

4.3 Watershed Integrity Indicator 2. Overview Watershed Assessments and Reassessments

4.3.1 Background:

Section 14 of the Operational Planning Regulation of the Forest Practices Code of BC Act requires a watershed assessment to be completed for:

- (a) community watersheds,
- (b) watersheds with significant downstream fisheries values, licenced domestic water users or significant sensitivity, and
- (c) other watersheds for which the district manager determines an assessment is necessary.

In 1999, an expert panel comprised of Ministry of Forests, federal Department of Fisheries and Oceans, and BC Environment (now Water, Land and Air Protection) staff reviewed all Bulkley watersheds and identified those meeting the above criteria. From this reduced list, the need for a watershed assessment procedure (WAP) was determined based on their subjective analysis of:

- Implications of previous development to watershed integrity,
- Significant fisheries values,
- Presence of hydrologic features (e.g. lakes, wetlands, mountains), that buffer or limit buffering of runoff,
- Terrestrial sediment input hazard, based on expert knowledge and available terrain stability/sediment transport capability mapping,
- Other key attributes, e.g.
 - significant agricultural development,
 - presence of a population of endangered species (e.g. bull trout),
 - fish production capability,
 - current protection through LRMP zonation.

The panel determined that an overview WAP should be conducted in a watershed if development exceeded a set proportion of the operable landbase less than 25 years (i.e. an assessment “trigger”). The “trigger” was set to a conservative 10 or 15%, depending on assessed sensitivity. The MOF district manager and the MELP regional manager provided panel recommendations to forest licensees in February 2000. Forest licensees are in various stages of completing overview WAP’s for identified watersheds or watershed groups in their areas of responsibility.

The intent of overview WAP’s is to ensure that past and future development doesn’t result in loss of watershed integrity. Overview WAP’s completed to date have recommended rehabilitation measures, or (more commonly) have established triggers for future reassessment based on:

- equivalent clearcut area (ECA), which is a measure of amount of harvest and progress towards hydrologic greenup,
- watershed “peak flow” index,
- road density (km of road per km² of total watershed area), and
- stream crossing density (number of crossings per km² of watershed area).

Recommended rehabilitation measures have included:

- Road and stream crossing deactivation
- Upslope restoration works
- Cessation of harvest until ECA reduces naturally through stand maturation.

4.3.2 Measure:

Progress towards completion of overview watershed assessment procedures for Community and identified sensitive watersheds, and towards completion of watersheds requiring reassessment.

4.3.3 Results and Discussion:

Current status of overview WAP's is illustrated on Figure 18. In summary, licensees have completed 80% of required overview WAP's (i.e. for watersheds having levels of development that exceed assessment triggers). Focus is placed on those watersheds exceeding WAP triggers but with no overview WAP completed - Table 9 summarizes the rationale for this lack. It should be noted that Bridge watershed is just below its assessment trigger – however, no new development is planned so completion of an overview WAP is not yet required.

Table 9 – Watershed Groups Requiring But Lacking Overview WAP

| Watershed group | Responsibility | Key Value | Reason overview WAP is not completed |
|------------------------|-----------------------|------------------------|--|
| Corya | SBFEP | Community Watershed | No plans for new development. WAP must be completed if new development is proposed. |
| John Brown | SBFEP | Community Watershed | See Corya |
| Toboggan | SBFEP/PIR | Important fish habitat | See Corya |
| Fulton | SCI | Important fish habitat | Present financial difficulties of SCI. WAP must be completed before any new development is proposed. |

Overview assessment recommendations (and progress towards completion of recommendations) and new reassessment triggers (where set) are available on request.

Watershed status with respect to reassessment triggers is illustrated in Figure 19. Table 10 summarizes licensee actions in watersheds that have exceeded reassessment triggers.

Table 10 – Licensee Action in Watershed Groups That Exceed Reassessment Triggers

| Watershed group | Responsibility | Action |
|------------------------|-----------------------|--|
| Boucher | PIR/ SCI | No additional harvest proposed in 2002-2011 Forest Development Plan |
| Nilkitkwa Lake | PIR/ SCI | Will hold off submitting future cutting permit applications until another watershed assessment is done |
| IR No. 5 Nilkitkwa | PIR | No additional harvest proposed in 2002-2011 Forest Development Plan |

| | | |
|-----------|-----|---|
| Heal | PIR | Current stream crossing density exceeds trigger. Proposed harvest will result in ECA trigger being exceeded. Will conduct a field-level channel survey/stream crossing assessment after completion of proposed harvest and abide by recommendations |
| Five Mile | PIR | No additional harvest proposed in 2002-2011 Forest Development Plan |

Figure 18

Status of Watershed Assessment Procedures

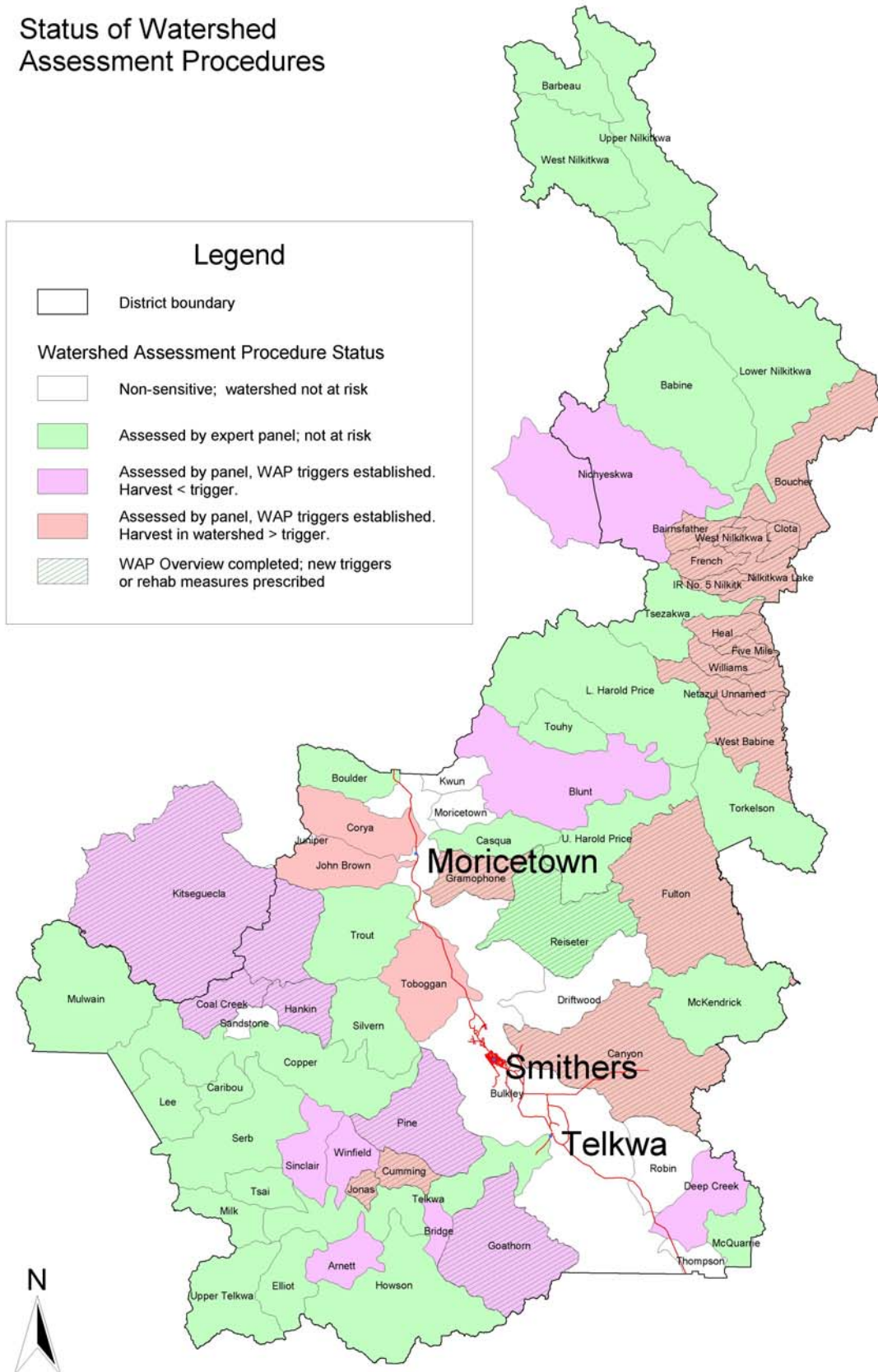


Figure 19

Status of Watersheds per Reassessment Triggers

