**Fish Research Licence Application – Fish Rescue**

A Fish Research Licence (FRL), issued under the Alberta *Fisheries Act* (Section 41 of the General Fisheries (Alberta) Regulation), must be obtained from Alberta Environment and Parks – Fisheries Management prior to any fisheries research, collection, display, transport, or salvage activities that would occur within Alberta waters. This excludes Federal lands, but includes provincial parks and protected areas and Indian Reserves and Métis Settlements. A single licence may be issued for more than one location, provided the activities are being conducted by the same individual or research group.

For the purposes of the License, fish are defined by the Federal *Fisheries Act* as “fish, shellfish, crustaceans, marine animals and any parts of fish, shellfish, crustaceans or marine animals, and the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals”.

**Before submitting a Fish Research Licence application, applicants should be aware of the following:**

* A completed application should be received a minimum of 10 days in advance of the proposed activity period for review, approval, and processing of the application. Incomplete applications may delay the time required for review, approval and processing.
* Fish Rescue is defined here as: Fish are being collected as part of a fish rescue operation (sometimes referred to as a fish salvage) with the purpose of avoiding fish mortality due to a natural event or authorized activity (example de-watering of a site for construction activities). NOTE: This is not to be confused with a Salvage Fishing Licence (issued under Section 24 of the General Fisheries (Alberta) Regulation of the Alberta *Fisheries Act*).
* Other permits or approvals from other agencies and organizations may be required to access or conduct research and/or engage in collection activities on other lands within the province. Such permits or approvals could include:
	+ Those relating to accessing Provincial Parks lands – contact Alberta Tourism, Parks, and Recreation.
	+ Those relating to accessing Indian Reserves or Métis Settlements – contact the respective band administration office.
	+ Those relating to accessing, research or collection on Federal lands – contact the appropriate Federal agency (example Parks Canada).
	+ Those relating to a Species at Risk under the *Species at Risk Act* (SARA) – contact the appropriate Fisheries and Oceans Canada (DFO) office.
	+ Interprovincial Carrying Permits and/or Fish Import Licenses may be required for importing fish into Alberta.
	+ Out-of-Country imports may also require a “Fish Import Permit”. These permits will be issued to the importer by the Canadian Food Inspection Agency (CFIA) under authority of the *Health of Animals Act*. Applications for the import of all Aquatic Animals into Canada must be made to the CFIA.
* The application may be denied for reasons including, but not limited to:

	+ The project ***not*** providing new information,
	+ The project having excessive negative impacts on fish species,
	+ The research is proposed to be conducted in sensitive habitats or during times of restricted activity,
	+ The applicant not meeting competency requirements, or
	+ The applicant currently being in non-compliance with an existing licence within Alberta.

Other aspects that may be considered are:

(a) whether the potential risk to the public, researcher or infrastructure and/or risk of negative public perception is determined to be too great and

(b) there are multiple applications for the same or similar activities at the same location(s). Changes to timing, location, equipment, techniques or other aspects of the proposal may be required for approval of the application.

**Fish Research Licence Application – Fish Rescue**

**All sections of this form shall be completed. Please type or print legibly. Attach additional sheets if necessary.**

**[ ]** New Application

[ ]  Renewal of existing Application: Provide FRL #

[ ]  Amendment to existing Application: Provide FRL#

# Section 1. Applicant Information

|  |  |
| --- | --- |
| Date Submitted:  |       |
| Name of Applicant: |       |
| Licensee / Firm: |       |
| Address: |       |
| Town, Province, Postal Code  |       |
| Research on behalf of: |       |
| Staff Involved in Collection |       |
| Primary Contact Person: |       |
| Phone No. |       | Fax: |       | Email: |       |

**Section 2. Sampling Program**

**2.1 Proposed Sampling Period:**

Note: Provide details on time constraints and/or reasoning for sampling periods greater than 90 days. Also provide any rationale for needing the licence in less than 10 business days (e.g. emergency response).

|  |  |  |  |
| --- | --- | --- | --- |
| Start Date:  |       DD/MM/YYYY | End Date: |       DD/MM/YYYY |

**Rationale:**

**2.2 Have or will you (or your equipment) be conducting work outside of the proposed watershed (HUC 6) prior to beginning the proposed works?**

 [ ]  Yes [ ]  No

If “Yes” state where (HUC 6 location) this work was done and as a Best Practice all sampling equipment and personal gear that will be used in proposed waters should be decontaminated by following the GoA *Decontamination Protocols for Watercraft and Equipment*. Mandatory decontamination may be required after review of sampling locations be Area Fisheries Contact where risk of invasive species may be higher.

**2.3 Proposed Sampling Locations (Waterbody Name, FWMIS Waterbody ID, and Location required; Maps and/or Digital Shapefiles are recommended):**

Note: Location shall be in Legal Land Description (Quarter, Section, Township, Range, and Meridian). Universe Transverse Mercator (UTM) coordinates (NAD 83) are acceptable but must **also** include Legal Land Description). Locations within a National Park are not valid for this application. Locations within an Alberta Provincial Park or Protected Area require an additional permit from Alberta Parks and Recreation. These agencies have their own research permit processes.

**2.4 Project Description (Reason licence is required):**

Provide details on purpose of the project and project area including project rationale and methodologies (i.e. progression of gear type used and number of passes and/or hours set, how long fish will be held, description of holding facilities and where fish will be released to). If the works are tied to an authorization number (e.g. DFO) please specifies:

**2.5 Sampling Techniques (check those that apply). Include below a rationale for selected methodologies.**

Note: It is recommended, at a minimum, at least 3 fish capture gear types are used in order to maximize fish capture and rescue.

|  |  |
| --- | --- |
| [ ]  | Minnow Trapping (indicate number used, if traps are baited, type of bait, and length of sets)      |
| [ ]  | Seining |
| [ ]  | Dip Netting |
| [ ]  | Electrofishing (state equipment type):      |
| [ ]  | Trap Net / Fyke Net (indicate number used, set time, and provide dimensions / mesh size):      |
| [ ]  | Other (state):      |

Note: Fisheries Management Branch reserves the right to deny any sampling technique that is considered to have potential to cause undue harm (example: electrofishing over an active spawning run).

**2.6 List species to be sampled and/or expected to be encountered including life stages:**

* 1. Are fish going to be marked or tagged and released? [ ]  Yes [ ]  No

If ‘**Yes’**, include an explanation of the methodologies to be used.

* 1. Will fish be held live for an extended period of time (i.e. greater than the time required to identify, enumerate, and measure captured specimens)? [ ]  Yes [ ]  No

If ‘**Yes’**’, indicate the conditions under which the fish will be held and handled.

* 1. Shall it be necessary to sacrifice any specimens? [ ]  Yes [ ]  No

If ‘**Yes’**’, indicate the purpose, the methods used for euthanizing, and how many individuals of each species are necessary.

* 1. Will ageing samples be taken? [ ]  Yes [ ]  No

If ‘**Yes’’**, indicate for which species and whether lethal sampling is required. .

**Section 3. Acknowledgement**

All checkboxes must be filled prior to submitting.

|  |  |
| --- | --- |
| [ ]  | I ensure that all staff engaged in collection activities under this permit are qualified and trained for collection activities and possess the necessary species identification skills required for this project. I acknowledge that I may be asked to provide proof of these qualifications. |
| [ ]  | I am aware and fully understand and accept the data submission requirements expected of myself / my organization.* **Fisheries Loadforms**[**http://aep.alberta.ca/fish-wildlife/fwmis/fisheries-load-forms.aspx**](http://aep.alberta.ca/fish-wildlife/fwmis/fisheries-load-forms.aspx)
 |
| [ ]  | I ensure that I and all individuals performing the above work have read and will follow all conditions as outlined in Appendix A, including any documents referenced in these conditions such as, but not limited to, **‘The Alberta Fisheries Management Division Electrofishing Policy Respecting Injuries To Fish’** and will strive to adhere to the Best Practices in Appendix B. |
| [ ]  | I acknowledge that this application may be denied for reasons including, but not limited to, the project NOT providing new information, the project having excessive negative impacts on fish populations, the applicant not meeting competency requirements, or the applicant currently being in non-compliance with an existing licence within Alberta. |

**Applications should be submitted a minimum of 10 business days prior to proposed activities to account for review, approval, and processing of the application and issuance of license.** This does not take into account any time associated with postal services. Note that district office notification must take place at least 4 days prior to commencement of the project.

Incomplete applications may delay processing time for a license. Resubmitted applications are processed in resubmitted date order.

By signing below, I acknowledge that the information I have provided is true and correct to the best of my knowledge.

**Signature of Applicant** **Date of Application**

Please send completed applications and any supporting documents to the appropriate area office where work is commencing.

* **Fisheries and Wildlife Management Area Contacts**[**http://aep.alberta.ca/about-us/contact-us/fisheries-wildlife-management-area-contacts.aspx**](http://aep.alberta.ca/about-us/contact-us/fisheries-wildlife-management-area-contacts.aspx)

**Appendix A: Fish Research Licence- Conditions**

1. The licensee shall advise the District Fish and Wildlife Office and the Area Fisheries Contact of the intended times and places of collection at least FOUR working days in advance of the commencement of field activities.

2. Minnow traps set under the authority of this licence shall be affixed with a weather proof tag, of minimum size 5 x 10 cm bearing the Fish Research Licence number and the name of the licencee, in letters not less than 20 mm high.

3. Trap nets set under the authority of this licence shall be marked at each end:

* 1. When fishing through the ice, with a stake, the top of which is at least one meter above the ice surface.
	2. When fishing in open water, with a spar buoy, the top of which is at least one meter above the water.
	3. The stake or spar buoy shall be clearly marked with the fish research licence number and the name of the licence holder, in letters not less than 20 mm high, and have attached to it a blaze orange or red flag not less than 20 x 20 cm.

4. The licencee shall operate in accordance with the “Alberta Fisheries Management Division Electrofishing Policy Respecting Injuries to Fish” located on the ESRD website under Fish Research Licenses.

5. All captured fish are to be handled and disposed of as follows:

1. All live fish (not approved for retention under this licence) shall be handled in such a manner as to ensure maximum survival and be released to sites determined prior to capture in the waters from which they were collected. (refer to Best Practices)
2. Any species captured that is not named on the Environment and Sustainable Resource Development (ESRD) List of Native and Naturalized Fish Species in Alberta shall be reported immediately to the Area Fisheries Contact. Voucher specimens and digital photos of the specimens shall be submitted to the Area Fisheries Contact immediately for confirmation purposes, unless otherwise agreed to, and shall be reported as per the data return requirements.
3. All fish mortalities shall have at a minimum, species, fork length (nearest millimeter) and weight (nearest gram) collected. All sport fish mortalities shall also have an ageing structure, sex, and maturity collected.
4. All fish mortalities are to be disposed of:
5. By incineration or disposal at an approved sanitary landfill; or
6. In a manner approved by the Area Fisheries Biologist where the collection occurred, if disposal under sub-clause (I) is not practical.

6. All species captured must be identified, enumerated, and a fork length (nearest mm) provided, unless extreme weather conditions dictate otherwise. Where large numbers (>100) of a single fish species are encountered at a sample location, a representative sample of that species may be measured for length using a valid sub-sampling technique.

7. Where an authorized number of individuals have been permitted to be retained in one of the preceding conditions above, if the combined total mortality of those species identified in this Licence is exceeded, the Area Fisheries Biologist must be notified immediately before continued sampling takes place.

8. The tagging or marking of fish is permitted as per the submitted study proposal.

9. The licensee is permitted to transport and temporarily hold live fish within the immediate study area, however, they must be returned into the same waterbody from which they were captured, unless they are to be transported for display or education purposes at an authorized facility which shall require an additional (separate) License.

10. Any proposed release of collected fish outside the immediate sampling area (waterbody) where fish are collected must be submitted to and approved by the Head of Fisheries Allocation and Use of the Fisheries Management Branch and may additionally require a review by the Alberta Introductions and Transfers Committee.

11. All ageing structures shall be marked with the following (for collection, preparation, and ageing of walleye otoliths refer to Watkins and Spencer (2009), for all others refer to Fish Ageing Methods for Alberta by Mackay, Ash, and Norris (1990) **OR** unless otherwise agreed to by the Area Fisheries Contact):

* Date and location (UTM co-ordinates) of capture,
* Species,
* Fork Length (nearest mm), and if a mortality, weight (nearest gram), sex and maturity,
* Estimated age (number of visible annuli).
* FRL #

12. Locations where sampling occurred and no fish were captured shall be recorded in the data return spreadsheet. The number of passes/attempts shall be reported.

13. Data return requirements will be satisfied by providing a digital copy of all fisheries data in the appropriate FWMIS loadform format within 90 days following the licence expiry date, as per the FWMIS data submission requirements, to the issuing Area Fisheries Contact. If a report was produced, a copy of the final report of the work (or the portions of the final report that includes all aspects pertaining to the inventory or research project), as well any ageing structures and/or genetic samples, if collected, must be provided within 180 days of the expiry of the license.

14. The use of explosives or pesticide chemicals is not permitted.

15. Any of the proposed activities shall adhere to as a minimum the “Standards for the Ethical Use of Fishes in Alberta”.

16. This licence must be in possession and available upon the request of staff from ESRD or Justice – Solicitor General (JSG).

17. This licence is subject to cancellation at any time and shall be surrendered to the issuer upon written notice of its cancellation.

18. This licence is non-transferable.

# Appendix B. Fish Research Licence– Best Practices

1. Where fish population data is collected, the corresponding fish habitat information that complies with the Fisheries Management Information System (FWMIS) protocol should be reported.

2. Where the following fish species are captured, photographic evidence (preferably through the use of a water filled photographic chamber) should be provided in the Licencereturn for Fisheries Management Branch verification purposes: Brassy Minnow, Deepwater Sculpin, Emerald Shiner, Finescale Dace, Goldeye, Largescale Sucker, Logperch, Mooneye, Mountain Sucker, Northern Pikeminnow, Northern Redbelly Dace, Pearl Dace, Pygmy Whitefish, Redside Shiner, River Shiner, Round Whitefish, Rocky Mountain Sculpin, Shortjaw Cisco, Silver Redhorse, Slimy Sculpin, Spoonhead Sculpin, and Western Silvery Minnow. Photographs should focus on characteristic features of that species. The return should also identify in the species comments section, the meristic features used to identify the above species, particularly in the case where photographic evidence may be by itself inconclusive AND should identify whether the species was captured outside of its expected range according to “Fishes of Alberta” (Nelson and Paetz 1992).

3. Where chemicals are used as an anaesthetic to facilitate fish handling, this use must comply with manufacturer’s instructions governing the use of these chemicals and appropriate holding times shall be observed. Where MS222 is used, appropriate consumption advisories must be provided to the public and should follow current Health Canada direction.

4. In an effort to prevent the introduction and spread of aquatic invasive species and fish disease in Alberta, all license holders are expected to adhere to the Government of Alberta Decontamination Protocol when conducting work in water. The most current version of the Alberta[*Decontamination Protocol for Watercraft and Equipment*](https://open.alberta.ca/publications/9781460134986)must be followed. To access the Decontamination Protocol and supporting documents, see the Alberta Government website at: Stop the Spread of Whirling Disease (<https://www.alberta.ca/stop-whirling-disease.aspx>)

* The Provincial Fish Disease Specialist or Fisheries Biologist may recommend further decontamination protocols depending on the risk posed by the proposed work (Example, QAC solutions may be ineffective for some AIS and fish disease).
* The use of felt-soled wading boots is restricted unless the felt can be removed and properly decontaminated.
* Please note that Fisheries Biologists have the authority to add the Decontamination Protocol as a Condition at their own discretion based on the risk of spreading whirling disease.

Where the Licence authorizes sites within multiple watersheds all sampling equipment must follow these same requirements prior to moving between watersheds. The Provincial Fish Disease Specialist may recommend further disinfection protocols depending on the risk posed by the proposed work.

* 1. Measures should be taken to minimize the number of fish requiring salvage prior to works being conducted (passive fish removal). This can include but is not limited to herding fish and/or providing an escape route out of the area of operation, prior to and during the dewatering process or other salvaging techniques. Any passive fish removal techniques used should be reported in the project notes of the FWMIS return loadform.
	2. Relocation sites should be determined prior to fish being salvaged. The site should mimic the habitat the fish were salvaged from. During ice cover this may necessitate drilling multiple holes in the ice, when it is safe to do so, and testing habitat to ensure enough water and oxygen is available to sustain fish for the duration of the winter.
	3. Fish handling times should be kept to a minimum and soft wet gloves used to reduce exposure to air, stress and prevent removal of the protective mucous barrier.
	4. Large bodied fish should be supported at the tail and head to reduce internal injury. Where possible, all fish should be kept in their natural horizontal position.
	5. If using holding tanks, they should contain a minimum of 15 L per 1 kg of fish and be monitored regularly for oxygen and stress related issues, to ensure maximum fish survival.
	6. Fish salvage should occur between -20C to 20C, taking wind and extreme weather conditions into consideration. If it is required to salvage beyond this temperature range and in inclement weather extra precautions should be taken when holding/handling fish to reduce stress (ie. increased frequency of monitoring fish in holding tanks to detect stress induced issues, holding tanks be kept out of the elements; in summer - fewer fish/holding tank, employ aerators; keep in shaded area; in winter – limited/no air exposure (ie. transfer of fish from collection pails and capture gear to holding tanks occur in water or in shelter from the elements), use of insulated holding tanks and heated or insulated sampling tents and wind breaks).
	7. In situations where extreme temperatures may injure fish before completion of sampling, it is acceptable to only record numbers and species of fish handled, and not collect length and weight data.
	8. All nets (including entanglement gear and dip nets) should be knotless and made of non-abrasive materials to reduce injury to fish.
	9. A minimum of 2 consecutive passes of each active gear type (i.e. electrofishing, seining etc.) that produces a zero catch should be completed to ensure all/the majority of fish have been removed from the salvage area.
	10. Each pass of a single gear type and its associated catch shall be recorded in the data return. If fish are released immediately due to extreme conditions it should be recorded in the survey comments.
	11. When electrofishing, water temperature and conductivity should be measured, recorded, and included in FWMIS loadform return.
	12. Testing for fish diseases, pathogens, and parasites should be done according to a protocol specified by the Provincial Fish Disease Specialist within the Fisheries Management Branch. Any deformities or irregularities for measured fish should be noted in the FWMIS data return, and photographic documentation provided.