Fighting Fire with Finance: Opportunities for Conservation Finance

Prepared for Futurewise

October 20th, 2017
The Need and Opportunity for Forest Restoration
100 Years of Overgrowth

Photo Credit: George E. Gruell, Fires in the Sierra Nevada, 2001
Forest Restoration as a Solution

**Overgrown**

Left: Stanislaus-Tuolumne Experimental Forest (Stanislaus National Forest)

**Restored**

Right: Glaze Forest Restoration Project (Deschutes National Forest)
The Various Beneficiaries of Restoration
USFS: Rising Cost of Fire Suppression

Cost of Wildland Fire (% of USFS Annual Budget)\(^1\)

16%  
FISCAL YEAR 1995

52%  
FISCAL YEAR 2015

67%  
FISCAL YEAR 2025\(^2\)

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1. The Rising Cost of Wildfire Operations, USDA Forest Service
Status Quo Limits Restoration in California

Minimum Need\(^1\)
600,000+ acres/year
= 3x Current Pace

Current Pace*  

\(^{1}\) 200,000 acres/year current pace = restoration backlog of 30-45 years

1. Ecological Restoration and Partnerships – Our California Story, USDA Forest Service

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Opportunity for Private Capital

1. USFS Fiscal Year 2017 Budget Overview ($40 million for CFLRP and $384.1 million for hazardous fuel reduction)
2. State of Private Investment in Conservation 2016 ($3.1 billion of investor capital undeployed at end of 2015)
3. USFS Fiscal Year 2017 Budget Overview (58 million acres at “high or very high risk of severe fire” @ $1,000/acre)

Highest Priority Projects: $11B

Total Market for Restoration: $58B

Advantages of Private Capital

- Infusion of capital
- Cost sharing
- Larger projects
- Project catalyst
- Ex-post payments
The Forest Resilience Bond
Connecting Investor Capital to Conservation

**Forest Resilience Bond**

- **Ecosystem Services**
- **Evaluation of Benefits**
- **Beneficiary Contracting**
- **Financial Vehicle**
- **Investor Capital**

- Hydro, water, and fire benefits valuable to stakeholders
- Quantifies benefits accruing to multiple stakeholders
- Monetizes multi-faceted benefits as payments
- Converts contractual payments into investor returns
- Immense, untapped resource to fund conservation
How the FRB Works

1. Beneficiaries Identify a Project In Need of Funding
2. Metrics of Success Are Determined
3. Beneficiaries Sign Contracts
4. Investors Provide Upfront Capital
5. Implementation Partners Carry Out Restoration
6. Independent Evaluators Measure Success
7. Beneficiaries Make Payments
8. Investors Are Repaid
Benefits of FRB for Investors

- Stable, annual cash flows
- Potential for reinvestment
- Sizeable investment opportunity
- Portfolio diversification benefits
- Multiple cash flow sources from low-risk counterparties
Lessons from the Development Process
Takeaways

Be **innovative** and be **boring**

Recognize the **opportunity** and **risks** of private capital

Listen to your stakeholders but know when to **push back**

Go **slow** to ultimately go **fast**
Additional Resources

Explore and download the Roadmap Report: www.forestresiliencebond.com

Learn more about Blue Forest Conservation: www.blueforestconservation.com

Get in touch: leigh@blueforestconservation.com
Appendix
## Roadmap Insights: Market Building

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<td><strong>Encourage</strong></td>
<td>R&amp;D in conservation finance</td>
<td><strong>Build</strong></td>
<td>human and organizational capacity</td>
<td><strong>Enhance</strong></td>
<td>collaboration across landscapes</td>
<td><strong>Enhance</strong></td>
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Roadmap Insights: Project Development

1. **Determine** intervention and associated ecosystem services
2. **Develop** plan to measure the value of ecosystem services
3. **Identify** beneficiaries to target for financing
4. **Structure** beneficiary payments into investor cash flows
5. **Estimate** total addressable market