

**Forest & Range Evaluation Program (FREP)  
RSM Continuous Improvement Workshop  
Minutes: February 27-28, 2007**

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## **DAY 1: Introductions and Welcome**

- Goals to get to know one another, review results of the season, and find ways to improve the program
- The purpose of today is to continue to build our relationships, improving, reviewing and discussing. Today will be an opportunity to contribute your voice to the program.
- This year's session format has been changed based on feedback from last year (new breakouts in particular); a new facilitation format has been introduced with district/regional staff acting as MCs

## **Perspectives from Senior Management**

### **Diane Medves, Director of Forest Practices**

- FREP is the foundation of our FRPA legislation, imperative work as to what we are doing now and what we will do in the future. This program serves the government as a whole, not just for Forest Practices Branch, as it is critical given RESULTS based legislation
- Appreciates the sense of teamwork among the program members, focuses on professional reliance, demonstrated leadership
- The group is exciting and innovative and the program is a success
- FREP is bringing in Industry, First Nations and other partners. Building new partnerships whether it is new agencies, ministries or others. We are looking at cumulative impacts and assessing with innovative practices and this program will be able to tell us if these new practices are working.

### **Peter Fuglem, Executive Director of Operations Division**

- Had a great tour by Agathe Bernard of Nadina's work; saw diligent and professional processes in place both in the office and in the field; saw this again when he and Diane went to Nadina to help present the Chief Foresters' Award
- FREP is becoming a focal point for building relationships with both government and industry; this will only help to build FREP's future
- Congratulations to Peter Bradford for his nomination for the Premier's Award for the FREP program

### **Chief Forester's Award - Barry Elliott, Nadina Forest District**

This annual award is to recognize the leadership and commitment at the district level. The trophy is a First Nations' carving which resembles the elements of leadership, family, communication and power. Barry Elliott from the Nadina Forest District (the 2006 winning District), talked about what this award means, and what it meant to his district.

- Nadina Forest District was among the five other districts which were nominated for the 2006 award
- The Nadina Forest District involved everyone in their work – MOE, Tenures and the district manager. Diligence was given in understanding the FREP protocols, communication was



paramount, focused on cross-training, and they had fun. The FREP program provides “No other program has brought the entire district together”, as well as “the ability to get outside the office and “looking at all the resource values; provides a scientific base for future tracking, a good thing for participants and for BC in general”.

- “Workafrolics” is a fitting term for Nadina staff and FREPPers in general
- They are proud of the work to date
- Agathe Bernard was instrumental in their win

## District Breakouts

- Group breakout format replaces district by district reporting done in previous CI Sessions. Emails were sent to all districts and regions asking to identify top 3 issues they would like discussed. From those topics received, 7 breakout groups were formed. Mike Pelchat, Sam Davis and Jim Dunkley assisted in organizing this new format.

### **Breakout Group #1 - FREP Vision – clarifying it at the District level (Reported out by Norma Stromberg)**

#### **Issue: Ensure management and district staff understand and support program goals and strategic plan**

- FREP Vision – ensure DM’s and program staff understands goals, etc.
- District experience varies; some districts have great support from their programs and others do not
- Stewardship monitoring staff have made one-on-one presentations with Tenures, C&E and others sections on how FREP can help them in their work – need to breakdown silos
- District management teams need to be involved –could use 5 year strategic plan to help clarify importance of the program to district management`
- Staff need to make the work a priority and take the initiative to get the work done; in one district, Tenures wanted to take over as lead, which was a great innovation
- FREP program should be included in EPDP, at all levels, especially if folks are going to take the training, should be required to do the field work (some people took 5 days of training but did not get into the field)
- Need to ensure FREP is part of core business, not an add-on. Really need resources, resolution of priorities, trained people on site, not just tours- (extra people on field teams are not always useful)
- Really need to show results to managers, why important and what the key red flags are, which will improve buy-in.



**Breakout Group #2 - FREP Resources  
(Reported out by Jack Sweeten)**

**Issue: Commitment to staff and resources as the program expands**

- Lack of available trained staff; sharing staff with other districts
- YELP – youth employment program; first nations hire; use of co-ops, sharing of auxiliaries,
- Potential to adjust the sample numbers, perhaps based on AAC or number of blocks, or some biophysical issues in the district
- More training sites, or video training for the web should be available
- Maintaining mentoring of the staff

**Breakout Group #3 - FREP Pilots  
(Reported out by Sean Muise)**

**Issue: Need clarity on development and implementation of resource pilots.**

- Focus was on communication about pilots
- What's working well: cultural heritage resource pilot newsletters; districts have the opportunity to contact team leads directly with district priorities and to initiate pilots
- General comments: could we have a pilot project coordinator position, someone who would help develop the pilots, ensure consistency with other pilots, including communication methodologies, could have a checklist for the RVTL or this individual to help ensure consistency of process and communication
- Districts don't know when/if the pilots are going on; possibility of a pilots web page or SharePoint site for sharing information; districts should use their opportunity
- KISS principle: make sure the technical level of the checklist is appropriate to district needs and skills; different values require different approaches; district staff should be involved in developing the checklists to help with both
- Top down vs. bottom up: top down, resource value questions have been prioritized; but now districts are identifying what's important from that end; need to mesh these two approaches
- Team leads are challenged to know when checklists are ready for implementation
- Last year districts signed up for pilots and never got contacted; so more formal communications about who has been chosen to participate and who has not
- SharePoint/website can help with this



**Breakout Group #4 - FREP Training, Mentoring, Coaching, Data, Consistency and Quality Assurance**  
(Reported out by Mark Salzl)

**Issue: Need to improve the process to get training, support and advice.**

- What's working: early identification of team lead, pre-reading of protocol packages, team orientation in the field to ensure consistency; mentoring; district involvement in the checklist/cheat sheet
- Challenges: timing of the QA (too late?); too long of a gap between training and field implementation; lack of consistency in field team can lead to data inconsistencies; training dilution – experts training district lead, then district lead training someone else; how to motivate people?
- Solutions: to avoid dilution, pair up field people with different levels of experience; graduated training – keep giving the basic training each year, not just refresher; increase frequency of hands on mentoring; increase # of trainers (district stars, and regional level people); look for experts in other disciplines and ministries; get buy in from the other ministries; continue to use cheat sheet at the beginning of the field season

**Breakout Group #5 - Site Selection, Survey, and Sampling Methods**  
(Reported out by Darius Low)

**Issue: Need improve data collection process to consistency in assessments**

- Most of the concerns fit into the FREP Q&A category; contact Branch and use the tool
- # of mandatory samples: some districts felt that the numbers should be flexible, so the districts can make their own decisions and do more voluntary samples, which would require modified performance measures
- Some districts had lots of resources; others felt a crunch – only solution is more dollars, but getting other programs involved helps
- Many differences among the districts, which is where communication could be improved, including an implementation plan from branch
- There are some resourcing issues, so how can we be more efficient: form a sample plan early in the season, breaking them up by geographic area; take multi-protocol to field
- Districts have different logistical issues, e.g. 60% of blocks require access by helicopter –these districts know if they have dollars to actually get to their blocks – need to know as soon as possible
- Communication amongst protocol developers, to ensure more than one protocol could be done at the same time, especially among those that require the same information, collected the same way
- Adamant that all the data collection should be done in-house, facilitates informed discussion with licensees; use as many program staff as possible



**Breakout Group #6 - Protocols: Riparian and Water Quality  
(Reported out by Laura Smith)**

**Issue: Better clarity on survey and sampling procedures.**

- Include information on what to do when a stream has been misclassified – especially important in the interior; possibly tracking of misclassifications could help? Get licensees to classify better or communicate with licensees to find out;
- Better description or diagram for hydrological connectivity part of Riparian sampling, especially when it comes to bare ground (more diagrams- what's connectivity/what isn't)
- Guidance about best seasonal conditions to do riparian work; high water flows/low water flows can make the work difficult; as water temperature went down, so did critters
- Would like to see more information on measuring moss; measuring fine sediments (though might be valid provincially); is there a way to calibrate these – visual estimates are difficult

**Breakout Group #7 - FREP Protocols: Biodiversity and Soils  
(Reported out by Sandy Currie)**

**Issue: Better clarity on Protocols.**

- Isolated it to two things: mapping and mapping accuracy – a standardized mapping protocol for all resource values
- Suggestion to use a PDA with various map layers loaded
- Make the protocols more friendly – simplify them as much as possible, both with soils and biodiversity – make them more like riparian and water. Should only contain what is essential.
- When people are leaving the cut block they want to have an idea of the health of that resource value; take the parts that are a little too detailed and elevate them up to intensive EE level.

## **Resource Value Reporting Out**

**Biodiversity BEC Zone Report 2005-2006 Data  
(Nancy Densmore)**

- 2007 data is not ready yet, all entered, needs to be summarized for indicators, and then the data will get out to the districts
- 19 districts have got individual summaries of their stand-level biodiversity results (if 20 or more blocks) from 2005 and 2006 field season
- Showed key indicators, focusing on CWH, which is lacking in large snags and large trees compared to baseline data.
- CWH is not shining for some of the indicators: why? is it because our baseline data has gaps? is it BCTS data used for baseline is not representative; is it because CWH has a high percentage of patches in the very small range
- By the time we get the 2007 data we will have had a good look at the Code blocks
- Changes to field cards: basically none



- Landscape: DART revived (software that in its previous life was used to rank potential OGMA areas); indicators chosen; Vanderhoof has volunteered and done data prep; initial output is coming shortly
- **Q:** Percent retention question: larger % patch retention on beetle blocks; should the mountain pine beetle harvested blocks be incorporated into the baseline data? Because these blocks may not properly reflect the FPC. MPB is a reality that needs more understanding, and discussed with licensees. **A:** Nancy is hoping to bring in some academic advice on this. A main concern is to ensure any mid-term harvest areas within the blocks are correctly designated as temporary retention.
- For Nancy Densmore's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/Nancy1-FREP-CI-SLBD-NancyDensmore.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/Nancy1-FREP-CI-SLBD-NancyDensmore.pdf)

### **Biodiversity: Ecological Anchors – Hibernacula, Mineral Licks and Bear Dens (Laura Darling)**

- **Hibernacula:** animals are seeking a warm dry environment to assist with hibernation; high humidity, cool temperature that is stable but above freezing; look for crevices, and bat guano; they can be in natural caves, in warm groups or in manmade caves such as mines; don't just use huge caves – they can be in small places in small groups (Dinosaur Provincial Park); look for a geological structure that will provide thermal protection, bus size or larger, usually located in south facing area; caves, cavities, fissures, security; in the forest will more likely see bat **roost trees** (described in FREP biodiversity checklists as wildlife trees), which provide maternity roosts, individually or in small groups; few bats use rock crevices for maternity or roosts, most use trees, and some use buildings (some exclusively); looking for moderately decayed large tree with much remaining bark; listen for squeaking young in the nests.
- **Snake Hibernacula:** Also used for warmth and security; come out in groups in the spring, and come back in the fall to their dens; look for tracks of snakes in the dirt; look for that physical structure that is often rocks which keep the heat and hold moisture, above freezing, south facing, warm, cracks and fissures; excavations by other animals could also hold snacks; snake hibernacula are complex structures
- **Mineral licks:** exposed areas exposed by animals scraping debris off ground; wet and muddy, and a depression; they are licking to look for macro minerals; also can be found in a well-used trail; ungulates are also attracted by roadside salt; mineral and soil disturbance attracts ungulates and can create an “un” natural mineral lick
- **Grizzly Bear Dens:** Go into hibernation for 4-6months and emerge in spring; dry, well, drained caves, deep layer of snow; excavate materials; entrance, tunnel and chamber of varying sizes, just enough for a bear to move around; entrance is about 75cm in diameter; moderately steeped, well-drained slopes, grizzlies rarely in valley bottoms; bears occasionally re-use their dens, if secure; grizzlies will also den in natural rock crevices, cavities under root wads, old growth structures, hollow trees and logs; both grizzlies and black bears can be found in root dens. Black bear dens are a bit different in size, excavated under or beside rocks and trees; they're not as extensively excavated and tend to be lower in the valley bottoms, not as high in elevation. Black bears will use old large trees, stumps, logs greater than 85cm in diameter, may be at ground level



but as high as 16m above the ground; use second growth forests with suitable structures; in warm climates they may be more exposed. You're looking for a sign of excavation, hair and scat, and bedding material. During your FREP work you're more likely to see a day bed, used day or night for security or thermal benefits; usually in dense, short cover, or tall sedge meadows, can be in substantial hollows in sand or logs or rocks; often upslope beside a tree where there is a flat area made by roots that provides security and cover. When close to a major food source, may bed out in the open. Beds are usually oval, deeper than ungulate beds. Also use flood plains or in cool channels; sometimes used just once, sometimes repeatedly over several weeks during the salmon runs; not unusual to find more than 10 day beds in a good feeding area. Look for the excavation, scat piles closed to the bed, hair and tracks and marking in the area. In winter, they use day beds in the snow, and you may find traces of dinner.

- Himmer and Power book a good source for this information.
- For Laura Darling's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/Eco-anchors-comp-LauraDarling.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/Eco-anchors-comp-LauraDarling.pdf)

### **Biodiversity: Missing Baseline Information for BC's Forests (Alyson McHugh)**

- Can cruise data fill some of the gaps?
- Provided background, methodology, preliminary results, and limitations
- Wanted to determine the efficacy of using timber cruise data in FREP SLB monitoring
- Methodology: pre-and post harvest, 3 sources of data for each block, looked at stand structure and species composition
- Preliminary results: found that timber cruise and pre-harvest data is usually quite similar, except perhaps with big trees, which are evident in timber cruise but missing in pre-harvest samples; could also be the case with large dead trees
- Timber cruise is raw data from licensees; pre harvest—she did the work using FREP methodology, over timber cruise blocks; both sampling intensities are around 1 hectare, though # of plots sampled in FREP will be lower; still means are consistent, with variability in precision
- Number of tree species sampled; in both FREP pre and post surveys, almost all of the missing species were rare species within a timber cruise
- Limitations and opportunities: under-representation of rare forest elements, as is CWD; opportunities: overlaps in stand structure between timber and FREP; standardized methodology; make better use of provincial data
- Conclusion: very preliminary (7 cutblocks only), with high variability of data; knowledge gap needs to be addressed; timber cruise data still offers great opportunities
- For Alyson McHugh's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/Missing-Baseline-Information-AlysonMcHugh.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/Missing-Baseline-Information-AlysonMcHugh.pdf)



## **Biodiversity: Sampling Intensity for Stand-Level Biodiversity Surveys (Nancy Densmore)**

- Got help from the two district that were picked in a less than random fashion , and “plastered” 2 blocks with plots, did a variety of analyses, and examined changing indicator bias and precision
- Did 50 different combinations of pulling (for example) 6 plots out of the total pool of established plots;
- # of tree species figures showed some bias; need to be careful that comparison with baseline data must be with similar datasets
- Precision is low for the tree indicators (other than tree species), but we are not getting bias.
- If you have a high amount of dispersed tree retention on a block, you may want to increase the number of harvest area plots to bring up precision of tree indicators. You may sacrifice one of the patch plots for the dispersed.
- If you want to make any specific decisions on a single block, you’ll have to put in more plots. However, at a higher level, (assessing a large number of blocks together) our sampling density is okay.
- Did a comparison of opinion vs. computer risk rating. The opinions and comments on a block from the districts were very valuable and will serve to improve the computer based risk rating. In general it seems that many of the traits we are considering in the risk rating are agreed on by district staff. Some improvements will be to include the ecological anchors found in the dispersed retention in the computer based risk rating. Comments by district staff are sometimes based on temporary retention (which is fine), however the computer based risk rating does not account for temporary retention.
- For Nancy Densmore’s presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/Nancy2-FREP-CI-SLBD-NancyDensmore.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/Nancy2-FREP-CI-SLBD-NancyDensmore.pdf)

## **Resource Features – Karst (Kevin Kilpatrick and Lorne Voysey)**

- Karst is first protocol under Resource Features objective – currently voluntary
- Training took place in fall 2007 and will be provided again in the Spring of 2008; hoping to extend usage this coming season and piloting in the interior
- Discussed karst topography; showed images of different examples, support unique plants, wildlife and cultural values
- Discussed the resource value question, sampling methodology, use of indicators and criteria used to assess impact, distribution throughout the province (more prevalent in the interior, than on the coast, though harder to find); represent about 10% of the province.
- Primary evaluation question is: Are current forest practices adequately protecting and maintaining the structure, function and ecological integrity of the surface and subsurface elements of karst systems



- Criteria are derived from the environmental factors: Removal of native forest cover, Reduction of shade, Change to native lower plant communities, Soil/ground disturbance, Post harvest windthrow, Introduced materials, Burning, Other
- Lorne discussed testing of the field cards on Quadra Island -- at first found the cards too detailed, then got a simpler version from Kevin (up to version 9), but they now find the cards work well
- Method: using the random list of cutblocks and the Karst potential map to determine the sample units through the overlay of forest cover (vegetation resource inventory) maps and the karst potential map. In addition Site plans and Karst field assessments may also be used to identify specific sites and confirm karst features in the cut block;
- Reviewed and discussed field data cards used, field cards are pretty easy to use, mostly visual estimates.
- The protocol and checklist allows you to determine the potential risk for the individual feature and the risk of the Karst Potential Unit within the cutblock.
- Displayed many different examples of this resource feature.

### Cultural Heritage (Lisa Levesque)

- Collaborative model for cultural heritage: lessons learned and vision
- Presented the guiding principles of the working group, emphasizing that cultural heritage values touch all other identified FRPA values
- Model focuses on both process and outcomes
- Have worked with 4 districts to date, and 4 First Nations actively involved and 2 intermittently
- 4 process indicators were evaluated through open-ended, structured interviews, using travelling road show approach, collecting qualitative information; did an analysis of 110 FSPs across the province, trying to find out how these FSPs address cultural heritage resources
- Hoping for a final report end of March
- Outcome indicators— still trying to determine how to evaluate what's on the ground; there are some site specific things around which a checklist could be developed (cultural trails, modified trees, eagles nests, etc.); there are also some landscape level indicators that need to be considered, e.g. cedar management, cultural plants, access to wildlife)
- Lessons learned: have collected ideas on what a checklist will look like; any checklist will require quite a bit of prep work; could be collecting other culturally relevant information when out in the field; need good links to other values, e.g. windthrow may be used to protect a cultural heritage value – if so, the windthrow value needs to take this into consideration
- Work is going on to examine how to map the location of the cultural heritage values, once fully defined
- Will be involving FNs throughout the project, with a goal of having a FN rep in all districts
- FRPA covers everything not covered under heritage conservation act; that being said there is no monitoring of Archaeological resources at all



- **Q:** There is sensitivity of identifying these sites; is this still so; **A:** there are ways of identifying sites without indicating exactly where or what they are. If FN is involved in the program, this might help in time; not as sensitive on the landscape level; still not an easy question to answer.
- For Lisa Levesque's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CHR-CI\\_26Feb08-LisaLevesque.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CHR-CI_26Feb08-LisaLevesque.pdf)

**Riparian and Fish Passage: Riparian Stream and Fish Habitat Condition Assessments, 2005-2006 Combined Sample (Peter Tschaplinski)**

- 624 streams, almost half small S6 streams, all streams harvested according to the Code
- 15 physical and biological indicators are assessed, using Yes/No scores, rolled up to 1 of 4 states: from properly functioning to not properly functioning
- Almost 40% of all sites were in the best of the 3 properly functioning condition categories; 86% were in proper functioning condition in total; 14% were not properly functioning, with a majority being S6 streams – results of the 2 years were very consistent
- Fine sediment was found to be a major problem, which has been an issue since 2002
- Peter reviewed results for all indicators; worst problems are road related and around low RMA tree retention, but picture right now is not a gloomy one and there is room for optimism. Number of “No” (fail) indicators due to forestry-related impacts on average was 3.3 per stream; i.e., proper functioning condition at lowest risk state.
- Need to get the next year's results in, which will bring out sample basis over 1,000, which is an extraordinary database.
- For Peter Tschaplinski's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Riparian-Fish-Habitat-PeterT.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Riparian-Fish-Habitat-PeterT.pdf)
- **Q:** natural blowdown is a factor in beetle areas; how will this be addressed in our evaluations?  
**A:** one possibility is to factor out no answers attributed to non-forestry related causes; i.e., windthrow and consequences in unsalvaged stands – these are tagged in order to identify the increments due to forestry.

**Riparian and Fish Passage: Routine Riparian Effectiveness Evaluation: What's new in 2008 (Derek Tripp)**

- Not like SLBD – there are lots of changes coming, but most have to do with support materials (e.g., tables, diagrams). No changes related to types of indicator questions, indicator statements, or scoring.
- Still 18 pages (though with #6 font!), includes much more information to help answer questions
- New stuff – some pocket field guides for bugs, with great photos, including CD; also a clear “viewing” tray to help see streambed when water is too high or turbid



- Sampling changes: 1) Assess riparian area on both sides of the stream 2) only sample cut blocks harvest over 5 years, from 2002-2006 inclusive
- For Derek Tripp's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Whats-New-in-2008-DerekTripp.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Whats-New-in-2008-DerekTripp.pdf)

### Riparian and Fish Passage: Watersheds (Richard Thompson)

- What's happened at MOE since last year: FIA standards have been updated, developing a strategic approach, FIC proposal, preparing a watershed database
- Strategic approach: to prioritize watersheds and conduct a systematic assessment, prioritize, repair and monitor
- 19,000 watersheds will have a fish value associated with it, to help assess fish passage problems
- Results (McGregor/Carp), 214 structures inventoried but 92% failed to meet passage criteria with 1600 km of fish habitat isolated
- In Washington State, there are 33,000 culverts that are barriers to fish, so we're not unique
- In BC, from 30% to 92% culvert failure rate (could be 30,000 to 70,000 structures)
- What can FREP do – 2<sup>nd</sup> question in the FREP Riparian checklist can eventually help us understand the size and distribution of the problem
- The problem of fish passage has been documented since 1977
- Good news: some targeted funding is going to be made available to help industry fix the problem
- For Richard Thompson's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-FishPassage-Feb2008-RichardThompson.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-FishPassage-Feb2008-RichardThompson.pdf)

### Wildlife (Kathy Paige)

- Mostly vertebrates now but invertebrates will be included later
- Wildlife habitat areas, ungulate winter ranges, and general management areas
- Many species, different questions, numerous protocols have required the development of a framework, which will be published early next fiscal, and will set priorities and procedures
- Will also develop how-to guides, including protocol development
- Are working on protocols for up to 11 different species; have needed to narrow down the species
- Badger, gopher snake, mountain goat, tailed frog and northern goshawk are the five species they're focusing on
- Collect two streams of information: on functionality and on risk, then calculate Functionality x Risk = effectiveness



- Identified UWR and WHAs for each of the species, and listed indicators being evaluated for each and where pilots are taking place
- Outlined the implementation plan, and provided url's for wildlife; please ask for access to the Wildlife SharePoint site
- For Kathy Paige's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Wildlife-Resource-Value-KathyPaige.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Wildlife-Resource-Value-KathyPaige.pdf)
- **Q:** How will you ever monitor the effectiveness of wildlife habitat that is not-spatially defined (section 7)? **A:** Don't have a defined area, so many factors that affect a species, real challenges. Section 7 designations will eventually phased out.

### Visual Quality: A Snapshot in Time (Jacques Marc)

- Initially developed their checklist in 2004, which was piloted by Forest Practices Board; only this past year was the checklist implemented
- Goal was to establish a benchmark under the Code before we could do analysis under FRPA
- Districts were invited to participate at last year's session, ended up with 14 districts involved
- Offered 2 training events, trained 25 staff and 1 consultant; 70% on those worked on checklists
- Only cut blocks falling within scenic areas with established VQOs or RVQCs were sampled (to ensure legality)
- Did not use the random list; used RESULTS and FTA overlaid on scenic areas in GIS to produce a list
- Before keypunching, did 2 levels of QA of checklists 1) rejected those that were not in scenic areas, or were not Code blocks); then 2) landform delineation, ocular assessment, design observations, percent alteration measurement.
- Ended up analysing 163 samples out of 182
- Results (provincial): VQOs being met only 65% of the time (under Code); also provided results on visual design, modification and retention achievements, silvicultural systems
- Have provided some districts with graphs for their areas only; presented a sample of results from two districts only
- Potential implications: poor design means licensees are over representing timber supply in TSR; restrictive VQOs not being achieved; not all districts were effective at managing visuals under the Code
- Next steps: will continue sampling into 2008 to beef up samples; want to encourage more district participation; will update checklist slightly; will provide visual evaluation training in spring 2008; will produce a FREP 2008 report and by 2010 will evaluate FRPA blocks and compare.
- For Jacques Marc's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Visual-EffectivenessEval-JacquesMarc.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Visual-EffectivenessEval-JacquesMarc.pdf)



- **Q:** Can you tell which blocks are beetle blocks in this work? **A:** Some were beetle blocks. Some of the beetle blocks were more extensive, but would not say it was just beetle country that failed.
- **Q:** Can you get rid of assessments that come out in the borderline so that there are only two categories? **A:** The checklist is structured on an ocular process, followed by a mechanical process, which derives a result; one approach says met; the other says didn't – we have well met, met, borderline, not met, then really not met –has provided only 3 of these 5 categories in this presentation.

### Soils (Sandy Currie)

- Piloting began in 2005, sampling involves both aerials and ground-truthing using aerial photos taken during 2007 for the first year of implementation
- Take photos one year in advance of what will be used in the sample; training in 08, will use photos flown 2007
- Early results are from northern and southern interior 2005-2007
- Discussed results on specific indicators, such as permanent access structures (most important indicator), in block areas affected by landslides, inblock areas affected by drainage diversion – all of which had positive results; dispersed soil disturbance within the NAR (not great, but not too bad); roadside work areas (RWAs).
- What's new for 2008: the 2007 photos covered 18 cutblocks in 18 forest districts;
- Training model has changed a bit, in that contractors will take on more training/mentoring responsibility, and training will be a bit more personalized and intensive (lower numbers but higher quality); trainers will hold sessions in the forest district offices. Will offer training and mentoring in 08/09 to 9 of the 18 forest districts for which photos have been taken; will do the next 9 in 09/10 (order of groupings is not solid)
- **Q:** Timeline for training? **A:** May through June, staggered so as not to negatively affect other resource values. **Q:** Quesnel has one outstanding block from last year; still want it done? **A:** Yes.
- For Sandy Currie's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Soil-EffectivenessEval-SandyCurrie.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Soil-EffectivenessEval-SandyCurrie.pdf)



## **Range Assessments under FREP**

### **Level One Range Monitoring in 2007: challenges, lessons and way forward (Frances Njenga)**

- Presented the forage and associated plant communities mandate; the group reframed the mandate into a priority question that was possible for field staff to answer in a cost-effective way
- Protocol involves three basic components: 1) plant community description, 2) forage and browse use, and 3) mapping by utilization zones
- Piloted and trained in 5 districts, using mostly Range staff but some Stewardship and MoE
- Lessons learned: staff are eager, varying levels of knowledge and experience with range management, plant identification provides challenges, lack of knowledge of reference conditions; hard to select plants to measure; approach varied from other FREP protocols and checklists; experienced staff wanted more attributes included
- Actions to take: need for more training (plant ID, Range 101); need to change the protocol
- Next steps: use functional checklists, (upland, streams, wetlands and lakes) with yes/nos and a summary at the end – like Peter’s Riparian checklist – looking at biotic, edaphic and hydrologic functions; will work this out on the PDA before piloting again
- For Frances Njenga’s presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab3/FREP-CI-Range-Eval-FrancisNjenga.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab3/FREP-CI-Range-Eval-FrancisNjenga.pdf)

### **Using Digital Photography to Monitor Grassland Wildlife Habitat and Impacts of Livestock Grazing (Cindy Haddow)**

- In 2004, MOE began a project to assess the relationships between grassland cover in different grassland ecosystems in BC under different grazing pressures using visual screening monitoring methods.
- The amount of cover, in terms of height, density and arrangement of grass, forb and shrub species, is important for visual screening, for nesting, to avoid detection by predators on land and from the air, and also helps to increase nesting success.
- Grazing can change the structure and composition of the vegetation of grassland ecosystems as well as reduce litter cover.
- Different monitoring methods were tested to measure hiding and nesting cover available to wildlife. Wildlife species chosen for the project have some dependence on the structural attributes of grasslands and include the Sharp-tailed grouse, Meadowlark, Savannah sparrow and Montane and Meadow vole.
- Two major projects are underway: 1) a small mammal project centred in the Thompson region. This project includes small mammal trapping and visual screening monitoring of grass cover on 8 sites, 4 grazed and 4 ungrazed. 2) a grassland nesting bird project centred in the Cariboo region. This project also has 8 sites, grazed and ungrazed, that are being monitored for visual



screening of grassland nesting bird species. Additional bird nesting sites are located in the Junction Parks and Protected area, at the OK ranch and Churn Creek.

- Recently, the visual screening monitoring method was refined to make use of life size wildlife silhouettes painted fluorescent orange and digital photography to determine the levels of visual screening that occurs in different grassland types under different grazing levels.
- Visual Screening levels of the silhouettes are evaluated using a software package called GIMP which can be used to count the number of pixels of a given colour in a digital photo.
- Linear regression was used to create a table of stubble height values required for visual screening of birds at six different percent visibility values.
- The monitoring method and results from this project can be used to evaluate the potential of grassland habitat for wildlife.
- **Q:** how do you get negative values in the stubble height table? **A:** The ground was a bit uneven for some of the photos and that may have contributed – also these are predicted values using linear regression. **Q:** Has the ranching community been involved in development? **A:** No, so far we haven't involved the ranching community in development of the methodology, we are at the research phase, building relationships between visual screening and actual species presence, abundance and nesting success and once we have results we should be able to present this to range tenure holders and others.
- For Cindy Haddow's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab3/FREP-CI-GIMP-CindyHaddow.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab3/FREP-CI-GIMP-CindyHaddow.pdf)

## **Wrap Up Day 1**

- We heard from both Peter and Diane acknowledging all of our effort; they spoke about great teamwork, partnerships, innovations and leadership being demonstrated. They also clearly indicated that this is a long-term program, indicating that this is truly a core business of the Ministry of Forests which is being reported on
- We heard from Barry about what it means to be a “workaholic” and we're hopeful that everyone shares this enthusiasm.
- Also heard in the breakout sessions: communication is important (more tomorrow), there are still challenges in staff engagement in some areas (Peter promises to dig deeper); great ideas around efficiencies.
- Resource value reports: Laura talked about some signs when it's time to leave the block (avoid those bats and bears!); also heard from Nancy that when we fill out the form C on the evaluator's opinion that this must match the data on the field card; also will be lots of changes to the riparian checklist – narrowing down the period from 2002 will be helpful to resolve NCD issues; also heard that cultural heritage work needs a good relationship with FN; Richard presented pretty scary numbers on fish passage, but he also has a plan to address this issue further; Peter T. presented a number of trends. Great to see some numbers, even on small samples, and we even have some solutions. Range and Soils are incorporating lessons learned to make their evaluations better, which is what this program is all about.



## DAY 2

### **Review of Day 1 and Overview of Day 2**

- Reminders to complete workshop evaluation forms, review of yesterday's event
- Photo winners: Action: Devlin Fernandes; Wildlife: Lyn Konowalyk; People: Scott Dunn; Landscape: Leith McKenzie; and best overall picture and professional choice Kathy Danchuk
- Recap: FREP is a core business – get used to it! We need to get the resources out there to make sure the job gets done - -share staff, use other program staff; communications issues re: pilots and messaging to licensees, and even between the protocol developers – key issue: protocols should be the right level for the districts and lead to the right kind of result in the field. Workafrolics!
- For the table breakouts, great engagement; good focused talk on addressing the challenges, including sample size and selection – may be a move toward allowing some judgement around sample size; cultural heritage is complex! Partnerships with FN, integration with other values and need to be holistic; riparian and fish passage – new guide will be a big help; road crossing are a risk; wildlife is rolling; visuals – room to improve, especially on the visual design; soils: roadside work areas, not that great, surface water needs attention; range: challenges around identification, reference points; have a different approach to checklist that is going to be worked on;

### **Status of FREP IMS/Effectiveness Evaluations (MetaData): (Sue Elo)**

- Release 3.1, the “plumbing” release, will be out this week; Release 3.2, with changes to prepare for summer data entry, will be out May 25
- Thanks to the many testers who have made FREP IMS a success: with roughly 30 calls since we first went live in January of 07, and most of them access requests, we've done very well
- To continue to ensure high data quality, Branch is working with Dr. Marla Weston to build an audit process that will be done regularly, focusing on process review and direct data analysis.
- May 25 release will not have all of the Riparian changes you'll see in the cards – there were too many to accommodate this year but if the cards stabilize in the summer, more changes will be included as soon as possible; stand level biodiversity has a few new edit rules coming, and some navigational tools will be introduced
- September 25 release will focus on water quality, assuming it's ready to go, and reports – get your reports suggestions in ASAP!
- Effectiveness Evaluations/Meta Data: Looking into the best way to provide a good search tool and storage solution for the reports and datasets published by the FREP; possibility of using the Library as repository with a search tool available from the FREP web site; will also look into other suggestions such as Eco-cat, MOE's repository search tool but bottom line is to find something simple that is already built.



- For Sue Elo's and Frank Barber's presentation, see web site at: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab4/FREP-CI-Slides1-SueElo-FrankBarber.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab4/FREP-CI-Slides1-SueElo-FrankBarber.pdf)

### **Annual Planning Cycle and Handhelds (Frank Barber)**

- Annual Planning Cycle: Did not quite meet all of the deadlines on the cycle this year but we'll try to do better next year.
- Status of handhelds: IMG has an RFP out to look for standards for data upload/download procedure – need to build this infrastructure before we can look at handhelds again; IMG is working on handheld selection with Veg inventory; Fort St James (Darryl Valk) has done some work in this and Perry Grilz have been using handhelds too
- Take home message: talk to others about the pros and cons of using handhelds before you consider doing so; corporately we need to wait for standards to be developed before taking another look.

### **Water Quality Resource Value (David Maloney and Brian Carson)**

- Focus of the water quality evaluation: sediment generation for forest management activities and for range, it's the presence of absence of cattle in or near water
- Provided a brief overview of methodology. Is there sediment, and if so, where is it going to come from, it is going to get into stream (all, some or none) – anything other than 0, continue on; area of sediment source and more details; designed so that anyone can use it. Develop numbers to estimate annual volume of sediment that will get into the stream.
- On range side, are there any? If so, are they in or near the creek, and 15 questions (yes/no) – if they achieve more than 3 yes answers, a full range evaluation is then required
- Provided 5 training sessions to 19 districts and 62 participants, followed up with mentoring in 6 sessions, 6 districts and 15 participants. 117 cutblocks, 537 sample forms in 14 districts – about 5 field forms per cutblock.
- Overall scores were quite good; 43% very low; 28% low; 23% moderate; 6% high or very high
- Highs caused by lack of sufficient culverts and drainage, presence of grader berm, poor quality road surfaces; road right of way design problems
- Range: 41 range forms in 5 districts. Eleven indicated a challenge: 7 in Okanagan/Shuswap; 3 in Quesnel and 1 in Williams Lake. Causes: overgrazing, pugging, lack of control problems.
- Goal is for the evaluator to be able to go back to the licensee and successfully discuss the results
- Common questions (Brian):
  - Some districts have problems finding sites because of their location; others find plenty, but this is just BC.



- NCDs are only considered if you know that they actually connect to a fish stream or to a drinking water source; otherwise don't consider them.
- Determining if surface of a road is erodible = must consider the complete road surface; for an active road that gets graded every year, we have to consider the whole road
- (Brian has a list of common questions – in the online Q/A segment)
- Common problems with filling in forms: failing to note good existing management techniques or need for improvements on site – important to know why the rating is good or bad; calculation errors
- Solution: get into the field as soon as possible after training
- Changes in forms: a) one column taken out and one put in; b) two-tiered assessment of water quality impact, which should be easier than it was previously; c) added a new table showing site sediment generating potential – shifted allowable amount down a scale (community watersheds)
- For Dave Maloney's and Brian Carson's presentations, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-WaterQuality-DaveMaloney-BrianCarson.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-WaterQuality-DaveMaloney-BrianCarson.pdf)

**Timber Value: E-Squared Lite – Developing a FREP monitoring protocol for post-free-growing managed stands  
(Wendy Bergerud)**

- Objective: 1) to test if the FG declaration point in time assessment is an accurate predictor of future stand productivity and if the assumptions of stand performance are valid; 2) to build an inventory of managed stands filling the gap between free-growing and VRI
- Data has been collected from 3 areas: Lakes TSA; Okanagan TSA; Strathcona TSA – will do Kootenays in 08 and Headwaters will pilot in 08
- E Squared Lite Pilot: involves inventory of managed stands – 60 stands, 15 plots/stand, total of 900 survey plots – this would have to be even lighter for districts to use (15 stands, 10 plots/stand, following same protocol)
- Focus on stands declared FG from 1995-2001; random sample from RESULTS; limit to even age stands, no partial cuts; District Forest Health to take lead role in conducting this FREP protocol
- They have a process map!
- Summary reports would be: stocking values for FG, WS, TT; leading inventory species; forest pest incidence; site index – all at declaration and now
- Okanagan results: quite a few stands no longer pass free growing – question becomes is a minimum stocking standard of 700 still valid? In Okanagan, pathogens show up, senior managers were taken out to see what the surveys said – the trees don't count because of the pathogens, but the trees are there and don't look like the "silviculture slums" you might expect, but the health issues reduce the ability to count them as valid. Still preliminary results.
- In Lakes particularly, leading species are changing
- Point: are building a survey model that will be able to be done in the districts and reported on



- For details see slide show on web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Timber-E-SquaredFG-WendyBergerud.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Timber-E-SquaredFG-WendyBergerud.pdf)

**Timber Value: 2007 Pilot of Intensive FREP Timber Evaluation  
(Pat Martin)**

- Procedures for intensive evaluations in harvested areas that focus on timber objectives out of FRPA
- Focus of this evaluation was on partial cut
- Outlined process on developing this protocol (goal oriented): go in the field, examine conditions, then evaluate if these conditions will achieve a goal—consistent with original view of effectiveness evaluation in BC. Working from broad FRPA statement, there are seven steps: 1) create working goal (narrowed down from broad goal); 2) identify critical factors (e.g. stocking); 3) select indicators (what are the metrics); 4) set thresholds (need to know what number means here is a negative impact on the goal); 5) sample and compile; 6) compare and judge; 7) interpret and use.
- Discussed some of the indicators: 1) poor quality residual trees, measured in basal area; 2) how much dead or down timber, measured by cubic meters per hectare; 3) volume of non-pine being harvested, measured by volume class cubic meters per hectare
- Looks like a single protocol will be able to be developed across all possible situations, though some indicators will only apply to certain areas of the province; structure of the reports displays green, yellow and red flags
- **Q:** Did not understand connection between dead and down and non-merchantable definition. **A** Goal does not speak only to the future, e.g. if all we care about volume and value for the future, then having stuff around now would not impact us, but the goal is also concerned about the short and mid-term volume and valued, so if you have a bunch of rotting merchantable wood, you're taking a hit on the mid-term
- For details see slide show on web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Timber-Eval-PatMartin.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Timber-Eval-PatMartin.pdf)

**Timber Value: Plans for 2008  
(Frank Barber)**

- The two initiatives discussed above started out intensive, but the group is trying to take them to the right level that will allow districts to perform their own
- There are other initiatives going on – tree species and genetic diversity reports are in the works; a high priority is the safety report, and that's out now
- Pat Martin has put together a stump identification tool that will go into field books, also in handouts



- Coming up next year: Headwaters will begin to get involved in E-squared lite; partial cutting 3-5 training rounds; Alex will be piloting free growing protocol; genetics protocol will have progressed
- For Frank Barber's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/posters/FREP-CI-StumpID-FrankBarber.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/posters/FREP-CI-StumpID-FrankBarber.pdf)

### **FREP Quality Management Update (Thomas Chen)**

- Definition of quality:
  - Quality management is a framework
  - Quality assurance is more technical/operational (QA site visits, data management)
  - Quality control is basic mechanisms of routine daily tasks (date entry, verification, rules in FREP IMS, design of checklists)
- What guides us: principle of continuous improvement; best practices in FREP IMS and Marla Weston; NQI standards; QA site visits; training and mentoring; quality control protocols (data entry, validation, verification, reporting)
- NQI process: last year we achieved Level 2 certification; 3 focus groups were addressed last year. This year's level 3 is more detailed – need a first internal assessment, which will be summarized into an application to NQI; then there will be more interviews. Same similar process for level 4 – after two years of doing this. At level 4, we can apply for the Canada Award for Excellence, a very prestigious award.
- Members of the quality management team: Agathe Bernard , Alanya Smith, Jim Dunkley, Kevin Kilpatrick, Nancy Densmore, Peter Bradford, Frank Barber; Diane Millar, Sean Muise, Kathy Danchuk, Joan Cringan and Thomas Chen.

### **Communications**

This idea came out of Peter Bradford's district tours last year; common theme was better communication with licensees, between districts, within districts, with management.

Objectives:

- identify and share existing communication successes;
- identify barriers and solutions to challenges;
- refine and strengthen existing tools;
- explore the communities of practice used to work with licensees

Kathleen Hebb and Victoria Kress facilitated this section.



**Table 1 - Communication Successes  
(Reported out by Geoff Price)**

**What have been some of your communication successes to date (with staff, management and licensees)? Please provide a list and describe. What do you think made these successful?**

- Out in the field with licensees, reports sent out to MOF, ILMB and licensees
- MOF staff from tenures and BCTS also get involved
- Monthly conference calls
- Getting management out in the field despite the safety risk to field staff
- In house reporting out after field season
- FREP staff meeting with other working groups (TSA Steering Committee)
- Photos area great asset for communication
- Licensees seem to feel FREP is a C&E outfit
- Licensees use FREP toward certification; some are taking the protocols and modify them for their own purposes
- Licensees are taking away new ideas about what's happening in the field; if they know what we're doing, they're more open to digesting it
- Not sure the information is being read or looked at; stuff Geoff's done has had no feedback (except Mike Pelchat) even though work has been posted on the web site – not sure where disconnect is.

**Table 2 - Challenges to communicating with staff, management, licensees  
(Reported out by Mary Moran)**

**What have been some of your challenges with communication with staff, management and licensees? What are some proposed solutions?**

- Licensees would like more than just reports, but reports by TSA are important
- Joint field trips with licensees is a great idea but challenging; helps to have a specialist come along
- If licensees came to training/mentoring, we could engage them more
- Has also been difficult to get licensee buy-in/engagement – not sure exactly how to address this
- Difficult to communicate bad news; having experts there to help is one idea
- Licensees confusing RSM and C&E needs to be addressed
- Auxiliaries should not be expected to be the ones to communicate, especially with licensees
- Local management needs timely delivery of reports, including time spent on RSM; could also have FREP as an agenda item on RMT, on Joint Management Committee to Ops and others; Executive is very engaged and supports FREP; seems to be a disconnect with Ops Managers level
- Presenting at TSA meetings helps; consistency of staff
- Did not address communication with other agencies; MOE seems to be the most involved
- One solution re: regional communication –put reporting requirements for all districts in a service plan



**Table 3 - Draft Communication with Licensees Guide  
(Reported out by Darius Low)**

**For the FREP team to provide useful communication tools, templates and example, please review document 1 (Draft Communication with Licensee Guide) and provide feedback with respect to improvements how this could best be used and communicated?**

- Reviewed the doc, thought it was excellent, easy to read – will have better ideas next year because this is new for some districts
- Some ideas on how to use this guide – who do we talk to, who do we email, when do we do this
- Use some existing forums out there (TSA meetings, all licensee meetings) to communicate the higher level objectives and mandate and get senior people involved
- Important to get district manager buy-in to the program to get the mid-management level support – probably good communication at the upper management level and with the field staff, but the middle managers might be getting missed
- Good to have more specific key messages from each of the resource values
- Consistency in putting information in the protocols, for how the protocols are developed – helps prepare you for communicating with licensees – how the indicators came about, changes to protocol approaches
- Really do need licensee buy-in to avoid defensiveness
- Get protocols to licensees to familiarize them
- CI is available at a provincial level; might have one that engages licensees, especially post-protocol development; key is to have open communication
- DM's need to reinforce with woodland managers
- Survey licensees to get an idea of their knowledge of the program
- The challenge is that we have been currently monitoring code blocks and need to be able to explain how we're moving to FRPA

**Table 4 - Review of Stand Level Biodiversity Reports  
(Reported out by Nancy Densmore)**

**For the FREP team to provide useful communication tools, templates and example, please review document 1 (Nancy Densmore's District-level SLBD Report) and provide feedback with respect to improvements how this could best be used and communicated?**

- Looked at the Fort St. James report and discussed Sean's a bit
- If you are sending the written document, not a good idea to send the district summary with the cumulative distribution curves (a little confusing). Unless you are presenting and discussing the data with licensees it is suggested to send just the averages, not all of the report
- Not a good idea to compare among licensees, but if you are in a meeting with them, you can show licensees where they fit in their district curve
- District summaries can be done when a district has 20 blocks. In general looking for a sample size of at least 30 blocks



- Intent of the information is to provide data on where improvements may be needed
- Don't send out graphs cold – they need explanation
- Tree species figure –sideways bar chart display might be better
- If you are going to leave this report with licensees, needs an introduction (FREP 101) listing indicators, quick synopsis of the field collection protocol, districts can add district/specific information
- Comparisons between TSAs would be useful and can be done
- Can't tell licensees how to do their business; just show them how they fit on curves – over time we'd like to share licensee success stories (how they've brought about improvements in practices) – excellent communication tools
- Powerful tool in such a presentation would be using the photos – “shining stars” are good
- Work done in headquarters on mapping of the blocks would be a powerful tool if districts can get the layer
- District reports are not intended to go on the web at the moment

#### **Table 5 - QCI Report (Reported out by Brent Olsen)**

**For the FREP team to provide useful communication tools, templates and example, please review document 1 (Sean Muise's QCI Report) and provide feedback with respect to improvements how this could best be used and communicated?**

- Many similar concerns/comments as table 5 – like having examples of what worked, not just what didn't work
- Sean's report was excellent, though the singing was better!
- Need to clearly recognize who the target audiences are: management, other program officers within the district, and of course to licensees, of different types (tenures vs. woodlots vs. range)
- Need to be very transparent to avoid the C&E scare
- Overview to the report is needed – like table 4 suggestion
- We're not responsible for telling licensees to change direction, but we can tell them what is happening in general – can't take away their right to manage
- Use of standardized templates provincially (with other Ministries)
- Licensees may wish individual progress reports
- Can our results assist with licensee EMS reporting
- Relationship-building needs to be sensitive to licensee needs – send a catchy Email to them?



**Table 6 - Community of Practice  
(Reported out by Alanya Smith)**

**Review the community of practice documents (currently on FREP site under RSM) and discuss how we could make this work in every district across the province.**

- Definition: Groups of people who share common set of problems, concern, expertise, passion
- Challenge to building one is physical distance from one another
- Individuals in FREP spend varying percentages of their time working in the program
- Face-to-face in the field communication is the most effective
- Need to involve other agencies, partners, etc. – this is different from when we invite partners out into the field – broader than that, at a higher level
- Benefit of having an identified leader in the district responsible for promoting FREP
- District presentations, sharing what blocks are planned in the field season (ADD THIS TO PROCESS FLOW)
- About facilitating communication about practices and about FREP among all partners
- Next step might be to explore this further using a team to think this through further

**Training  
(Kevin Kilpatrick and Dean McGeough)**

- Presented on behalf of the training working group
- This year introduced regional training centers; some concerns over locations and getting to them
- 2 sessions in Williams lake; 2 in CR
- Trained multiple resource values, which did improve consistency, trainers were more prepared, and lots of people went through
- Trained in riparian, biodiversity, water quality, range, visuals, karst and soils – will do most of these again
- All trainers are committed to as much in the field work training as possible and less classroom time
- Provided a detailed list of training numbers: 228 each in riparian and biodiversity, 60 in water quality, 7 karst, 26 visuals, about 40 in soils
- Mentoring; over 15 districts, 57 participants for bio; riparian 22 districts and 89 people; water quality: 5 districts, 10 participants; karst: 3 districts and 4-5 staff; visuals: 5 locations, 5-7 staff
- Challenges: location and venues; timing of sessions (snow free and close to when people are going into the field); refresher training is not full training; awareness vs. competency; materials development rushed
- 90% of staff responded to the training survey which resulted in additional location and times
- Must stress that protocols should not be done without appropriate training



- Are going to accommodate the need for awareness without compromising the training with people who are going to do the work
- Need to improve benthic invertebrates collection skills: important not to just count, but to identify the number of sensitive types, major groups, and # of insects; tadpoles are not benthic invertebrates
- Successes: trainers felt more confident in their consistency (trainers had seen the sites being trained on so were better informed); venues well organized to ensure appropriate training; increased awareness vs. understanding by trying to sort out those who were going to do the field work and those who were just there to learn
- Don't forget we are looking at forest AND range impacts
- Need to tweak understanding of stand level objectives; calibrating tree heights seemed to be a weakness – trainers rated 78% confidence on height measurement
- Training will include a validation session – look at data that got collected and do what Branch staff do to validate data; will input data one evening as well – spin off will be to give Branch staff more time to mentor
- Training schedule presented: Campbell River, Williams Lake, and Vanderhoof
- Debriefing is an important part of the training to evaluate competence
- Common question: – when does a road count; if you are doing a downstream road assessment, include the road -- first plot would be just above the road; if you're doing upstream portion of the stream, do not include the road
- It's great to have a “detention center” for the interior portion of the training
- SLBD – look for ecological anchors from a vantage point
- Key is to read the protocol each year!
- Will be sending out an Email with a sign-up sheet
- 2007 QA report: Bio – 12 districts and 20 checklists; Riparian = 14 districts and 34 checklists
- SLBD: QA data accuracy score was 88%;
- Riparian: strongest confidence for mosses, fines, shade, increasers and noxious weeds; weakness for disturbed banks, recent debris and lwd descriptions, bare soils and disturbed soils; average QA score of 2.6 – does not seriously affect conclusions; ideally want 1 or less difference in # of no's and a difference variation of 1 or less; i.e. if we said 4 and you said 5, that's a difference of 1; but we might have said 1,2,3,4 were no and you said 7,8,9,10 were no's, there's a high variation; training sessions now need to focus on meeting targets; this is the first year of scoring and setting targets. This information under tab 10.
- For Kevin Kilpatrick's and Dean McGeough's presentation, see web site at: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab10/FREP-CI-Training-DeanMcGeough.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab10/FREP-CI-Training-DeanMcGeough.pdf)
- Q: could get better tree height if you standardize measurement methodologies; A: dean knows if measurement has been done; most concern if there are many estimates. Don't want everyone to buy new equipment – find ways to check each other – right now it's not critical to be exact, but try to get within a good 10% target



## Fisheries Sensitive Watersheds (Lars Reese-Hansen)

- What are FSWs? Legal designation under FRPA section 14. Tests are: significant fish values; significant sensitivity; benefit from special management; applies to forest and range agreement holders, and to all crown lands, and includes community watersheds. FSW order defines an area of land and sets objectives.
- Generic FSW objectives: 1) intended to conserve natural stream morphology and hydrological regime and 2) applies to enter watershed, prevention of cumulative hydrological effects.
- Watershed Evaluation Tool (WET) is the process they go through to designate watersheds; this tool is used for other applications as well.
- There are 31 FSWs designated in the province to date
- How will FSWs be monitored? Project charter, overriding draft FSW monitoring question: are designated fisheries sensitive watersheds conserving 1) fish habitat and 2) the natural function and processes required to maintain fish habitat values now and in the future?
- Program will be developed between now and 2010 – hope to have an official procedure completed and rolled out shortly; trying to develop the monitoring alongside this and will work with ESSA Technologies of Vancouver to have a look at protocol and tool development.
- How will FSWs be monitored? Tiered methodology, using predetermined benchmarks which, when reached, will trigger more detailed assessment. Will definitely take place at different levels of intensity.
- How is this linked to FREP? A number of protocols (riparian, water quality, fish passage, windthrow, terrain stability, others) have already been built that will feed the FSW analysis
- Additional monitoring activities may be needed, such as retrospective analysis, watershed process modelling, experimental designs etc
- Contract to ESSA Technologies: they are now doing a literature review, with a conceptual model; goal to maintain consistency with FREP model and protocols, identify gaps (new protocols needed) and develop 08/09 work plan
- Clear benefits to following the FREP model; existing protocols; data management and analysis system in place; ongoing data collection inside and outside FSWs; QA standards applied in the FREP program
- Key messages: FSW monitoring program is in development; FREP program is the foundation of the FSW protocol; FREP is there and contributing; expect to hear increasingly more information over the next 2 years
- For Lars Reese-Hansen's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab7/FREP-CI-FisheriesWatersheds-LarsReese-Hansen.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab7/FREP-CI-FisheriesWatersheds-LarsReese-Hansen.pdf)
- **Q:** What is the expectation on part of the licensees regarding the designation? **A:** there is one; it's "special manage" – government establishes the need for special management and the desired



conditions by way of legal designation and from there it's up to the licensee to decide what needs special management; – licensees have the flexibility to identify how they will meet the desired conditions described in the order; while it its not the business of government under the results based code to tell industry what to do, a FSW monitoring protocol can provide guidance to licensees when conducting their activities in FSWs. MOE is also thinking of looking at FSPs to assess whether the content of these is adequate to meet the desired conditions stated in legal FSW orders.

- **Q:** Fisheries sensitive watersheds are at the landscape level; however, our protocols are aimed at the stream reach adjacent to the block (site level). Is this a problem? **A:** Don't think so – the indicator information is the same whether at the site or landscape level; what's important is the study design which uses this data.

## Invasive Plants (Kevin Kilpatrick)

- Will be used across all protocols, using the same card for the block
- Range is asking that we identify species, location, and area of coverage, with comments around specifics on location; location codes are also provided
- A larger doc will be coming out to explain how to use the card, plus invasive plant cards
- Only collecting information on 42 species listed in invasive plant regulation under FRPA
- This info will be given to Range people who will do a more detailed assessment
- Training will be provided by FREP and Range will also provide some
- If you don't know the plant, you are being asked to put it into a bag and submit it to the Invasive Plant people
- In future, IMS will link to Report a Weed, where you can fill this out online
- No longer concerned about noxious weeds, other than in Riparian
- IAPP linkage will be made
- There are some zones where they have given up on a particular weed; we may wish to know about this in advance
- Will indicate on the slbd protocol that one of the 42 weeds recognized under FRPA have been found, which would link you to Report a Weed to document more
- For Kevin Kilpatrick's presentation, see website at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab8/FREP-CI-InvasivePlants-KevinKilpatrick.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab8/FREP-CI-InvasivePlants-KevinKilpatrick.pdf)



## District Process Tool Initiatives

### FREP Assistant Handbook (Jennifer Stieda)

- Prepared a how-to manual for non-foresters for the Kamloops Forest District
- Audience: anyone beginning a new FREP field season can follow in chronological order, for both resource values
- Provides a checklist of activities to prepare for going out into the field, time management information, map preparation assistance (including how to mark plots on maps using ARC GIS and other tools), use of air photos, use of GPS, list of recommended equipment, data entry into IMS, photo submissions
- Guidebook is on: FTP server: ftp on mitten.dmz on FTP server
- For Jennifer Stieda's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab9/FREP-CI-KamloopsFD-JenniferStieda.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab9/FREP-CI-KamloopsFD-JenniferStieda.pdf)

### Using ARC GIS Manual for Creating FREP Field Maps (Diane Millar)

- Uses them to display a utm grid from which to establish plots and determine plot coordinates
- Lots of tools and applications
- You can use MapView, OziExplorer
- To get access, go to the Forests web site under the Maps and Geomatics Services Link, then get the access request form and review training opportunities; first talk to your local GIS coordinator
- ARC can be a one-stop shop for adding shape files, orthoimagery – takes a while at first, but then goes quickly
- All data taken from the LRDW, which is as up to date as you can get
- You can either use this template and the manual to create the maps or get your GIS technician to do it for you
- Once in the field, benefits are that you can use the Go to function in GPS to find plots or features quickly and easily; keep track of other team members using the UTM grid; FREP auditors can find plots or features more efficiently by using UTM map and GPS plot coordinates
- A printed out map helps coordinate activities better
- Map created can be sent to Branch for their needs; professional quality, often better than site maps
- Finished map is straightforward and easy to use
- Guide book is located on the FTP server at:F:\HFP\gov\_internal\!publish\FREP assistant handbook



- For Diane Millar's presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab9/FREP-CI-ARCGIS-DianeMillar.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab9/FREP-CI-ARCGIS-DianeMillar.pdf)

## **FRPA Administrative Evaluations (Kerri Brownie-RTEB)**

- Track and field theme: runner is still in the starting block – and that's where this project is
- Thanks to Peter Bradford for bringing RTEB into the FREP fold – also thanked many other FREPPERS for helping get her project started
- What is Admin FREP? Idea has been around since 2003, will evaluate overall effectiveness of the overall effectiveness of the Forest and Range Practices Act and FRPA model
- Will look at FRPA model of objectives and strategies to see if it is affecting practices on the ground
- Will focus on the social and economic goals of FRPA, e.g. 12<sup>th</sup> value
- Some reasons for FRPA was to increase innovation, enhance public acceptance of forest and range management, reduce administrative complexity, reduce cost to industry, continue to balance social, environment and economic needs
- Admin FREP will also look at effectiveness of some of the FRPA implementation tools (e.g. FRPA bulletins, PFIT web site)
- How will it work? Within the FREP program – Administrative and Resource Evaluations are linked. e.g. safety will fall squarely within the Administrative Evaluation side.
- Admin FREP will work collaboratively, communicate results, methodology similar to cultural heritage value (e.g. process indicators)
- Will focus on priority evaluation questions; projects may include reviewing databases, conducting surveys, analyzing and pulling together results of research projects
- In original FREP Charter, RTEB was given the nod to deliver this, that's why Kerri is doing this; some of the projects will be done by RTEB alone, but others will need to be done with FREP team members and/or other stakeholders. We may be able to draw on Forest Practices Board work to help.
- Who will be involved: RTEB, FREP, MoFR (Stewardship, Tenures, Regions, Branches, perhaps C&E), multiple ministries, licensees, stakeholders, associations, Forest Practices Board
- Why is this needed? A lot of questions are beginning to surface now related to the effectiveness of FRPA to address administrative, social and economic issues; also, most licensees have their first FSPs; next round of FSPs will be coming in the not too distant future so timing is right to do this; need to look at the information management systems to see what information should be tracked to effectively assess the results based model; potential to contribute to the regulatory review announced by the premier in January 2008



- Current status: starting point, securing resources, identifying and creating linkages, identifying the potential priority evaluation questions (revenue system, effectiveness of public consultation, cumulative impacts, linkages between LRMPs, FSPs and site plans, transactional costs)
- Need to get the message to executive to get support; and also to work at the ground level to create the right contacts – want to get onto the continuous improvement wheel with the rest of the FREPPERS
- Also looking for a more exciting title than ADMIN FREP
- For Kerri Brownie’s presentation, see web site at:  
[http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab10/FREP-CI-KerriBrownie.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab10/FREP-CI-KerriBrownie.pdf)
- Q: regarding the gap analysis mentioned, are you expecting to pull out of that what you feel the FREP Admin group should be working on? A: that has been done in developing the charter, pulled out what will fit in, but sounds like we could communicate better what happened. Also, don’t want to duplicate effort or add burdens to the field staff, but will do the best to involve district staff.
- Q: What scale would economic or social monitoring be done? A: Not there yet, but pretty broad; will need to work with pilot areas/groups and then compare to others; economics is hard to do, but need to explore what are the costs – have they gone up or down? Are more assessments required to do due diligence, therefore raising cost. Other aspects – i.e. does the model work – has to be pretty broad.
- Q: What about forest dependent communities? A: Haven’t thought that far, but this will be a priority given current conditions
- Q: Where do First Nations fit in, when you were listing stakeholders. A: Have left them out because they are being addressed through cultural heritage value, though there will likely be overlap – will work closely with Lisa.

## Day 2 Session Wrap-Up (Sean Muise and Agathe Bernard)

Agathe Bernard and Sean Muise summarized both Day 1 and Day 2 of the conference. They also talked about leadership and what FREP means to them.

Sean wrote the song “*What do you like about FREP I-O?*” which he and Agathe sang together to the attendees.

For video clip of song, see web site at: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/MVI\\_9330.avi](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/MVI_9330.avi)

### What Do You Like About FREP-I-O?

(Chorus)

What Do You Like About FREP-I-O?

The birds or the bees or the people you know.

The karst or the trees or the late spring snow.

What Do You Like About FREP-I-O?

(1)



Is it the training from Bryce or Dean-I-O?  
Or late night IMS with Sue Elo  
Checklists are comin', but they'll be a litte slow.  
That's what I like about FREP-I-O.

(2)  
Early in the mornin', out on the road.  
By chopper, truck, boat or camel I'm told.  
Throwin' cruise plots while my desk grows mold.  
That's what I like about FREP-I-O.

*CHORUS*

(3)  
Eatin' lunch down in the riparian zone.  
Took most the day to count the windthrow.  
Must be a patch cause I just saw a doe.  
That's what I like about FREP-I-O.

(Bridge)  
People complained cause we had more fun.  
But Peter and Frank put em' on the run.  
Don't know for certain, but I have a little hunch  
Half the people I work with never took a bush lunch

*CHORUS*

(4)  
When I die put my ashes in a tree paint can  
Take me out to the block to a tree patch stand  
Spray me up on a tree, not too high or low.  
And I'll always be a part of FREP-I-O

*CHORUS*