Objectives

• Update available information regarding nonindustrial private forest landowners in Virginia.

• Identify general information regarding landowners.

• Determine landowners’ willingness to harvest timber.
Introduction

• Discussion began fall of 2013 for a need to better understand Virginia’s nonindustrial private forest (NIPF) landowners.
• Literature review of previous surveys conducted winter 2013.
• Drafting of a survey began in spring 2014.
• Survey mailed from July 2014-October 2014

• Why Nonindustrial Private Forest Landowners?
  • Majority of forest land is held by private interests.
  • Expected loss of private forestland to development in the US in the coming decades
  • Social constraints posed the greatest reduction to the available wood supply in northern states (Butler et al. 2010)
LITERATURE REVIEW

• Research focused on previous surveys of NIPF landowners.

• Identified decision variables from literature.

• Extensive literature available regarding timber harvests and decision variables.

• Few surveys conducted on NIPF landowners in Virginia.

Survey Methods

• Determined decision variables to include in survey based on literature review results.

• Formulated questions revolving around decision variables identified.
Survey Methods

- Selected random sample through the use of land cover data and publically available parcel data in GIS.

- Population criteria:
  - At least 10 acres of Forested land
  - Owner must be nonindustrial private forest landowner
Survey Methods

Land Cover and Parcel Map

Regions of Virginia

Virginia Tech CeNRADS
Survey Methods

- Sample Size: 3,000
  - Per Region: 600

- Expected Response Rate:
  - 20-30%

Survey Methods

- Mailings
  - Began in July 2014 and ended in October 2014

- Consisted of four separate mailings:
  - 1) Pre-notice informative letter
  - 2) Cover letter and questionnaire
  - 3) Postcard reminder
  - 4) Second questionnaire
Survey Results

- 3,000 Surveys Mailed
- 234 could not be delivered
- 2,766 possible responses
- 882 usable surveys returned
- Adjusted response rate for state:
  - 31.9%

Virginia Tech CeNRADS
Survey Results

• Summary results grouped by “willing to harvest” versus “less willing to harvest” based on answer to ten point Likert-Type question.

18) Please circle the number that reflects your attitude toward commercial timber harvesting for any forest product (timber, pulpwood, and biomass).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</table>

Strongly opposed | Strongly in favor

• 94% of those who had previously harvested answered five or above on harvesting attitude question.
• Answers five or above considered “willing to harvest” and below five were considered “less willing to harvest”.

Virginia Tech CeNRADS
What is the highest level of formal education you have completed?

a. Did not graduate high school
b. High school diploma or equivalent
c. Associate’s degree or technical training
d. Bachelor’s or higher

### Landowner Education

- Bachelor’s: 51.6%
- High School: 27.7%
- Associate’s: 16.5%
- No High School: 4.1%

### Percent Willing to Harvest by Education

- No High School: 4.1%
- High School: 27.7%
- Associate’s: 16.5%
- Bachelor’s: 51.6%

- Less willing to harvest: 23
- Willing to harvest: 77
Landowners in the smallest income bracket are the least likely to harvest.

How old are you? ______years

*Mean age for state is 63 years old.
How did you acquire your woodland that is at least ten acres in size?

- Inherited
- Purchased
- Both

Ownership in Virginia

- Inherited: 19.1%
- Purchased: 64.8%
- Inherited & Purchased: 16.1%

Percent Willing to Harvest by Ownership Class

<table>
<thead>
<tr>
<th>Ownership Type</th>
<th>Less willing to harvest</th>
<th>Willing to harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inherited</td>
<td>19</td>
<td>81</td>
</tr>
<tr>
<td>Purchased</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Inherited &amp; Purchased</td>
<td>12</td>
<td>88</td>
</tr>
</tbody>
</table>

Landowners who purchased property are more willing to harvest.

Do you intend to sell some or all of your woodland in the next five years?

- Yes
- No

Intent to Sell Land in 5 Years

- Yes: 21.1%
- No: 78.9%

Percent Willing to Harvest by Intent to Sell Land in 5 Years

<table>
<thead>
<tr>
<th>Intent to Sell</th>
<th>Less willing to harvest</th>
<th>Willing to harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>12</td>
<td>88</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>84</td>
</tr>
</tbody>
</table>
How many total acres of land (both wooded and non-wooded) do you own in Virginia? _______ acres

How many acres of woodland do you own in Virginia? (Please estimate if you do not know exact acreage.) _______ acres
Which of the woodland management activities below have you done?
[Circle all that apply]
a. Received advice on managing your woodland from a forester
b. Had a forest management plan written by a forester
c. Learned about forest management from Extension
d. None of the above

Landowners who have received some form of management assistance are more willing to harvest.

Have you had a commercial timber harvest for timber, pulpwood, or biomass on your woodlands since you have owned the property?
a. Yes
b. No
Management Objectives Results

20) Please circle the number that reflects the level of importance aesthetics (the desire to manage woodlands for the visual benefits of the forest) are to you.

1 2 3 4 5 6 7 8 9 10
Not important Extremely important

Importance of Management Objectives for all Respondents

<table>
<thead>
<tr>
<th>Objective</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber Production</td>
<td>42%</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>86%</td>
</tr>
<tr>
<td>Habitat</td>
<td>95%</td>
</tr>
<tr>
<td>Hunting</td>
<td>69%</td>
</tr>
<tr>
<td>Recreation</td>
<td>68%</td>
</tr>
<tr>
<td>Privacy</td>
<td>83%</td>
</tr>
<tr>
<td>Development</td>
<td>27%</td>
</tr>
</tbody>
</table>
Importance of Management Objectives by Willingness to Harvest

Less willing to harvest | Willing to harvest

<table>
<thead>
<tr>
<th>Objective</th>
<th>Less willing to harvest</th>
<th>Willing to harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber Production</td>
<td>13</td>
<td>47</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>79</td>
<td>87</td>
</tr>
<tr>
<td>Habitat</td>
<td>98 (98)</td>
<td>95 (95)</td>
</tr>
<tr>
<td>Hunting</td>
<td>50</td>
<td>73</td>
</tr>
<tr>
<td>Recreation</td>
<td>73 (67)</td>
<td>83 (88)</td>
</tr>
<tr>
<td>Privacy</td>
<td>14 (30)</td>
<td>88 (83)</td>
</tr>
<tr>
<td>Development</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

Regional Results
Summary

• Landowners of large parcels are more willing to harvest.

• Landowners who have received some form of management assistance are more willing to harvest.

• Previous harvest suggests a landowner is more willing to harvest.

Implications

• Overall willingness to harvest percentage can be applied by region.

• Forest acreage classes are significantly different.

• Forest acreage classes’ willingness to harvest percentages can be easily applied to wood availability model.
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  • The Forestland Group
  • Forest Resources Associates
  • Hancock Timber Resource Group

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• NOVEC
• RockTenn
• Morgan Lumber
• Jack M. Mathews Foundation
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• US Forest Service
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Literature Cited