



# PRACTITIONERS GUIDE

TO HABITAT  
COMPENSATION  
FOR DFO HABITAT  
MANAGEMENT STAFF

VERSION 1.1



FISHERIES AND OCEANS CANADA

The purpose of the *Practitioners Guide to Habitat Compensation* is to help Habitat Management practitioners when project proposals will likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat and will require compensation in order to achieve no net loss (NNL) of productive capacity. This Guide is part of a series of Practitioners Guides that support the Habitat Management Program (HMP) in making transparent and consistent decisions during the regulatory review of works or undertakings that affect fish and fish habitat across Canada. These Guides are intended for internal use by Habitat Management practitioners. If you have any comments on this Guide or any Practitioner Guide, please refer them to your regional Habitat Management Manager.

To access other HMP guidelines, please visit the Habitat Management Intranet site at:  
[http://oceans.nrc.dfo-mpo.gc.ca/habitat/guidelines\\_e.asp](http://oceans.nrc.dfo-mpo.gc.ca/habitat/guidelines_e.asp)

*Cette publication est également disponible en français.*

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## INTRODUCTION



The purpose of this document is to provide guidance to Habitat Management practitioners for their review of project proposals that will likely result in harmful alteration, disruption or destruction of fish habitat (HADD) and will require compensation in order to achieve No Net Loss (NNL) of productive capacity. This guide builds on the principles and concepts outlined in the *Policy for the Management of Fish Habitat* (Habitat Policy) (1986).

The guidance on compensation provided in this document is intended to assist practitioners in applying fair and consistent decisions on compensation matters across Canada, while recognizing the need for local discretion.

## BACKGROUND



Compensation is defined in the Habitat Policy as:

*"The replacement of natural habitat, increase in the productivity of existing habitat, or maintenance of fish production by artificial means in circumstances dictated by social and economic conditions, where mitigation techniques and other measures are not adequate to maintain habitats for Canada's fisheries resources."*

DFO's first preference in the review and negotiation of any referral is to avoid the harmful alteration, disruption or destruction of fish habitat through relocation, redesign and mitigation. Therefore, the number of referrals likely to result in a HADD and require compensation measures is relatively small (approximately 10%). However, for these projects, it is important that effective compensation measures are taken.

The decision to authorize a HADD is at the discretion of the appropriate Habitat Management practitioner, and is based on the acceptability of the HADD. The decision to require compensation is policy-based and is made after the acceptability of the HADD is determined. If a HADD has been authorized conditional upon the completion of compensation, a failure to complete that compensation could invalidate the subsection 35(2) Authorization. This would, in effect, leave the proponent with a HADD that was not authorized and is potentially subject to prosecution pursuant to subsection 35(1) of the *Fisheries Act*.

Practitioners currently make decisions on habitat compensation approaches with support from several DFO sectors (Oceans, Science, Fisheries Management) and outside partner agencies. Where they exist, local fisheries management plans should also be used to help determine appropriate compensation options.

A national review of habitat compensation approaches, including specific policies, procedures, legal mechanisms, and their scientific/technical basis, has been undertaken to improve consistency and soundness of decisions (Cudmore-Vokey et al. 2000). The results of this review have been incorporated into this practitioners guide, and will be used to further the development of best management practices.



## 3.1 LEGAL CONTEXT

### 3.1.1 *Fisheries Act*

The main provisions of the *Fisheries Act* in relation to compensation are:

- ▶ subsection 34(1), which defines fish habitat; and
- ▶ subsection 35(2), which allows a HADD of fish habitat when authorized by the Minister or by regulations made under the Act.

Habitat compensation is required when a *Fisheries Act* subsection 35(2) Authorization will be issued. The habitat compensation contained as part of that Authorization is needed to meet the Habitat Policy guiding principle of “No Net Loss” (NNL) in the productive capacity of fish habitat.

### 3.1.2 *Canadian Environmental Assessment Act (CEAA)*

Provided the proposed works meet the definition of a project under CEAA and are not on the exclusion list, an Environmental Assessment under CEAA must be completed and environmental effects, with appropriate mitigation, found to be not significant, or if significant, are justifiable, before an Authorization can be issued.

Specific to compensation, for the purposes of an environmental assessment under CEAA, “mitigation” includes both mitigation and compensation (under the Habitat Policy, mitigation serves to avoid a HADD, while compensation occurs to offset a HADD).

### 3.1.3 *Land Ownership and Jurisdiction*

Land ownership and access must be taken into consideration when negotiating compensation. Proponents may require access to land not owned by them and may require permits from other federal, provincial or municipal jurisdictions. Proponents should have the appropriate permission and permits prior to a compensation plan being approved by DFO.

### 3.1.4 *Proponent Pays*

The Habitat Policy reflects the “polluter pays” (proponent pays) principle. All costs associated with compensation are the responsibility of the proponent.

# HABITAT COMPENSATION—KEY CONCEPTS

## 4.0

### 4.1 HIERARCHY OF COMPENSATION OPTIONS

**Cash in lieu of compensation is not acceptable** – habitat compensation does not include financial means for compensating for tangible economic losses but deals only with actions intended to maintain the net production potential of fish habitat.

The use of compensation to achieve NNL should only be considered after it proves impossible or impractical to avoid a HADD of fish habitat through project relocation, redesign, or mitigation. It should be emphasized that **DFO has the discretion to not issue an Authorization in situations where adverse impacts to fish habitat are deemed unacceptable.**

When compensation is required to achieve NNL, the Hierarchy of Compensation Options should be followed (also see Figure 1); For each step in the hierarchy, with the exception of step four, compensation should be completed on site before moving off-site. The Hierarchy of Compensation Options is as follows:

1. Create or increase the productive capacity of **like-for-like** habitat in the same ecological unit;
2. Create or increase the productive capacity of **unlike** habitat in the same ecological unit;
3. Create or increase the productive capacity of habitat in a **different** ecological unit;
4. As a last resort, use artificial production techniques to maintain a stock of fish, deferred compensation or restoration of chemically contaminated sites.

Where ecological unit is defined as: **Populations of organisms considered together with their physical environment and the interacting processes amongst them.**

**Option 1** is categorised as like-for-like compensation, consistent with previous policy direction. It is favoured because it is assumed that it has the greatest likelihood of ensuring that the habitat enhanced or created will meet the objective of No Net Loss. “Like-for-like” compensation should aim to create or enhance habitat that has the same natural integrity, structure, and function of the habitat that was adversely affected. It is preferable to complete works on site before moving off-site.

**Option 2** is also consistent with previous policy direction. Creating or increasing the productive capacity of unlike habitat involves compensating for one type of fish habitat with habitat of a different type. This approach often means there is less assurance that a “No Net Loss” has been achieved. It is preferable to complete works on site before moving off-site.

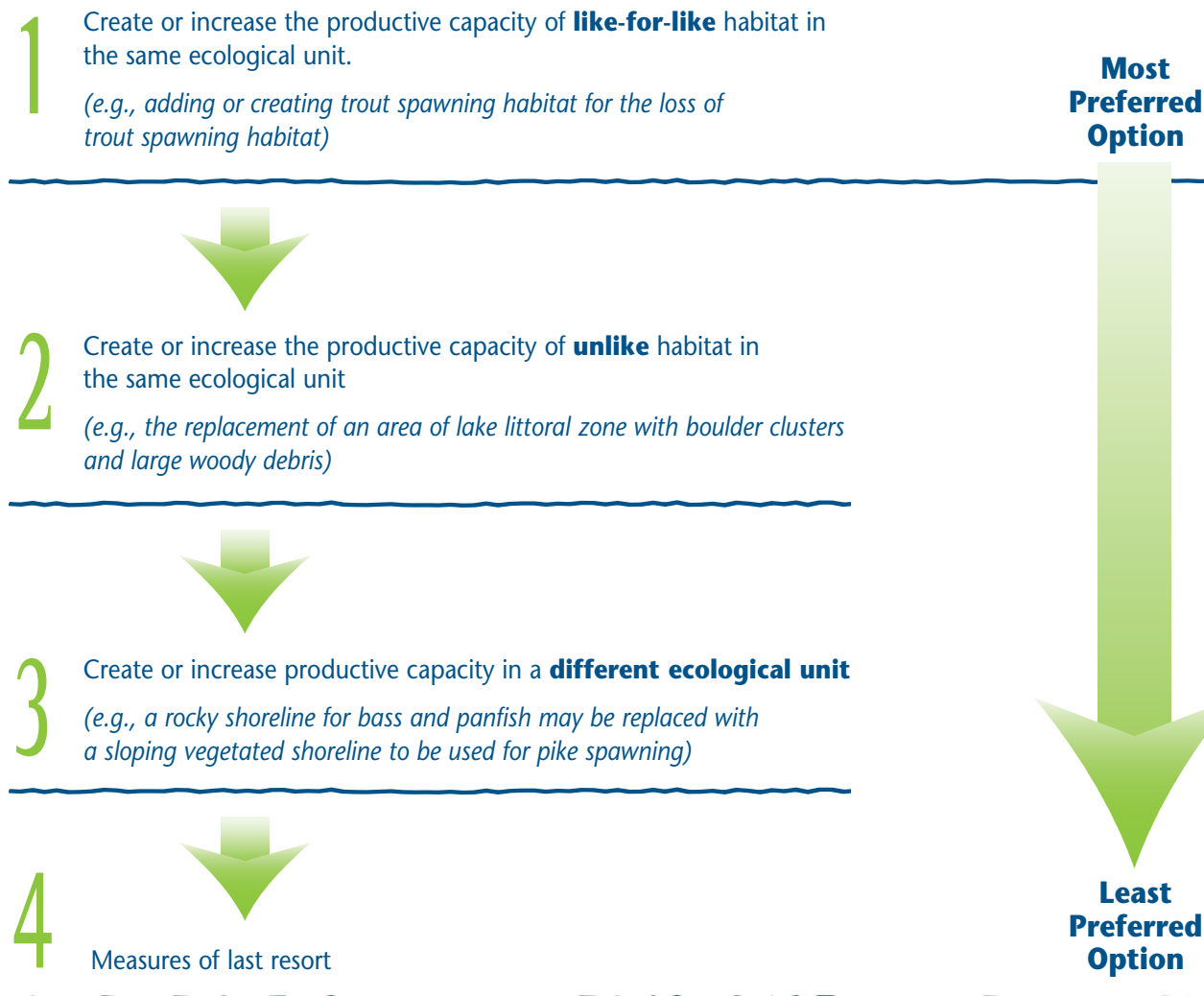
**Option 3** involves the creation or increase of productive capacity in a different ecological unit. This option may compromise biodiversity objectives since the HADD will affect one distinct population while the compensation will provide benefits to different species. For example, a rocky shoreline used by bass and other panfish may be replaced with a sloping vegetated shoreline to be used for pike spawning. Again, it is always preferable to complete work on site before moving off-site.

**Option 4** represents the least preferred alternative under the Policy and would be considered only in exceptional circumstances. Habitat Management practitioners should first consider not issuing an Authorization for the HADD before using a measure of last resort as compensation. (For more information on Measures of Last Resort see section 5.7.)

It is preferable to complete compensation at the higher levels before moving down the Hierarchy of Compensation Options. Only those residual compensation requirements that have not been satisfied should be completed under the next descending level. In many cases, the final compensation plan could include elements at more than one level, with some like-for like habitat and some unlike habitat creation.

The ecological value of the existing habitat must be considered before moving down the Hierarchy of Compensation Options. In some situations it may not be possible to accept anything other than Option 1 (like for like) if the importance of the habitat being compensated for is too great.

## FIGURE 1: Hierarchy of Compensation Options



### Exceptions to Compensation Hierarchy:

While the Hierarchy of Compensation Options should normally be followed, there are circumstances under which exceptions may be required. These involve situations where site-specific issues are well understood and may include circumstances where limitations to productive capacity are known, and local management plans containing clear objectives for the fishery may have been prepared. Available information should support the effectiveness of an alternative compensation approach to achieve both NNL and ecological objectives. This information could be used to justify moving down the hierarchy.



For example, a portion of wetland feeding habitat supporting minnow species will be destroyed. However, according to documentation in the local fisheries management plan, this type of habitat is in reasonably abundant supply. In consideration of the fisheries plan objectives, a preferred compensation option might therefore be to enhance a nearby gravel spawning habitat, since it is known to be in limited supply for another species. This would mean justifiably moving from Option 1 to Option 3 on the hierarchy.

In other situations, moving down the hierarchy may present a better opportunity for maximising the amount of habitat gained, particularly where there are known limitations (or bottlenecks). Allowances can be made for these situations, at the discretion of DFO.

## 4.2 NET GAIN

Habitat compensation and monitoring to ensure NNL is the responsibility of the proponent. While proponents are responsible for achieving NNL, compensation may function better than anticipated resulting in a Net Gain which becomes evident through monitoring. For instance, a created wetland demonstrates a much higher than expected productive capacity as a fish nursery area. This type of incidental Net Gain will not be considered for use towards future compensation requirements.

In some situations there may be advantages for DFO and/or its partners to complete additional measures that would result in Net Gain of productive capacity at the habitat compensation site. Such action would support strategy seven of the Habitat Policy, as it would improve habitat. It would also take advantage of the site-specific circumstances, background information and potential logistical benefits available.

In such instances, the HADD Authorization, identifying the roles and responsibilities of the proponent, should be specific. The Authorization must clearly identify the responsibilities of the proponent, separate from those of DFO's partners, particularly for monitoring and performance measures. This is important in the event that the compensation works fail and remediation is required. Also, any enhancement project plans developed for the area should be provided to the proponent, including the specific methods to be used in monitoring its success.

Co-operation would be justified, for example, where an area was identified as having potential for significant habitat enhancement that would be far in excess of the requirements to meet NNL. In such instances, the habitat compensation actions of the proponent, combined with the habitat enhancement actions by DFO and/or its partners, could result in the creation of significantly enhanced productive capacity, on a cost effective basis for both parties.

# HABITAT COMPENSATION—BASIC CONSIDERATIONS

## 5.0

### 5.1 DETERMINING THE AMOUNT OF COMPENSATION REQUIRED

Several factors must be taken into consideration when determining the amount of compensation required. The requirement for compensation is a No Net Loss in the productive capacity of fish habitat. In many instances it will take time for habitat to become functional and in some situations, that the compensation may not function as anticipated. Therefore Habitat Management practitioners should **aim for greater than a 1:1 compensation ratio**.

The amount of compensation must be determined based on the residual net loss of productive capacity after relocation, redesign and mitigation have been taken into consideration. Scientific tools to determine NNL through compensation ratios should be used where they are available and suitable (e.g. the Minns et al. Habitat Suitability Matrix has been used in the Great Lakes). Higher (weighted) ratios are justified on the basis of uncertainty of success, variance in the quality of the fish habitat being replaced, and recognition of the lag time required for the new habitat to become functional. Lower ratios would be needed if the compensation works are completed and functional before the HADD occurs. In most cases, replacement ratios should also increase as you move down the hierarchy of compensation options, as this decreases certainty that NNL can be achieved. In situations where very high ratios are required, Habitat Management practitioners should strongly reconsider whether the proposed HADD should be authorized.

In some instances, the proposed works may inadvertently result in the creation of habitat, for example, a scour pool forming downstream of a bridge pier. This inadvertent “passive” creation of habitat that is simply a by-product of the project should not be formally counted as compensation. However, provided practitioners are certain of its formation, it can be taken into consideration when determining the net amount of compensation required. In the bridge pier example, practitioners may decide that less compensation will be required because scour pools will be formed.

Where existing habitat is enhanced, practitioners must recognise that the existing habitat has intrinsic value to be considered when determining the amount of habitat gained through compensation. Only the difference in productive capacity between the before and after scenarios can be considered as compensatory gains.

### 5.2 MONITORING

Monitoring, as described here, encompasses the two types of monitoring; compliance monitoring and effectiveness monitoring. The purpose of compliance monitoring is to determine whether the conditions of the compensation plan have been met, whereas effectiveness monitoring measures how well the new habitat is working. Therefore, compliance monitoring would determine whether the physical structures required in the Authorization were actually built. Effectiveness monitoring would measure whether the compensation is functioning or will function as intended.

Monitoring should consist of baseline information, an assessment of the completed compensation and a reporting and maintenance program in most cases. Even for very small-scale projects, basic compliance monitoring (e.g. photographs) should be completed. More detailed monitoring programs may be required as the complexity of the compensation increases. Habitat Management practitioners should provide clear direction on what monitoring is required and why.

If, over the course of the monitoring, it is determined that the conditions of the compensation plan have not been met or the compensation is not functioning as intended, practitioners can require the proponent to make adjustments and/or implement contingency plans. The requirement for adjustments and contingencies should be included in the terms and conditions of the Authorization and should be specific to avoid misunderstandings. Additionally, practitioners may establish a maintenance plan in the Authorization. However, where due diligence is shown, DFO should not unfairly penalize proponents for damages to compensation caused by unexpected extreme circumstances.

### ■ **5.2.1 Duration of Monitoring**

The duration of monitoring is at the discretion of DFO and is dependent upon the complexity or uncertainty of the works. Monitoring should continue long enough to determine whether the compensation will or is functioning properly.

## **5.3 ENFORCEMENT**

Compensation works should be monitored to determine if they are in compliance with Authorization conditions. Records should be maintained documenting the level of compliance and the steps taken to bring proponents into compliance with the terms and conditions of the Authorization.

DFO must be prepared to draw on letters of credit or take enforcement action where there has been unsatisfactory compliance with compensation conditions outlined in subsection 35(2) Authorizations. In the absence of financial support from the proponent, or where work has been carried out contrary to the terms and conditions of the Authorization enforcement, action should be considered under subsection 35(1) of the *Fisheries Act*.

It is important that Habitat Management practitioners work closely with Fishery Officers by keeping them informed of the conditions in Authorizations and potential *Fisheries Act* violations. Likewise, partner agencies should also be advised of compensation projects and conditions so that effective communications and support can be maintained.

## 5.4 FINANCIAL SECURITY

“Letters of credit” are financial instruments that secure the obligation of the proponent to complete the works. **Letters of credit are more commonly used, and are recommended over performance (surety) bonds.** This is because it is generally easier to obtain funds from a letter of credit.

Other mechanisms are available that would ensure compensation is achieved if proponents fail to comply with Authorization conditions. The most compelling remedy is that proponents could be charged with a violation of subsection 35(1), as failure to comply with the terms and conditions of an Authorization will invalidate it.

Financial security instruments are used in order for DFO to ensure the completion of compensation works, monitoring and maintenance. If the proponent defaults on completing the work, DFO would then use the funds to complete compensation. Where financial security instruments are part of the Authorization, they must be included in the terms and conditions of the Authorization.

Habitat Management practitioners must decide on a case by case basis if financial security is required. Proponents should provide cost estimates for the compensation, monitoring and maintenance. If financial security is deemed necessary, security of greater than 100% of the proponent’s estimated cost should be requested to recognize the additional expenses that will be incurred by DFO. Additional expenses may include the hiring of an independent contractor, mobilization and infrastructure costs. There is no limit to the amount of credit that DFO can request. The amount should reflect what would actually be required, allowing for cost overruns. It should fit normal contracting procedures and, on long-term projects, allow for inflation protection (e.g. over 10 years this could amount to 20-30% of the cost).

Flexibility in these agreements is possible; the amount of finances secured can be reduced over time, or after a certain progress point is achieved, in order to lower the burden on the proponent. Conversely, should the risk of failure persist, the security could be renewed in order to ensure compensation remains in place, provided the ability to do so is set out in the original Authorization. The letter of credit should be issued for the full period over which the compensation activities, including monitoring and maintenance, will be carried out. The financial security should explicitly outline the conditions that must be met by the proponent for the financial security to be reduced and released.

It is important to note that while the proponent may have permission to work on land owned by another individual, this does not automatically apply to DFO in exercising a letter of credit. If land ownership and access have the potential to become an issue, the Authorization should contain a provision acknowledging that the proponent has obtained written agreement from the landowner to allow DFO to complete the compensation work, should this be required. This permission should be received prior to issuing the Authorization.

Key provisions and an example of a letter of credit are provided in Appendix B. DFO legal advice should be sought for all such documents.

## 5.5 RESTORATION OF ORPHANED SITES

Generally, the restoration of degraded habitats for compensation purposes is considered to be a useful practice and is encouraged. This may occur at any level in the Hierarchy of Compensation Options. The Habitat Policy defines restoration of habitats as “the treatment or clean-up of fish habitat that has been altered, disrupted or degraded for the purpose of increasing its capability to sustain a productive fisheries resource.”

The following criteria should be considered when deciding to allow restoration of orphaned sites as compensation:

- ▶ habitat has been degraded at an “orphaned site” for which there is no known responsible party/owner, or the activity occurred within an out-dated legal or policy framework, or there is no possibility of restoration due to company closure, bankruptcy or other similar circumstance, which effectively makes it an orphaned site;
- ▶ the degradation does not involve the on-going deposit of a deleterious substance, which is not a candidate for compensation under the policy;
- ▶ legal tenure to the site, or agreement to carry out work on it, has been obtained.

Compensation should be consistent with local fish management plans where they exist, and partner agency objectives should be considered.

Restoration as compensation should **not** occur at “non-orphaned sites,” as these should be cleaned up by the responsible party/owner, consistent with government’s “polluter pays” policy. Neither should it be considered compensation when government is investing in the cleanup, such as occurs under Environment Canada’s five-year Orphan Sites Remediation Program, or other similar forms of federal or provincial assistance.

## 5.6 HABITAT BANKING

In its most basic form, habitat banking is the completion of compensation prior to a subsection 35(2) Authorization being issued. The proponent creates or improves fish habitat for future use as compensation. The creation of a habitat bank does not involve monies, nor does it “Pre-approve” any future HADDs. The location and design of a habitat bank must first be approved by DFO and proponents should provide data describing the “before” conditions.

Habitat banks are useful in situations where a proponent needs to compensate for several small HADDs, and few compensation options exist at the site(s). Habitat banking may have the benefit of requiring smaller replacement ratios, since effectiveness is already known. During the time between the creation of the new habitat and its use as compensation, fish benefit from the existence of the habitat bank and a Net Gain of productive capacity occurs.

### *Considerations for a Habitat Bank:*

- ▶ ***A habitat bank site must be evaluated and acknowledged by DFO prior to its creation.*** The site should be worthy of restoration or enhancement and issues of land ownership and access should be clear. The proponent should provide to DFO adequate information describing the state of the habitat before enhancement/creation work is begun. Proponents are responsible for ensuring that all required permits are in place. The proposed habitat-banking site should not be part of a previous Authorization or court ordered restoration.
- ▶ ***The existence of a habitat bank does not ensure any future HADD(s) will be authorized.*** All projects will be reviewed on their own merit. A decision to authorize a HADD will be completed independent of the existence of the habitat bank.
- ▶ ***All on-site compensation options must be explored before using the habitat bank.*** Use of the habitat bank is considered at the request of the proponent. The Hierarchy of Compensation Options must be followed when considering use of the bank. All possible compensation that can be done at or near the site must be considered before using an off-site bank.
- ▶ ***A habitat bank must be evaluated immediately prior to its use as compensation.*** The purpose of the evaluation is to ensure that the habitat bank is functioning and to determine what the value of the bank is. This will require comparison of the current habitat with the data collected to describe the “before” conditions.
- ▶ ***After drawing on the bank, document the portion of the bank that has been used.*** It is preferable that the entire bank be used at one time. If only a portion of the bank is to be used in any given year, it is important to document what part of the bank is still available for use as future compensation. If the productive capacity of any bank or part thereof increases after it has been used as compensation, this increase will not be considered additional banked habitat.

It is important to maintain detailed files for tracking the creation and use of habitat banks to avoid double crediting.

## **5.7 MEASURES OF LAST RESORT**

The Hierarchy of Compensation Options describes a descending list of preferences for carrying out compensation. To the greatest extent possible, like-for-like habitat options should be employed. Habitat Management practitioners should consider not issuing an Authorization before using measures of last resort. **Artificial propagation, deferred compensation and restoration of chemically contaminated sites are options as compensation only as a last resort and only where habitat managers believe they can effectively achieve NNL.** Given the risk associated with each of these approaches, approval of a DFO senior regional manager is required. Artificial propagation should only be considered in rare cases where the Minister determines that this course of action is appropriate.

### ■ **5.7.1 Artificial Propagation**

The use of artificial propagation (fish culture) to encourage self-sustaining fisheries as a compensation measure exists under the policy, in rare cases.

The Habitat Policy provides the following criteria:

- ▶ such a solution will be in accordance with the objectives established in the local fisheries management plan, assuming one is available;
- ▶ genetic diversity and other biological factors are satisfied;
- ▶ practical and proven techniques are available to maintain or enhance the productive capacity.

The use of artificial propagation should be considered only in rare cases where the Minister determines this course of action is in the public interest, and is not a viable option in most cases where natural habitat could be lost.

A HADD may affect several species of fish, and the normal functioning of the ecosystem. It is therefore important to consider that simple replacement of one fish species, through artificial propagation, does not in itself replace the productive capacity. It may, therefore, be essential to propagate more than one species in order to maintain a natural ecological balance.

If artificial propagation is chosen as an option, it is important that the genetic diversity of fish populations be maintained. The program should be designed to approximate the genetic variability of the parent populations and not exaggerate the contribution of a small proportion of these fish, as may occur in some stocking programs. The potential hazards of inbreeding, genetic drift, domestication, selection, behavioural conditioning and exposure to disease must be considered.

Required elements for review include:

- ▶ determination of an effective breeding strategy involving an estimation of the number of pairings that need to take place;
- ▶ design of the hatchery facilities;
- ▶ egg incubation/rearing procedures that allow separation of genotypes (families as appropriate);
- ▶ comprehensive disease testing and control; and, where appropriate;
- ▶ controlled release of equal numbers of each family, such that the genetic diversity of the population is maintained.

Such a program would require comprehensive post-release monitoring. Ideally, it would be stopgap in nature and end when natural reproduction and self-sustaining populations became re-established. Efforts must be made to work with other agencies to ensure such an approach is supported in the local fisheries management plan.

### ■ **5.7.2 Deferred Compensation**

Deferred compensation refers to compensation that is done at a time beyond which normal compensation would be completed. For instance, there may be no opportunity to compensate for a project in a pristine area, until after the project has been completed.



Deferred compensation requires that a **clear compensation strategy and/or plan has been developed in accordance with the Hierarchy of Compensation Options and is placed in the Authorization**. Explicit statements regarding timelines and delivery dates must be included in the Authorization document, which sets out conditions for the schedule of implementation, and any financial securities to cover-off projected future costs. Implementation of the compensation measures must occur within the time period set out by DFO.

Deferred compensation may require larger replacement ratios to offset the extended loss of productive capacity during the time that compensation is deferred (See Section 5.1). Costs covered by the financial security, which could be accessed by DFO given various potential types of default, would include any necessary works to develop and implement habitat compensation. They would also support project monitoring and potential remedial measures, including contingency plans. DFO would reserve the right to negotiate amendments to any deferred compensation conditions before implementation, to allow for adjustments based on new information or technological advancements that may arise during the deferral period. This must be stipulated in the Authorization.

### ■ 5.7.3 *Restoration of Chemically Contaminated Sites*

The restoration of chemically contaminated sites may be recognised as compensation, but only in rare circumstances. The restoration of these sites carries the risk of re-releasing contaminants contained within the aquatic environment. Compensation of chemically contaminated sites should not occur where there is an ongoing release of contamination.

Any site chosen as a compensation option must be a true orphan site where there is no known responsible party or owner. It must not be used at sites where there is an on-going deposit of a deleterious substance. Companies cannot offer to restore sites contaminated through their own inappropriate practices and have this considered compensation.

Extreme caution should be used in considering the restoration of chemically contaminated sites as compensation. Such initiatives should always involve close collaboration with appropriate environmental agencies.

## 5.8 AUTHORIZING COMPENSATION

Compensation requirements should be incorporated into the subsection 35(2) Authorization. This is the legally preferred approach, rather than using a separate compensation agreement that can not be as effectively enforced as a *Fisheries Act* Authorization. A “Letter of Intent to Compensate Fish Habitat Loss” may be provided to DFO by the proponent as the basis to discuss and establish the specific terms and conditions of an Authorization. The Habitat Management practitioner should make it clear to the proponent that the Letter of Intent is not the Authorization and is non-binding.

It is preferred that all compensation conditions be included within the Authorization. When this is not possible it is suggested that a “compensation plan” be used. Such a plan would set out the conditions (time, location, methods, etc.) that could be enforced under the Authorization. The compensation plan must be referred to in the Authorization (e.g., Condition 2: The proponent will adhere to the requirements set out in the attached compensation plan). Properly referred to, the compensation plan forms part of the Authorization. A copy of the compensation plan should also be attached to the Authorization or, if too bulky, identified and specifically referenced in the Authorization.



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# APPENDICES

## 7.0

### APPENDIX A: Definitions

**Artificial Propagation:** The use of fish culture to encourage self-sustaining fisheries.

**Biological Diversity:** The variability among living organisms from all sources – including terrestrial, marine, and other aquatic ecosystems – and the ecological complexes of which they are a part. This includes diversity within species, amongst species and of ecosystems.

**Compensation (for Loss):** The replacement of natural habitat, increase in the productivity of existing habitat, or maintenance of fish production by artificial means in circumstances dictated by social and economic conditions, where mitigation techniques and other measures are not adequate to maintain habitats for Canada's fisheries resources (**Habitat Policy**).

**Compliance Monitoring:** Verification that a project is being carried out as per the Authorization and to ensure that all established commitments contained in the Authorization were fulfilled.

**Deferred Compensation:** Compensation that is done at a time beyond which normal compensation would be completed.

**Ecological Unit:** Populations of organisms considered together with their physical environment and the interacting processes amongst them.

**Ecosystem:** Composed of one or more ecological units where a community of organisms and their physical environment interact.

**Effectiveness Monitoring:** Monitoring completed by the proponent to determine the effectiveness of the compensation in achieving NNL of productive capacity of fish habitat.

**Fish:** (a) Parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals (Source *Fisheries Act*, Sec.2).

**Fisheries Management Plan:** A planning document prepared by a government agency (federal, provincial, territorial or other), that outlines intended resource management direction with respect to fisheries matters based on resource status, identified issues, future goals and objectives, and proposed means of achieving those objectives over an established period of time. Such plans should be prepared in consideration of integrated resource management objectives and involve participation of key stakeholder groups.

**Fish Habitat:** Natural spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes (Source *Fisheries Act*, Sec.2).

**Habitat Banking:** The planned creation or improvement of fish habitat, in order to provide compensation for a future development project(s).

**Letter of Intent:** A non-binding letter that discusses and establishes specific terms and conditions of an Authorization.

**Marine:** Pertaining to the sea.

**Mitigation:** Actions taken during the planning, design, construction and operation of works and undertakings to alleviate potential adverse effects on the productive capacity of fish habitats.

**Orphaned Site:** A site where there is no one (individual or corporate) who exists who may have or is likely to have an obligation to rehabilitate the site.

**Productive Capacity:** The maximum natural capability of habitats to produce healthy fish, safe for human consumption, or to support or produce aquatic organisms upon which fish depend (**Fish Habitat Policy**).

**Productivity:** Fish productivity is defined as the sum of production rates for all co-occurring fish stocks within a defined area or ecosystem (Minns, C.K., 1997). As such, the productivity integrates the value of primary production, food, cover and other habitat variables needed to produce healthy fish.

**Stock:** The part of a fish population that is under consideration from the point of view of actual or potential utilization.

**Terrestrial:** Pertaining to organisms living habitually on the land or ground surface.

# APPENDICES



## APPENDIX B: Sample Letter of Credit

Please refer to the *Practitioners Guide to Letters of Credit* for more guidance on requesting or drawing upon Letters of Credit from proponents as a condition of a subsection 35(2) Authorization.

Financial Institution: **{Name and Address}**  
Applicant: **{Name and Address of Proponent}**  
Letter of Credit Number: **{Provided by Financial Institution}**  
Date of Issue: **{Date required}**

### IRREVOCABLE STANDBY LETTER OF CREDIT

Beneficiary: **{Receiver General of Canada on behalf of Fisheries and Oceans Canada}**

Dear Sir or Madam:

We hereby authorize you to draw upon the **{Financial Institution, address}** for the account of our Customer **{Applicant}**, up to the sum total of **\$(amount)** Canadian Dollars available on demand as follows:

Pursuant to the request of our Customer, we the **{Financial Institution}** hereby establish and give to you an irrevocable Standby Letter of Credit (the "Credit") in your favour in the total amount of **\$(amount)**. The Credit may be drawn on, by you, at any time and from time to time upon written demand by you. We will honour any such demand made by you without inquiring whether you have a right as between yourself and our Customer to make such demand and without recognizing any claim, instructions, direction or notification to the contrary from the Customer.

Provided, however, that you are to deliver to us at such time as a written demand for payment is made upon us, a certificate purported to be signed by you, agreeing and/or confirming that monies drawn pursuant to this Credit will be retained and used by you to meet our Customer's obligations in connection with compensation and monitoring conditions of *Fisheries Act* Subsection 35(2) Authorization (Referral File No. **{REF/FILE NO.}**), Habitat File No.: **{HABITAT NO.}**), **{MM/DD/YYYY}** and located at **{name}**. This original Letter of Credit must also be presented at the time for endorsement of the claim paid and will be returned to you.

It is understood and agreed that the obligation of the undersigned under this Credit is an obligation to pay money only and that in no circumstances shall the undersigned be obliged to perform or cause to perform any of our Customer's actual obligations to you.

#### Conditions:

1. The sum total of this Credit shall be reduced from time to time as advised by written notice given to this Branch from time to time by you.
2. The Credit will continue until **{MM/DD/YYYY}** and will expire at the Branch address at the close of banking business on that date.
3. This Credit is irrevocable until that date.
4. This Credit shall be deemed to be automatically extended for one year from the present or any future expiration date hereof, unless 60 days before any such date we give you written notice that we elect not to consider this Credit renewed for any such additional period. Upon receipt by you of such notice, you may draw upon, accompanied by written certification, the amount to be retained and used by you to meet obligations incurred or to be incurred in connection with the Authorization.
5. Partial drawings on this Credit are permitted.
6. Upon successful completion of **{Applicant}** responsibilities under the compensation and monitoring conditions of the Authorization, as determined by Fisheries and Oceans Canada, the original Letter of Credit shall be returned to **{Financial Institution, address}** for cancellation.

**{Signatures of responsible officials}**



NOTES

