

The Forsight Resource

Volume 1, Issue 1

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Upcoming Events...



World Forestry Institute Summit
September 21 - 23
Portland, Oregon
www.worldforestry.org



NASF Annual Meeting
September 26 - 30
Jackson, Mississippi
www.stateforesters.org



SAF National Conference
Oct 2-6
Edmonton, Alberta
www.safnet.org



Western Forestry Conference
Dec 7 - 8
Coeur d'Alene, Idaho
www.westernforestry.org



Small Log Conference
Mar 31 - Apr 1, 2005
Coeur d'Alene, Idaho
www.forestnet.com/slc



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Getting the most out of your forest inventory budget...

Situation Overview

Like many small privately held timber companies, West Fork Timber Company faces an annual dilemma in determining how best to utilize their inventory budget. West Fork is a private commercial timber operator in Washington State and relies on forest inventory information for strategic planning purposes as well as day-to-day management of the property.

In the steep terrain of western Washington, cruising costs can be significant. Multiple species and high variability in many stands also add to the cost. A key objective for West Fork is to locate sample plots in stands that will result in the most improvement to the overall inventory.

For the last decade, West Fork has been operating under a multi-species Habitat Conservation Plan (HCP) that restricts their ability to extract commercial timber in certain situations. Forest structure requirements are well defined in the HCP and must be maintained. This places additional pressure on West Fork's forest inventory. Not only does the company need to know about the quantity and quality of commercial timber available but must also identify and maintain certain structural elements within the forest well into the future.

The Challenge

West Fork has many objectives for their forest inventory including:

- ◆ Meeting precision and accuracy requirements
- ◆ Collecting and maintaining data necessary to run growth and yield models
- ◆ Streamlining data collection efforts
- ◆ Meeting annual budgetary constraints
- ◆ Improving the precision of the overall inventory as quickly as possible
- ◆ Incorporating structural and/or non-timber information in the forest inventory

West Fork enlisted the services of a company that could aid them with their inventory design. Individuals now employed at FOR-Sight Resources took the project from beginning to end.

(continued on page 3)

Forest Planning: Strategic vs. Tactical Part I : Strategic Planning

FOREST PLANNING

Forest planning is a process used to develop timber harvest and forest management schedules for owned and controlled timberlands. It has as a primary process the scheduling of timber management activities (harvests

and silviculture) and the projecting of their consequences into the future.

Specifically, the timber harvest-scheduling problem concerns the determination of which management units within a forested property

should be harvested, the amount of harvest to be taken, the method of harvesting to be implemented, and the timing for actions to occur. The purpose is to determine the best timber harvest schedule

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Strategic vs. Tactical Planning (from page 1)

that satisfies current management requirements and goals, and results in an acceptable future forest condition in accordance with management goals.

STRATEGIC PLANNING

Strategic planning is focused on producing long-term, forest-wide, strata-based plans. Significant consideration is given to the temporal aspects and multi-period effects. These plans identify sustainable harvest levels and silvicultural regimes that best meet strategic forest objectives. Specifically, strata-based harvest schedules identify the timing of harvests and the forest types to be harvested. A primary concern is ensuring that forest-level decisions are in alignment with strategic management objectives. Therefore, strategic planning requires lower resolution and less detail than tactical/operational planning analyses. This is usually manifested through:

- Coarser stratification of the initial forest inventory
- Aggregated product types
- Fewer silvicultural prescriptions/alternatives
- Fewer harvest timing options

Some characteristics of strategic planning include:

- Considers the forest “as-a-whole”
- Covers a long planning horizon (typically at least 2 rotations)
- Determines “sustainable” harvest levels over time
- Incorporates real operational & policy constraints
- Incorporates the biological capacity of the forest (biometrics) and costs and revenues/prices information (economics)

A primary strength of strategic planning analyses is the development of long-term harvest and land management plans that set strategy and prescriptions for ongoing forest management by:

- Meeting business constraints
- Projecting harvest volumes & cash flows over time
- Maximizing financial performance, usually through NPV
- Scheduling harvests based on stand financial maturity and forest-level constraints/opportunities

- Scheduling the future silviculture investments that provide stand class-specific returns and enhance the forest-level returns

Important strategic planning applications include:

- Investigating how best to strategically position timberland assets
- Determining strategic forest management directions
- Evaluating timberland portfolios & improvement of value: Forestland valuation analyses
- Analyzing timberland acquisition/divestiture opportunities
- Exploring options for improving the forest’s financial returns, often through increasing forest productivity

The next issue of **The Foresight Resource** will take an in-depth look at tactical planning.

Greg Day joins FORSight Resources as V.P. of GIS Services

FORSight Resources announced recently the appointment of Greg Day as Vice President of GIS Services. In his new role, Day will be responsible for business development, product development and management of the GIS department. He will also cultivate and manage key relationships within the industry for clients with high-end GIS needs. Day will work out of FORSight Resource’s corporate headquarters located in North Charleston, South Carolina. Greg has 14 years of experience in the development, design, implement-

ation and maintenance of geographic information systems. He has a broad skill set including programming in multiple computer languages, extensive forestry knowledge, Internet/Intranet delivery systems, database design and administration. Day received both an M.S. in Forestry and an M.C.S. in Computer Science and Software Engineering from Mississippi State University. Greg has been a member of the Society of American Foresters since 2001. Bruce Carroll, President and CEO, had this to say about Greg’s

appointment, “Greg’s enthusiasm, in-depth knowledge and experience in GIS and information technology will assist FORSight in providing leading edge solutions to our forestry and natural resource clients.” Greg played a key role in the establishment of a business partnership with ESRI (story on page 4).

Forest Inventory (con't)

A practical solution was developed for West Fork that relied heavily on subject matter expertise and creativity.

The Solution

The first step was to understand what West Fork was currently doing with respect to their inventory (data collected, procedures & processes used, etc). Then, an assessment of the current inventory was made with respect to the key objectives. This defined a starting point from which to prioritize stands in need of sample plots.

Through a highly iterative process, a ranking procedure was devised that took into account the following:

- ◆ Time until harvest
- ◆ Time until habitat conditions met

- ◆ Stand variability (percent standard error)
- ◆ Stand acreage
- ◆ Time past next scheduled measurement
- ◆ Stands changing quickly (higher priority)
- ◆ Stands recently cruised (low priority)
- ◆ Stands with suspect data
- ◆ Stand age class
- ◆ Stands missing variability information

Based on the criteria listed above, FORSight consultants were able to develop a custom application that allows the user to assign weights to each of the

factors. Once this was done, the program (linked to the inventory database) automatically calculated the number and distribution of plots among the stands for a specified budget amount. This tool allows West Fork to determine inventory priorities on an annual basis and ensure that they are “Making the most of their forest inventory budget”...

World Forestry Institute Conference “Who will own the forest?” slated for September in Portland

The World Forestry Center hosted the first inaugural Summit last year in Portland. The conference attracted a very influential group of forestry executives, landowners and analysts. The theme for the summit was “Who will own the forest” and examined the trends in private land ownership.

The conference was a huge success

and this year’s Summit promises to be the same. This year’s Summit will examine the implications of globalization and consolidation of forests on markets. Bruce Carroll, President & CEO of FORSight Resources, will be a panelist in a discussion entitled “Forest Ownership Decision-Making in the Information Age.” For more information including a complete agenda, list of

speakers and registration, visit:



www.worldforestry.org/conferences

FORSight accepted as SMC Analytical Member

FORSight Resources joined the Stand Management Cooperative (SMC) in April of this year. The SMC is composed of forest industry, state, provincial, and federal agencies, suppliers, and universities who commit resources and expertise to the mission of providing a continuing source of high quality information on the long-term effects of silvicultural treatments and treatment

regimes on stand and tree growth and development and on wood and product quality. FORSight is excited with the prospect of utilizing the SMC database as a foundation for our growth modeling activities for companies within the SMC. The cost of collecting and maintaining data on silviculture, nutrition and wood quality is substantial and must be converted into usable

information to unlock the inherent value of the database. FORSight’s two Western Biometricians, Dr. Mark L. Hanus and Dr. Sean J. Canavan, are well suited to this task. Membership to the SMC will further establish our breadth in the area of growth and yield modeling and our commitment to serving the Pacific Northwest.

Plans underway to open FORSight Office in NE U.S.

To better service clients in the Northeastern U.S., FORSight Resources plans to open an office in Bangor, Maine by the end of 2004. "The opening of this office will give us nationwide coverage of key markets and support expansion across the border into Eastern Canada," said Bruce Carroll, President & CEO of FORSight.

The office will be managed by Ian Prior, former FTG Business Development Manager. Ian has spent considerable time in the Northeastern U.S. and Canada and understands the dynamics of the region very well.

"In theory, there is no difference between practice and theory, in practice...there is"

Yogi Berra

FORSight Resources is a leading provider of decision support services for natural resource management. The company's offerings include forest planning, inventory, growth and yield modeling, GIS analysis and custom programming, acquisition due diligence, wood supply analysis, forest finance, forest economics, and a host of other decision support services geared specifically towards natural resource management.

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World-class decision support for natural resource management...

Business partnerships established with ESRI and Trimble

In an effort to expand FORSight's influence in the market and provide complete solutions for our clients, we have aggressively pursued business partnerships with companies that dominate the market in their respective areas of expertise. We are pleased to announce the execution of agreements with ESRI and Trimble as business partners and systems integrators. These agreements will also allow us to resell hardware and software products from the two companies at significant savings.

It is uncommon for a company as young as FORSight to be extended this opportunity which further enforces our belief that we have developed a strong market niche for our services.

In addition to relying heavily on ESRI products in our day-to-day activities, we have the ability to design, build, implement and maintain sophisticated information systems utilizing components from both ESRI and Trimble. Our status as a systems integrator, gives us the flexibility to recommend solutions that are geared towards our clients needs as opposed adapting existing, sometimes inflexible systems to a client's situation.

*Business
Partners*



In the Next Issue...

*Strategic vs. Tactical
Planning Part II*

*Research Publications:
Fertilization Effects*

*Precision vs. Accuracy...
Which is Important and
When*

Log Haul Optimization