

# THE LYME TIMBER COMPANY'S USE OF IMPACT DATA

## IMPACT MEASUREMENT & MANAGEMENT CASE



**The Lyme Timber Company LP** (“Lyme Timber” or “Lyme”) is a private timberland investment management organization (TIMO) that invests in and manages timberland and rural real estate with important conservation attributes.

Lyme’s portfolio consists of: **working lands**, **high-priority conservation lands**, and **mitigation banks**. The lands that Lyme invests in generate operating income from a variety of sources such as sustainable timber harvesting, recreational leasing, sale of carbon-offset credits, alternative energy supply agreements, and sale of **mitigation credits**. Lyme also achieves investment returns through capital events such as the sale of **conservation easements** and the final sale of the property.

*Note: Bolded terms are explained further at the end of this use case, under “terms used”.*

### THE CHALLENGE



Forests face major ecological health and biodiversity risks. According to a [2016 report](#) on conservation finance, an estimated USD 300-400 billion per year is needed to preserve healthy ecosystems on land and in the oceans, in order to protect the earth’s natural capital stock of clean air, fresh water, and species diversity.

Lyme’s investments often fill gaps in larger conserved landscapes, and Lyme’s protection of these lands helps deliver vital ecosystem services such as: the protection and restoration of streams and wetlands, drinking water supply protection, habitat conservation, carbon sequestration, flood control, maintenance of air quality, soil regeneration, recreational access, and ecotourism. Lyme’s investments also strengthen rural economies by providing jobs in forestry and logging as well as recreation and tourism.

### LYME TIMBER'S APPROACH



### LYME TIMBER: THE FUNDAMENTALS

<b>Asset Class of Investments</b>	Real assets
<b>Target Returns</b>	Risk-adjusted market-rate returns
<b>Headquarters Location</b>	New Hampshire, USA
<b>Target Geography</b>	United States and Canada
<b>Year Founded</b>	1976
<b>Sectors of Focus</b>	Sustainable forestry / timber and land conservation

This case highlights Lyme Timber’s impact measurement approach and explains how the firm derives business value from it (see box for definition of ‘business value’). For Lyme Timber, measuring and actively analyzing impact data is important not only for improving impact performance (a central purpose of impact measurement), but also for achieving financial success. Lyme generates impact data that help the company ensure the strategic alignment of its investments and support its marketing and reputation-building efforts. While some impact investors have historically perceived impact measurement to be costly and overly burdensome, many have found that it provides both tangible and intangible benefits. This case focuses on the benefits, that is, how investors use impact data to make decisions and take actions that generate business value. Understanding these benefits is vital to the practice of impact investing—an investment approach that relies on the integration of traditional business considerations with social and environmental factors to achieve both financial returns and impact.

**Business value** is defined as factors that are advantageous to the overall strength of an investor’s or investee’s organization, including both direct economic value (whether from improved sales or operations) and strategic benefits that indirectly influence an organization’s long-term viability.

Source: *The Business Value of Impact Measurement*, Global Impact Investing Network (GIIN), August 16, 2016, <https://thegiin.org/knowledge/publication/business-value-im>

## BACKGROUND ON LYME TIMBER’S IMPACT MEASUREMENT PROCESS

### IMPACT-EMBEDDED INVESTMENT STRATEGY

Lyme selects investments based on the potential to achieve both a financial return and a conservation outcome.

From a conservation perspective, the availability of buyers (principally public agencies) to purchase conservation easements and their degree of interest in a particular property are key criteria in selecting investments. Lyme has a deep network of land trust and conservation partners, and tracks conservation priorities and sources of conservation funding throughout the US. Out of the nearly one million acres in Lyme’s current and historical portfolio, 95% have been (or are expected to be) permanently conserved. More information on Lyme’s current and past portfolio is [available online](#).

Additionally, Lyme Timber’s forest management practices are guided by the Northern Forest Lands Council’s nine principles of sustainability, which are:

- Maintenance of soil productivity
- Conservation of water quality, wetlands, and riparian zones
- Maintenance or creation of a healthy balance of forest age classes
- Continuous flow of timber, pulpwood, and other forest products
- Improvement of the overall quality of the timber resource as a foundation for more value-added opportunities
- Maintenance of scenic quality by limiting adverse aesthetic impacts of forest harvesting, particularly in high-elevation areas and vistas
- Conservation and enhancement of habitats that support a full range of native flora and fauna.
- Protection of unique or fragile areas
- Continuation of opportunities for traditional recreation

# BACKGROUND ON LYME TIMBER'S IMPACT MEASUREMENT PROCESS

## IMPACT MEASUREMENT STAFFING STRUCTURE

Lyme's Director of External Relations assumes the primary responsibility for impact measurement and reporting. Additionally, Lyme's Director of Forestry Operations is responsible for conducting regular property visits and leads Lyme's monitoring and compliance of sustainable forestry practices. A third member of the Lyme team collects and analyzes geographic information system (GIS) data that help inform Lyme's acquisition decisions, as described further herein. These data collection systems, combined, contribute to Lyme's ability to achieve its desired impact.

## FUNDING FOR IMPACT MEASUREMENT

Lyme Timber funds its impact measurement practices with its internal operational budget, as it is integrated with the investment process.

## SAMPLE OF METRICS TRACKED

[View Lyme Timber's IRIS User Registry Page](#) ▶ [Browse the IRIS metrics online](#) ▶



Lyme has found using IRIS metrics to be helpful in reducing its reporting burden; rather than having to produce many tailored reports, it instead can use the standardized IRIS metrics to produce a singular impact report that it shares with fund investors and other interested parties. Lyme played a critical field-building role as an active participant in a 2012 working group that developed a set of generally accepted land conservation metrics for inclusion in the IRIS catalog.<sup>1</sup> For each Lyme Timber metric listed below, the aligned IRIS metric has been listed.

METRIC	RATIONALE	RELEVANT IRIS METRICS
<b>Land Directly Controlled: Sustainably Managed.</b> Area of land directly controlled by the organization and under sustainable cultivation or sustainable stewardship as of the end of the reporting period.	Metric directly links to Lyme's impact objective of maintaining sustainable forestry practices.	Land Directly Controlled: Sustainably Managed (OI6912)
<b>Operational Certifications.</b> Third-party certifications held by the organization that are related to its business processes and practices and that are valid as of the end of the reporting period.	Metric helps verify that the lands in Lyme's portfolio are being sustainably managed, by securing a third-party certification.  <i>Notes: All of Lyme's working timberland properties are third-party certified to one or both of the two leading sustainable forestry certification programs: The Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative® (SFI).</i>	Operational Certifications (OI1120)
<b>Protected Land Area: Permanent.</b> Area of land with a permanently protected land status (through conservation easements or fee sales) as of the end of the reporting period.	Metric allows Lyme to demonstrate the durable conservation outcomes that result from its investments.	Protected Land Area: Permanent (PI3924)
<b>Ecological Restoration Management Area.</b> Area of land under ecological restoration management during the reporting period. Includes both land area directly controlled and land area indirectly controlled by the organization.	Metric allows Lyme to demonstrate the restorative conservation outcomes that result from its investments. This metric is especially relevant for Lyme's mitigation bank investments.	Ecological Restoration Management Area (PI9556)

(table continued on next page)

<sup>1</sup> The group consisted of land conservation practitioners, land conservation investment managers, impact investors, and field experts, who each offered input and advice related to the identification and formulation of the metrics.

## BACKGROUND ON LYME TIMBER'S IMPACT MEASUREMENT PROCESS

METRIC	RATIONALE	RELEVANT IRIS METRICS
<b>Area of Adjacent Protected Land.</b> Number of acres of protected land that shares a boundary with the organization's protected land areas as of the end of the reporting period.	Metric provides a rough indicator of the ecological value of a property. As explained further in the following section, large connected assemblages of protected lands are more valuable ecologically than small, disconnected and isolated blocks of protected land.	Area of Adjacent Protected Land (PI5750)
<b>Units/Volume Sold: Total.</b> Sustainably harvested wood products during the reporting period.	Metric indicates investments' current and future potential for generating recurring cash flows.	Units/Volume Sold: Total (PI1263)
<b>Area of Trees Planted: Native Species.</b> Area of land on which native species of trees were planted by the organization during the reporting period.	Metric provides indication of forestland's sustainability.	Area of Trees Planted: Native Species (PI3848)
<b>Area of Fresh Water Bodies Present.</b> Surface area of freshwater bodies present during the reporting period on protected land, land under sustainable stewardship, or land under sustainable cultivation.	Since protecting water quality and quantity is critical to ecological health, Lyme tracks the surface area of freshwater bodies as an indicator of environmental impact.	Area of Fresh Water Bodies Present (PI7170)
<b>Jobs Maintained at Directly Supported/Financed Enterprises: Total.</b> Number of full-time equivalent employees working for enterprises financed or supported by the organization at the end of the reporting period who remain at the organization as of the end of the reporting period.	Metric helps demonstrate the social and economic impact of Lyme's investments, which are frequently in distressed rural communities.	Jobs Maintained at Directly Supported/Financed Enterprises: Total (PI5691)
<b>Ecosystem Services Provided.</b> Ecosystem services provided by land directly or indirectly controlled by the organization, during the reporting period.	<p>Metric enables Lyme to describe in a standardized way the intrinsic ecosystem benefits that its investments provide.</p> <p><i>Notes: This IRIS metric requires a "select all that apply" response. Lyme selects the following:</i></p> <ul style="list-style-type: none"> <li>• Biological raw materials</li> <li>• Freshwater</li> <li>• Maintenance of air quality</li> <li>• Habitat</li> <li>• Nutrient cycling</li> <li>• Water cycling</li> <li>• Recreation and Ecotourism</li> </ul>	Ecosystem Services Provided (PD8494)

### FREQUENCY OF DATA COLLECTION

Annually

### DATA MANAGEMENT SYSTEM

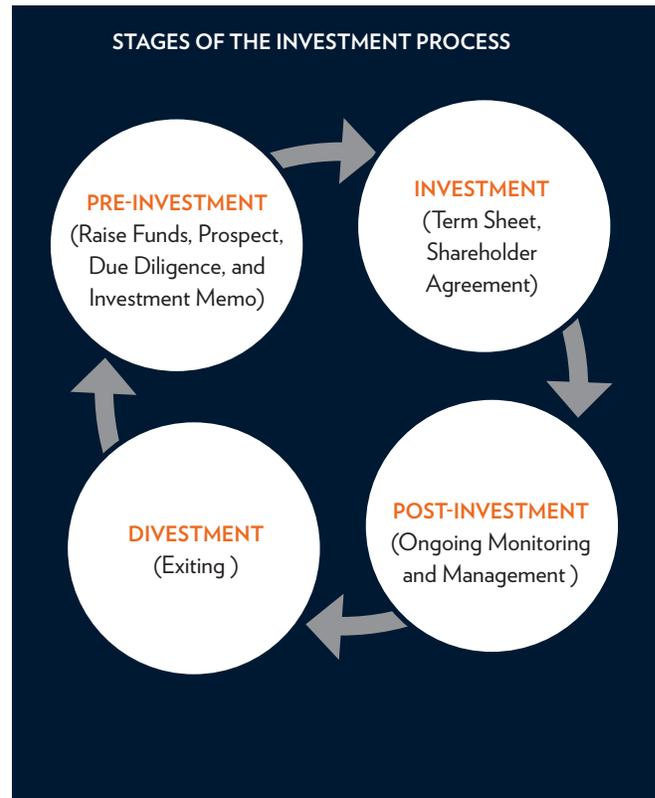
The Lyme team uses an excel spreadsheet to collect and store impact data. Lyme also uses [Esri](#), a geographic information system mapping software, to help accurately analyze and describe its portfolio in alignment with several of the IRIS metrics such as Area of Adjacent Protected Land (PI5750) and Area of Fresh Water Bodies Present (PI7170).

### IMPACT REPORTING PRACTICES

The Lyme team provides a fund level impact report to its investors on an annual basis.

# DERIVING BUSINESS VALUE FROM IMPACT MEASUREMENT: THE LYME TIMBER CASE

In addition to using social and environmental data to improve *impact* performance, which is of course integral to the practice of impact investing, many investors also apply this data in other ways. As described in the full [The Business Value of Impact Measurement](#) report, impact investors frequently use social performance and impact data to make decisions and take actions that drive business value. Building on findings from the GIIIN's [Annual Impact Investor Survey 2016](#) and based on interviews with 30 practitioners, *The Business Value of Impact Measurement* outlines five drivers of business value that impact investors can gain along various stages of the impact measurement and management process. These drivers are: revenue growth, operational effectiveness and efficiency, investment decisions, marketing and reputation building, and strategic alignment and risk mitigation. The examples below, which are unique to Lyme Timber, are categorized along these same drivers. They are also arranged by stage of the investment process to demonstrate how impact data can be utilized throughout the cycle.<sup>2</sup>



## Pre-Investment (Raise Funds, Prospect, Due Diligence, and Draft Investment Memo)

**Driver: Strategic Alignment and Risk Mitigation.** Lyme Timber uses geographic information system (GIS) data and other information sources to ensure that its investments are strategically aligned with its investment thesis. Several data sources help Lyme find lands that are strategically aligned with its mission. One of Lyme's strategies is to acquire *contiguous* land – land that shares a boundary with another protected land area. Most of the lands that Lyme invests in are adjacent to protected lands, such as state parks or wildlife refuges. Lyme pursues this strategy because large, connected areas of conserved land are more valuable from a conservation standpoint than small and disconnected pieces of conserved land. By becoming the adjacent land-owner, Lyme creates a buffer that improves habitat quality for

wildlife. In order to ensure that Lyme adheres to this strategy, Lyme relies on quantitative GIS data from credible third-party sources (e.g., The Nature Conservancy, the Wisconsin Department of Natural Resources, or the United States Forest Service), as well as qualitative data from partners such as The Nature Conservancy, that help indicate which land parcels are strategic priorities for conservation across various states. These sources of information also often provide a good indicator for where funding is available. As such, in these cases, the impact performance and business value overlap, where higher conservation priorities are correlated to the achievement of strong financial returns.

**Driver: Marketing and Reputation Building.** Beyond marketing to prospective and current investors, Lyme's impact data have also earned it the trust of key stakeholders, such as local authorities, which has both helped the firm complete transactions and generally supported its

2 Note that investors vary in their descriptions of the stages of an investment process, as described further in Rockefeller Philanthropy Advisors' *Solutions for Impact Investors: From Strategy to Implementation*, November 2009. This terminology is adapted from the Bamboo Finance 2015 Impact Report, available online at <http://www.bamboofinance.com/wp-content/uploads/bamboo-finance-impact-report-2015.pdf>.

reputation. It is important to note that one of Lyme's impact objectives relates to improving the economies of distressed rural communities. For example, one of the investment funds managed by Lyme includes a portfolio land of 72,800 acres in Florida's Big Bend region, a very rural area with a declining population that is characterized by lower incomes, lower education levels, net out-migration, and a comparatively older population, relative to the rest of the state.<sup>3</sup>

In Florida, the case for prioritizing land for conservation rather than for purely commercial use has at times been difficult to make—indeed, officials in the state have expressed doubts about the relationship between human activity and climate change.<sup>4</sup> Lyme augments the case for forest conservation in Florida by showing the positive effects of its investments on the economic prospects of the community. For example, Lyme has hired all local teams of managers, foresters, loggers and truckers, thereby helping local employment, and has maintained hunting access to the property, thereby supporting a vital part of the local tourism economy. Furthermore, Lyme has seen that the trees from its Florida lands provide important raw material for local mills, which employ significant numbers of people. Lyme believes that measuring the direct and indirect community development benefits has helped bolster the case for sustainable forest management and conservation in rural communities and with their appointed or elected officials. Additionally, when Lyme finances investments with New Market Tax Credit (NMTC) financing, as it did in Florida, it is required as a NMTC partner to report key economic, social, and environmental data to relevant U.S.-governmental bodies.<sup>5</sup> As such, this type of impact data has also helped Lyme maintain a good standing with key regulatory stakeholders

## Divestment (Exiting)

**Driver: Marketing and Reputation Building.** The data point that Lyme collects about the impact of its exit strategy has been an important differentiator to attract investments into its funds. Most large forestland owners in the United States operate sustainably; the sector's major trade association, the National Association of Forestland Owners, requires its members to commit to sustainable forest management. However, third-party certification is purely voluntary and owners can choose to let it lapse at any time. Additionally, once a property is sold, unless a conservation easement is in place, there is no guarantee that it will be managed sustainably in the future. Lyme has recognized that impact investors in its funds are particularly concerned with the durability of the impact of their investments; as such, Lyme believes that the fact that such a large percentage of Lyme's holdings have been permanently conserved has served as a key factor distinguishing Lyme from other TIMOs. In order to demonstrate this impact, Lyme measures and reports on the number of acres of land that are permanently conserved through an easement (a legal agreement in which the landowner cedes certain land management rights to another entity, such as a trust). According to Lyme's Director of External Relations Liz Adams, "During our recent capital raise we worked with several impact investment management firms that told us that Lyme's ability to demonstrate durable conservation outcomes was a critical component of their decision to invest in our fund."

3 "Demographic, economic, and growth initiative analysis: Big Bend Region of Florida, Southwick Associations Fish and Wildlife Economics and Statistics, May 2015, [http://www.conservationfund.org/images/projects/files/Big\\_Bend\\_Technical\\_Report\\_FINAL\\_PDF.pdf](http://www.conservationfund.org/images/projects/files/Big_Bend_Technical_Report_FINAL_PDF.pdf)

4 Katie Valentine, "California and Florida Governors Duel on Climate Denial," *ThinkProgress*, May 3, 2016, <http://thinkprogress.org/climate/2016/05/03/3774748/jerry-brown-hitsrick-scott-climate-change/>.

5 The New Markets Tax Credit is a program of the U.S. government "designed to increase the flow of capital to businesses and low-income communities by providing a modest tax incentive to private investors." See "New Markets Tax Credit Fact Sheet," New Markets Tax Credit Coalition, <http://nmtccoalition.org/fact-sheet/>.

## CASE WITHIN A CASE

### INVESTOR

## THE LYME TIMBER COMPANY

- Investors purchased land from International Paper (IP), a large traditional forest product company and forestland owner
- Lyme purchased 146,00 acres of the land and sold a comprehensive working-forest easement for this tract to the New Hampshire Department of Forests and Lands
- The Nature Conservancy purchased the remaining 25,000 acres to establish a wildlife management area, to be transferred to the state of New Hampshire at a later date
- Lyme partnered with a team of conservation organizations, including the Trust for Public Land, the Society for the Protection of New Hampshire Forests, and The Nature Conservancy, to provide the much-needed up-front capital for a conservation transaction
- The deal closed in 2003
- Lyme sold the permanently conserved property to a private timberland investment group in 2009

### INVESTEES

## THE CONNECTICUT LAKES

### About the Connecticut Lakes

- Headwater lakes to the Connecticut River, located in the northern tip of New Hampshire
- 171,000-acre forest makes up 4% of the entire land area in New Hampshire and is critical to the rural forest-based economy in the North Country (timber-related jobs and popular tourist recreational destination)
- Important for water quality down course through New England
- Provides habitat for at least 20 rare species
- Conserved forests were covered by third-party certification under the guidelines of the Forest Stewardship Council

### Key Components for this Successful Deal

- Large tracts of high-priority conservation land came up for sale by a divesting paper company
- Lyme Timber supplied private capital for the deal
- Many partners, including public-sector, nonprofit, and for-profit groups, brought different strengths to the endeavor
- Working-forest conservation easements made the deal affordable and successful in the view of local economic development interests as well as state natural resource agencies

"This project... is a real model of conservation today where both economic and environmental sustainability are the hoped-for outcomes." —Peter Stein, *Lyme Timber*

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## Terms Used

**Conservation Easement.** A legal agreement which is intended to protect specific conservation values, in which the landowner cedes certain rights to another entity. This mechanism permanently restricts development and other activities, but allows income generation from sources such as sustainable timber harvesting, recreational leasing activities, and sale of ecosystem services. When a buyer purchases a tract of timberland, it acquires a bundle of rights that includes recreational rights, water rights, mineral rights, timber rights, development rights, and many more. The owner can choose to retain these rights by owning the land and all its associated rights, or else choose to transfer or tie up any number of these rights in the form of a conservation easement. The conservation easement is binding on all future landowners.

**High-Priority Conservation.** Rural real estate where value is based primarily on the risk of development or conversion to other uses. In these deals, Lyme seeks to return capital to investors primarily through the sale of easements and fee interests to public agencies or private conservation buyers.

**Mitigation Bank.** Degraded property (wetland, stream, or habitat conservation area) that is restored to its original ecological condition in order to offset or compensate for expected adverse impacts to similar nearby ecosystems.

**Mitigation Credits.** Credits that can be sold by the owner of an approved mitigation bank for cash to public and private project developers who need to mitigate their adverse impacts, as required by law.

**Working Lands.** Lands with operational scale that are actively managed for the goods and services associated with the land. Working lands include including timber, ranch, and agricultural lands. Cash flow is derived from the sustainable management of the natural resources of working lands.



The Global Impact Investing Network (GIIN®) is a nonprofit organization dedicated to increasing the scale and effectiveness of impact investing around the world. IRIS is an initiative of the GIIN. It is the catalog of generally accepted performance metrics used to measure and manage the social, environmental, and financial performance of impact investments. While investors' impact measurement practices typically consist of multiple components, the IRIS catalog can help investors at a key phase in the process—the metric selection phase. For more information, please visit [www.thegiin.org](http://www.thegiin.org) and [www.iris.thegiin.org](http://www.iris.thegiin.org).

This case is part of a series that highlights the impact measurement practices of select fund managers, focusing in particular on the business value that they derive from these practices. The information found in these use cases is principally sourced from the investors' participation in the full *The Business Value of Impact Measurement* study, available on the GIIN's website: <https://thegiin.org/knowledge/publication/business-value-im>.