

**DRAFT Minutes from Spatial Analysis Project - Strategy Team meeting
9/7/2001**

Location: Cloquet Forestry Center
10:00 AM to 3:00 PM

Present: Amy Brown, Daren Carlson, Alan Ek, Jim Erkel, Jan Green, George Host, Logan Lee, Jim Manolis, Dave Miller, Tim O'Hara, Garrett Ous, Lee Pfannmuller, Keith Wendt

Minutes submitted by Daren Carlson and Jim Manolis

Opening remarks from strategy team leader

Logan Lee opened the meeting and reminded people that Jim Manolis is now the project Manager. She also said that it has been awhile since the strategy team met, and after recently meeting with Jim Manolis and Amy Brown, realized that it was important to use this meeting to bring members to a common understanding on project expectations.

Project review:

Jim Manolis followed with a review of the project (an electronic copy of the presentation is attached). The following were the main points of Jim's presentation:

1. Project origin/ history
2. Definition of spatial patterns
3. Project purpose, roles
4. Update on project components
5. End products
6. Timelines

Project components

Full details on project updates can be found in the electronic presentation mentioned above. Considerable time was spent discussing individual project components. Clarifications and decisions are summarized as bulleted headings in the separate sections below.

Trend assessment/change analysis - Aerial photo interpretation

The contractor, J.W. Sewell, has begun the aerial photo interpretation on the 1990 photos. J.W. Sewell provided an example of an interpreted ¼ township plot for review by the Technical Team and Jim Manolis presented this to the strategy team. J.W. Sewell is on schedule, has done initial interpretation on about half of the photos, and is ready to send the interpretation key to the Technical Team. The Technical Team will review the interpretation key and, if necessary, refine the classification rules.

- Some members wanted clarification on what the aerial photos provide that landsat images do not. It was agreed that aerial photos provide earlier data that is

necessary for the trend assessment and that the greater detail allows for the identification of structure and age classes.

- The strategy team needs to clarify and communicate how the air photo and landsat classifications differ.
- The Age and Structure classes need more detailed definitions. The Technical Team will define these during the September 17 meeting and send the results to the Strategy Team for discussion.
- Amy Brown suggested the Technical Team develop a glossary of terms, including definitions of the metrics used for analyzing the photo interpretation and landsat images.
- Jan Green thought that several of the pine stands in the sample interpretation plot were CCC plantations and wondered if plantations are being identified. Jim Manolis said that the Technical Team will assess this when they review the photo interpretation key.
- Most agreed that white pine super canopy should be included as a stand modifier, but cut-off limits need to be defined. Jan Green wondered about white spruce super canopy. It was decided that the teams should limit additional requests to the contractor and that white pine is higher priority given its ecological, economic, and management importance.
- Al Ek stressed the need for some sense of interpretation accuracy.
- Jan Green stressed the need to include compositional assessment in addition to pattern assessment.
- Jim Manolis will email the Strategy Team the photo interpretation classification classes.

General Land Office (GLO) Notes

The contractor, John Almendinger, is about ¼ complete with digitizing the GLO notes. A module was developed by DNR's MIS unit to streamline the digitizing process.

- The sampling approach used in this project is novel. Previous GLO notes studies have used complete coverages.
- Tim O'Hara asked what information GLO notes provides. Responses were: Other studies have identified disturbance patterns from the GLO notes and this is the most established use. Identifying vegetation patterns is still exploratory, but there are possibilities. George Host said that GLO lines can be compared with air photo results. Logan Lee reminded the team that the GLO notes are part of the trend assessment.

Landsat Imagery

The contractor, George Host et al. at NRRI, has started work on comparing spatial analyses using two landsat classifications (GAP and Wolter).

- Logan Lee wanted clarification of the project's objective for this part. Responses were: The landsat imagery allows us to measure landscape pattern over the entire landscape, and to compare patterns between subsections. This information will be compared with the air photo interpretation, but with recognition that the two methods differ.

Future Modeling

Two models, LANDIS and Howard Hoganson's Harvest Scheduling model, have been identified and contractors are in the process of developing base data and defining potential modeling scenarios.

- Jim Manolis stressed that modeling is much more than prediction. It helps to define problems, organize ideas, and explore different outcomes.
- Dave Miller urged that scenarios be linked to real silvicultural prescriptions and Desired Future Conditions (DFC's) developed in the Landscape Program. The technical team will work with the FRC landscape committees to identify scenarios and silvicultural prescriptions.
- Al Ek suggested that extreme scenarios be included. These test the response and sensitivity of the models and the meaning of the extremes.
- Dave Miller asked if the LANDIS and Harvest Scheduling models can be linked. The model areas overlap in some parts and it may be possible to use the output of the Harvest Scheduling model as some sort of input LANDIS, but with current funding, will not be done.
- The Technical Team will test and refine scenarios and present finalized scenarios for Strategy team review in October.

Synthesis/ interpretation (Effects analysis) and wildlife modeling component

This portion of the project is least defined to date. Jim Manolis presented a proposal outline and solicited discussion. Jim suggested the name of the Synthesis/Interpretation portion of the project be renamed to "Effects analysis," and the team agreed with this. After a lengthy discussion about objectives, feasibility, and the importance of individual components, the team agreed to the following proposal:

- \$20,000 will be devoted to the background paper reviewing and synthesizing research on the effects of spatial patterns on organisms. Tim Jones suggested, and the team agreed, that the paper should focus on processes and not species.
- Jan Green emphasized the importance of including composition in the background paper.
- The team agreed that the development of spatial wildlife models is not feasible given current project funding and scope. Rather, this project can act as a facilitator and foster partnerships to accomplish wildlife modeling.

Proposal for Additional funding from the Forest Resources Council

Amy Brown indicated that an additional \$17,500 may be available from the Forest Resources Council research funds and they will be reviewing proposals utilizing those funds at the end of September. The team agreed this project should submit a proposal highlighting the following (see attached proposal developed after the meeting):

- \$5,000 for spatial wildlife model review
- \$12,000 for facilitating partnerships with spatial wildlife modelers in the form of meetings and workshops of species experts.
- The facilitation efforts can be viewed as seed money for long-term goals of incorporating the results of this project into wildlife modeling efforts.

End products

Participants began discussion on what the Strategy Team envisions as the end products of this project. This discussion will continue in subsequent meetings.

- Packaging is critical and documents should be bound similarly such as how the GEIS publications were done. An Executive report providing an overall synthesis, plus a technical team report of technical outcomes, and a Strategy team report stressing the management and socio-economic importance of results should be developed.
- Maps generated from the different spatial assessment tools are important for visual communication.
- The report's audience should be more clearly identified.
- New assessment and modeling tools will be developed.

Next meeting: The next meeting is scheduled for October 12.