

APPENDIX I

TERMS OF REFERENCE

February 4, 1997

1.0 PURPOSE AND OBJECTIVES

1.1 Purpose

The South Chilcotin Sub-Regional Plan will address the resource targets and strategies outlined in the Cariboo-Chilcotin Land Use Plan (CCLUP) which are applicable to the plan area, and ensure consistency with the CCLUP as a higher level plan under the Forest Practices Code.

1.2 Objectives

1. Ensure the sub-Regional planning process is consistent with the Regional Resource Board (RRB) and Inter-Agency Management committee (IAMC) Sub-Regional Planning Strategy.
2. Integrate resource targets at the sub-regional level, using direction provided by and ensuring consistency with the CCLUP Final Report and any other documents approved under its terms.
3. Address the planning requirements identified in the CCLUP and Forest Practices Code (operational planning requirements); i.e. biodiversity, forest ecosystem networks, lakes classification, wildlife habitat, access management, etc.
4. Provide direction for integrated land use at the operational level.
5. Provide an opportunity for local stakeholders to actively participate in the implementation of the CCLUP through the development and implementation of the South Chilcotin Sub-Regional Plan.
6. Provide an opportunity for local information to be identified and applied in the resource management strategy being developed for the South Chilcotin Sub-Regional Plan area.

2.0 OVERVIEW

2.1 Background

The area within the South Chilcotin Sub-Regional Plan (SRP) is largely undeveloped, and has high backcountry recreation and tourism values, wildlife and fisheries values, and cultural/heritage and archaeological values, as well as important resource values for timber, range and mining. This area has been the focus of extensive public planning processes. The proposed South Chilcotin SRP area overlaps four Local Resource Use Plans (LRUPs): the Churn Creek Local Resource Plan which has been ongoing since December 1993, the Hungry Valley LRUP which was completed in November 1993, the

Big Creek LRUP which was active from April 1990 to October 1992, and the Yalakom LRUP (Lillooet Forest District) which has been ongoing since May 1990.

Two joint meetings have been held between the Churn Creek LRUP planning members and the Hungry Valley LRUP planning members to address the Cariboo-Chilcotin Land Use Plan (CCLUP) targets and strategies for the South Chilcotin Special Resource Development Zone (SRDZ). Maps and area summaries have been prepared for the proposed no-harvest and modified harvest zones.

An inter-agency scoping meeting took place on June 3, 1996, in Williams Lake. Presentations have been made to the Inter-Agency Management Committee and to the Regional Resource Board and endorsement has been received to initiate the South Chilcotin Sub-Regional Planning Process.

In order to accommodate the current local planning process which has been ongoing for several years, and to incorporate the very detailed level of planning which has already been completed for certain issues, the sub-regional process will be structured to progress in three phases. Appendix 2 contains a detailed list of the tasks which have already been completed, and the tasks which are still remaining under each of the three phases, in order to fully address the CCLUP targets and objectives, and the Forest Practices Code requirements.

- Phase 1 will address the Cariboo-Chilcotin Land Use Plan targets, strategies and objectives the South Chilcotin Special Resource Development zone. the planning table will report directly to the RRB and IAMC.
- Phase 2 - complete the detailed planning (i.e. access management, visual quality objectives, recreation objectives, biodiversity requirements) for the Churn Creek LRUP portion of the SRP. This portion of the plan will be written up as landscape unit objectives. This will allow greater flexibility and efficiency in making future amendments as more information becomes available. The planning table will report to the designated decision makers under the Forest Practices Code for approval of the recommended landscape unit objectives, and to the RRB and IAMC for review.
- Phase 3 - complete the detailed planning for the remainder of the South Chilcotin SRP. This would include a review and incorporation of the existing Hungry Valley LRUP and CAMP. This portion of the plan will also be written up as landscape unit objectives, with the same reporting requirements as for Phase 2.

2.2 Guiding Principles

2.2.1 Relationship to the CCLUP

The Cariboo-Chilcotin Land Use Plan was announced by the British Columbia government on October 24, 1994. The plan was declared a higher level plan under the Forest Practices Code on January 31, 1996. The Forest Practices Code requires that operational plans approved on, or after, this date are consistent with higher level plan direction. The sub-regional plan will be the link between the CCLUP and operational planning processes (i.e. forest development plans). The sub-regional plan will be consistent with the intent, targets and strategies identified in the CCLUP. The practices described in operational plans will subsequently be consistent with the intent of the South Chilcotin SRP and the CCLUP. The potential exists for a sub-regional plan to be declared as a higher level plan under the Forest Practices Code at some point in time.

The South Chilcotin SRP process will not be re-visiting the land use designations, targets or strategies identified in the CCLUP as these decisions have been made and signed off as a higher level plan. The CCLUP targets are designed to give strategic direction to the sub-regional planning exercise, but not to restrict the ability of planning teams to develop innovative, site-specific solutions to integrated resource management issues. The South Chilcotin SRP will be consistent with the RRB-IAMC Sub-Regional Planning Strategy and will fit within the framework of the strategy.

2.2.2 Confidentiality of sensitive information will be maintained.

There may be information that the public, or participants want to communicate to the planning team for use in the development of the sub-regional plan that is of a confidential nature. This may include guiding or trapping trails, First Nation's archaeological sites, and other values important or personal to the participant. If such information is shared so that these values can be considered or protected in the development of the plan, the proponent should advise the working group that mapped locations are provided on a confidential basis. In the final report, these values will be handled in a sensitive manner. The values will not be mapped, but will be described in a general form where they impact, or are impacted by, other resource values and recommendations.

2.2.3 The South Chilcotin SRP will be without prejudice to aboriginal rights and treaty negotiations.

The government is committed to working with First Nations on a government-to-government basis without prejudicing aboriginal rights or treaty negotiations. The government has a legal commitment to ensure that First Nations rights are addressed and considered in the planning process. First Nations will be encouraged to actively participate in the planning process.

2.2.4 The South Chilcotin SRP Planning Area

2.2.4.1 Boundary (see Appendix 1)

- eastern boundary follows the Fraser River
- southern boundary follows the Williams Lake District boundary
- western boundary follows the South Chilcotin SRDZ boundary (Big Creek park is excluded)
- northern boundary follows the South Chilcotin SRDZ boundary, the West Churn watershed boundary and the Churn Creek Protected Area boundary.

The area encompassed by the plan is approximately 168,330 hectares and included:

- the entire South Chilcotin special Resource Development Zone
- the entire Churn Creek Protected Area
- the West Churn Creek drainage within the Gaspard Enhanced Resource Development Zone (follows the draft Dash Biodiversity Assessment Unit boundary)

2.2.4.2 Boundary Justification

The inclusion of the entire South Chilcotin SRDZ will facilitate the integration and the application of all the CCLUP resource targets. The Churn Creek Protected Area has historically been included in the Churn Creek LRUP, and is included within the proposed SRP boundary because of issues related to resource extraction corridors, the bighorn sheep migration corridor, mule deer winter range management, and in order to include complete watershed units (draft biodiversity assessment units) for biodiversity planning.

The plan area encompasses the entire Churn Creek watershed, as well as the tributaries within the SRDZ which flow directly into the Fraser River, and the portions of the Big Creek watershed which are within the SRDZ. Aside from the northwest corner, the plan area follows draft biodiversity assessment unit boundaries. Four entire draft units are included (Koster-Lone Cabin, Churn, Upper Churn, and Dash) and two partial units (Upper Big Creek, Big Creek).

2.2.5 Linkages with Other Strategic Plans

Communication with other existing and proposed planning processes is essential for the successful implementation of the CCLUP targets.

- Churn Creek Protected Area Management Plan: The timeframe for this plan is dependent upon the priorities determined for the completion of management plans for the new parks and protected areas established through the CCLUP. Big Creek Park and Itcha Ilgachuz Park have been identified as the first priorities for Park Management Plan. Issues relating to access corridors through the protected area must be resolved concurrently with the South Chilcotin SRP process.

- Big Creek Park Management Plan: As above, Big Creek Park has been identified as a first priority for a park management plan. Issues relating to the South Chilcotin SRP will include access, adjoining recreation corridors, backcountry recreation and visual quality.
- Churn Creek LRUP: The work being completed under the ongoing Churn Creek LRUP will be incorporated into the South Chilcotin SRP. The portion of the SRP which overlaps the Churn Creek LRUP will be written up as Phase 2 of the SRP.
- Hungry Valley LRUP and CAMP: These existing plans will be updated and incorporated into the South Chilcotin SRP. This portion will be written up as Phase 3 of the SRP.
- Big Creek LRUP: A small portion of the Big Creek LRUP falls within the proposed South Chilcotin SRP. This process was ongoing from 1990 to 1992, but did not result in a consensus agreement or a final approved plan. People with interests in the Big Creek area will be encouraged to actively participate in the SRP process.
- Yalakom LRUP and CAMP: The Yalakom LRUP, in the Lillooet Forest District, was initiated in 1990. A final version of the plan has not been completed yet, but the most recent draft was produced in November 1994. The Yalakom CAMP is just being initiated over the same area. Common issues of concern are wildlife management, access control, visual quality, and recreation management. The Lillooet Forest District has been an active participant in the Churn Creek LRUP.
- Landscape Unit Plans: Landscape unit objectives will be completed subsequent to Phase 1, during Phases 2 and 3 of the South Chilcotin Sub-Regional Planning Process.

2.2.6 Development planning

The CCLUP Interim Interpretative Guide and other government correspondence relating to the CCLUP will provide direction to forest development planning in the interim. During the development of the sub-regional plan the District Manager (and Designated Environmental Official in the SRDZ) will continue to review and approve forest development plans in the planning area according to the processes outlined in the Forest Practices Code.

Other agency resource development proposals (i.e. mineral claims, land referral applications) will continue during the planning process through existing referral processes.

3.0 ROLES AND RESPONSIBILITIES

The South Chilcotin SRP process will provide for different level of public involvement: participation on a public planning team, in workshops, on technical working groups, or simply being kept informed of the process as it develops. A preliminary list of planning team interests is located in Appendix 3. Each group/individual will decide how to best represent their interest in the planning process.

Planning team meetings, public workshops and technical working groups will be utilized to develop the South Chilcotin SRP. These groups and activities, along with IAMC and RRB, are crucial to the success of the planning process. The roles and responsibilities of each of these is discussed in the subsequent paragraphs.

3.1 IAMC/RRB

Roles and responsibilities:

- IAMC and RRB have been given the responsibility by government to jointly implement the CCLUP.
- IAMC and RRB will provide direction to the planning team (i.e. the Sub-Regional Planning Strategy that was jointly developed).
- Approve the terms of reference and work plan for the planning process.
- The planning team for the South Chilcotin SRP will report directly to the RRB and IAMC.
- Upon completion, the draft sub-regional plan will be submitted to the RRB and IAMC for approval. IAMC and RRB will ensure that the final plan for the south Chilcotin SRP is consistent with the CCLUP.
- If approved, the plan becomes information to the decision makers identified in the *Forest Practices Code of British Columbia Act*.

3.2 Planning Team

Roles and responsibilities:

- Determine how to implement the CCLUP targets and strategies on the landbase, ensuring consistency with the CCLUP.
- Incorporate local knowledge and information supplied by the Technical Subcommittee.
- Report to IAMC and RRB keeping them up-to-date and informed.
- Communicate with constituents and represent their interests at the planning table by identifying issues, concerns, values, priorities and objectives.
- Conduct general public consultation through a variety of means such as workshops, forums, speakers.
- Confirm final deliverables.
- Identify unresolvable issues and forward to IAMC/RRB.
- Endorse the sub-regional plan and put forward to IAMC/RRB.

3.3 Agencies

Roles and responsibilities:

- Pursue required resources to support the planning process, planning team and technical working groups.
- Advise table on government programs and policies related to the specific planning tasks.
- Supply technical/analytical support.
- Complete information collection, mapping, analysis.
- Participate as part of the planning team.
- Help the planning team to understand the CCLUP terminology, targets and strategies.
- Assist in communication of the plan to RRB and IAMC.
- Assist in communication with the general public.
- Organize and oversee the technical working groups.

3.4 Technical Working Groups

- Roles and responsibilities: comprised primarily of agency staff, specialists and stakeholders who have the expertise or interest to be involved.
- Planning team members participating on the technical working groups will:
 - ensure the working group understands the concerns and intentions of the planning table
 - assist in explaining the products of the working group to the planning table
- Review existing data, recommend additional information requirements, analyse data, and present management options to the planning table.
- Complete technical planning requirements under the CCLUP and FPC.
- Report to the planning table.

3.5 Designated decision makers under the Forest Practices Code

Roles and responsibilities:

- FPC officials will be kept informed by agency representatives on the planning team and by the IAMC.
- Authority of designated officials under the FPC cannot be legally constrained or fettered by policy or direction outside of the FPC.
- Link to landscape unit planning identified by the Forest Practices Code will be addressed through the regional landscape unit planning strategy which is to be developed by the district managers in the future.

4.0 PLANNING PROCESS

4.1 Planning Process Structure

The IAMC/RRB Sub-Regional Planning Strategy will provide direction with respect to reporting relationships, input from local communities, decision making and dispute resolution.

4.2 Consensus Process

A consensus approach will be used throughout the planning process. A consensus approach provides an opportunity for participants to work together as equals to realize acceptable actions or outcomes without imposing the views or authority of one group over another. Participants may not agree with all aspects of the agreement, but consensus can be reached if the participants are willing to live with the “total package”. Where consensus is not reached all viewpoints will be expressed in the final report. The following definition of consensus is from the Commission on Resources and Environment, Strategic Land Use Planning Source Book, March 1996:

General agreement on a package of provisions to the extent that, although parties to the agreement may not agree to every aspect of the package, they do not disagree enough to warrant their opposition to the overall package. Consensus outcomes reflect agreements that each participant in the negotiations can support without sacrificing their principle. Planning processes based on ‘transactive planning theory,’ ‘interest-based negotiation,’ or ‘shared decision-making’ principles that involve face-to-face discussions among stakeholder representatives accept consensus as the planning process goal.

- Consensus means that general agreement has been reached and that there is evident group solidarity in either substance or sentiment.
- Reaching a consensus decision requires flexibility, listening, co-operation, trust and contribution to the process.
- Should only one or a very few participant be in the position of preventing a consensus being reached, they shall have the responsibility to either show why they are differentially impacted by a situation or that the matter is one of such principle that they must prevent consensus. If they are unable to demonstrate one of these conditions, they will be expected to abstain from opposing or support a consensus.

4.3 Dispute Resolution

The planning table must make all efforts to reach agreement on issues that arise. A major benefit of the SRP is the opportunity to incorporate local information. It is preferable that issues be resolved at the planning table with members buy in rather than seeking higher level direction to resolve issues.

If a dispute cannot be resolved through in-depth analysis, affected interests should pursue consensus on:

- the precise nature of the disagreements; and
- how the disagreements should be resolved.

Several avenue are available to resolve disagreements and they should be pursued in the following order:

- Sub-committee; refer the issue to a sub-committee for review and recommendations; recommendations may or may not be binding.
- Third Party Facilitator engage an independent third party to facilitate a resolution to the dispute.
- Referral for Decision: refer the dispute to RRB and IAMC for arbitration.

4.4 Planning Table Meetings and Workshops

- Meetings to be held as required to meet targets set in overall planning schedule.
- Agendas will describe the matter for discussion, the purpose of the discussion and provide such information as is necessary to support informed discussion.
- Discussions at meetings will be recorded in meeting notes and summaries. These are not intended to be a transcript but will summarize general topics discussed, recommendations and justification, agenda items, tasks to be accomplished prior to next session and assignment of tasks responsibility. These will be distributed to participatory and consultative study team members.
- The planning team will work towards deadlines set up in a timetable, and will monitor their progress in meeting time targets.
- Each criticism of proposal or process is encouraged to be accompanied by a suggestion for improvement.

4.5 Planning Team

4.5.1 Participatory Team Members

- Participatory members form the planning team. they will make very possible effort to attend meetings.
- Planning team members are accountable to their constituents. They accept the responsibility to keep their constituencies informed of the progress of the discussions and to seek advice and comments. They will also keep their alternates fully briefed.
- Members may designate an alternate to attend where designate cannot.

- Team members will enter into a dialogue that includes listening carefully, asking questions, educating each other regarding needs and interests. The atmosphere will be focused on problem solving, rather than stating positions.

4.5.2 Consultative Team Members

- Consultative team members are those persons who have a direct stake or interest in the area of study but are unable to participate in all study sessions.
- Consultative members attend meetings as they are available and/or at the specific request of the participatory team to address a specific topic. They are welcomed to join in the question and answer sessions in the general information portion of meetings.
- In the issue discussion and resolution portion of meetings, they will be invited to participate only in the discussion which pertains to their specific interest.
- Planning team members are accountable to their constituents. They accept the responsibility to keep their constituencies informed of the progress of the discussions and to seek advice and comments. They will also keep their alternatives fully briefed.
- They will receive minutes and copies of information from all sessions, and will have until the next meeting to respond to the meeting manager.
- They may participate in the public meeting portions of the process representing the planning team at the specific request of the participatory team.
- Consultants, experts and other resource persons do not fall into this category and are invited at the explicit invitation of the participatory group through the meeting manager.

4.5.3 Working Groups/Sub-Committees

- Sub-committees may be formed by the team to address particular issues or perform specific tasks.
- Sub-committees will bring findings and recommendations back to the planning team.

4.5.4 General Public

- Meetings are open to the general public.
- The public are encouraged to bring forward their interests by contacting a team member of the meeting manager, or by writing to the table.

- Members of the public should check to determine if their interests are already being brought forward by one of the interest groups at the table.
- The table will use a variety of methods to communicate with the public and to seek input. Examples would be inviting members of the public to make presentations to the table, or organizing public open house information sessions to review the draft plan.
- Notices for upcoming meetings will be posted in local communities.

4.5.5 Meeting Manager

The meeting manager will:

- a. conduct orderly meetings including:
 - a timely start
 - ensuring speakers can present ideas without interruption
 - control discussion by having members address comments to the manager.
- b. enforce ground rules
- c. reaffirm the interests of study team members

4.5.6 Facilitator

An independent facilitator may be retained, if deemed necessary by the planning table. The facilitator would lead the planning table through issue discussions, help the table find resolutions of issues and reach consensus on the application of the CCLUP targets and strategies.

5.0 CODE OF CONDUCT

- communicate openly and honestly with one another
- respect each other's viewpoint
- seek to understand the facts before casting judgement
- depend on each other for help
- focus on solutions, not problems and personalities
- accentuate the positive among ourselves and with others.

6.0 DEALING WITH MEDIA

1. Planning team members agree not to negotiate with the media.
2. Comments to the media will be brought forth in the spirit of the process and will not be detrimental to the process.
3. Planning team members will not characterize the planning team or other members' position in the media or other public meetings.

4. Formal press releases and newsletters which represent the process and the team will be discussed and approved by the planning team.
5. A joint statement suitable for discussion with media will be developed by the planning team when appropriate. Members will discuss the process and substance of planning team deliberations in the spirit of such joint statements.
6. Members, sending out information sheets that could be used for distribution in magazines or other media format, will present the article to the meeting manager first. The meeting manager will decide if the article is in the spirit of the planning process. If it is, it is the responsibility of the planning member to ensure that the article is not edited to distort the initial intent. If the meeting manager feels that certain members would feel uncomfortable with a particular article, the meeting manager will fax a copy to the affected parties to discuss the article.
7. The meeting manager or his designate will be the official spokesperson for the planning team and its process.
8. If a member appears to have contravened 1, 2, 3, 4, 5, 6, or 7, the planning team will review the nature of the contravention and discuss a course of action.

7.0 PLANNING TEAM SUPPORT

- All planning team members are expected to actively provide support to the planning process in whatever capacity they are able to.
- Costs of participation in the planning process, such as travel expenses, will be borne by the participants.
- Planning support, secretarial services, mapping, advertising, printing, professional services and other related services will be funded by the government agencies within existing resource and budgetary limits.

8.0 EXPECTED DELIVERABLES

The following list of deliverables is a preliminary list which may be refined based on the results of the CCLUP strategy integration exercise. Appendix 2 contains a detailed list of the tasks which have already been completed, and the tasks which are still remaining in order to fully address the CCLUP targets and objectives, and the Forest Practices Code requirements.

8.1 Access Planning

- main extraction routes in undeveloped areas
- deactivation plans for specific roads
- map of areas within the CCLUP subunits which will have restrictions on permanent access
- road use restrictions and traffic control devices
- guidelines on existing non-status roads and trails - deactivate, main or leave as is
- guidelines on methods to limit disturbance to alpine, grasslands and wetlands from motor vehicles
- guidelines on ATV and snowmobile use

8.2 Recreation and Tourism

- map of area designated as backcountry, and management objectives and guidelines
- map of recreation and tourism corridors and key areas, and management guidelines
- recommendations on potential areas for recreation site development or trail development or upgrading
- review of visual inventory and recommended VQOs
- lake classification
- direction for future tourism development
- review of commercial backcountry recreation applications

8.3 Timber Targets

- map of timber target zones; conventional, modified and no-harvest
- management objectives for each area identified as modified harvest
- recommendations of the most appropriate type of modified harvesting in each area

8.4 Wildlife Habitat, Biodiversity

- identification of critical wildlife habitat areas and management strategies
- map of Forest Ecosystem Networks

8.5 Goal 2 Protected Areas

- recommendations for protection of Goal 2 study areas

8.6 Cultural Heritage Values

- strategy for management of cultural heritage values

9.0 TIMEFRAME

The target completion date for Phase 1 of the South Chilcotin SRP process is the beginning of June 1997. Phases 2 and 3 will be completed subsequent to this. RRB and IAMC recognize that local circumstances may result in variances from this timeframe. The planning team will report to RRB and IAMC on a regular basis and will notify these bodies if extensions are required.

10.0 MONITORING AND PLAN REVIEW

Upon completion of the South Chilcotin Sub-Regional Plan, the table will establish a monitoring scheme. This scheme will be based on the objectives specified in the plan, and will specify what needs to be reviewed, by whom, and how often.

TERMS OF REFERENCE - APPENDIX 1

**South Chilcotin Sub-Regional Plan Map
(see maps 1 and 2, Appendix III)**

TERMS OF REFERENCE - APPENDIX II

South Chilcotin SRDZ Sub-Regional Plan - Tasks Completed and Tasks Remaining

Phase 1 - CCLUP Targets and Objectives for the South Chilcotin SRDZ

Tasks Completed

1. Have identified and ranked candidate “no harvest” areas through several joint Churn LRUP and Hungry Valley LRUP meetings. Mapping and area summaries have been completed. Preliminary management objectives have been prepared for the no harvest areas.
2. “Modified harvest” areas have been mapped and area summaries have been completed.
3. Recreation corridors have been mapped and area summaries have been completed.
4. Draft forest ecosystem networks have been mapped.

Tasks Remaining to Fully Address CCLUP Targets and Objectives

1. Define the management objectives for each area identified as modified harvest. Provide recommendations on the most appropriate types of modified harvesting in each area.
2. Identify the modified harvest areas which will have an extended rotation (70/30 formula).
3. Identify backcountry area (30 percent) within the SRDZ. Define management objectives and guidelines for the backcountry area.
4. Incorporate final forest ecosystem networks and old growth management areas into the zoning of the “no harvest” and “modified harvest” areas. Adjust the priority ranking of the “no harvest” areas to include FENS.
5. Once the results of the CCLUP Integrations Strategy are available, review the zoning of the SRDZ to ensure that it is consistent with any direction that is provided.
6. Churn Protected Area Master Plan - timeline for initiation is uncertain, not identified as one of Parks first priorities. May require reconvening the same sub-regional planning group at a later date.
7. Confirm whether certain areas require formal designation under the FPC as Wildlife Management Areas or as Sensitive Areas.

8. Goal 2 Protected Areas - stakeholders may recommend an area for Protected Area status as part of the quarter percent of the CCLUP areas available for small protected areas.
9. Address issues of existing and potential commercial backcountry recreation opportunities.
10. Address the management of cultural heritage values.

Phase 2 - Churn Creek LRUP Portion of the South Chilcotin Sub-Regional Plan

Tasks Completed

1. Recreation and visual inventories analysis.
2. Fish Survey - fish bearing streams, fish species, barriers, some stream widths.
3. Bighorn Sheep Study - ongoing 3-year radio collar study to confirm migration routes and corridor, and timing of migration.
4. Draft forest ecosystem networks have been mapped.
5. Access management strategy is partially completed - Red Mountain FSR closure dates and methods, and restriction to industrial use from May 1 to December 1.
6. Level 1 watershed assessments completed for Fairless-Borin watershed and East Churn watershed.
7. Winter limnological surveys completed for lakes >5 hectares.

Tasks to be Completed Before the Churn Creek Portion Can Be Written Up

1. LRUP planning group must approve or revise the recommended VQOs and forward to the district manager to formally establish the VQOs and to designate “scenic areas”.
2. Recreation corridors and special recreation features must be confirmed by the planning group and management objectives must be established.
3. Biodiversity Technical Tasks - finish the review of biophysical mapping (covers the western half of LRUP) to determine rare habitats and plant communities, and representative habitats; assess potential “no harvest” areas to determine which representative and rare ecosystems are not protected; field check potential old growth management areas; assess draft FENs to determine if all old growth ecosystems are represented at the minimum level specified in the seral stage tables for the biodiversity emphasis option, rare ecosystems are over-represented, forest interior

condition requirements are met; connectivity needs are met; describe the list of features captured in each FEN (i.e. migration corridor, old growth with interior habitat, rare ecosystems).

Note - assessment of seral stage targets cannot be completed until landscape unit boundaries and biodiversity emphasis are established, or interim direction is given.

4. Main extraction route must be decided by the planning group or by the decision makers; access control points and methods must be finalized.
5. Fairless-Borin Watershed assessment must be redone once the main access route is decided; may require a level 2 assessment.
6. Complete a preliminary lake classification for Koster Lake and Roaster Lakes, and map the lakeshore management areas.

NOTE - the CCLUP targets and objectives must also be fully addressed before the Churn Creek portion of the sub-regional plan can be written up.

Phase 3 - Hungry Valley LRUP Portion of the South Chilcotin Sub-Regional Plan

Tasks Remaining

1. Review recreation and visual inventories and analysis. Confirm recreation corridors and special recreation features and establish management objectives. Review recommended VQOs and forward to district manager for approval.
2. Classify lakes >5 hectares. Winter limnological surveys have been completed.
3. Licensee must carry out watershed assessments for those watersheds where the district manager and a designated environment official determine that an assessment is necessary.
4. Update the Hungry Valley Co-ordinated Access Management Plan regarding road locations, specific deactivation methods and timing, and road use restrictions.

APPENDIX II

PLAN PARTICIPANTS

- * Denotes having attended at least one meeting of the Churn LRUP and/or South Chilcotin Sub-Regional Plan process.

CHIEF, ALKALI LAKE INDIAN BAND, ALKALI LAKE

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* ERIC MIKKELSON, GUIDE/OUTFITTER, COURTENAY

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* CHIEF TOOSEY INDIAN BAND, RISKE CREEK

* JAMES BRITTON, MINISTRY OF ENERGY AND MINES, KAMLOOPS

RAY COLDWELL, GUIDE/OUTFITTER, BIG BAR

BILL PASTOREK, WILDSHEEP SOCIETY OF BC, COQUITLAM

MARTIN FAUCHER, LILLOOET

JOHN BRETT, YALAKOM COMMUNITY COUNCIL, LILLOOET

FRED MCMECHAN, WILLIAMS LAKE FIELD NATURALISTS, WILLIAMS LAKE

* DAVID HALL, BCWF REGIONAL PRESIDENT, BELLA COOLA

BILL SANGSTER, RECREATION COUNCIL, WILLIAMS LAKE

* MARY THOMSON, BIG CREEK

* PHILIP PARR, BELLA COOLA ROD & GUN CLUB, BELLA COOLA

DENISE AND BILLY JOE DAVIDSON, 108 MILE HOUSE

* JO HARRIS, RICHARD SOMERVILLE, CLAIMSTAKER RESOURCES (BLACKDOME), VANCOUVER
JOHN H. PATTERSON, DFO HABITAT AND ENHANCEMENT, LAND USE PLANNING, VANCOUVER
ROBERT W HOYER, COQUITLAM
* GERALD ELKINS, TRAPPER, RISKE CREEK
SHELLEY NELSON, DARYL BUCHHOLTZ, GUIDE/TRAPPER, WILLIAMS LAKE
* RANDY AND GAY SAUGSTAD, BIG CREEK
BARRY MENHINICK, TOURSIM OPERATOR, GOLD BRIDGE
BRUCE AMBLER, BIGHORN COUNTRY GUIDING, LILLOOET
KEVIN BRACEWELL, CHILCOTIN HOLIDAYS, LILLOOET
GUS ABEL, TYAX MOUNTAIN LAKE RESORT, LILLOOET
* MIKE ELVIN, TOURISM OPERATOR, SEHEL T
* MICHAEL KENNEDY, TOURSIM OPERATOR, LILLOOET
* MARK BROWN, RECREATION, KAMLOOPS
* PETER MARSHALL, RECREATION, SURREY
CHRIS SIMPSON, ALL TERRAIN ADVENTURES, BURNABY
* BRUCE VANDALE, RECREATION, AGASSIZ
WADE FISHER, CHAIR, REGIONAL RESOURCE BOARD, WILLIAMS LAKE
* ERIC BREBNER, TSUNIAH LAKE LODGE, WILLIAMS LAKE
* IVOR LARSON, BC WILDLIFE, CHILLIWACK
* BRUCE BERGMAN, RECREATION, ROSEDALE
PATRICK A RABBITT, MINER, VERNON
RICCI CHARLES ORSETTI, MINER, SMITHERS
DUANE R WOOD, MINER, SURREY
* LISA MACKENZIE, POWDER KINGS SNOWMOBILE, WILLIAMS LAKE
MR. AND MRS. VERMEER, FLETCHER LAKE
DL DEANS, TASEKO MINES LTD, WILLIAMS LAKE
NORTH CARIBOO SHARE OUR, RESOURCES SOCIETY, QUESNEL
* KEVIN SYTSMA, LIGNUM LIMITED, WILLIAMS LAKE
* BRIGITTE HANSEN, LIGNUM LIMITED, WILLIAMS LAKE
JIM SUTHERLAND, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* SEAN DONAHUE, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* MIKE GATENBY, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* JOHN BRADLEY, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* ANNE SMITH, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* TOM YACHYSEN, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* KEN BRAHNIUK, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* BRIAN FOOTE, MINISTRY OF FORESTS, WILLIAMS LAKE FOREST DISTRICT
* HEATHER KNEZEVICH, MINISTRY OF FORESTS, CARIBOO FOREST REGION, WILLIAMS
LAKE
* FRED KNEZEVICH, MINISTRY OF FORESTS, CARIBOO FOREST REGION, WILLIAMS LAKE
* RODGER STEWART, BC ENVIRONMENT, CARIBOO REGION
* ROBIN HOFFOS, BC ENVIRONMENT, CARIBOO REGION
* TOM WILKINSON, BC ENVIRONMENT, CARIBOO REGION
* JOHN YOUNDS, BC ENVIRONMENT, CARIBOO REGION
* ROMAN NAVRATIL, BC ENVIRONMENT, CARIBOO REGION
* CHRIS SWAN, BC ENVIRONMENT, CARIBOO REGION
* JULIE STECIW, BC ENVIRONMENT, CARIBOO REGION
* DARCY PEEL, BC ENVIRONMENT, CARIBOO REGION
* ROB GORDON, MINISTRY OF FORESTS, CARIBOO FOREST REGION, WILLIAMS LAKE - CHAIR

APPENDIX III

MAPS

APPENDIX V

TARGET ANALYSIS

Analysis Scenarios

The South Chilcotin Sub-Regional Plan (SCSRP) Table was to develop management objectives to guide development activities within the plan area. Targets were established by the Cariboo-Chilcotin Land-Use Plan (CCLUP) for the area covered by the SCSRP. The key targets used for comparison purposes were the no harvest percentages. The no harvest target for the South Chilcotin Special Resource Development Zone (SRDZ) portion of the SCSRP area is 16% and 14% for the Gaspard Enhanced Resource Development Zone (ERDZ) portion. The no harvest target for the Gaspard portion is an estimate as only a small piece of the Gaspard ERDZ falls within the boundaries of the SCSRP area (~ 3%). The no harvest target for the South Chilcotin SRDZ is the one established by the CCLUP because it falls completely within the SCSRP area. The cumulative No Harvest impact of any combination of management objectives and strategies proposed by the SCSRP Table were to meet these targets.

A variety of analysis scenarios were developed by the Technical Analysis Committee to model how closely a specific combination of management objectives and strategies proposed by the SCSRP Table came to meeting the established targets. Analysis assumptions were developed for each scenario. These analysis assumptions were used as the input criteria for the model, which then tested the impacts of the individual management objectives and strategies on achieving the targets. The analysis approach adopted by the Technical Analysis Committee is similar to the methodology used to develop the Cariboo-Chilcotin Land-Use Plan Integration Report (April 6, 1998).

To allow the Technical Analysis Committee to keep track the information collected by the SCSRP process and detail the changes made for each analysis scenario, a Data Book was compiled. For each identified issue or piece of information, the Data Book contains the following information:

- a description of the item;
- the detailed analysis assumptions used for each scenario (if any);
- an area summary detailing the number of hectares;
- a description of the digital information available and a log of changes made to the digital information (the metadata); and
- a map showing the location and size of the specific item.

Management objectives were developed for some items, which were not mappable at the scale used for the SCSRP. These *non-spatial* items are included in the Data Book, but do not have an area summary, a metadata or a map.

To ensure the analysis had a consistent base for comparison purposes, the SCSRP Table agreed that information used for the analysis was cut-off as of September 30, 1998. This allows for valid comparisons between the results of the various scenarios. New

information, whether spatial or non-spatial, introduced after this date is recognized by the SCSR process, but was not incorporated into the analysis.

Five analysis scenarios, 4a, 4b, 4c, 5a and 5b, were run as “Information” scenarios. The purpose of these runs was to test the sensitivity of the no harvest percentage result obtained by Scenario 4 and Scenario 5. This was done by altering only one or two key assumptions. The results of these “Information” scenarios were reviewed and, depending on the validity of the assumptions used, the Technical Analysis Committee decided whether or not to recommend the particular approach to the SCSR Table for consideration.

One of the key modeling assumptions borrowed from the CCLUP Integration process was that various constraints can “overlap”. This allows any one specific hectare of land to fulfil several purposes. For example, if an Old Growth Management Area and an area of critical Moose Habitat were mapped as overlapping, then the area within the Old Growth Management Area would contribute to management of the Moose Habitat area. This is because the Old Growth Management Area is managed as 100% no harvest and the Moose Habitat area is managed on a 160 year extended rotation. Thus the more restrictive strategy will overlap with a value with a less restrictive strategy.

Another key feature borrowed from the Integration process was the Equivalent Excluded Area (EEA) calculation. This calculation allows the no harvest impact of a management assumption, which results in an extended rotation, to be assessed. The EEA formula used is:

$$EEA = 1 - (\text{normal rotation} / \text{strategy rotation})$$

Where normal rotation is 80 years for lodgepole pine (PI) and 120 years for all other species (Douglas fir, spruce, balsam, cedar and hemlock) and

strategy rotation is a the rotation age, in excess of the normal rotation age, which results from the constraints due to managing for a specific objective.

For areas, which were modeled with a recommended Visual Quality Objective (VQO), the following assumptions were used to derive the EEA’s and thus calculate the no harvest impact. For polygons with a recommended mix of VQO’s (i.e. 50% R, 50% PR) a proportional EEA was calculated.

Unless otherwise noted, the following distribution of tree species for a particular area are assumed to be as follows:

Lodgepole pine (PI):	90%
Douglas fir/Other (Fd/Other):	10%

For modeling purposes, the maximum allowable percentage alteration of a viewshed area when viewed from above (i.e. planimetric view) for each recommended Visual Quality Objective (VQO) was assumed to be as follows:

Retention (R)	5%
Partial Retention (PR)	15%
Modification (M)	25% (non-constraining over the normal rotation)

For modeling purposes, visually effective green-up was assumed to occur in 20 years.

Scenario - “Base Case”

The “Base Case” scenario was developed as the baseline to which all the other analyses could be compared. The “Base Case” scenario was run using all information collected up to the September 30th cut-off date. This scenario would provide a mechanism to assess progress towards achievement of the targets established by the Cariboo-Chilcotin Land-Use Plan for the South Chilcotin Sub-Regional Plan area.

The “Base Case” analysis assumptions were designed to include the most constraining interpretation of the various management objectives. Each issue was dealt with on an individual basis, with only the naturally occurring overlaps being captured in this analysis. This approach was described at the SCSR Table as the “full bucket” approach.

The following items were included in the “Base Case” analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
Little Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
Lakeshore Management Zone – Class ‘A’ Lakes	100%	One Class ‘A’ lake – Roaster Lake proposed by the Williams Lake Forest District Lakes Classification process
Lakeshore Management Zone – Class ‘B’ Lakes	EEA= 0.60 for PI = 0.40 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process: 10 percent removal, 20 year green-up
Moose Habitat	100%	
Mule Deer Winter Ranges	EEA= 0.52 for Fd	Manage Fd on a 250 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted
Old Growth Management Areas	100%	
Sheep Corridor	100%	Natural overlaps with Big, East and Little Basins and Mule Deer Winter Range
Riparian Reserve Zones	100%	For streams, wetlands and lakes
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on “Best Practices” for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995
Big Creek Trail Viewshed	EEA= 0.80 for PI = 0.70 for Fd/Others	Manage foreground view from the trail to a VQO of Retention.
Lake Viewsheds	EEA (R)= 0.80 for PI = 0.70 for Fd/Others EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	Lakes with recommended VQO’s Koster, Roaster and Swartz Lakes
Recreation Corridor Viewsheds	EEA= 0.40 for PI = 0.10 for Others	Manage Recreation Corridor Viewsheds based on a recommended VQO of PR
Wildlife Tree Patches	2.94%	Used 7% requirement for all landscape units. 50% overlap with Riparian Reserve Zones. Modeled as 100% No Harvest.
Bull Trout Habitat	1.00%	Based on direction contained in the “Cariboo-Chilcotin Land-Use Plan, 90-Day Implementation Process, Final Report – Feb. 1995”

The “Base Case” scenario results were:

Zone	Target %	Scenario %	Difference
South Chilcotin SRDZ	16.00	29.21	+ 13.21
Gaspard ERDZ	14.00	23.33	+ 9.33
South Chilcotin SRP	15.82	28.69	+ 12.87

Analysis of the “Base Case” scenario indicated that more work was required to achieve the targets for the SCSRP area.

Scenario - 1

Scenario 1 was developed as a refinement to the “Base Case” scenario. This scenario utilized some of the recommendations from the CCLUP Integration Report to begin to maximize the potential for “overlaps”.

The Scenario 1 analysis assumptions were designed to carry over some of the most constraining interpretations of the key issues and to begin to utilize some of the management direction from the CCLUP Integration report. Items for which changes occurred from the previous scenario are highlighted as **bold**.

The following is included in the Scenario 1 analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class ‘A’ Lakes	100%	Two Class ‘A’ lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class ‘B’ Lakes	<i>EEA= 0.50 for PI = 0.25 for Fd/Others</i>	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years
Moose Habitat	EEA= 0.38 for all species	Moose Habitat areas revised. Harvesting permitted based on a 160 year rotation. No Harvest impact calculated based on assuming a equal distribution of tree species.
Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted
Old Growth Management Areas	100%	
Sheep Corridor North	<i>EEA= 0.33 for all species</i>	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	100%	Sheep Corridor split into North and South.

Riparian Reserve Zones	100%	For streams, wetlands and lakes
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on “Best Practices” for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995
Big Creek Trail Viewshed	0%	Manage foreground view from the trail using partial cutting, single tree selection and small patch cutting systems.
Lake Viewsheds	EEA (R)= 0.80 for PI = 0.70 for Fd/Others EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	Lakes with recommended VQO’s Koster, Roaster and Swartz Lakes. Swartz Lake viewshed increase in size based of recommendations made by Ministry of Forests Recreation staff.
Recreation Corridor Viewsheds	EEA= 0.40 for PI = 0.10 for Others	Recreation Corridor Viewshed shapes revised to reflect work completed by Fritz Mueller, J.S. Hart and Associates Ltd. Manage Recreation Corridor Viewsheds based on a recommended VQO of Partial Retention (PR).
Wildlife Tree Patches	2.94%	Used 7% requirement for all landscape units. 50% overlap with Riparian Reserve Zones. Modeled as 100% No Harvest.
Bull Trout Habitat	1.00%	Based on direction contained in the “Cariboo-Chilcotin Land-Use Plan, 90-Day Implementation Process, Final Report – Feb. 1995”

The Scenario 1 results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	25.67	+ 9.67	- 3.54
Gaspard ERDZ	14.00	21.25	+ 7.25	- 2.08
South Chilcotin SRP	15.82	25.28	+ 9.46	- 3.41

Analysis of the Scenario 1 results indicated that significantly more work was required to achieve the targets for the SCSRP area.

Scenario - 2

Scenario 2 was developed as a further refinement to Scenario 1. This scenario utilised more of the recommendations from the CCLUP Integration Report. Additional potentials for overlapping issues were investigated.

The Scenario 2 analysis assumptions were designed to pursue the potential for overlapping of issues. To achieve this some of the management objectives and strategies were reviewed and revised. Specifically, the management objectives and strategies for the Recreation Corridor Viewshed polygons were reviewed and revised to reflect the priority assigned to each polygon. Items for which changes occurred from the previous scenario are highlighted as **bold**.

The following items were included in the Scenario 2 analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class ‘A’ Lakes	100%	Two Class ‘A’ lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class ‘B’ Lakes	EEA= 0.50 for PI = 0.25 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years.
Moose Habitat	EEA= 0.50 for PI = 0.25 for Fd/Others	Moose Habitat areas revised. Harvesting permitted based on a 160 year rotation. No Harvest impact calculated based on the actual distribution of tree species.
Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted.
Old Growth Management Areas	100%	
Sheep Corridor North	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Riparian Reserve Zones	100%	For streams, wetlands and lakes
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on “Best Practices” for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995
Big Creek Trail Viewshed	0%	Manage foreground view from the trail using partial cutting, single tree selection and small patch cutting systems.
Lake Viewsheds	EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	Lakes with recommended VQO’s Koster, Roaster and Swartz Lakes. Swartz Lake viewshed increase in size based of recommendations made by Ministry of Forests Recreation staff.
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.58 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.

Recreation Corridor Viewshed Polygon 1-B	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 25% R, 50% PR and 25% M.
Recreation Corridor Viewshed Polygon 1-C	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.28 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-D based on a recommended VQO of 15% R, 45% PR and 40% M.
Recreation Corridor Viewshed Polygon 1-E	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.
Recreation Corridor Viewshed Polygon 2-G	EEA= 0.18 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G based on a recommended VQO of 50% PR and 50% M.
Recreation Corridor Viewshed Polygon 2-H	0%	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H based on a recommended VQO of 100% M.
Wildlife Tree Patches	1.33%	Used 7% requirement for all landscape units. 50% overlap with Riparian Reserve Zones. Access to Wildlife Tree Patches is modeled based on a double rotation.
Bull Trout Habitat	0.50%	Assume that there is a 50% overlap with Wildlife Tree Patch requirements. Based on direction contained in the "Cariboo-Chilcotin Land-Use Plan, 90-Day Implementation Process, Final Report – Feb. 1995"

The Scenario 2 results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	20.94	+ 4.94	- 8.27
Gaspard ERDZ	14.00	18.45	+ 4.45	- 4.88
South Chilcotin SRP	15.82	20.72	+ 4.90	- 7.97

Review of the Scenario 2 results indicated that the possibilities for maximizing overlaps required further investigation, focusing on Bull Trout and Visuals, Wildlife Tree Patches and Visuals, and Wildlife Tree Patches and the Old Growth Management Area (OBMA) requirements overlaps was to be investigated. The Technical Analysis Committee thought that this would allow the next scenario to come much closer to achieving the targets for the SCSRP area.

Scenario - 3

Scenario 3 was developed as a further refinement to Scenario 2. It was to maximize the potential for overlaps and test the impacts of the added Recreation Corridor Segments and the revised Recreation Corridor Viewshed polygons.

The Scenario 3 analysis assumptions were designed to maximise the potential for overlaps with OGMA’s, Wildlife Tree Patches and Bull Trout. Items with changes from the previous scenario are highlighted as **bold**.

The following were used in the Scenario 3 analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class ‘A’ Lakes	100%	Two Class ‘A’ lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class ‘B’ Lakes	EEA= 0.50 for PI = 0.25 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years.
Moose Habitat	EEA= 0.50 for PI = 0.25 for Fd/Others	Moose Habitat areas revised. Harvesting permitted based on a 160 year rotation. No Harvest impact calculated based on the actual distribution of tree species.

Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted.
Old Growth Management Areas	100%	Old Growth Management Areas revised to capture requirements and maximise overlaps.
Sheep Corridor North	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Riparian Reserve Zones	100%	For streams, wetlands and lakes
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on "Best Practices" for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995
Big Creek Trail Viewshed	0%	Manage foreground view from the trail using partial cutting, single tree selection and small patch cutting systems.
Lake Viewsheds	EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	Lakes with recommended VQO's Koster, Roaster and Swartz Lakes. Swartz Lake viewshed increase in size based of recommendations made by Ministry of Forests Recreation staff.
Recreation Corridor Segments	EEA= 0.80 for PI = 0.70 for Fd/Others	The Recreation Committee added the Recreation Corridor Segments on December 18, 1998. Manage based on a recommended VQO of R.
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.58 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 25% R, 50% PR and 25% M.
Recreation Corridor Viewshed Polygon 1-C	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.28 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-D based on a recommended VQO of 15% R, 45% PR and 40% M.
Recreation Corridor Viewshed Polygon 1-E	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E based on a recommended VQO of 100% PR.

Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.
Recreation Corridor Viewshed Polygon 2-G	EEA= 0.18 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G based on a recommended VQO of 50% PR and 50% M.
Recreation Corridor Viewshed Polygon 2-H	0%	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H based on a recommended VQO of 100% M.
Wildlife Tree Patches	1.33%	Used 7% requirement for all landscape units. 50% overlap with Riparian Reserve Zones. Access to Wildlife Tree Patches is modeled based on a double rotation.
Bull Trout Habitat	0.50%	Assume that there is a 50% overlap with Wildlife Tree Patch requirements. Based on direction contained in the “Cariboo-Chilcotin Land-Use Plan, 90-Day Implementation Process, Final Report – Feb. 1995”

The Scenario 3 results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	21.16	+ 5.16	- 8.05
Gaspard ERDZ	14.00	20.60	+ 6.60	- 2.73
South Chilcotin SRP	15.82	21.11	+ 5.29	- 7.58

Review of the Scenario 3 results held some surprises for the Technical Analysis Committee. It was generally anticipated that Scenario 3 would result in an additional ~2% reduction in the No Harvest numbers derived from Scenario 2. Instead the No Harvest numbers increased by 0.22% for the South Chilcotin SRDZ and 2.15% for the Gaspard ERDZ for an overall increase of 0.39%. This result indicated to the Technical Analysis Committee that the overlap model being used contained many complex interactions, which makes it difficult to predict the results of any one scenario.

A portion of the upwards pressure on the No Harvest percentage resulted from additional Old Growth Management Areas being added to Landscape Units which did not yet met the Biodiversity Guidebook requirements.

Scenario - 4

Scenario 4 revises the assumptions that went into Scenario 3 to get the No Harvest percentage closer to the targets. This scenario was to further maximize the potential for overlaps and to review and revise management objectives and strategies for the Recreation Corridor Viewshed polygons.

The Scenario 4 analysis assumptions were designed to fine-tune and continue to maximise the potential for overlaps with OGMA's, Wildlife Tree Patches and Bull Trout. The management objectives and strategies for the Recreation Corridor Viewshed polygons were revised to reflect the priority assigned to each polygon. Items for which changes occurred from the previous scenario are highlighted as **bold**.

The following items were included in the Scenario 4 analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class 'A' Lakes	100%	Two Class 'A' lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class 'B' Lakes	EEA= 0.50 for PI = 0.25 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years.
Moose Habitat	EEA= 0.50 for PI = 0.25 for Fd/Others	Moose Habitat areas revised. Harvesting permitted based on a 160 year rotation. No Harvest impact calculated based on the actual distribution of tree species.
Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted.
Old Growth Management Areas	100%	Old Growth Management Areas revised to capture requirements and maximise overlaps. Requirement for Old Growth Management Areas revised to reflect assumption that 50% of the area in Wildlife Tree Patches contribute towards the Old targets.
Sheep Corridor North	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.

Riparian Reserve Zones	100%	The amount of wetlands mapped on the 1:20,000 Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring reserve zone was reduced by 92%, except for Hungry Valley where it was reduced by 65%. Streams and lakes remained the same.
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on “Best Practices” for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995. The amount of wetlands mapped on the 1:20,000 scale Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring management zones was reduced by 80%.
Big Creek Trail Viewshed	0%	Manage foreground view from the trail using partial cutting, single tree selection and small patch cutting systems.
Lake Viewsheds	EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	Lakes with recommended VQO’s Koster, Roaster and Swartz Lakes. Swartz Lake viewshed increase in size based of recommendations made by Ministry of Forests Recreation staff. Corrections were made to the map to reflect the actual recommended VQO’s.
Recreation Corridor Segments	EEA= 0.80 for PI = 0.70 for Fd/Others	The Recreation Committee added the Recreation Corridor Segments on December 18, 1998. Manage based on a recommended VQO of R.
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.60 for PI = 0.40 for Fd/Others	No Harvest impact calculated based on actual species distribution with in the polygon. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 25% R, 50% PR and 25% M.
Recreation Corridor Viewshed Polygon 1-C	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.28 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-D based on a recommended VQO of 15% R, 45% PR and 40% M.

Recreation Corridor Viewshed Polygon 1-E	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.
Recreation Corridor Viewshed Polygon 2-G	EEA= 0.18 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G based on a recommended VQO of 50% PR and 50% M.
Recreation Corridor Viewshed Polygon 2-H	0%	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H based on a recommended VQO of 100% M.
Wildlife Tree Patches	1.76%	Based on Table 20a of the Biodiversity Guidebook 50% overlap with Riparian Reserve Zones Access to the Wildlife Tree Patches is modeled based on a double rotation for Landscape Unit with no Old requirement and No Harvest for Landscape Units with an Old requirement..
Bull Trout Habitat	0%	Assume that Bull Trout Habitat requirements will be addressed by the FPC

The Scenario 4 results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	18.28	+ 2.28	- 10.93
Gaspard ERDZ	14.00	17.51	+ 3.51	- 5.81
South Chilcotin SRP	15.82	18.21	+ 2.39	- 10.48

The results for Scenario 4 were further revised to capture the following estimated changes.

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone, an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTP's contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP's are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA's and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration Report (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• Wetland Adjustment	+ 0.43	+ 0.67	+ 0.44
• Visuals/WTP Overlap	- 0.13	- 0.11	- 0.13
• <u>10% Salvage of OGMA</u>	<u>- 0.50</u>	<u>- 0.57</u>	<u>- 0.50</u>
Total	- 0.20	- 0.02	- 0.19

Thus the revised results for Scenario 4 are:

Zone	Target %	Scenario %	Difference from Targets	Difference from "Base Case"
South Chilcotin SRDZ	16.00	18.08	+ 2.08	- 11.13
Gaspard ERDZ	14.00	17.50	+ 3.50	- 5.83
South Chilcotin SRP	15.82	18.03	+ 2.21	- 10.66

Review of the revised Scenario 4 indicated that further work was still required to achieve the targets. Issues discussed included adjusting the moose habitat rotation ages to remove the No Harvest impact, increasing the percentage contribution of WTP's to Old targets, combining the Old requirements in the Upper Big Creek and Dash Landscape Units and revising the recommended management direction for the Recreation Corridor Viewsheds.

To assess the impacts of these various assumptions on the results of Scenario 4 the Technical Analysis Committee agreed to run three "Information" scenarios.

Scenario 4a would test the impact of increasing the contribution of WTP's to Old targets from 50% to 75%.

Scenario 4b would test the impact of combining the Upper Big Creek and Dash Landscape Units to meet the Old requirements.

Scenario 4c would test the impacts of revisions proposed by the Licensee participants to the management objectives and strategies for the Recreation Corridor Viewshed polygons.

Scenario - 4a - Information

Scenario 4a was developed to test the impact on the results of scenario 4 of increasing the contribution of WTP's to Old targets from 50% to 75%. This would result in a decrease in the requirement for Old Growth Management Areas.

The scenario 4 analysis assumptions were used as the base for the analysis. The key analysis assumption changes made are indicated below:

ITEM	NO HARVEST	COMMENTS
Old Growth Management Areas	100%	Requirement for Old Growth Management Areas revised to reflect assumption that 75% of the area in Wildlife Tree Patches contribute towards the Old targets.
Wildlife Tree Patches	1.76%	Based on Table 20a of the Biodiversity Guidebook 50% overlap with Riparian Reserve Zones Access to the Wildlife Tree Patches is modeled based on a double rotation for Landscape Unit with no Old requirement and No Harvest for Landscape Units with an Old requirement.

The Scenario 4a results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from Scenario 4
South Chilcotin SRDZ	16.00	17.67	+ 1.67	- 0.61
Gaspard ERDZ	14.00	14.88	+ 0.88	- 2.64
South Chilcotin SRP	15.82	17.42	+ 1.60	- 0.79

The results for Scenario 4a were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTPs contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTPs are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA's and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• Wetland Adjustment	+ 0.43	+ 0.67	+ 0.44
• Visuals/WTP Overlap	- 0.14	- 0.12	- 0.14
• <u>10% Salvage of OGMA</u>	- 0.43	- 0.28	- 0.41
Total	- 0.14	+ 0.27	- 0.11

Thus the revised results for Scenario 4a are:

Zone	Target %	Scenario %	Difference from Targets	Difference from Scenario 4
South Chilcotin SRDZ	16.00	17.53	+ 1.53	- 0.75
Gaspard ERDZ	14.00	15.15	+ 1.15	- 2.37
South Chilcotin SRP	15.82	17.42	+ 1.50	- 0.89

A review of the revised Scenario 4a results by the Technical Analysis Committee resulted in agreement that the analysis assumptions used were supported by all. The Technical Analysis Committee forwarded a recommendation to the SCSRP Table that the Scenario 4a results are adopted as the base of comparison for future analysis runs since the targets were not yet achieved.

Scenario - 4b - Information

Scenario 4b was developed to test the impact on the results of scenario 4 of combining the Upper Big Creek and Dash Landscape Units to meet the Old requirements. This will result in a reduction in the hectares of Old Growth Management Areas required in these Landscape Units. This is due to the excess of Old credits contributed by the Big Creek Park to the Upper Big Creek Landscape Unit.

The Scenario 4 analysis assumptions were used as the base for the analysis. The key analysis assumption changes made are indicated below:

ITEM	NO HARVEST	COMMENTS
Old Growth Management Areas	100%	Requirement for Old Growth Management Areas reduced to reflect the assumption that the Old requirements for the Upper Big Creek and Dash Landscape Units are to be met over the combined area of the Landscape Units.

The Scenario 4b results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from Scenario 4
South Chilcotin SRDZ	16.00	17.58	+ 1.58	- 0.70
Gaspard ERDZ	14.00	12.50	- 1.50	- 5.02
South Chilcotin SRP	15.82	17.13	+ 1.31	- 1.08

The results for Scenario 4b were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTP's contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP's are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA's and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration Report (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• wetland adjustment	+ 0.43	+ 0.67	+ 0.45
• visuals/WTP overlap	- 0.14	- 0.04	- 0.12
• <u>10% salvage of OGMA</u>	- 0.41	0.00	- 0.37
Total	- 0.12	- 0.63	- 0.04

Thus the revised results for Scenario 4b are:

Zone	Target %	Scenario %	Difference from Targets	Difference from Scenario 4
South Chilcotin SRDZ	16.00	17.46	+ 1.46	- 0.82
Gaspard ERDZ	14.00	13.13	- 0.87	- 4.39
South Chilcotin SRP	15.82	17.08	+ 1.25	- 1.14

A review of the revised Scenario 4b results by the Technical Analysis Committee and based on feedback from the IAMC, it was recommended that this approach be set aside at this time. Adjusting Landscape Unit targets could have regional impacts and implications. The Technical Analysis Committee forwarded a recommendation to the SCSRP Table that the Scenario 4b results be set aside and this approach be viewed as one of the “options of last resort” to achieving the targets.

Scenario - 4c - Information

Scenario 4c was developed to test the impact on the results of Scenario 4 of revisions proposed by the Licensee participants to the management objectives and strategies for the Recreation Corridor Viewshed polygons. Licensees propose to manage key visual areas through completion of visual landscape designs. The designs will be based on achieving the management objectives for each unique polygon. The completed designs would be submitted to the District Manager for review and approval and would provide the template for all development activities in the area.

The Scenario 4 analysis assumptions were used as the base for the analysis. The key analysis assumption changes made are indicated below:

ITEM	NO HARVEST	COMMENTS
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.60 for PI = 0.40 for Fd/Others	No Harvest impact calculated based on actual species distribution within the polygon. Recreation Corridor Viewshed management objectives have been revised. To aid in achieving the objectives manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.20 for PI	Recreation Corridor Viewshed management objectives have been revised. Managing to the revised objectives will constrain harvest access to PI only.
Recreation Corridor Viewshed Polygon 1-C-a	EEA= 0.00	Recreation Corridor Viewshed shape split and relabelled to capture a unique area. Recreation Corridor Viewshed management objectives have been revised. Visual values will largely be met through overlaps with Moose Habitat areas and OGMA's.
Recreation Corridor Viewshed Polygon 1-C-b	EEA= 0.15 for PI	Recreation Corridor Viewshed shape split and relabelled to capture a unique area. Recreation Corridor Viewshed management objectives have been revised. Managing to the revised objectives will constrain harvest access to PI only.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.00	Recreation Corridor Viewshed management objectives have been revised. Managing to the revised objectives will not constrain harvest access to timber.
Recreation Corridor Viewshed Polygon 1-E-a	EEA= 0.00	Recreation Corridor Viewshed management objectives have been revised. Managing to the revised objectives will not constrain harvest access to timber.
Recreation Corridor Viewshed Polygon 1-E-b	EEA= 0.15 for PI	Recreation Corridor Viewshed shape split and relabelled to capture a unique area. Recreation Corridor Viewshed management objectives have been revised. Managing to the revised objectives will constrain harvest access to PI only.

The Scenario 4c results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from Scenario 4
South Chilcotin SRDZ	16.00	14.73	- 1.27	- 3.55
Gaspard ERDZ	14.00	17.53	+ 3.53	+ 0.01
South Chilcotin SRP	15.82	14.98	- 0.85	- 3.24

These results were not further adjusted.

Licensee participants and Ministry of Environment staff proposed that the results of Scenario 4c be closely reviewed. Both parties propose that the over achievement on the No Harvest target could be used to review and revise adjustments made to wildlife and habitat management objectives and strategies. The impacts on the core Backcountry Area polygons would also require further review. No agreement was reached by the Technical

Analysis Committee as to recommendations to be made to the SCSRP Table relating to Scenario 4c.

Scenario - 5

Scenario 5 was developed to be the final full scenario run by the Technical Analysis Committee. It captured all the gains made by Scenarios 4 and 4a and would reflect further changes made to the objectives and strategies for the Recreation Corridor Viewshed polygons. The purpose of these revisions was to “fine-tune” the assumptions and achieve a No Harvest impact result as close as possible to the targets.

The Scenario 5 analysis assumptions were based on a combination of the assumptions used for Scenarios 4 and 4a. Additional changes were made to reflect the revisions made to the management objectives and strategies for the Recreation Corridor Viewsheds polygons and Moose Habitat areas. The Recreation Corridor Viewshed polygon shapes and labels are the same as for Scenario 4c. Additionally, the recommended VQOs for Koster and Swartz Lake have been revised. Items for which changes occurred compared to Scenario 4 and 4a are highlighted as **bold**.

The following items were included in the Scenario 5 analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class ‘A’ Lakes	100%	Two Class ‘A’ lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class ‘B’ Lakes	EEA= 0.50 for Pl = 0.25 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years.
Moose Habitat	EEA= 0.50 for Pl = 0.25 for Fd/Others	Moose Habitat areas revised to reflect overlaps with Recreation Corridor Viewshed polygons 1-A and 1-C-a. Harvesting permitted in the un-overlapped portion of the Moose Habitat area based on a 160 year rotation. No Harvest impact calculated based on the actual distribution of tree species.
Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage Pl & Other on normal rotation Target low crown closure stands deducted

Old Growth Management Areas	100%	Requirement for Old Growth Management Areas revised to reflect assumption that 75% of the area in Wildlife Tree Patches contribute towards the Old targets.
Sheep Corridor North	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Riparian Reserve Zones	100%	The amount of wetlands mapped on the 1:20,000 Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring reserve zones was reduced by 92%, except for Hungry Valley where it was reduced by 65%. Streams and lakes remained the same.
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on "Best Practices" for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995. The amount of wetlands mapped on the 1:20,000 scale Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring management zones was reduced by 80%.
Big Creek Trail Viewshed	0%	Manage foreground view from the trail using partial cutting, single tree selection and small patch cutting systems.
Lake Viewsheds	EEA (R)= 0.80 for PI = 0.70 for Fd/Others EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	The viewshed for Swartz Lake has been removed from the Lake Viewshed coverage and is now called "Swartz Lake Viewshed"(Jan. 20, 1999). Lakes with recommended VQO's are now Koster and Roaster Lakes. All R VQO polygons around Koster Lake have been changed to PR.
Swartz Lake Viewshed	EEA= 0.54 for all species	Manage the viewshed for Swartz Lake based on a recommended VQO of 40% R and 60% PR.
Recreation Corridor Segments	EEA= 0.80 for PI = 0.70 for Fd/Others	The Recreation Committee added the Recreation Corridor Segments on December 18, 1998. Manage based on a recommended VQO of R.
Recreation Corridor Viewshed Polygon 1-A	<i>EEA= 0.60 for PI = 0.40 for Fd/Others</i>	No Harvest impact calculated based on actual species distribution with in the polygon. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.19 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 15% R, 20% PR and 65% M.

Recreation Corridor Viewshed Polygon 1-C-a	<i>EEA= 0.38 for all species</i>	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C-a based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-C-b	EEA= 0.38 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C-b based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.08 for all species	Manage Polygon 1-D based on a recommended VQO of 10% R and 90% M.
Recreation Corridor Viewshed Polygon 1-E-a	<i>EEA= 0.37 for all species</i>	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-a based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 1-E-b	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-b based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.
Recreation Corridor Viewshed Polygon 2-G-a	<i>EEA= 0.07 for all species</i>	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-a based on a recommended VQO of 20% PR and 80% M.
Recreation Corridor Viewshed Polygon 2-G-b	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage the portion of Polygon 2-G-b south of the trail based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 2-G-c	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-c based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-G-d	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-d based on a recommended VQO of 100% M.

Recreation Corridor Viewshed Polygon 2-G-e	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-e based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-H	EEA= 0.00	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-I	EEA= 0.00	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-I based on a recommended VQO of 100% M.
Wildlife Tree Patches	1.77% SRDZ 2.28 % ERDZ	Based on Table 20a of the Biodiversity Guidebook 50% overlap with Riparian Reserve Zones Access to the Wildlife Tree Patches is modeled based on a double rotation for Landscape Unit with no Old requirement and No Harvest for Landscape Units with an Old requirement.
Bull Trout Habitat	0%	Assume that Bull Trout Habitat requirements will be addressed by the FPC

The Scenario 5 results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	16.44	+ 0.44	- 12.77
Gaspard ERDZ	14.00	11.96	- 2.05	- 11.37
South Chilcotin SRP	15.82	16.04	+ 0.22	- 12.65

The results for Scenario 5 were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTP's contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP's are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA's and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• Wetland Adjustment	+ 0.43	+ 0.67	+ 0.45
• Visuals/WTP Overlap	- 0.15	- 0.04	- 0.13
• 10% Salvage of OGMA	- 0.43	- 0.28	- 0.42
Total	- 0.15	+ 0.35	- 0.10

Thus the revised results for Scenario 5 are:

Zone	Target %	Scenario %	Difference from Targets	Difference from "Base Case"
South Chilcotin SRDZ	16.00	16.29	+ 0.29	- 12.92
Gaspard ERDZ	14.00	12.31	- 1.69	- 11.02
South Chilcotin SRP	15.82	15.94	+ 0.11	- 12.75

Review of the revised Scenario 5 results indicated to the Technical Analysis Committee that this analysis was very close to the targets for the South Chilcotin Sub-Regional Plan area. The Technical Analysis Committee agreed that the results of scenario 5 should be taken forward to the Table with the recommendation that this scenario be adopted as the final scenario.

Scenario - 5a - Information

Scenario 5a was developed as a contingency scenario to be closely reviewed if scenario 5 did not come close to meeting the targets

The Scenario 5a analysis assumptions were based on Scenario 5 with the only adjustment being that the maximum allowable disturbance, measured in the planimetric view, for a Partial Retention VQO is increased to 20% from 15%. The key analysis assumption changes are indicated below:

ITEM	NO HARVEST	COMMENTS
Lake Viewsheds	EEA (R)= 0.80 for PI = 0.70 for Fd/Others EEA(PR)= 0.20 for PI = 0.00 for Fd/Others	The viewshed for Swartz Lake has been removed from the Lake Viewshed coverage and is now called "Swartz Lake Viewshed"(Jan. 20, 1999). Lakes with recommended VQO's are now Koster and Roaster Lakes. All R VQO polygons around Koster Lake have been changed to PR.
Swartz Lake Viewshed	EEA= 0.42 for all species	Manage the viewshed for Swartz Lake based on a recommended VQO of 40% R and 60% PR.
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.50 for PI = 0.35 for Fd/Others	No Harvest impact calculated based on actual species distribution with in the polygon. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.15 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 15% R, 20% PR and 65% M.
Recreation Corridor Viewshed Polygon 1-C-a	EEA= 0.27 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C-a based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-C-b	EEA= 0.27 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C-b based on a recommended VQO of 20% R, 60% PR and 20% M.
Recreation Corridor Viewshed Polygon 1-D	EEA= 0.08 for all species	Manage Polygon 1-D based on a recommended VQO of 10% R and 90% M.
Recreation Corridor Viewshed Polygon 1-E-a	EEA= 0.18 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-a based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 1-E-b	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-b based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.

Recreation Corridor Viewshed Polygon 2-G-a	EEA= 0.04 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-a based on a recommended VQO of 20% PR and 80% M.
Recreation Corridor Viewshed Polygon 2-G-b	EEA= 0.18 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage the portion of Polygon 2-G-b south of the trail based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 2-H	EEA= 0.00	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H based on a recommended VQO of 100% M.

The Scenario 5a results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from "Base Case"
South Chilcotin SRDZ	16.00	14.12	- 1.88	- 15.09
Gaspard ERDZ	14.00	12.06	- 1.94	- 11.27
South Chilcotin SRP	15.82	13.94	- 1.89	- 14.75

The results for Scenario 5 were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTPs contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP's are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMAs and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration Report (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements.

This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• Wetland Adjustment	+ 0.43	+ 0.67	+ 0.45
• Visuals/WTP Overlap	- 0.14	- 0.04	- 0.12
• <u>10% Salvage of OGMA</u>	- 0.43	- 0.28	- 0.42
Total	- 0.14	+ 0.35	- 0.09

Thus the revised results for Scenario 5a are:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	13.98	- 2.02	- 15.23
Gaspard ERDZ	14.00	12.41	- 1.59	- 10.92
South Chilcotin SRP	15.82	13.84	- 1.98	- 14.85

A review of the revised Scenario 5a results indicated to the Technical Analysis Committee that the assumptions used in this analysis resulted in a significant over-achievement of the targets for the South Chilcotin Sub-Regional Plan area. The Technical Analysis Committee agreed that based on the results of scenario 5, these results should be set aside and treated as information only at this time

Scenario - 5b - Information

Scenario 5b was developed to address concerns expressed by Chris Hamilton – BC Parks about the management strategies for the foreground viewshed of the Big Creek Park Trail.

The Scenario 5b analysis assumptions were developed by Chris Hamilton – BC Parks and MOF Planning and Recreation staff based on the scenario 5 analysis assumptions. The Technical Analysis Committee members were presented with the scenario assumptions and results, after the scenario had been completed. The key analysis assumption changes are indicated below:

ITEM	NO HARVEST	COMMENTS
Recreation Corridor Viewshed Polygon 1-E-c	EEA= 0.22 for all species	Recreation Corridor Viewshed polygon 1-E-a further subdivided to reflect revised management strategies for the Big Creek Park Trail foreground viewshed. Manage Polygon 1-E-c based on a recommended VQO of 60% PR and 40% M.
Big Creek Viewshed Polygon A	EEA= 0.80 for PI = 0.70 for Fd/Others	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon A based on a recommended VQO of R.
Big Creek Viewshed Polygon B	EEA= 0.40 for PI = 0.10 for Fd/Others	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon B based on a recommended VQO of PR.
Big Creek Viewshed Polygon C	EEA= 0.00	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon C based on a recommended VQO of PR. Use of partial cutting, single tree selection and small patch cutting systems will result in achieving a VQO of PR within a normal rotation.

The Scenario 5b results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from "Base Case"
South Chilcotin SRDZ	16.00	16.60	+ 0.60	- 12.61
Gaspard ERDZ	14.00	11.96	- 2.04	- 11.37
South Chilcotin SRP	15.82	16.19	+ 0.37	- 12.50

The results for Scenario 5b were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTP's contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP's are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration Report (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• wetland adjustment	+ 0.43	+ 0.67	+ 0.45
• visuals/WTP overlap	- 0.14	- 0.04	- 0.12
• 10% salvage of OGMA	- 0.43	- 0.28	- 0.42
Total	- 0.14	+ 0.35	- 0.09

Thus the revised results for Scenario 5b are:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	16.46	+ 0.46	- 12.75
Gaspard ERDZ	14.00	12.31	- 1.69	- 11.02
South Chilcotin SRP	15.82	16.09	+ 0.27	- 12.60

The Technical Analysis Committee reviewed the results of Scenario 5b and agreed that if the No Harvest impact of this scenario would be identical to Scenario 5, then it would recommend to the Table to adopt this approach for managing the foreground view visible from the Big Creek Park trail. Thus, further work was required to adjust the No Harvest impact of this scenario downwards.

Scenario - 5 - Final

Scenario 5 – Final was developed to confirm the results of Scenario 5.

The Scenario 5 –Final analysis assumptions were based on the assumptions used for Scenario 5. Minor changes were made to incorporate the revisions to the management strategies for the Big Creek Park Trail Viewshed. Items for which changes occurred compared to Scenario 5 are highlighted as **bold**.

The following items were included in the Scenario 5 - Final analysis:

ITEM	NO HARVEST	COMMENTS
Big Basin	100%	Natural overlaps with Mule Deer Winter Range, Sheep Corridor
East Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Little Basin	0%	Identified values will be met through overlaps with the Sheep Corridor, Mule Deer Winter Range and interior dry-belt Douglas fir management
Lakeshore Management Zone – Class ‘A’ Lakes	100%	Two Class ‘A’ lakes – Roaster Lake and Fish Lake proposed by the Williams Lake Forest District Lakes Classification process. Fish Lake classification added October 30, 1998.
Lakeshore Management Zone – Class ‘B’ Lakes	EEA= 0.50 for PI = 0.25 for Fd/Others	Impact based on proposed Harvesting Guidelines from the Williams Lake Forest District Lakes Classification process assuming harvesting will be 100% partial cutting systems. Rotation age equals 160 years.
Moose Habitat	EEA= 0.50 for PI = 0.25 for Fd/Others (for un-overlapped portion only)	Moose Habitat areas revised to reflect overlaps with Recreation Corridor Viewshed polygons 1-A and 1-C-a. Harvesting permitted in the un-overlapped portion of the Moose Habitat area based on a 160 year rotation. No Harvest impact calculated based on the actual distribution of tree species.
Mule Deer Winter Ranges	EEA= 0.33 for Fd	Manage Fd on a 180 year rotation Manage PI & Other on normal rotation Target low crown closure stands deducted
Old Growth Management Areas	100%	Requirement for Old Growth Management Areas revised to reflect assumption that 75% of the area in Wildlife Tree Patches contribute towards the Old targets.
Sheep Corridor North	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Sheep Corridor South	EEA= 0.33	Sheep Corridor split into North and South. Harvesting permitted based on a 120 year rotation.
Riparian Reserve Zones	100%	The amount of wetlands mapped on the 1:20,000 Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring reserve zones was reduced by 92%, except for Hungry Valley where it was reduced by 65%. Streams and lakes remained the same.
Riparian Management Zones	100% for 50% of the area of S1-S3 100% for 25% of the area of S4-S5 100% for 40% of the area of wetlands in ESSF and MS	No Harvest impacts based on “Best Practices” for streams and wetlands in the Interior, from the Riparian Management Area Guidebook, Dec. 1995. The amount of wetlands mapped on the 1:20,000 scale Forest Cover maps for the area west of Churn Creek is overestimated. The amount of wetlands requiring management zones was reduced by 80%.
Big Creek Viewshed Polygon A	EEA= 0.60 for PI = 0.40 for Fd/Others	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon A based on a recommended VQO of PR with a 200 year rotation.

Big Creek Viewshed Polygon B	EEA= 0.56 for PI = 0.33 for Fd/Others	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon B based on a recommended VQO of PR with a 180 year rotation.
Big Creek Viewshed Polygon C	<i>EEA= 0.00</i>	The Big Creek Viewshed (foreground view) has been subdivided to reflect revised management strategies. Manage polygon C based on a recommended VQO of PR. Use of partial cutting, single tree selection and small patch cutting systems will result in achieving a VQO of PR within a normal rotation.
Lake Viewsheds	EEA (R)= 0.80 for PI = 0.70 for Fd/Others EEA(PR)= 0.40 for PI = 0.10 for Fd/Others	The viewshed for Swartz Lake has been removed from the Lake Viewshed coverage and is now called "Swartz Lake Viewshed"(Jan. 20, 1999). Lakes with recommended VQO's are now Koster and Roaster Lakes. All R VQO polygons around Koster Lake have been changed to PR.
Swartz Lake Viewshed	EEA= 0.54 for all species	Manage the viewshed for Swartz Lake based on a recommended VQO of 40% R and 60% PR.
Recreation Corridor Segments	EEA= 0.80 for PI = 0.70 for Fd/Others	The Recreation Committee added the Recreation Corridor Segments on December 18, 1998. Manage based on a recommended VQO of R.
Recreation Corridor Viewshed Polygon 1-A	EEA= 0.60 for PI = 0.40 for Fd/Others	Overlaps with critical wildlife areas. No Harvest impact calculated based on actual species distribution within the polygon using a 200 year rotation with 10% planimetric disturbance on a 20 year re-entry period. For visuals manage Polygon 1-A based on a recommended VQO of 50% R and 50% PR. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee.
Recreation Corridor Viewshed Polygon 1-B	EEA= 0.19 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-B based on a recommended VQO of 15% R, 20% PR and 65% M.
Recreation Corridor Viewshed Polygon 1-C-a	<i>EEA= 0.38 for all species</i>	Overlaps with critical wildlife areas. No Harvest impact calculated based on a 135 year rotation with 15% planimetric disturbance on a 20 year re-entry period. Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-C-a based on a recommended VQO of 20% R, 60% PR and 20% M.

Recreation Corridor Viewshed Polygon 1-C-b	EEA= 0.38 for all species	Overlaps with critical wildlife areas. No Harvest impact calculated based on a 135 year rotation with 15% planimetric disturbance on a 20 year re-entry period. For visuals manage Polygon 1-C-b based on a recommended VQO of 20% R, 60% PR and 20% M. Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee.
Recreation Corridor Viewshed Polygon 1-D-a	EEA= 0.08 for all species	Polygon 1-D subdivided into specific areas for management purposes. Manage Polygon 1-D-a based on a recommended VQO of 10% R and 90% M.
Recreation Corridor Viewshed Polygon 1-D-b	EEA= 0.08 for all species	Polygon 1-D subdivided into specific areas for management purposes. Manage Polygon 1-D-b based on a recommended VQO of 10% R and 90% M.
Recreation Corridor Viewshed Polygon 1-E-a	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-a based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 1-E-b	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 1-E-b based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 1-E-c	<i>EEA= 0.20 for all species</i>	Recreation Corridor Viewshed polygon 1-E-a further subdivided to reflect revised management strategies for the Big Creek Park Trail foreground viewshed. Manage Polygon 1-E-c based on a recommended VQO of 55% PR and 45% M.
Recreation Corridor Viewshed Polygon 2-F	EEA= 0.09 for all species	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-F based on a recommended VQO of 25% PR and 75% M.
Recreation Corridor Viewshed Polygon 2-G-a	EEA= 0.07 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-a based on a recommended VQO of 20% PR and 80% M.
Recreation Corridor Viewshed Polygon 2-G-b	EEA= 0.37 for all species	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage the portion of Polygon 2-G-b south of the trail based on a recommended VQO of 100% PR.
Recreation Corridor Viewshed Polygon 2-G-c	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-c based on a recommended VQO of 100% M.

Recreation Corridor Viewshed Polygon 2-G-d	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-d based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-G-e	EEA= 0.00	Recreation Corridor Viewshed shapes further revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-G-e based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-H-a	EEA= 0.00	Polygon 2-H subdivided into specific areas for management purposes. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H-a based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-H-b	EEA= 0.00	Polygon 2-H subdivided into specific areas for management purposes. Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-H-b based on a recommended VQO of 100% M.
Recreation Corridor Viewshed Polygon 2-I	EEA= 0.00	Recreation Corridor Viewshed shapes revised to reflect revisions to the work completed by Fritz Mueller, J.S. Hart and Associates Ltd. by the Recreation Committee. Manage Polygon 2-I based on a recommended VQO of 100% M.
Wildlife Tree Patches	1.77% SRDZ 2.28 % ERDZ	Based on Table 20a of the Biodiversity Guidebook 50% overlap with Riparian Reserve Zones Access to the Wildlife Tree Patches is modeled based on a double rotation for Landscape Unit with no Old requirement and No Harvest for Landscape Units with an Old requirement.
Bull Trout Habitat	0%	Assume that Bull Trout Habitat requirements will be addressed by the FPC

The Scenario 5 - Final results were:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	16.44	+ 0.44	- 12.77
Gaspard ERDZ	14.00	11.96	- 2.04	- 11.37
South Chilcotin SRP	15.82	16.04	+ 0.22	- 12.65

The results for Scenario 5 - Final were further revised to capture the following changes:

Wetlands Adjustment:

For wetlands located west of Churn Creek, which would require a riparian reserve zone and /or riparian management zone an adjustment is required. For the purposes of the overlap table, these wetland areas have been deleted from the analysis. Thus, to estimate the No Harvest impact of these areas an adjustment is required to the No Harvest percentage. This is an estimate of impact and is a non-spatial adjustment.

Visuals/Wildlife Tree Patch Overlap Adjustment:

To capture the assumption that WTP’s contribute to managing for visuals, an adjustment to the No Harvest percentage is required. This is due to the assumption that for the purposes of this analysis, WTP’s are non-spatial and the No Harvest impact is based on an arithmetic calculation. The adjustment is made based on the assumption that 50% of the WTP requirement for any one visual polygon contributes to managing for visuals. Thus the area of the visual polygon is reduced by this amount.

10% Salvage of Old Growth Management Area Adjustment:

To capture the assumption that 10% of the total old requirement within OGMA’s and outside mule deer and riparian requirements will become available for harvest over the course of a rotation, an adjustment to the No Harvest percentages is required. This assumption is consistent with the recommendations of the CCLUP Integration Report (April 6, 1998). This availability is intended to capture salvage due to severe natural disturbance and/or development of innovative approaches to meeting old requirements. This is an estimate of impact and is a non-spatial adjustment.

	SRDZ	ERDZ	SCSRP
• Wetland Adjustment	+ 0.43	+ 0.67	+ 0.45
• Visuals/WTP Overlap	- 0.14	- 0.04	- 0.12
• <u>10% Salvage of OGMA</u>	<u>- 0.43</u>	<u>- 0.28</u>	<u>- 0.42</u>
Total	- 0.14	+ 0.35	- 0.09

Thus the revised results for Scenario 5 - Final are:

Zone	Target %	Scenario %	Difference from Targets	Difference from “Base Case”
South Chilcotin SRDZ	16.00	16.30	+ 0.30	- 12.91
Gaspard ERDZ	14.00	12.31	- 1.69	- 11.02
South Chilcotin SRP	15.82	15.95	+ 0.12	- 12.74

A review of Scenario 5 – Final confirmed the results of Scenario 5. The Technical Analysis Committee recommends that the Table adopt Scenario 5 – Final.

APPENDIX V

South Chilcotin SRDZ - Comparison Between SRP Analysis (Scenario 5 -FINAL) and Integration Analysis

South Chilcotin Sub-Regional Plan				CCLUP Integration Report - Adjusted Strategy Results (Appendix XIV)				
Zone	Gross Forest Area (ha.)	Net Forest Area (ha.) Overlaps Deducted	Equivalent Excluded Area (%)	Zone	Gross Forest Area (ha.)	Net Forest Area (ha.) Overlaps deducted	Equivalent Excluded Area (%)	% Difference from Integration
Moose Habitat	4315	930	0.39	not considered		0		0.39
Big Basin	903	856	0.89	not considered		0		0.89
Residual OGMAs - Old 1 & Old 2	4224	3749	3.89	Old 1 (250 years)	2962	0	0	3.89
				Old 2 (140 years)	3884	1127	1.1	-1.1
LMZ Class A lake	94	91	0.09	not considered		0	0	0.09
Riparian reserves	971	1133	1.18	Riparian	5732	5732	6	-4.82
				included in riparian above				0.88
Riparian Mgmt. Zones	1601	847	0.88					
Mule Deer Winter Range	8862	3670	1.26	Mule Deer Winter	5015	4714	1.9	-0.64
Class B Lakeshore Mgmt. Zones	172	78	0.04	not considered			0	0.04
Sheep Corridor-modified Harvest	2210	1687	0.58	not considered				0.58
Wildlife Tree Patches	3890	1945	1.76	Wildlife Tree Patches	2866	0	0.3	1.46
Recreation Corridor and Lake Viewsheds								
Retention VQO	2695	2274		Retention	0	0	0	
Partial Retention VQO	9077	7922		Partial Retention	26955	25020	6.5	
Sub-total	11772	10196	4.88					
Modification VQO	12435	11667	0	Modification	0	0	0	
Total Recreation Corridor and Lake Viewsheds	24207	21863	4.88	Total Visuals	26955	25020	6.5	-1.62
Big Creek Viewshed	825	821	0.46					
TOTAL	52274	37670	16.30				15.8	0.5

Appendix VI

POTENTIAL GOAL 2 AREA

Goal 2 Protected Areas Investigated:

1. East Churn Creek - 43 hectares
 - only IAMC approved area
 - rarity is main value - 3 species: lodgepole pine, whitebark pine, ponderosa pine at 1500m
 - deer habitat and sheep migration
 - rated high for protection in region

2. Big Basin - approx. 485(A)/3110(B) hectares
 - regional significance for recreation
 - diversity of species (forest/cliff interface, grasslands)
 - mix of conifer and deciduous
 - winter habitat for ungulates
 - several blue listed species in Chilcotin plateau/IDFdk4 ecosystem

3. Red Mountain - approx. 342 hectares
 - recreation destination, high regional significance for recreation
 - regionally significant summer range for bighorn sheep
 - other species include grizzly and mule deer
 - existing trail for horseback, hiking and wildlife viewing
 - alpine and subalpine with small lakes

4. Fish Lake - approx. 782 hectares
 - recreation destination, regional significance
 - excellent fishery
 - high scenic values
 - recreation corridor to Big Creek Park (not high quality)
 - moose winter range and wetland complex in Hungry Valley

5. Quartz Mountain - approx. 1430 hectares
 - winter population of California Bighorn Sheep
 - alpine meadows
 - regional recreation significance
 - high grizzly values

6. Wolf Rock - approx. 45 hectares
 - possible wildlife habitat on the rock face (bats)
 - diversity of forest cover
 - scenic point and geological feature
 - several blue-listed species associated with the CHP/IDFdk4 ecosystem

7. Roaster Lake - approx. 170 hectares

- existing UREP and Forest Service Recreation Site
- good fishery (?)
- excellent scenic values and recreation destination

8. anlos Basin - approx. 535 hectares
- water source for Beaver Valley cabin and meadows
 - large spruce
 - cultural values (old homestead - 2,500 sheep)
 - hiking and scenic values
 - Peter Marshall source of info

9. Upper Dash Meadows - approx. 760 hectares
- critical moose winter habitat
 - wetland meadows
 - backcountry recreation (hiking, wildlife viewing)
 - linkage to Big Creek Park

10. Prentice Lake and Trail - approx. 412 hectares
- trails/trail intersection
 - beaver dams and fishing lake
 - small lake/wetland complex/grasslands

11. Bubble Hotspring (10 ha?)
- bubble hotspring deposit, not a hotspring
 - geological - yellow siliceous encrustation, 10-30 meters deep forming terraced structure - 150 meters across
 - seen from Porcupine Creek Road
 - formation suggests Opalescent quartz or fire opals
 - also occurs near perlite mine in Empire Valley
 - regionally significant
 - low mineral values (“dead”)
 - attraction to rockhounds

Appendix VII

Range Users With South Chilcotin Plan Area

Saugstad Ranch

This ranch is owned and operated by Randy and Gay Saugstad. The actual range use within the plan area is minor. Between June 1 and June 15, the cattle are pushed from their spring range near Mons Lake to their summer range in Big Creek Park. The cattle are moved down the Sky Ranch road and then down the 2400 road (northwest corner of the plan area). During the fall, the cattle have a two week trail through permit. This allows the ranch to slowly move the cattle from summer range to home. The cattle primarily graze on the cutblocks located adjacent to the 2400 road.

Joan Fisher

The cattle use is almost identical to that of Saugstad's

Sky Ranch

This ranch is owned and operated by the 50 Ranch Ltd.; a family owned operation. Some of the ranch property on Cooper Creek is located within the plan area. The ranch grazes cattle within the plan area during the late spring and then again in the fall. The grazing area is all within the Wales Unit, which is west of Gaspard Lake. The cattle graze primarily on pinegrass within old cutblocks. There is very little wetland grazing. Summer use for Sky Ranch is within Big Creek Park.

Gang Ranch

The ranch is owned by Gang Ranch Ltd., who have hired a manager, Larry Ramstad, to look after the day to day operations of the ranch. The plan area dissects Gang Ranch's summer range. This is primarily high elevation range on mountainous terrain. The grazing consists of meadowed valley bottoms and forested slopes. Grazing occurs on some cutblocks and on the valley floors. Light and sporadic use occurs in most of the alpine areas within the Gang Ranch grazing tenure (area west of Churn Creek). Cowboys are hired to keep the cattle distributed both in the valleys and among the valleys. There are numerous trails throughout the plan area that have been created to move cattle and cowboys to and from the various valleys. These trails are now used extensively by recreationalists and hunters.

Logging within the area both creates forage and causes distribution problems. Pinegrass becomes abundant approximately two years after a block is harvested, but the blocks and roads create new access points for the cattle. New fences are built every year to act as substitute for the natural barriers that are removed.

Empire Valley Ranch

Empire Valley Ranch was purchased by the provincial government in 1997. It now falls under the jurisdiction of B.C. Parks and is within the Churn Creek Protected Area. Currently B.C. Parks and the Forest Service authorize John Holmes and Joyce Sapp to use the old ranch headquarters and to graze cattle on the permit area. All of the old private lands that were the Empire Valley Ranch are now included in the Range Act permit. The grazing season consists of the cattle moving from the hayfields and the grassland on the Fraser River in the spring to the west side of Blackdome Mountain for the summer. Empire Valley ranch has historically grazed alpine areas on Red Mountain, Buck Mountain and Blackdome Mountain. As the herd size is now half of the historic numbers and logging has now opened up considerable amounts of forage near Red Mountain Meadows, cattle will no longer have to be moved towards the Tyaughton River during the summer. The final grazing area, though, has yet to be determined. During the fall, the cattle are moved back to the ranch headquarters for sorting and weaning and then those cows that are able are moved to the Churn Creek grassland benches for winter grazing. Snow normally forces the cattle back to the ranch for the winter feed period.

As logging progresses around the north side of Blackdome Mountain, remedial fencing will be needed to replace the natural boundary that the forests offered. While the new logging opens up new grazing opportunities, it also allows the cattle to move freely throughout the grazing area.

APPENDIX VIII

WTP Requirement After Landscape Unit Objectives are Established Scenario 5 Final

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Landscape Unit and Biodiversity Emphasis	Natural Disturbance Type	BEC Unit	Forest Area in LU (ha.)	Min. Old Seral Target (%)	Old Seral Target (%)	Forest Area in S. Chil. SRDZ	Forest Area in Gaspard ERDZ	Total Forest Area in SRP	Forest Area Minus F leading in 1 Rotat. K x 0.84	Forest Area Available After LU Object.	WTP % Rqmt. L x M	WTP Area Rqmt. to OGMA Rqmt. 75% x N	Contrib. to OGMA Rqmt. 75% x N	
6	Churn - intermediate		2 ESSF	2,642	0.09	238	2,642	0	2,642	2642	2219	0.05	111	83	
7			3 MS	5,919	0.14	829	5,495	383	5,878	5878	4938	0.05	247	185	
8			3 SBPS	7,829	0.07	548	4,831	1,940	6,771	5863	4925	0.05	246	n/a	
9			4 IDF (FG)	8,479	0.21	1781	3,345	308	3,653	1394	1171	0.05	59	n/a	
10			4 IDF (PG)	1,177	0.11	129			0						
11			TOTAL	26,046		3525	16,313	2,631	18,944	15777	13253	0.05	663	268	
12															
13	Koster-Lone Cabin - h		2 ESSF	4,131	0.13	537	4,131	0	4,131	4131	3470	0.03	104	78	
14			3 MS	9,034	0.21	1897	9,034	0	9,034	8734	7337	0.03	220	165	
15			4 IDF (FG)	12,865	0.32	4117	9,845	0	9,845	4292	3605	0.03	108	n/a	
16			4 IDF (PG)	3,743	0.16	599		0	0		0				
17			TOTAL	29,773		7150	23,010	0	23,010	17157	14412	0.03	432	243	
18															
19	Upper Churn - low		2 ESSF	10,501	0.09	945	10,501	0	10,501	10501	8821	0.07	617	463	
20			3 MS	8,057	0.14	1128	8,057	0	8,057	8057	6768	0.07	474	355	
21			3 SBPS	1,169	0.07	82	1,169	0	1,169	1139	957	0.07	67	n/a	
22			TOTAL	19,727		2,155	19,727	0	19,727	19697	16545	0.07	1158	818	
23															
24	Dash - low		2 ESSF	12,994	0.09	1169	11,482	1,502	12,984	12984	10907	0.07	763	573	
25			3 MS	7,541	0.14	1056	2,942	4,599	7,541	7541	6334	0.07	443	333	
26			3 SBPS	1,924	0.07	135	1,429	495	1,924	1818	1527	0.07	107	n/a	
27			TOTAL	22,459		2360	15,853	6,596	22,449	22343	18768	0.07	1314	904	
28															
29	Upper Big Creek - low		2 ESSF	10,521	0.09	947	4,246	37	4,283	4283	3598	0.01	36	n/a	
30			3 MS	7,404	0.14	1037	5,240	68	5,308	5308	4459	0.01	45	n/a	
31			3 SBPS	133	0.07	9	39	0	39	39	33	0.01	0	n/a	
32			TOTAL	18,058		1993	9,525	105	9,630	9630	8089	0.01	81		
33															
34	Big Creek - low		2 ESSF	3,633	0.09	327	1,158	0	1,158	1158	973	0.07	68	n/a	
35			3 MS	8,329	0.14	1166	3,346	0	3,346	3346	2811	0.07	197	148	
36			3 SBPS	26,689	0.07	1868	4,313	0	4,313	4313	3623	0.07	254	n/a	
37			4 IDF (FG)	10,153	0.21	2132	0	0	0	0	0	0	0	n/a	
38			4 IDF (PG)	20,486	0.11	2253	0	0	0	0	0	0	0	n/a	
39			TOTAL	69,290		7747	8,817	0	8,817	8817	7406	0.07	518	148	
40															
41	Gaspard - intermediat		2 ESSF	3,680	0.09	331	1,196	0	1,196	1196	1005	0.09	90	n/a	
42			3 MS	21,079	0.14	2951	1,466	0	1,466	1466	1231	0.09	111	83	
43			3 SBPS	20,397	0.07	1428	0	0	0		0	0	0	n/a	
44			4 IDF (FG)	15,923	0.21	3344	0	0	0		0	0	0	n/a	
45			4 IDF (PG)	13,319	0.11	1465	0	0	0		0	0	0	n/a	
46			TOTAL	74,398		9519	2,662	0	2,662	2662	2236	0.09	201	83	
47															
48	Nadila - low		2 ESSF	13902	0.09	1251	0	0	0	0	0	0	0	n/a	
49			3 MS	11899	0.14	1666	0	0	0	0	0	0	0	n/a	
50			3 SBPS	5138	0.07	360	38		38	38	32	0	0	n/a	
51			TOTAL	30939		3277	38		38	38	32	0	0	n/a	
52															
53	GRAND TOTALS												4368	2464	

APPENDIX IX

**South Chilcotin Sub-Regional Plan Old Seral Targets
for Scenario 5 Final**

APPENDIX X

Detailed Trail Description

FISH LAKE - BIG CREEK TRAIL

A little used forested, but well defined and generally easy trail. An alternative recreation route was suggested as the "Fire Road" west from Fish Lake and then south along the Big Creek trail.

Length: 11 km , 8 hours hiking.

Current Use: Low. The northern portion is a little used cattle trail. The most used section is the short link to the Big Creek trail. Primary users are hunters and horse riders. The "Fire Road" west from Fish Lake and the Big Creek trail receives more use.. Fish Lake has a nice undeveloped campsite and good fishing.

Recreation Potential: Low, except for the southern link to the Big Creek trail. An alternative recreation route has been suggested (see above).

Visual Characteristics: Most of trail is enclosed in forest with high/moderate screening with little opportunity for extended views. Two viewpoints near the southwest end of the trail, one major, one minor.

UPPER DASH TRAIL

Contains one of the prime recreation destinations in the study area. A well defined trail is typically at the forest edge with broad views in most directions because of meadow networks. There are number of connecting side trails mostly to the south and west.

Length: 11³/₄ km, 7 hours hiking.

Current Use: Low. Heaviest use is near the east end by the range cabin and guide cabin. Primary users are ranchers, but also use by guides, hunters, recreation horse riders, and to a lesser extent, trailbikes.

Recreation Potential: Excellent. Can support a broad spectrum of activities. Many good potential campsites, good horse country with abundant grass and water, relatively easy access via 2800 Road, connections to other trails, easy well marked route, and varied and attractive views.

Visual Characteristics: One of the two most attractive areas of the trail system. Most of trail is quite open with extended views in all directions due to a network of meadows. High screening only at west end of trail. There are two significant major view segments, one for 1¹/₂ km at the east end of the trail by the cabins, and one for 3¹/₂ km along the western half of the trail.

DASH - WEST CHURN TRAIL

Traditional route from Hungry Valley to Dash Creek. Hungry Valley and Lost Valley range cabins are popular destination points. The trail passes next to Moose Lake and crosses two existing clearcut blocks. The 3200 Road crosses trail at two points.

Length: 17 km, 9 hours hiking.

Current Use: High. Highest use in study area. Used primarily by trailbikes, ATVs, and horses. The northern ¹/₄ is passable by 4WD vehicle. The southern ¹/₂ shows signs of heavy use with some sections torn up by ATVs.

Recreation Potential: Good. This is an important connection to other trail systems, including access to the alpine by Hungry Mtn. and the Dash Creek valley. Diverse ecosystems and views. Fairly open forests along the trail give good campsite opportunities.

Visual Characteristics: The northern third of the trail has low screening, the longest continuous section in the study area (± 6 km); there are two primary major views, one is a segment at the northernmost 1 km, and the other at Moose Lake. The middle third has generally high screening; one minor viewpoint at the summit. The southern third has a number of brush filled openings with associated views to the north; there is one minor viewpoint identified.

DASH (LOST) - LONE (BEAVER) VALLEY TRAIL

The trail is moderately used and is an important link to various trails. It is part of a link from the newly built 2800 Road to the Dash/Lone Valley backcountry. It is part of the access to the Dash Valley range cabins at its west end, and an important viewpoint at its east end.

Length: $8\frac{3}{4}$ km, 4 hours hiking.

Current Use: Moderate. Most use is at both ends of the trail. Primary users are ranchers and recreational trail riders.

Recreation Potential: Moderate. The most important aspect is that it is a connecting link for the area's trail network. The ends of the trail provide the highest recreation potential.

Visual Characteristics: Most of the trail has high or moderate screening. In areas where vegetation is limited, topography limits any views. The eastern most $\frac{1}{2}$ km is part of the two most important attractive areas of the trail system.

PRENTICE LAKE TRAIL

A relatively short and scenic trail. One of the southern entrances to the trail system via 4WD road in the Relay Creek / Spruce Lake in the Lillooet Forest District with its trail systems.

Length: 6 km, 2 hours hiking.

Current Use: Moderate. Ranchers, trailbikers, and horse riders are the primary users.

Recreation Potential: Good. Having vehicle access, being attractive, and being a link to different trail systems adds to its potential. Good opportunities for day and easy overnight trips. Prentice Lake is attractive and the surrounding hills have good recreation potential.

Visual Characteristics: The entire trail has good scenics. The northern third is part of the two primary view segments of the trail system. A major viewpoint is also at the southern end of the trail; the view point and the views are in the Lillooet Forest District.

LONE (BEAVER) VALLEY TRAIL

Provides one of the southern entrances to the Dash/Lone Valley backcountry via Swartz/Mud Lakes. The Lone Valley range cabin is located at about one third of the way from the west end at Panlos Creek. There is an interesting variety of habitats along the trail with the western third being part of one of the most scenic parts of the trail system.

Length: $10\frac{1}{2}$ km, 5 hours hiking.

Current Use: High. Used by a broad range of users including horseback, ATVs, mountain bikes, hikers, and snowmobiles. The western section is used by ranchers to the range cabin.

Recreation Potential: High. Currently used by a large number of recreationists. A southern access to the trail network and containing interesting views and experiences. There are reported to be a number of minor trails that connect to this trail.

Visual Characteristics: The eastern third of the trail has high screening. The middle third has a number of small meadows with some extended views. The western third has one of the two primary major view segments of the trail system; ± 3 km of prime views to the height of land.

RED MOUNTAIN TRAIL

This trail contains extensive spectacular views associated with the alpine. The southern $\frac{1}{2}$ follows an alpine ridge, however, except for the southern trailhead, it is in the Lillooet Forest District. There is 4WD access from the southern end and the trail follows a rough road for the first 4 km. The northern end is in the forest and ends at a cabin (“Frosty Lodge”).

Length: $13\frac{3}{4}$ km, 8 hours hiking.

Current Use: Moderate - Low. The southern $\frac{1}{2}$ is used more than the northern $\frac{1}{2}$ because of the 4WD access from the Lillooet area. Current uses include guiding, resident hunting, viewing, and exploring.

Recreation Potential: Moderate. The scenic alpine areas by Red and French Mountains are good attractions for hiking, viewing, photography, ski touring, snowmobiling, and perhaps some limited mountaineering; the southern most third is a popular 4WD destination. Horse use potential in the alpine may be limited because of water and grass. The forested areas of the northern $\frac{1}{2}$ are good for horse riding, hiking, hunting, and exploring.

Visual Characteristics: The southern $\frac{1}{2}$ of the trail is in the alpine with spectacular views in all directions. The northern $\frac{1}{2}$ is enclosed in forest with high and moderate screening with few extended views. The southern $\frac{1}{2}$ is classified as prime high elevation views. The northern $\frac{1}{2}$ has one secondary major viewpoint and two minor viewpoints

SWAN LAKE TRAIL

A relatively short and scenic southern access to the Lone Cabin Creek trail system. It is unsure if there is 4WD access to the southern end via the Lillooet Forest District.

Length: $5\frac{1}{2}$ km, 2 hours hiking.

Current Use: Low. Primary use is probably as a guide’s trail.

Recreation Potential: Moderate. The trail is short and scenic and is tied into recreation activities in the Lone Cabin valley including horse riding, hiking, hunting, and exploring.

Visual Characteristics: Most the trail has high or moderate screening. There is a secondary major view segment in the northern third of the trail and a minor viewpoint at the northern trailhead.

LOWER LONE CABIN TRAIL

The eastern access to the trail system via the Empire Valley Ranch / Churn Creek Park. The relatively steep trail follows through an interesting forest transition from ponderosa

pine, old growth Douglas-fir, to lodgepole pine and via the Red Mountain Trail to spruce, subalpine fir and eventually alpine.

Length: 11 km, 8 hours hiking.

Current Use: Low. Uses include guiding, and mountain bikes. Little evidence of use by cattle was found.

Recreation Potential: Moderate. Contains sections with the steepest grades of the study area. Interesting forest vegetation changes.

Visual Characteristics: Most of the trail is enclosed in forests with high screening. The northern ½ of the trail is in widely spaced old growth Douglas-fir which provides opportunities to view further into the forest. There are 2 secondary major viewpoints, one at the northern head of the trail and one in the middle third. Minor viewpoints are in the northern third and at the southern end of the trail.

APPENDIX XI

Lake Management Goals

The lakes throughout a forest district contain many values and features that provide opportunities for various interests. The management goals provide for possible mixes or combinations of activities, settings, ecological attributes and probable experience opportunities. This approach is not unlike the Recreation Opportunity Spectrum approach (Ministry of Forests, Recreation Inventory) which is based on providing an established range of recreation experiences. The management goal for a lake or group of lakes is determined by considering three basic criteria: strategic objectives of higher-level plans, existing or potential uses (public and commercial) and ecological significance. This list of goals should be considered as a starting point.

1. **Wilderness lakes**

The goal is to provide for lakes with natural features in undisturbed areas having non-motorized access:

- o hike, canoe, kayak, fly in only
- o Setting is primitive (pristine wilderness settings)
- o unmodified natural environment
- o limited or no commercial land development
- o special fishing regulations
- o management objective for angler density is 15 angler/days per hectare per season
- o guided fisheries use is restricted to 15% of total use

2. **Quality lakes**

The goal is to provide for lakes with quality natural features where limited development and access may occur:

- o access may be limited
- o Recreation Opportunity Spectrum setting is semi-primitive non-motorized (SPMN) and semi-primitive motorized (SPM)
- o pristine surroundings and natural appearing environment
- o limited or no commercial development
- o special fishing regulations
- o management objective for angler density is 15 angler days per hectare per season
- o guided fisheries use is restricted to 15% of total use

3. **General lakes**

The goal is to provide for lakes primarily used for public recreation in a predominantly rural and natural setting:

- o access is generally good two wheel drive
- o land development may vary from none to controlled

- o Recreation Opportunity Spectrum setting is roaded resource land (RRL) — natural environment may be substantially modified
- o fishing regulations are general
- o management objectives for angler use is 25 angler/days per hectare per season
- o guided fisheries use is restricted to 20% of total use

4. **Refugea lakes**

The goal is to provide for the protection of those lakes which may have significant ecological importance and should be maintained in their current state:

- o access may vary
- o rare or endangered species or habitats
- o unique ecological or physiographic associations
- o no land development
- o no guided fishing quotas
- o restricted fishing regulations (catch and release)
- o management objective is 3 angler/days per hectare per season

The intent of management goal selection is to give clear direction of how the lake or group of lakes will be managed. All operational plan proposals must be consistent with the intent of the management goal. The guidelines within this guidebook are one set of tools that can be used to achieve the management goal for a given lake. Examples of other tools include access management guidelines, Visual Landscape Management Guidebook, Biodiversity Guidebook, recreation inventory, and fishing and hunting regulations.

Access Management Within Lakeshore Management Zones

MR-H	Management Road Highways	A road under the jurisdiction of the Ministry of Highways. Generally, the roads will remain open and are maintained by that Ministry.
MR	Management Road	A road required for long term resource management or other recognised values. The road will remain open and maintained, be subjected to traffic restrictions as weather and other constraints indicate and may be limited to only those activities necessary to permit travel or to avoid environmental damage.
MR-C	Management Road - Periodic or Seasonal Closure	A road required for long term resource management. The road will have periodic or seasonal closures to eliminate vehicular use. The entire roadbed will be kept intact for future use. Not intended for extended period of time.
TR	Temporary Road	A road required for multiple-pass timber extraction. During periods of non-use, the road will be hydrologically stabilised (water barred, culverts removed, cut bank grass seeded, and where appropriate, bridges pulled) and may be closed to vehicular use.
TR/RR	Temporary/Reclaimed Road	A road required for short term resource management. The road may remain open for a period of up to five years. After

		use, the road will be hydrologically stabilised, deep ripped and grass seeded. The main objective is to restore the road corridor to productive forest land.
NSR	Non-Status Road (not needed for resource management)	All are existing old roads within the forest land with no official status. If not needed for the management of any resource, the non-status road will be left for nature to reclaim unless an identified public safety hazard exists, at which time, the road will be closed. If it is decided that the road will be needed for resource management, it will be given another classification under the jurisdiction of a responsible agency. This category includes non-status roads which access private or leased land. These roads will continue to be user maintained.

Tabular Summary of Specific Management Requirements

	Class A	Class B	Class C	Class D	Class E
Objective	Protect all key lake attributes.	Maintain all key lake attributes	Maintain the integrity of key lake attributes	Maintain landscape biodiversity	Maintain ecosystem linkages
Visual Quality Objectives	Where there are visual concerns, should meet the Preservation VQO.	Where there are visual concerns, should meet the Retention VQO.	Where there are visual concerns, should meet the Partial Retention VQO.	Where there are visual concerns, should meet the Modification VQO.	Where there are visual concerns, should meet the Modification VQO.
Management Practices : General	No harvesting permitted.	Clearcutting is not permitted unless partial cutting is not feasible.	Collectively, partial cutting and clearcutting should not exceed 25% of the LMZ area per pass.	Collectively, partial cutting and clearcutting should not exceed 50% of the LMZ area per pass.	
Silvicultural Systems and Management Practices	No harvesting permitted in the Lakeshore Management Zone. This may be exempt for the management of windthrow, pests, disease, and fire, or as specified in approved lake management objectives.	<i>Partial Cutting:</i> > 50% of the original basal area should be retained 25% of the LMZ area per pass <i>Clearcut:</i> 10% removal of the LMZ area per pass. Clearcut block should be 5 hectares maximum Maximum lateral distance of an individual opening along the LMZ/RRZ interface is 300 metres.	<i>Partial Cutting:</i> > 50% of the original basal area should be retained. <i>Clearcut:</i> 25% removal of the LMZ area per pass Maximum lateral distance of an individual opening along the LMZ/RRZ interface is 400 metres	<i>Partial Cutting:</i> > 50% of the original basal area should be retained <i>Clearcut:</i> 30% removal of the LMZ area per pass Maximum lateral distance of an individual opening along the LMZ/RRZ interface is 500 metres	<i>Partial Cutting:</i> > 50% of the original basal area should be retained 100% of the LMZ per pass <i>Clearcut:</i> 50% removal of the LMZ area per pass Maximum lateral distance of an individual opening along the LMZ/RRZ interface is 500 metres
Roads, Landings and Skids Trails	No new roads, borrow pits or landings should be located in the Lakeshore Management Zone.	Haul roads outside Lakeshore Management Zone Spur roads and landings > 200 metres away from Riparian Reserve Zone Skid trails > 30 metres away from Riparian Reserve Zone Tail spar trails are not permitted without an approved rehabilitation plan. Skid roads with greater than 25 cm cuts are not permitted.	Haul roads outside the Lakeshore Management Zone Spur roads and landings > 100 metres away from Riparian Reserve Zone Skid trails > 30 metres away from Riparian Reserve Zone Tail spar trails are not permitted without an approved rehabilitation plan. Skid roads with greater than 25 cm cuts are not permitted.	Haul roads >75 metres away from RRZ Spur roads and landings > 40 metres away from Riparian Reserve Zone Skid trails > 30 metres away from Riparian Reserve Zone Tail spar trails are permitted.	Haul roads >30 metres away from RRZ Spur roads and landings > 30 metres away from Riparian Reserve Zone Skid trails > 30 metres away from Riparian Reserve Zone Tail spar trails are permitted.

LMZ = Lakeshore Management Zone

RRZ = Riparian Reserve Zone

GUIDELINES FOR NON-FOREST DEVELOPMENT WITHIN LAKESHORE MANAGEMENT ZONES

LAKESHORE DEVELOPMENT CATEGORIES

Development, in this context, refers to all non-forest uses of Crown land that are administered by Environment and Lands. This includes, but is not limited to, commercial, industrial and residential uses. Access road construction authorized under the *Land Act* is discussed as a separate issue following the categories described below.

ND (no development)

Recommendations: Environment and Lands will not accept new applications to licence or lease Crown land for development purposes within the Lakeshore Management Zone.

Examples: Lakes where it is agreed that no new development should be permitted in order to preserve high value lake attributes.

ER (enhanced referral)

Recommendations: Environment and Lands will accept land applications within the Lakeshore Management Zone in compliance with its existing guidelines, policies and land management objectives. Applications will be referred to the Ministry of Forests, who will then ensure that the Lake Classification Team participants are provided with the information. The LCT may recommend that an application be approved, conditionally approved or disallowed.

Examples: Lakes with limited or no existing development and access, but which are agreed to have some potential for development.

DV (development permitted)

Recommendations: Environment and Lands will accept land applications within the Lakeshore Management Zone in compliance with its existing guidelines, policies and land management objectives. Existing agencies and organizations will receive referrals at the discretion of the land officer/land inspector dealing with the application. The Lake Classification Team will not normally receive a referral for lakes in this category.

Examples: Lakes with existing development and access, where the potential for future development exists.

APPENDIX XII

VIEWPOINT LOCATION AND DESCRIPTION

Viewpoint No.	Viewpoint Location	Trail Name	Trail Priority	Located in Backcountry Area	Located along non-motorized portion of recreation corridor	Used by Tourism Operators	Identified as a Recreation Destination Area	Current Use	Potential	Viewpoint Class from Fritz Mueller's report	Digital Terrain Model Mapping Completed	Ranking of Viewpoints by Fritz Mueller (Priority 1, 2 or 3)	Final Priority Ranking of Viewpoints	Comments
1	Overlooking Big Creek	Fish Lake-Big Creek	1	yes	yes	no	no	low	mod	major	no	2		Most of the viewshed is within Big Creek Park
2	Southern end of Fish Lake to Big Creek trail	Fish Lake-Big Creek	1	yes	yes	no	no	low	mod.	minor	no	3		Views to the west are into Big Creek Park
3	Near Dash (Lost) Valley cabin	Upper Dash (Lost)	1	yes	no	yes	yes	mod.	good	major	yes	2	1	
4	Midway along Upper Dash trail	Upper Dash (Lost)	1	yes	yes	yes	no	low	excellent	minor	no	3	2	
5	Upper Dash Creek meadows	Upper Dash (Lost)	1	yes	yes	yes	yes	low	excellent	major	yes	1	1	
6	Junction of Lone Valley, Dash-Lone Valley & Prentice Lk trails	Dash-Lone Valley, Lone (Beaver) Valley, Prentice Lake	1	yes	no	yes	no	mod.	excellent	major	yes	1	1	
7	Hungry Valley trailhead of Dash-West Churn trail	Dash-West Churn	1	yes	no	no	yes	mod.	good	major	yes	1	2	
8	Moose Lake in West Churn Cr. Drainage	Dash-West Churn	1	yes	no	no	yes	mod.	good	major	yes	1	2	
9	Summit of Dash-West Churn trail	Dash-West Churn	1	no	no	no	no	mod.	mod.	minor	yes	3	3	
10	Near southern end of Dash-West Churn trail	Dash-West Churn	1	yes	no	no	no	mod.	mod.	minor	yes	3	3	
11	Overlooking Relay Creek	Prentice Lake	1							major	no		n/a	Viewpoint and view are in Lillooet District
12	Near Red Mountain trailhead	Red Mountain	1	yes						major	no		n/a	High elevation viewpoint
13	Near Red Mountain trailhead	Red Mountain	1							major	no		n/a	High elevation viewpoint in Lillooet District
14	North of pass between Red and French Mountains	Red Mountain	1	yes	yes	yes	no	low	good	major	yes	1	1	

Viewpoint No.	Viewpoint Location	Trail Name	Trail Priority	Located in Backcountry Area	Located along non-motorized portion of recreation corridor	Used by Tourism Operators	Identified as a Recreation Destination Area	Current Use	Potential	Viewpoint Class from Fritz Mueller's report	Digital Terrain Model Mapping Completed	Ranking of Viewpoints by Fritz Mueller (Priority 1, 2 or 3)	Final Priority Ranking of Viewpoints	Comments
15	In center of upper Lone Cabin Creek Basin	Red Mountain	1	yes	yes	yes	no	low	good	minor	yes	3	2	
16	Upper Lone Cabin Creek	Red Mountain	1	yes	yes	yes	no	low	good	major	yes	2	1	
17	Junction of Red Mountain, Lower Lone Cabin, and Swan Lake trails	Red Mountain	1	yes	yes	yes	yes	low	good	minor	yes	3	1	
18	Lower Lone Cabin trailhead	Lower Lone Cabin	1	yes	yes	yes	no	low	mod.	major	yes	2	2	
19	Near Lower Lone Cabin trailhead	Lower Lone Cabin	1	yes	yes	yes	no	low	mod.	minor	yes	3	3	
20	Midway along Lower Lone Cabin trail	Lower Lone Cabin	1	yes	Yes	yes	no	low	mod.	major	yes	2	2	
21	On Swan Lk trail, overlooking Lone Cabin Creek	Swan Lake	1	yes	yes	yes	no	low	mod.	major	yes	2	2	
22	Prentice Lake north of Relay Creek	Prentice Lake	1	yes	no	yes?	Yes	mod.	good	n/a	sightlines	n/a	1	
23	Clear Lake adjacent to Churn Protected Area	Koster-Clear Lakes	2	no	no	no	yes	mod.	mod.	n/a	sightlines	n/a	3	
24	Panlos Creek cabin in Lone (Beaver) Valley	Lone (Beaver) Valley	1	yes	no	no	yes	mod.	good	n/a	sightlines	n/a	2	
25	Dash (Lost) Valley cabin	Dash-West Churn	1	yes	no	yes	yes	mod.	good	n/a		n/a	1	
26	Hungry Valley cabin?	Gaspard Lake-Hungry Valley	1	yes	no	no		mod.	mod.	n/a		n/a	2	vicinity of viewpoint 7
?	Tributary to Lone Valley Creek on the north side	n/a	n/a	yes	no	yes	no	low?	mod.?	n/a		n/a	3	Tourism destination identified by Chilco Choate, unable to determine exact location.
27	Vicinity Lone (Beaver) Valley trail and Lone Valley Creek junction.	Lone (Beaver) Valley	1	yes	no	yes	yes	high	high	n/a	no	n/a	1	Potential campsite identified by P. Marshall
28	Entrance to Hungry Valley on Gaspard 4x4 road.	n/a	n/a	yes	no	yes	yes	high	high	n/a	no	n/a	1	Previously used for block design

APPENDIX XIII
WETLANDS ASSESSMENT

January 12, 1999

To: Anne Smith
Williams Lake Forest District

From: Ordell Steen
Ecologist

Re: Proportion of wetlands within non-forested polygons in the South Chilcotin Sub-Regional Planning Area

As per your request, I have estimated the degree of coincidence between non-forested polygon type boundaries, as shown on forest inventory maps, and wetland boundaries, as interpreted from aerial photo interpretation, in Hungry Valley, West Churn Creek, Dash Creek, and Lone Valley. For this estimate, I assumed that wetlands are defined as in the Forest Practices Code (FPC) RMA Guidebook. The estimate is based primarily on aerial photo interpretations, aided only somewhat by limited visits prior to initiating the assessment. No on-site visits were included as part of the assessment. The non-forest polygon types included in the assessment are those shown on the Non-Forested and ESA map (November 3, 1996) for the South Chilcotin Sub-Regional Plan as Swamps and NPBR, Other NP Types, and ESAs. None of the Open Range shown on the maps was noted to include wetlands.

The approach to deriving the estimates included the following steps:

- Outline wetlands on 1:15,000 scale color aerial photos based on aerial photo interpretations of vegetation and ecological moisture regime;
- Identify wetlands which are larger than 5 ha (W1 wetlands) and those which are 1 - 5 ha (W3 wetlands);
- Identify segments of non-forest polygon boundaries with a forested polygon which are within 10 m of a W1 wetland, more than 10 m but within 50 m of a W1 wetland, and within 30 m of a W3 wetland;
- Estimate proportion of non-forest polygon (Swamp and NPBR, etc.) boundary with forest which is within 10 m of W1 wetland (i.e. wetland reserve zone extends into adjacent forest area);
- Estimate proportion of non-forest polygon boundary with forest which is more than 10 m but within 50 m of a W1 wetland or within 30 m of a W3 wetland (i.e. wetland RMA but not the reserve zone extends into adjacent forest).

Note that where a non-forest polygon type shared a boundary with another non-forest polygon type rather than with a forest, that polygon segment of the boundary was not included in the assessment. That is, the proportions estimated in the last two steps apply only to portions of the non-forest polygon type boundaries which are shared with a forest polygon. If, for example, an "Open Range" polygon occurred upslope of a "Swamp and NPBR" polygon, then that portion of the "Swamp and NPBR" polygon edge was not included in the assessment.

The estimated proportions of polygon type boundaries which are included within the RMA of Forest Practices Code wetlands are shown in the attached table. These proportions assume strict application of Forest Practices Code regulations regarding establishment of riparian reserve zones and management zones.

It must be emphasized that the values in the table are estimates, with little on-site verification and must be interpreted with caution. Although most types of wetlands can be identified with reasonable accuracy on 15,000 color photos, there are some sites where determination of whether the site is a wetland or not based on aerial photo interpretation is problematic. Especially difficult are shrub-carrs. Many non-wetland shrub-dominated ecosystems appear very similar, on aerial photos, to shrub-carrs, which are managed as

wetlands under the FPC. These non-wetland shrub types are very common in the South Chilcotin area where cold air accumulation discourages the development of a forest. I have used topography, observable drainage patterns, and other features to make a judgement on whether a shrub dominated site is a shrub-carr or not. For example, I interpreted most valley bottom shrub types to be shrub-carrs but generally considered shrub types on steeper side slopes not to be shrub-carrs. These judgements should be checked by on-site visit.

Estimated percentage of polygon type boundary, shared with forested polygon, which is within RMA of wetland.

Polygon Type	Estimated Percent of Polygon Type Edge	
	Within 10 m of W1 wetland (adjacent forest within reserve zone and management zone)	Within 10 - 50 m of W1 or 30 m of W3 wetland (adjacent forest within management zone but not reserve zone)
Hungry Valley and Tributaries		
Other NP Types	35	20
ESA's	0	0
West Churn Creek and Tributaries		
Other NP Types	7	20
Lone Valley and Tributaries		
Swamps and NPBR	7	15
Other NP Types	0	5
ESA's	0	0
Dash Creek and tributaries above bridge		
Swamps and NPBR	10	23
Other NP types	5	15
ESA's	0	0

The Hungry Valley area contains several large wetlands, especially in the area between the two lakes at the west end of the valley. Values for Hungry Valley are higher than for other areas due primarily to the extensive wetlands in the area of these lakes. In Dash Creek, wetlands within the "Other NP Types" occur primarily in upper Dash Creek where this type is mapped in headwater valley bottoms. Further downstream, where "Swamps and NPBR" are mapped in the valley bottom, virtually no wetlands occur within the "Other NP Types".
Please contact me if you have any questions regarding this assessment.

Ordell Steen
Ecologist

GLOSSARY

"Access"

Physical entry into an area by appropriate means to accomplish a given task.

The means can include: foot; horseback; non-motorized vehicle; motorized vehicle (motorcycle; ATV; quad; car; 4X4; pickup truck; dump truck; flatbed truck; lowbed truck - trucks typically have a maximum payload less than 60 tonnes; snowmobile; snow cat); excavator; bulldozer; drill rig (on wheels, tracks or skids); boat (unpowered or powered); or aircraft (helicopter or fixed wing plane with wheels, skis or floats).

The tasks can include: reconnaissance exploration, claim staking, property exploration (non-mechanized and mechanized), property development, bulk sampling, mine development, environmental baseline studies, engineering studies, mine operation, care and maintenance, closure, reclamation, environmental monitoring, etc.

Mining access requirements vary. Much depends on the stage of exploration or development and the nature of work being done. Exploration is typically iterative over a span of years to decades. It may be seasonal or episodic to year round or continuous. Mine operation can be continuous or discontinuous for years to decades. Reclamation activities can be sustained or intermittent for years to decades.

The degree of disturbance ranges from negligible to intense. The intensity is inversely related to the area disturbed (i.e., low intensity over large areas; high intensity over small areas). Examples include: flagged lines; blazed or brushed lines; foot paths; skid trails; bladed trails; tote roads; light industrial roads; heavy industrial roads; fords; docks; bridges; camp sites; excavated trenches; drill sites; helicopter landing sites; mill and plant buildings; ore stockpiles; waste dumps; tailings ponds; water treatment ponds; fuel storage facilities; power lines; pipelines; electrical transmission facilities; etc.)

Exploration can persist for years with no visible or lasting sign. Large mining operations (e.g., large open pit mines) can make permanent changes at least in a local area. Reclamation is required of all mining operations. Its goal is to leave the land in a physically and environmentally stable condition productive of future use.

"Mineral Industry"

Individuals, consultants, and companies involved in any aspect of mining. This includes, for example, Free Miners and their agents, prospectors, geologists, geophysicists, geochemists, surveyors, engineers, labourers, tradespeople, contractors.

"Mineral Land Base"

The geographic area, including land and water, that is legally open for exploration and development of geological resources.

"Mineral Resources" (also sometimes referred to as "Geological Resources" or "Subsurface Resources")

All geological materials on or below the surface, including, but not limited to: earth, soil, marl, ash, clay, sand, gravel, riprap, rock, stone, talus, aggregate, limestone, marble, gypsum, slate, fossils, gemstones, placer minerals, metallic minerals, non-metallic minerals, precious metals (e.g., gold, silver, platinum), base metals (e.g., copper, molybdenum, lead, zinc), peat, coal, coal bed methane, petroleum, oil, oil shale, bitumen, natural gas, and geothermal resources, but excluding groundwater.

NB: According to the *Mineral Tenure Act*, "mineral means an ore of metal, or a natural substance that can be mined, that is in the place or position in which it was originally formed or deposited or is in talus rock, and includes (a) rock and other materials from mine tailings, dumps and previously mined deposits of minerals, (b) dimension stone, and (c) rock or a natural substance prescribed under section 2 (1), but does not include (d) coal, petroleum, natural gas, marl, earth, soil, peat, sand or gravel, (e) rock or natural substance that is used for a construction purpose on land that is not within a mineral title or group of mineral titles from which the rock or natural substance is mined; (f) rock or natural substance on private land that is used for construction purpose, or (g) rock or a natural substance prescribed under section 2 (2)."

The definition suggested here is broader and includes substances defined by other laws: e.g., *Petroleum and Natural Gas Act*, *Land Act*, *Geothermal Resources Act*.

"Mining" (... is what miners do!)

Mining includes all activities involved in the process of finding and producing geological resources, including but not limited to: tenure acquisition; financing; reconnaissance and mineral property exploration; drilling; trenching; property development; bulk sampling; mine development; environmental baseline studies; engineering studies; construction; processing; transportation; infrastructure development (e.g., power lines, pipelines, water works, roads, buildings); mine operation; care and maintenance; closure; reclamation; abandonment; environmental monitoring and management; etc.

It thus includes exploration work as well as underground mines, open pit mines, quarries, gravel pits, and placer workings, seasonal and year-round operations.

NB: According to the *Mines Act* a "mine" is (among other things) "a place where mechanical disturbance of the ground or any excavation is made to explore for or to produce" a variety of listed substances. The definition suggested here is broader.

Percent alteration: the scale of human alteration to the landscape, including cutblocks, expressed as a percentage of a landscape unit or total scene.

Viewing Distances:

1. Foreground: 1-1.0 km from the viewer; maximum discernment of detail texture and contrast
2. Midground: 1.0 to 8.0 from the viewer; emergence of overall shapes and patterns, with some texture and colour still evident.
3. Background: more than 8.0 km from the viewer; outlines of general shapes and patterns, with little discernible texture and colour, and strong sense of overall perspective.

Visual quality: the character, condition, and quality of a scenic landscape or other visual resource and how it is perceived, preferred, or otherwise valued by the public.

Visual Quality Objectives (VQO): a resource management objective established by the district manager or contained in a higher level plan that reflects the desired level of visual quality based on the physical characteristics and social concern for the area.

The specific VQO classes are defined as follows:

Preservation: No visible alterations

Retention: Human caused alterations are visible but not evident.

Partial retention: Human caused alterations are evident but subordinate and not dominant.

Modification: Human-caused alterations are dominant but have natural appearing characteristics.

Maximum Modification: Human-caused alterations are dominant and out of scale.

VQO	% denudation range in perspective views
Preservation	0
Retention	0-1.5
Partial Retention	1.6-7.0
Modification	7.1-18.0
Maximum Modification	18.1-30.0

percent alteration in perspective view values were derived from the MOF *Clearcutting to meet VQOs* study completed March 1996. Table extracted from MOF *Procedures for Managing Visual Resources to Mitigate Impacts on Timber Supply* (May 1998).

Visual Landscape Unit (VLU): a component of the Visual Landscape Inventory that rates the sensitivity of the landscape based on biophysical characteristics and viewing and viewer related factors.

Not Visually Sensitive Area (NVSA): an area that is not considered to be sufficiently sensitive to visual alteration to warrant special consideration over and above normal Forest Practices Code Requirements because of its visual sensitivity. However, visual landscape design should still be applied where possible.