



Oceans, Habitat and Enhancement Branch
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Our File: 8400

June 30, 2005

Forest License Holders

Subject: Fisheries and Oceans Canada's Transition Strategy Related to Crown Land Forestry Activities and Planning, including the *Forest and Range Practices Act*.

Dear Licensee,

This purpose of this letter is twofold: to advise of changes within Fisheries and Oceans Canada's (DFO) local and national Habitat Management Program and to define how these changes will effect our involvement in crown land based forestry activities and planning as the *Forest and Range Practices Act (FRPA)* is put into effect. The B.C. Interior (BCI) Area of DFO is implementing a transition strategy which will provide for our projected staff levels to manage the resource in coherence with our national Environmental Process Modernization Plan (EPMP). There are a number of aspects to the national plan. A fundamental component is the implementation of a risk management framework for traditional project review whereby we shift our focus to those projects with the highest risk through various means. In keeping with the national direction, the BCI Area's transition strategy includes an evaluation of the risk of forestry activities and delineates respective notification and referral protocols with the standards, guidelines and agency expectations defined. Recommendations for continuing specific assessments to reduce the risk of various forestry activities are also provided.

Two additional features of the EPMP are also reflected in our transition strategy. One is the placement of greater responsibility upon proponents for project design and environmental management. The other is monitoring, by both the proponent and our agency, and auditing by our agency, of all risk level activities. Monitoring and auditing will enable us to determine if the aforementioned delineation and respective protocols are appropriate or if changes to our strategy are required.

The transition strategy in this letter represents an approach specific to the BCI Area. This approach may be modified in the future to align with any DFO Regional or National positions regarding these matters. The BCI Area boundaries are as follows.

- All lands within the drainage of the Fraser River, including the Fraser River, upstream of Sawmill Cr., located near Hells Gate.
- All lands within the drainage of the Columbia R. within B.C..
- All lands within the drainage of the Peace and Liard Rivers within B.C..

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The following provides a DFO statutory and policy reference which remains applicable. Details as to how the transition strategy pertains to crown land based forestry is then provided.

1.0 DFO Mandate, Legislation and Project Review Process

1.1 DFO Mandate and Legislation

DFO has a legal obligation to protect fish and fish habitat supporting Canadian fisheries under the *Fisheries Act (FA)*. Section 34 of the *FA* defines fish habitat as, "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". The following sections of the *FA* are particularly relevant to forest development:

- Section 20 whereby the Minister may require free passage of fish at an obstruction,
- Section 22 whereby the Minister may require sufficient flow be provided for fish during construction and operation of a facility,
- Section 30 whereby the Minister may require the use of fish guards (screens) at water intakes to prevent fish entrainment,
- Section 32 which prohibits the killing of fish by any means other than fishing,
- Section 35(1) which prohibits works or undertakings that result in the harmful alteration, disruption or destruction (HADD) of fish habitat (including stream and lake food supply areas),
- Section 36(3) which prohibits the deposit of a deleterious substance in fish bearing waters or in a location where the substance may enter fish bearing waters and,
- Section 37 whereby the Minister may require plans, specifications, and other information for works or undertakings that may result in a HADD or deleterious deposit.

Where a forestry activity may result in a HADD, DFO is the only authority that can authorize that activity to proceed under Section 35(2) of the *FA*. An exemption granted under the *FRPA* does not equate to an Authorization under the *FA*. To proceed with a Section 35(2) Authorization, DFO first undertakes a screening level assessment of the project under the *Canadian Environmental Assessment Act* and refers the project plans and specifications to other federal agencies and first nations. It should also be noted that your project application and any and all supporting documentation would be included in the Canadian Environmental Assessment Registry, accessible by the public.

1.2 DFO Project Review Process

In support of the *FA*, the *DFO Habitat Conservation and Protection Guidelines* (1998) outline a standard approach to habitat conservation and protection through the application of the No Net Loss Guiding Principle. Potential impacts to fish habitat are examined with a view towards a hierarchy of preferences for off-setting these impacts including i) project relocation and/or re-design; ii) mitigation measures to minimize or eliminate project impacts and, where required and acceptable, iii) habitat compensation. DFO's primary objective is to avoid the loss of productive fish habitat during all phases of forest development.

Proponents are responsible for providing sufficient information to allow for our assessment of potential project impacts to fish habitat, including information concerning proposed measures to prevent, mitigate or compensate for damage to fish habitat.

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In critical habitats, a HADD of fish habitat is generally unacceptable; avoidance and mitigation are strongly preferred and the only option where there is a risk that the proposed habitat compensation measures will not succeed. As the habitat value moves from important to marginal, DFO is more receptive to habitat compensation measures to offset residual loss of productive fish habitat after full efforts to mitigate impacts have been made.

2.0 Transition Strategy

A large component of the BCI Area's transition strategy is a shift away from reviewing and commenting on all project submissions and instead focussing our review efforts on activities with a higher risk of creating a HADD. In all risk activities, the licensee remains responsible for incorporating provisions to protect the fisheries resource. To this end, we have provided general and specific recommendations.

For higher risk activities, we will request notification of all activities for the purpose of monitoring and auditing. We will also request referral of project information for specific activities for the purpose of our review and comment. Please note, notification does not preclude the responsibility of the licensee to apply for a Section 35(2) Authorization where a HADD is proposed. If a HADD is proposed, the attached Project Review Information Requirements should be completed and submitted (Attachment 1). For lower risk activities, we have provided general recommendations and identified specific activities which will require notifications. Monitoring and auditing may still be undertaken on lower risk activities.

2.1 Stream Crossings

Stream crossings are categorized as higher risk due to the high potential for alienating or destroying extensive habitat if the crossing is incorrectly located, designed, installed and/or maintained. These types of problems were found in both the 1996-1999 DFO audit of forest road crossings of fish-bearing streams in B.C.¹ and the 2001 DFO review of closed bottom stream crossing (culverts) on fish bearing streams in the Kamloops Forest District², the former which substantially influenced the *FPC* March 2002 *Fish-stream Crossing Guidebook* and the latter effort which reinforced the guidance within the document. The 2002 guidebook provides a decision-making matrix for selecting the type of acceptable new and replacement installations, addresses the aforementioned review process including which proposed installations should be forwarded for agency review and/or DFO Authorization and details the agency notification and requisite accompanying data requirements. As such, DFO considers the standards for stream crossings and licensee submissions contained within the guidebook to be acceptable to meet our fish habitat management objectives.

Your local DFO office should be consulted to gain timing windows for instream works.

Consistent with the protocols within the March 2002 *Fish-stream Crossing Guidebook*, we request notification of the installation of any fish-stream crossing structure plus the referral and requisite information of those crossings demarcated as needing DFO review. The

¹ Harper, D.J. and J.Y. Quigley, 2000. *No Net Loss of Fish Habitat: An Audit of Forest Road Crossings of Fish-Bearing Streams in British Columbia, 1996-1999*. Can. Tech. Rep. Fish. Aquat. Sci. 2319: 57pp.

² Chestnut, T.J. 2002. *A Review of Closed Bottom Stream Crossing Structures (Culverts) on Fish-bearing Streams in the Kamloops Forest District, June, 2001*. Can. Manuscr. Rep. Fish. Aquat. Sci. 2602: 40pp.

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referral information should be formatted as per the Project Review Information Requirements (Attachment 1). Please identify upon the cover of the submission if it is for the purpose of notification only or if it is a referral for review. All notifications and referrals should be submitted at least forty-five days prior to proposed commencement of the works. Our local DFO offices will work with you to further refine the stream crossing notifications we wish to see.

2.2 Riparian Management

Riparian vegetation provides essential functions in protecting channel integrity and in providing numerous fish habitat attributes for streams of all sizes. Application of our standards, as defined below, offset the high potential for a HADD associated with riparian intrusions. The *Forest Practices Code (FPC) Riparian Management Area Guidebook* (RMAG) defines the widths of reserve and management zones based on the size of the feature, geographic location and fish presence and provides recommended BMPs. *FRPA*³ has adopted solely the *FPC* classifications as the default standards for riparian width and management. DFO considers these *FRPA* default standards in conjunction with the RMAG BMPs for S1-S3 streams to be acceptable to meet our fish habitat management objectives.

However, neither the *FRPA* default standards nor the *FPC* BMPs require sufficient riparian leave strips or harvesting reserves to protect small fish-bearing streams and direct tributaries to fish-bearing streams, identified variously as S4, S5 and S6 streams under the *FPC* and RMAG, or similarly the *FRPA* default standards. The integrity of these streams is critical to the long-term health of our salmonid and freshwater fisheries.

Given the importance of such streams, the following have been the DFO Pacific Region's standards for S4, S5 and S6 streams since the year 2000 and are considered acceptable to meet DFO fish habitat management objectives.

1. The riparian management zone of S4 streams must have retention levels approaching 100%.
2. The riparian management zone of S5 and S6 streams that are direct tributaries to fish-bearing streams and sensitive lakeshore spawning areas must have retention levels approaching 100%. Riparian management zones for other S5 and S6 streams should be managed as per the BMPs set out in the RMAG.

In areas where there is a high windthrow hazard wider riparian management zones may be required unless alternative windthrow management measures are proposed. The wider management zone should be designed spatially to match the specific vegetation, topographic, and surficial material characteristics of the site and consist of a retention proportion aimed at protecting the "target" riparian vegetation zone from wind damage. Where trees do blow down across the stream channel they should be left in place to provide future large woody debris to the channel unless otherwise approved for removal by DFO.

DFO is currently evaluating the 2000 riparian standards. In the BCI Area, we will continue to use them until we revise or determine new standards.

We request any proposed variances to the *FRPA* default standards and RMAG BMPs for S1, S2 and S3 streams and our aforementioned standards for S4, S5 and S6 streams be referred

³ Section 47 (4) of the Forest Planning and Practices Regulation

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to DFO for review and comment at least forty-five days prior to commencement of the works. The referral should be formatted as per Attachment 1, Project Review Information Requirements and needs to include a site specific ecological rationale justifying the variance.

2.3 Emergency Works

Windthrow, landslides, debris torrents, road failures and resultant emergency remedial work have a high potential to significantly impact fish habitat.

Notifications of all such events should be made as soon as practically possible to the local DFO office as should referral for review and comment those works that have a high potential to create a HADD. The referral should be formatted as per Attachment 1, Project Review Information Requirements.

2.4 Operational and Road Maintenance Activities

Various kinds of operational and road maintenance activities e.g. dust control, grading, and ditching, are considered lower risk. However, they do have the potential to cause damage to fish and fish habitat. Negative effects can range from input of sediment to fish-bearing waters from operation on roads under extreme weather conditions e.g. spring break-up, or the use of poor road surfacing materials, to direct effects on fish habitat from maintenance of stream crossings via the clearance of beaver dams at culverts. Road management planning and practices that avoid potential negative impacts to fish and fish habitat should be established, and carefully followed for all road operation and maintenance activities.

As part of the national EPMP process, DFO is developing Operational Statements (OSs). These are designed to provide proponents with up-front guidance on how to carry out a specific activity to avoid a HADD. There are a number of OSs being developed for lower risk activities, many which pertain to forestry operations e.g. beaver dam removal, and bridge maintenance. By following the recommended mitigation measures while carrying out the works, the proponent is in compliance with the *FA* and neither a review by DFO nor a Section 35(2) *FA* Authorization is required. The planned B.C. roll-out for the OSs is the fall of 2005 and they will be available through the DFO Regional web-site. Information regarding notification protocols for the OSs will be identified within the documents.

2.5 Assessments and Planning

DFO continues to advocate that appropriate levels of forestry planning continue in conjunction with the implementation of the *FRPA*. This includes the undertaking of terrain stability and watershed assessments and tracking of equivalent clear-cut area (ECA) to reduce the risk of forestry activities plus the incorporation of appropriate standards within Forest Stewardship Plans (FSPs) and Site Plans.

2.5.1 Terrain Stability Assessments

Many of the events identified above under Emergency Works e.g. debris torrents, landslides and road failures, are as a result of forestry activities moving into either unstable watersheds or through destabilizing the watershed. To reduce the frequency and magnitude of such events, we recommend the appropriate terrain stability assessment be undertaken. Where harvesting could have an impact on terrain stability, e.g. immediately up slope of class IV and V terrain and in some cases class III terrain, the necessary precautions to avoid

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landslides should be developed within the assessment, preferably by a recognized terrain expert.

2.5.2 Watershed Assessments

Watershed assessments are an important component of forest development planning. They are necessary in watersheds of significant sensitivity and/or which have significant fisheries values. They are also of particular importance in those situations where either an Interior Watershed Assessment Procedure (IWAP) or a channel assessment report has shown there to be problems within a particular watershed or sub-basin, and where additional roads and/or blocks are proposed for harvest within the problematic watershed or sub-basin. Further, considering the magnitude and scale of the current bark beetle infestation and the serious implications for forest and land management, a strategy that is supported by a watershed assessment and which ensures appropriate emphasis is placed on maintenance of ecosystem integrity and function at the watershed scale is important.

For these situations, we recommend the appropriate level of watershed assessment be undertaken by a qualified professional to identify past impacts at the watershed level and predict future impacts to aquatic resources based on proposed levels and locations of forestry development. A description of the actions being taken to alleviate the situation should accompany the assessment. Analysis of peak flow index, harvest location, riparian condition, road densities and road conditions may be appropriate indicators for the assessments. Also, ECA within a watershed can have an effect on hydrology, particularly when the ECA level is greater than 20%-30%. As such, we recommend ECA also be tracked as part of the planning process to allow for a cumulative effects analysis on habitat features such as temperature and flow. During planning we further recommend that road density and the number of stream crossings be limited and these plus opportunities for watershed restoration be identified in the assessment.

2.5.3 FSPs and Site Plans

There are various planning products generated under *FRPA*. The FSPs identify the licensees' designation of their forest development units and intentions, e.g. moving into unstable watersheds, and defines the standards by which the operations will be undertaken, including any variances from *FRPA* default standards. Therefore, the FSPs are of some utility to DFO in evaluating if DFO standards and recommendations will be met. As such, we request the FSPs be submitted to our local DFO Oceans, Habitat and Enhancement Branch staff prior to proposed commencement of any FSP related works.

The Site Plans generated under *FRPA* are more localized and of a shorter time horizon than the FSPs. Our Department may request these in the future.

2.6 Communications

2.6.1 Notification and Referrals

All notifications should include the following information: proponent and company name and contact information (i.e. address, telephone number, and fax number), the type of works, the location of the project including the nearest watercourse or waterbody and UTM co-ordinates, and the proposed start and completion dates. This information can be mailed, faxed or e-mailed to your current Oceans, Habitat and Enhancement Branch (OHEB) DFO contact, or if you do not have one, the local DFO office.

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The information requirements and format for proposed HADDs is as per Attachment 1, Project Review and Information Requirements. Further information requirements for stream crossings, variances to DFO's riparian standards and emergency works with a high risk of a HADD have been described above in Sections 2.1, 2.2, and 2.3 respectively. This information should be mailed to your current OHEB DFO contact, or if you do not have one, the local DFO office.

Attachment 2 provides a summary of licensee activities and submissions.

2.6.2 Meetings

As part of re-focusing our efforts, we will be pursuing the option of rolling-out our transition strategy at the I-Team meetings in the first year of implementation. Through this venue, we can address any related questions industry might have. Our intention is to then report out in the future to the Forest Districts monitoring and auditing data and any changes to our transition strategy.

Our BCI staff will also no longer regularly be attending the TSA meetings. We will be requesting of the appropriate contacts that they forward minutes of these meetings to us for information purposes to guide our monitoring, auditing and enforcement activities.

In closing, we believe this transition will continue to achieve a high level of environmental protection and maintain a predictable regulatory environment through the reliance on consistent standards and guidelines, while providing for a streamlining of the proponent submission and review process.

If you have any comments or questions, please contact Nick Leone, Section Head BCI Area North at (250) 561-5368 for inquiries north of and including 100 Mile House and Darryl Hussey, A/Section Head BCI Area South at (250) 851-4962 for inquiries south of 100 Mile House.

Yours truly,



Jason Hwang
Chief, BCI Area
Oceans, Habitat and Enhancement Branch

cc:

BCI Area OHEB staff
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Attach's 1. Project Review Information Requirements
2. Summary of Licensee Submissions and Activities

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Attachment 2

Summary of Licensee Submissions and Activities

Activity/Plans	Referral for DFO Review and Comment.	Notification for DFO Monitoring and Audit.	Request for DFO Information.	DFO Recommendations (as per the June 30/05 licensee letter).
New and Replacement fish-stream crossings requiring referral as per Fish-stream Crossing Guidebook.	X			
New and Replacement fish-stream crossings requiring notification as per Fish-stream Crossing Guidebook.		X		
Variances to DFO riparian management standards for S1-S6 streams.	X			
All emergency works.		X		
Emergency works with high potential for a harmful alteration, disruption, or destruction of fish habitat.	X			
Various operation and road maintenance activities.				X
Activities included under DFO Operating Statements (fall 2005).		X		
Terrain stability and watershed assessments.				X
Forest Stewardship Plans.			X	

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