

Nipissing Core Team Minutes - Thursday May 4/06

In attendance: John Wright, Rodger Leith, Dan Rouillard, Tom MacLean, John McNutt, Darwin Burgess, Al Stinson, Ric Hansel, John Pineau, Brian Batchelor, Murray Woods, Rob Baker, Mark Lockhart, Craig Crosson, Tom Moore (by conference call)...

Temagami Room
MTO building, 447 McKeown Avenue
North Bay

Brian welcomed the group; round table, goals, objectives, approach for the group

- Timely; changes at Nipissing Forest Resource Mgt.
- Science into practice/FMP

Update on approvals of models - Dan Rouillard

- Dan gave a powerpoint presentation (consideration for Patchworks use in Nipissing plan – 2009)
- Approvals/FMP considerations
- ***A/I – John to PDF presentation and provide to group with minutes***
- Reviewed requirements as set out in the manual; director's approval (Rich Greenwood), etc.
- Think about 'Terms of Reference'
- Bottom line – all requirements must be met...
- ***A/I – John and Rodger to add official documents to the minutes distribution (approved models/how approved)***
- Several models available, Patchworks is one of many; models are being added and deleted from approved list
- Process for approval is as streamlined and flexible as possible
- Once approved, has to be approved through Terms of Reference – Regional, District, etc.
- ***A/I – John to work up additional wording for Romeo Terms of Reference re specific use of Patchworks; work with FMP Team (with Dan's help)***
- Patchworks in parallel with SFMM – used as a learning experience; part of DSS
- The intent is to avoid getting into the planning process and finding that we can't do what we want with models
- ***A/I – Dan needs to be engaged with the Romeo Team***
- Working toward making new/approved models easier to arrange; not a big issue, process
- ***A/I – Need to determine and write down how we recommend Patchworks will specifically be used in Nipissing Plan (support/propose) Sell it to Planning Team members to endorse into the Terms of Reference***
- Issues around modeling are often more people oriented than technical
- Changes in interpretation; adds some work; change to comfort zone
- Patchworks will be added to the list in the next couple of months – probably by July

Dan reviewed Benchmark Modeling Project

- Dan is heading up
- Choice of modeling system will not directly affect forest management decisions
- Due diligence in model selection
- Black Sturgeon Forest 2006 (SFMM, FSOS, Patchworks, Woodstock/Stanley)
- Scenarios increasing in complexity from aspatial to spatial

- Patchworks requires expertise and experience
- Once approved, Patchworks will need to be augmented with something else, probably SFMM; translation between the two is well established
- Patchworks has recently integrated capacity for selection harvest
- Models in benchmark are all basically giving the same results
- SFMM gives optimal solution, Patchworks and FSOS – heuristics move toward optimum
- Use of Patchworks is now at the Regional, District and planning team level
- No formal presentations planned; tech-notes/communication initiatives planned at the end of the project
- ***A/I – Group needs to discuss May 17 and 18 standard FMP training in Sudbury – two sessions (Thunder Bay); try to present this material – Steve Osawa***

Presentation on challenges/approaches with spatial modeling

- We aren't really modeling with stochastic approach
- Incorporating expected rates of natural depletion agents (fire, insects, disease)
- Often about 2% across the landbase...
- MNR should be supporting planning teams
- Base Model Elements: Succession, Natural benchmark, Scoping analysis/time
- Null run – natural benchmark run; SFMM does well, Patchworks doesn't...
- More spatial aspects – allow more time; direct relationship
- More practical to use a linear model for scoping exercise
- NDPEG – outputs from Patchworks will be different – need to get buy-in
- Spatial habitat stuff (we are used to OWHAM); different again
- Representation of existing matrix in Patchworks – might cause some concern with local/regional biologists; might want to review
- Rob would work with the bio's in this district to deal with Patchworks and habitat matrices... shouldn't bog down the planning team
- Additional capacity from both the district and the region (MNR)
- FMP manual – process suited to hierarchical analysis – may not fit well with spatial modeling which works on individual polygon level/hardwiring stands
- New public consultation system – may help – first Open House is 2008...
- Intent should eventually be to use SFMM for scoping, then Patchworks for everything else...
- FRP commitment is to provide resources/capacity – Tom, Heather, and John Wright
- Patch concept vs. NDPEG tool...
- Template from previous plan might need to be changed; or calibrate Patchworks Patch targets (150 ha. In Patchworks Vs. 250 ha. NDPETool) – can meet the intent of the guide either way...
- Marten Core – same concept, different approach
- Most requirements are not model issues; different interpretations/representations: people issues – need definition for approach and buy-in...
- Address in Terms of Reference – get buy in right away... (Dan and Roger can help)
- Need to support any new good modeling system in the province
- There are efficiencies in applying Patchworks – not doubling workload; need to quantify

- Really helps achievement of sustainability – see actual harvest areas 20+ years out...

Patchworks Presentation - Tom Moore

- Analysis Tom did/case study of Patchworks in the Nipissing Forest
- Tembec study/AI Corlett – bring costs down
- Tolerant Hardwood – shelter-wood harvest would be less expensive
- Five year wood supply – varying silviculture, transportation to mills –short term economics
- **AI – John to include PDF of Tom’s presentation with minutes**
- 2500 vs. 837 Hardwood selection vs. shelterwood
- Surplus of low quality hardwoods (surplus – scattered – low-quality – expensive)
- FRI quality poor re uneven-aged stands
- Prescriptions spotty in any particular area
- Recoveries generally lower, costs generally higher
- Used FVS – option determination
- Which system is most applicable – logical to use
- Used SQL queries; adjusted – potential to use digital elevation data
- Broke down FRI stands; plugged into Patchworks
- Output – shift of about 30,000 ha. from selection into shelter-wood
- SFMM – representation of shelterwood – same parameters used in Patchworks
- SFMM – Yield curves for each stage – used in Patchworks
- Timing of harvest
- Patchworks representation of selection
- Initial BA determined from age/BA curve (Murray Woods)
- 30% AGS and 70% UGS – can be validated with a bit of effort
- SFMM BA_Growth table was used in Patchworks
- Volume to Basal area ration
- Operability determination – min. post-harvest BA limit and min. removal amount
- Product proportions from SFMM
- Improve AGS/UGS by 10% each harvest
- Maximum AGS/UGS = 80/20
- Various Cost Profiles – general MNR: Broad averages: \$23.90/m³ for harvest, stumpage: \$3.48/m³; Loading: \$2/m³
- FERIC:
 - Selection: \$20.71/m³; uniform shelterwood: \$13.85/m³; clearcut: \$14.83/m³
- Historical records used in Patchworks (numbers in Tom’s presentation)
- 2004-2009 allocation from operating plan – hardwired in Patchworks
- 25,000 hectares shifted – only a small proportion was allocated in first five years...
- **AI – Tom will produce a map to highlight the stands that changed for Rob**
- Should look over a long-term horizon
- Transportation parameters – taken from numbers up in the Timmins area
- Construction cost for only tertiary roads; only maintenance costs for primary, secondary and tertiary
- Better information (from Nipissing) can be reflected in an analysis
- Fiscal relationship re OMNR and industry on roads will change costs for company; perspective dependent
- Back-haul costs

- Other issues – potential for gaming; take to closest mill, cheapest fibre to cheapest location
- Destinations (8) set up from the FMP; grouped to simplify
- Different products included
- Sample allocations run; optimize transportation network use
- Variable cost for companies given varying distances
- ***A/I – Tom to produce/provide a Tembec Mattawa hardwood options map with transportation for Rob; meet and review***
- Could have set up model to look at options for companies based on cost thresholds
- Model shows you where you need your new roads...
- ***A/I – Extension to do a TreeTip and website write-up/summary on this project***
- Not as pronounced as expected – FVS – different growth and yield model than SFMM – difference in volume recovery
- FVS generates its volume by tree; FVS result was more dramatic/pronounced
- First five year allocation only; a lot not factored in... smaller operating area not showing up on analysis
- Rolled up to landscape level – compared – haul costs have dramatically increased – can't explain... anomaly in the dataset?
- Fixed Costs: some increasing/some decreasing
- Silviculture involved – a lot of wood was harvested was unutilized – had to take more pulp wood
- Need additional tweaks – modify Patchworks to allow actual variation in harvest costs between systems; confirm adjustments to SQL's; impact of increased vol./ha. on fixed costs; actual vs. planned proportion of harvest in hardwood; fine-tune harvest approach and relevant costs in HDSEL
- Block 108 – implemented – tree marking – insisted in full utilization – calibrate some of the harvest costs – show the difference – actual volumes recovered vs. predicted...
- Validate and confirm assumptions; on-going process, incremental improvement
- Far better than what was done four years ago – still lots of room for improvement... tune up
- Next stage – landscape guide – pilot study - Dan heading up
- Utility in balancing needs of many industrial partners within SFL

Discussion of Landscape Guide

- Landscape Guide – case study – 2 pilots
- Nipissing not treated as a pilot yet; not official how MNR will proceed – recommendations made to senior management; meeting soon
- Northwest and northeast pilots... landscape level analysis – different landscape simulation models; building management based models (Patchworks fits in)
- Gordon Cosens – Bfolds in that ecoregion
- Telsa, BBDT, etc.
- Nipissing will be test site within 4E with eco-districts in GtLStL. Forest – not an official pilot; nothing done in Algonquin yet...
- Use Tom's analysis without constraints on allocations, and some modifications – very valuable for the 2009 planning process...
- Dan has the Nipissing model/data from Tom for the purpose of the landscape guide
- Unique opportunity/good timing – very helpful moving forward...

- Another resource for the planning team
- Data sharing agreement allows for complete sharing to MNR, SFL – support transfer of information
- Timmins Planning; Greg Lucking – NESI/Planning have Patchworks
- ***A/I – Nipissing MNR/SFL and John Wright at CEC should have copy of model and data...***
- ***A/I – AI and Tom to discuss options***
- FRP supports and facilitates with resources/staff/time/\$
- ***A/I – Core Team meeting with Tom – face to face...***
- Keep cognoscente of Temagami potentially joining the Nipissing

Dan's final few slides

- ***A/I – ensure Patchworks and people from Dan and his shop are part of terms of reference...***
- Refine the terms of reference... ensure modeling element is covered...
- Strategic vs. parallel – determined by the planning team...
- Need a new Planning Team for 2009 Plan
- Planning Team training in Sudbury will have excellent representation; Collaboration from Nipissing MNR and SFL is solid...

General Discussion (after lunch)

- Help planning team to have wording, etc. for Terms of Reference
- FRP overview by AI – 10/10 – science supported
- Science products developed over the past 5 or 6 years
- Mesh together; vision; context of Nipissing Forest
- Planning team decision – but FRP will support...
- Nipissing and Romeo – resources to make FRP science integration this seamless
- Link with the science products; latest and greatest; bring scientists when needed: i.e. yield curves, etc.
- Romeo – SPF increase by 2010
- Nipissing – not just about volume, more about value...
- A bit more complicated
- Vision from FRP perspective – FMP product that delivers on sustainable 10/10 objective – delivered on time by the planning team... EFP plan as part of the plan...
- Ramp up volume/value – role up at the landscape level – meets 10/10 objective...
- Fit within FMP framework
- Delivering a good sustainable forest management plan that considers everything; can do better in a spatial environment...
- ***A/I – Team to go out to Block 108 during next meeting***
- Interesting numbers – 22% of the volume is under the CSA
- Issue in district is comfort level with silvicultural system, actual application of paint...
- Enhanced Forest Productivity...
- John Wright's role as a Patchworks resources – available 60% of the time for Romeo and Nipissing Core Teams/Planning Teams

- ***A/I – Patchworks results/outputs/reports for runs – will be available on-line on website to promote collaboration***
- Modeling group selection – patches? Would be a nice to have...
- Inventory, LiDAR, Individual Tree Classification
- Bowater Pilot – 7 OBM's – high resolution inventory
- Patchworks – very generic – anything you can have on a curve, you can include
- John Pineau reviewed Northeast Core Team activities, planning team, block 18 – EFP Pilot, FSC issues, major CAR
- Temper things – how much of 10/10 comes from allowable cut effect?
- Needs to be auditable – change the management practice to truly achieve cut effect... comfort level with projection being made... already do this – stay in the comfort zone...
- Link more of our assumptions to audit items
- Practice the silviculture that we say we will to claim the volume!!!
- Silvicultural Effectiveness Monitoring
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Terms of Reference – submitted by mid June/signed off after significant planning team meetings; can be amended

- ***A/I - Patchworks would fit into the tools section***
- ***A/I - Needs to be clarified in Terms of Reference***
- ***A/I – let main office (Dan) know of decision... Up to the planning team ultimately***
- Co-Science Advisory Role (John)...
- Need to do more specific blurb for Patchworks
- ***A/I – John to flip RMF TofR write-up to Mark***
- Core Team could be mentioned w.r.t. Science contact...
- Core Team is window into science
- Mark needs to be aware of all of the other science/research that can be brought into plan... (yield curves, veg. mgt., logging damage, habitat (osprey/heron effectiveness monitoring, etc.)
- Brian Naylor's involvement – landscape guide – acting assignment...
- Dan/Roger's group can help support SFMM use if necessary...
- ***A/I - Planning contact for RMF Team is Denis Gagnon/let him know about RMF Patchworks use...***
- ***A/I – Mark to let Dan and Roger know of decision re Patchworks use in the Nipissing Forest...***

Next Core Team Meeting: June 27th, 2006

Include Block 108, McConnell Lake Field Tour etc.