearly state the survey effort to be expended and when the salvage work will be considered complete and why.
- Do not refer to BMP documents and say they will be followed. *The applicant must demonstrate that the document was read, and details and protocols incorporated.* If variances are proposed, clearly outline the rationale and reference literature to support the change.
- Describe measures taken to minimize various types of stress to animals during capture (e.g. noise, movement, temperature, light).
- Read and reference the Canadian Wildlife Health Cooperative's decontamination protocol (<http://www.cwhc-rcsf.ca/docs/HHWG%20Decontamination%20Protocol%202017-05-30.pdf>).
- If exclusion fencing will be used to capture/exclude animals, describe the design, installation, and monitoring/repair details. How will the excluded area (i.e. inside the fence) be checked to ensure no animals have entered the project site?

Method of Handling:

- Read relevant material and reference how different taxonomic groups will be physically handled, held, transported or marked. (https://ccac.ca/Documents/Standards/Guidelines/CCAC_Guidelines-Amphibians.pdf; <https://ccac.ca/en/standards/guidelines/types-of-animals.html>)

- Describe measures taken to avoid stress to individuals.
- Include an estimate of the max time animals will be held before being released.

Relocation sites:

Provide a description and rationale for selection of relocation sites:

- Include a table of site coordinates and a map showing relocation and salvage sites.
- Select sites with similar habitat of equal or better suitability relative to the salvage site that is outside the area of impact.
- Suitability should be assessed using technically sound rationale based on best available information and science.
 - e.g. habitat modelling or suitability ratings, field surveys to determine habitat characteristics and quality.
- Relocation sites should meet all habitat requirements for species and life stages in question. This includes dispersal, breeding, foraging, shelter, and overwintering habitats.
- Aquatic relocation sites must meet temperature and water quality requirements of the animals (i.e., comparable to salvage location).
- Other desirable characteristics of relocation sites include:
 - Comparable elevation.
 - In close proximity to the salvage site (but outside the area of impact).
 - Upstream of the impact in the case of watercourses, as long as animals will be prevented from moving downstream into the area of impact.
 - Lands slated for development are not suitable as release locations.
- Provincial best management practices (BMPs), RISC standards, scientific literature, and species experts can be used to define criteria and methods used for selection of relocation sites.
- The landowner and/or land manager of the relocation site must be consulted for permission to release animals to the site and this information included in the ACA.
- Minimize the distance animals are moved (e.g. ideally less than 500 m).
- If distances beyond 500 m are anticipated, rationale justifying the additional distance must be provided.

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

Contingency plan:

- Describe process planned if animals are injured or not showing normal behaviour, but do not require euthanasia.

- Provide name and contact information for wildlife rehabilitation center, veterinarian or species specialist that will be consulted if required.
- If the plan is to take injured animals to a rehab facility, contact them in advance to ensure they have the capacity and expertise to do so.

Method of euthanasia & disposal technique:

- Refer to the most appropriate wildlife euthanasia references and provide details on the method to be used.
- Do not simply cite the guidance documents.
- Effort should be made to disperse all animals killed as voucher specimens at appropriate museums. Mortalities in good condition can be provided to the Royal BC Museum

11. Region and Planned Work Areas

- State the Region the work will be performed (Table 1).
- If project activities span multiple regions, you must apply for a permit in each region separately.

Table 1. BC permitting regions.

Region
1 - West Coast/Vancouver Island
2 - South Coast/Lower Mainland
3 - Thompson-Okanagan
4 - Kootenay-Boundary
5 - Cariboo
6 - Skeena
7A - Omineca
7B - Peace/Northeast
8 - Okanagan

*** A Note on Blanket Permits ***

Blanket permits are not supported. These are requests to perform salvages over large areas on an ‘as and when needed’ basis where the necessary planning and due diligence is not demonstrated in the ACA. Most importantly, blanket permit requests lack information on specific salvage sites and associated relocation sites. ACA and permit review teams expect to see site-specific information (see below), and failure to include this information will result in delays in permitting.

Planned work areas.

- Provide a table with coordinates and descriptions of each work site.
- For salvage projects, include each planned salvage site and relocation site.
- Also include a map and KML showing each salvage site and planned relocation sites.
- Provide rationale for selection of relocation sites. Sites should be selected that accommodate each species and life stage (adults, larvae/tadpoles, eggs) with the potential to be salvaged.

12. Permit:

Ensure this section is signed and dated.

References:

Each ACA requires a reference section that lists the relevant guidance documents that were used in the preparation of the ACA. These can include:

- BC RISC guidelines (various guidelines depending on the taxonomic group). See here: <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/inventory-standards/terrestrial-ecosystems-biodiversity>
- BMP for Amphibian and Reptile Salvage in BC. 2016. <http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=B DP&documentId=12490>
- BMP for Pacific water shrew. 2010. <http://www.sccp.ca/sites/default/files/species-habitat/documents/DRAFT%20Best%20Management%20Practices%20Guidelines%20for%20Pacific%20Water%20Shrew%20-%20Sept%202010.pdf>
- Decontamination Protocols for Field Work with Amphibians and Reptiles in Canada. 2017. <http://www.cwhc-rscf.ca/docs/HHWG%20Decontamination%20Protocol%202017-05-30.pdf>
- Canadian Council on Animal Care (CCAC). 2010. <https://www.ccac.ca/Documents/Standards/Guidelines/Euthanasia.pdf>
- Canadian Council on Animal Care guidance for amphibians and reptiles: https://www.ccac.ca/Documents/Standards/Guidelines/Add_PDFs/Wildlife_Amphibians_Reptiles.pdf
- Canadian Council on Animal Care guidance for bats: https://www.ccac.ca/Documents/Standards/Guidelines/Add_PDFs/Wildlife_Bats.pdf
- American Veterinary Medical Association. 2020. <https://www.avma.org/sites/default/files/2020-01/2020-Euthanasia-Final-1-17-20.pdf>
- Euthanasia of bullfrogs and green frogs. 2020. (see attached)

Reporting:

- The *Wildlife Act* permit will define certain data that must be collected for each animal, including capture location date, 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. Ensure you consult the Appendix A – terms of permit.

- In addition to the information listed in Appendix A, include the survey effort expended (e.g. amount of survey time, amount of ground surveyed, etc.). Currently, this is not listed in Appendix A. However, this is required to understand the level of effort expended in the work.
- Reports and their associated data must be submitted to the Wildlife Species Inventory database. Use the General Survey Block Template to submit your data (<https://www2.gov.bc.ca/gov/content?id=DC67BCBF8B1E462889B854364364D2D1>). Read through Appendix A carefully as you may also be asked to submit to your regional FLNRORD office.

NOTE: Final reports and their supporting data are required whether individuals are captured/handled/salvaged, etc. or not. That is, if no wildlife is salvaged, a report outlining survey methods and effort still needs to be prepared and submitted.