



Ministry of Forests and Range



For Operations Division (Districts)

Guidelines for Planning and Implementing Road Permit Transition within Timber Reallocation Areas

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NOTES:

1. These Guidelines must be read in conjunction with the memorandum signed by Doug Konkin, Deputy Minister entitled, “**Guidelines for Planning and Implementing Road Permit Transition within Timber Reallocation Areas**” available at http://www.for.gov.bc.ca/hth/engineering/permits_documents.htm or <http://www.for.gov.bc.ca/hth/engineering/reallocation.htm> under the descriptor “Timber Reallocation.”
2. Refer to the companion memorandum signed by Doug Konkin, Deputy Minister entitled, “**Administrative Procedure for Terminating or Amending Road Permits in FTA under Timber Reallocation**” for the recommended business processes that should be followed in the Forest Tenure Administration (FTA) system for converting a road permit section to an FSR branch, retiring a road permit section, or transferring road permit section obligations to another industrial user. The memorandum and associated detailed business process flowcharts are available at http://www.for.gov.bc.ca/hth/engineering/permits_documents.htm or <http://www.for.gov.bc.ca/hth/engineering/reallocation.htm>.
3. Other Information: For further information, refer to the Coast Region Timber Reallocation website at <http://www.for.gov.bc.ca/rco/Reallocation/Transition.htm>.

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1.0 Introduction

Important factors such as the wide range in the existing condition of road permit roads and associated structures, different levels of risk to the environment including road user safety, uncertainty about the period of time that incoming new tenure holders will require the existing road network, and the associated costs and liabilities related to converting any selected road permit roads to Forest Service roads (FSRs), raise important issues about how district managers (with input from timber sales managers as appropriate) should administer the exiting major licensees' road infrastructure.

As the issuing authority for Road Permits, district managers have the overall responsibility to coordinate the road administration in the reallocation areas and to ensure that it is carried out in a thorough and complete manner within their districts. These guidelines describe a recommended procedure for Operations Division (districts) to facilitate this process.

Although this guidance does not wholly apply to BC Timber Sales (BCTS), many of the road and structure transition issues raised by the implementation of the *Forestry Revitalization Act* will be the same for BCTS. On many occasions in the Coast Forest Region, BCTS has led the transition process within reallocation areas that were designated almost exclusively for its operations. Therefore, the guidelines make reference to BCTS linkages and, where appropriate, suggest that BCTS and districts should liaise and be mindful of each other's needs and actions around common road and structure issues. The guidelines do not address compensation matters.

The guidelines have been structured as follows:

- **Section 2.0** briefly states the statutory obligations of road permit holders (exiting major licensees) within timber reallocation areas (reallocation areas).
- **Section 3.0** presents four different options for districts to administer the transition of road permit roads that are surplus to the needs of BCTS within reallocation areas. These options are considered during the road permit transition planning process presented in Section 4.0.
- **Section 4.0** provides an overview of the road permit transition planning process. The following primary activities are described:
 - Identify and confirm an initial and final list of roads under Road Permit
 - Carry out overview level road risk ratings
 - Carry out road and structure inspections
 - Carry out status and clearance procedures
 - Prepare a map showing preferred road administration options.
- **Section 5.0** introduces the roads tracking spreadsheet (Appendix B) and the structures tracking spreadsheet (Appendix C).
- **Section 6.0** provides an example of road administration options applied to specific road and structure conditions.

2.0 Statutory obligations of road permit holders

Road permit holders (exiting major licensees) are bound by the provisions of their Road Permits (**RPs**), and the requirements of the *Forest Practices Code of British Columbia Act*, or the *Forest and Range Practices Act*, as applicable, in respect of RPs associated with roads surplus to their needs as a direct result of the timber reallocation process.

For the time period prior to the termination of RPs, road permit holders are solely responsible for any costs of satisfying maintenance and deactivation obligations associated with their RPs within reallocation areas.

If there are interpretative differences in the language and direction between any relevant timber reallocation agreements and the legislation about the statutory obligations of road permit holders, the legislation will prevail.

3.0 Districts' options to administer road permit transition

The statutory obligations of a road permit holder (exiting major licensee) within a reallocation area terminate either after the district manager has agreed to transfer the responsibility for a road under RP or Special Use Permit (**SUP**) to another party, or after the deactivation of the road under RP to the district manager's satisfaction, or after the district manager has declared the road under RP to be a Forest Service road (**FSR**).

For a road that is surplus to the needs of BCTS, the district's decision to want the road deactivated or converted to an FSR depends on the (1) timing of operations of new non-replaceable First Nations tenures, woodlot licenses, and community forest agreements, (2) the need for other industrial, commercial and public access (possibly including access to range tenures and resources in known range areas), (3) the risk to the environment, and (4) the costs and liabilities to the districts to maintain the road and protect the environment and road users. Important planning considerations for deactivation of forest roads are provided in Engineering Bulletin No. 1 (December 5, 2007) prepared by Resource Tenures and Engineering Branch (RTEB), available at <http://gww.for.gov.bc.ca/hth/engineering/reallocation.htm>.

It is not acceptable for the districts to create new non-status roads through its administrative actions under timber reallocation. However, as discussed in **Section 4.0**, it is possible that an exiting major licensee and/or district may discover some existing non-status roads under the exiting major licensee's RP.

Four options for districts to administer road permit transition are described below.

3.1 Transfer of responsibility option

Option: Decision by the district manager to transfer the responsibility for a road under the exiting major licensee's RP to another industrial user through a new RP or an SUP issued by the district manager.

- a) Some roads not required for forest development operations may be needed solely by other industrial users. It is not the ministry's mandate to supply road access to

resource users other than for forestry activities. If no current or future forestry use can be identified, and the only other potential use is for mining and petroleum operations, the district manager may consider offering an SUP to these industrial users.

- b) In the case of road access needed, for example, by an independent power producer or BC Hydro, the district manager should advise the potential user to make an application for road use to the Integrated Land Management Bureau (ILMB).

3.2 Continued maintenance option

Option: At the discretion of the exiting major licensee, a decision by the exiting licensee to hold an RP (even though it has no more harvesting rights in the reallocation area) and to continue maintaining specific roads that have not been deactivated under the RP until such time as (1) an incoming new tenure holder is ready to take over the responsibility of the road under a new RP, or (2) it is prepared to carry out road deactivation in accordance with the regulations. The exiting major licensee may have reason to select this option to ensure continued access for carrying out any remaining forest management operations (such as silviculture after harvesting is complete) within the reallocation area, or ongoing or future forest development operations located in areas outside of the reallocation area.

- a) This “hold, continue to maintain, and wait” option is likely to be least appealing to those exiting major licensees that are eager to get rid of their statutory obligations under RPs in a timely manner.

3.3 Road deactivation option

Option: Decision by the district manager that a road permit road should be deactivated by the exiting major licensee in accordance with the regulations, where there is no apparent future industrial use for the road, no other party is willing or able to assume responsibility for the road after the RP is terminated, and the district manager determines that the road will not be required for ongoing commercial or public access.

- a) ***During transition to the Forest and Range Practices Act (FRPA):*** An outcome of the suggested road transition planning process described in **Section 4.0** below is a map showing (among other things) all the roads under RP within the reallocation area that require deactivation by the exiting major licensee. This map will help facilitate the licensee’s preparation of a major or minor amendment of its Forest Development Plan in accordance with the legislation during the transition period to the *Forest and Range Practices Act* (FRPA). It is recommended that the district manager advise the licensee about the circumstances that would constitute a major versus a minor amendment. The licensee must not deactivate any roads within the reallocation area before receiving the district manager’s approval of a necessary amendment to a Forest Development Plan. Refer to section 18 (1) (n) of the Operational and Site Planning Regulation and section 188 (4) (c) and (5) of the *Forest and Range Practices Act*, and

to General Bulletin Number 31 (December 19, 2000) called, “Amendments to Forest Development Plans” available at the following website:

http://www.for.gov.bc.ca/hen/files/FPC_Bulletin_General_31.pdf

- b) *After transition to FRPA:* After the transition to FRPA is complete, an exiting major licensee will no longer be required by legislation to show on a drawing the road permit roads that are to be deactivated and the timing of those works, or to notify the district manager prior to carrying out deactivation activities. For the purposes of timber reallocation, the district manager should request the licensee not to deactivate any roads of interest to the district under RP within the reallocation area until the recommended road transition planning process described in **Section 4.0** below has been satisfactorily completed.
- c) *Section 107 declaration:* The district should encourage the exiting major licensee to submit a written declaration to the district manager after it has met its deactivation obligations, in accordance with section 107 (1) of the FRPA. Under section 97 (2) of the Forest Planning and Practices Regulation, the district manager has up to 15 months to approve or reject the deactivation works after receiving the exiting major licensee’s section 107 declaration. The final approval of the deactivation works is the responsibility of the district manager. [Note: A section 107 declaration under the FRPA is not a signed and sealed statement from a professional that the deactivation works were carried out in overall conformance with the prescriptions—see **paragraph 3.3 (e).**]
- d) *Standard of road deactivation:* If a road under RP will be deactivated, the exiting major licensee must carry out the work in accordance with the requirements and objectives of road deactivation described in the legislation.
- e) *Professional prescriptions:* Separate from a declaration under section 107 (1) of the FRPA, and to achieve a consistently high level of quality assurance and lessen the likelihood of the district manager rejecting the deactivation works for just cause, the district should encourage the exiting major licensee to retain a Terrain Stability Professional (defined in the APEGBC document called “Guidelines for Terrain Stability Assessments in the Forest Sector” available at http://www.apeg.bc.ca/library/library/guidelines/Guidelines_for_Terrain_Stability_Assessments_in_the_Forest_Sector.pdf) to prepare the deactivation prescriptions, and if specified by the person making the prescriptions, provide a signed and sealed statement that the deactivation works were carried out in overall conformance with the prescriptions.

3.4 Conversion to FSR option

Option: Decision by the district manager to convert a road permit road to an FSR that will become the district’s responsibility if the road is not wanted by the exiting major licensee, BCTS, or other industrial users, subject to consideration of the following criteria:

- a) Anticipating that suitable funding will be secured, district managers are encouraged (with the support of the Ministry Executive) to be less risk averse when making decisions about how much road permit road should be converted to FSRs under the districts' responsibility. Consistent with this direction of managing the ministry's risks upward where sensible, and recognizing that it is not possible in most cases for the ministry to put new tenures on the land base within the next 5 year period for First Nations, woodlots, and community forests, district managers should take a longer time horizon viewpoint when deciding which road permit roads should be converted to FSRs under the districts' responsibility. A district's decision to convert a road permit road to an FSR is subject to consideration of these Guidelines, local conditions, and the district managers' judgement.
- b) The district manager should consider the following types of immediate or future road use a high enough priority to declare some road permit roads as FSRs, if (1) the anticipated economic and social benefits outweigh the liabilities and costs to the district over the specific time period of interest, (2) the risk of damage or loss to forest resources and other values can be kept to an acceptable level, and (3) it is anticipated that there will be available funds for routine maintenance inspections and road and structure maintenance during the time period that the district is responsible for the roads:
 - i. 1st Priority: Road permit roads needed in the short term (within 5 years) for new non-replaceable First Nations tenures, woodlot licenses, and community forest agreements, including the ones needed to access a community, residences, or high value forest recreation sites and trails as defined in the Business Area 5 (Engineering) funding policy for "road and structure maintenance, road deactivation, and closure." (For roads in known range areas, consult with range tenure holders to determine their access requirements and listen to their concerns about potential impacts of changes in road access.)
 - ii. 2nd Priority: Road permit roads needed in the medium (in 5 to 10 years) or long term (in 10 to 20 years) because it is confirmed (with reasonable confidence) that there is merchantable and economically viable timber that will likely provide a harvesting opportunity within the next 5 to 20 years for new non-replaceable First Nations tenures, woodlot licenses, and community forest agreements, including the ones needed to access important recreational areas as defined in the Business Area 5 (Engineering) funding policy for "road and structure maintenance, road deactivation, and closure." In this case, it is particularly important for the district to conduct a thorough analysis and evaluation of the risks, costs, and benefits associated with converting the road to an FSR. [Note: It may be necessary for the district manager to negotiate '**one-time**' maintenance works with the exiting major licensee as discussed in **paragraph 3.4 (f).**]
- c) FSRs that will become the responsibility of the district manager must be maintained in accordance with the Business Area 5 (Engineering) funding policy for "road and structure maintenance, road deactivation, and closure" until such time that a Road Use Permit can be issued to an industrial user.
- d) Without exception, appropriate district engineering staff or consultant contractors must conduct field inspections (including risk assessments) on **all** road permit roads

- that are proposed for conversion to FSRs. The purpose of these inspections is to (1) determine and evaluate the present condition of the road infrastructure, (2) identify and understand the associated potential risks to forest resources and other values, (3) obtain the necessary data for the bridge register and the road management system, and (4) acquire necessary data to estimate, compare, and evaluate costs, liabilities, and economic and social benefits before declaring the road an FSR.
- i. A high level of risk to forest resources or / and significant annual road and structure maintenance costs can be decisive factors against holding inactive FSRs on steep terrain for long periods of time. As a general rule, the higher the risk to forest resources and the greater the maintenance costs, the shorter the time frame the district should hold inactive FSRs.
 - ii. Where the field inspections can be done through local contracts or other appropriate means, BCTS and the district should share contractors to carry out the field inspections to optimize the use of ministry staff and financial resources. A breakdown of any cost sharing between the district and BCTS should be kept on file.
- e) District staff should carry out road status and clearance checks to identify any conflicts. For more information, refer to **Subsection 4.4** below entitled, “Carry out status and clearance procedures.”
- f) There will likely be cases where the district will be undecided about whether or not to convert specific road permit roads to FSRs or to request the exiting major licensee to deactivate these roads. Often these cases may involve roads that, if converted to FSRs, would (1) remain inactive for a lengthy period of time after the FSR declarations as in the case of the **2nd Priority** roads described in **paragraph 3.4 (b)**, and (2) pose an unacceptable risk to forest resources over this time period unless aggressive water control and road prism stabilization works are carried out in the immediate future.
- i. If the risks can be satisfactorily addressed through implementation of aggressive water control and road prism stabilization works as necessary, and if conserving the road assets by declaring the road permit roads to be FSRs is sensible subject to these necessary works, the district manager may wish to negotiate with the exiting major licensee for it to carry out ‘one-time’ maintenance works (at its cost and in lieu of deactivation) to provide for a level of **wilderness road** maintenance that would uphold **ideally a low level of risk** to forest resources over the expected period of non-industrial use.
 - ii. The level at which these ‘one-time’ maintenance works should be implemented depend on the terrain and other site factors, method of road construction, and the expected duration of inactive road use. These works may involve a wide range of deactivation type techniques as required, such as water management (e.g., installation of cross-ditches, waterbars, back-up of stream crossing structures), nominal repairs of road surface and structures, and road prism stabilization (e.g., partial pullback of road fill along selected road segments). Examples of activities for a **wilderness road** level of maintenance are provided in the attached Table 1.

- iii. **IMPORTANT:** The ‘one-time’ maintenance works would need to be carried out by the exiting major licensee in accordance with specific objectives established by the district before any works begin, and completed to the satisfaction of the district manager before any approval is given by the district manager to terminate the RP.
- iv. The exiting major licensee’s acceptance of carrying out a negotiated level of ‘one-time’ maintenance works at its cost may be the deciding factor for the district to convert a road permit road to an FSR. This may be appealing to the exiting major licensee because such works are typically less costly to implement than road deactivation activities, and can also be more quickly carried out. The district would also likely notice a benefit from such ‘one-time’ maintenance works on the roads to be declared FSRs because the district’s costs to keep **ideally a low risk** to forest resources through inspections and maintenance over the period of non-industrial use may be reasonable.

4.0 Recommended road permit transition planning process

A procedure is presented below for districts to plan road permit transition. Important and supplemental planning considerations are also provided in Engineering Bulletin No. 1 (December 5, 2007) prepared by Resource Tenures and Engineering Branch (RTEB), available at <http://gww.for.gov.bc.ca/hth/engineering/reallocation.htm>.

The focus of the planning is identifying road access needs within reallocation areas with input from affected exiting major licensees, incoming new tenure holders, and BCTS as appropriate, and carrying out inspections of road permit roads (and any associated structures) that have been selected for conversion to FSRs and that will become the district manager’s responsibility. The procedure is depicted in **Figure 1**, and also in **Steps 1 to 4 of Flowchart 1**. It involves five primary activities, described more fully in the subsections that follow:

- Identify and confirm an initial and final list of roads under RP
- Carry out overview level road risk ratings
- Carry out road and structure inspections
- Carry out status and clearance procedures
- Prepare a map showing preferred road administration options.

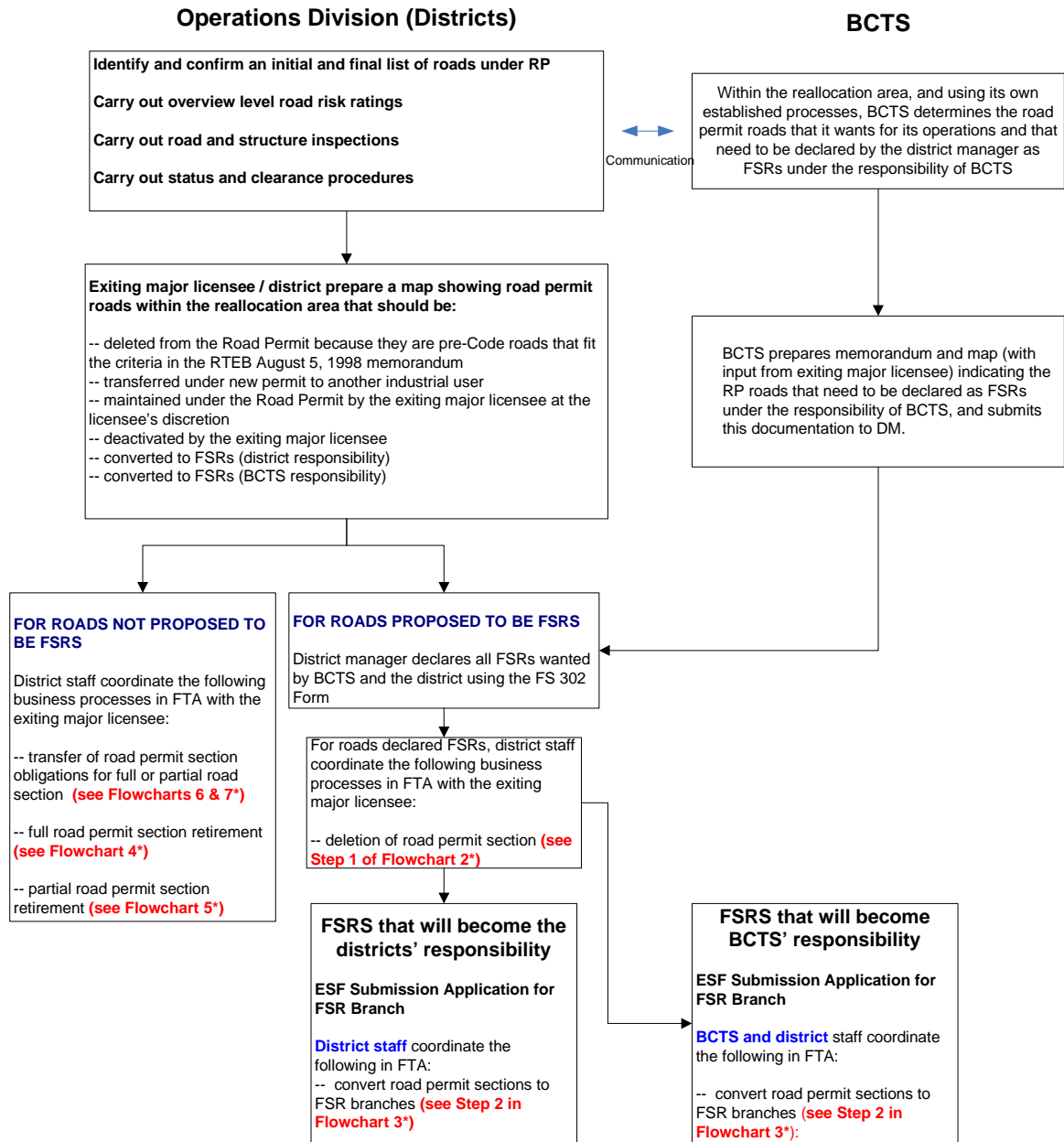
4.1 Identify and confirm an initial and final list of roads under RP

- a) The district manager should request the exiting major licensee to submit an “**initial**” list of all the existing roads under its RP within the reallocation area to the district, including a map showing the location of these roads. The district, with input from the exiting major licensee and BCTS as appropriate, should verify the exiting major licensee’s submission against its own records and maps.

- b) It is possible that the exiting major licensee and / or the district may identify some pre-Code roads on the “initial” list that were deactivated to the contractual standards of the day prior to June 15, 1995 (before the Code came into effect), and mainly due to administrative oversight the district did not delete those pre-Code deactivated roads from the RP as directed in the memorandum by Resource Tenures and Engineering Branch (RTEB) of August 5, 1998 (see **Appendix A**). Based on the criteria provided in that early RTEB memorandum, the district manager may approve the deletion of such roads from the RP after review and evaluation of substantiating documentation supplied by the exiting major licensee or on file in the district.
- c) As necessary, the district should risk-rate any pre-Code roads that have been approved for deletion from the RP under **paragraph 4.1 (b)**.
- i. Pre-Code roads deleted from the RP may be considered simply **Crown land** requiring no further deactivation work if they present a **low risk** of damage or loss to forest resources and other values for the foreseeable future.
- ii. Pre-Code roads deleted from the RP that do not meet the “**low risk**” criterion of **paragraph 4.1 (c) (i)** should not be regarded as Crown land to be forgotten, but rather should be risk managed and tracked separately from road permit transition administration. These roads should be classified as “existing” non-status roads. Sources of government funding for prescriptions and works on non-status roads to reduce the risk to an acceptable level could include:
- The Forest Investment Account—this is an established funding source for deactivation and environmental maintenance projects on non-status roads. See the following websites:
http://www.for.gov.bc.ca/hcp/fia/landbase/infra_eligible_activities.htm and
http://www.for.gov.bc.ca/hcp/fia/landbase/r_and_r_eligible_activities.htm
 - In singular cases, the Business Area 5 (Engineering) “funding policy for road and structure maintenance, road deactivation, and closure”—this is an established funding source for emergency projects on non-status roads to address either a known immediate threat to people or a known high and very high risk to forest resources, property, utilities, transportation corridors, and other social and economic values. See the following website:
http://www.for.gov.bc.ca/hth/engineering/ba_serviceplan.htm
 - Available ministry vote funding set aside for the timber reallocation process.

Figure 1

Diagram of Operations Division (Districts) Road Permit Transition Planning Process and Business Processes in FTA



* Flowcharts 2 to 7 are available at http://www.for.gov.bc.ca/hth/engineering/permits_documents.htm or http://www.for.gov.bc.ca/hth/engineering/pol_pro_mld.htm

- d) If the district contemplates the need for road deactivation, environmental maintenance, or emergency projects on identified “existing” non-status roads within the reallocation area, the district should evaluate (with input from the exiting major licensee) if the risk mitigation work should be carried out in advance of any proposed road deactivation by the exiting major licensee. This may be required to safeguard needed equipment access to implement any necessary mitigation works on these non-status roads within the reallocation area.
- e) The district manager and the exiting major licensee should agree on a “**final**” list of road permit roads within a given reallocation area that are currently the responsibility of the exiting major licensee under timber reallocation.

4.2 Carry out overview level road risk ratings

- a) Preliminary road risk ratings (overview level): The district should carry out overview level road risk ratings on some or all road permit roads within the reallocation area as necessary:
 - i. Knowing approximate risk levels (e.g., very low, low, moderate, high, very high) of possible future FSRs is necessary when preparing a first draft of the road permit transition map. At this preliminary stage, most risk ratings can be done from the office using topographic and / or slope maps, air photos, information supplied by the exiting major licensees, and local experience, but sometimes helicopter reconnaissance may be required.
 - ii. Where the district is seriously considering converting road permit roads to FSRs, a more thorough engineering risk analysis (detailed road risk ratings) should be carried out at the time of road and structure inspections to ground truth the overview level risk ratings. See **paragraph 4.3 (a)**.
 - iii. Additionally, if the road network to be deactivated is lengthy, this overview level information may serve, for example, to allow Compliance and Enforcement staff to focus its post-deactivation inspections on 100% of the roads rated as high risk or very high risk, and on 50% (or some other percentage) of the roads rated low to moderate risk, prior to the district manager’s termination of the road permit.
- b) As part of the work to carry out overview level road risk ratings, the district should (1) request the exiting major licensee to compile and submit relevant available information about the existing road infrastructure under RP within the reallocation area, and (2) verify the information for accuracy and completeness as necessary. This information may include:
 - i. Overview maps (FDP maps etc.) at a scale of 1:50,000 to provide a strategic level evaluation of the road infrastructure in relation to existing and future

operational areas, and the need to maintain access to communities, residences, and forest recreation sites and trails and recreational areas (and possibly including access to range tenures and resources in known range areas);

- ii. Detailed mapping at a scale of 1:20,000 to provide for segregation of the road network by condition and risk rating levels. These maps may also provide a base for the identification of specific areas where more detailed evaluations may be required;
- iii. Existing inspection records and condition reports (most recent) for roads and structures;
- iv. Available terrain mapping and terrain stability mapping;
- v. Fisheries information;
- vi. Road risk ratings assigned by the exiting major licensee;
- vii. Information about any environmental orders, such as remediation orders, as well as outstanding compliance issues as defined by FPC or FRPA and regulations;
- viii. Recent historical data (usually within the age of roads) on landslide events and frequency of failures;
- ix. Compilation of all active tenures including RPs, Cutting Permits, SUPs, and road use agreements;
- x. Details of any local agreement with First Nations or other stakeholder (e.g., private property) with respect to road use or access;
- xi. Legal documentation with respect to access over / through private property, including a status and clearance check of roads to identify potential conflicts with private property and First Nation's alienation, BC Hydro, BC Tel, Rogers Cable, BC Gas, CN, etc. (supplied by the major licensee if available).

4.3 Carry out road and structure inspections

- a) Road and structure inspections and detailed road risk ratings: For road permit roads that the district has a desire to convert to FSRs, the district should carry out road inspections, and routine condition inspections of bridges and major culverts, and evaluate the results of those inspections. The purpose of the inspections, including detailed road risk ratings, is to determine and evaluate the condition of the road infrastructure before finalizing the road permit transition map with the exiting major licensee. The inspections will serve to provide the district with an understanding of the
 - i. structural integrity of the road prism and clearing width;
 - ii. effectiveness of drainage systems;
 - iii. condition of bridges and major culverts and other drainage or engineered structures;

- iv. road user safety concerns;
 - v. risk of damage to forest resources and other known values from road associated sedimentation and landslide hazards (in greater detail compared to the overview level risk ratings);
 - vi. possible works needed to address deficiencies;
 - vii. magnitude of costs to address the deficiencies.
- b) The district manager should request a copy of the exiting major licensee's maintenance inspection records and all the documents, drawings, and records in respect of the road and structures required by legislation. If this information does not exist or is lost for a bridge or major culvert, the district should consult with the Regional Bridge Engineer or a qualified consultant to evaluate the structure and the associated liability before declaring a road to be an FSR that will become the district's responsibility.
- c) As required, also carry out inspection work to evaluate the "as-built" geometry of the roads with respect to an economic efficiency perspective and industrial user safety issues (e.g., road width, road gradient, number of pullouts, signage) for roads that will be used in the near term for timber harvesting operations.
- d) It may be necessary to undertake a terrain stability assessment within selected sub-basins to better evaluate landslide risk before making final decisions about deactivating roads versus declaring roads to be FSRs (with or without 'one-time' maintenance works described earlier in **paragraph 3.4 (f)**).
- e) Road inspections, and routine condition inspections of bridges and major culverts, including road risk ratings, should be carried out using the procedures and forms described in Chapter 7 of the new ministry Engineering Manual available at http://www.for.gov.bc.ca/hth/engineering/documents/publications_guidebooks/manual_s_standards/Engineering_Manual/EngMan2006.pdf. Refer to Chapter 7 of the Engineering Manual for guidance on bridge and major culvert inspections, and documentation requirements, and the sample road maintenance inspection report in Appendix 7.2 of the new ministry Engineering Manual may be used to document road inspections. These inspections should also be augmented by the following:
- i. current and historical records for roads and structures that will assist in the identification of current condition, historical problems and "as built" features especially for bridges, major culverts and engineering structures (e.g., retaining walls);
 - ii. available anecdotal information supplied by the exiting major licensee, with respect to frequency of needed maintenance activities, road condition, and structure performance or condition;
 - iii. available anecdotal information supplied by Compliance and Enforcement staff with respect to past performance of roads and structures, and the exiting major licensee.

- f) Road inspections: Refer to the roads tracking spreadsheet (**Appendix B**) for the types of important road information that the district should record for all road inspections and administration options.
- g) Bridge and major culvert inspections: Refer to the structures tracking spreadsheet (**Appendix C**) for the types of important structure information that the district should record for all structure inspections on road permit roads that may become FSRs under the district's responsibility. (Notice that the data requirements for bridge information under timber reallocation should be consistent with those of a typical ministry bridge register file.). The bridge and major culvert information that should be collected includes the data required to analyze the structure for structural integrity and load capacity. Each structure should be evaluated individually with consideration for field and construction data, as-built information, and inspection records that may or may not be available. Thus it is recommended that professional engineers carrying out the reviews be tasked with collecting the appropriate information for evaluation and collation. For guidance, they should be encouraged to consult with Regional Field Engineers particularly at the beginning of the field inspection process.
- h) For some bridges and major culverts on road permit roads, the associated risks and liabilities may not be readily apparent, particularly if there is a lack or absence of as-built information available and vital components of the structure are buried or not visible. There is more risk to the district associated with taking on the responsibility for such structures if the roads will be converted to FSRs and if the capacity of the structures cannot be confidently determined. For example:
 - i. for a pile driven structure, without documentation showing the depth of penetration and energy used to drive the piles, it may be difficult or impossible to evaluate the capacity of the substructure;
 - ii. for a steel superstructure, without documentation showing the type and quality of steel, it may not be possible to accurately evaluate the capacity of the superstructure even after carrying out expensive in-situ testing;
 - iii. for buried abutments, without suitable drawings, it would not be possible to understand the full configuration of the abutments or to know about the quality of the foundation materials, that would be necessary to evaluate the capacity of the structure..
- i) For bridges, the legislation requires pertinent field and construction data, as-built information and inspection records to be prepared and retained by the person who builds a bridge or installs a major culvert. The legislation requires that this person must retain this information for the duration of the life of the structure or until such time as responsibility passes to another party.
 - i. As part of the data collection exercise for any such structures on road permit roads that may be converted to FSRs under the district's responsibility, the district should make concerted efforts to obtain this information from the exiting major licensee early during the road transition planning process and prior to the district's decision to declare FSRs.

- ii. As this information is required by legislation, it should be considered a “hard asset” integral to the structure and not a “soft asset.”
- j) If as-built and inspection documentation is not available for a bridge or major culvert, the district should carry out a more intense and detailed field inspection and evaluation of the structure in the field followed by some detailed analysis of the data collected. However, as indicated above, there is only so much that can be determined through visual inspection and key information to assess the structure may not be available despite the results of more detailed field work and analysis. Some factors, such as pile capacity cannot be determined from visual inspection and even in-place testing would be an expensive challenge.

4.4 Carry out status and clearance procedures

- a) All existing road and access limitations, easements, agreements and legal rights-of-way should be identified for all roads that BCTS or the districts have a desire to retain. These may include: Statutory rights-of-ways; easements; access agreements; First Nations tenures or traditional use sites; private property, fee simple; land grants, with Crown access provisions; property leases; parks and protected areas or ecological reserves etc.; foreshore leases; environmental restrictions or operating requirements. Information should be requested through the exiting major licensee with respect to access restrictions at the outset.
- b) Where establishment of legal access will be required, Resource Tenures and Engineering Branch (RTEB), Real Estate Operations is available to advise on land valuation, consult with independent real estate appraisers and investigate concerns. Establishment of legal access may affect any number of individual properties and involve more than one government agency. Legal access may involve lands owned in either fee simple by the exiting major licensee or a private third party owner. An exiting major licensee’s agreement with First Nations to secure access might complicate land issues involving a First Nation IR. All access issues involving a First Nation should be referred to RTEB, Real Estate Operations. Where legal access may be compromised, proposed conversion of the road permit road to an FSR should be delayed. In these circumstances, the cost estimate should include purchase or right-of-way dedication as necessary, including the value of the land and improvements.
- c) If legal access would be too expensive to resolve in consideration of the benefits (tangible and intangible) of converting a road permit road to an FSR, or if sources of funding are not available, deactivation of a road by the exiting major licensee may be the only sensible option.

4.5 Prepare a map showing preferred road permit administration options

- a) Prepare a road permit transition plan based on the established “final” list of road permit roads under the RP. This will require the exiting major licensee, BCTS, Operations Division (districts) and new tenure holders as appropriate to collaborate

- and determine the roads that are (1) surplus to all stakeholders, (2) required for current and future timber harvesting operations and other forest management activities, and (3) needed to maintain access for non-industrial purposes (described in more detail below).
- b) The result of road permit transition planning is a map showing the preferred option proposed for each road or road segment under RP within the reallocation area:
 - i. Using its own processes, BCTS should choose the road permit roads that it wants for its operations, and submit a memorandum and map (with input from the exiting major licensee) to the district manager specifying and showing the road permit roads or road segments that it wants declared as FSRs by the district manager and that will become the responsibility of BCTS.
 - ii. For the remaining population of road permit roads not wanted by BCTS, the exiting major licensee should submit a letter and map to the district manager (copy to BCTS as appropriate) showing the proposed roads that will (1) be transferred under new RP or SUP to another industrial user, (2) be deactivated by the exiting major licensee, (3) continue to be maintained by the exiting major licensee under the existing RP for a specified time period if the roads will not be deactivated, and (4) be declared as FSRs by the district manager and that will become the district's responsibility. Additionally, for roads to be converted to FSRs, the map should identify the roads that will require 'one-time' maintenance works in accordance with **paragraph 3.4 (f). The district should review, verify and approve the licensee's submission before the exiting major licensee carries out any road deactivation.**
 - iii. As necessary, the map should also show any road permit roads that the district manager approved for deletion under the existing RP within the reallocation area, including the road risk ratings of those roads and whether or not they will be classified as Crown land in accordance with **paragraph 4.1 (c) (i)** or existing non-status roads in accordance with paragraph 4.1 (c) (ii).
 - c) For FSRs that will become the district manger's responsibility, the district should augment the map itself to include:
 - i. the levels of required road maintenance the district will be required to carry out after the road permit roads have been declared FSRs by the district manager (e.g., wilderness road level of maintenance, recreation access level of maintenance, community access level of maintenance), and the types of vehicle usage that are proposed to be accommodated;
 - ii. as applicable, the locations and names of communities, residences, high value forest recreation sites and trails and important recreational areas, known range areas, future areas of operations for First Nations or small tenures and, where applicable, the linkages to the public road system.

5.0 Procedure for terminating or amending road permit roads in FTA

- a) More detailed flowcharts (Flowcharts 2 to 7) are available showing the specific business processes in the Forest Tenure Administration (FTA) system that district staff / exiting major licensees, and BCTS as appropriate, should follow for converting road permit sections to FSR branches, retiring a full or partial road section, and transferring road permit section obligations to another industrial user. Refer to the companion memorandum signed by Doug Konkin, Deputy Minister entitled, “**Administrative Procedure for Terminating or Amending Road Permits in FTA under Timber Reallocation**” and associated detailed flowcharts available at http://www.for.gov.bc.ca/hth/engineering/permits_documents.htm or <http://www.for.gov.bc.ca/hth/engineering/reallocation.htm>.

6.0 Tracking of road and structure conditions and transactions

- a) All district Road Permit transition decisions, including key inspection data on roads and any structures, should ideally be tracked in a database or spreadsheet. Appendices B and C provide spreadsheet templates that show the key data that should be considered for roads and structures, respectively, depending on the scale and complexity of the transition project.

7.0 Example application of road administration options

Existing Road Condition: The existing road permit road is in good condition (i.e., the structural integrity of the road prism and width are protected; the drainage systems of the road are functional; the transport of sediment from the road prism and its effects on other forest resources are minimized; safe passage for fish is provided at fish stream crossings built after June 15, 1995; the road can safely be used for industrial purposes and by 2-wheel drive vehicles; there is no structural maintenance required on bridges, major culverts, or other engineered structures); and the current risk to forest resources is **low**.

- i. Case A: This road is needed immediately by the district to support new First Nations non-replaceable forest licenses and various other short-term, small-scale tenures. The district recommends that the road should be converted to an FSR and kept open for vehicle traffic. Based on the good condition of the road infrastructure, no immediate maintenance works are needed on the road to protect forest resources.
 - Advice on option to convert the road to FSR and terminate the road permit: (1) In this situation, because the risk to forest resources is acceptable (**ideally low**), the exiting major licensee should not be expected to carry out any one-time maintenance works as a pre-condition for converting the road permit road to FSR and termination of the RP. (2) The district manager should declare the road to be an FSR if satisfied that the exiting major licensee has met all relevant obligations.
- ii. Case B: This road is needed to support a new First Nations non-replaceable forest license in the medium term (in 5 to 10 years). The district does not need the road to

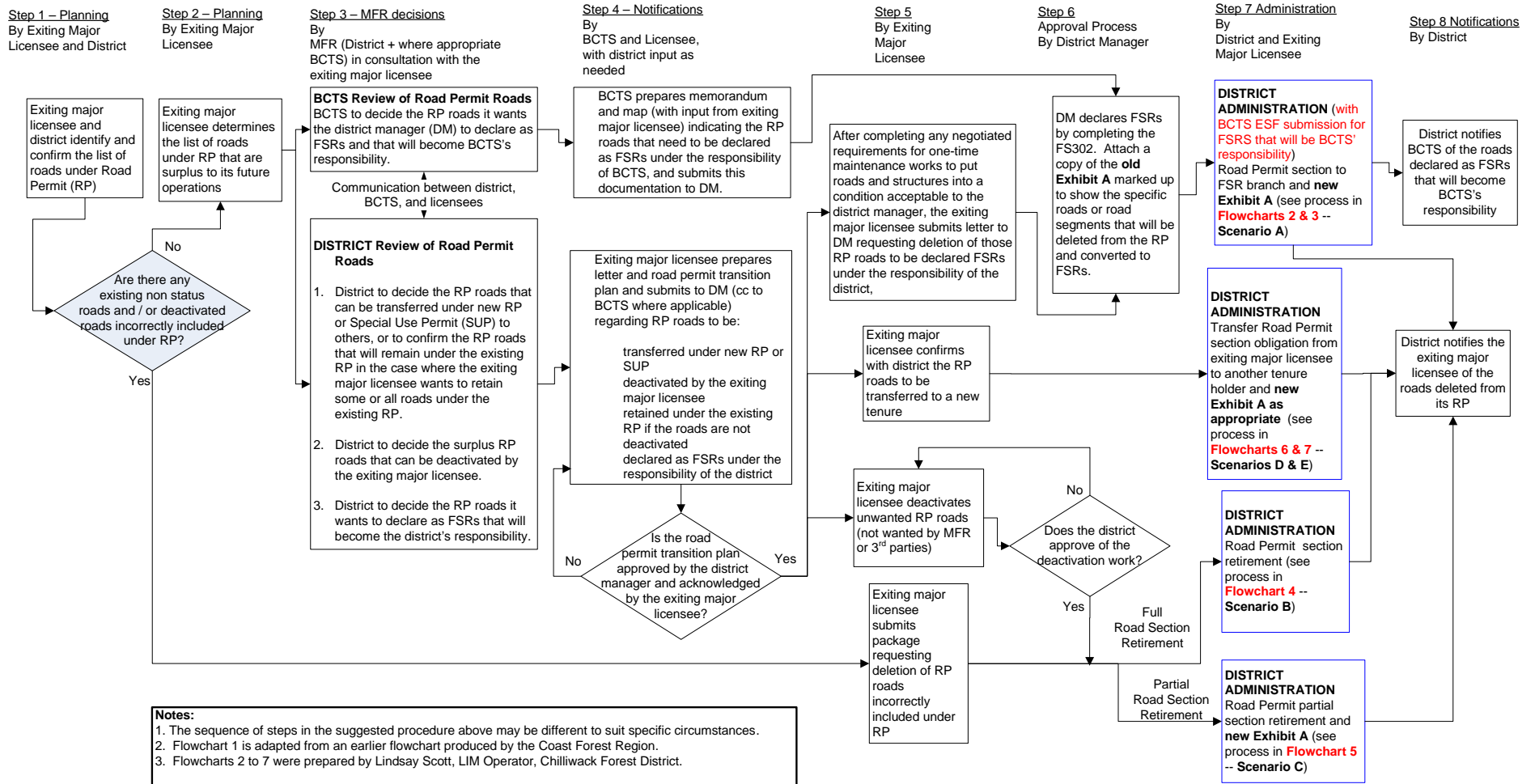
maintain public access or other reason. To protect forest resources and other values over the period of non-industrial use, 'one-time' maintenance work will be required to put the road into a suitable wilderness road level of maintenance condition at the outset. This will require application of aggressive water management / soil erosion and sediment control techniques (e.g., cross-ditches, back-up cross-ditches). Removal of some stream pipe culverts may be necessary, and others may only require back-up with cross-ditches. All the bridges are in good condition with a service life greater than 10 years, and do not require removal. The cost of this 'one-time' maintenance work would be less than the exiting major licensee's cost of deactivating the road, and the district's estimated cost of carrying out a wilderness road level of maintenance to protect the environment over the period of non-industrial use to uphold **ideally a low** risk to the environment over this period is reasonable.

- Advice on option to convert the road to FSR and terminate the road permit: (1) The district manager should negotiate with the exiting major licensee for it to carry out 'one-time' maintenance works to put the road that is to be declared an FSR into a wilderness road level of maintenance condition at its cost in lieu of more expensive deactivation and as a condition of the district manager making the FSR declaration and terminating or amending the RP. (2) The district manager should clearly describe the requirements and objectives of the required 'one-time' maintenance works to the exiting major licensee to ensure that the completed works will reduce or maintain the level of risk to forest resources over the medium term to **ideally low**. (3) The 'one-time' maintenance works carried out by the exiting major licensee should recognize the need for the district to continue to inspect and maintain the road after the district manager has declared it to be an FSR.
- iii. Case C: This case is the same as Case B except that the exiting major licensee declines to carry out 'one-time' maintenance works at its cost even though the alternative option of deactivating the road is much more expensive, and the district's cost to put the road into an initial stable state including costs for follow-up maintenance over the period of lengthy non-industrial use is prohibitive.
- Advice on option to deactivate the road and terminate the road permit: (1) The district manager should request the exiting major licensee to deactivate the road at its cost. (2) After deactivation, and if satisfied that the exiting major licensee has met its road deactivation obligations and other obligations under the RP, the district manager should terminate the RP.

Table 1: Scope of wilderness road level of maintenance activities

Wilderness Road Level of Maintenance Activities
<p>Vehicle access objective: <u>None</u>. Focus is on protection of the environment. Access is not guaranteed and may be lost over time.</p>
<p>Provide Nominal Surface Maintenance</p> <p><u>Water management / soil erosion and sediment control:</u></p> <ul style="list-style-type: none"> • cleaning and grading ditches, and cleaning and repair of culvert inlets, outlets, ditch blocks, catch basins, and flumes to provide for flow of water • replacing cross-drain culverts or flumes, or installing additional cross-drain culverts and ditch blocks, among other measures • water control elements may employ a range of water management techniques, including: <ul style="list-style-type: none"> • installation of cross-ditches and waterbars • backup or removal of cross-drain culverts or stream culverts • installation of trench drains, blanket drains, French drains, fords and armoured swales • windrow removal • removal of bridge superstructures and substructures, among other measures • carrying out erosion control measures such as grass seeding, vegetation planting, soil bioengineering, and installation of erosion control blankets; and sediment control measures such as silt fence, catch basins, and check dams, among other measures. <p><u>Nominal repairs of road surface and structures for motor vehicle or equipment access</u></p> <ul style="list-style-type: none"> • carrying out nominal repairs to the road surface (e.g., removal of debris) to allow continuation of motor vehicle access (if desirable) where this can be achieved concurrently with and at no additional cost to providing activities for a wilderness road level of maintenance • carrying out nominal repairs to a major culvert or bridge deck and / or the bridge superstructure (e.g., bracing, girders, and stringers) if: <ul style="list-style-type: none"> • safe equipment access across the structure is required to carry out a wilderness road level of maintenance further up the road, or • if the stream crossing structures are in need of a wilderness road level of maintenance themselves • carrying out structural repairs to restore safe fish passage at a fish-stream crossing built after June 15, 1995, including repairs to a stream culvert or structural maintenance of a bridge substructure to ensure that safe passage for fish is provided. For example, activities may include repair of culvert components, structural repair of bridge abutments, repair of scour protection, or complete removal of these structures to (1) prevent their failure into streams or (2) re-establish the stream crossings to provide safe fish passage. <p>Structural Maintenance on the Road</p> <p><u>Road prism stabilization – consistent with Vehicle Access Objective</u></p> <ul style="list-style-type: none"> • As needed, making repairs to the road prism to ensure that the transport of sediment from the road prism and its effects on other forest resources (particularly on water quality in community watersheds) are minimized • Where road prism stability is an issue, repairing cut and fill slopes, or carrying out road fill pullback or cut slope buttressing consistent with typical road deactivation techniques, or apply other cost effective landslide risk mitigation measures.

Flowchart 1 -- Suggested procedure for terminating or amending road permit roads under timber reallocation



Flowcharts 2 to 7 are available at http://www.for.gov.bc.ca/hth/engineering/permits_documents.htm or http://www.for.gov.bc.ca/hth/engineering/pol_pro_mld.htm.

Appendix A – RTEB Memorandum August 1998

File: 11400-01
22100-01

August 5, 1998

To: All Regional Managers

From: Jim Langridge
Director
Resource Tenures and Engineering Branch

**Re: Inactive Roads in Road Permits - Code Responsibilities
and WRP Funding Eligibility**

Vancouver Region has raised concerns regarding the licensees' responsibilities under the *Forest Practices Code of British Columbia Act* and funding eligibility under WRP of those inactive roads which have been inadvertently included in the road permits. The basic issue is that all operations roads that were covered by road permits on June 15, 1995, were automatically grandparented under the *Forest Practices Code Of British Columbia Act* (the Code) even though, for some situations, it would have been apparent if the licensees had so advised, or as a result of a thorough administrative review, that the licensees:

- were no longer using the roads;
- had for all intents and purposes met their contractual obligations under the road permits; and
- should have had the roads deleted from their permits prior to the inception of the Code.

Further, for those road permits that reached their expiry date after June 15, 1995, districts have replaced the road permits with new versions, again without a thorough review to determine which roads should have been removed from the permits prior to June 15, 1995, and thus should not have been covered by a replacement road permit.

For roads that meet the following criteria, district managers should send a letter to each affected licensee, confirming or indicating which roads are impacted, and advising that in due course as the permits are amended, these roads will be deleted from the permit.

- on and after June 15, 1995, the licensee was not using the road for timber harvesting or a related forest practice;

- in the opinion of the district manager, the licensee had met its contractual obligations under the road permit prior to June 15, 1995.

In that same letter, the district managers should clearly indicate that the licensees have met the Code and permit obligations for these roads that should not have been covered by road permit after June 15, 1995.

Note that these same procedures can be applied to roads originally constructed under cutting permits.

Our position is that those roads which meet the above criteria are eligible for consideration for Forest Renewal BC funding under the Watershed Restoration Program, provided that they meet other established eligibility criteria. This issue has been discussed with and agreed to by the Forest Renewal BC office in Victoria. You may wish to apprise your respective Forest Renewal BC regional directors to make them aware of this issue and its resolution.

Jim Langridge
Director
Resource Tenures & Engineering Branch

Attachment

cc: Lynn Husted, Program Manager
Land Resources & Environment, Forest Renewal BC
9th Floor, 727 Fisgard Street, Victoria, B.C. V8V 1X4

Appendix B – Roads Tracking Spreadsheet

Appendix B is available as an Excel spreadsheet at http://www.for.gov.bc.ca/hth/engineering/pol_pro_mld.htm under the descriptor “Timber Reallocation.”

Appendix C – Structures Tracking Spreadsheet

Appendix C is available as an Excel spreadsheet at http://www.for.gov.bc.ca/hth/engineering/pol_pro_mld.htm under the descriptor “Timber Reallocation.”

List of Revisions to Guidelines

Version	Comments / Changes to Guidelines
October 6, 2006	Created date (i.e., original release version)
December 11, 2006	The term "low risk" was revised to "ideally low risk" in 5 places: Page 6, Section 3.4 f) i; Page 7, Section 3.4 f) iv; Page 16, Section 7.0, i Case A, first bullet; Page 17, Section 7.0, ii, Case B, last sentence above first bullet; Page 17, Section 7.0, ii, Case B, first bullet.
March 26, 2007	Deleted the 2nd sentence in the 2nd paragraph of section 2.0, and deleted all of sub-paragraph 3.2 (b) in section 3.0.
December 5, 2007	Added a new internet web link to Note 1 (above table of contents) on page (i). Added a reference to range tenures and resources or known range areas in the 2nd paragraph of Section 3.0, and in paragraphs 3.4 (b) (i), 4.2 (b) (i), and 4.5 (c) (ii). Added a reference and web link to RTEB Engineering Bulletin No. 1, "Planning Forest Road Deactivation" (December 5, 2007) in the 2nd paragraph of Section 3.0 and in the 1st paragraph of Section 4.0.